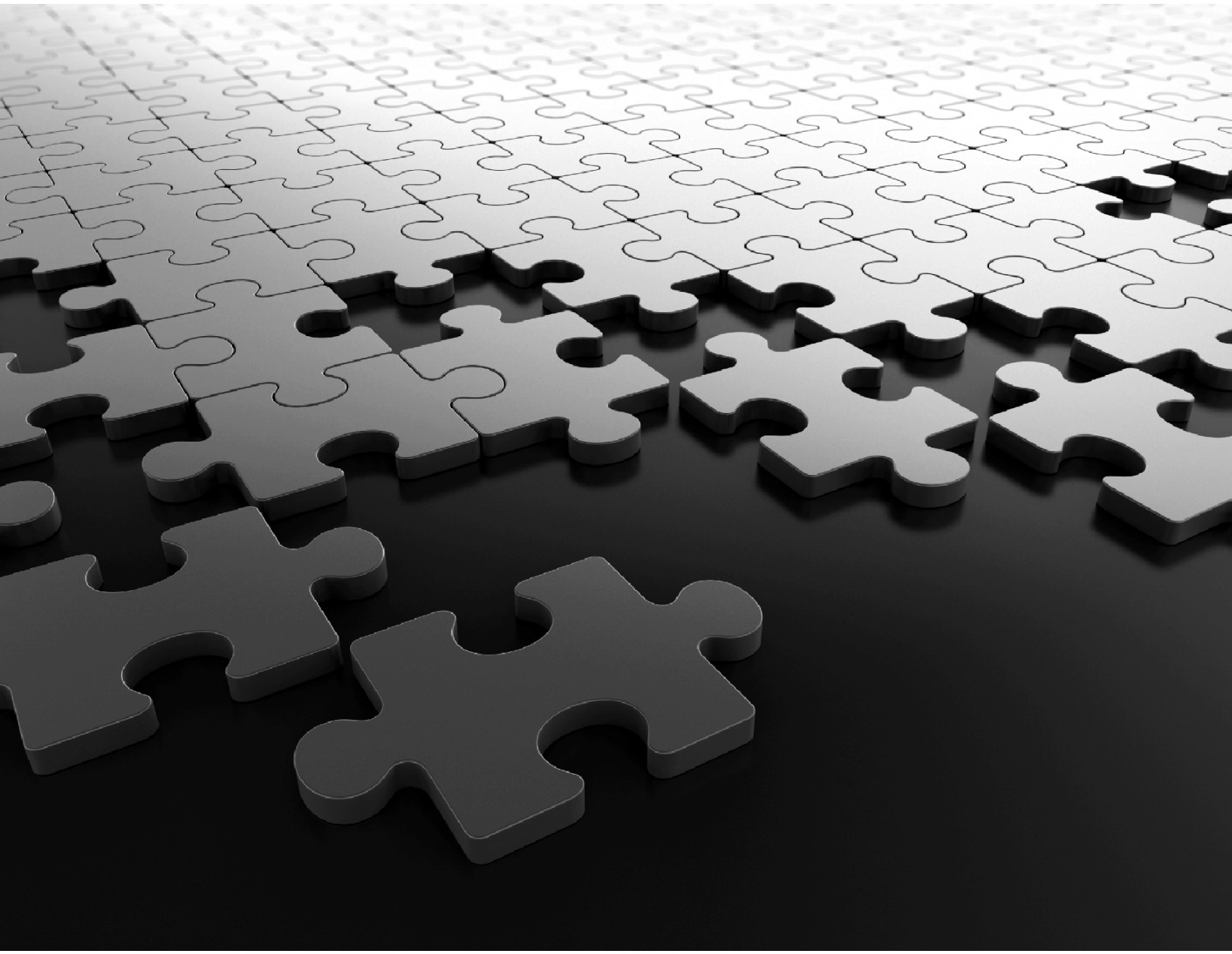
COSEC Web API
User Guide



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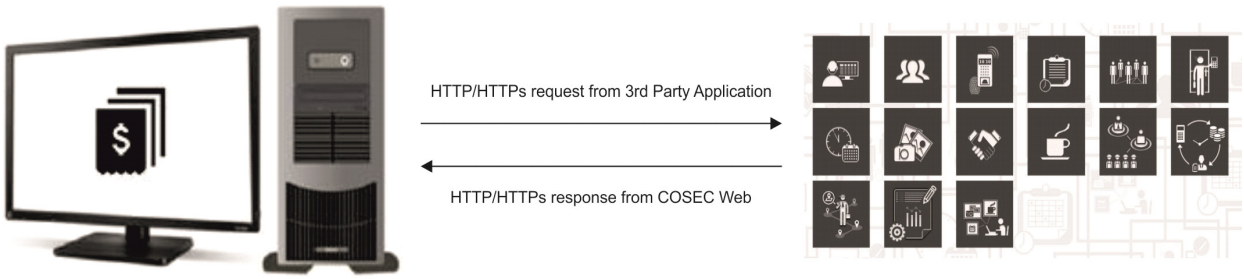
COSEC Web API 2.0

User Guide



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CHAPTER 1

About the Document

Welcome to the *COSEC Web API User Guide*. This document will provide you a comprehensive overview and complete user-guidance for *COSEC Web APIs*. You can learn more about COSEC Web APIs, browse through detailed descriptions of individual APIs and test them using sample scenarios.

Document Conventions

This API User Guide will follow a set of document conventions to make it consistent and easier for you to read. These are as follows:

1. Cross-references and other links will appear as follows: *Document Conventions*

   For e.g. To learn more about APIs, please refer to section *API Overview* (or, *See "API Overview" on page 3.)*.

2. The term *device* used in this document, will refer to all COSEC Panels and Door Controllers.

3. Some abbreviations/acronyms/condensed forms commonly used in the document are expanded as follows:

   - ESS: Employee Self Service
   - HTTP: Hypertext Transfer Protocol
   - HTTPs: Hypertext Transfer Protocol Secure
   - URL: Uniform Resource Locator
   - XML: Extensible Markup Language
   - JSON: JavaScript Object Notation
   - IMEI: International Mobile Equipment Identity
   - FTP: File Transfer Protocol
   - T&A: Time and Attendance
   - C-OFF: Compensatory Off

4. Text within angle brackets (e.g. "<request-type>") denotes content in URL syntax and should be replaced with either a value or a string. The angle brackets should be ommitted in all instances except those used to denote "tags" within XML responses (e.g. "<name></name>").

5. Arguments in a request URL, along with their corresponding values, will be separated by a 'semi-colon' (';') from other arguments. *"?" will be allowed as a separator between the request-type and an argument.* Special characters (&, ', ", <, > and ;) will not be allowed for any arguments and its value.

6. Additional information about any section appears in the form of notices. The following symbols have been used for notices to draw your attention to important items.

Important: *to indicate something that requires your special attention or to remind you of something you might need to do when you are using the system.*

Caution: *to indicate an action or condition that is likely to result in malfunction or damage to the system or your property.*

Warning: *to indicate a hazard or an action that will cause damage to the system and or cause bodily harm to the user.*

Tip: *to indicate a helpful hint giving you an alternative way to operate the system or carry out a procedure, or use a feature more efficiently.*

Document Organization

Chapters 1 and 2 will provide a general understanding of COSEC APIs and the basic interface communication. Chapters 3 to 34 provide a chapter-wise discussion of API groups with detailed explanation of individual APIs. The following information has been provided on each request type:

- Description of the functionality.
- Actions used.
- Generic query syntax.
- User rights required.
- Mandatory and optional parameters (argument-value table).
- Fields returned in response (“Response Fields”. Wherever applicable).
- Additional reference (if any).
- Examples (*Sample Request* and *Sample Response*).

Chapter 28 provides a detailed description of the API response structure.

For license requirement information, refer *“Supported APIs” on page 15.*

Who Can Use this Document

The COSEC Web API User Guide is meant for *third-party software developers* who wish to integrate the COSEC Web application with another remote application. This guide will provide information to users on how to request and receive services from the COSEC Web server via HTTP/ HTTPs API.

CHAPTER 2

API Overview

COSEC enables third party developers to access some of its important functionality via APIs. Integrate your application with COSEC and remotely execute functions such as retrieval of device, user and attendance data, sending and updating configurations on the COSEC database, applying and approving applications, leave management, cafeteria management and so on.

How It Works

A COSEC Web API is an interface that interacts with client applications, enabling them to *invoke or push data* from and to the COSEC database, using the COSEC Web server. This can be processed by sending a simple *HTTP/HTTPs request* to the COSEC server. The server then returns an appropriate response which the remote application can subsequently process on its own, without the need to launch the COSEC Web application.

Consider an example where an organization (say, *ABC)* is using COSEC for time and attendance monitoring and management. However, *ABC* has its independent Payroll application which requires the input of monthly attendance data of all employees to process their salaries every month. In such a scenario, the application can be integrated with COSEC via HTTP/HTTPs to raise a request for the relevant employee records in a specific format.

Thus, COSEC APIs are communicative interfaces that provide effective back-end support, making integration possible from any corner of the world. This also cuts down on an organization's needs to invest both time and resources in manual data-handling and data errors, promoting speed, precision and efficiency in resource management.

General Features

All COSEC APIs -

- Are Web-based *HTTP*/HTTPs APIs.
- Use basic *HTTP/*HTTPs *Request-Response* for interface communication.
- Generate response in either *text*, *XML or JSON* format, as specified.
- Use a generic syntax for all queries.
- Support some predefined parameters and their corresponding values for each action. Each parameter will either be mandatory or bear a system-defined default value (when no value is specified).
- Use a mandatory parameter ***action*** universally, which takes simple HTTP/HTTPs actions (such as ***GET, SET, DELETE*** etc.) as values, and specifies the action to be requested.

What the User Should Know

It is assumed that developers using this document have prior knowledge of:

- Basic functioning of the COSEC system
- Basic HTTP/HTTPs request-response communication
- XML/JSON

Prerequisite

In order to use a COSEC API, the user will require:

- The COSEC software application (pre-installed).
- The location for COSEC Web server (pre-installed).
- A network enabled for accessing the COSEC Web server.
- API access enabled for the API user on the COSEC Web server.

To learn about system requirements, please refer to the COSEC Manual in your software setup.

Enabling API Access

COSEC APIs are applicable to any COSEC login user with the appropriate access rights. For COSEC login users with necessary access rights, the respective login credentials (*Username* and *Password*) can be used for API authentication.

The COSEC server will require Basic Authentication using the login user's credentials.

API access rights for login user will depend on the following criteria:

Login User Type

COSEC login users may be of two kinds -

- System Account users (e.g. *system administrator*, *system engineer* etc.) - These users have login rights to the *COSEC Web application* and their page access rights will depend on their role configuration. API

access for any System Account user can be enabled by a system administrator using the *COSEC Web Application*.

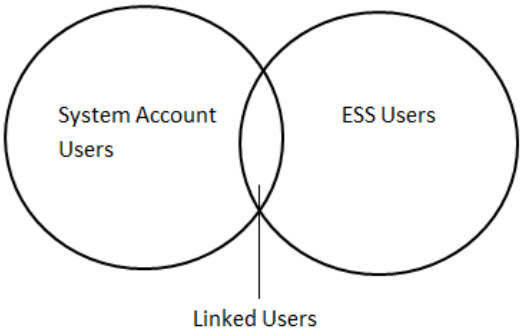


Fig. COSEC Login Users

- ESS users (e.g. *An employee*) - These users have login rights only on the *ESS application*. ESS users can be distinguished into *Reporting In-charge* and *Reporting Group members,* based on hierarchy. Page access rights of an ESS user will depend on whether he is a *Reporting In-charge* or a *Reporting Group member*. Users with activated ESS accounts and the ESS module license are enabled for API access by default.

For ESS users linked with a System Account (e.g. a reporting in-charge who is also a system administrator), the ESS/System Account credentials can be provided depending on the required API user rights.

License Type

To invoke an API, the user must have the necessary module license for relevant pages on the COSEC Web Application. For e.g., to retrieve attendance data for a specified month, the login user must have a *Time and Attendance* module license.

For more information on the COSEC application modules and licenses, please refer to the COSEC Manual in your software installation kit. For license requirement of each API, *See "Supported APIs" on page 15.*

Page Access Rights

Login users must have access rights on the appropriate pages of the COSEC Web Application to use related APIs. For e.g., to apply for a leave, the user must have rights on the following page:

For System Account User: Leave Management > Application/Approval > Leave Application

For ESS User: ESS > Leave Management > Leave Application

*To view page access rights for an API, refer to the **User Rights** section for the particular API.*

Device-wise Rights

Device-wise rights will be required for all APIs which involve COSEC devices in the request to be sent. For the ***action=get*** method, only those device records will be returned on which the login user has device rights. However, all *Event APIs* will be exceptions for this verification.

HTTP/HTTPs Request-Response

Basic HTTP/HTTPs communication is based on a request-response paradigm. The message structure for both request and response has a generic format. The maximum character support for request URL= 2086.

```
HTTP-message = Request | Response ; HTTP/1.1 messages
```

`Generic-message = start-line`	*The start line*
`*(message-header CRLF)`	*Zero or more header fields or 'headers'*
`CRLF`	*An empty line*
`[Message-body]`	*A message-body (chunk or payload)*

```
Start-line = Request-Line | Status-Line
```

Communication Flow

The communication takes place in the following manner:

1. The client checks availability of the Web Application server.
2. If available, the client issues a request for the server.

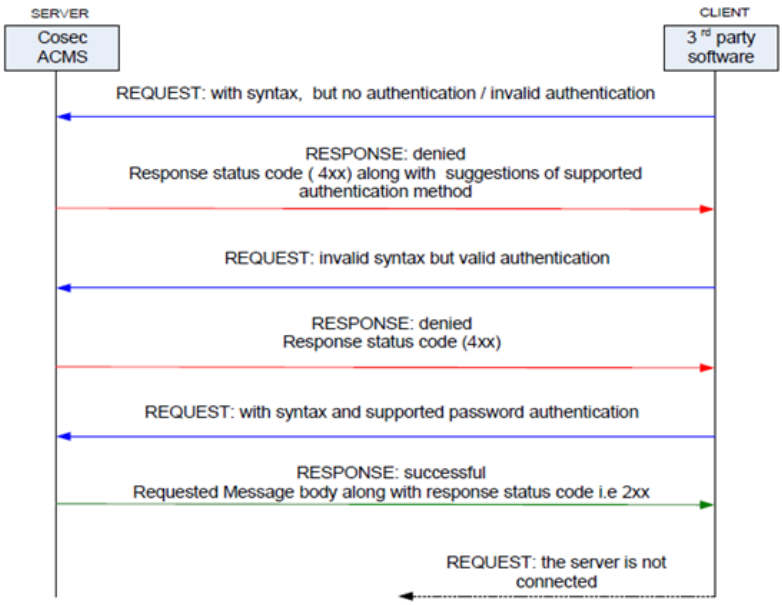


Fig: communication flow

3. The server parses the request for the action to be taken. For e.g. for the ***action=get*** argument, the server fetches specified data from the COSEC database.
4. In case of an error (*invalid syntax*, *invalid authentication* etc.), the request is denied and an error response is returned. Else, the requested data is returned as a response. The Response Codes defined by Matrix will remain constant. For the response format of COSEC Web APIs, *See "API Response" on page 615.*

Request Format

All HTTP/HTTPs Requests follow a generic message format. It consists of the following components:

1.	Request Line	This line is constituted by the following three elements which must be separated by a space: • The method type (GET, HEAD, POST, PUT etc.) • The requested URL • The HTTP version to use For e.g.: `GET http://matrixserver/api.svc/v2/device?action=get HTTP/1.0`
2.	Header Fields	Add information about the request using these header fields: • A General Header (<Header-name>:<value>). • A Request Header (<Header-name>:<value>). • An Entity Header (<Header-name>:<value>).
3	Empty Line	This is an empty line separating headers from the message body.
4	Message Body	This is the chunk or payload.

Example:

```
GET http://matrix.com/ HTTP/1.0
Accept: text/html
If-Modified-Since: Saturday, 15-January-2000 14:37:11 GMT
User-Agent: Mozilla/4.0 (compatible; MSIE 5.0; Windows 95)
```

Response Format

An HTTP/HTTPs response is a collection of lines sent by the server to the client. A generic HTTP/HTTPs response format will resemble the following:

```
VERSION-HTTP CODE EXPLANATION<crlf>
HEADER: Value<crlf>
.
.
.
HEADER: Value<crlf>
Empty line<crlf>
BODY OF THE RESPONSE
```

It consists of the following components:

1.	A status line	This line is constituted by the following three elements which must be separated by a space: • The version of the protocol used (e.g. *HTTP/1.0*). • The status code (indicates the status of the request being processed). • The explanation of the code.
2.	The response header fields	These optional lines allow additional information to be added to the response header. This information appears in the form of a name indicating the header type followed by a value for the header type. The name and value are separated by a colon (:).
3.	The body of the response	Contains the requested data.

Example

When the server gets a request, it will respond with a standard HTTP/HTTPs status code as illustrated in the following sample response:

```
HTTP/1.0 200 OK
Date: Sat, 15 Jan 2000 14:37:12 GMT
Server: Microsoft-IIS/2.0
Content-Type: text/HTML
Content-Length: 1245
Last-Modified: Fri, 14 Jan 2000 08:25:13
GMT
```

HTTP/HTTPs Status Codes: *Status codes are 3-digit numeric codes returned in HTTP/HTTPs responses that enable recipients to understand the successful or failed status of the request issued. In general, codes in the 1xx range indicate an informational message only, 2xx codes indicate a successful request, 3xx codes indicate an incomplete request that requires further action, 4xx codes point at client-side errors while 5xx codes point at server-side errors.*

URL Syntax

All COSEC APIs follow a common HTTP/HTTPs query syntax for the third party to generate a request. The generic URL is stated below.

Syntax

```
http://<servername>/api.svc/v2/<request-type>?action=<value>;<argument>=<value>...

https://<servername>/api.svc/v2/<request-type>?action=<value>;<argument>=<value>...
```

Example: `http://192.168.104.12/cosec/api.svc/v2/user?action=get;id=101;`
or
`https://192.168.104.12/cosec/api.svc/v2/user?action=get;id=101;`

The current API version requires an additional version parameter (mandatory) to be mentioned in the request URL. To know more, *See "API Versions" on page 15.*

Take a close look at the URL and its basic elements:

Table: URL Structure

URL element	Description
http:// https://	This is the protocol used to communicate with the client. **Note:** • All HTTP commands are in plain text, and almost all HTTP requests are sent using TCP port *80*, though any port can be used. • When SSL encryption is being used, use the *"HTTPS"* element in the URL. Default port for SSL communication is *443*. However, if any other port is used (say, "*3012*"), it must be mentioned in the URL following the IP address or domain name, separated by a "colon", as shown below: https://192.168.1.1:3012/cosec/api.svc/v2/...
<servername>	This describes the server location where the COSEC Web is installed. It could be an IP address or a domain name. For eg. let's say the IP address for COSEC Web is ***192.168.1.1*/cosec.** Then a generic HTTP query would look like: http://192.168.1.1/cosec/api.svc/v2/... **Note:** This document commonly uses the domain name "***matrixserver***" for all its examples.
api.svc	This is a mandatory entity required to invoke the API service.
<request-type>	This specifies the type of API request. For the mandatory request types, please refer to the individual API descriptions.
<argument>	This defines a specific action or command depending on the function to be performed. A request can support multiple arguments. A mandatory argument for all COSEC API functions is ***action***. This argument always takes an HTTP action as its value (For eg. ***action=get***).
<value>	These are argument values that determine the response. Requests may allow single or multiple ('comma' separated) values for an argument, depending on the API called.

Example

Let us assume that the COSEC Web has been installed on a location named "***matrixserver***". The user wants to retrieve a list of all panel devices defined on the COSEC database. In this case, a sample request would resemble the following:

Sample Request:

```
http://matrixserver/api.svc/v2/device?action=get;type=panel

https://matrixserver/api.svc/v2/device?action=get;type=panel
```

Sample Response:

```
id|name|siteid
p_1|Panel-1|
<EOT>
```

In this case, the query uses an ***action=get*** argument which is commonly used to retrieve information from a server. This action takes an argument ***type*** which in this case, defines the device type ("panel") and takes the value ***panel***.

Specifying the Format

The response for COSEC API can be returned in one of the following formats:

- Text
- XML
- JSON

The expected response format can be specified using a common argument: ***format***. When no format is specified, the response is returned in ***text*** format, by default.

Example

Following are some sample cases for the ***format*** argument.

Sample Request:

To get response in text,

```
http://matrixserver/api.svc/v2/device?action=get;type=door;format=text
```

Sample Response:

```
id|name|siteid
d_1|direct door|1
d_3|NGT Door|1
d_6|5453|1
d_2|NGTDoor1|1
<EOT>
```

Sample Request:

To get response in XML,

```
http://matrixserver/api.svc/v2/device?action=get;type=door;format=xml
```

Sample Response:

For the text format, response data would be displayed as follows:

- *Each field in the event or data output shall be separated by a "pipe"(|).*
- *Each event or data line should be completed with a "carriage return - line feed"(CRLF).*
- *The message body should end with <EOT> indicating 'end of transmission'.*

Getting a List of Supported Fields

The COSEC system supports "**schema**" to get a list of all fields supported by an API for a specific action in a specified format.

Syntax

```
http://<servername>/api.svc/v2/schema/<request-type>?<argument>=<value>;<argument>=<value>...

https://<servername>/api.svc/v2/schema/<request-type>?<argument>=<value>;<argument>=<value>...
```

The valid arguments for this request are ***action*** and ***format.***

Example

Sample Request:

```
http://matrixserver/api.svc/v2/schema/user?action=get;format=xml
```

Sample Response:

```
- <DocumentElement>
  - <schema-details>
      <id>user</id>
      <field>id</field>
      <type />
      <length />
      <decimal />
    </schema-details>
  - <schema-details>
      <id>user</id>
      <field>format</field>
      <type />
      <length />
      <decimal />
    </schema-details>
  </DocumentElement>
```

Fetching Fields in Response

Users can request specific fields to be returned in the response for all APIs using the ***action=get*** method. To filter the return values for an API request, use the following argument:

Table: Fetching Fields in Response

Argument	Valid Values	Mandatory	Default Value	Description
field-name	List of return/output field names (depending on API)	No	All the usual fields will be returned, if not specified.	Specify a 'comma' separated list of fields that are to be returned for the request. Note: Not applicable for the following request-types: • attendance-daily • attendance-monthly • event-ta • event-ta-date • event-acs • event-acs-date

Example

In this sample request, the user requests a list of all paneldoors on the COSEC database with their respective names and IDs.

Sample Request:

```
http://matrixserver/api.svc/v2/device?action=get;type=paneldoor;field-name=name,id
```

Sample Response:

```
name|id
Main Entry 1|p_3
CDC PD HO|p_3
Acct-Purch|p_4
Production 1|p_4
QC|p_4
Production- 2|p_4
Factory Admin|p_4
Factory Store|p_4
Factory Support|p_4
<EOT>
```

If a field-name is requested multiple times (e.g: field-name = id,name,id), then it will appear multiple times in the response with a number attached to the tag. (e.g. <id>, <name>, <id1>)

Multi-Language Support

- N - Multi-Language characters are not allowed
- Y (Set 1) - Multi-Language characters allowed except Set 1 (` ~ # % ^ * = { } | \ ; " ' < > ?)
- Y (Set 2) - Multi-Language characters allowed except Set 1 (` ~ # % ^ & * = + { } [ ] | \ : ; " ' < > ? /)
- Y (Set 3) - Multi-Language characters allowed except Set 1 (` ~ # % ^ * = + { } | \ : ; " < > ?)
- Y (NA) - Multi-Language characters allowed except the ones that are restricted in API interface.

Additional Information

- If an argument-value pair is mentioned multiple times in a request, the last value will be considered.

Example:

```
http://matrixserver/user?action=get;id=1234;id=5678;format=xml
```

In this case, **id = 5678** will be considered.

- For all the API's the response for date parameters will be in the following format: mm/dd/yyyy HH:MM

- For all APIs using the set/update methods, sending null (or blank) values will be allowed for non-mandatory fields. Based on the corresponding page behavior, the API behavior will differ as follows:

  i. If null value is allowed for an argument, then it will be stored as null (or blank).
  Example: "http://....;reason= " will overwrite existing value for reason and set it as null (or blank)

  ii. If a default value is defined internally, then that default value will be stored for the parameter
  Example: http://....;gender= " will overwrite existing value for gender and set it as "na" (because "na" is default value for gender)

  iii. If blank value is not permitted, an error message will be returned.
  Example: "http://....;short-name= " will return message : "failed: Short name cannot be blank."

- Special characters (&, ', ", <, > and ;) for any arguments and its value are not allowed.

- '# (hash)' is also not allowed in the API URL.

- To support special characters used in existing parameters, an option to Encode URL is provided. Third party apps can encode the URL using standard encoding functions such as :

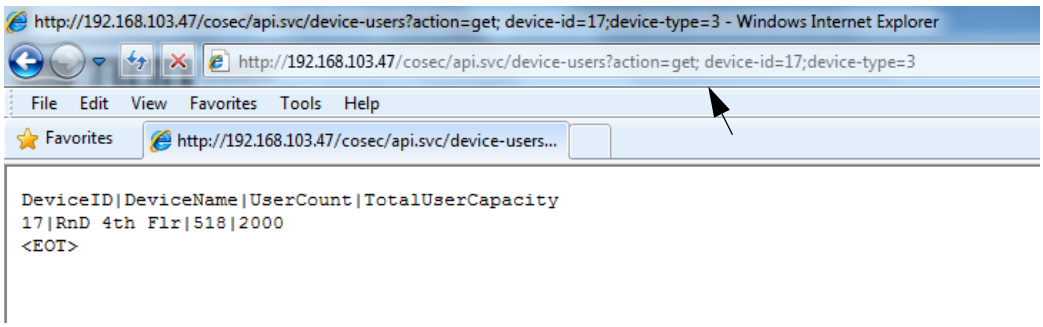
  - JAVA : URLEncoder.encode(url,"UTF-8")
  - JavaScript : encodeURIComponent(url)
  - ASP .NET : System.Web.HttpUtility.UrlEncode(url)

- Where 'url' implies the portion : <request-type>?<argument>=<value>;<argument>=<value>...

If the URL is encoded, then an encode flag (“encode?”) must be provided in the HTTP Request URL, to indicate that the server should decode the incoming URL.

Example: http://matrixserver/cosec/api.svc/v2/encode?/<request type>?<argument>=<value>;<argument>=<value>...

COSEC APIs use basic authentication and can be tested on any standard Web browser. Enter the request URL in the address field of your browser and press the ‘Enter’ key to send query to the server. Enter the authentication credentials when prompted. The response will be displayed on your browser in the specified format.



Other Common Arguments

These arguments are also common to all the APIs defined here. If any exception exists then it will be explicitly mentioned with the corresponding API.

Table: Common Arguments

Argument	Valid Values	Mandatory	Default Value	Description
format	Text, xml, json	-	-	If format is not mentioned then consider as "text" format. Note: In case of JSON format, the response will contain all the "tags" in lower case.
Field-name	List of return/output field names (depending on API)	-	-	This argument can be used to filter the return values of an API request. This argument is eligible only for action=get type APIs. User has to specify a COMMA separated list of fields that are to be returned for the request. If a field-name is requested multiple times (e.g: field-name = id,name,id), then it will appear multiple times in the response with a number attached to the tag. (e.g. <id>, <name>, <id1>) Note: It is not applicable for Attendance-Daily, attendance-monthly, Event-TA, Event-TA-Date, Event-ACS, Event-ACS-Date.

Table: Common Arguments

Argument	Valid Values	Mandatory	Default Value	Description
ignore-alias	0 : alias shown 1: alias ignored	-	-	0 : For any API, if alias names are configured for a response field-name, then in the response, the tags will be same as the alias names. 1: Alias will be ignored. The tag will be exactly as specified in the Response Table
api-source	0 : Blank 1: COSEC Mobile Apps 2 : PIM 3 : Third Party App 4 : Device	-	0	To specify the source for the API request.

General Data Protection Regulation (GDPR)

General Data Protection Regulation (GDPR) aims in providing safety and privacy to a users data. They limit the access to a users personal data.

To know more about GDPR, refer COSEC System Manual.

If you have enabled/disabled GDPR in COSEC Web Server > Admin > System Configuration > Global Policy > Basic then, whenever any API request is hit to the server, while the GDPR process is ongoing, the server will respond with the below mentioned response code.

Response Code - GDPR

- Response Code= 0000002007

Return message: "failed: 0000002007: Server access denied"

Supported APIs

The remaining chapters in this User Guide shall list and describe all APIs supported by COSEC. These interfaces have been organized into chapters based on license requirements as well as functionality, for the convenience of understanding.

API Versions

For COSEC Web APIs, different versions are maintained to differentiate among existing APIs being used by third-party applications, and any changes or revisions made. The current version is COSEC Web API Version 2.0 and supports additional features and functions as compared to COSEC Web API Version 1.0.

Some feature-wise additions in COSEC Web API V2.0:

- Access Rights added for ESS users.
- Response Codes based on Response categories
- User rights and Device rights verification for each API.

To know more about the supported APIs in V1.0 and V2.0, see the table below.

Table: Supported APIs

Supported APIs	V1.0	V2.0
Getting a Device List	Yes	Yes
Assigning Users to Devices	Yes	Yes
Revoking Users from Device	Yes	Yes
Adding a New Device	Yes	Yes
Deleting a Device	Yes	Yes
Obtaining Device Status	Yes	Yes
Updating Device Configuration	Yes	Yes
Obtaining Data on Existing Sites	Yes	Yes
Adding a New Site	No	Yes
Updating a Site	No	Yes
Accessing User Data	Yes	Yes
Adding/Editing a User	Yes	Yes
Adding User Photograph	Yes	Yes
Deleting a User	Yes	Yes
Enrolling a User	Yes	Yes
Setting Credentials on Device	Yes	Yes
Deleting Credentials from Device	Yes	Yes
Searching a User	No	Yes
Fetching Reporting Group Members	No	Yes
Obtaining Enterprise Group Details	Yes	Yes
Obtaining List of Renamed Groups	Yes	No *
Adding an Enterprise Group	No	Yes
Updating an Enterprise Group	No	Yes
Getting Daily Attendance Details	Yes	Yes
Getting Monthly Attendance Details	Yes	Yes
Getting Attendance Correction Details	No	Yes
Applying for Attendance Correction	No	Yes
Deleting Attendance Correction Applications	No	Yes
Approving Attendance Correction	No	Yes
Getting Short Leave/Official IN-OUT Entries	No	Yes
Making Short Leave/Official IN-OUT Entries	No	Yes
Short Leave/Official IN-OUT Authorization	No	Yes
Getting Attendance Records for Authorization	No	Yes
Authorizing Attendance	No	Yes
Getting Overtime/C-OFF Authorization Records	No	Yes
Authorizing Overtime/C-OFF	No	Yes
Processing Monthly Attendance	No	Yes

Table: Supported APIs

Supported APIs	V1.0	V2.0
In/Out Reasons	No	Yes
Getting Shift Schedules of Users	No	Yes
Getting Shift Details	No	Yes
Getting Holiday Schedule	No	Yes
Getting Leave Balance Details	No	Yes
Getting Leave Group Details	No	Yes
Getting Leave Details	No	Yes
Getting Leave Application Details	No	Yes
Applying for a Leave	No	Yes
Updating an Applied Leave	No	Yes
Deleting a Pending Application	No	Yes
Approving/Rejecting Leaves	No	Yes
Getting C-OFF Balance Details	No	Yes
Getting C-OFF Details	No	Yes
Obtaining List of Access Routes	Yes	Yes
Obtaining Access Route Details	Yes	Yes
Getting e-Canteen Account Details	No	Yes
Getting e-Canteen Expenditure Summary	No	Yes
Getting e-Canteen Menu Details	No	Yes
Getting List of e-Canteen Devices	No	Yes
Getting e-Canteen Menu Schedules	No	Yes
Getting Correction Application Details	No	Yes
Making a Correction Application	No	Yes
Updating a Correction Application	No	Yes
Deleting a Correction Application	No	Yes
Getting e-Canteen Expenditure Details	No	Yes
Getting Export Template List	Yes	Yes
Getting Export Template Details	Yes	Yes
Getting Import Template List	Yes	Yes
Getting Import template Details	Yes	Yes
Getting Template Data	Yes	Yes
Retrieving User Data	Yes	Yes
Sending User Data	Yes	Yes
Deleting User Data	No	Yes
Adding an Event	Yes	Yes
Obtaining Time and Attendance Event Details	Yes	Yes
Obtaining Time and Attendance Event Details (By Date)	Yes	Yes
Obtaining Access Control Event Details	Yes	Yes

Table: Supported APIs

Supported APIs	V1.0	V2.0
Obtaining Access Control Event Details (By Date)	Yes	Yes
Obtaining Door/Alarm/System Event Details	Yes	Yes
Sending Commands to Device	Yes	Yes
Getting User Count on Devices	Yes	Yes
Retrieving Notifications	No	Yes
Deleting Notifications	No	Yes
Login User Details	No	Yes
Changing Password	No	Yes
Encryption Key	No	Yes
IMEI Registration	No	Yes
COSEC Server Details	No	Yes
Field Visit Management	No	Yes
Job Processing and Costing	No	Yes
Visitor Management	No	Yes
Integrate Alert	No	Yes

** This API is no longer supported V2.0 onwards. If this API is called, the response will simply return the original group names.*

To use the APIs supported in Version 2.0, it is mandatory to mention the version number in the request URL.

Example:

```
http://<servername>/api.svc/v2/<request-type>?action=<value>;<argument>=<value>...
```

CHAPTER 3

Devices

The *Devices* interface lets you access and modify device data on the COSEC server. The HTTP query syntax to access device data from the COSEC server is as follows:

Syntax

```
http://<servername>/api.svc/v2/device?action=<method>;<argument>=<value>...
```

The *Devices API* allows you to perform the following functions:

Devices

- *Getting a Device List*
- *Assigning Users to Device*
- *Revoking Users from Device*
- *Adding a New Device*
- *Deleting a Device*
- *Obtaining Device List with Status*
- *Updating Device Configuration*

Device Group

- *Getting a Device Group*
- *Adding a New Device Group*

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Devices > Device List (For ***action=get***) Devices > Device Configuration (For other methods).
ESS	Enabled if user has ESS rights enabled (for ***action=get*** only).

Getting a Device List

This COSEC API allows the user to obtain a list of available devices on the COSEC database. For instance, an organization may have 100 panels and 200 direct door devices enlisted via COSEC. The user can obtain a list of all the 300 devices or a list for an individual device type using this command.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/device?action=get;<argument>=<value>...
```

Parameters

Table: Getting a Device List - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
type	all, door, panel, group, paneldoor	No	all	To specify type of device/devices whose list is to be fetched (only one value at a time).

Records will be fetched only for those devices on which the login user has device rights.

Response Fields

Table: Getting a Device List - Response fields

Field Name	Tag Name	Valid Values	Remarks
Id	id	all, p_1 to p_999, d_1 to d_9999, g_1 to g_99999	Here, ***p*** means panel, ***d*** means direct doors and ***g*** means group, while, ***p_1*** will stand for a panel device with ID = 1
Name	name	Max. 30 alphanumeric characters	This is the name of the device.
Site Id	site-id	1 to 999	This is the site identification number. Only for ***type=door*** and ***type=paneldoor***
Type	type	door, panel, group, paneldoor	This is the category of devices for which members are to be fetched.

Table: Getting a Device List - Response fields

Field Name	Tag Name	Valid Values	Remarks
Device Type	device-type	0 = Panel 1 = Door V1 2 = Panel Lite 3 = Door V2 4 = NGT Direct Door 5 = Wireless Direct Door 6 = Path Controller 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 15 = Door FMX 19 = Door V4 17= ARC DC200 20 = ARGO 21 = ARGO FACE	This is the device type.
Application Type	application-type	0 = Advanced Access Control 1 = Basic Access Control 2 = e-Canteen	Only for ***type=door*** and ***type=paneldoor*** Note: e-Canteen devices can also be fetched.
Door ID	did	1-255 (device-type=8) 0-99 (All Others)	For Panels:0 For Direct Doors:1 For Panel Doors: As Configured
IP Address	ip	-	-
RS-485 Address	rs-485	-	RS-485 is applicable only for panel doors.
MAC Address	mac	-	-

Example

This example presents a sample request and response case when accessing "***matrixserver***", for obtaining a list of all available devices:

Sample Request:

```
http://matrixserver/api.svc/v2/device?action=get
```

Sample Response:

```
id|name|siteid|type|device-type|application-type
d_6|RnD 1st Flr|1|door|1|0
d_8|RnD 3rd Flr|1|door|1|0
d_11|Rnd Basement V2|1|door|3|0
d_12|RnD 2nd Flr V2|1|door|3|0
d_16|Canteen HO|1|door|3|2
p_3|HO Panel Lite||panel|2|
p_4|Factory Panel||panel|0|
p_6|vega panel lite||panel|8|
p_7|vega panel lite||panel|8|
p_3|CDC PD HO|1|paneldoor|2|
p_3|Main Entry 1|2|paneldoor|2|
<EOT>
```

The sample response simply illustrates a particular instance of the expected output. The actual data for each field will differ from case to case.

Sample Request:

For type=door,

```
http://matrixserver/api.svc/v2/device?action=get;type=door
```

Sample Response:

```
id|name|siteid|type|device-type|application-type
d_6|RnD 1st Flr|1|door|1|0
d_8|RnD 3rd Flr|1|door|1|0
d_11|Rnd Basement V2|1|door|3|0
d_12|RnD 2nd Flr V2|1|door|3|0
d_16|Canteen HO|1|door|3|2
d_17|RnD 4th Flr|1|door|3|0
<EOT>
```

Sample Request:

For type=group (in XML format),

```
http://matrixserver/api.svc/v2/device?action=get;type=group;format=xml
```

Sample Response:

```
- <DocumentElement>
  - <device>
      <id>g_1</id>
      <name>Gnd First Fourth- RnD</name>
      <siteid />
      <type>group</type>
      <device-type />
      <application-type />
    </device>
  - <device>
      <id>g_2</id>
      <name>Device Group - HO</name>
      <siteid />
      <type>group</type>
      <device-type />
      <application-type />
    </device>
  </DocumentElement>
```

Assigning Users to Device

This function helps assign a user to all or specific *Panels*, *Direct Door*s or *Device Groups* pre-defined on the COSEC system.

Action

action=assign

Syntax

```
http://<servername>/api.svc/v2/device?action=assign;<argument>=<value>...
```

Parameters

Table: Assigning Users to Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device	all, p_1 to p_999, d_1 to d_9999, g_1 to g_99999 pd_1_1 to pd_65535_255	Yes	-	To specify the device with the device type and device ID. Here, ***p*** means panel, ***d*** means direct doors and ***g*** means group, while, ***p_1*** will stand for a panel device with ID = 1, ***pd***= panel door System should allow more than one device group against a user.
Id	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value separated with comma. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Multiple devices (either panels or doors) of the same type can be specified, each value separated by a ‘comma’ (For eg. ***device=p_1,p_2,p_3,p_4,d_1,d_2,d_3,d_4,***…). User can also define a range of devices (eg. ***device=p_1-p_50***). However, only a single group can be assigned to a user. The same should also be applicable for ***id*** values.

The login user must have necessary rights on the device for this request.

Example

Following are some sample cases for this function.

Sample Request:

Assigning multiple group values to the ***device*** argument. Invalid request.

```
http://matrixserver/api.svc/v2/device?action=assign;device=g_1,g_2
```

Sample Response:

```
failed: <response code> : Invalid command : device=g_1,g_2 only single group against a user
```

Sample Request:

To assign user to all devices.

```
http://matrixserver/api.svc/v2/device?action=assign
```

Sample Response:

```
success: <response code> : successful
```

Sample Request:

For ”device=p_1”, “id=1”,

```
http://matrixserver/api.svc/v2/device?action=assign;device=p_1;id=1
```

Sample Response:

```
success: <response code> : successful
```

Sample Request:

For user to be assigned to “p_1”,”d_1” and “g_1”,

```
http://matrixserver/api.svc/v2/device?action=assign;device=p_1,d_1,g_1
```

Sample Response:

```
success: <response code> : successful
```

Revoking Users from Device

The purpose of this function is to revoke a user from all or specific devices defined on the COSEC system. This can be performed for a *single device* type, *multiple device* types or for a *specific device group*.

Only a single group will be allowed to be revoked from a user at a time.

Action

action= revoke

Syntax

```
http://<servername>/api.svc/v2/device?action=revoke;<argument>=<value>...
```

Parameters

Table: Assigning Users to Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device	all, p_1 to p_999, d_1 to d_9999, g_1 to g_99999 pd_1_1 to pd_65535_255	Yes	-	To specify the device with the device type and device ID. Here, ***p*** means panel, ***d*** means direct doors and ***g*** means group, while, ***p_1*** will stand for a panel device with ID = 1, ***pd***= panel door **Note:** System should allow more than one group against a user.
Id	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	System should allow user to select multiple id, each separated by "(comma)" e.g.:"1,3,7,9 " Or Select a range of id E.g."1-50". Note: System should allow more than one group against a user. If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value separated with comma. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Assigning Users to Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Note: If any device is un-assigned against any user via API, then allow the deletion of that door/ device group. But if the device(s) or a device belonging to any device group is selected for deletion and is a part of the Access Rule which is assigned to that user, then that door(s) must be retained against that User.

Example

This example presents a sample request and response when accessing "***matrixserver***".

Sample Request:

For revoking all devices.

```
http://matrixserver/api.svc/v2/device?action=revoke
```

Sample Response:

```
success: <response code> : successful
```

Sample Request:

For "device=p_1", "id=1".

```
http://matrixserver/api.svc/v2/device?action=revoke;device=p_1;id=1
```

Sample Response :

```
success: <response code> : successful
```

Sample Request:

For "device=p_1,d_1,g_1".

```
http://matrixserver/api.svc/v2/device?action=revoke;device=p_1,d_1,g_1
```

Sample Response :

```
success: <response code> : successful
```

Adding a New Device

This function enables you to define a new biometric device on the COSEC database and set certain configurations depending on the device type. The device can be assigned to a specified device group and site and configured based on site requirements.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/device?action=set;<argument>=<value>...
```

Parameters

Table: Adding a New Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-type	0,1,2,3,4,5,6,7,8,9,11,12,14,15, 19,17,20, 21	Yes	-	This is the type of device, which user wants to add. Here, 0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Path Controller 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 14 = ARC IO800 15 = Door FMX 20 = ARGO 21 = ARGO FACE
device-id	1 to 65000	Yes	-	This is the device identification number of the device type (MID).
name	Maximum 30 characters	Yes	-	This is the name of the device.
Mac	Maximum 17 characters (each byte separated by ":")	Yes	-	This is the MAC Address of the device. E.g. - "01:23:4567:89:ab"
device-group	Maximum 30 characters	No	-	This is the name of the device group to which the device is to be added.
active	0 = active 1 = inactive	No	1 (active)	The enabled/disabled status of the device.

Table: Adding a New Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
site	1 to 999	No	If not specified then the default site will be internally configured against the device being added.	This will define the site ID of the direct doors and panel door.
Finger-template-format	0- Suprema Proprietary 1- Suprema ISO 2- Lumidigm ISO 3- Lumidigm Proprietary	No	2 and 3 for FMX Door type. For other doors it will be fetched from Finger Template Format configured in Global Policy	This is the template on which fingers templates are enrolled. For PVR and Door V1, this field should be ignored (Value should be always zero irrespective of any value entered). When finger-reader-type = 2 for dtype = 20, this field should be ignored (Value should be always zero irrespective of any value entered). For other direct doors except Door V1 and PVR Door, Panel, Panel Lite and Panel200, valid values are 0 and 1.
application	0 = Basic Access Control 1 = Advanced Access Control 2 - Cafeteria	No	1 (Advanced Access Control)	This field is only applicable to direct doors. This field will define the application/use of the device. (this feature enables the advanced access control features on device). Application =2 is applicable for Device types = 3,4,5,9,12,15,19,20,21
access-mode	0= card 1= finger 2= card & PIN 3= finger & PIN 4= card & finger 5= card & finger & PIN 6= Any 7= palm 8= palm & PIN 9= card & palm 10= card & PIN & palm 11= palm & group 12= finger then card 13= palm then card 14= None 15= Face 16= Card & Face 17= PIN & Face 18= finger & Face 20= Card then Biometrics	No	6 (Any)	This field is applicable to direct doors only **Note:** Options 0,1,2,3,4,5,6 and 12 are applicable only to device with finger print reader. Options 0,2,6,7,8,9,10 and 11 are applicable for devices with Palm Vein Reader. For Path Controllers, modes 2, 3, and 5 are not applicable. Not applicable for ARC Controller. Options 15, 16, 17, 18 are applicable only for FMX Doors and Vega Controllers and ARGO.
consider-for-attendance	0 - disabled 1 - enabled	No	1 (enabled)	This parameter will toggle the feature of considering the event originating from the respective device for attendance calculation/ process.

Table: Adding a New Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ir-mode	0=entry 1=exit	No	0 (entry)	This will set the Internal Reader IO type (entry or exit). Not applicable for ARC Controller.
card-reader-type	0= none 1= emprox reader 2= hidprox reader 3= mifare reader 4= hid iclass u-reader 5= hid iclass w-reader	No	1 (emprox reader)	This is the internal card reader type. Not applicable for ARC Controller.
finger-reader-type	0=none 1= finger reader 2=palm reader	No	1 (If device type is PVR, the default value will be 2)	This will identify the finger/palm reader type as an internal reader. Note: Palm Reader is applicable for PVR Doors only. Not applicable for ARC Controller.
er-mode	0= entry 1= exit	No	1 (exit)	This is the external reader mode. Not applicable for ARC Controller.
er-type	0= none 1= em prox reader 2= hid prox reader 3= mifare reader 4=hid iclass u reader 5= finger reader 6= hid icalss w-reader 8= uhf reader 9= combo exit reader 10= mifare w reader 11=PIN - W reader 13=CB - U Reader 14=CB - W Reader 15=ATOM RD300 16=ATOM RD200 17=ATOM RD100	No	0 (none)	This will determine the external reader IO type. For ***device type=1*** (direct door V1), er-types (8,9,10) are not applicable. ***er-type=5*** is not applicable to PVR door type. Not applicable for ARC Controller.
exit-switch	0 = disable 1 = enable	No	1 (enable)	This parameter will be used to enable/disable the exit switch for the door.

Table: Adding a New Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
rg1-wiegand	0 = none 1 = Short-Range Reader 2 = Long-Range Reader	No	1 (Short-Range Reader)	Applicable for ARC Controller only. For other device types, these parameters will not be applicable.
rg1-rs485	0 = None 1 = EM Prox Reader 2 = HID Prox Reader 3 = MiFare Reader 4 = HID iClass-U Reader 5 = Combo Reader 13=CB - U Reader 15=ATOM RD300 16=ATOM RD200 17=ATOM RD100	No	1 (EM Prox Reader)	
rg1-mode	0 = entry 1 = exit	No	0 (entry)	
rg1-access-mode	0 = Card 1 = Finger 4 = Card + Finger 6 = Any 12 = Finger Then Card 14= None 19=BLE 20= Card then Biometrics	No	6 (Any)	
rg2-wiegand	0 = none 1 = Short-Range Reader 2 = Long-Range Reader	No	1 (Short-Range Reader)	
rg2-rs485	0 = none 1 = EM Prox Reader 2 = HID Prox Reader 3 = MiFare Reader 4 = HID iClass-U Reader 5 = Combo Reader 13=CB - U Reader 15=ATOM RD300 16=ATOM RD200 17=ATOM RD100	No	1 (EM Prox Reader)	
rg2-mode	0 = entry 1 = exit	No	0 (entry)	
rg2-access-mode	0 = Card 1 = Finger 4 = Card + Finger 6 = Any 12 = Finger Then Card 14= None 19=BLE 20= Card then Biometrics	No	6 (Any)	
ir-card-format	1-99	No	1	Card format ID for Internal Readers/Reader Group 1
er-card-format	1-99	No	1	Card Format for External Readers /Reader Group 2
ir-card-format2	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format2	1-99	No		Card Format for External Readers / Reader Group 2

Table: Adding a New Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ir-card-format3	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format3	1-99	No		Card Format for External Readers / Reader Group 2
ir-card-format4	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format4	1-99	No		Card Format for External Readers / Reader Group 2
ir-card-format5	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format5	1-99	No		Card Format for External Readers / Reader Group 2

To update device configurations for the above parameters, See "Updating Device Configuration" on page 37.

Example

The following is an example of a successful request sent to ***"matrixserver***" with the following values:

- ***device-type=0***
- ***device-id=1***
- ***name=panel***
- ***mac=00:01:23:45:67:89***
- ***device-group=Research***

Sample Request:

```
http://matrixserver/api.svc/v2/device?action=set;device-type=0;device-
id=1;name=panel;mac=00:01:23:45:67:89;device-group=Research
```

Sample Response:

```
success: <response code> : successful
```

Deleting a Device

This *Devices* function allows you to delete a biometric device from the COSEC database. Specify the device type and device ID to send a 'delete' command.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/device?action=delete;<argument>=<value>...
```

This process is irreversible. Please proceed with caution.

Parameters

Table: Deleting a Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-type	0,1,2,3,4,5,6,7,8,9,11, 12,14,15,19,17,20, 21	Yes	-	This is the type of device, which user wants to delete. Here, 0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Path Controller 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 14 = ARC IO 800 15 = Door FMX 19 = Door V4 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE
device-id	1-9999	Yes	-	To specify the device identification number.

Example

The following example illustrates how to delete a direct door device with a device identification number ***1***:

Sample Request:

```
http://matrixserver/api.svc/v2/device?action=delete;device-type=1;device-id=1
```

Sample Response:

```
success: <response code> : successful
```

Obtaining Device List with Status

This function enables the user to obtain the connection status of devices. The user can obtain a list of devices from the COSEC server based on the device status. The device status can be either ‘connected’ or ‘disconnected’.

Action

action= list

Syntax

```
http://<servername>/api.svc/v2/device?action=list;<argument>=<value>......
```

Parameters

Table: Obtaining Device Status - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
status	all, connected, disconnected, online,offline,unknown (Applicable to Panel Doors only)	No	all	To specify the devices to be listed on the basis of their status.

Response Fields

Table: Getting a Device List with Status - Response fields

Field Name	Tag Name	Valid Values	Remarks
Device Type	device-type	0 = Panel, 1 = Direct Door, 2 = Panel Lite 3 = Direct Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8= Panel200 9= Vega Controller 11 = Arc Controller 12 = Door V3 14 = ARC IO 800 15 = Door FMX 18 = MODE 19 = Door V4 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE	Enum - 13 is reserved for COSEC SAMAY Door V3.
Device ID	device-id	1-65535	
Name	name	Max 30 alphanumeric character	
Door ID	did	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Active	active	0: Inactive 1: active	

Table: Getting a Device List with Status - Response fields

Field Name	Tag Name	Valid Values	Remarks
Device IP	ip		
Device MAC	mac	40 characters	For Device type= MODE, it would display UUID
status	status	Panel/Direct Doors: disconnected (0) connected (1) Panel Doors: If Panel's status=0: Unknown Else: offline (0), online (1/3) upgrading (2) unknown (4)	
Connect Time	connect-time	DD/MM/YYYY HH:MM:SS AM/ PM	
Disconnect Time	disconnect-time	DD/MM/YYYY HH:MM:SS AM/ PM	

Example

The following are some sample cases of requests sent to "***matrixserver***":

Sample Request:

To obtain a list of all connected devices ("status=connected").

```
http://matrixserver/api.svc/v2/device?action=list;status=connected
```

Sample Response:

```
success: <response code> : No records found
```

Sample Request:

When "status=all",

```
http://matrixserver/api.svc/v2/device?action=list;status=all
```

Sample Response:

```
device-type|device-id|name|active|ip|mac|status|connect-time|disconnect-time
0|1|Panel-1|1||00:4f:4e:67:89:08|disconnected||10/3/2013 9:00:19 AM
1|1|door|1|192.168.103.50|00:01:23:45:67:89|disconnected|10/3/2011 10:19:55 AM|10/3/2013 9:00:19 AM
4|2|NGTDoor1|1||00:3f:4e:67:89:08|disconnected||10/3/2013 9:00:19 AM
3|3|NGT Door|1||00:1b:09:90:76:00|disconnected||10/3/2013 9:00:19 AM
3|6|5453|1||00:1b:09:90:76:06|disconnected||10/3/2013 9:00:19 AM
<EOT>
```

Updating Device Configuration

Specify a device ID and device type and edit the configuration for this device as saved on the COSEC database. Parameters that can be updated are specified in the argument-value table below.

Action

action= update

This method is not applicable for Panel Doors.

Syntax

```
http://<servername>/api.svc/v2/device?action=update;<argument>=<value>......
```

Parameters

Table: Updating Device Configuration - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-type	0,1,2,3,4,5,6,7,8,9,11,12,14,15, 19,17,20,21	Yes	-	This is the type of device, which user wants to add. Here, 0 = Panel, 1 = Direct Door, 2 = Panel Lite 3 = Direct Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8= Panel-lite V2 9= Vega Controller 11 = Arc Controller 12 = Door V3 14 = ARC IO 800 15 = Door FMX 16=Path V2 18 = MODE 19 = Door V4 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE
device-id	1 to 65535 (panel, panel-lite) 1 to 65535 (direct doors)	Yes	-	This is the device identification number of the device type (MID).
name	Maximum 15 characters	No	-	This is the name of the device.
mac	Maximum 17 characters (each byte separated by ":")	No	-	This is the MAC Address of the device. E.g. - "01:23:4567:89:ab"
device-group	Maximum 30 characters	No	-	This is the name of the device group to which the device is to be added.

Argument	Valid Values	Mandatory	Default Value	Description
active	0 = inactive 1 = active	No		The enabled/disabled status of the device.
site	1 to 999	No	If not specified then the default site will be internally configured against the device being added.	This will define the site ID of the direct doors and panel door.
Finger-template-format	0- Suprema Proprietary 1- Suprema ISO 2- Lumidigm ISO 3- Lumidigm Proprietary	No	For other direct doors except Door V1 and PVR Door, Panel, panel Lite and Panel lite V2, valid values are 0 and 1.	This is the template on which fingers templates are enrolled. When finger-reader-type = 2 for dtype = 20, this field should be ignored (Value should be always zero irrespective of any value entered).
application	1 - basic access control 0 - advanced access control	No		This field is only applicable to direct doors. This field will define the application/use of the device. (this feature enables the advanced access control features on device).
access-mode	0= card 1= finger 2= card & PIN 3= finger & PIN 4= card & finger 5= card & finger & PIN 6= Any (default) 7= palm 8= palm & PIN 9= card & palm 10= card & PIN & palm 11= palm & group 12= finger then card 13= palm then card 14= None 15= Face 16= Card & Face 17= PIN & Face 18= finger & Face 20= Card then Biometrics	No		This field is applicable to direct doors only Biometrics for option = 20; finger should be considered for devices with finger print reader and palm should be considered for devices with palm vein reader respectively **Note:** Options 0,1,2,3,4,5,6 and 12 are applicable only to device with finger print reader. Options 0,2,6,7,8,9,10, 11, 13 and 21 are applicable for devices with Palm Vein Reader. For CDC type door 2, 3, and 5 modes are not applicable. Options 15, 16, 17, 18 are applicable only for FMX Doors and Vega Controllers and ARGO. Options 15,16,18 will also be applicable for Path V2 Options 0,2,6,14,15,16 and 17 only are applicable to ARGO FACE If FR license is not available or balance is not available, and options 15/16/17/18 is selected for device-type=9 or 15, skip this parameter
consider-for-attendance	0 - disabled 1 - enabled	No		This parameter will toggle the feature of considering the event originating from the respective device for attendance calculation/ process.

Argument	Valid Values	Mandatory	Default Value	Description
ir-mode	0=entry 1=exit	No		This will set the Internal Reader IO type (entry or exit).
card-reader-type	0 = none 1 = emprox reader 2 = hidprox reader 3 = mifare reader 4 = hid iclass u-reader 5 = hid iclass w-reader	No		This is the internal card reader type.
finger-reader-type	0= none 1= finger reader 2= palm reader	No		this will identify the finger/palm reader type as an internal reader Note: palm reader is applicable for PVR door and ARGO door type Not applicable for Arc Controller
er-mode	0= entry 1= exit	No		This is the external reader mode.
er-type	0= none 1= em prox reader 2= hid prox reader 3= mifare reader 4= hid iclass u reader 5= finger reader 6= hid iclass w-reader 8= uhf reader 9= combo exit reader 10= mifare w reader 11= PIN - W Reader 13= CB - U Reader 14= CB - W Reader 15= ATOM RD300 16= ATOM RD200 17= ATOM RD100	No		This will determine the external reader IO type. For ***device type=1*** (direct door V1), er-types (8,9,10) are not applicable. ***er-type=5*** is not applicable to PVR device type and Door FMX er-type 5 not applicable to ARGO Door when value passed in finger-reader-type = 2.
exit-switch	0 = disable 1 = enable	No		This parameter will be used to enable/disable the exit switch for the door.
rg1-wiegand	0 = none 1 = Short - Range Reader 2 = Long - Range Reader 11 = PIN - W Reader 14 = CB - W Reader			
rg1-rs485	0 = None 1 = EM Prox Reader 2 = HID Prox Reader 3 = MiFare Reader 4 = HID iClass-U Reader 5 = Combo Reader 13 = CB - U Reader 15 = ATOM RD300 16 = ATOM RD200 17 = ATOM RD100	No		
rg1-mode	0 = entry 1 = exit	No		

Argument	Valid Values	Mandatory	Default Value	Description
rg1-access-mode	0 = Card 1 = Finger 2 = Card + PIN 3 = Biomertric + PIN 4 = Card + Finger 5 = Biometric + Card + PIN 6 = Any 12 = Finger Then Card 14 = None 19 = BLE 20 = Card then Biometrics 15 = Face 16 = Card + Face 18 = Biometric + Face	No		
rg2-wiegand	0 = none 1= Short - Range Reader 2 = Long - Range Reader 11 = PIN - W Reader 14 = CB - W Reader	No		
rg2-rs485	0 = none 1 = EM Prox Reader 2 = HID Prox Reader 3 = MiFare Reader 4 = HID iClass- U Reader 5 = Combo Reader 13 = CB - U Reader 15 = ATOM RD300 16 = ATOM RD200 17 = ATOM RD100	No		
rg2-mode	0 = entry 1 = exit	No		
rg2-access-mode	0 = Card 1 = Finger 2 = Card + PIN 3 = Biomertric + PIN 4 = Card + Finger 5 = Biometric + Card + PIN 6 = Any 12 = Finger Then Card 14 = None 19 = BLE 20 = Card then Biometrics 15 = Face 16 = Card + Face 18 = Biometric + Face	No		
ir-card-format	1-99	No	1	Card format ID for Internal Readers/Reader Group 1
er-card-format	1-99	No	1	Card Format for External Readers /Reader Group 2
ir-card-format2	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format2	1-99	No		Card Format for External Readers / Reader Group 2
ir-card-format3	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format3	1-99	No		Card Format for External Readers / Reader Group 2

Argument	Valid Values	Mandatory	Default Value	Description
ir-card-format4	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format4	1-99	No		Card Format for External Readers / Reader Group 2
ir-card-format5	1-99	No		Card format ID for Internal Readers/ Reader Group 1
er-card-format5	1-99	No		Card Format for External Readers / Reader Group 2

The Login User must have rights on the device which is to be updated.
Action = update not applicable to Panel Doors.

Example

The following are some sample cases of requests sent to “matrixserver”:

Sample Request:

To update a *Direct Door V2* named “RndBasementV2”.

```
http://matrixserver/api.svc/v2/device?action=update;device-id=11;device-type=3;name=RndBasementV2
```

Sample Response:

```
success: <response code> : successful
```

Sample Request:

When the specified MAC address is already associated with another device. Failed Request.

```
http://matrixserver/api.svc/v2/device?action=update;device-id=33;device-
type=9;mac=23:56:66:33:33:23;device-group=RnD
```

Sample Response:

```
failed: <response code> : Mac is already associated with another device.
```

Getting a Device Group

This API allows the user to obtain a list of devices assigned to a specific device group.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/device-group?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following page: Devices > Masters> Device Group
ESS	Disabled

Parameters

Table: Getting a Device Group - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
range	0: all 1: Individual	No	all	-
Id	1-99999	-	-	You can select multiple ids, each separated by ", (comma)" e.g.:"1, 3, 7, 9…"
Name	A-Z a-z 0-9 ( ) _ - . [space]	-	-	To select multiple group names, each separated by ", (comma)" e.g.:"DG1,DG2,…"

Note 1 : (For range= individual)If valid Id and Name both are specified, then priority should be given to ID and it should fetch device details as per entered Id.

Note 2 : (For range= individual) If provided Id or Name both contain valid values/arguments, return messages as specified for Id only.

Note 3: (For range= individual)If either Id or Name contains valid values, it should fetch device details as per entered valid argument and values. e.g., If invalid Id has been entered, but valid name is mentioned, then it should fetch devices as per entered name.

Response Fields

Table: Getting a Device Group - Response fields

Field Name	Tag Name	Valid Values	Remarks
Device Group ID	devicegroup-id		
Device Group Name	devicegroup-name		
Device ID	device-id	1-65535	
Device Type	device-type	0 = Panel, 1 = Direct Door, 2 = Panel Lite 3 = Direct Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8= Panel200 9= Vega Controller 11 = Arc Controller 12 = Door V3 14 = ARC IO 800 15 = Door FMX 18 = MODE 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE	
Door ID	did	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Name	name	Max 30 alphanumeric character	
Active	active	1: active 0: Inactive	
Device IP	ip		
Device MAC	mac	40 characters	
status	status	Panel/Direct Doors: disconnected (0) connected (1) Panel Doors: If Panel's status=0: Unknown Else: offline (0), online (1/3) upgrading (2) unknown (4)	
Connect Time	connect-time	DD/MM/YYYY HH:MM:SS AM/ PM	
Disconnect Time	disconnect-time	DD/MM/YYYY HH:MM:SS AM/ PM	

Adding a New Device Group

This API allows the user to set a list of device group/super group.The device can be assigned to a specified device group and configured based on site requirements.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/device-group?action=set;<argument>=<value>...
```

Parameters

Table: Adding a New Device Group - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Name	A-Z a-z 0-9 ( ) _ - . [space] Max. 30 characters	Yes	-	This is the name of group to be created.
Type	0 = Device Group 1 = Super Group	Yes	0 (Device Group)	This is the type of device group, which user wants to create.

CHAPTER 4

Sites

A *Site* is a work area or unit defined on the COSEC system to which one or more COSEC devices are assigned. A site can be defined by an administrator based on requirements. For e.g.: The organization *ABC* could have multiple sites defined, such as *ABCheadoffice*, *ABCfactory*, *ABCwarehouse* and so on. This COSEC API allows users to access and add information about specific sites using COSEC. The http query to access site data from the COSEC server should resemble the following syntax:

Syntax

```
http://<servername>/api.svc/v2/site?action=<method>;<argument>=<value>...
```

The *Sites* APIs allow you to perform the following functions:

- Obtaining Data on Existing Sites
- Adding a New Site
- Updating a Site

User Rights

User	Rights
System Account	Enabled
ESS	Disabled

Obtaining Data on Existing Sites

This function allows the user to access data about existing sites. This includes the Site ID, Site Name and a Default site.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/site?action=get;<argument>=<value>...
```

Parameters

Table: Obtaining Data on Existing Sites - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1 to 999, all	No	all	This is the Site ID

Response Fields

Table: Obtaining Data on Existing Sites - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Site ID	Id	1 - 999	The Site ID
Site Name	Name	Max 30 alphanumeric character	The Site Name
Default	Default	1 : default site 0 : not a default site	This indicate whether the specified site is a default site or not.

Example

Sample Request:

With default values,

```
http://matrixserver/api.svc/v2/site?action=get
```

Sample Response:

```
Id|Name|Default
1|Site-1|1
2|h|0
<EOT>
```

Sample Request:

Syntax with valid action but no record available,

```
http://matrixserver/api.svc/v2/site?action=get
```

Sample Response:

```
success: <response code> : No records found
```

Adding a New Site

This interface can be used to create a new site.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/site?action=set;<argument>=<value>...
```

Parameters

Table: Adding a New Site - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1 to 999	Yes	-	The Site ID
name	maximum 30 alphanumeric characters	Yes	-	The Site Name
default	1: Default site	No	Not a default site	This indicate whether the specified site is a default site or not.

Example

Sample Request:

With values “id=1”, “name=Site-1”,

```
http://matrixserver/api.svc/v2/site?action=set;id=1;name=Site-1
```

Sample Response:

```
success : successful
```

Updating a Site

This function can be used to update the configuration of an existing site on the COSEC database.

Action

action=update

Syntax

```
http://<servername>/api.svc/v2/site?action=update;<argument>=<value>...
```

Parameters

Table: Updating a Site - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1 to 999	Yes	-	The Site ID
name	maximum 30 alphanumeric characters	Yes	-	The Site Name
default	1: Default site	No	Not a default site	This indicate whether the specified site is a default site or not.

CHAPTER 5

Users

This API allows the access and modification of user data from the COSEC database. The *Users APIs* allows you to perform the following functions:

Action=get

- *Accessing User Data*

Action=set

- *Adding/Editing a User*

Action=setphoto

- *Adding User Photograph*

Action=delete

- *Deleting a User*

Action=enroll

- *Enrolling a User*

Action=set-credential

- *Setting Credentials on Device*

Action=del-credential

- *Deleting Credentials from Device*

Action=get

- *Searching a User*

Action=get

- *Fetching Reporting Group Members*

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Users > User List (For ***action=get***) Users > User Configuration (For other actions)

User	Rights
ESS	Enabled if user has ESS rights enabled. Only For ***action=get*** and ***action=set*** Note : For ***action =set***, the following option should be enabled (COSEC Web Application): User Configuration > ESS > Settings > Edit Basic Details

Accessing User Data

This function allows you to retrieve specific data for a single user or multiple users. For instance, this method can be used to retrieve an employee's name, date-of-birth, joining date, blood-group, Passport Number etc.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/user?action=get;<argument>=<value>...
```

Parameters

Table: Accessing User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Range	All, organization, branch, department, designation, section, category, grade, user, custom-group-1, custom-group-2, custom-group-3	No	If "id" parameter is not mentioned, consider range=all. If "id" parameter is mentioned, consider range=user	This is used to fetch the data for selected range of users. **Note:** Response shall be provided with an error message, in case of invalid range. **Note:** Here "all" means the IDs of all the users that login user has rights over **Note**: If range is not mentioned and "id" is specified, it will be considered as range = user. And the IDs mentioned will be considered as user IDs.
id	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user)	Yes (if mentioned range is other than "all")	-	This can be the organization or user id (as per the selected range). **Note:** Multiple IDs can be selected, each separated by a 'comma'. e.g.:"1, 3, 7, 9…" **Note**: If neither range nor id are mentioned, return data for all the users the login user has rights on.
Cwm-enabled	0 : if user is not a worker 1: if user is worker	No		
field-name	Any of the field names that can be updated using set option (list is available in set table)	No	all	These are the fields that can be specified to fetch User's specific data.

Table: Accessing User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
filter	0 : All 1 : Active Users 2 : Inactive Users	No	0 : All	Non mandatory field. Default value = 0. **Conditions:** 1.Argument mentioned, but value not specified, then ignore this parameter. 2.If filter=0 is specified, return all users configured in the system. 3.If filter=1 is specified, return only active users configured in the system. 4.If filter=2 is specified, return only inactive users configured in the system. **Note:** If filter=1 is specified and multiple-ids are passed or any enterprise group is passed, out of which some of them are inactive, then do not return those users and vice-versa should also be applicable. If filter=2 is specified and multiple-ids are passed or any enterprise group is passed, out of which some of them are active, then do not return those users and vice-versa should also be applicable.
creation-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the user creation date range. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if creation-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Table: Accessing User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for user details. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Id	id	max 15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Reference Code	reference-code	1 to 99999999 (max 8 digits)	-
User Name	name	max 45 alphanumeric characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	-
Active	active	1 : Active 0 : Inactive 2 : Inactive and Revoke Devices	-
Module	module	U- T&A User	-
Date of Birth	date-of-birth	ddmmyyyy	-
Joining Date	joining-date	ddmmyyyy	-
Confirmation Date	confirmation-date	ddmmyyyy	-
Leaving Date	leaving-date	ddmmyyyy	-
Reason For Leaving	reason-for-leaving	max 15 alphanumeric characters	-
PF No.	pf-no	max 30 alphanumeric characters	-

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Vehicle Registration No	vehicle-reg-no	max 50 alphanumeric characters and comma(,)	-
Driving License	driving-license	max 30 alphanumeric characters	-
PAN No.	pan	max 30 alphanumeric characters	-
ESI No.	esi-no	max 30 alphanumeric characters	-
Passport No.	passport-no	max 30 alphanumeric characters	-
Aadhar No.	aadhar-no	max 12 numeric characters	-
UAN	uan	max 12 numeric characters	-
Voter ID	voter-id	max 10 alphanumeric characters	-
Visa No.	visa-no	max 30 alphanumeric characters	-
Visa Expiry Date	visa-expiry	ddmmyyyy	-
Integration Reference	integration-reference	max 20 alphanumeric characters	-
Height	height	0 - 999	-
Weight	weight	0 - 999	-
Gender	gender	na male female	-
Blood Group	blood-group	na,a+,a-,b+,b-,ab+,ab-,o+,o-,A1–,A1+,A1B-,A1B+,A2-,A2+,A2B–,A2B+,B1+	-
Marital Status	marital-status	married unmarried na	-
Nationality	nationality	max 20 alphanumeric characters	-
Father/Spouse Name	father-spouse-name	max 30 alphanumeric characters	-
Qualification	qualification	max 50 alphanumeric characters	-
Experience	experience	max 50 alphanumeric characters	-
Medical History	medical-history	max 50 alphanumeric characters	-
Local Address1	local-address1	max 30 alphanumeric characters	-
Local Address2	local-address2	max 30 alphanumeric characters	-
Local Street	local-street	max 30 alphanumeric characters	-
Local City	local-city	max 30 alphanumeric characters	-
Local Pin code	local-pincode	max 10 alphanumeric characters	-
Local State	local-state	max 40 alphanumeric characters	-
Local Country	local-country	max 20 alphanumeric characters	-
Permanent Address1	permanent-address1	max 30 alphanumeric characters	-
Permanent Address2	permanent-address2	max 30 alphanumeric characters	-
Permanent Street	permanent-street	max 20 alphanumeric characters	-
Permanent City	permanent-city	max 30 alphanumeric characters	-

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Permanent Pin Code	permanent-pincode	max 10 alphanumeric characters	-
Permanent State	permanent-state	max 40 alphanumeric characters	-
Permanent Country	permanent-country	max 20 alphanumeric characters	-
Personal Phone	personal-phone	max 30 numeric characters or -	-
Personal Cell	personal-cell	max 20 numeric characters or -	-
Personal E-mail	personal-email	max 100 alphanumeric characters	-
Official Phone	official-phone	max 30 numeric characters or -	-
Official Extension	official-extension	max 4 numeric characters	-
Official Cell	official-cell	max 20 numeric characters or -	-
Official E-mail	official-email	max 100 alphanumeric characters	-
Organization ID	organization	1 - 999999	-
Branch ID	branch	1 - 999999	-
Department ID	department	1 - 999999	-
Section ID	section	1 - 999999	-
Category ID	category	1 - 999999	-
Grade ID	grade	1 - 999999	-
Designation ID	designation	1 - 999999	-
Reporting In-Charge	reporting-incharge	1 - 9999	-
ESS Login	ess-login	1 : enabled 0 : disabled	-
ESS Detail Edit	ess-detail-edit	1 : editing allowed 0 : editing not allowed	-
Attendance via ESS	attendance-via-ess	1 : enabled 0 : disabled	-
Active Directory Login	active-directory-login	1 : enabled 0 : disabled	-
Active Directory Username	active-directory-username	max 128 alphanumeric characters	-
Active Directory Domain	active-directory-domain	max 128 alphanumeric characters	-
Attendance Calculation	attendance-calc	1 : enabled 0 : disabled	-
Max Personal hours	max-personal-hrs	0 - 99	-
Bus Route	bus-route	1 - 999	-
Bypass Fingerprint/Palm	bypass-finpalm	1 – enable bypass 0 – disable bypass	-
Employment Profile	employment-profile	max 4 alphanumeric characters	-
Employment Type	employment-type	max 4 alphanumeric characters	-
Award and Penalty	award-penalty	max 4 alphanumeric characters	-
Work Profile	work-profile	max 4 alphanumeric characters	-
Hour Exception	hour-exception	max 4 alphanumeric characters	-

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Attendance Policy (T&A)	attendance-policy	1-99	-
Late-In Policy	lateIn-policy	1-99	-
Early Out policy	earlyOut-policy	1-99	-
Overtime Policy	overtime-policy	1-99	-
Absentee Policy	absentee-policy	1-99	-
C-Off Policy	coff-policy	1-99	-
PIN	pin	0-999999	-
Card-1	card-1	max 20 numeric characters max 21 characters= 20 numeric + comma	Value will be “0” if login user is ESS user.
Card-2	card-2	max 20 numeric characters max 21 characters= 20 numeric + comma	Value will be “0” if login user is ESS user.
Access Validity Date	access-validity-date	ddmmyyyy format	-
Access Level	access-level	1 - 15	-
Bypass Finger	bypass-finger	1 – enable bypass 0 – disable bypass	-
Bypass Palm	bypass-palm	1 – enable bypass 0 – disable bypass	-
Shift based access	shiftbased-access	1 – access allowed 0 – access denied	-
Shift Schedule	shift-schedule	1- 99	-
Start Shift	start-shift	max 2 numeric characters	-
Holiday Schedule	holiday-schedule	1 - 99	-
Device Group ID	device-group-id		If more than one group is assigned, then it should fetch multiple device group id separated with comma.
Device Group Name	device-group		If more than one group is assigned, then it should fetch multiple device group name separated with comma.
Smart access route	smart-access-route	1 - 99	-
Max route level	max-route-level	1 - 75	-
Allow e-Canteen	allow-ecanteen	1 - allowed 0 – not allowed	-
Discount Level	discount-level	0 to 4	-
Account Type	account-type	1 - postpaid 0 - prepaid	-
Max Allowed Limit	max-allowed-limit	0.0 to 9999999.9	-
Max Usage Limit	max-usage-limit	0.0 to 9999999.9	-

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Organization Code	organization_code	max 6 alphanumeric characters	-
Branch Code	branch_code	max 6 alphanumeric characters	-
Department Code	department_code	max 6 alphanumeric characters	-
Category Code	category_code	max 6 alphanumeric characters	-
Grade Code	grade_code	max 6 alphanumeric characters	-
Designation Code	designation_code	max 6 alphanumeric characters	-
Section Code	section_code	max 6 alphanumeric characters	-
Leave Group ID	leave_group	1-99	-
PVR Group Number	pvr_group	If user has palm enrolled, the PVR group number will be returned here.	PVR Group Number
Enrolled Fingers	enrolled_fingers	0-30	Total Number of fingers (all the template types) enrolled for this user
Enrolled Palms	enrolled_palms	0-10	Number of palms enrolled for this user
Reporting Group ID	rg_id	1-999	ID of the reporting group to which user belongs
Reporting Group Name	rg_name	upto 30 characters	Name of the reporting group to which user belongs
Reporting Group Incharge 1's ID	rg_incharge_1	upto 15 characters	User ID of reporting group incharge 1
Reporting Group Incharge 2's ID	rg_incharge_2	upto 15 characters	User ID of reporting group incharge 2
Reporting Group Incharge 3's ID	rg_incharge_3	upto 15 characters	User ID of reporting group incharge 3
Reporting Group Incharge 4's ID	rg_incharge_4	upto 15 characters	User ID of reporting group incharge 4
Reporting Group Incharge 5's ID	rg_incharge_5	upto 15 characters	User ID of reporting group incharge 5
IMEI Number	imei	upto 40 characters. Allowed characters: Alphanumeric -	-
IMEI Authorized or not	imei-authorized	0: Pending 1: Authorized 2: Rejected	-
Custom Field 1 -10	field1-10	Max 100 characters ddmmyyyy	Valid Characters : A-Z a-z 0-9 space [ ] ( ) . - _ /
Week Off Group	week-off-group	1-99	Numeric Only

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Punch Marking Via API	punch-api	0 : Disabled 1 : Enabled	-
Auto-Punch Marking	auto-attendance	0 : Disabled 1 : Enabled	-
Manual Punch Marking	manual-punch	0 : Disabled 1 : Enabled	-
Location Data Mandatory from Apps	location-mandatory	0 : None 1 : Any Location 2 : Configured Locations	-
Door Access Through API	door-access-api	0 : Disabled 1 : Enabled	-
FVM Flag	FVM-enable	0 : Disabled 1 : Enabled	-
Job Assignment Type	job-assignment-type	0: None 1: Fixed 2: Device Based	-
Blacklisted	blacklisted	0: Not Blacklisted 1: Blacklisted	-
Enrolled Fingers - Suprema Proprietary	suprema-proprietary-count	0-10	Number of fingers enrolled in suprema proprietary type against a user
Enrolled Fingers - Suprema ISO	suprema-iso-count	0-10	Number of fingers enrolled in suprema ISO type against a user.
Enrolled Fingers - Lumidigm ISO	lumidigm-iso-count	0-10	Number of fingers enrolled in Lumidigm ISO type against a user.
Restrict Half Day Considerations	Restrict-half-day	0 : Disabled 1 : Enabled	
Organization Name	organization-name		Should return the Organization Name of User
Branch Name	branch-name		Should return the Branch Name of User
Department Name	department-name		Should return the Department Name of User
Category Name	category-name		Should return the Category Name of User
Grade Name	grade-name		Should return the Grade Name of User
Designation Name	designation-name		Should return the Designation Name of User
Section Name	section-name		Should return the Section Name of User

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Restrict Half Day Considerations	Restrict-half-day	0 : Disabled 1 : Enabled	
Custom Group 1 ID	customgroup1ID	1-999999	
Custom Group 2 ID	customgroup2ID	1-999999	
Custom Group 3 ID	customgroup3ID	1-999999	
Custom Group 1 Code	customgroup1_code	max 6 alphanumeric characters	
Custom Group 2 Code	customgroup2_code	max 6 alphanumeric characters	
Custom Group 3 Code	customgroup3_code	max 6 alphanumeric characters	
Custom Group 1 Name	customgroup1_name	45 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Custom Group 2 Name	customgroup2_name	45 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Custom Group 3 Name	customgroup3_name	45 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Cafeteria Usage Policy	Cafeteria-usage-policy	1-99	
Show Attendance Details On Device	show-atd-details	0 : Disabled 1 : Enabled	
Full Name	full-name	max 200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ ' (single quote) [Space] When Multi Language is On, Invalid Character set = Set3
Approval Policy ID	approval-policy	1-999	ID of the approval policy which is assigned to selected user.
Approval Policy Name	approval-policy-name	30 Characters	Returns the Approval Policy Name of the selected Policy ID.

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Timezone for Punch Marking	Punch-marking-timezone	0: Server Timezone 1: Local Timezone	Returns the time zone selected for punch marking.
Elevator Access Control	enable-elevator-access-control	0 or 1	Returns the status of EAC feature
Elevator Floor Group	elevator-floor-group	1 - 999	Returns the number of floor groups configured.
Enable Face Recognition	enable-fr	0 : Disabled 1 : Enabled	Returns the Status of FR as enabled/disabled
Enable Face Recognition For	enable-fr-for	0 : For Attendance 1 : For Access Control 2 : Both	
Enable Self Enrollment FR	enable-fr-self-enroll	0: Disabled 1: Enabled	
Bypass Face	bypass-face	1 - enable bypass 0 - disable bypass	Bypass Face
Enrolled faces	enrolled_faces	0-40	Total Number of faces enrolled for this user
Authorized Host User	auth-host-user	0: Unauthorized Host 1: Authorized Host	Returns the value set for User.
Face Mandatory For Punch	face-mandatory	0 : None 1 : Attendance 2 : Access Control 3 : Both	If Enable FR/Punch Marking Via API/Manual Punch Marking is disabled for a user, face-mandatory tag will be available only for value 0 : None
Prefix	prefix	Max 15 alphanumeric characters A-Z a-z 0-9 /_\\.@:	
PIN Authentication For Door Access	pin-authentication	0 : Disabled 1 : Enabled	
Driving License Expiry Date	driving-license-expiry	ddmmyyyy	
Passport Expiry Date	passport-expiry	ddmmyyyy	
Blacklisted reason	Blacklisted-reason		Max 50 chars Valid Values : A-Z a-z 0-9 [space] ! @ $ * ( ) _ - + \ [ ] , . :
Reason for punching from unassigned location	punch-reason-flg	0 : unchecked 1 : checked	enabled only when Location Mandatory For Punch = 0,1

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Uploaded-doc	uploaded-doc	12: driving-license 13: passport-no 14: pan 16: pf-no 18: esi-no 21: field1 22: field2 23: field3 24: field4 41: field5 42: field6 43: field7 44: field8 45: field9 46: field10	Uploaded document tag is added for checking the status of uploaded images for respective field. Multiple values are possible in this field. If documents/images are present in field1,2 and 5 then uploaded-doc should contain value of field1, field 2 and 5 be provided in respective field.
Authorized Host User Flag	Authorized-Host-User	1: Checked 0: Unchecked	
Visitor Device Group ID	Visitor-device-group-id	Max 5 numeric characters	This is the ID of the device group. If more than one group is assigned, then it should fetch multiple device group id separated with comma.
Visitor Group Name	Visitor-device-group	max 30 characters	This is the name of the device group. If more than one group is assigned, then it should fetch multiple device group name separated with comma.
Enable Offline-Transaction	enable-offline-transaction	0= None 1= Allow Without Discount 2= Allow With Discount	
APTA Face Anti-Spoofing	apta-face-anti-spoofing	0: Disabled 1: Enabled	Returns value from User Configuration > ESS.

Table: Accessing User Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Assigned Job	assigned_job	15 characters Job ID = 0 - 4294967295	Job ID can have multiple ids as value with comma separation. For eg : 1, 2, 3, ... 4294967295 0 = Job Assignment Type = "Fixed" or "None" 1-4294967292 = Job Reference ID corresponding to respective Job Codes 4294967293 = Job Reference ID selected = Continue Job 4294967294 = Job Reference ID selected = Default Job 4294967295 = Job Reference ID selected = None
Capture Photo	capture-photo	1 : enabled 0 : disabled	
Max Allowed Limit	max-allowed-limit	0.01 to 999999.99	
Max Usage Limit	max-usage-limit	0.01 to 999999.99	
Max Usage Limit Per Day	max-usage-limit-day	0.01 to 999999.99	This defines the max usage limit per day of the canteen user. For Account Type= Pre-Paid when this parameter is passed while firing API- details should be received as per configured for the Pre-Paid account user. For Account Type= Post-Paid when this parameter is passed while firing API- details should be received as per configured for the Post-Paid account user.
Creation Date	creation-date	dd/mm/yyyy hh:mm:ss	This defines the user creation date.
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the user details were last modified.

Example1

Sample Request: A sample request for fetching employee data with specific fields.

```
http://192.168.104.16/cosec/api.svc/v2/user?action=get;id=836,837,838,840;field-name=id,name,reference-
code,active,gender,marital-status,blood-group,nationality
```

Sample Response:

```
id|name|reference-code|active|gender|marital-status|blood-group|nationality
836|RAJUBHAI VANKAR|836|1|male|married|b+|Indian
837|SHIRIN Y PATEL|837|1|female|unmarried|a-|Indian
838|VIPUL B SOLANKI|838|1|male|unmarried|o+|Indian
840|KANTIBHAI VASAVA|840|1|male|na|a+|Indian
<EOT>
```

Example2

Sample Request: A sample request for fetching all the data of an employee.

```
http://192.168.104.12/cosec/api.svc/v2/user?action=get;id=101;
```

Sample Response:

```
id|reference-code|name|short-name|active|module|date-of-birth|joining-date|confirmation-date|leaving-
date|reason-for-leaving|pf-no|vehicle-reg-no|visa-no|visa-expiry|driving-license|pan|esi-no|passport-
no|aadhar-no|uan|voter-id|height|weight|gender|blood-group|marital-status|nationality|father-spouse-
name|qualification|experience|medical-history|local-address1|local-address2|local-street|local-
city|local-pincode|local-state|local-country|permanent-address1|permanent-address2|permanent-
street|permanent-city|permanent-pincode|permanent-state|permanent-country|personal-phone|personal-
cell|personal-email|official-phone|official-extension|official-cell|official-email|pin|card-1|card-
2|access-validity-date|active-directory-login|active-directory-username|active-directory-
domain|integration-
reference|organization|branch|department|designation|section|category|grade|leave_group|reporting-
incharge|attendance-policy|latein-policy|earlyout-policy|overtime-policy|absentee-policy|coff-
policy|device-group|device-group-id|smart-access-route|max-route-level|employment-profile|employment-
type|award-penalty|work-profile|roster-policy|roster-attendance-policy|hour-exception|access-
level|bypass-finger|bypass-palm|shiftbased-access|shift-schedule|start-shift|holiday-
schedule|attendance-calc|max-personal-hrs|bus-route|bypass-finpalm|ess-login|ess-detail-
edit|attendance-via-ess|allow-ecanteen|discount-level|account-type|max-allowed-limit|max-usage-
limit|organization_code|branch_code|department_code|designation_code|section_code|category_code|grade_c
ode|field1|field2|field3|field4|week-off-group|location-mandatory|punch-api|auto-attendance|manual-
punch|allow-offline-punch|capture-photo|door-access-api|fvm-enable|blacklisted|job-assignment-
type|device|pvr_group|enrolled_fingers|enrolled_palms|rg_id|rg_name|rg_incharge_1|rg_incharge_2|rg_inch
arge_3|rg_incharge_4|rg_incharge_5|imei|imei-authorized|suprema-proprietary-count|suprema-iso-
count|lumidigm-iso-count|organization-name|branch-name|department-name|category-name|grade-
name|designation-name|section-name|restrict-half-
day|customgroup1ID|customgroup2ID|customgroup3ID|customgroup1_code|customgroup2_code|customgroup3_code|
customgroup1_name|customgroup2_name|customgroup3_name|cafeteria-usage-policy|show-atd-details|full-
name|approval-policy|approval-policy-name|punch-marking-timezone|enable-elevator-access-
control|elevator-floor-group|enable-fr|enrolled_faces|auth-host-user|face-mandatory|blacklisted-
reason|pin-authentication|driving-license-expiry|passport-expiry|punch-reason-
flg|field5|field6|field7|field8|field9|field10|lumidigm-proprietary-count|uploaded-doc|authorized-host-
user|visitor-device-group-id|visitor-device-group|apta-face-anti-spoofing|assigned_job|enable-offline-
transaction|max-usage-limit-day|creation-date|last-modified-date
u1|1|u1|u1|1|U|||||||||||||||||||NA|NA|NA|||||||||||||||||||||||||||||||0||||1|1|1|1|1|1|1|1||1|1|1|1|1
|1||||75||||||||8|0|0|0|1|1|1|1|||0|1|1|1|0|0|0|0.00|0.00|ORG1|BRC1|DPT1|DSG1|SEC1|CTG1|GRD1||||||0|1|0
|0|0|0|0|0||0|d_1|1|0|0||||||||47330708|1|0|0|0|Organization-1|Branch-1|Department-1|Category-1|Grade-
1|Designation-1|Section-1|0|1|1|1|CG1|CG2|CG3|Custom Group 1|Custom Group 2|Custom Group
3||1|u1|||0|0||1|1|0|0||0|||0|||||||0||0|||0|4294967293,4294967294,4294967295|0|0|27/09/2024
11:32:18|27/09/2024 11:48:52
<EOT>
```

Adding/Editing a User

This API will allow you to define a new user, as well as add/edit specific data for an existing user on the COSEC database (only single user at a time). For instance, this process can be used to add information such as an employee's name, date-of-birth, joining date, blood-group, Passport Number etc.

Action

action=set

*If the **action=set** request is sent for an existing user, the new values sent will overwrite the existing values, if any.*

Syntax

```
http://<servername>/api.svc/v2/user?action=set;<argument>=<value>...
```

Parameters

*ESS users can edit only the parameters marked by ***

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	15 alphanumeric Char. A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the User Id. For ESS User, the User ID should be same as Login User's ID When Auto Generate ID flag is OFF in Global Policy then: Either "id" or "Prefix Auto-generation-serial-length" or only "Auto-generation-serial-length" should be mentioned in API. When Auto Generate ID flag is ON in Global Policy then: id/Prefix + Auto-generation-serial-length/ only Auto-generation-serial-length" not required to be mentioned in API. **Note**: If the User Id contains colon (':') then the API authentication with such User Id will not be functional.
reference-code	1 to 99999999	No	Max stored ref code+1	This is the unique Reference code for every User.
name	Max 45 Alphanumeric Characters	Yes	-	This is the User Name. Allowed Characters A-Z a-z 0-9 -_. ()[]

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
full-name	Max 200 chars A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ '(single quote) [Space] When Multi Language is On, Invalid Character set = Set3	Yes (if name not mentioned)	-	Either "name" or "full-name" is a mandatory field to be mentioned in API. I.e. if "name" tag is mentioned than "full-name" is optional and vice versa.
short-name	Max 15 Alphanumeric Characters	No	First 15 characters of name	This is the short name of User. Allowed Characters A-Z a-z 0-9 -_. ()
active	0 : Inactive 1 : Active 2 : Inactive and Revoke Devices	No	1	This is a field that shows whether user is active or not. It has two values 0 and 1 for inactive and active respectively. **Note:** If active is supplied as 1 and 2, the user is blacklisted then error code "0070203002" will be generated with validation message "User is Blacklisted."
module	U or R	Yes	Depending upon License	This value specifies the user type. U- T&A User R- Roster User
date-of-birth **	ddmmyyyy format	Yes (If Date of Birth Mandatory check box is enabled in Global Policy > User > Minimum Age Requirement for Users)	-	This is the date of birth of the user. **Note: -** date-of-birth shall be lower than joining-date.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
joining-date	ddmmyyyy format	Yes (if confirmation-date or leaving-date to be configured)	-	This is the Joining Date of the user. **Note: -** joining-date should be higher than date-of-birth. Non-editable if login user is an ESS User. Joining Date should not be allowed blank in case of confirmation date or leaving date value exists. Allow Joining Date same as confirmation date from User API. Allow Joining Date same as Confirmation Date and Leaving Date.
confirmation-date	ddmmyyyy format	No	-	This is the Confirmation Date of the user. **Note: -** confirmation-date shall not be lower than joining-date. Allow Confirmation Date same as Joining Date and Leaving Date.
Leaving-date	ddmmyyyy format	Yes (if reason for leaving to be configured)	-	This is the date of Leaving of the user. **Note: -** leaving-date shall not be lower than joining-date. Allow Leaving Date same as Joining Date and Confirmation Date.
Reason-for-leaving	Max 15 Alphanumeric Characters	No	-	This is the reason of leaving an organization.
pf-no **	Max 30 Alphanumeric Characters	No	-	This is the PF Number of the user.
vehicle-reg-no	Max 50 Alphanumeric Characters and comma(,)	No	-	This is the Vehicle Registration No of the user.
driving-license **	Max 30 Alphanumeric Characters	No	-	This is the driving license of the user.
pan **	Max 30 Alphanumeric Characters	No	-	This is the PAN of the user.
esi-no **	Max 30 Alphanumeric Characters	No	-	This is the ESI Number of the
passport-no **	Max 30 Alphanumeric Characters	No	-	This is the Passport Number of the user.
aadhar-no **	max 12 numeric characters	No	-	This is the Aadhar Number of the user. If Aadhaar no entered is not Unique then it will display validation; “Aadhaar No. already exists for User: *id*” If Aadhar no is mandatory but still it is not entered then it will display validation; “Enter Aadhaar No”

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
uan **	max 12 numeric characters	No	-	This is the UAN of the user.
voter-id **	max 10 alphanumeric characters	No	-	This is the Voter ID of the user.
visa-no **	Max 30 Alphanumeric Characters	Yes (If visa-expiry date to be configured)	-	This is the IQAMA number of the user.
visa-expiry **	ddmmyyyy format	No	-	This is the date of expiry of the IQAMA or visa.
integration-reference	Max 20 Alphanumeric Characters	No	-	This is the integration reference for the user.
height **	0 to 999	No	-	This is the height of the user in the centimeter.
weight **	0 to 999	No	-	This is the weight of the user in Kg.
gender **	na, male,female	No	NA	This is the gender of the user.
blood-group **	NA,A+,A-,B+,B-,AB+,AB-,o+,o-,A1–,A1+, A1B-, A1B+,A2-,A2+,A2B–,A2B+,B1+	No	NA	This is the blood group of the user.
marital-status **	married,unmarried	No	Married	This is the marital status of the user.
nationality **	Max 20 alphanumeric characters	No	-	This is the nationality of the user.
father-spouse-name **	Max 30 Alphanumeric Characters	No	-	This is the father or spouse name of the user.
qualification **	Max 50 Alphanumeric Characters	No	-	This is the qualification of the user.
experience **	max 50 alphanumeric characters	No	-	This is the work experience of the user.
medical-history **	max 50 alphanumeric characters	No	-	This is the medical history of the user.
local-address1 **	max 30 alphanumeric characters	No	-	This is the local address 1 of the user.
local-address2 **	max 30 alphanumeric characters	No	-	This is the local address 2 of the user.
local-street **	max 30 alphanumeric characters	No	-	This is the street for local address 1.
local-city **	max 40 alphanumeric characters	No	-	This is the city for local address 1.
local-pincode **	max 10 numeric characters	No	-	This is the local pin code for local address 1.
local-state **	max 40 alphanumeric characters	No	-	This is the state for local address 1.
local-country **	max 20 alphanumeric characters	No	-	This is the country for local address 1.
permanent-address1 **	max 30 alphanumeric characters	No	-	This is the permanent address 1 of the user.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
permanent-address2 **	max 30 alphanumeric characters	No	-	This is the permanent address 2 of the user.
permanent-street **	max 20 alphanumeric characters	No	-	This is the street for permanent address 1.
permanent-city **	max 30 alphanumeric characters	No	-	This is the city for permanent address 1.
permanent-pincode **	max 10 numeric characters	No	-	This is the local pin code for permanent address 1.
permanent-state **	max 40 alphanumeric characters	No	-	This is the state for permanent address 1.
permanent-country **	max 20 alphanumeric characters	No	-	This is the country for permanent address 1.
personal-phone **	max 32 numeric characters or -	No	-	This is the personal phone number of the user.
personal-cell **	max 30 numeric characters or -	No	-	This is the personal mobile number of the user.
personal-email **	max 100 alphanumeric characters	No	-	This is the personal email address of the user.
official-phone **	max 30 numeric characters or -	No	-	This is the official phone number of the user.
official-extension **	max 10 numeric characters	No	-	This is the extension of the user.
official-cell **	max 30 numeric characters or -	No	-	This is the official mobile number of the user.
official-email **	max 100 alphanumeric characters	No	-	This is the official email address of the user.
organization	1 to 999999	No	Default organization of respective system account user who is creating/ updating user OR Default organization defined in Enterprise structure	This is the ‘Organization’ of the user.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
branch	1 to 999999	No	Default Branch of respective system account user who is creating/ updating user OR Default branch defined in Enterprise structure	This is the ‘Branch’ of the user.
department	1 to 999999	No	Default Department of respective system account user who is creating/ updating user OR Default department defined in Enterprise structure	This is the ‘Department’ of the user.
section	1 to 999999	No	Default Section of respective system account user who is creating/ updating user OR Default section defined in Enterprise structure	This is the ‘Section’ of the user.
category	1 to 999999	No	Default Category of respective system account user who is creating/ updating user OR Default category defined in Enterprise structure	This is the ‘Category’ of the user.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
grade	1 to 999999	No	Default Grade of respective system account user who is creating/ updating user OR Default grade defined in Enterprise structure	This is the 'Grade' of the user.
designation	1 to 999999	No	Default designation of respective system account user who is creating/ updating user OR Default designation defined in Enterprise structure	This is the 'Designation' of the user.
reporting-incharge	1 to 9999	No	-	This is the "Reporting-in-charge" of the user
ess-login	1 or 0	No	0	This field enables/disables the users ESS login.
ess-detail-edit	1 or 0	No	0	This field toggles the option for user to change/edit the user's basic details in ESS.
attendance-via-ess	1 or 0	No	0	This enables or disables the users attendance to be marked via ESS.
active-directory-login	1 or 0	No	0	This enables/disables the users ESS login via Active directory credentials.
active-directory-username	max 128 alphanumeric characters	Yes (if active-directory-login to be configured)	-	This is the user's Active directory username. **Note:** The active directory username provided should not be repeated for any other user. Also the active directory username can be same as that user ID of the same user for which the active directory username is assigned and none other.
active-directory-domain	max 128 alphanumeric characters	Yes (if active-directory-login to be configured)	-	This is the domain name for the active directory login purpose
attendance-calc	1 or 0	No	1	This enables/disables the attendance calculation for the user.
max-personal-hrs	0 to 99	No	-	This configures the max number of hours the user can use as short leave.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
bus-route	1 to 999	No	-	This is the bus route for the user. This is an optional field.
bypass-finpalm	1 or 0	No	0	This parameter enables/disables the option to bypass biometric credentials for attendance marking.
employment-profile	max 4 alphanumeric characters	No	Default Employment contract defined in Roster	This is the roster user's Employment contract.
employment-type	max 4 alphanumeric characters	No	Default Employment type defined in Roster	This is the roster user's Employment type.
award-penalty	max 4 alphanumeric characters	No	Default Award and Penalty defined in Roster	This is the award and penalty assigned to the roster user.
work-profile	max 4 alphanumeric characters	No	Default Work Profile defined in Roster	This is the work profile assigned to the roster user.
roster-policy	max 4 alphanumeric characters	No	Default General Rules defined in Roster	This is the general rules assigned to the roster user.
roster-attendance-policy	max 4 alphanumeric characters	No	Default Policy defined in Roster	This is the policy assigned to the roster user.
hour-exception	max 4 alphanumeric characters	No	-	This is the hour exception assigned to the roster user.
attendance-policy	1 to 99	No	Default Attendance Policy defined in Time & Attendance/ Policies	This is the 'Attendance policy' of the user.
lateIn-policy	1 to 99	No	Default Late In Policy defined in Time & Attendance/ Policies	This is the 'Late-In policy' of the user. For a user the policy can be updated 99999 times.
earlyOut-policy	1 to 99	No	Default Early Out Policy defined in Time & Attendance/ Policies	This is the 'Early-out policy' of the user. For a user the policy can be updated 99999 times.
overtime-policy	1 to 99	No	Default Overtime Policy defined in Time & Attendance/ Policies	This is the 'Overtime policy' of the user. For a user the policy can be updated 99999 times.
absentee-policy	1 to 99	No	Default Absentee Policy defined in Time & Attendance/ Policies	This is the 'Absentee policy' of the user. For a user the policy can be updated 99999 times.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
coff-policy	1 to 99	No	Default COFF Policy defined in Time & Attendance/ Policies	This is the 'COFF policy' of the user. For a user the policy can be updated 99999 times.
pin	0 to 999999	No	-	This is the access control system pin number of the user. **Note: -** Same pin will not be allowed against any two user IDs.
card-1	max 20 numeric characters max 21 characters= 20 numeric + comma	No	-	This is the card number 1 of the user, required for access control system. **Note: -** Same value of card-1 will not be allowed for any two user IDs.
card-2	max 20 numeric characters max 21 characters= 20 numeric + comma	No	-	This is the card number 2 of the user, required for access control system. **Note: -** Same value of card-2 will not be allowed for any two user IDs.
access-validity-date	ddmmyyyy format	No	-	This is the Access Validity date of the user. Setting this will automatically enable the 'Access Validity' feature for the user.
access-level	1 to 15	No	-	This is the access level assigned to user, used for access control features.
bypass-finger	1 or 0	No	0	This determines whether the user can bypass the finger credential for any access control feature/rule.
bypass-palm	1 or 0	No	0	This determines whether the user can bypass the palm credential for any access control feature/rule.
shiftbased-access	1 or 0	No	0	This parameter determines the application of access restriction based on the shift assigned to the user from the shift schedule.
shift-schedule	1 to 999	No	First Shift Schedule	This field assigns the shift schedule to the user.
start-shift	max 2 alphanumeric characters	No	The selected schedule's first shift	The user should define the start shift for the selected shift schedule.
holiday-schedule	1 to 99	No	first holiday schedule	This field defines the users allowed holidays.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-group-id	Maximum length 600 NUMCHAR			This is the ID of the device group. Note: Any value SET from this API will overwrite the existing value. If from the entered Device Group IDs only partial values are valid, then assign the valid Device Groups mentioned. When 99 device (maximum device allowed) with individual ID of 5 NUMcharacter is SET then 600 NUMcharacter are allowed.
device-group			-	This is the name of the device group. Multiple device group names are allowed to pass. If maximum 99 device group names are added, there is a possibility that it would lead to exceed maximum URL limit. In such cases the server will notify the SA via message and the SA needs to hit multiple API.
smart-access-route	1 to 99	No	-	This field assigns the access route to the user. (For Smartcard Users only)
max-route-level	1 to 75	No	75	This field assigns maximum level to which user can access the Smart Access Route.
allow-ecanteen	1 or 0	No	0	This determines whether the ecanteen features are allowed for the selected user or not. **Note:** Whether the Allowed for e-canteen option is true or false, user can change Account Type (his account should be settled) and Discount Level.
discount-level	0 to 4	No	0	This value defines the user applicable discount level for any canteen transactions.
account-type	1 or 0	No	0	This parameter determines the user's canteen account type. 0 – prepaid 1 - postpaid
max-allowed-limit	0.01 to 999999.99	No	As specified in eCanteen/ Account configuration	This defines the max allowed limit for the canteen user for a month. This parameter is only for the postpaid account users.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
max-usage-limit	0.01 to 999999.99	No	As specified in eCanteen/ Account configuration	This defines the max usage limit per month for the canteen user beyond which the user's canteen account will be blocked. For Account Type= Pre-Paid when this parameter is passed while firing API- details should be set for the Pre-Paid account user. For Account Type= Post-Paid when this parameter is passed while firing API- details should be set for the Post-Paid account user.
organization_code	max 6 alphanumeric characters	No	Default organization code of respective system account user who is creating/ updating user OR Default organization code defined in Enterprise structure	Organization ID and Organization Code cannot be specified together.
branch_code	max 6 alphanumeric characters	No	Default branch code of respective system account user who is creating/ updating user OR Default branch code defined in Enterprise structure	Branch ID and Branch Code cannot be specified together.
department_code	max 6 alphanumeric characters	No	Default department code of respective system account user who is creating/ updating user OR Default department code defined in Enterprise structure	Department ID and Department Code cannot be specified together.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
category_code	max 6 alphanumeric characters	No	Default category code of respective system account user who is creating/ updating user OR Default category code defined in Enterprise structure	Category ID and Category Code cannot be specified together.
grade_code	max 6 alphanumeric characters	No	Default grade code of respective system account user who is creating/ updating user OR Default grade code defined in Enterprise structure	Grade ID and Grade Code cannot be specified together.
designation_code	max 6 alphanumeric characters	No	Default designation code of respective system account user who is creating/ updating user OR Default designation code defined in Enterprise structure	Designation ID and Designation Code cannot be specified together.
section_code	max 6 alphanumeric characters	No	Default section code of respective system account user who is creating/ updating user OR Default section code defined in Enterprise structure	Section ID and Section Code cannot be specified together.
leave_group	2 Digits	-	-	To specify a leave group ID, for a leave group to be assigned to the user.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
week-off-group	numeric 1-99	No	-	To assign a week-off group to the user
punch-api	0 : Disabled 1 : Enabled	No	1	Punch Marking Via API
auto-attendance	0 : Disabled 1 : Enabled	No	0	Auto-Punch Marking
manual-punch	0 : Disabled 1 : Enabled	No	0	Manual Punch Marking
location-mandatory	0 : None 1 : Any Location 2 : Configured Locations	No	0	Location Data Mandatory from Apps **Note: -** If location is not mentioned in event when Location mandatory for punch is checked then access will be denied.
door-access-api	door-access-api	0: Disabled 1: Enabled	0	It will show invalid argument message if value is not 0/1.
FVM-enable	0 or 1		0	FVM Enable Flag.
job-assignment-type	0 : None 1 : Fixed 2 : Device Based		0	If value other than 0, 1, 2 added, return message for Invalid Argument Value
restrict-half-day	0 : Disabled OR 1 : Enabled		0	'Restrict Half Day Considerations' flag.
customgroup1ID	1-999999	No	Default customgroup1ID of respective system account user who is creating/ updating user OR Default customgroup1ID defined in Enterprise structure	This is the ID of 'Custom Group 1' of the user.
customgroup2ID	1-999999	No	Default customgroup2ID of respective system account user who is creating/ updating user OR Default customgroup2ID defined in Enterprise structure	This is the ID of 'Custom Group 2' of the user.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
customgroup3ID	1-999999	No	Default customgroup3ID of respective system account user who is creating/ updating user OR Default customgroup3ID defined in Enterprise structure	This is the ID of 'Custom Group 3' of the user.
customgroup1_code	max 6 alphanumeric characters	No	Default customgroup1 code of respective system account user who is creating/ updating user OR Default customgroup1 code defined in Enterprise structure	When this code is specified, the system will get the code's corresponding id and apply this id to the user.
customgroup2_code	max 6 alphanumeric characters	No	Default customgroup2 code of respective system account user who is creating/ updating user OR Default customgroup2 code defined in Enterprise structure	When this code is specified, the system will get the code's corresponding id and apply this id to the user.
customgroup3_code	max 6 alphanumeric characters	No	Default customgroup3 code of respective system account user who is creating/updating user OR Default customgroup3 code defined in Enterprise structure	When this code is specified, the system will get the code's corresponding id and apply this id to the user.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
cafeteria-usage-policy	1-99	No	-	To specify Cafeteria usage policy for the user. If not specified, then cafeteria usage policy mapped with specified enterprise group will be assigned to user.
Show-atd-details	0: Disabled 1: Enabled	No	1	If Show-atd-details is not specified, by default it is enabled.
approval-Policy	1 to 999	No	-	Reporting group is must before assigning Approval policy.
Punch-marking-timezone	0: Server Time Zone 1 : Local Time Zone	No	0: Server Time Zone	Local Time Zone-The date-time of the punch will be as per the time zone of the place from where the punch is marked. Server Time Zone-The date- time of the punch will be as per the server time zone.
enable-elevator-access-control	1 or 0	No	0	It enables/disables Elevator Access Control for the user.
elevator-floor-group	1 to 999	No	-	This field assigns the floor group for which user can have elevator rights. Applicable only when "elevator-access-control =1"
enable-fr	0: Disabled 1: Enabled	No	-	It enables/disable Face Recognition for the user.
Bypass-face	1 or 0	No	0	It is used to bypass the face image of user for any access control feature.
face-mandatory	0 : None 1 : Attendance 2 : Access Control 3 : Both			It is used to make Face Mandatory For Punch via APTA. This field should be updated only if "Punch Marking Via API" and "Manual Punch Marking" is set as 1
prefix	Max 15 alphanumeric characters A-Z a-z 0-9 /_ .@:	No		If Id is mentioned, ignore this parameter. The Prefix tag shows the fixed text which is to be used while creating new User Id's
Auto-generation-serial-length	1 to 15	No	-	Mandatory if ID is not mentioned. If Id is mentioned, ignore this parameter. It shows the number of characters that are to be appended after prefix text. Also, these numbers of characters will follow a sequential order.
Zero-padding	0: unchecked 1: checked	No		"The 'zero-padding' tag defines whether in mentioned <auto-generation-serial-length> '0(zero)' is to be appended or not.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
pin-authentication	0 : Disabled 1 : Enabled	No	0	This provide pin authentication on the devices.
driving-license-expiry	ddmmyyyy	No	-	This is the date of expiry of Driving License
passport-expiry	ddmmyyyy	No	-	This is the date of expiry of Passport.
Blacklisted	0 : Not Blacklisted 1 : Blacklisted 2 : Blacklist and Revoke Devices	No	-	This is a field that shows whether user/ worker is blacklisted or not. NOTE: If an user is already blacklisted and Blacklisted = 1 or 2 is passed, then no action should be performed.
Blacklisted-reason	Max 50 Chars A-Z a-z 0-9 [space] ! @ $ * ( ) _ - + [ ] , . :	No	-	This specifies the reason for being blacklist.
punch-reason-flg	0 : unchecked 1 : checked	No	0	enabled only when Location Mandatory For Punch = 0 (None) / 1 (Any Location)
field<no> (where <no> will vary from 1 to 10, the user has to enter any one number here from 1 to 10)	If control type for repeated custom fields is selected as Textbox in Global Policy: Max 100 Alphanumeric Characters: A-Z a-z 0-9 [ ] ( ) . - _ / <Space> If control type for repeated custom fields is selected as Date in Global Policy: ddmmyyyy When Multi Language is enabled, Invalid character set = SET1	No	-	Mandatory field, if 'Active' & 'Mandatory' checkbox is checked for respective custom fields in Global Policy.
authorized-host-user	0: Pending 1: Authorized	No	-	This is a flag for making a user Authorized Host User
visitor-device-group-id	Max 600 Varcharacters	No	-	This is the ID of the visitor device group.
enable-offline-transaction	0= None 1= Allow Without Discount 2= Allow With Discount	No	0	This is a field that allows to configure the transaction type to be allowed when device is offline.
capture-photo	1 : enabled 0 : disabled	No	0	In capturing the snap of users when punching from application like APTA.

Table: Adding/Editing a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
apta-face-anti-spoofing	0 : Disabled 1 : Enabled	No	0	This field should be updated only if “Punch Marking Via API” and “Manual Punch Marking” is set as 1 and “Punch Mandatory For Punch” is set as 1 or 2 or 3 else should be validated.
max-usage-limit-day	0.01 to 999999.99	NA	As specified in eCanteen/ Account configuration	This defines the max usage limit per day for the canteen user beyond which the user’s canteen account will be blocked. For Account Type= Pre-Paid when this parameter is passed while firing API- details should be set for the Pre-Paid account user. For Account Type= Post-Paid when this parameter is passed while firing API- details should be set for the Post-Paid account user.

The assigned Device Group can be revoked from the user by passing the value of “device-group” as empty or blank. e.g: "http://localhost/COSEC/api.svc/v2/user?action=set;id=1542;device-group= "

When "device-group-id" (Device Group ID) & "device-group" (Device Group Name) both are supplied with an API request, "device-group-id" will be considered first. But If "Device-group-id" is supplied with blank or empty value & "device-group" is supplied with valid value, in this case device group with supplied valid device group name will be assigned.

If maximum limit in case of IDs is reached, for e.g., if auto - generation serial length=2 and zero-padding =1, and all IDs from 00 to 99 are already existing, then message returns: " failed: Maximum limit reached for this configuration for ID creation. "

Example1

The following examples illustrate sample requests for adding or editing users.

Sample Request:

To add a user named “Sam”, whose user ID is “202” (activated for the *Time and Attendance* module license) -

```
http://192.168.104.16/cosec/api.svc/v2/user?action=set;id=202;name=sam;module=U
```

Sample Response:

```
success: <response code> : successful
```

Example2

Sample Request:

To add details such as date of birth, gender, nationality and blood group for the user Sam.

```
http://192.168.104.16/cosec/api.svc/v2/user?action=set;id=202;date-of-
birth=22061978;gender=male;nationality=indian;blood-group=b+
```

Sample Response:

```
success: <response code> : successful
```

Example3

Sample Request:

To change the username for Sam to “Samuel Jackson”.

```
http://matrixserver/api.svc/v2/user?action=set;id=202;name=Samuel Jackson
```

Sample Response:

```
success: <response code> : successful
```

Example4

Sample Request:

To set the Reporting group and Approval policy for the user.

```
http://192.168.104.12/cosec/api.svc/v2/user?action=set;id=2;name =Isha Shinde;module =U;reporting-
incharge=1;approval-Policy=5
```

Here Reporting In-charge is Reporting Group ID

Sample Response:

```
success: 0070200001 : successful
```

Adding User Photograph

Update the user photograph in a user's configured profile on COSEC using this request.

Action

action=setphoto

Syntax

```
http://<servername>/api.svc/v2/user?action=setphoto;<argument>=<value>...
```

Parameters

Table: Adding User Photograph - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	Max 15 alphanumeric characters	Yes	-	This is the unique User Id.
Path	The path should include the image file also with file extension. Supported file types are: .jpg,.jpeg,.bmp,.png Also the file size should be <= 50 kb	Yes		This will be the network path of the image file which is to be set as user photo. If FTP credential parameters are specified, then the path mentioned should be an FTP path.
ftpusername	-	Yes	-	If the image is on an FTP location then login credentials must be supplied. This is the FTP username. This parameter must be used with the 'ftppassword' parameter for a successful request.
ftppassword	-	Yes	-	If the image is on an FTP location then login credentials must be supplied. This is the FTP password. This parameter must be used with the 'ftpusername' parameter for a successful request.

*The supported file formats are *.jpg,*.bmp and *.png.*

Example

This sample request illustrates how to set a photograph for the user ID ***202***, when the source image file ***image.jpg*** is located in the following FTP location: ***ftp://abc/xyz/image.jpg***

Sample Request:

```
http://matrixserver/api.svc/v2/user?action=setphoto;id=202;path=ftp://abc/xyz/
image.jpg;ftpusername=sam;ftppassword=1234
```

Sample Response:

```
success: <response code> : successful
```

Deleting a User

This function can be used to delete an existing user from the COSEC database permanently. Only a single user can be deleted at a time using this method.

This process is irreversible. Please proceed with caution.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/user?action=delete;<argument>=<value>...
```

Parameters

Table: Deleting a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Id	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes No (Range = All)	-	This can have values mentioned in Range. If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value separated with comma. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter.

Example

This example illustrates how to delete the user ***Samuel*** (id=202) from the COSEC database:

Sample Request:

```
http://matrixserver/api.svc/v2/user?action=delete;id=202
```

Sample Response:

```
success: <response code> : successful
```

Enrolling a User

This API can be used to generate an enrollment request for a user on a specific device. Only a single user can be enrolled at a time using this action.

Action

action=enroll

Syntax

```
http://<servername>/api.svc/v2/user?action=enroll;<argument>=<value>...
```

Parameters

Table: Enrolling a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	Max 15 alphanumeric characters	Yes	-	This is the unique User ID.
device-type	0-9	Yes	-	This is the type of device, in which enrollment of respective user to be done. 0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Path Controller 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = Arc Controller 12 = Door V3 15 = Door FMX 19 = Door V4 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE
device-id	1 to 65000	Yes	-	This is the device identification number of the device type, on which enrollment of respective user is to be done. This device must be assigned to the user-id for which enrollment is to be performed. **Note:** Login user must have necessary rights on the device on which the enrollment is to be performed.
panel-door-id	1 to 255 (device-type=8) 1 to 99 (all others)	Yes. Only if device type = Panel (0), Panel-Lite (2), or Panel200(8)	-	This is the Panel Door identification number, in case a panel is selected for ***device-type***.

Table: Enrolling a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
enroll-type	fp, card, palm duressfp	Yes	-	This is the type of enrollment. **Note: -** Only Read-Only cards supported. Enroll-type=duressfp added to support Duress Finger Enrollment.
enroll-count	1 to 10 (for enroll-type=fp) 1,2 (for enroll-type=card) 1 to 10 (for enroll-type=palm) 1,2 (for enroll-type=duressfp)	Yes	-	This is the count for the enroll type (finger print, card or palm) to be enrolled for the respective user id. If user tries to enroll more than two duress fingers, then as per existing, the user will be restricted from device side.

Example

This example demonstrates a typical request URL for enrolling 2 fingers for a user on a Direct Door V1:

Sample Request:

```
http://matrixserver/api.svc/v2/user?action=enroll;id=1;device-type=1;device-id=1;enroll-type=fp;enroll-count=2
```

Sample Response:

```
success: <response code> : successful
```

Setting Credentials on Device

Send a user's credentials to all the available panel or direct door devices on COSEC. There are two types of credentials that can be set for a user - fingerprint (***fp***) and card.

Action

action=set-credential

Syntax

```
http://<servername>/api.svc/v2/user?action=set-credential;<argument>=<value>...
```

Parameters

Table: Setting Credentials on Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	Max 15 alphanumeric characters	Yes	-	This is the unique User Id.
credential-type	fp, card	Yes	-	This is the type of credential.
data	Max 768 Alphanumeric Characters (for fp) Max 20 numeric Characters (for card) max 21 characters= 20 numeric + comma (for card) **Note: -** For credential type = finger print, user should send finger print templates into hexadecimal.	Yes	-	This is the data of respective credential type, which is to be stored at given index number for the respective user ID.
duress	0 = normal Finger 1 = duress Finger	No	0= normal Finger	

This API supports setting credentials only for Read-Only cards.

Example

The following example illustrates how to add user credentials with the given set of values:

- ***id=1***
- ***credential-type=card***
- ***data=12345678901234567890*** (card number)

Sample request:

```
http://matrixserver/api.svc/v2/user?action=set-credential;id=1;credential-
type=card;data=12345678901234567890
```

Sample Response:

```
success: <response code> : successful
```

Deleting Credentials from Device

Delete a user's credentials from all the available panel or direct door devices on COSEC.

Action

action=del-credential

Syntax

```
http://<servername>/api.svc/v2/user?action=del-credential;<argument>=<value>...
```

Parameters

Table: Deleting Credentials from Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Id	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes No (Range = All)	-	This can have values mentioned in Range. If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value separated with coma. For example Id=1,2,….999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
credential-type	fp, card, palm, face	Yes	-	This is the type of credential. When credential-type = fp, should delete the fingerprints for Duress Finger (along with the parameter which is used to identify Duress Finger) same as per normal Finger.

This process is irreversible. Please proceed with caution.

This API supports Read-Only cards only.

Example

This example demonstrates a sample request to delete fingerprint credentials for a user with user ID “1” from all devices on the COSEC database.

Sample Request:

```
http://matrixserver/api.svc/v2/user?action=del-credential;id=1;credential-type=fp
```

Sample Response:

```
success: <response code> : successful
```

Searching a User

This shall be used to search for a particular user based on parameters like user ID, user name or reference code. This API will help third party applications to fetch user IDs based on username or reference code associated with a user. This user ID can then be used by the application.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/search-user?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled. ESS user can fetch details for any other ESS user.

Only those records will be fetched on which the login user has rights.

Parameters

Table: Searching a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
search-criteria	1: User ID 2: User Name 3: Reference Code 4: Integration Reference 5: Vehicle Registration No 6: Organization Name 7 : Branch Name 8 : Department Name 9 : Designation Name 10: Section Name 11: Category Name 12: Grade Name 13: Custom Group 1 Name 14: Custom Group 2 Name 15: Custom Group 3 Name	Yes	-	This specifies the criteria on which the search will be based.

Table: Searching a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
search-string	if search-criteria=2 (i.e. for user-name) minimum three characters. For other options, minimum one character.	Yes	-	The valid values for search-string will depend on the search-criteria. For ***search-criteria=1*** Allowed Characters: A-Z a-z 0-9 /_\\.@: For ***search-criteria=2*** Allowed Characters: A-Z a-z 0-9 -_. ()[] For ***search-criteria=3*** 1 to 99999999 (max 8 numeric digits) For ***search-criteria=4*** max 20 alphanumeric characters For ***search-criteria=5*** max 15 alphanumeric characters For ***search-criteria=6 to 15*** A-Z a-z 0-9 ( ) [ ] _ - .(full stop) / & ,(comma) @ '(single Quote) [space] max 45 characters
record-count	numeric	No	-	If **record-count=0**, or the parameter is not mentioned at all, all records will be returned for the mentioned search-string. If any other numeric value is mentioned, then only those number of records will be returned.

Table: Searching a User - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
filter	0 : All 1 : Active Users 2 : Inactive Users	No	0	Non mandatory field. Default value = 0. Ignore this field if passed when search-criteria!=1 or 2 i.e. User ID or User Name. **Conditions:** 1.Argument mentioned, but value not specified, then ignore this parameter. 2.If filter=0 is specified, return all users configured in the system. 3.If filter=1 is specified, return only active users configured in the system. 4.If filter=2 is specified, return only inactive users configured in the system

Response Fields

Table: Searching a User - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
User Name	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	-
Active	active	1 : Active 0 : Inactive	-
Organization Code	organization	-	-
Branch Code	branch	-	-
Designation Code	designation	-	-
Section Code	section	-	-
Department Code	department	-	-
Category Code	category	-	-

Table: Searching a User - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Grade Code	grade	-	-
Gender	gender	male, female, na	-
Blood Group	blood-group	na, a+, a-, b+, b-, ab+, ab-, o+, o-, A1+, A1-, A1B-, A1B+, A2-, A2+, A2B+, A2B-, B1+	-
Official Cell	official-cell	-	-
Official Phone	official-phone	-	-
Official Extension	official-extension	-	-
Official Email	official-email	-	-
Personal Cell	personal-cell	-	-
Personal Phone	personal-phone	-	-
Personal Email	personal-email	-	-
Reporting Group ID	rg_id	1-9999	-
Reporting Group Name	rg_name	-	-
In-Charge 1 ID	rg_incharge_1	-	-
In-Charge 1 Name	rg_incharge_1_name	-	-
In-Charge 2 ID	rg_incharge_2	-	-
In-Charge 2 Name	rg_incharge_2_name	-	-
In-Charge 3 ID	rg_incharge_3	-	-
In-Charge 3 Name	rg_incharge_3_name	-	-

Table: Searching a User - Response Fields

Field Name	Tag Name	Valid Values	Remarks
In-Charge 4 ID	rg_incharge_4	-	-
In-Charge 4 Name	rg_incharge_4_name	-	-
In-Charge 5 ID	rg_incharge_5	-	-
In-Charge 5 Name	rg_incharge_5_name	-	-
Vehicle Registration No	vehicle-reg-no	-	-
Reference Code	reference-code	1 to 99999999	This will give the code as specified in User Config > Basic > Optional > Reference ID
Organization Name	organization-name		Return Organization Name of User based on search criteria
Branch Name	branch-name		Return Branch Name of User based on search criteria
Designation Name	designation-name		Return Designation Name of User based on search criteria
Section Name	section-name		Return Section Name of User based on search criteria
Department Name	department-name		Return Department Name of User based on search criteria
Category Name	category-name		Return Category Name of User based on search criteria
Grade Name	grade-name		Return Grade Name of User based on search criteria
Custom Group 1 Code	customgroup1_code		
Custom Group 1 Name	customgroup1_Name		Return Custom Group 1 Name of User based on search criteria
Custom Group 2 Code	customgroup2_code		
Custom Group 2 Name	customgroup2_Name		Return Custom Group 1 Name of User based on search criteria

Table: Searching a User - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Custom Group 3 Code	customgroup3_code		
Custom Group 3 Name	customgroup3_Name		Return Custom Group 1 Name of User based on search criteria
Approval Policy ID	approval-policy	1-999	Return Approval Policy ID of the User
Approval Policy Name	approval-policy-name		Return Approval Policy Name of the User

Example

This example demonstrates a sample request to search a user

Sample Request:

```
http://192.168.104.12/cosec/api.svc/v2/search-user?action=get;search-criteria=1;search-string=1
```

Sample Response:

```
user-id|user-name|short-
name|active|organization|branch|designation|section|department|category|grade|gender|blood-
group|official-cell|official-phone|official-extension|official-email|personal-cell|personal-
phone|personal-
email|rg_id|rg_name|rg_incharge_1|rg_incharge_1_name|rg_incharge_2|rg_incharge_2_name|vehicle-reg-
no|reference-code|organization-name|branch-name|designation-name|section-name|department-name|category-
name|grade-
name|customgroup1_code|customgroup1_name|customgroup2_code|customgroup2_name|customgroup3_code|customgr
oup3_name|approval-policy|approval-policy-name
1|Chirag|Chirag|1|ORG1|BRC1|DSG1|SEC1|DPT1|CTG1|GRD1|NA|NA|||||||1|QA
Group|101|Khushbu||||1|Organization-1|Branch-1|Designation-1|Section-1|Department-1|Category-1|Grade-
1|CG1|Custom Group 1|CG2|Custom Group 2|CG3|Custom Group 3||
101|Khushbu|Khushbu|1|ORG1|BRC1|DSG1|SEC1|DPT1|CTG1|GRD1|NA|NA|||||||sheetal.raval@matrixrd.org|||||||
101|Organization-1|Branch-1|Designation-1|Section-1|Department-1|Category-1|Grade-1|CG1|Custom Group
1|CG2|Custom Group 2|CG3|Custom Group 3||
102|Shruti Patki|Shruti
Patki|1|ORG1|BRC1|DSG1|SEC1|DPT1|CTG1|GRD1|NA|NA|||||||||||||||1689|Organization-1|Branch-
1|Designation-1|Section-1|Department-1|Category-1|Grade-1|CG1|Custom Group 1|CG2|Custom Group
2|CG3|Custom Group 3||
1687|Aditi Ajay Gupta_Ahmedabad|Aditi Ajay
Gupt|1|ORG1|BRC1|DSG1|SEC1|DPT1|CTG1|GRD1|NA|NA|919429063421||||919687624826||aditi.gupta@matrixrd.org|
1|QA Group|101|Khushbu||||1687|Organization-1|Branch-1|Designation-1|Section-1|Department-1|Category-
1|Grade-1|CG1|Custom Group 1|CG2|Custom Group 2|CG3|Custom Group 3||
JPC1|Darshna|Darshna|1|ORG1|BRC1|DSG1|SEC1|DPT1|CTG1|GRD1|NA|NA|||||||1|QA
Group|101|Khushbu||||102|Organization-1|Branch-1|Designation-1|Section-1|Department-1|Category-1|Grade-
1|CG1|Custom Group 1|CG2|Custom Group 2|CG3|Custom Group 3||
<EOT>
```

Fetching Reporting Group Members

This API can get a list of all the members assigned to the logged-in user's reporting group. The login user must be a reporting in-charge to call this API.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/group-members?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled
ESS	Enabled

Parameters

Table: Fetching Reporting Group Members - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 Char.	Yes	-	The Reporting In-charge's User ID. **Note:** Returns only those records on which the Login user has rights.
search-by	0 : User Id 1: User Name	No	-	Used to search for a particular member in the user's reporting group.
search-string	one/three characters	Yes (Only if ***search-by*** argument is provided)	-	A set of characters to identify the user, based on username or user ID. e.g. : http://matrix-server/api.svc/v2/ group-members?action=get;userid=1234;search-by=1;search-string=kma
record-count	numeric	No	-	To specify the number of records that should be returned. If ***record-count=0***, or the parameter is not mentioned, then all the records will be returned. If any other numeric value is mentioned then only those number of records will be returned.

Table: Fetching Reporting Group Members - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
filter	0 : All 1 : Active Users 2 : Inactive Users	No	0	Non mandatory field. Default value = 0. **Conditions:** 1.Argument mentioned, but value not specified, then ignore this parameter. 2.If filter=0 is specified, return all users configured in the system. 3.If filter=1 is specified, return only active users configured in the system. 4.If filter=2 is specified, return only inactive users configured in the system.

Response Fields

Table: Fetching Reporting Group Members - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reporting Group Id	group-id	1-9999	Reporting group ID for which the logged in user is reporting group in-charge.
Reporting Group Name	group-name	upto 30 characters	Reporting group Name for which the logged in user is reporting group in-charge.
User ID	user-id	upto 15 characters	Allowed characters A-Z a-z 0-9 /_\\.@:
User Name	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	upto 15 alphanumeric characters	-

The system will allow all the configured RIC's in the Reporting Group for fetching the information.

CHAPTER 6

Enterprise Structure

The *Enterprise Structure APIs* allow the user to retrieve, set, as well as update data related to various groups as per the requirements of an enterprise. COSEC identifies the following enterprise groups:

- Organization
- Branch
- Department
- Designation
- Section
- Category
- Grade

The generic syntax for all *Enterprise Structure API* requests is stated below.

Syntax

```
http://<servername>/api.svc/v2/<enterprise-group>?action=<value>;<argument>=<value>...
```

Here, the request-type (<enterprise-group>) will depend on the enterprise group for which the API is being called.

For **Organization**: *<enterprise-group>=organization*
For **Branch**: *<enterprise-group>=branch*
For **Department**: *<enterprise-group>=department*
For **Designation**: *<enterprise-group>=designation*
For **Section**: *<enterprise-group>=section*
For **Category**: *<enterprise-group>=category*
For **Grade**: *<enterprise-group>=grade*

For e.g.:

For ***Organization***, the API URL will resemble:

```
http://<servername>/api.svc/v2/organization?action=<value>;<argument>=<value>...
```

Similarly, for ***Branch***, send:

```
http://<servername>/api.svc/v2/branch?action=<value>;<argument>=<value>...
```

If an enterprise group is renamed on the COSEC system (say, “organization” renamed as “company”), the <request-type> used in the URL should still use the original group name (i.e. “organization”) as defined on COSEC, irrespective of the renaming.

For each of the Enterprise Groups, COSEC supports the following APIs:

- Obtaining Enterprise Group Details
- Adding an Enterprise Group
- Updating Enterprise Group Details
- Obtaining Custom Group details
- Adding Custom Group details
- Updating Custom Enterprise Group

User Rights

User	Rights
System Account	Enabled. User must have rights on the following pages, depending on the type of enterprise group to be accessed (COSEC Web Application): Enterprise Structure > Organization Enterprise Structure > Branch Enterprise Structure > Department Enterprise Structure > Designation Enterprise Structure > Section Enterprise Structure > Category Enterprise Structure > Grade
ESS	Enabled if user has ESS rights enabled.

Obtaining Enterprise Group Details

User can fetch the details of an enterprise group by specifying the group name in the <enterprise-group> part of the URL and specifying the group ID. For example, for an organization, the group ID will be the Organization ID.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/<enterprise-group>?action=get;<argument>=<value>...
```

Parameters

Table: Obtaining Enterprise Group Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1-999999 **Note:** This is the minimum to maximum range. In case of a system with a defined ID range 1-50, valid range shall be 1-50.	No	All	This is the ID of the specific enterprise group. Multiple IDs can be selected, each separated by “, (comma)” e.g.:”1, 3, 7, 9…” Or select a range of IDs E.g.”1-50”.
creation-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the Enterprise Group creation date range. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if creation-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Table: Obtaining Enterprise Group Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for Enterprise Group details. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Obtaining Enterprise Group Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
ID	id	1-999999	-
Code	code	6 characters. (max)	Allowed Characters A-Z a-z 0-9 _
Name	name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	15 characters	Allowed Characters A-Z a-z 0-9 -_. ()
Description	description	250 characters (max).	Allowed Characters A-Z a-z 0-9 _.,()[]:@!$*+/\-
default	default	0 : not default 1 : set as default	-
Wage Level	wage-level	Max 4 characters	Returned only for “Designation” group. This field is returned only if Roster license is available.

Table: Obtaining Enterprise Group Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
color-code	color-code	6 hex values string. Range from 000000 – FFFFFF	Returned only for “Department” group. This argument is valid only if Roster license is available.
Creation Date	creation-date	dd/mm/yyyy hh:mm:ss	This defines the Enterprise Group creation date.
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the Enterprise Group details were last modified.

Example

Fetching an organization by ID ‘7’.

Sample Request:

```
http://matrixserver/api.svc/v2/organization?action=get;id=7
```

Sample Response:

```
id|code|name|short-name|description|default
7|APEX|Apex Industries Pvt. Ltd.|Apex Industries||0
<EOT>
```

Adding an Enterprise Group

User can add a new Organization, Branch, Department etc. and set its configuration on the COSEC system.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/<enterprise-group>?action=set;<argument>=<value>...
```

Parameters

Table: Adding an Enterprise Group - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
code	6 Characters. (max) Duplicate Code is not allowed Allowed Characters A-Z a-z 0-9 _	Yes	-	The Enterprise Group Code.
name	45 characters Allowed Characters A-Z a-z 0-9 -_. ()[]	Yes	-	The Enterprise Group name. If valid characters are more than 45; then it will be ignored.
short-name	15 characters Allowed Characters A-Z a-z 0-9 -_. ()	No	By default, first 15 characters of Name will be considered.	For short-name. If these characters contain “[]”, the short-name becomes invalid.
description	250 characters (max) Allowed Characters A-Z a-z 0-9 _.,()[]:@!$*+/-	No	Stored as blank, if no value supplied.	A description about the Enterprise Group, if required.
default	0 (not default) or 1 (set as default)	No	Not default	To specify whether the group is a default group or not.
color-code	6 hex values string. Range from 000000 – FFFFFF	No	-	This argument must be supplied only for the “Department” group. This argument is valid only if Roster license is available else this parameter can be ignored.
wage-level	Valid wage level ID, as defined/created in cosec web roster. Max 4 chars	Yes (Only for “Designation” group and Roster License)	-	This argument must be supplied only for “Designation” group. This field is mandatory only if roster license is available. Else this field can be ignored.

Updating Enterprise Group Details

Send a request to update the configuration for an existing Organization, Branch, Department etc. on the COSEC database.

Action

action=update

Syntax

```
http://<servername>/api.svc/v2/<enterprise-group>?action=update;<argument>=<value>...
```

Parameters

Table: Updating Enterprise Group Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1-999999	Yes	-	This is the Enterprise Group ID. The ID is system-generated everytime a new group is defined.
code	6 Characters. (max) Duplicate Code is not allowed Allowed Characters A-Z a-z 0-9 _	Yes	-	The Enterprise Group Code.
name	45 characters Allowed Characters A-Z a-z 0-9 -_. ()[]	Yes	-	The Enterprise Group name. If valid characters are more than 45; then it will be ignored.
short-name	15 characters Allowed Characters A-Z a-z 0-9 -_. ()	No	By default, first 15 characters of Name will be considered.	For short-name. If these characters contain “[]”, the short-name becomes invalid.
description	250 characters (max) Allowed Characters A-Z a-z 0-9 _.,()[]:@!$*+/-	No	Stored as blank, if no value supplied.	To edit the Enterprise Group description.
default	0 (not default) or 1 (set as default)	No	Not default	To specify whether the group is a default group or not.
color-code	6 hex values string. Range from 000000 – FFFFFF	No	-	This argument must be supplied only for the “Department” group. This argument is valid only if Roster license is available else this parameter can be ignored.

Table: Updating Enterprise Group Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
wage-level	Valid wage level ID, as defined/created in cosec web roster. Max 4 chars	Yes (Only for “Designation” group and Roster License)	-	This argument must be supplied only for “Designation” group. This field is mandatory only if roster license is available. Else this field can be ignored.

Obtaining Custom Group details

This API is used to fetch the list of custom enterprise group's ID and its name. You can get the details of Custom Group1, Custom Group2, Custom Group3.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/custom-group-1?action=get;<argument>=<value>...
```

*For Custom group2 and Custom group3 update the syntax with **custom-group-2** and **custom group-3** respectively.*

Parameters

Table: Getting Custom Enterprise Group - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Id	1-999999	Yes	all	This is the min to max range. In case of a system with only 1-50 id defined then valid range shall be 1-50. The user can select multiple id, each separated by ", (comma)" e.g.:"1, 3, 7, 9" or a range of id E.g."1-50".
creation-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the Custom Enterprise Group creation date range. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if creation-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Table: Getting Custom Enterprise Group - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for Custom Enterprise Group details. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Getting Custom Enterprise Group - Response Fields

Field Name	Tag Name	Valid Values	Remarks
ID	id	1-999999	-
Code	code	6 characters. (max)	Allowed Characters A-Z a-z 0-9 _
Name	name	45 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	15 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Description	description	250 characters (max).	Allowed Characters A-Z a-z 0-9 _.,()[]:@!$*+/-
default	default	0 : not default 1 : set as default	-
Creation Date	creation-date	dd/mm/yyyy hh:mm:ss	This defines the Custom Enterprise Group creation date.

Table: Getting Custom Enterprise Group - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the Custom Enterprise Group details were last modified.

Adding Custom Group details

This API is used to add the custom enterprise group. You can add Custom Group1, Custom Group2 and Custom Group3.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/custom-group-1?action=set;<argument>=<value>...
```

*For Custom group2 and Custom group3 update the syntax with **custom-group-2** and **custom group-3** respectively.*

Parameters

Table: Adding an Enterprise Group - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
name	45 characters Allowed Characters A-Z a-z 0-9 -_. ()[] [space]	Yes	-	The Custom Enterprise Group name.
code	6 Characters. (max) Duplicate Code is not allowed Allowed Characters A-Z a-z 0-9 _	Yes	-	The Custom Enterprise Group Code.
short-name	15 characters Allowed Characters A-Z a-z 0-9 -_. ()	No	By default, first 15 characters of Name will be considered.	For short-name. If these characters contain “[]”, the short-name becomes invalid.
description	250 characters (max) Allowed Characters A-Z a-z 0-9 _.,()[]:@!$*+/-	No	Stored as blank, if no value supplied.	A description about the Enterprise Group, if required.
default	0 (not default) or 1 (set as default)	No	Not default	To specify whether the group is a default group or not.

Updating Custom Enterprise Group

This API is used to update the custom enterprise group. You can get the details of Custom Group1, Custom Group2, Custom Group3.

Action

action= update

Syntax

```
http://<servername>/api.svc/v2/custom-group-1?action=update;<argument>=<value>...
```

*For Custom group2 and Custom group3 update the syntax with **custom-group-2** and **custom group-3** respectively.*

Parameters

Same as *Adding Custom Group details*.

CHAPTER 7

Time and Attendance

This section covers all APIs pertaining to *Time and Attendance* data of COSEC users. These are as follows:

Get APIs

- *Getting Daily Attendance Data*
- *Getting Monthly Attendance Data*
- *Getting Attendance Correction Details*
- *Getting Short Leave/Official IN-OUT Entries*
- *Getting Attendance Records for Authorization*
- *Getting Event Records for Authorization*
- *Getting Overtime/C-OFF Authorization Records*
- *In/Out Reasons*
- *Getting Shift Wise Count*
- *Getting Site Wise Count*
- *Getting Shift-Site Wise Count*
- *Getting Site Wise User Detail*
- *Getting Overtime Application*
- *Short Leave/Official IN-OUT Application*

Set APIs

- *Applying for Attendance Correction*
- *Approving Attendance Correction*
- *Making Short Leave/Official IN-OUT Entries*

- *Short Leave/Official In-Out Authorization*
- *Authorizing Attendance*
- *Authorizing Events*
- *Authorizing Overtime/C-OFF*
- *Setting Overtime Application*
- *Overtime Approval*
- *Shift Change Approval*

Update API

- *Updating Overtime Application*

Delete API

- *Deleting Attendance Correction Applications*
- *Deleting Overtime Application*

Command API

- *Processing Monthly Attendance*

Shift Change APIs

- *Getting Shift Change Application*
- *Setting Shift Change Application*
- *Deleting Shift Change Application*

Getting Daily Attendance Data

This API allows the user to fetch daily attendance data for employees over a specified time duration and for specific user groups.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/attendance-daily?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled
ESS	Enabled

Parameters

Table: Getting Daily Attendance Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Field-name	The list of fields is mentioned in the Response Fields table.	No	-	If “field-name” is not mentioned, then configured “field-name” for the respective template in ‘API Data Template’ will be fetched. User can select multiple “field-name”, each separated by “, (comma)” e.g.:”userid, username, orgid…”
date-range	If filter-date-by =0, then Valid Value = ddmmyyyy- ddmmyyyy If filter-date-by = 1, then Valid Value = ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	If date-range is not mentioned, then Default Value = Current Day	This is the date range for which Daily Attendance data is to be fetched. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Table: Getting Daily Attendance Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
range	all organization branch department designation section category grade custom-group-1 custom-group-2 custom-group-3 user		All, if range is not mentioned, then consider it to be "all" by default.	System support mentioned ranges.
Id	1 to 999 (for all the ranges except all & user) 15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@: Note: This is the min to max range. In case of a system with only 1-50 id defined then valid range shall be 1-50.	Yes, if mentioned range is other than all.		Each range (except all) shall have specific id. System should allow user to select multiple id, each separated by ", (comma)" e.g.:"1, 3, 7, 9…" Or Select a range of id E.g."1-50".
shift-end-elapsed	HH:MM-HH:MM	No	-	If mentioned, only those records will be shown for which: [API Request Date Time - Range(to)] <= Working Shift End Date Time <= [API Request Date Time - Range(from)]
return-field-name	0: display name (As per export template config) 1: actual field (As per view column) 2: both	No	-	If “return-field-name” is not mentioned the response will be as per existing system (i.e. 0 = display name)
Active	0 : inactive 1: active 2:all	No	1	Return users as per their active flag status.
filter-date-by	0 = Process Date 1 = Process Date Updated	No	0 If parameter is not mentioned the response will be as per existing system.	

Response Fields

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	USERID	15 characters.	-
User Name	USERNAME	45 characters	-

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Short Name	short_name	max 15 alphanumeric characters	-
Integration Reference	integration_reference	max 20 alphanumeric characters	-
Organization ID	ORGID	1-999999	-
Branch ID	BRCID	1-999999	-
Department ID	DPTID	1-999999	-
Section ID	SECID	1-999999	-
Category ID	CTGID	1-999999	-
Grade ID	GRDID	1-999999	-
Designation ID	DSGID	1-999999	-
Reference No.	ADLUSERID	numeric (8 digits)	-
Gender	GENDER	M : Male F: Female NA : Not available	-
Marital Status	MRTLSTAT	M : Married U : Unmarried NA : Not available	-
Birth Date	BIRTHDT	dd/mm/yyyy	-
Joining Date	JOINDT	dd/mm/yyyy	-
Leaving Date	LEAVEDT	dd/mm/yyyy	-
Process Date	PROCESSDATE	dd/mm/yyyy	-
Process Date	PROCESSDATE_D	mm/dd/yy HH:MM:SS	-
Process Date Updated	PROCESSDATE_U	mm/dd/yy HH:MM:SS	-
1st Punch	PUNCH1	dd/mm/yyyy HH:MM	-
1st Punch	PUNCH1_DATE	dd/mm/yyyy	-
1st Punch	PUNCH1_TIME	HH:MM	-
2nd Punch	PUNCH2	dd/mm/yyyy HH:MM	-
2nd Punch	PUNCH2_DATE	dd/mm/yyyy	-
2nd Punch	PUNCH2_TIME	HH:MM	-
3rd Punch	PUNCH3	dd/mm/yyyy HH:MM	-
3rd Punch	PUNCH3_DATE	dd/mm/yyyy	-
3rd Punch	PUNCH3_TIME	HH:MM	-
4th Punch	PUNCH4	dd/mm/yyyy HH:MM	-
2nd Punch	PUNCH2_TIME	HH:MM	-
4th Punch	PUNCH4_DATE	dd/mm/yyyy	-
4th Punch	PUNCH4_TIME	HH:MM	-
5th Punch	PUNCH5	dd/mm/yyyy HH:MM	-
5th Punch	PUNCH5_DATE	dd/mm/yyyy	-
5th Punch	PUNCH5_TIME	HH:MM	-

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
6th Punch	PUNCH6	dd/mm/yyyy HH:MM	-
6th Punch	PUNCH6_DATE	dd/mm/yyyy	-
6th Punch	PUNCH6_TIME	HH:MM	-
7th Punch	PUNCH7	dd/mm/yyyy HH:MM	-
7th Punch	PUNCH7_DATE	dd/mm/yyyy	-
7th Punch	PUNCH7_TIME	HH:MM	-
8th Punch	PUNCH8	dd/mm/yyyy HH:MM	-
8th Punch	PUNCH8_DATE	dd/mm/yyyy	-
8th Punch	PUNCH8_TIME	HH:MM	-
9th Punch	PUNCH9	dd/mm/yyyy HH:MM	-
9th Punch	PUNCH9_DATE	dd/mm/yyyy	-
9th Punch	PUNCH9_TIME	HH:MM	-
10th Punch	PUNCH10	dd/mm/yyyy HH:MM	-
10th Punch	PUNCH10_DATE	dd/mm/yyyy	-
10th Punch	PUNCH10_TIME	HH:MM	-
11th Punch	PUNCH11	dd/mm/yyyy HH:MM	-
11th Punch	PUNCH11_DATE	dd/mm/yyyy	-
11th Punch	PUNCH11_TIME	HH:MM	-
12th Punch	PUNCH12	dd/mm/yyyy HH:MM	-
12th Punch	PUNCH12_DATE	dd/mm/yyyy	-
12th Punch	PUNCH12_TIME	HH:MM	-
Special Function 1	SPFID1	1-10	1=Official In, 2=Official Out, 3=ShortLeave In, 4=ShortLeave Out, 5=Regular In, 6=Regular Out, 7=Lunch In, 8=Lunch Out, 9=Overtime In, 10=Overtime Out
Special Function 2	SPFID2	1-10	Same as above
Special Function 3	SPFID3	1-10	Same as above
Special Function 4	SPFID4	1-10	Same as above
Special Function 5	SPFID5	1-10	Same as above
Special Function 6	SPFID6	1-10	Same as above
Special Function 7	SPFID7	1-10	Same as above
Special Function 8	SPFID8	1-10	Same as above
Special Function 9	SPFID9	1-10	Same as above
Special Function 10	SPFID10	1-10	Same as above

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Special Function 11	SPFID11	1-10	Same as above
Special Function 12	SPFID12	1-10	Same as above
Scheduled Shift	SCHEDULESHIFT	Two Character Code	-
Work Shift	WORKINGSHIFT	Two Character Code	-
Early In	EARLYIN	minutes	-
Early In	EARLYIN_HHMM	HH:MM	-
Late In	LATEIN	minutes	-
Late In	LATEIN_HHMM	HH:MM	-
Early Out	EARLYOUT	minutes	-
Early Out	EARLYOUT_HHMM	HH:MM	-
Overstay	OVERSTAY	minutes	-
Overstay	OVERSTAY_HHMM	HH:MM	-
Overtime	OVERTIME	minutes	-
Overtime	OVERTIME	HHHHHH:MM	-
Work time	WORKTIME	minutes	-
Work time	WORKTIME_HHMM	HH:MM	-
First Half	FIRSTHALF	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes> as configured in COSEC
Second Half	SECONDHALF	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes> as configured in COSEC
Manual OT Credit	MANUALOVERTIME_CREDIT	minutes	-
Manual OT Credit	MANUALOVERTIME_CREDIT_HHMM	HH:MM	-
Manual OT Debit	MANUALOVERTIME_DEBIT	minutes	-
Manual OT Debit	MANUALOVERTIME_DEBIT_HHMM	HH:MM	-
Authorized OT	AUTHORIZEDOVERTIME	minutes	-
Authorized OT	AUTHORIZEDOVERTIME	HHHHHH:MM	-
OT Authorization Date	OVERTIMEAUTHORIZATIONDATE	dd/mm/yyyy	-
Manual C-Off Credit	MANUALCOFF_CREDIT	minutes	-

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Manual C-Off Credit	MANUALCOFF_CREDIT_HHMM	HH:MM	-
Manual C-Off Debit	MANUALCOFF_DEBIT	minutes	-
Manual C-Off Debit	MANUALCOFF_DEBIT_HHMM	HH:MM	-
Authorized C-Off	AUTHORIZEDCOFF	minutes	-
Authorized C-Off	AUTHORIZEDCOFF_HHMM	HH:MM	-
Authorized C-Off Date	AUTHORIZEDCOFFDATE	dd/mm/yyyy	-
Availed C-Off	AVAILEDCOFF	minutes	-
Availed C-Off	AVAILEDCOFF_HHMM	HH:MM	-
Encashed C-Off	ENCASHEDCOFF	minutes	-
Encashed C-Off	ENCASHEDCOFF_HHMM	HH:MM	-
Lunch Duration	LUNCHDURATION	minutes	-
Lunch Duration	LUNCHDURATION_HHMM	HH:MM	-
Late In Lunch	LATEINLUNCH	minutes	-
Late In Lunch	LATEINLUNCH_HHMM	HH:MM	-
Early Out Lunch	EARLYOUTLUNCH	minutes	-
Early Out Lunch	EARLYOUTLUNCH_HHMM	HH:MM	-
WO and PH	WEEKOFFANDHOLIDAY	0 : status is not WO/PH 1 : status is WO/PH	-
Official Duration	OFFICIALDURATION	minutes	-
Personal Duration	PERSONALDURATION	minutes	-
Shift Start	SHIFTSTART	HH:MM	-
Shift End	SHIFTEND	HH:MM	-
Lunch Start	LUNCHSTART	HH:MM	-
Lunch End	LUNCHEND	HH:MM	-
Out Punch	OUTPUNCH	mm/dd/yyyy HH:MM	-
Out Punch	OUTPUNCH_DATE	mm/dd/yyyy	-
Out Punch	OUTPUNCH_TIME	HH:MM	-
Out Special Function	OUTSPFID	1-10	Format same as SPFID1-SPFID12
Site ID	SITEID	1-999	-
Minimum Work hours for Full day	MINWRKHRSFDAY	minutes	-
Minimum Work hours for Full day	MINWRKHRSFDAY_HHMM	HH:MM	-
Minimum Work hours for Half Day	MINWRKHRSHDAY	minutes	-
Minimum Work hours for Half day	MINWRKHRSHDAY_HHMM	HH:MM	-

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Shift Type	SHIFTTYPE	0,1,2	0 : Normal 1 : Field Break 2 : Rest Day
Summary	SUMMARY	50 alpha-numeric characters(max)	The summary statement for the attendance date. Eg. : Absent due to late-in
Day Status	DAYSTATUS	0 : WO 1 : PH 2 : WO/PH 3 : Normal	-
Net Work Hours	NETWORKHRS	HHHHHH:MM	Calculated as per Net-work hours policy defined for the user.
Adjusted work hours	ADJUSTEDHRS	HH:MM	The overtime adjustment done in month process for less work hours correction.
In/Out Reason for Punch 1	punch_reason1	30 alphanumeric characters	Return If available.Else blank. From V10R2, Manually entered reasons will also be considered.
In/Out Reason for Punch 2	punch_reason2	30 alphanumeric characters	-
In/Out Reason for Punch 3	punch_reason3	30 alphanumeric characters	-
In/Out Reason for Punch 4	punch_reason4	30 alphanumeric characters	-
In/Out Reason for Punch 5	punch_reason5	30 alphanumeric characters	-
In/Out Reason for Punch 6	punch_reason6	30 alphanumeric characters	-
In/Out Reason for Punch 7	punch_reason7	30 alphanumeric characters	-
In/Out Reason for Punch 8	punch_reason8	30 alphanumeric characters	-
In/Out Reason for Punch 9	punch_reason9	30 alphanumeric characters	-
In/Out Reason for Punch 10	punch_reason10	30 alphanumeric characters	-
In/Out Reason for Punch 11	punch_reason11	30 alphanumeric characters	-
In/Out Reason for Punch 12	punch_reason12	30 alphanumeric characters	-
Actual OT for OT1	OVERTIME1	minutes	Value of actual overtime
Actual OT for OT2	OVERTIME2	minutes	Value of actual overtime
Actual OT for OT3	OVERTIME3	minutes	Value of actual overtime
Actual OT for OT4	OVERTIME4	minutes	Value of actual overtime
Actual OT for OT5	OVERTIME5	minutes	Value of actual overtime
Authorized OT for OT1	AUTHOT1	minutes	Value of authorized overtime
Authorized OT for OT2	AUTHOT2	minutes	Value of authorized overtime
Authorized OT for OT3	AUTHOT3	minutes	Value of authorized overtime
Authorized OT for OT4	AUTHOT4	minutes	Value of authorized overtime

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT for OT5	AUTHOT5	minutes	Value of authorized overtime
Custom Field 1-10	field1-10	upto 100 characters	Valid Characters : A-Z a-z 0-9 space [ ] ( ) . - _
Short Leave Count	short_leave_count	0-99	Availed Short Leave Count
Short Leave Hours	short_leave_hours	HH:MM	Availed Short Leave Duration
Official Hours	official_hours	HH:MM	Availed Official Duration
Organization Name	organization_name	40 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Branch Name	branch_name	40 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Designation Name	designation_name	30 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Section Name	section_name	30 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Department Name	department_name	30 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Category Name	category_name	30 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Grade Name	grade_name	30 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Custom Group 1 ID	CustomGroup1ID	1-999999	

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Custom Group 2 ID	CustomGroup2ID	1-999999	
Custom Group 3 ID	CustomGroup3ID	1-999999	
Custom Group 1 Name	CustomGroup1_Name	45 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Custom Group 2 Name	CustomGroup2_Name	45 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Custom Group 3 Name	CustomGroup3_Name	45 Characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Full Name	full-name	max 200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ ' (single quote) [Space] When Multi Language is On, Invalid Character set = Set3
Hourly Paid Leave Hours	AVAILEDPLHOURS	HH:MM	Defines the total Availed Hourly Paid Leave Hours for that particular attendance day
Hourly Unpaid Leave Hours	AVAILEDULHOURS	HH:MM	Defines the total Availed Hourly Unpaid Leave Hours for that particular attendance day

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Door ID for Punch1	DID1	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch1	MID1	5 numeric digits 1-65535	Device mid
Device Type for Punch1	DTYPE1	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21=ARGO FACE
Door ID for Punch2	DID2	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch2	MID2	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch2	DTYPE2	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch3	DID3	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch3	MID3	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch3	DTYPE3	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch4	DID4	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch4	MID4	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch4	DTYPE4	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch5	DID5	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch5	MID5	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch5	DTYPE5	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch6	DID6	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch6	MID6	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch6	DTYPE6	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch7	DID7	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch7	MID7	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch7	DTYPE7	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch8	DID8	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch8	MID8	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch8	DTYPE8	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch9	DID9	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch9	MID9	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch9	DTYPE9	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch10	DID10	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch10	MID10	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch10	DTYPE10	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch11	DID11	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch11	MID11	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch11	DTYPE11	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch12	DID12	1-255 (device-type = 8) 0-99 (All Others)	For Panels : 0 For Direct Doors : 1 For Panel Doors : As configured
Master Controller ID for Punch12	MID12	5 numeric digits 1-65535	Device mid

Table: Getting Daily Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch12	DTYPE12	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE

Example1

Following are some sample cases for this API:

Sample Request:

To fetch attendance data for the current date (default):

```
http://192.168.104.13/cosec/api.svc/v2/attendance-daily?action=get;
```

Sample Response:

```
UserID|USER NAME|ProcessDate|Punch1|Punch2|WorkingShift|LateIn|EARLY OUT|Overtime|WorkTime
vegaworker|vegaworker|02/01/2018|01/01/2018 22:23:38||GS||||
<EOT>
```

Example2

Sample Request:

To fetch daily-attendance records for a specified date-range and for a particular user..

```
http://192.168.104.11/cosec/api.svc/v2/attendance-daily?action=get;date-range=01102016-
05102016;range=user;Id=1690
```

Sample Response:

```
UserID|UserName|Punch1|Punch2|ProcessDate|WorkingShift|LateIn|EarlyOut|Overtime|WorkTime|CustomGroup1_Name|Cust
omGroup2_Name|CustomGroup3_Name
1690|Priyank Bora|||01/10/2016||0|0|0|0|Custom Group 1|Custom Group 2|custom grp 3.2
1690|Priyank Bora|||02/10/2016||0|0|0|0|Custom Group 1|Custom Group 2|custom grp 3.2
1690|Priyank Bora|||03/10/2016||0|0|0|0|Custom Group 1|Custom Group 2|custom grp 3.2
1690|Priyank Bora|||04/10/2016||0|0|0|0|Custom Group 1|Custom Group 2|custom grp 3.2
1690|Priyank Bora|||05/10/2016||0|0|0|0|Custom Group 1|Custom Group 2|custom grp 3.2
<EOT>
```

Example3

Sample Request:

To fetch specific fields in response using the ***field-name*** optional argument.

```
http://matrixserver/api.svc/v2/attendance-daily?action=get;field-name=userid,firsthalf,secondhalf;date-
range=01012013-02012013
```

Sample Response:

```
UserID|firsthalf|secondhalf
1|WO|WO
10|WO|WO
1001|AB|AB
1002|AB|AB
1003|AB|PR
1004|AB|AB
1007|AB|AB
1008|AB|AB
1009|AB|AB
1010|AB|AB
1011|AB|AB
1012|AB|AB
1015|AB|AB
1016|PR|PR
102|AB|AB
1020|AB|AB
1022|AB|AB
1028|PR|PR
1030|AB|AB
<EOT>
```

Getting Monthly Attendance Data

This API allows the user to obtain attendance data for employees for a specific month and for specific user groups in a specific format.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/attendance-monthly?action=get;<argument>=<value>...
```

User Rights

Same as *Getting Daily Attendance Data.*

Parameters

Table: Getting Monthly Attendance Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
field-name	The list of fields is mentioned in response table.	No	-	If “field-name” is not mentioned, then configured “field-name” for the respective template in ‘API Data Template’ will be fetched. User can select multiple “field-name”, each separated by “, (comma)” e.g.:”userid, username, orgid…”
month-year	the format shall be mmyyyy	No	Current Month and Current Year	The Month and Year for which the data is to be fetched.
range	all organization branch department designation section category grade custom-group-1 custom-group-2 custom-group-3 user	No	All	Range of users for whom data is to be fetched.

Table: Getting Monthly Attendance Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1 to 999 (for all the ranges except all & user) 15 alphanumeric chars (for user) A-Z a-z 0-9 / _ \\ . @ : ? , - ~ ! $ ` * + **Note:** This is the min to max range. In case of a system with only 1-50 id defined then valid range shall be 1-50.	Yes, if mentioned range is other than 'All'.	-	Each range (except all) shall have specific id. System should allow user to select multiple id, each separated by ", (coma)" e.g.:"1, 3, 7, 9…" Or Select a range of id E.g."1-50". **Note**: - ID is mandatory, if mentioned range is other than all.
return-field-name	0: display name (As per export template config) 1: actual field (As per view column) 2: both	No	-	If "return-field-name" is not mentioned the response will be as per existing system (i.e. 0 = display name)
Active	0 : inactive 1: active 2:all	No	1	Return users as per their active flag status.

Response Fields

Table: Getting Monthly Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	USERID	15 characters.	Allowed Characters : 15 alphanumeric Char. A to Z a to z 0 to 9 / _ \\ . @ : ? , - ~ ! $ ` * +
User Name	USERNAME	45 characters	-
Short Name	short_name	max 15 alphanumeric characters	-
Integration Reference	integration_reference	max 20 alphanumeric characters	-
Organization ID	ORGID	1-999999	-
Branch ID	BRCID	1-999999	-
Department ID	DPTID	1-999999	-
Section ID	SECID	1-999999	-
Category ID	CTGID	1-999999	-
Grade ID	GRDID	1-999999	-
Designation ID	DSGID	1-999999	-
Reference No.	ADLUSERID	numeric (8 digits)	-

Table: Getting Monthly Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Gender	GENDER	M : Male F: Female NA : Not available	-
Marital Status	MRTLSTAT	M : Married U : Unmarried NA : Not available	-
Birth Date	BIRTHDT	dd/mm/yyyy	-
Joining Date	JOINDT	dd/mm/yyyy	-
Leaving Date	LEAVEDT	dd/mm/yyyy	-
Process Year	PYEAR	yyyy	-
Process Month	PMONTH	mm	
Present Days	PRDAYS	Numeric	Multiples of 0.5
Absent Days	ABDAYS	Numeric	Multiples of 0.5
Week-Off Days	WODAYS	Numeric	Multiples of 0.5
Public Holiday Days	PHDAYS	Numeric	Multiples of 0.5
Paid Leave Days	PLDAYS	Numeric	Multiples of 0.5
Tour Days	TRDAYS	Numeric	Multiples of 0.5
Unpaid Leave Days	ULDAYS	Numeric	Multiples of 0.5
Lay Off Days	LODAYS	Numeric	Multiples of 0.5
Early In	EARLYIN	minutes	-
Early In	EARLYIN_HHMM	HH:MM	-
Late In	LATEIN	minutes	-
Late In	LATEIN_HHMM	HH:MM	-
Early Out	EARLYOUT	minutes	-
Early Out	EARLYOUT_HHMM	HH:MM	-
Overstay	OVERSTAY	minutes	-
Overstay	OVERSTAY_HHMM	HH:MM	-
Total Overtime	OVERTIME	minutes	-
Total Overtime hrs.	OVERTIME	HHHHHH:MM	-
Worktime	WORKTIME	minutes	-
Worktime hrs.	WORKTIME_HHMM	HH:MM	-
Manual OT Credit	MANOTCR	minutes	-
Manual OT Credit	MANOTCR_HHMM	HH:MM	-
Manual OT Debit	MANOTDB	minutes	-
Manual OT Debit	MANOTDB_HHMM	HH:MM	-
Authorized OT	AUTHOT	minutes	-
Authorized OT	AUTHOT	HHHHHH:MM	-
Manual COFF Credit	MANCOFFCR	minutes	-

Table: Getting Monthly Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Manual COFF Credit	MANCOFFCR_HHMM	HH:MM	-
Manual COFF Debit	MANCOFFDB	minutes	-
Manual COFF Debit	MANCOFFDB_HHMM	HH:MM	-
Authorized COFF	AUTHCOFF	minutes	-
Authorized COFF	AUTHCOFF_HHMM	HH:MM	-
Availed COFF	AVLCOFF	minutes	-
Availed COFF	AVLCOFF_HHMM	HH:MM	-
Encashed COFF	ENCCOFF	minutes	-
Encashed COFF	ENCCOFF_HHMM	HH:MM	-
Shift Allowance	SFTALW	-	-
Lunch Break.	LUNCHBREAK	minutes	-
Lunch Break hrs.	LUNCHBREAK_HHMM	HH:MM	-
Lunch Late	LUNCHLATE	minutes	-
Lunch Late	LUNCHLATE_HHMM	HH:MM	-
Lunch Early	LUNCHEARLY	minutes	-
Lunch Early	LUNCHEARLY_HHMM	HH:MM	-
Weekly Overtime component	OTW1	minutes	OT for first week of the month
Weekly Overtime component	OTW1	HHHHHH:MM	OT for first week of the month
Weekly Overtime component	OTW2	minutes	OT for second week of the month
Weekly Overtime component	OTW2	HHHHHH:MM	OT for second week of the month
Weekly Overtime component	OTW3	minutes	OT for third week of the month
Weekly Overtime component	OTW3	HHHHHH:MM	OT for third week of the month
Weekly Overtime component	OTW4	minutes	OT for fourth week of the month
Weekly Overtime component	OTW4	HHHHHH:MM	OT for fourth week of the month
Weekly Overtime component	OTW5	minutes	OT for fifth week of the month
Weekly Overtime component	OTW5	HHHHHH:MM	OT for fifth week of the month
Week 1 Work Time	WRKTIMEW1	minutes	-
Week 1 Work Time	WRKTIMEW1_HHMM	HH:MM	-
Week 2 Work Time	WRKTIMEW2	minutes	-
Week 2 Work Time	WRKTIMEW2_HHMM	HH:MM	-
Week 3 Work Time	WRKTIMEW3	minutes	-

Table: Getting Monthly Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Week 3 Work Time	WRKTIMEW3_HHMM	HH:MM	-
Week 4 Work Time	WRKTIMEW4	minutes	-
Week 4 Work Time	WRKTIMEW4_HHMM	HH:MM	-
Week 5 Work Time	WRKTIMEW5	minutes	-
Week 5 Work Time	WRKTIMEW5_HHMM	HH:MM	-
Previous Adjustment days	PREVDAYS	Numeric	Multiples of 0.5
Previous Overtime.	PREVOT	minutes	-
Previous Overtime hrs.	PREVOT	HHHHHH:MM	-
Previous Work.	PREVWRKTIME	minutes	-
Previous Work hrs.	PREVWRKTIME_HHMM	HH:MM	-
Previous Shift Allowance	PREVSFTALW		-
Net Work Time	NETWORKTIME	minutes	-
Net Work Time	NETWORKTIME	HHHHHH:MM	-
Total OT1 (Actual)	TOTAL_OT1	minutes	-
Total OT1 (Actual)	TOTAL_OT1	HHHHHH:MM	-
Total OT2 (Actual)	TOTAL_OT2	minutes	-
Total OT2 (Actual)	TOTAL_OT2	HHHHHH:MM	-
Total OT3 (Actual)	TOTAL_OT3	minutes	-
Total OT3 (Actual)	TOTAL_OT3	HHHHHH:MM	-
Total OT4 (Actual)	TOTAL_OT4	minutes	-
Total OT4 (Actual)	TOTAL_OT4	HHHHHH:MM	-
Total OT5 (Actual)	TOTAL_OT5	minutes	-
Total OT5 (Actual)	TOTAL_OT5	HHHHHH:MM	-
Total Authorized OT1	TOTAL_AUTH_OT1	minutes	-
Total Authorized OT1	TOTAL_AUTH_OT1	HHHHHH:MM	-
Total Authorized OT2	TOTAL_AUTH_OT2	minutes	-
Total Authorized OT2	TOTAL_AUTH_OT2	HHHHHH:MM	-
Total Authorized OT3	TOTAL_AUTH_OT3	minutes	-
Total Authorized OT3	TOTAL_AUTH_OT3	HHHHHH:MM	-
Total Authorized OT4	TOTAL_AUTH_OT4	minutes	-
Total Authorized OT4	TOTAL_AUTH_OT4	HHHHHH:MM	-
Total Authorized OT5	TOTAL_AUTH_OT5	minutes	-
Total Authorized OT5	TOTAL_AUTH_OT5	HHHHHH:MM	-

Table: Getting Monthly Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Custom Field 1-10	field1-10	upto 30 characters	Valid Characters : A-Z a-z 0-9 space [ ] ( ) . - _
Short Leave Count	short_leave_count	0-9999	Availed Short Leave Count
Short Leave Hours	short_leave_hours	HH:MM	Availed Short Leave Duration
Official Hours	official_hours	HH:MM	Availed Official Duration
Max Short Leave Count	max_short_leave_count	0-99	Maximum Allowed Short Leave Count
Max Short Leave Hours	max_short_leave_hours	HHHH:MM	Maximum Allowed Short Leave Duration
Late In Count	late_in_count	0-99	Availed Late IN Count
Max Late In Count	max_late_in_count	0-99	Maximum Allowed Late IN Count
Late In Duration	late_in_duration	minutes	Availed Late IN Duration
Late In Duration	late_in_duration_HHMM	HHH:MM	Availed Late IN Duration HHH:MM
Max Late In Duration	max_late_in_duration	minutes	Maximum Allowed Late IN Duration
Max Late In Duration	max_late_in_duration_HHMM	HHH:MM	Maximum Allowed Late IN Duration HHH:MM
Early Out Count	early_out_count	0-99	Availed Early Out Count
Max Early Out Count	max_early_out_count	0-99	Maximum Allowed Early Out Count
Early Out Duration	early_out_duration	minutes	Availed Early OUT Duration
Early Out Duration	early_out_duration_HHMM	HHH:MM	Availed Early OUT Duration HHH:MM
Max Early Out Duration	max_early_out_duration	minutes	Maximum Allowed Early OUT Duration
Max Early Out Duration	max_early_out_duration_HHMM	HHH:MM	Maximum Allowed Early OUT Duration HHH:MM
Late-IN-Early Out Count	late_in_early_out_count	0-99	Availed Late IN-Early Out Count (Combined)
Max Late-IN-Early Out Count	max_late_in_early_out_count	0-99	Maximum Allowed Late IN- Early Out Count (Combined)

Table: Getting Monthly Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Late-IN-Early Out Duration	late_in_early_out_duration	minutes	Availed Late IN Duration HHH:MM
Late-IN-Early Out Duration	late_in_early_out_duration_ HHMM	HHH:MM	Availed Late IN-Early Out Duration HHH:MM
Max Late-IN-Early Out Duration	max_late_in_early_out_duration	minutes	Maximum Allowed Late IN- Early Out Duration
Max Late-IN-Early Out Duration	max_late_in_early_out_duration_ HHMM	HHH:MM	Maximum Allowed Late IN- Early Out Duration HHH:MM
Less Work Hours Duration	less_work_hours_duration	minutes	Availed Less Work hours Duration
Less Work Hours Duration	less_work_hours_duration_ HHMM	HHH:MM	Availed Less Work hours Duration HHH:MM
Max Less Work Hours Duration	max_less_work_hours_duration	minutes	Maximum Allowed Less Work Hours Duration
Max Less Work Hours Duration	max_less_work_hours_duration_ HHMM	HHH:MM	Maximum Allowed Less Work Hours Duration HHH:MM
Custom Group 1 ID	CustomGroup1ID	1-999999	
Custom Group 2 ID	CustomGroup2ID	1-999999	
Custom Group 3 ID	CustomGroup3ID	1-999999	
Full Name	full-name	max 200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ ' (single quote) [Space] When Multi Language is On, Invalid Character set = Set3
Job Allowance	Job_Allowance		Allowed Chars 0-9

Table: Getting Monthly Attendance Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Award_Duration	Award_Duration	Minutes	
Award_Duration_HHMM	Award_Duration_HHMM	HHH:MM	
Penalty_Duration	Penalty_Duration	Minutes	
Penalty_Duration_HHMM	Penalty_Duration_HHMM	HHH:MM	
<Leave Type>Days-<Leave Code>	<Leave Type>Days-<Leave Code>	0-9	multiples of 0.5
Hourly Paid Leave Hours	AVAILEDPLHOURS	HH:MM	Defines the total Availed Hourly Paid Leave Hours in that particular month
Hourly Unpaid Leave Hours	HULHOURS	HH:MM	Defines the total Availed Hourly Unpaid Leave Hours in that particular month

Example

This example presents a case where monthly-attendance records are to be fetched for Organization ID ‘1’.

Sample Request:

```
http:/matrixserver/api.svc/v2/attendance-monthly?action=get;range=organization;id=1
```

Sample Response:

```
UserID|UserName|PYear|PMonth|PRDays|ABDays|WorkTime_HHMM|PLDays|TRDays
007|ANAND RATHOD|2015|1|0.0|23.0|000:00|0.0|0.0
1053|JINU SAM|2015|1|19.5|0.5|197:20|2.0|0.0
1054|PARSHV SHAH|2015|1|19.0|1.0|217:27|1.0|0.0
1059|PRATIK PATEL|2015|1|0.0|21.0|000:00|0.0|0.0
1062|MANTHAN PATEL|2015|1|22.0|0.0|199:25|0.0|0.0
1110|Nishit Gandhi|2015|1|20.0|0.0|191:31|2.0|0.0
1256|Arvind|2015|1|0.0|21.0|000:00|0.0|0.0
1309|KAMAL TALUKDAR|2015|1|26.0|0.0|000:00|0.0|0.0
1311|PANKIL GANDA|2015|1|17.5|2.0|160:21|1.5|0.0
<EOT>
```

Getting Attendance Correction Details

COSEC provides the option for manual correction of attendance data if required. ESS users can apply for attendance correction in exceptional cases (e.g. a missed OUT punch), and these applications shall require authorization by either:

a. Any System Account user with rights enabled for attendance correction authorization.
b. Any ESS user with reporting in-charge rights over the applicant.

Based on the status of approval, an Attendance Correction application on COSEC falls in one of the three categories - *Pending*, *Approved* or *Rejected*.

This API enables the user to fetch the details of all existing attendance correction applications on the COSEC database as per the specified parameters.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/attendance-correction?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time and Attendance > Authorization/Approval > Attendance Correction For action=get, make sure user has **View** rights whereas for action=set, make sure the user has **Edit** rights.
ESS	Enabled. User must have rights on following ESS pages: ESS > Time and Attendance > Attendance Correction

Parameters

Table: Getting Attendance Correction Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-filter	0: individual 1: group	No	0 (individual)	If user-filter=0, a single user's records will be returned. If user-filter=1, records for all the group members will be returned (applicable only if the login user is a reporting in-charge or system account user) When argument Range & Id or Id is mentioned and argument user-id is not provided, default value user-filter=0 should not be considered. Argument user-filter should only be applied when argument userid is provided, else it should be ignored.
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	For ESS user: If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID. The login user must be a reporting in-charge. For a System Account user: If user-filter=0, the userid can be any user's id. (If the System Account user has rights on that user) If user-filter=1, the userid can be any user's ID (If the System Account user has rights on that user and the user is a reporting in-charge). In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	No	Current date	The actual process date to be considered for fetching records.
status	0: All 1: Pending 2: Approved 3: Rejected	No	0 (All)	The status of Attendance Correction application
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Attendance Correction Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Attendance Correction Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Application ID	application-id	numeric	-
Applied Date	applied-date	mm/dd/yyyy HH:MM	-
User ID	user-id	15 characters	Allowed characters: 15 alphanumeric char A-Z a-z 0-9 / _ \\ . @ : ? , - ~ ! $ ` * +
User Name	user-name	40 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	Max. 15 alphanumeric characters	-
Attendance Date	date	mm/dd/yyyy	-
Verdict Date	verdict-date	mm/dd/yyyy HH:MM	-
Application Status	status	1: pending 2: approved 3: rejected	-

Table: Getting Attendance Correction Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Previous Punch 1	previous-punch1	mm/dd/yyyy HH:MM	These are the punch values, before application was submitted. When application is in pending state : Previous values are same as the values available in daily attendance template response. Once an application is approved, the previous values should contain the punch values that were there before application was submitted.
Previous Punch 2	previous-punch2		
Previous Punch 3	previous-punch3		
Previous Punch 4	previous-punch4		
Previous Punch 5	previous-punch5		
Previous Punch 6	previous-punch6		
Previous Punch 7	previous-punch7		
Previous Punch 8	previous-punch8		
Previous Punch 9	previous-punch9		
Previous Punch 10	previous-punch10		
Previous Punch 11	previous-punch11		
Previous Punch 12	previous-punch12		
Previous Shift Code	previous-shift	2 characters code	-
Previous Week-Off Status	previous-wo-status	0 or 1	-
Previous PH Status	previous-ph-status	0 or 1	-
Changed Punch 1	changed-punch1	mm/dd/yyyy HH:MM	For a new application being submitted or for an application in pending state, these are the applied values (values manually entered by the user). Once an application gets approved, the changed values and actual values (as available in daily attendance template) become the same.
Changed Punch 2	changed-punch2		
Changed Punch 3	changed-punch3		
Changed Punch 4	changed-punch4		
Changed Punch 5	changed-punch5		
Changed Punch 6	changed-punch6		
Changed Punch 7	changed-punch7		
Changed Punch 8	changed-punch8		
Changed Punch 9	changed-punch9		
Changed Punch 10	changed-punch10		
Changed Punch 11	changed-punch11		
Changed Punch 12	changed-punch12		
Changed Shift Code	changed-shift	2 character code	-
Changed WO Status	changed-wo-status	0 or 1	-
Changed PH Status	changed-ph-status	0 or 1	-
Break Start (Associated Punch)	previous-break-start-punch	0, 1 - N	“0” implies that there is no associated punch with Break Start. Values “1-N” imply which punch is stored as Break Start. E.g. “2” implies that Punch 2 is stored as Break Start.

Table: Getting Attendance Correction Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Break Start Time	previous-break-start-time	mm/dd/yyyy HH:MM	Punch time for break start. If a Punch was overwritten by subsequent punches, this will be the event time.
Break Start SPF	previous-break-start-spfid	blank or 8	Break Start Special Function ID.
Break End (Associated Punch)	previous-break-end-punch	0, 1 - N	“0” implies that there is no associated punch with Break End. Values “1-N” imply which punch is stored as Break End. E.g. “2” implies that Punch 2 is stored as Break End.
Break End Time	previous-break-end-time	mm/dd/yyyy HH:MM	Punch time for break end. If a Punch was overwritten by subsequent punches, this will be the event time.
Break End SPF	previous-break-end-spfid	blank or 7	Break End Special Function ID
Break Start (Associated Punch)	changed-break-start-punch	0, 1 - N	“0” implies that there is no associated punch with Break Start. Values “1-N” imply which punch is stored as Break Start. E.g. “2” implies that Punch 2 is stored as Break Start.
Break Start Time	changed-break-start-time	mm/dd/yyyy HH:MM	Punch time for break start. If a Punch was overwritten by subsequent punches, this will be the event time.
Break Start SPF	changed-break-start-spfid	blank or 8	-
Break End (Associated Punch)	changed-break-end-punch	0, 1 - N	“0” implies that there is no associated punch with Break End. Values “1-N” imply which punch is stored as Break End. E.g. “2” implies that Punch 2 is stored as Break End.
Break End Time	changed-break-end-time	mm/dd/yyyy HH:MM	Punch time for break end. If a Punch was overwritten by subsequent punches, this will be the event time.
Break End SPF	changed -break-end-spfid	blank or 7	-

Table: Getting Attendance Correction Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reason	reason	Allowed Characters A-Z a-z 0-9 ! @ $ & ( ) _ -+ [ ] / : . , $ & <Space>	Reason for applying an Attendance Correction Application as an ESS User
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	Provides status of application.
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric -verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Attendance Correction Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Attendance Correction Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4 -verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Applying for Attendance Correction

Use this to submit a new attendance correction request.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/attendance-correction?action=set;<argument>=<value>...
```

User Rights

Same as *Getting Attendance Correction Details.*

Parameters

Table: Applying for Attendance Correction - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 / _ \\ . @ : ? , - ~ ! $ ` * +	Yes	-	Login User must have necessary rights on this user.
process-date	ddmmyyyy	Yes	-	The date for which application is being submitted. Note: Process Date should not be greater than current date.
punch1-datetime	ddmmyyyyHHMM	No	-	HHMM implies that time should be in 24-hours format only. Note: Punch Date mentioned in the request can be 1 date prior to Process Date or 2 subsequent dates from the process date. Punch date outside this range will not be allowed.
punch2-datetime				
punch3-datetime				
punch4-datetime				
punch5-datetime				
punch6-datetime				
punch7-datetime				
punch8-datetime				
punch9-datetime				
punch10-datetime				
punch11-datetime				
punch12-datetime				
shift	two characters	Yes	-	This will contain the configured shift ID.

Table: Applying for Attendance Correction - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
wo	0, 1	If 'ph' is mentioned, then 'wo' is mandatory.	-	This is the Week Off status. If wo=1, day status is WO. If both wo=1 and ph=1 day status is WO
ph	0, 1	If 'wo' is mentioned, then 'ph' is mandatory.	-	If ph=1, day status is PH. If both wo=1 and ph=1 day status is WO
break-start-punch	0 : Edit 99 : Add 1 – N : Existing	No	-	"0" implies that there is no associated punch with Break Start. "99" means that a new punch is being added as Break Start Punch. A value "1-N" implies the value of the existing punch for Break Start. E.g. If the value is "2", this implies that Punch 2 is stored as Break Start.
break-start-time	ddmmyyyyHHMM	No	-	Punch time for break start. If a Punch was overwritten by subsequent punches, this will be the event time.
break-end-punch	0 : Edit 99 : Add 1 – N : Existing	No	-	"0" implies that there is no associated punch with Break End. "99" means that a new punch is being added as Break End Punch A value "1-N" implies the value of the existing punch for Break Start. E.g. If the value is "2", this implies that Punch 2 is stored as Break Start.
break-end-time	ddmmyyyyHHMM	No	-	Punch time for break end. If a Punch was overwritten by subsequent punches, this will be the event time.
reason	Max 50 chars. Allowed Characters A-Z a-z 0-9 ! @ # $ & ( ) _ -+ [ ] / \ : . , * <Space>	No	Personal	

Punch Date mentioned in the request can be 1 date prior to Process Date or 2 subsequent dates from the process date.

Example

To submit an attendance correction request for the 2nd punch:

Sample Request:

```
http://matrixserver/api.svc/v2/attendance-correction?action=set;userid=92;process-date=07032014;punch2-datetime=070320142146;shift=GS
```

Sample Response:

```
success: <response code> : saved successfully
```

Deleting Attendance Correction Applications

This enables the user to delete existing Attendance Correction Applications from the COSEC database by specifying the Application ID.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/attendance-correction?action=set;<argument>=<value>...
```

User Rights

Same as *Getting Attendance Correction Details.*

Parameters

Table: Deleting Attendance Correction Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
application-id	numeric	Yes	-	This is the identification number for the attendance correction application.

Approving Attendance Correction

This shall be used to approve/reject attendance correction applications submitted to a particular user.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/attendance-correction-approval?action=set;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time and Attendance > Authorization/Approval > Attendance Correction
ESS	Enabled if User is a reporting group in-charge and has permissions on page: Attendance Correction

Parameters

Table: Approving Attendance Correction - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
application-id	numeric	Yes	-	This is the identification number for the attendance correction application. The login user must have rights on the user ID associated with this Application ID.
userid	15 characters	Yes	-	This is the identification number for the user whose attendance correction is to be approved.
verdict	0: reject 1: approve	Yes	-	This is the approval verdict to be applied to an application. A verdict can be passed only for applications that are pending for approval.
remark	Max 50 chars Allowed Characters A-Z a-z 0-9 <Space>	No	-	If Remark not given, default remark will appear based on verdict.

Any change in Punch timings can cause a change in Break Hours, Work Hours and User's Absent/Present status.

If you select Anyone as Authorization Mode, the Reporting Group In-charges will be able to view and approve the application. Whichever request come first, will be considered and used to mark the verdict on the application.

Getting Short Leave/Official IN-OUT Entries

This API can be used to fetch details of all Short Leave/Official IN-OUT Entries submitted on the COSEC system.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/short-leave-entry?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time Attendance > Authorization/Approval > Short Leave/ Official IN-OUT
ESS	Enabled. User must have rights on following ESS pages: ESS > Approval/Authorization > Short Leave/Official IN-OUT Authorization ESS > Time Attendance > Short Leave/Official IN-OUT

Parameter

Table: Getting Short Leave/Official IN-OUT Entries - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-filter	0: individual 1: group	No	0 (individual)	If user-filter=0, a single user's records will be returned. If user-filter=1, records for all the group members will be returned (applicable only if login user is a reporting in-charge or system account user) When argument Range & Id or Id is mentioned and argument user-id is not provided, default value of user-filter=0 should not be considered. Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Getting Short Leave/Official IN-OUT Entries - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the identification number for the user whose data is to be fetched. For ESS user: If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID. The login user must be a reporting in-charge. For a System Account user: If user-filter=0, the userid can be any user's id. (If the System Account user has rights on that user) If user-filter=1, the userid can be any user's ID (If the System Account user has rights on that user and the user is a reporting in-charge). In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	No	Records for 30 days prior to current date will be fetched if no range is specified.	Date range for which short-leave/official in-out applications need to be fetched.
entry-type	1: Official 2: Short Leave	No	2 (Short Leave)	If entry-type = 2, Only those records will be returned for which special function is of type: short-leave in/short-leave out. If entry-type = 1, Only those records will be returned for which special function is of type: official in/official out.
authorization-status	0: All 1: Pending 2: Approved 3: Rejected	No	0 (All)	Applicable in case of short leave/official in-out authorization by Reporting in-charge, where member's entries need to be fetched.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Short Leave/Official IN-OUT Entries - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID has specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Short Leave/Official IN-OUT Entries - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters : 15 alphanumeric Char. A to Z a to z 0 to 9 / _ \\ . @ : ? , - ~ ! $ ` * +
User Name	user-name	45 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	Max. 15 alphanumeric characters	-
Entry Type	entry-type	1: Official 2: Short Leave	-
Attendance Date	attendance-date	mm/dd/yyyy	-
1st Punch	punch1	mm/dd/yyyy HH:MM	-
2nd Punch	punch2	mm/dd/yyyy HH:MM	-
3rd Punch	punch3	mm/dd/yyyy HH:MM	-
4th Punch	punch4	mm/dd/yyyy HH:MM	-
5th Punch	punch5	mm/dd/yyyy HH:MM	-
6th Punch	punch6	mm/dd/yyyy HH:MM	-
7th Punch	punch7	mm/dd/yyyy HH:MM	-
8th Punch	punch8	mm/dd/yyyy HH:MM	-
9th Punch	punch9	mm/dd/yyyy HH:MM	-
10th Punch	punch10	mm/dd/yyyy HH:MM	-
11th Punch	punch11	mm/dd/yyyy HH:MM	-
12th Punch	punch12	mm/dd/yyyy HH:MM	-

Table: Getting Short Leave/Official IN-OUT Entries - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Special Function 1	spfid1	1-10	1=Official In, 2=Official Out, 3=ShortLeave In, 4=ShortLeave Out, 5=Regular In, 6=Regular Out, 7=Lunch In, 8=Lunch Out, 9=Overtime In, 10=Overtime Out
Special Function 2	spfid2		
Special Function 3	spfid3		
Special Function 4	spfid4		
Special Function 5	spfid5		
Special Function 6	spfid6		
Special Function 7	spfid7		
Special Function 8	spfid8		
Special Function 9	spfid9		
Special Function 10	spfid10		
Special Function 11	spfid11		
Special Function 12	spfid12		
In/Out Reason for Punch 1	punch-reason1	30 alphanumeric characters	From V10R2, manual entered reasons will also be considered.
In/Out Reason for Punch 2	punch-reason2	30 alphanumeric characters	
In/Out Reason for Punch 3	punch-reason3		
In/Out Reason for Punch 4	punch-reason4		
In/Out Reason for Punch 5	punch-reason5		
In/Out Reason for Punch 6	punch-reason6		
In/Out Reason for Punch 7	punch-reason7		
In/Out Reason for Punch 8	punch-reason8		
In/Out Reason for Punch 9	punch-reason9		
In/Out Reason for Punch 10	punch-reason10		
In/Out Reason for Punch 11	punch-reason11		
In/Out Reason for Punch 12	punch-reason12		
Shift	shift	Two character code	-
First Half	firsthalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Second Half	secondhalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Week-Off	wo	0: Status is not WO 1: Status is WO	-

Table: Getting Short Leave/Official IN-OUT Entries - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Public Holiday	ph	0: Status is not PH 1: Status is PH	-
Gross Work Hours	gross-workhours	HH:MM	Gross Work Hours
Extra Work Hours	extra-workhours	HH:MM	Extra Work Hours
Net Work Hours	net-workhours	HHHHHH:MM	Net Work Hours
Authorization Status	authorization-status	1 : Pending 2 : Approved 3 : Rejected	Applicable in case of short leave/official in-out authorization by a Reporting in-charge, where member's entries need to be fetched.
Applied On	application-date	DD/MM/YYYY HH:MM	
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final-ric-verdict-date	MM/DD/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	Provides status of application.
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	

Table: Getting Short Leave/Official IN-OUT Entries - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC Verdict	nonfinal-ric -verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal -ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: approved 3: rejected	

Table: Getting Short Leave/Official IN-OUT Entries - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal -ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Making Short Leave/Official IN-OUT Entries

This can be used to submit Short Leave/Official In-Out Entries to Reporting In-charge for authorization.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/short-leave-entry?action=<set>;<argument>=<value>.. .
```

User Rights

Same as *Getting Short Leave/Official IN-OUT Entries.*

Parameters

Table: Making Short Leave/Official IN-OUT Entries - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric char. (for user) A to Z a to z 0 to 9 / _ \\ . @ : ? , - ~ ! $ ` * +	Yes	-	The login user must have appropriate rights on this User ID.
attendance-date	ddmmyyyy	Yes	-	Date for which the entry application needs to be submitted. f user has already submitted an entry for this date, the previous entry will be over-written.
spfid1	0: No Special function 1: Official 2: Short Leave	No	N/A	Entry markings for punches 1 to 12. Entry for a punch will be submitted successfully only if the punch is available.
spfid2				
spfid3				
spfid4				
spfid5				
spfid6				
spfid7				
spfid8				
spfid9				
spfid10				
spfid11				
spfid12				

Table: Making Short Leave/Official IN-OUT Entries - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
reason-id1	0: reason-1 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-1 field. 1-99: In/Out reason-id as selected by the User.
reason-1	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id2	0: reason-2 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-2 field. 1-99: In/Out reason-id as selected by the User.
reason-2	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id3	0: reason-3 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-3 field. 1-99: In/Out reason-id as selected by the User.
reason-3	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id4	0: reason-4 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-4 field. 1-99: In/Out reason-id as selected by the User.
reason-4	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id5	0: reason-5 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-5 field. 1-99: In/Out reason-id as selected by the User.
reason-5	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id6	0: reason-6 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-6 field. 1-99: In/Out reason-id as selected by the User.
reason-6	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id7	0: reason-7 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-7 field. 1-99: In/Out reason-id as selected by the User.
reason-7	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id8	0: reason-8 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-8 field. 1-99: In/Out reason-id as selected by the User.
reason-8	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id9	0: reason-9 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-9 field. 1-99: In/Out reason-id as selected by the User.

Table: Making Short Leave/Official IN-OUT Entries - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
reason-9	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id10	0: reason-10 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-10 field. 1-99: In/Out reason-id as selected by the User.
reason-10	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id11	0: reason-11 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-11 field. 1-99: In/Out reason-id as selected by the User.
reason-11	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.
reason-id12	0: reason-12 1-99: In/Out Reason IDs	No	N/A	0: Reason should be entered manually by user in reason-12 field. 1-99: In/Out reason-id as selected by the User.
reason-12	0-9, a-z,A-Z,[space],[,],(,),-,_,	No	N/A	Reason to be entered by the user.

The entry application will submit only the special function value: short-leave or official.
In or Out will depend on the punch-system (2-Punch / 4-Punch / N-Punch etc.) applicable to the user and shall be determined on the server side.

Possible values are:
•1 : Official In
•2 : Official Out
•3 : Short-Leave In
•4 : Short-Leave Out

Short Leave/Official In-Out Authorization

This API can be used to approve or reject all Short-Leave/Official IN-OUT applications submitted to the Reporting In-charge.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/short-leave-authorization?action=set;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time Attendance > Authorization/Approval > Short Leave/ Official IN-OUT
ESS	Enabled. User must be a reporting in-charge with rights on the following ESS pages: ESS > Approval/Authorization> Short Leave/Official IN-OUT Authorization

Parameters

Table: Short Leave/Official In-Out Authorization - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 characters	Yes	-	This is the identification number for the user whose entries are to be authorized. For ESS user, It can be the logged in user's ID. Or the ID of users assigned under his reporting group. For System Account user, it can be user ID of any user he has rights on.
Attendance-date	ddmmyyyy	Yes	-	This is the attendance date for which the authorization is to be performed.
tid	18 characters	No	-	This is the transaction id that is unique for every Short Leave/Official In-Out entry.
authorization-for	1: Official 2: Short Leave	Yes	-	This is the type of entry for which authorization is to be performed.
verdict	1: approve 2: reject	Yes	-	This is the approval verdict to be applied to an application. A verdict can be passed only for applications that are pending for approval.

Table: Short Leave/Official In-Out Authorization - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
remark	Max 50 chars Allowed Characters A-Z a-z 0-9 <Space>	No	-	

Getting Attendance Records for Authorization

This can be used to fetch the attendance records of a single user or multiple users based on a specified date range and the specified authorization status (i.e. pending or authorized). These records can then be authorized by the respective supervisors.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/attendance-authorization?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time Attendance > Authorization/Approval > Daily Attendance
ESS	Enabled. User must be a reporting in-charge with rights on the following ESS pages: ESS > Approval/Authorization > Attendance Authorization

Parameters

Table: Getting Attendance Records for Authorization - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
User-filter	0: individual 1: group	No	0 (individual)	If user-filter=0, a single user's records will be returned. If user-filter=1, records for all the group members will be returned (applicable only if login user is a reporting in-charge or system account user). When argument Range & Id or Id is mentioned and argument user-id is not provided default value user-filter=0 should not be considered Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Getting Attendance Records for Authorization - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the identification number for the user whose data is to be fetched. For ESS user: If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID. The login user must be a reporting in-charge. For a System Account user: If user-filter=0, the userid can be any user's id. (If the System Account user has rights on that user) If user-filter=1, the userid can be any user's ID (If the System Account user has rights on that user and the user is a reporting in-charge). In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	No	Records for past 30 days up to the current date will be fetched if no range is specified.	Date range for which records need to be fetched.
authorization-status	0: Pending 1: Authorized	No	0 (Pending)	Fetch attendance records based on their authorization status.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID has specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Attendance Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters : 15 alphanumeric Char. A to Z a to z 0 to 9 / _ \\ . @ : ? , - ~ ! $ ` * +
User Name	user-name	45 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	Max. 15 alphanumeric characters	-
Attendance Date	attendance-date	mm/dd/yyyy	-
1st Punch	punch1	mm/dd/yyyy HH:MM	-
2nd Punch	punch2	mm/dd/yyyy HH:MM	-
3rd Punch	punch3	mm/dd/yyyy HH:MM	-
4th Punch	punch4	mm/dd/yyyy HH:MM	-
5th Punch	punch5	mm/dd/yyyy HH:MM	-
6th Punch	punch6	mm/dd/yyyy HH:MM	-
7th Punch	punch7	mm/dd/yyyy HH:MM	-
8th Punch	punch8	mm/dd/yyyy HH:MM	-
9th Punch	punch9	mm/dd/yyyy HH:MM	-
10th Punch	punch10	mm/dd/yyyy HH:MM	-
11th Punch	punch11	mm/dd/yyyy HH:MM	-
12th Punch	punch12	mm/dd/yyyy HH:MM	-
Special Function 1	spfid1	1-10	1=Official In, 2=Official Out, 3=ShortLeave In, 4=ShortLeave Out, 5=Regular In, 6=Regular Out, 7=Lunch In, 8=Lunch Out, 9=Overtime In, 10=Overtime Out
Special Function 2	spfid2		
Special Function 3	spfid3		
Special Function 4	spfid4		
Special Function 5	spfid5		
Special Function 6	spfid6		
Special Function 7	spfid7		
Special Function 8	spfid8		
Special Function 9	spfid9		
Special Function 10	spfid10		
Special Function 11	spfid11		
Special Function 12	spfid12		

Table: Getting Attendance Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Shift	shift	Two character code	-
Total Overtime	total-overtime	HHHHHH:MM	-
Gross Work Hours	gross-workhours	HH:MM	Gross Work Hours
Extra Work Hours	extra-workhours	HH:MM	Extra Work Hours
Net Work Hours	net-workhours	HHHHHH:MM	Net Work Hours
First Half	firsthalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Second Half	secondhalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Week-Off	wo	0: Status is not WO 1: Status is WO	-
Public Holiday	ph	0: Status is not PH 1: Status is PH	-
Authorization Status	authorized	1 : Pending Authorization 2 : Authorized	-
Break Start (Associated Punch)	break-start-punch	0, 1 - N	“0” implies that there is no associated punch with Break Start. Values “1-N” imply which punch is stored as Break Start. E.g. “2” implies that Punch 2 is stored as Break Start.
Break Start Time	break-start-time	mm/dd/yyyy HH:MM	Punch time for break start. If a Punch was overwritten by subsequent punches, this will be the event time.
Break End (Associated Punch)	break-end-punch	0, 1 - N	“0” implies that there is no associated punch with Break End. Values “1-N” imply which punch is stored as Break End. E.g. “2” implies that Punch 2 is stored as Break End.

Table: Getting Attendance Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Break End Time	break-end-time	mm/dd/yyyy HH:MM	Punch time for break end. If a Punch was overwritten by subsequent punches, this will be the event time.
Remark	remark	A-Z a-z 0-9 _.,()[]:@!#$*+/\	It displays the Remark given while authorization of application.
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final-ric-verdict-date	MM/DD/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1: pending 2: authorized	Provides status of application.
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric-verdict	1: pending 2: authorized	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Attendance Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	1: pending 2: authorized	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal -ric3-verdict	1: pending 2: authorized	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Attendance Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4 -verdict	1: pending 2: authorized	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Authorizing Attendance

This can be used to authorize attendance records for users.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/attendance-authorization?action=set;<argument>=<value>…
```

User Rights

Same as *Getting Attendance Records for Authorization*.

Parameters

Table: Authorizing Attendance - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 characters	Yes	-	This is the identification number for the user whose attendance record is to be authorized. Note: Login user should have necessary rights on this user to successfully send authorization request.
Attendance-date	ddmmyyyy	Yes	-	This is the attendance date for which records are to be authorized.
verdict	1: authorize 2: revoke	Yes	-	This is the verdict to be applied to an attendance record pending for authorization.
remark	Max 50 chars Allowed Characters A-Z a-z 0-9 <Space>	No	-	If remark not entered then default value as per the verdict will be applied.

Getting Event Records for Authorization

This can be used to fetch the event records of a single user or multiple users based on a specified date range and the specified authorization status (i.e. pending or authorized). These records can then be authorized by the reporting in-charge and system administrator.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/event-authorization?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time and Attendance > Authorization/Approval> Event Authorization
ESS	Enabled. User must be a reporting in-charge with rights on the following ESS pages: ESS > Approval/Authorization > Event Authorization

Parameters

Table: Getting Event Records for Authorization - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-filter	0: individual 1: group	No	0	If user-filter=0, a single user's records will be returned. If user-filter=1, records for all the group members will be returned (applicable only if login user is a reporting in-charge or system account user) When argument Range & Id or Id is mentioned and argument user-id is not provided, default value user-filter=0 should not be considered Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Getting Event Records for Authorization - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric char. (for user) A to Z a to z 0 to 9 / _ \\ . @ : ? , - ~ ! $ ` * +	Yes	-	This is the identification number for the user whose data is to be fetched. For ESS user: If user-filter=0, the userid should be of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID. The login user must be a reporting in-charge. For a System Account user: If user-filter=0, the userid can be any user's id. (If the System Account user has rights on that user) If user-filter=1, the userid can be any user's ID (If the System Account user has rights on that user and the user is a reporting in-charge). In case user-id & user-filter are provided along with id/id & range, priority should always be given to user-id & user-filter. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	No	Records for past 30 days up to the current date will be fetched if no range is specified.	Date range for which records need to be fetched.
Event authorization-status	0: All 1: Pending 2: Authorized	No	0 (Pending)	Fetch event records based on their authorization status.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user)	No	-	If argument range is not mentioned and individual argument ID has specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Event Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed characters: A-Z a-z 0-9 /_\\.@:
User Name	user-name	45 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Event DateTime	event-datetime	mm/dd/yyyy hh:mm:ss	
Index Number	index-no	Numbers 18 characters	This index number is unique for every event.
I/O Type	iotype	0 - In 1 - Out	Specifies whether events is In or Out type.
Source	event_src	0=controller 1=USB 2=ESS 3=SMS 4=PIM 5=Others 6=APP	This will indicate the event source to the COSEC software.
Access Allowed or Denied	access_allowed	0 : denied 1: allowed	Specifies whether the event came is allowed or denied.
Source/Device/Location Details	Src_device_loc_details	Valid Values: gps_ latitude, gps_longitude, gsm_latitude, gsm_longitude, ble_code, ble_name mac_address, Loc_name, Device_name	50 characters for “Loc_name” tag If for received event latitude and longitude/ mac address value match with any of the configured location then display Location Name. Or it will display Location Name as per Google. If event received from device, then display that Device Name. If latitude and longitude/ mac address doesn’t match with location and event not from device then display the received value.
Authorization Status	Auth_status	0 : Pending Authorization 1: Authorized	Status is displayed w.r.t logged in user.

Table: Getting Event Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reason	punch-reason	Max 50 alphanumaric characters. A-Z a-z 0-9 _- <space> ()[].,/+!@$:*	When Multi Language is On, Invalid Character set = Set 1
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final-ric-verdict-date	MM/DD/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1: pending 2: authorized	Provides status of application.
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric-verdict	0: pending 1: authorized	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Event Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	0: pending 1: authorized	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	0: pending 1: authorized	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Event Records for Authorization - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	0: pending 1: authorized	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Wphoto	wphoto	Valid values 0,1 0=no photo 1=with photo	
eid	eid	Max 15 numeric digits	As stored against the event in the server DB
Type	type	2 numeric digits	
MID	mid	5 numeric digits	
Flash Count	flash_count	5 numeric digits	
Roll Over Count	roll_over_count	5 numeric digits	
Event Sequence Number	event_sequence_no	7 numeric digits	
Job ID	job-id	15 characters 0-4294967295	0 = Job Assignment Type = “Fixed” or “None” 1-4294967294 = Job Reference ID corresponding to respective Job Codes 4294967295 = Job Reference ID selected = None
Job Code	job-code	15 Characters	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Job Name	job-name	30 Characters	Allowed Characters A-Z a-z 0-9 - _ . ( ) [ ]

Authorizing Events

This can be used to authorize events for users.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/event-authorization?action=set;<argument>=<value>…
```

User Rights

Same as *Getting Event Records for Authorization*.

Parameters

Table: Authorizing Events - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
index-no	max 8 characters valid values: Numeric	Yes	-	The user is allowed to select multiple index number each separated by “(comma)" for authorizing multiple events of users.
verdict	1: authorize	Yes	-	This is the verdict to be applied to an event record pending for authorization.
remark	Max 50 chars Allowed Characters A-Z a-z 0-9 <Space>	No	-	If remark not entered then default value as per the verdict will be applied.

If any RIC/SA tries to authorize an already authorized application, “Authorizing this event is not allowed” message will be displayed.

Getting Overtime/C-OFF Authorization Records

To fetch Overtime/C-OFF Authorization records of users and authorize them.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/ot-coff-authorization?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time Attendance > Authorization/Approval > Overtime/C-OFF
ESS	Enabled. User must be a reporting in-charge with rights on the following ESS pages: ESS > Time Attendance > Overtime/C-OFF Authorization

Parameters

Table: Getting Overtime/C-OFF Authorization Records - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
User-filter	0: individual 1: group	No	0 (individual)	If user-filter=0, a single user's records will be returned. If user-filter=1, records for all the group members will be returned (applicable only if login user is a reporting in-charge or system account user) When argument Range & Id or Id is mentioned and argument user-id is not provided , default value user-filter=0 should not be considered. Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Getting Overtime/C-OFF Authorization Records - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the identification number for the user whose data is to be fetched. For ESS user: If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID and user should be a reporting in-charge. For a System Account user: If user-filter=0, the userid can be any user's id.The System account user must have rights on this user. If user-filter=1, the userid can be any user's ID. The System account user must have rights on this user and the user must be a reporting in-charge. In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
Period	0: Daily 1: Monthly	No	0	To specify the daily or monthly period for OT-C-OFF authorization records.
Date-range	ddmmyyyy- ddmmyyyy Valid Range: 01/01/1900 - 31/12/2099	No	Records for 30 days prior to current date will be fetched if no range is specified.	This defines the Overtime/C-OFF application date range. If argument is passed with Period=1, then it should be ignored
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for the Overtime/C-OFF Application. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.
Month-year	Mmyyyy	No	current month-year	If Monthly period is selected, then specify month-year

Table: Getting Overtime/C-OFF Authorization Records - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Authorization-status	0: Pending 1: Authorized	No	0 (Pending)	To fetch records based on their authorization status.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID has specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed characters: A-Z a-z 0-9 /_\\.@:
User Name	user-name	45 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	Max. 15 alphanumeric characters	-
Attendance Date	attendance-date	mm/dd/yyyy	-
1st Punch	punch1	mm/dd/yyyy HH:MM	-
2nd Punch	punch2	mm/dd/yyyy HH:MM	-
3rd Punch	punch3	mm/dd/yyyy HH:MM	-
4th Punch	punch4	mm/dd/yyyy HH:MM	-
5th Punch	punch5	mm/dd/yyyy HH:MM	-
6th Punch	punch6	mm/dd/yyyy HH:MM	-

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
7th Punch	punch7	mm/dd/yyyy HH:MM	-
8th Punch	punch8	mm/dd/yyyy HH:MM	-
9th Punch	punch9	mm/dd/yyyy HH:MM	-
10th Punch	punch10	mm/dd/yyyy HH:MM	-
11th Punch	punch11	mm/dd/yyyy HH:MM	-
12th Punch	punch12	mm/dd/yyyy HH:MM	-
Special Function 1	spfid1	1-10	1=Official In, 2=Official Out, 3=ShortLeave In, 4=ShortLeave Out, 5=Regular In, 6=Regular Out, 7=Lunch In, 8=Lunch Out, 9=Overtime In, 10=Overtime Out
Special Function 2	spfid2		
Special Function 3	spfid3		
Special Function 4	spfid4		
Special Function 5	spfid5		
Special Function 6	spfid6		
Special Function 7	spfid7		
Special Function 8	spfid8		
Special Function 9	spfid9		
Special Function 10	spfid10		
Special Function 11	spfid11		
Special Function 12	spfid12		
Shift	shift	Two character code	-
Actual OT1	ot1	HHHHHH:MM	Return blank if unavailable.
Actual OT2	ot2	HHHHHH:MM	Return blank if unavailable.
Actual OT3	ot3	HHHHHH:MM	Return blank if unavailable.
Actual OT4	ot4	HHHHHH:MM	Return blank if unavailable.
Actual OT5	ot5	HHHHHH:MM	Return blank if unavailable.
Authorized OT1	authorized-ot1	HHHHHH:MM	Return blank if unavailable.
Authorized OT2	authorized-ot2	HHHHHH:MM	Return blank if unavailable.
Authorized OT3	authorized-ot3	HHHHHH:MM	Return blank if unavailable.
Authorized OT4	authorized-ot4	HHHHHH:MM	Return blank if unavailable.
Authorized OT5	authorized-ot5	HHHHHH:MM	Return blank if unavailable.
Authorized OT1 as C-Off	authorized-coff1	HHH:MM	Part of actual OT1 component, authorized as C-Off

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT2 as C-Off	authorized-coff2	HHH:MM	Part of actual OT2 component, authorized as C-Off
Authorized OT3 as C-Off	authorized-coff3	HHH:MM	Part of actual OT3 component, authorized as C-Off
Authorized OT4 as C-Off	authorized-coff4	HHH:MM	Part of actual OT4 component, authorized as C-Off
Authorized OT5 as C-Off	authorized-coff5	HHH:MM	Part of actual OT5 component, authorized as C-Off
Authorized OT1 by In-charge 1	authorized-ot1-ric1	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT2 by In-charge 1	authorized-ot2-ric1	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT3 by In-charge 1	authorized-ot3-ric1	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT4 by In-charge 1	authorized-ot4-ric1	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT5 by In-charge 1	authorized-ot5-ric1	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT1 as C-Off by In-charge 1	authorized-coff1-ric1	HHH:MM	Part of actual OT1 component, authorized as C-Off By Incharge1. Here, Incharge having non-final authority is considered as In-charge1.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT2 as C-Off by In-charge 1	authorized-coff2-ric1	HHH:MM	Part of actual OT2 component, authorized as C-Off By Incharge1. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT3 as C-Off by In-charge 1	authorized-coff3-ric1	HHH:MM	Part of actual OT3 component, authorized as C-Off By Incharge1. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT4 as C-Off by In-charge 1	authorized-coff4-ric1	HHH:MM	Part of actual OT4 component, authorized as C-Off By Incharge1. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT5 as C-Off by In-charge 1	authorized-coff5-ric1	HHH:MM	Part of actual OT5 component, authorized as C-Off By Incharge1. Here, Incharge having non-final authority is considered as In-charge1.
Authorized OT1 by In-charge 2	authorized-ot1-ric2	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT2 by In-charge 2	authorized-ot2-ric2	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT3 by In-charge 2	authorized-ot3-ric2	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge2.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT4 by In-charge 2	authorized-ot4-ric2	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT5 by In-charge 2	authorized-ot5-ric2	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT1 as C-Off by In-charge 2	authorized-coff1-ric2	HHH:MM	Part of actual OT1 component, authorized as C-Off By Incharge2. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT2 as C-Off by In-charge 2	authorized-coff2-ric2	HHH:MM	Part of actual OT2 component, authorized as C-Off By Incharge2. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT3 as C-Off by In-charge 2	authorized-coff3-ric2	HHH:MM	Part of actual OT3 component, authorized as C-Off By Incharge2. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT4 as C-Off by In-charge 2	authorized-coff4-ric2	HHH:MM	Part of actual OT4 component, authorized as C-Off By Incharge2. Here, Incharge having non-final authority is considered as In-charge2.
Authorized OT5 as C-Off by In-charge 2	authorized-coff5-ric2	HHH:MM	Part of actual OT5 component, authorized as C-Off By Incharge2. Here, Incharge having non-final authority is considered as In-charge2.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT1 by In-charge 3	authorized-ot1-ric3	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT2 by In-charge 3	authorized-ot2-ric3	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT3 by In-charge 3	authorized-ot3-ric3	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT4 by In-charge 3	authorized-ot4-ric3	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT5 by In-charge 3	authorized-ot5-ric3	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT1 as C-Off by In-charge 3	authorized-coff1-ric3	HHH:MM	Part of actual OT1 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT2 as C-Off by In-charge 3	authorized-coff2-ric3	HHH:MM	Part of actual OT2 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge3.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT3 as C-Off by In-charge 3	authorized-coff3-ric3	HHH:MM	Part of actual OT3 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT4 as C-Off by In-charge 3	authorized-coff4-ric3	HHH:MM	Part of actual OT4 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT5 as C-Off by In-charge 3	authorized-coff5-ric3	HHH:MM	Part of actual OT5 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge3.
Authorized OT1 by In-charge 4	authorized-ot1-ric4	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT2 by In-charge 4	authorized-ot2-ric4	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT3 by In-charge 4	authorized-ot3-ric4	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT4 by In-charge 4	authorized-ot4-ric4	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge4.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT5 by In-charge 4	authorized-ot5-ric4	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT1 as C-Off by In-charge 4	authorized-coff1-ric4	HHH:MM	Part of actual OT1 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT2 as C-Off by In-charge 4	authorized-coff2-ric4	HHH:MM	Part of actual OT2 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT3 as C-Off by In-charge 4	authorized-coff3-ric4	HHH:MM	Part of actual OT3 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT4 as C-Off by In-charge 4	authorized-coff4-ric4	HHH:MM	Part of actual OT4 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT5 as C-Off by In-charge 4	authorized-coff5-ric4	HHH:MM	Part of actual OT5 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge4.
Authorized OT1 by In-charge 5	authorized-ot1-ric5	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge5.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT2 by In-charge 5	authorized-ot2-ric5	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge5.
Authorized OT3 by In-charge 5	authorized-ot3-ric5	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge5.
Authorized OT4 by In-charge 5	authorized-ot4-ric5	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge5.
Authorized OT5 by In-charge 5	authorized-ot5-ric5	HHH:MM	Return blank if unavailable. Here, Incharge having non-final authority is considered as In-charge5.
Authorized OT1 as C-Off by In-charge 5	authorized-coff1-ric5	HHH:MM	Part of actual OT1 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge5.
Authorized OT2 as C-Off by In-charge 5	authorized-coff2-ric5	HHH:MM	Part of actual OT2 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge5.
Authorized OT3 as C-Off by In-charge 5	authorized-coff3-ric5	HHH:MM	Part of actual OT3 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge5.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Authorized OT4 as C-Off by In-charge 5	authorized-coff4-ric5	HHH:MM	Part of actual OT4 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge5.
Authorized OT5 as C-Off by In-charge 5	authorized-coff5-ric5	HHH:MM	Part of actual OT5 component, authorized as C-Off By NonFinal Incharge. Here, Incharge having non-final authority is considered as In-charge5.
Total Authorized OT	total-authorized-ot	HHH:MM	Return blank if unavailable.
Total Authorized C-Off	authorized-coff	HHH:MM	Return blank if unavailable.
Gross Work Hours	gross-workhours	HH:MM	Return blank if unavailable.
Extra Work Hours	extra-workhours	HH:MM	Return blank if unavailable.
Net Work Hours	net-workhours	HHHHHHH:MM	Return blank if unavailable.
First Half	firsthalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Second Half	secondhalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Week-Off	wo	0: Status is not WO 1: Status is WO	Should be displayed for Period=0
Public Holiday	ph	0: Status is not PH 1: Status is PH	Should be displayed for Period=0
Remark for OT1	remark1	50 characters	Should be displayed for Period=0
Remark for OT2	remark2	50 characters	Should be displayed for Period=0
Remark for OT3	remark3	50 characters	Should be displayed for Period=0

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Remark for OT4	remark4	50 characters	Should be displayed for Period=0
Remark for OT5	remark5	50 characters	Should be displayed for Period=0
Remark for OT1 By In-Charge 1	remark1-ric1	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge1
Remark for OT2 By In-Charge 1	remark2-ric1	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge1
Remark for OT3 By In-Charge 1	remark3-ric1	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge1
Remark for OT4 By In-Charge 1	remark4-ric1	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge1
Remark for OT5 By In-Charge 1	remark5-ric1	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge1
Remark for OT1 By In-Charge 2	remark1-ric2	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge2
Remark for OT2 By In-Charge 2	remark2-ric2	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge2
Remark for OT3 By In-Charge 2	remark3-ric2	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge2
Remark for OT4 By In-Charge 2	remark4-ric2	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge2
Remark for OT5 By In-Charge 2	remark5-ric2	50 characters	Should be displayed for Period=0 Here, Incharge having final authority is considered as In-charge2

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Application Date	adv-application-date	10 Characters DD/MM/YYYY	Return blank if unavailable Should be displayed for Period=0
Applied OT Hours	adv-applied-othours	5 characters HH:MM	Return blank if unavailable Should be displayed for Period=0
Approved OT Hours	adv-approved-othours	5 characters HH:MM	Return blank if unavailable Should be displayed for Period=0
Approved By	adv-approvedby	15 characters	Return blank if unavailable Should be displayed for Period=0
Status	status	1 Character 0=Pending 1=Approved 2=Rejected	Return blank if unavailable Should be displayed for Period=0
Remarks	remark	30 characters	Return blank if unavailable Should be displayed for Period=0
Final RIC ID	final-ric-type1	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name-type1	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time-type1	final -verdict-date-type1	MM/DD/YYYY HH:MM	
Final RIC Verdict-type1	final-verdict-type1	0: pending 1: authorized	Provides status of application.
Final RIC Remark-type1	final-remark-type1	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Final RIC Verdict Date Time-type2	final-verdict-date-type2	MM/DD/YYYY HH:MM	
Final RIC Verdict-type2	final-verdict-type2	0: pending 1: authorized	Provides status of application.

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Final RIC Remark-type2	final-remark-type2	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Final RIC Verdict Date Time-type3	final-verdict-date-type3	MM/DD/YYYY HH:MM	
Final RIC Verdict-type3	final-verdict-type3	0: pending 1: authorized	Provides status of application.
Final RIC Remark-type3	final-remark-type3	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Final RIC Verdict Date Time-type4	final-verdict-date-type4	MM/DD/YYYY HH:MM	
Final RIC Verdict-type4	final-verdict-type4	0: pending 1: authorized	Provides status of application.
Final RIC Remark-type4	final-remark-type4	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Final RIC Verdict Date Time-type5	final-verdict-date-type5	MM/DD/YYYY HH:MM	
Final RIC Verdict-type5	final-verdict-type5	0: pending 1: authorized	Provides status of application.
Final RIC Remark-type5	final-remark-type5	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC1 ID	nonfinal-ric1-type1	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC1 Name	nonfinal-ric1-name-type1	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC1 Verdict Date Time-type1	nonfinal1-verdict-date-type1	MM/DD/YYYY HH:MM	

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC1 Verdict-type1	nonfinal1-verdict-type1	0: pending 1: authorized	
Non-Final RIC1 Remark-type1	nonfinal1-remark-type1	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC1 Verdict Date Time-type2	nonfinal1-verdict-date-type2	MM/DD/YYYY HH:MM	
Non-Final RIC1 Verdict-type2	nonfinal1-verdict-type2	0: pending 1: authorized	
Non-Final RIC1 Remark-type2	nonfinal1-remark-type2	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC1 Verdict Date Time-type3	nonfinal1-verdict-date-type3	MM/DD/YYYY HH:MM	
Non-Final RIC1 Verdict-type3	nonfinal1-verdict-type3	0: pending 1: authorized	
Non-Final RIC1 Remark-type3	nonfinal1-remark-type3	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC1 Verdict Date Time-type4	nonfinal1-verdict-date-type4	MM/DD/YYYY HH:MM	
Non-Final RIC1 Verdict-type4	nonfinal1-verdict-type4	0: pending 1: authorized	
Non-Final RIC1 Remark-type4	nonfinal1-remark-type4	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC1 Verdict Date Time-type5	nonfinal1-verdict-date-type5	MM/DD/YYYY HH:MM	
Non-Final RIC1 Verdict-type5	nonfinal1-verdict-type5	0: pending 1: authorized	
Non-Final RIC1 Remark-type5	nonfinal1-remark-type5	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 ID	nonfinal-ric2-type2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name-type2	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time-type1	nonfinal2-verdict-date-type1	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict-type1	nonfinal2-verdict-type1	0: pending 1: authorized	
Non-Final RIC2 Remark-type1	nonfinal2-remark-type1	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 Verdict Date Time-type2	nonfinal2-verdict-date-type2	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict-type2	nonfinal2-verdict-type2	0: pending 1: authorized	
Non-Final RIC2 Remark-type2	nonfinal2-remark-type2	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 Verdict Date Time-type3	nonfinal2-verdict-date-type3	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict-type3	nonfinal2-verdict-type3	0: pending 1: authorized	
Non-Final RIC2 Remark-type3	nonfinal2-remark-type3	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 Verdict Date Time-type4	nonfinal2-verdict-date-type4	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict-type4	nonfinal2-verdict-type4	0: pending 1: authorized	
Non-Final RIC2 Remark-type4	nonfinal2-remark-type4	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 Verdict Date Time-type5	nonfinal2-verdict-date-type5	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict-type5	nonfinal2-verdict-type5	0: pending 1: authorized	
Non-Final RIC2 Remark-type5	nonfinal2-remark-type5	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3-type	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time-type1	nonfinal3-verdict-date-type1	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict-type1	nonfinal3-verdict-type1	0: pending 1: authorized	
Non-Final RIC3 Remark-type1	nonfinal3-remark-type1	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 Verdict Date Time-type2	nonfinal3-verdict-date-type2	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict-type2	nonfinal3-verdict-type2	0: pending 1: authorized	
Non-Final RIC3 Remark-type2	nonfinal3-remark-type2	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 Verdict Date Time-type3	nonfinal3-verdict-date-type3	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict-type3	nonfinal3-verdict-type3	0: pending 1: authorized	
Non-Final RIC3 Remark-type3	nonfinal3-remark-type3	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC3 Verdict Date Time-type4	nonfinal3-verdict-date-type4	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict-type4	nonfinal3-verdict-type4	0: pending 1: authorized	
Non-Final RIC3 Remark-type4	nonfinal3-remark-type4	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 Verdict Date Time-type5	nonfinal3-verdict-date-type5	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict-type5	nonfinal3-verdict-type5	0: pending 1: authorized	
Non-Final RIC3 Remark-type5	nonfinal3-remark-type5	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time-type1	nonfinal4-verdict-date-type1	DD/MM/YYYY HH:MM	
Non-Final RIC4 Verdict-type1	nonfinal4-verdict-type1	0: pending 1: authorized	
Non-Final RIC4 Remark-type1	nonfinal4-remark-type1	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 Verdict Date Time-type2	nonfinal4-verdict-date-type2	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict-type2	nonfinal4-verdict-type2	0: pending 1: authorized	
Non-Final RIC4 Remark-type2	nonfinal4-remark-type2	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Overtime/C-OFF Authorization Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC4 Verdict Date Time-type3	nonfinal4-verdict-date-type3	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict-type3	nonfinal4-verdict-type3	0: pending 1: authorized	
Non-Final RIC4 Remark-type3	nonfinal4-remark-type3	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 Verdict Date Time-type4	nonfinal4-verdict-date-type4	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict-type4	nonfinal4 -verdict-type4	0: pending 1: authorized	
Non-Final RIC4 Remark-type4	nonfinal4-remark-type4	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 Verdict Date Time-type5	nonfinal4-verdict-date-type5	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict-type5	nonfinal4-verdict-type5	0: pending 1: authorized	
Non-Final RIC4 Remark-type5	nonfinal4-remark--type5	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the Overtime/C-OFF application was last modified.

Authorizing Overtime/C-OFF

This API can be used to authorize Overtime/C-OFF hours for a user.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/ot-coff-authorization?action=set;<argument>=<value>…
```

User Rights

Same as *Getting Overtime/C-OFF Authorization Records*.

Parameters

Table: Authorizing Overtime/C-OFF - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 Char.	Yes	-	This is the identification number for the user whose overtime/C-OFF is to be authorized. The login user must have appropriate rights on this user id.
Period	0: Daily 1: Monthly	No	0	To specify the daily or monthly period for OT-C-OFF authorization records.
Date	ddmmyyyy	Yes for daily period	-	The date for authorization.
Month-year	mmyyyy	Yes for monthly period	-	If Monthly period is selected, then specify month-year
Authorization Sequence	1: OT Then C-OFF 2: C-OFF Then OT	No	1	Applicable only for monthly period
authorized-ot1	HHH:MM	The 'authorized-ot' or 'authorized-coff' must be mentioned for atleast one of the OT components (OT1-OT5) for authorization.	-	Hours authorized as an Overtime type (OT1-OT5) and Part of the actual OT component (OT1-OT5), authorized as C-Off.
authorized-coff1	HHH:MM			
authorized-ot2	HHH:MM			
authorized-coff2	HHH:MM			
authorized-ot3	HHH:MM			
authorized-coff3	HHH:MM			
authorized-ot4	HHH:MM			
authorized-coff4	HHH:MM			
authorized-ot5	HHH:MM			
authorized-coff5	HHH:MM			

Table: Authorizing Overtime/C-OFF - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
remark1	50 characters	No	N/A	Authorization Remarks for individual OT components.
remark2				
remark3				
remark4				
remark5				

Example1

This sample request authorizes the OT for a user.

Sample Request:

```
http://192.168.104.12/cosec/api.svc/v2/ot-coff-authorization?action=set;userid =3;Period=0;Date
=02072018;authorized-ot1 =001:00
```

Sample Response:

```
success: 0510200002 : saved successfully
```

Processing Monthly Attendance

On COSEC, some attendance parameters for a user are updated only when the monthly attendance data is manually processed. This monthly attendance process can be executed through API. This API shall be used to process the monthly attendance for a particular user.

Action

action=command

Syntax

```
http://<servername>/api.svc/v2/monthly-process?action=command;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time Attendance> Process > Monthly Attendance
ESS	Enabled for all ESS users.

Parameters

Table: Processing Monthly Attendance - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user)	Yes	-	For system user, this can be the user ID of any user on whom the login user has appropriate user rights. For ESS user, the user ID should be same as login user's ID. The process will be executed only if the user meets the following condition: User is Active User is an active T&A user. In case userid is provided along with id/ id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
month-year	mmyyyy	No	Current month and year.	The month and year for which the attendance process is to be run.

Table: Processing Monthly Attendance - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

In/Out Reasons

In/Out Reasons are reasons configured on the COSEC Server Application, to be used for submitting Short Leave or Official IN/OUT entries for approval. Use this API to fetch all In/Out Reasons configured on COSEC.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/in-out-reasons?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled
ESS	Enabled

Response Fields

Table: In/Out Reasons - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reason ID	reason-id	1-99	-
Reason	reason	30 alphanumeric characters	-
Type of Reason	reason-type	0: In 1: Out	-

Example

Sample Request:

```
http://matrixserver/api.svc/v2/in-out-reasons?action=get
```

Sample Response:

```
reason-id|reason|reason-type
1|Sickness|1
2|Personal Work|0
3|Meeting with Client|0
4|Meeting with Client - OUT|1
<EOT>
```

Getting Shift Wise Count

This shall be used to get shift wise counts of users as per their punches or day's status. This will return count of scheduled, reported, not reported, on leave/tour, etc.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/shift-wise-count?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled only for ESS Reporting In-charge user

Parameters

Table: Getting Shift Wise Count- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
attendance-date	ddmmyyyy	No	Current Date	This defines the attendance date for which Shift Wise Count is to be fetched.
range	all organization branch department designation section category grade user customgroup1ID customgroup2ID customgroup3ID	-	all	-
Id	1 to 999 (for all the ranges except all & user) 15 Char. (for user)	Yes if range is other than “all”	-	Multiple id can be selected, each separated by ", (comma)" e.g.:"1, 3, 7, 9…" Or Select a range of id E.g."1-50".
shift-id	Alpha-numeric	-	-	Multiple shift-id can be selected, each separated by ", (comma)" e.g.:"GS,G1,NS, ES..."

Response Fields

Table: Getting Shift Wise Count- Response Fields

Field Name	Tag Name	Valid Values	Remarks
Shift ID	shift-id	2 alphanumeric characters	Shows Shift ID
Shift Name	shift-name	20 characters	Shows Shift Name
Shift Start Time	shift-start	HH:MM	Shift's Start Time
Shift End Time	shift-end	HH:MM	Shift's End Time
Assigned Users	assigned	numeric	
On Leave/Tour/COFF	leave-tour-coff	numeric	
On Week Off/Holiday	wo-ph	numeric	
Reported Users	reported	numeric	
Not Reported Users	not-reported	numeric	
Scheduled Users	scheduled	numeric	
Early IN Users	early-in	numeric	
Late IN Users	late-in	numeric	
Early OUT Users	early-out	numeric	
Late OUT Users	late-out	numeric	
Attendance Date	attendance-date	ddmmyyyy	Attendance Date of user

Example

Sample Request:

```
http://matrix-server/api.svc/v2/shift-wise-count?action=get;attendance-date=01012016;range=all;
```

Getting Site Wise Count

This shall be used to get site wise counts of users as per their events. This will return IN count, OUT count and who's IN Count users. The http query to access site data from the COSEC server should resemble the following syntax:

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/site-wise-count?action=<get>;<argument>=<value>..]
```

The *Site Wise Count* API allows you to perform the following function:

User Rights

User	Rights
System Account	Enabled
ESS	Enabled only for ESS – Reporting In charge user. Only member users should be considered in this case.

Parameters

Table: Obtaining Data on Existing Sites - Parameters

Argument	Valid Values	Mandatory	Description
time-range	ddmmyyyyhhmmss – ddmmyyyyhhmmss	No	If time-range is not mentioned, then consider it to be "(current date time – 48 hours) to (current date time)" by default. If field does not contain hh mm ss values then by default assume: Start as – 00:00:00 and End as – 23:59:59 **Example**- if parameter value is: date-range = 11082020-12082020 Then convert it to: 11082020**000000** – 12082020**235959**
Range	all organization branch department designation section category grade user customgroup1ID customgroup2ID customgroup3ID	No	System support mentioned ranges. If range & Id, both are not mentioned, then consider it to be "all" by default. If range is not passed but Id passed, consider range=user.

Table: Obtaining Data on Existing Sites - Parameters

Argument	Valid Values	Mandatory	Description
Id	1-999 (for all the ranges except all & user) 15 Char. (for user) **Note:** This is the min to max range. In case of a system with only 1-50 id defined then valid range shall be 1-50.	Yes	Each range (except all) shall have specific id. System should allow user to select multiple id, each separated by “, (comma)” e.g.:”1, 3, 7, 9…” Or Select a range of id E.g.”1-50”.
site-id	Numeric	No	System should allow user to select multiple site-id, each separated by “, (comma)” e.g.: ”1, 2, 3, 4…”

Response Fields

Table: Obtaining Data on Existing Sites - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Site ID	site-id	3 characters numeric	Return Site’s ID
Site Name	site-name	30 characters	Return Site’s Name
IN Count	in	numeric	
OUT Count	out	numeric	
Whos IN Count	whos-in	numeric	

Records should be ordered first by Site ID (Ascending).

Example

http://matrix-server/api.svc/v2/site-wise-count?action=get;time-range=18032016080000-18032016200000;range=all;

site-id	site-name	in	out	whos-in
1	Site 1	100	62	38
2	Site 2	150	125	25
3	Site 3	175	135	40

Getting Shift-Site Wise Count

This API is used to get site wise counts of reported users against each shift as per their punches or day's status.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/shift-site-wise-count?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled only for ESS Reporting In-charge user

Parameters

Table: Getting Shift-Site Wise Count- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
attendance-date	ddmmyyyy	-	current date	-
range	all organization branch department designation section category grade user customgroup1ID customgroup2ID customgroup3ID	-	all	-
Id	1 to 999 (for all the ranges except all & user) 15 Char. (for user)	Yes if range is other than “all”	-	Multiple id can be selected, each separated by ", (comma)" e.g.:"1, 3, 7, 9…" Or Select a range of id E.g."1-50".
shift-id	Alpha-numeric 2 characters	Yes	-	-

Response Fields

Table: Getting Shift-Site Wise Count- Response Fields

Field Name	Tag Name	Valid Values	Remarks
Site ID	site-id	3 numeric characters	Shows Site ID
Site Name	site-name	30 characters	Shows Site Name
Reported Users	reported	numeric	

Getting Site Wise User Detail

This API is used to get site wise users details as per their IN OUT events. This will return user's date-time detail of IN, OUT for sites.The http query to access site data from the COSEC server should resemble the following syntax:

Action

action= get

Syntax

http://<servername>/api.svc/v2/site-wise-user-details?action=<get>;<argument>=<value>..]

User Rights

User	Rights
System Account	Enabled
ESS	Enabled only for ESS – Reporting In charge user. Only member users should be considered in this case.

Parameters

Table: Getting Site Wise User Details - Parameters

Argument	Valid Values	Mandatory	Description
time-range	ddmmyyyyhhmmss – ddmmyyyyhhmmss	No	If time-range is not mentioned, then consider it to be "(current date time – 48 hours) to (current date time)" by default. If field does not contain hh mm ss values then by default assume: Start as – 00:00:00 and End as – 23:59:59 **Example**- if parameter value is: date-range = 11082020-12082020 Then convert it to: 11082020**000000** – 12082020**235959**
Range	All organization branch department designation section category grade user customgroup1ID customgroup2ID customgroup3ID	No	System support mentioned ranges. If range & Id, both are not mentioned, then consider it to be "all" by default. If range is not passed but Id passed, consider range=user.

Table: Getting Site Wise User Details - Parameters

Argument	Valid Values	Mandatory	Description
Id	1-999999 (for all the ranges except all & user) 15 alphanumeric Char.(for user) A to Z a to z 0 to 9 /_\\.@: **Note:** This is the min to max range. In case of a system with only 1-50 id defined then valid range shall be 1-50.	Yes	Each range (except all) shall have specific id. System should allow user to select multiple id, each separated by “, (comma)” e.g.:”1, 3, 7, 9…” Or Select a range of id E.g.”1-50”.
site-id	Numeric	No	System should allow user to select multiple site-id, each separated by “, (comma)” e.g.: ”1, 2, 3, 4…”

Response Fields

Table: Getting Site Wise User Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Site ID	site-id	3 characters numeric	Return Site’s ID
Site Name	site-name	30 characters	Return Site’s Name
User ID	user-id	15 characters	Return User’s ID
User Name	user-name	45 characters	Return User’s Name
IN Events	in-events	numeric	Return Date Time (ddmmyyyyhhmmss)
OUT Events	out-events	numeric	Return Date Time (ddmmyyyyhhmmss)

Records should be ordered first by Site ID (Ascending).
Multiple In /Out events should be comma separated.
Multiple entry of same user should be return in case events are found in multiple site. (E.g; If event of User 1 is found in Site 1 and Site 2, then two entries if User 1 will be returned.

Example

http://matrix-server/api.svc/v2/site-wise-user-details?action=get;time-range=11082020080000-11082020180000;range=all;

site-id	site-name	user-id	user-name	in-events	out-events
1	Site 001	001	Shalini	11082020080000, 11082020090000,11082020015000	11082020180000, 11082020160000
2	Site 001	002	Kartikaya	11082020080500	
3	Site 001	003	Kwisha	11082020103000	11082020153000
4	Site 002	003	Kwisha	11082020104000	11082020154000
5	Site 002	003	Kwisha		11082020140000

Getting Overtime Application

This shall be used to get the user's overtime application data for the specific date period, and to submit new overtime applications.

Action

action= get

Syntax

http://<servername>/api.svc/v2/overtime-application?action=<get/set/update/delete>;<argument>=<value>...]

User Rights

User	Rights
System Account	Enabled if User has rights on the following Page: Time and Attendance > Utilities > Overtime Application
ESS	Enabled if User has rights on the following Page: ESS >Time Attendance > Overtime Application

Parameters

Table: Getting Overtime Application Data - Parameters

Argument	Valid Values	Mandatory	Description
user-filter	0= individual 1= group	No	-
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	**For ESS user:** If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID. If the login user is not a reporting group in-charge, return error message as per mentioned below. **For a System Account user:** If user-filter=0, the userid can be any user's id. If the System account user has rights on that user, return the records. Otherwise, return message as per mentioned below. If user-filter=1, the userid can be any user's ID.If the System account user does not have rights on that user, return message as per mentioned below. If the system user has sufficient rights, check the mentioned userid. If it is reporting group in-charge's id, return the records of his group members. If the user is not a reporting group in-charge, return error message as per mentioned below.

Table: Getting Overtime Application Data - Parameters

Argument	Valid Values	Mandatory	Description
date-range	ddmmyyyy-ddmmyyyy Valid Values: dd (Date): 01-31 mm (Month): 01-12 yyyy (Year)	No	-
application-status	0: all 1: pending 2: approved 3: rejected	No	-

Response Fields

Table: Getting Overtime Application Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters : 15 alphanumeric Char. A to Z a to z 0 to 9 /_\\.@:
User Name	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	
TID (form no.)	tid	10 digits	Same as form-number. Auto Generated on saving leave application.
Applied Date and Time	application-date	mm/dd/yyyy HH:MM:SS	Date & Time on which application gets applied. mm(Month): 01-12 dd(Date): 01-31 yyyy(Year): 4 digits HH(Hour): 00-23 MM(Minute): 00-59 SS(Seconds): 00-59
OT Date	OT-date	mm/dd/yyyy	Date for which OT application applied. mm(Month): 01-12 dd(Date): 01-31 yyyy(Year): 4 digits
Applied OT Hours	applied-hours	HH:MM	Overtime Duration for which OT application applied. HH(Hour): 00-23 MM(Minute): 00-59
Approved OT Hours	approved-hours	HH:MM	Overtime Duration for which OT application approved. HH(Hour): 00-23 MM(Minute): 00-59

Table: Getting Overtime Application Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Address	address	Max 30 chars.	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\
Contact Info	contact	20 numeric characters	
Application Status	application-status	1: pending 2: approved 3: rejected	Provides status of application.
Application Verdict Date	verdict-date	mm/dd/yyyy HH:MM	If not available, return blank. mm(Month): 01-12 dd(Date): 01-31 yyyy(Year): 4 digits HH(Hour): 00-23 MM(Minute): 00-59
Application Reason	application –reason	50 characters	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\
Application Approval Remark	application-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	Not mandatory. If not supplied, this field remains blank.
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	Provides status of application.
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	

Table: Getting Overtime Application Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: approved 3: rejected	

Table: Getting Overtime Application Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Short Leave/Official IN-OUT Application

This API can be used to fetch details of all Short Leave/Official IN-OUT Applications submitted on the COSEC system.

Action

action=get

Syntax

```
http://<cosec_server>/cosec/api.svc/short-leave-application?action=<get/set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Time Attendance > Authorization/Approval > Short Leave/ Official IN-OUT
ESS	Enabled. User must have rights on following ESS pages: ESS > Approval/Authorization > Short Leave/Official IN-OUT Authorization ESS > Time Attendance > Short Leave/Official IN-OUT

Parameter

Table: Getting Short Leave/Official IN-OUT Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
User-filter	0: individual 1: group	No	0 (individual)	If user-filter=0, a single user's records will be returned. If user-filter=1, records for all the group members will be returned (applicable only if login user is a reporting in-charge or system account user) When argument Range & Id or Id is mentioned and argument user-id is not provided, default value of user-filter=0 should not be considered. Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Getting Short Leave/Official IN-OUT Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the identification number for the user whose data is to be fetched. For ESS user: If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID. The login user must be a reporting in-charge. For a System Account user: If user-filter=0, the userid can be any user's id. (If the System Account user has rights on that user) If user-filter=1, the userid can be any user's ID (If the System Account user has rights on that user and the user is a reporting in-charge). In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
Date-range	ddmmyyyy-ddmmyyyy	No	Records for 30 days prior to current date will be fetched if no range is specified.	Date range for which short-leave/official in-out applications need to be fetched.
Entry-type	1: Official 2: Short Leave	No	2 (Short Leave)	If entry-type = 2, Only those records will be returned for which special function is of type: short-leave in/short-leave out. If entry-type = 1, Only those records will be returned for which special function is of type: official in/official out.
authorization-status	0: All 1: Pending 2: Approved 3: Rejected	No	0 (All)	Applicable in case of short leave/official in-out authorization by Reporting in-charge, where member's entries need to be fetched.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Short Leave/Official IN-OUT Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID has specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Short Leave/Official IN-OUT Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters : 15 alphanumeric Char. A to Z a to z 0 to 9 / _ \\ . @ :
User Name	user-name	45 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	Max. 15 alphanumeric characters	-
Entry Type	entry-type	1: Official 2: Short Leave	-
Attendance Date	attendance-date	mm/dd/yyyy	-
Start Punch Index	start-punch-idx	0-12	Start Punch Index is the Start Punch/In-Out Punch.
End Punch Index	end-punch-idx	0-12	End Punch Index is the End Punch/In-Out Punch.
Start punch	start-punch	mm/dd/yyyy HH:MM	Start punch timing for application.
End punch	end-punch	mm/dd/yyyy HH:MM	End punch timing for application.
TID	tid	Numbers 18 characters	This transaction id is unique for every Short Leave/Official In-Out application.
Special Function	spfid	1-4	1=Official In, 2=Official Out, 3=ShortLeave In, 4=ShortLeave Out

Table: Getting Short Leave/Official IN-OUT Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reason	reason	30 alphanumeric characters	
Shift	shift	Two character code	-
First Half	firsthalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Second Half	secondhalf	PR : Present AB : Absent WO : Week Off PH : Public Holiday FB : Field Break RD : Rest Day IN : Official In <Leave Codes>	<Leave Codes>as configured in COSEC
Week-Off	wo	0: Status is not WO 1: Status is WO	-
Public Holiday	ph	0: Status is not PH 1: Status is PH	-
Authorization Status	authorization-status	1 : Pending 2 : Approved 3 : Rejected	Applicable in case of short leave/official in-out authorization by a Reporting in-charge, where member's entries need to be fetched.
Applied On	application-date	DD/MM/YYYY HH:MM	
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final-ric-verdict-date	MM/DD/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Short Leave/Official IN-OUT Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric -verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal -ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Short Leave/Official IN-OUT Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal -ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Gross Work Hours	gross-workhours	HH:MM	Gross Work Hours
Extra Work Hours	extra-workhours	HH:MM	Extra Work Hours
Net Work Hours	net-workhours	HHHHHH:MM	Net Work Hours

Setting Overtime Application

This shall be used to set the user's overtime application data for the specific date period.

Action

action= set

Parameters

Table: Setting Overtime Application Data - Parameters

Argument	Valid Values	Multi-Language Character set	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	NA	NA	-
OT-date	8 characters Format: ddmmyyyy dd(Date): 01-31 mm(Month): 01-12 yyyy: Year Valid values are current date & future date only	NA	NA	Mandatory field.
OT-hours	4 characters Format: hhmm hh(Hour): 00-23 mm(Minute): 01-59	NA	NA	Mandatory field.
reason	50 characters Allowed Characters: A-Z a-z 0-9 _.,()[]:@!#$*+/	NA	Overtime	Not Mandatory.
Address	30 characters Allowed Characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\	NA	Blank	Not Mandatory.
contact	20 Digits Valid Values: 0 – 9 - + ( )	NA	Blank	Not Mandatory.

Updating Overtime Application

This shall be used to update user's overtime application data for the specific date period.

Action

action= update

Parameters

Table: Updating Overtime Application Data - Parameters

Argument	Valid Values	Description
tid	max 10 numeric characters	Mandatory field.
userid	15 alphanumeric Char. A to Z a to z 0 to 9 /_\\.@:	Mandatory field.
OT-date	8 characters Format: ddmmyyyy dd(Date): 01-31 mm(Month): 01-12 yyyy: Year Valid values are current date & future date only	Not a mandatory field.
OT-hours	4 characters Format: hhmm hh(Hour): 00-23 mm(Minute): 01-59	Not a mandatory field.
reason	Max 50 characters Allowed Characters: A-Z a-z 0-9 _.,()[]:@!#$*+/	Not a mandatory field.
Address	30 characters Allowed Characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\	Not a mandatory field.
contact	Max 20 numeric chars.	Not a mandatory field.

Deleting Overtime Application

This shall be used to delete the user's overtime application data for the specific date period.

Action

action= delete

Parameters

Table: Deleting Overtime Application Data - Parameters

Argument	Valid Values	Description
tid	max 10 numeric characters	Mandatory field.
userid	15 alphanumeric Char. A to Z a to z 0 to 9 /_\\.@:	Mandatory field.

Overtime Approval

This shall be used to set the approval for user's overtime application.

Action

action= set

Parameters

Table: Overtime Approval- Parameters

Argument	Valid Values	Multi-Language Character set	Default Value	Description
tid	max 10 numeric characters	No	NA	Mandatory field.
approved	1: approve 2: reject	-	-	Mandatory field.
OT-hours	4 characters Format: hhmm hh(Hour): 00-23 mm(Minute): 01-59	NA	NA	Mandatory field.
remark	30 characters Allowed Characters: A-Z a-z 0-9 _.,()[]:@!#$*+/	NA	--If approved: Approved Overtime --If rejected: Rejected Overtime Or as per already configured value (No change: this case will happen when final RIC has already given verdict & SA is going to change it)	-

Shift Change Approval

This shall be used to approve or reject the user's shift change applications.

Action

action= set

Syntax

```
http://<servername>/cosec/api.svc/v2/shift-change-approval?action=<set>;<argument>=<value>...
```

License

- System Account User: Basic (PLT) License + TAM
- ESS User: BASIC + ESS + TAM

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Shift and Schedule module > Approval > Shift Change Approval
ESS User	Enabled if User is Reporting In-charge and has permissions as defined on the following page: Users module > Reporting Group > In Charge Permissions and has rights on any one of the following Pages. ESS > Approval/Authorization > Shift Change Approval

Parameters

Table: Shift Change Approval- Parameters

Argument	Valid Values	Multi-Language Character set	Default Value	Description
tid	max 10 numeric characters	No	NA	Mandatory field.
approved	1: approve 2: reject	-	-	Mandatory field.
remark	30 characters Allowed Characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\ {space}	NA	If argument is not passed, the default value should be based on the value of the argument 'approved'.	Not Mandatory field.

Getting Shift Change Application

This API can be used to fetch the Shift Change Applications on the COSEC system.

Action

action= get

Syntax

```
http://<servername>/cosec/api.svc/v2/shift-changer?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Shift and Schedules > Utilities > Shift Changer Shift and Schedules > Application/Approval > Shift Change Application
ESS	Enabled. User must have rights on following ESS pages: ESS > Time Attendance > Shift Change Application and Shift Change Approval

Parameter

Table: Getting Shift Change Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-filter	0: Individual 1: Group	No	0	If user-filter=0, then a single user's records will be fetched If user-filter=1, records for all the group members will be fetched **Note:** user-filter=1 is applicable only if the Logged IN user is a Reporting In-charge or System Account user. When argument 'range' and 'id' is mentioned but argument 'user-id' is not passed, then default value should not be considered. Argument should be ignored if the argument 'user-id' is not passed.

Table: Getting Shift Change Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the identification number for the user whose Shift Change Application is to be fetched. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case. If argument 'id' and 'range' is passed with argument 'user-id' then user-id is not mandatory.
date-range	ddmmyyyy-ddmmyyyy	No	All the Records for the specified user will be fetched if no range is specified.	Date range for which shift change applications need to be fetched.
range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
id	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID has specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,.....999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
application-status	0: All 1: Pending 2: Approved 3: Rejected	No	0 (All)	Applicable in case of shift change approval by Reporting in-charge, where member's entries need to be fetched.

Response Fields

Table: Getting Shift Change Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters : 15 alphanumeric Char. A to Z a to z 0 to 9 / _ \\ . @ :

Table: Getting Shift Change Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User Name	user-name	45 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	Max. 15 alphanumeric characters	Allowed Characters: A-Z a-z 0-9 ()-_.
From Date	from-date	mm/dd/yyyy	Start Date of the Application
To Date	to-date	mm/dd/yyyy	End Date of the Application
New Shift ID	new-shift-id	Max. 2 characters	Allowed Characters: A-Z a-z 0-9
New Shift Start Time	new-shift-start-time	HH:MM	Start time of the new Shift
New Shift End Time	new-shift-end-time	HH:MM	End time of the new Shift
TID	tid	15 Digits	TID is the Transaction ID that is auto-generated on saving a Shift Change Application.
Applied Date Time	applied-date-time	mm/dd/yyyy HH:MM:SS	Date and Time when Shift Change Application is applied.
Application Status	application-status	1 : Pending 2 : Approved 3 : Rejected	Shift Change Application status.
TID	tid	Numbers 18 characters	This transaction id is unique for every Short Leave/Official In-Out application.
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	
Final RIC Verdict Date Time	final-ric-verdict-date	MM/DD/YYYY HH:MM	

Table: Getting Shift Change Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict	nonfinal-ric -verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict	nonfinal -ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Getting Shift Change Applications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Verdict Date Time	nonfinal -ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Setting Shift Change Application

This API can be used to set the Shift Change Applications data of a user on the COSEC system.

Action

action= set

Syntax

```
http://<servername>/cosec/api.svc/v2/shift-changer?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Shift and Schedules > Application/Approval > Shift Change Application Shift and Schedules > Utilities > Shift Changer
ESS	Enabled. User must have rights on following ESS pages: ESS > Time Attendance > Shift Change Application and Shift Change Approval

Parameter

Table: Setting Shift Change Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	
date-range	ddmmyyyy-ddmmyyyy	Yes	-	Date range for which shift change application is to be raised.
shift-id	2 Characters	No	If argument range is not specified, the user's current working shift should be considered.	Mandatory for ESS user.
week-off	0 = No Week Off 1 = Enable Week Off	No	If argument range is not specified, the current Week-Off status should be considered.	Argument range should be ignored if passed by ESS user.
public-holiday	0 = No Public Holiday 1 = Enable Public Holiday	No	If argument range is not specified, the current Public-Holiday status should be considered.	Argument range should be ignored if passed by ESS user.

Deleting Shift Change Application

This API can be used to delete the Shift Change Applications data of a user on the COSEC system.

Action

action= delete

Syntax

```
http://<servername>/cosec/api.svc/v2/shift-changer?action=<delete>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Shift and Schedules > Application/Approval > Shift Change Application Shift and Schedules > Utilities > Shift Changer
ESS	Enabled. User must have rights on following ESS pages: ESS > Time Attendance > Shift Change Application and Shift Change Approval

Parameter

Table: Deleting Shift Change Applications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
tid	Max 10 Numeric Characters	Yes	-	Transaction ID of the shift change application.
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	User Id of the user whose shift change application is to be deleted.

CHAPTER 8

Leave Management

This chapter lists all APIs related to leave management. Applying and Retrieving leave configurations and leave balance data from the COSEC server and send, modify, as well as approve leave applications.

*The login user requires **Time and Attendance** module license for these APIs.*

In this section, you will find the following APIs:

Get APIs

- *Getting Leave Balance Details*
- *Getting Leave Group Details*
- *Getting Leave Details*
- *Getting Leave Application Details*

Set APIs

- *Setting Leave Balance*
- *Applying for a Leave*

Update API

- *Updating an Applied Leave*

Delete API

- *Deleting a Pending Application*

Set API

- *Approving/Rejecting Leaves*

Get APIs

- *Getting C-OFF Balance Details*
- *Getting C-OFF Details*

Getting Leave Balance Details

This API can be used to fetch leave balance data for one or more users for a specified time period.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/leave-balance?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Leave Management > View > Leave Balance
ESS	Enabled. User must have rights on following ESS pages: ESS > Leave Management > Leave Balance

Parameters

Table: Getting Leave Balance Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	Max. 15 characters allowed A-Z a-z 0-9 /_\\.@:	Yes	-	To specify the user identification number. Multiple IDs can be selected, separated by a 'comma'. E.g. "userid=1,2,3,4,5,..." In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
month-year	mmyyyy	No	Current Month and Year	To specify the month and year for which leave balance data is to be fetched.
leave-code	Two characters	No	All leaves (except Tour and C-OFF type leaves)	To specify the leave code for any pre-configured leaves on the COSEC Server.

Table: Getting Leave Balance Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id /user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value separated with comma. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id /user-id & user-filter. Value of id/id & range to be ignored in that case.
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This date defines the date on which the Leave Balance details were last modified. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response fields

Table: Getting Leave Balance Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed characters: A-Z a-z 0-9 /_\\.@:

Table: Getting Leave Balance Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User Name	user-name	40 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	max. 15 alphanumeric characters	The short-name assigned to the specified user
Leave Code	leave-code	Two alphanumeric characters	The leave code for the leave whose balance is fetched
Leave Name	leave-name	30 alphanumeric characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Month-Year	period	mmyyyy	The month and year for which leave balance data is fetched.
Opening Balance	opening-balance	-999 to +999 (multiples of 0.5)	The opening leave balance for the specified month (in days)
Closing Balance	closing-balance	-999 to +999 (multiples of 0.5)	The closing leave balance for the specified month (in days)
Credit/Manual Credit	credit	1-999 (multiples of 0.5)	The credited leaves for the specified month
Debit/Manual Debit	debit	1-999 (multiples of 0.5)	The debited leaves for the specified month
Encashed	encashed	1-999 (multiples of 0.5)	The encashed leaves for the specified month
Availed	availed	1-999 (multiples of 0.5)	The availed leaves for the specified month
Overflow	overflow	1-999 (multiples of 0.5)	The overflown leaves for the specified month
Leave Type	leave-type	0: Paid 1: Unpaid 2: Lay Off 3: Restricted Holiday 4: Compensatory Off 5: Tour	The type of leave for which balance was requested.
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the Leave Balance details were last modified.

Example1

This sample request obtains the Leave balance for a user.

Sample Request:

```
http://192.168.104.12/cosec/api.svc/v2/leave-balance?action=get;userid=1;last-modified-date-
range=25092024000000-30092024235959
```

Sample Response:

```
user-id|user-name|short-name|leave-code|leave-name|period|opening-balance|closing-
balance|credit|debit|encashed|availed|overflow|leave-type|hourly-leave-opening-balance|hourly-leave-
closing-balance-min|hourly-leave-credit|hourly-leave-debit|hourly-leave-encashed|hourly-leave-availed-
min|hourly-leave-overflow-min|last-modified-date
u1|u1|u1|CL|Casual Leave|092024|0.00|30.00|30.00|0.00|0.00|0.0|0.00|0|||||||30/09/2024 11:37:24
u1|u1|u1|PL|Planned Leave|092024|0.00|0.00|||||0.00|0|||||||30/09/2024 11:37:32
<EOT>
```

Getting Leave Group Details

Specify a user ID to request details of the leave group assigned to this user on the COSEC server.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/leave-group?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Leave Management > Leave Group
ESS	Enabled.

Parameters

Table: Getting Leave Group Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	To specify the user identification number. Multiple IDs can be selected, separated by a 'comma'. E.g. "userid=1,2,3,4,5,..." In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Leave Group Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Leave Group Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed characters: A-Z a-z 0-9 /_\\.@:
User Name	user-name	upto 40 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	max. 15 alphanumeric characters	The short-name assigned to the specified user
Leave Group ID	group-id	1 to 99	-
Leave Group Name	group-name	upto 30 alphanumeric characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Leave Code	leave-code	Two alphanumeric characters	Specifies the leave code for the leave
Leave Name	leave-name	upto 30 alphanumeric characters	Specifies the leave name
Leave Type	leave-type	0: Paid 1: Unpaid 2: Lay Off 3: Restricted Holiday 4: Compensatory Off 5: Tour 6:Hourly Paid 7:Hourly Unpaid	The type of leave for which balance was requested.
Minimum Allowed at a Time	minimum-allowed	1 to 999 (multiples of 0.5)	The minimum allowed leaves that can be taken at a time

Table: Getting Leave Group Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Maximum Allowed at a Time	maximum-allowed	1 to 999 (multiples of 0.5)	The maximum allowed leaves that can be taken at a time
Medical Certficate Required	medical-certificate-required	0=disabled 1=ensure availability 2=upload document	Specifies whether Medical Certificae is required for the leave. Parameter should be 0 for leave types: Restricted Holiday, Lay off, Tour
Tour Document Requirement	tour-doc-required	0=disabled 1=ensure availability 2=upload document	Parameter should be 0 for leave types: Paid, Unpaid, Restricted Holiday, Compensatory Off, Hourly Paid Leave, Hourly Unpaid Leave, Lay off.
Balance Check Enabled	balance-check-enabled	0 = disabled 1 = enabled	Specifies whether balance check is enabled for the leave
Minimum C-OFF for Half Day Off	half-day-required	blank/HH:MM	Specifies the minimum available C-OFF hours required to be eligible for half-day leave.
Minimum C-OFF for Full Day Off	full-day-required	blank/HH:MM	Specifies the minimum available C-OFF hours required to be eligible for full-day leave.
Priority	priority	1-99	It displays the priority of leaves available in the leave Group.
Minimum Allowed Duration	minimum-hourly-duration	HH:MM format	Defines the minimum hours & minutes, if a user applies the hourly type leaves. Only applicable for Hourly Leave Types For other leave types, parameter value will be blank
Max Allowed Duration Per Application	maximum-hourly-duration-app	HH:MM format	Defines the maximum hours & minutes for each application, if a user applies the hourly type leaves. Only applicable for Hourly Leave Types For other leave types, parameter value will be blank
Max Allowed Duration Per Day	maximum-hourly-duration-day	HH:MM format	Defines the maximum hours & minutes, if a user applies the hourly type leaves. Only applicable for Hourly Leave Types For other leave types, parameter value will be blank

Table: Getting Leave Group Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Min Leave For Certification Compulsion	min-dur-certificatecompulsion	0.5-99(for cer-dur-unit=0) 1-59999(for cer-dur-unit=1)	Parameter should be 0 for leave types: Restricted Holiday, Lay off, Tour.
Min tour Days For Document Compulsion	min-day-tourcompulsion	0.5-99(for cer-dur-unit=0) 1-59999(for cer-dur-unit=1)	Parameter should be 0 for leave types: Paid, Unpaid, Restricted Holiday, Compensatory Off, Hourly Paid Leave, Hourly Unpaid Leave, Lay off.
Certification Duration Unit	cert-dur-unit	0=Days (1-99) 1=Mins (1-59,999)	For Unit=0 Days should be considered For Unit=1 Mins should be considered. Parameter should be 0 for leave types: Restricted Holiday, Lay off, Tour.
Document Duration Unit	doc-dur-unit	0=Days (1-99) 1=Mins (1-59,999)	Parameter should be 0 for leave types: Paid, Unpaid, Restricted Holiday, Compensatory Off, Hourly Paid Leave, Hourly Unpaid Leave, Lay off.

Getting Leave Details

Specify the two-character code (CL, PL, SL etc.) for a pre-defined leave, to retrieve its details from the COSEC database.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/leave-details?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled

Parameters

Table: Getting Leave Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
leave-code	Two alphanumeric characters	Yes	-	To identify the leave for which details are to be requested. Multiple values can be selected by separating each value with a 'comma'.

Response Fields

Table: Getting Leave Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Leave Code	leave-code	Two alphanumeric characters	Specifies the leave code for the leave
Leave Name	leave-name	upto 30 alphanumeric characters	Specifies the leave name. Allowed characters: A-Z a-z 0-9 -_.()[]
Leave Type	leave-type	0: Paid 1: Unpaid 2: Lay Off 3: Restricted Holiday 4: Compensatory Off 5: Tour 6:Hourly Paid 7: Hourly Unpaid	The type of leave for which balance was requested.

Table: Getting Leave Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Minimum Allowed at a Time	minimum-allowed	1 to 999 (multiples of 0.5)	The minimum allowed leaves that can be taken at a time
Maximum Allowed at a Time	maximum-allowed	1 to 999 (multiples of 0.5)	The maximum allowed leaves that can be taken at a time
Medical Certificate Required	medical-certificate-required	0 = disabled 1 = ensure availability 2 = upload document	Specifies whether Medical Certificate is required for the leave. Parameter should be 0 for leave types: Restricted Holiday, Lay off, Tour.
Tour Document Required	tour-doc-required	0=disabled 1=ensure availability 2=upload document	Parameter should be 0 for leave types: Paid, Unpaid, Restricted Holiday, Compensatory Off, Hourly Paid Leave, Hourly Unpaid Leave, Lay off.
Balance Check Enabled	balance-check-enabled	0 = disabled 1 = enabled	Specifies whether balance check is enabled for the leave
Minimum Allowed Duration	minimum-hourly-duration	HH:MM format	Defines the minimum hours & minutes, if a user applies the hourly type leaves. Only applicable for Hourly Leave Types For other leave types, parameter value will be blank
Max Allowed Duration Per Application	maximum-hourly-duration-app	HH:MM format	Defines the maximum hours & minutes for each application, if a user applies the hourly type leaves. Only applicable for Hourly Leave Types For other leave types, parameter value will be blank
Max Allowed Duration Per Day	maximum-hourly-duration-day	HH:MM format	Defines the maximum hours & minutes, if a user applies the hourly type leaves. Only applicable for Hourly Leave Types For other leave types, parameter value will be blank
Min Leave For Certification Compulsion	min-dur-certificatecompulsion	0.5-99(for cer-dur-unit=0) 1-59999(for cer-dur-unit=1)	Parameter should be 0 for leave types: Restricted Holiday, Lay off, Tour.

Table: Getting Leave Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Min tour Days For Document Compulsion	min-day-tourcompulsion	0.5-99(for cer-dur-unit=0) 1-59999(for cer-dur-unit=1)	Parameter should be 0 for leave types: Paid, Unpaid, Restricted Holiday, Compensatory Off, Hourly Paid Leave, Hourly Unpaid Leave, Lay off.
Certification Duration Unit	cert-dur-unit	0=Days (1-99) 1=Mins (1-59,999)	For Unit=0 Days should be considered For Unit=1 Mins should be considered. Parameter should be 0 for leave types: Restricted Holiday, Lay off, Tour.
Document Duration Unit	doc-dur-unit	0=Days (1-99) 1=Mins (1-59,999)	For Unit=0 Days should be considered For Unit=1 Mins should be considered. Parameter should be 0 for leave types: Paid, Unpaid, Restricted Holiday, Compensatory Off, Hourly Paid Leave, Hourly Unpaid Leave, Lay off.

Example

The following request gets details for *Sick Leave (SL)* as configured on COSEC.

Sample Request:

```
http://matrixserver/api.svc/v2/leave-details?action=get;leave-code=SL
```

Sample Response:

```
leave-code|leave-name|leave-type|minimum-allowed|maximum-allowed|medical-certificate-required|balance-check-enabled
SL|SICK LEAVE|0|0.0|99.0|0|1
<EOT>
```

Getting Leave Application Details

Specify leave/tour application parameters such as leave type, user details, application status etc. to filter details of all relevant applications in the response.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/leave-application?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Leave Management > Application/Approval > Leave Application Leave Management > Application/Approval > Tour Application Leave Management > Application/Approval > C-OFF Application
ESS	Enabled. User must have rights on following ESS pages: ESS > Leave Management > Leave Application ESS > Leave Management > Tour Application ESS > Leave Management > C-OFF Application

Parameters

Table: Getting Leave Application Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-filter	0: individual 1: group	No	0 (individual)	If user-filter=0, a single user's records will be returned. If user-filter=1, records for all the group members will be returned. **Note :** user-filter=1, is applicable if login user is a reporting in-charge or system account user. When argument Range & Id or Id is mentioned and argument user-id is not provided, default value user-filter=0 should not be considered. Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Getting Leave Application Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the user identification number. For ESS user: If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. If user-filter=1, the userid should be same as login user's ID. The login user must be a reporting in-charge. For a System Account user: If user-filter=0, the userid can be any user's id. (If the System Account user has rights on that user) If user-filter=1, the userid can be any user's ID (If the System Account user has rights on that user and the user is a reporting in-charge). In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
leave-type	0: all 1: leave 2: tour 3: C-OFF	No	0 (all)	To specify whether the application type is leave, tour or C-OFF
date-range	ddmmyy-ddmmyy ddmmyyyyhhmmss-ddmmyyyyhhmmss Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	-	To specify the range of application dates for which data is to be fetched. If argument is not passed, all dates for which application records exist will be fetched. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Table: Getting Leave Application Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
application-status	0: all 1: pending 2: approved 3: rejected	No	all	To filter applications by their approval status.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value separated with comma. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for Leave Application. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed characters: A-Z a-z 0-9 /_\\.@:
User Name	user-name	40 characters	Allowed characters: A-Z a-z 0-9 -_.()[]
Short Name	short-name	max. 15 alphanumeric characters	The short-name assigned to a user
Leave Code	leave-code	Two alphanumeric characters	The leave code assigned to a leave
Leave Name	leave-name	30 alphanumeric characters	The name of the leave
Leave Type	leave-type	1: leave 2: tour 3: C-OFF	The type of application.
TID (form no.)	tid	10 digits	Same as form-number. Auto generated on saving leave application.
Applied Date and Time	applied-date	mm/dd/yyyy HH:MM:SS	The date of application
Application State	application-state	1: leave pending 2: cancellation pending 3: modification pending 4: approved 5: rejected	The approval status of application
Consideration In Terms Of	half-consideration	1: Both 2: First Half Only 3: Second Half Only 4: Hourly	The half day consideration for leave application
Start Date	start-date	mm/dd/yyyy	The leave start date
Day status on Start Date	start-day	1: full day 2: first half 3: second half 4: Hourly	The status of leave on the starting day.
End Date	end-date	mm/dd/yyyy	The leave end date
Day status on End Date	end-day	1: full day 2: first half 3: second half	The status of leave on the ending date.
Applied Days	applied-days	1 to 999 (multiples of 0.5)	Number of applied days
Posted Days	posted-days	1 to 999 (multiples of 0.5)	Number of posted days
Address	address	Max. 30 characters	Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Contact Info	contact	upto 20 numeric characters	This is the contact information in a leave application
Medical Certificate	medical-certi	0: no 1: yes	This is the availability of medical certificate
Tour Document	tour-doc	0= unchecked 1= checked	Display status of Tour Document checkbox.
Application Status	application-status	0: pending 1: approved 2: rejected	This is the approval status of the application
Application Verdict Date	verdict-date	mm/dd/yyyy HH:MM:SS	blank if date not available
Application Reason	application-reason	upto 50 characters	Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\
Application Approval Remark	application-remark	Max. 30 characters	Not mandatory. Blank if not available. Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\
Cancellation Application Date	cancellation-applied-date	mm/dd/yyyy HH:MM:SS	blank if date not available
Cancellation Status	cancellation-status	0: pending 1: approved 2: rejected	This is the cancellation status of the application. Blank if status not available
Cancellation Verdict Date	cancellation-verdict-date	mm/dd/yyyy HH:MM:SS	blank if date not available
Cancellation Reason	cancellation-reason	upto 50 characters	Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\
Cancellation Approval Remark	cancellation-remark	Max. 30 characters	Not mandatory. Blank if not available. Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\
Modification Application Date	modification-applied-date	mm/dd/yyyy HH:MM:SS	blank if date not available
Modification Half Day Consideration	modified-half-consideration	1: Both 2: First Half Only 3: Second Half Only 4:Hourly	The modification of half day leave application
Modified Start Date	modified-start-date	mm/dd/yyyy	The modified leave starting date

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Modified Day status on Start Date	modified-start-day	1: full day 2: first half 3: second half	The status of modified leave on the starting date.
Modified End Date	modified-end-date	mm/dd/yyyy	The modified leave ending date
Modified Day status on End Date	modified-end-day	1: full day 2: first half	The status of modified leave on the ending date.
Modified Applied Days	modified-applied-days	1 to 999 (multiples of 0.5)	Number of modified applied days
Modified Posted Days	modified-posted-days	1 to 999 (multiples of 0.5)	Number of modified posted days
Modification Status	modification-status	0: pending 1: approved 2: rejected	This is the modification status of the application. Blank if status not available
Modification Verdict Date	modification-verdict-date	mm/dd/yyyy HH:MM:SS	blank if date not available
Modification Reason	modification-reason	upto 50 characters	Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\
Applied C-OFF Hours	applied-coff	Blank/HH:MM	Blank when leave-type is leave or tour.
Modification Approval Remark	modification-remark	Max. 30 characters	Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\
Location Code	location-code	-	6 alpha-numeric characters. Blank if not available
Location Name	location-name	Allowed Characters A-Z a-z 0-9 -_. ()[]	50 characters Blank if not available
GPS Latitude	gps-latitude	-90.0000 to +90.0000	11 characters (max.) Blank if not available
GPS Longitude	gps-longitude	-180.0000 to +180.0000	11 characters (max.) Blank if not available
GSM Latitude	gsm-latitude	-90.0000 to +90.0000	11 characters (max.) Blank if not available
GSM Longitude	gsm-longitude	-180.0000 to +180.0000	11 characters (max.) Blank if not available

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
MAC Address	mac-address		17 characters (each byte separated by colon) Blank if not available
BLE Code	ble-code	0-9999	Returns the BLE Code assigned to a specific location Blank if not available
BLE Name	ble-name	Allowed Characters A-Z a-z 0-9	10 alphanumeric characters (max.) If not available, return blank
Site ID	site-id	1 - 999	1 - 999 Blank if not available
Site Name	Site-name	Max 30 alphanumeric character	Max 30 alphanumeric characters Blank if not available
Attendance Date	attendance-date	mm/dd/yyyy	If not available, return blank. Should show the Attendance Date in the Leave application when applied application is for the leaves with Leave Types = "Hourly Paid Leave" or "Hourly Unpaid Leave".
Applied Duration	applied-hours	HH:MM Format	If not available, return blank. Should show the Applied hours in the Leave application when applied application is for the leaves with Leave Types = “Hourly Paid Leave” or “Hourly Unpaid Leave”.
Posted Duration	posted-hours	HH:MM Format	If not available, return blank. Should show the posted hours in the Leave application when applied application is for the leaves with Leave Types = “Hourly Paid Leave” or “Hourly Unpaid Leave”.

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Start Time	hourly-start-time	HH:MM	If not available, return blank. Should display the Start time configured with the From Date control in the Leave application page for the leave with Leave Type = “Hourly Paid Leave” or “Hourly Unpaid Leave”.
End Time	hourly-end-time	HH:MM	Should display the end time configured with the To Date control in the Leave application page for the leaves with Leave Types = “Hourly Paid Leave” or “Hourly Unpaid Leave”.
Modified Attendance Date	modified-attendance-date	mm/dd/yyyy	If not available, return blank. Should show the Attendance Date in the Modification Leave application when applied modification application is for the leaves with Leave Types = “Hourly Paid Leave” or “Hourly Unpaid Leave”.
Modified Applied Duration	modified-applied-hours	HH:MM Format	If not available, return blank. Should show the Applied hours in the Modification Leave application when applied modification application is for the leaves with Leave Types = “Hourly Paid Leave” or “Hourly Unpaid Leave”.
Posted Duration	modified-posted-hours	HH:MM Format	If not available, return blank. Should show the posted hours in the Modification Leave application when applied application is for the leaves with Leave Types = “Hourly Paid Leave” or “Hourly Unpaid Leave”.

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Modified Start Time	modified-hourly-start-time	HH:MM	If not available, return blank. Should display the Start time configured with the From Date control in the Leave application page for the Modification leaves with Leave Type = “Hourly Paid Leave” or “Hourly Unpaid Leave”.
Modified End Time	modified-hourly-end-time	HH:MM	If not available, return blank. Should display the End time configured with the From Date control in the Leave application page for the Modification leaves with Leave Type = “Hourly Paid Leave” or “Hourly Unpaid Leave”.
Medical Certificate Available	med-cert-available	0= Not available 1= Available	Indicates whether medical certificate is available or not.
Modified Medical Certificate	modified-medical-certi	0=unchecked 1=checked	Display Status of Modified Medical Certificate checkbox.
Modified Medical Certificate Available	modified- Med-cert-available	0= Not available 1= Available	Indicates whether medical certificate is available or not.
Tour Document Available	tour-doc-available	0= Not Available 1= Available	Indicates whether tour document is available or not.
Modified Tour Document	modified-tour-doc	0=unchecked 1=checked	Display Status of Modified Tour Document checkbox.
Modified Tour Document Available	modified-tour-doc-available	0= Not Available 1= Available	Indicates whether modified tour document is available or not
Modified Address	modified-address	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	Max 30 chars.
Modified Contact Number	modified-contact	20 numeric characters	-
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final-ric-verdict-date	DD/MM/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	Provides status of application.
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Leave Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	Last Modified Date of Leave Application

Setting Leave Balance

Use the ***action=set*** parameter to set leave balance via this API.

Action

action=set

User Rights

Same as *"Getting Leave Balance Details" on page 246.*

Parameters

Table: Setting Leave Balance Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user id	Max. 15 characters	Yes	-	This is the user identification number. Login user must have appropriate rights on this user ID.
entry-type	0: Credit 1: Debit 2: Encashment 3: Reuse 4: Discard	Yes	0	-
credit-mode	0: Fixed 1: Using Accrual Policy	No	0	-
encashment-type	0: Leave Encashment 1: Overflow Encashment	No	0	-
encashment-mode	0: Defined 1: Available	No	0	-
days	3 Numeric	No	-	1. entry-type = 0 (i.e. credit) and credit-mode = 0 (i.e. Fixed) 2. entry-type = 1 (i.e. debit) 3. entry-type = 2 (i.e. encashment), encashment-type = 0 (i.e. Leave Encashment) and encashment-mode = 0 (.e. Defined) 4. entry-type = 2 (i.e. encashment), encashment-type = 1 (i.e. Overflow Encashment) 5. entry-type = 3 (i.e. reuse) 6. entry-type = 4 (i.e. discard)

Table: Setting Leave Balance Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
c-off hours	ddmmyyyyhhmm (Comma Seperated values allowed for multiple date-existing functionality but format for each C-offhrs should be as ddmmyyyyhhmm)	No	-	entry-type = 2 (i.e. encashment), leave-code = leave-type C-OFF (internally system needs to derive), encashment-type = 0 (i.e. Leave Encashment), encashment-mode = 0 (i.e. Defined) Format to define the c-offhrs should include the date and hours both field. Below is the valid format for the field. Format: ddmmyyyyhhmm dd: Date (Valid values: 01-31) mm: Month (Valid values: 01-12) yyyy: Year hh: Hour (Valid Values: 00-23) mm: Minute (Valid Values: 00-59) User can define multiple c-offhrs values with comma separation
accrual policy	2 Numeric	No	-	Mandatory field for Entry-type = 0 (i.e. credit) and credit-mode = 1 (i.e. Accrual-Policy) Two character code for any one of the pre-configured (in COSEC Server) accrual policy code types should be mentioned.
leave-code	2 Char	Yes	-	Two character code for any one of the pre-configured (in COSEC Server) leave types should be mentioned.
period	0: Month 1: Year	No	0	The field is not applicable for 1.C-OFF Encashment (i.e. Entry-type = 2 (i.e. Encashment), Entry-Mode = 0 (i.e. Leave Encashment), Leave-Code = Leave type as C-OFF (internally system needs to derive)) 2.Entry-type = 4 (i.e. Discard)

Table: Setting Leave Balance Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
month	2 Numeric Allowed values: 1- 12	No	Current month	If not supplied, this field has a default value. The field is not applicable for 1. C-OFF Encashment (.e. Entry-type = 2 (i.e. Encashment), Entry-Mode 0 (i.e. = Leave Encashment), Leave-Code = Leave type as C-OFF (system needs to derive internally)) 2. Entry-type = 4 (i.e. Discard) Argument is not required when period = 1 (i.e. year), if argument and value passed then ignore argument for the case.
year	4 Numeric	No	Current year	If not supplied, this field has a default value. The field is not applicable for 1. C-OFF Encashment (.e. Entry-type = 2 (i.e. Encashment), Entry-Mode = 0 (i.e. Leave Encashment), Leave-Code = Leave type as C-OFF (system needs to derive internally)) 2. Entry-type = 4 (i.e. Discard)
pro-rata	0: Disable 1: Enable	No	0	Argument is applicable for entry-type = 0 (i.e. credit) and credit-mode=0 (i.e. fixed) only.
remark	Max 30 Char Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/	No	Blank	The field is not applicable for 1. Entry-type = 0 (i.e. credit) 2. Entry-type = 1 (i.e. debit) 3. Entry-type = 2 (i.e. (Encashment), Encashment-type = 0 (i.e. Leave Encashment) and leave-code = Leaves apart from leave-type ‘compensatory off’ (system needs to derive internally)

Applying for a Leave

Use the ***action=set*** parameter to submit a new leave application via this API.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/leave-application?action=set;<argument>=<value>...
```

User Rights

Same as *"Getting Leave Application Details" on page 257.*

If the login user is System Account user, a new application will always get automatically approved on submission.

Parameters

Table: Applying for a Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	This is the user identification number. Login user must have appropriate rights on this user ID.
half-consideration	1: both 2: first Half Only 3: second half only 4: hourly	No	both, if not supplied. If supplied and other than 'both' option, ignore arguments: 'start day' and 'end- day'	The half day consideration of leave application
start-date	ddmmyyyy	Yes	-	This is the starting date of the leave. Leave Application will be allowed only when Leave Balance is available.
start-day	1: full day 2: first half 3: second half	No	1 (full day)	The status of leave on the starting date. For start-day=first half, request is allowed only when start-date is same as end-date.
end-date	ddmmyyyy (must be greater than start-date)	No	-	This is the ending day of the leave. Leave Application will be allowed only when Leave Balance is available.

Table: Applying for a Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
end-day	1: full day 2: first half 3: second half	No	1 (full day)	The status of leave on the ending date. If start-date and end-date are same, the value of end-day would be same as start-day. For end-day=second half, request is allowed only when start-date is same as end-date.
leave-code	Two alphanumeric characters	Yes	-	The code for any pre-configured leave in the COSEC system. e.g. For leave: CL, PL, ML, CO etc. For Tour: TR
reason	Max. 50 characters	No	If not supplied this field remains blank	The reason for taking leave. Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/
address	Max. 30 characters	No	If not supplied this field remains blank	Contact address of the applicant. Allowed characters: A-Z a-z 0-9 _.,()[]:@!#$*+/\
contact	Max. 20 numeric characters	No	If not supplied this field remains blank	Contact Number of the applicant
Medical-certi	0: Not attached 1: Attached	No	0 (Not Attached)	Must be attached for leave-types which require mandatory medical certificate submission. Else system will not allow leave application.
tour-doc	0= Unchecked 1= Checked	-	-	Note- If Tour Document required is None, then by default it should be unchecked. If Tour Document required is Ensure Availability/ Upload document, in both cases it should be checked.
authorization-required	0: not required 1: required	No	0 (Not required)	Applicable for System Account User only. If authorization required = 1, then the application will be considered as applied by an ESS User (UserID mentioned in API.)
return-transaction-id	0 = Not Required 1 = Required	No	0	-
hourly-start-time	HH:MM 00:00 – 23-59	Yes		Mandatory Field if mentioned Leave has Leave Type = "Hourly Paid Leave" or "Hourly Unpaid Leave".

Table: Applying for a Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
hourly-end-time	HH:MM 00:00 – 23-59	Yes		Mandatory Field if mentioned Leave has Leave Type = "Hourly Paid Leave" or "Hourly Unpaid Leave".
attendance-date	ddmmyyyy	Yes		Mandatory Field if half-consideration = hourly

Example

Following are some sample cases for this API:

Sample Request:

To apply for leave application for a user from system account login mentioning the requirement of authorization for the leave:

```
http://192.168.104.12/cosec/api.svc/v2/leave-application?action=set;userid=1;start-date=08022018;end-date=08022018;leave-code=PL;authorization-required=1
```

Sample Response:

```
success: 0330203002 : Leave Approval is pending
```

Updating an Applied Leave

This API can be used to edit a leave application or to modify/cancel an already approved leave application.

Action

action=update

Syntax

```
http://<servername>/api.svc/v2/leave-application?action=update;<argument>=<value>...
```

User Rights

Same as *"Getting Leave Application Details" on page 257*.

Parameters

Table: Updating an Applied Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Tid	max 10 numeric characters	Yes	-	This is the Transaction ID.
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	An application will be identified, based on TID and User ID.
request-type	0 : edit 1: apply for modification 2: apply for cancellation	Yes	-	On editing an application, its applied date will also get updated. For System User, only ***request-type=0*** is applicable. A System user can edit any application. ESS users can edit only pending applications. Only an approved application can be submitted for cancellation. Only an approved or rejected application can be submitted for modification.
half-consideration	1: both 2: first half only 3: second half only	No	both, if not supplied. If supplied and other than 'both' option, ignore arguments: 'start day' and 'end-day'	Applicable only when ***request-type=0*** or ***request-type=1***.
Start-date	ddmmyyyy	No	Existing value	The edited or modified start date to be specified. Applicable only when request-type=0 or request-type=1.

Table: Updating an Applied Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
start-day	1: full day 2: first half 3: second half	No	1 (full day)	Applicable only when ***request-type=0*** or ***request-type=1***. For ***start-day=first half***, request is allowed only when start-date is same as end-date.
end-date	ddmmyyyy	No	Existing value	End-date cannot be less than start-date.
end-day	1: full day 2: first half 3: second half	No	1 (full day)	Applicable only when request-type=0 or request-type=1. If start-date and end-date are same, then value of end-day will be same as start-day. For ***end-day=second half***, request is allowed only when start-date is same as end-date.
leave-code	Two alphanumeric characters.	No	Existing Value	To edit the leave type applied for. Applicable only when request-type=0 Two character code for any one of the pre-configured (in COSEC Server) leave types should be mentioned.
reason	Max 50 chars.	No	Blank, if not supplied.	Reason for updating leave application. Applicable only when ***request-type=0*** Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/
address	Max 30 chars.	No	Blank, if not supplied.	Address of applicant. Applicable only when ***request-type=0*** Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\
contact	Max 20 numeric chars.	No	Blank, if not supplied.	Contact number of applicant. Applicable only when ***request-type=0***
Medical-certi	0: not attached 1: attached	Yes (only if the particular leave type requires mandatory medical certificate submission. For e.g. A Sick Leave)	0 (not attached)	Medical certificate status. Applicable only when request-type=0

Table: Updating an Applied Leave - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
tour-doc	0= Unchecked 1= Checked			Applicable only when request-type=0 & 1 **Note**- If Tour Document required is None, then by default it should be unchecked. If Tour Document required is Ensure Availability/Upload document, in both cases it should be checked.
Cancellation-reason	Max 50 chars.	No	Blank, if not supplied.	The reason for cancellation request. Applicable only when ***request-type=2***
modification-reason	Max 50 chars.	No	Blank, if not supplied.	Applicable only when request-type=1
revoke	1 : revoke the approval request	No	-	To revoke the approval request. Applicable only when ***request-type=1*** or, ***request-type=2***
hourly-start-time	HH:MM 00:00 – 23-59	Yes		Mandatory Field if mentioned Leave has Leave Type = "Hourly Paid Leave" or "Hourly Unpaid Leave".
hourly-end-time	HH:MM 00:00 – 23-59	Yes		Mandatory Field if mentioned Leave has Leave Type = "Hourly Paid Leave" or "Hourly Unpaid Leave".
attendance-date	ddmmyyyy	Yes		Mandatory Field if half-consideration = hourly
Update-medi-certificate	0: No 1: Yes	No	0	This argument indicates, whether while modifying leave, medical certificate has been re-uploaded or not. If user is not re-uploading medical certificate then consider previously uploaded medical certificate only, parameters value should be 0/ parameter will not be passed. If while modifying leave, user is uploading document, then parameter should be passed with value ‘1’. This indicates, user has uploaded new document while modifying leave.
Update-tour-doc	0: No 1: Yes	No	0	This argument indicates, whether while modifying tour, tour document has been re-uploaded or not. If user is not re-uploading tour document then consider previously uploaded tour document only, parameters value should be 0/ parameter will not be passed. If while modifying tour, user is uploading document, then parameter should be passed with value ‘1’. This indicates, user has uploaded new document while modifying tour.

Deleting a Pending Application

This API can be used to delete an existing leave application from the COSEC database.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/leave-application?action=delete;<argument>=<value>...
```

User Rights

Same as *"Getting Leave Application Details" on page 257*.

Parameters

Table: Deleting a Pending Application - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
tid	max 10 numeric characters	Yes	-	This is the transaction ID.
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	An application will be identified, based on TID and User ID. Login user must have appropriate rights on this User ID.

Approving/Rejecting Leaves

This API can be used to approve or reject leave applications pending for approval. All leave applications submitted by a System Account user will be pre-approved. Leave applications submitted by an ESS user can be approved both by System Account users with approval rights as well as the respective reporting group in-charges.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/leave-approval?action=set;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Leave Management > Application/Approval > Leave Approval Leave Management > Application/Approval > Tour Approval Leave Management > Application/Approval > C-Off Approval
ESS	Enabled if User is Reporting Group In-charge and has permissions defined in: COSEC Web > Users > Reporting Group > In-Charge Permissions For any of the following : • Leave Approval • Tour Approval • C-Off Approval

Parameters

Table: Approving/Rejecting Leaves - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
tid	Max. 10 numeric characters	Yes	-	This is the transaction ID for the leave application. For “Approve All” approval option, or to Approve/Reject multiple leave applications, multiple IDs can be selected, each separated by a ‘comma’.
approved	1: approve 2: reject	Yes	-	To approve or reject an application. Approving/rejecting multiple applications is also allowed.
remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/	No	Blank, if not supplied	To add a remark for the approval or rejection.

Getting C-OFF Balance Details

This can be used to retrieve a user's available balance for Compensatory-Off (C-OFF) type of leaves and the validity period for this balance as per the applied C-OFF policy on COSEC.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/coff-balance?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Leave Management > View > Leave Balance
ESS	Enabled. User must have rights on following ESS pages: ESS > Leave Management > Leave Balance

Parameters

Table: Getting C-OFF Balance Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 Char. Allowed Characters A-Z a-z 0-9 /_\\.@:	Yes	-	This is the user identification number. Multiple values can be selected, each separated by a 'comma' e.g.:"1, 3, 7, 9…"

Response Fields

Table: Getting C-OFF Balance Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
User Name	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]

Table: Getting C-OFF Balance Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Validity Period	period	mm/dd/yyyy - mm/dd/yyyy	The C-Off Validity period for the specific user as per the applied policy.
Total Available Hours	total-coff-hours	HH:MM	Return total available C-Off hours for the user in the above validity period.

Getting C-OFF Details

This shall be used to get the user's C-OFF balance data for the specific date period. Details like opening, closing, credit, debit, availed, encashed, overflow leaves will be returned in the response.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/coff-details?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled
ESS	Enabled

Parameters

Table: Getting C-OFF Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	The user identification number. For ESS user, It can be the logged in user's ID. Or the ID of users assigned under his reporting group. For System Account user, it can be user ID of any user he has rights on. In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting C-OFF Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No		If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting C-OFF Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
User name	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	-
Date	coff-date	mm/dd/yyyy	C-OFF attendance date .
Authorized	authorized-coff	blank/HH:MM	C-OFF authorized Hours on that date.
Credit/ Manual Credit	credit	blank/HH:MM	Manually credited C-OFF hours on that date.
Debit/Manual Debit	debit	blank/HH:MM	Manually debited C-OFF hours on that date.
Encashed	encashed	blank/HH:MM	Encashed C-OFF hours on that date.
Availed	availed	blank/HH:MM	Availed C-OFF hours on that date.
Available	available-hours	blank/HH:MM	Available C-OFF hours on that date.

CHAPTER 9

Access Control

The Access Control APIs primarily support the retrieval of access route data, as configured on the COSEC server. An *Access Route* on COSEC is a configured sequence in which a user is allowed access on Doors assigned to a particular Panel device, or based on the access policy defined on a Smart Card. Access Routes can be of two types - *Panel-based access routes* and *Smart Card-based access routes*.

The Access Control APIs enable the user to perform the following functions:

- Obtaining List of Access Routes
- Obtaining Access Route Details

Obtaining List of Access Routes

This API allows the user to fetch a list of all existing access routes configured on COSEC and the respective number of group members assigned to each route.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/accessroutemaster?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled
ESS	Disabled

Parameters

Table: Obtaining List of Access Routes - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
type	smartcard, panel	No	smartcard	This is the type of the access route.
route	1 to 255	No	all	This is the route number for an access route.
panelno	1 to 65535	Yes (only for ***type=panel***)	-	This is the panel number of the panel for which the access route is defined.

Response Fields

1. **For type=smartcard**

Table: Obtaining List of Access Routes (Smart card) - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Access Route Number	AccessRouteNumber	1 - 99	-
Access Route Name	AccessRouteName	15 alphanumeric characters	-
Hard/Soft	HardSoft	Hard, Soft	-
Active	Active	1 : active 0 : inactive	-
Reset On Lowest Level	ResetOnLowestLevel	1 : reset enabled 0 : reset disabled	-
Sequenced Route	Sequencedroute	1 : enabled 0 : disabled	-
Group Members	GroupMembers	0 - 75	Count of configured members

2. **For type=panel**

Table: Obtaining List of Access Routes (Panel) - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Access Route Number	AccessRouteNumber	1 - 255	-
Access Route Name	AccessRouteName	15 alphanumeric characters	-
Active	Active	1 : active 0 : inactive	-
Sequence	Sequence	1 0	-
Panel Name	PanelName	30 alphanumeric characters	based on panel number
Reset On Lowest Level	ResetOnLowestLevel	1 : reset enabled 0 : reset disabled	-
Group Members	GroupMembers	0 - 75 (Panel/Panel Lite) 0 - 255 (Panel200)	Count of configured members
Restrictions	restrictions	1 : Hard 0 : Soft	
Check On Last Exit Level	last-exit-level-check	0 : disabled 1 : enabled	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled)
Last Exit Level Restriction	last-exit-level-restriction	1 : Hard 0 : Soft	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled)

Example

To get the Access Route master details.

Sample Request:

```
http://192.168.104.12/cosec/api.svc/v2/accessroutemaster?action=get;type=panel;route=1;panelno=4
```

Sample Response:

```
AccessRouteNumber|AccessRouteName|Active|Sequence|PanelName|ResetOnLowestLevel|GroupMembers
1|RnD Route|1|1|Panel200-Device-4|1|2
<EOT>
```

Obtaining Access Route Details

This API allows the user to request details of all or specific access routes configured on COSEC.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/accessroutedetails?action=get;<argument>=<value>...
```

User Rights

Same as *"Obtaining List of Access Routes" on page 286*

Parameters

Table: Obtaining Access Route Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
type	smartcard, panel	No	smartcard	This is the type of the access route.
route	1 to 255	No	all	This is the route number for an access route.
panelno	1 to 65535	Yes (only for ***type=panel***)	-	This is the panel number of the panel for which the access route is defined.

Response Fields

1. **For type=smartcard**

Table: Obtaining Access Route Details (Smart card) - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Access Route ID	ARID	1-99	
MID	MID	1 - 65535	-
DID	DID	1 - 255	-
Door Type	Door Type	Panel Door, Direct Door, Direct Door v2, NGT Direct Door, Wireless Door, Compact Door, PVR Door, ARC DC 200, Door V4	-
Door Name	Door Name	30 alphanumeric characters	-
Level	Level	1 - 75	-

2. **For type=panel**

Table: Obtaining Access Route Details (Panel) - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Access Route ID	ARID	1-255	-

Table: Obtaining Access Route Details (Panel) - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Member Number	Member Number	1 - 75 (Panel/Panel Lite) 1 - 255 (Panel200)	Member Number
Door Number	Door Number	1 - 255	Door Number
Door Name	Door Name	30 alphanumeric characters	Door Name
Level	Level	1 - 32	Level
Entry Enable	entry-enable	0 : disabled 1 : enabled	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled
Entry Route Timer	entry-route-timer	1-65535	In seconds. Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled)
Entry Level Restriction	entry-level-restriction	1 : Hard 0 : Soft	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled)
Perform Action on Entry	entry-action	0 : On User Punch 1 : On Timer Elapsed	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled)
Exit Enable	exit-enable	0 : disabled 1 : enabled	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled
Exit Route Timer	exit-route-timer	1-65535	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled

Table: Obtaining Access Route Details (Panel) - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Exit Level Restriction	exit-level-restriction	1 : Hard 0 : Soft	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled
Perform Action on Exit	exit-action	0 : On User Punch 1 : On Timer Elapsed	Applicable for Panel Lite V2 only Parameter should be blank for sequence =0 (i.e., *Sequenced Route* flag is disabled

Example

Sample Request:

```
http://192.168.104.12/cosec/api.svc/v2/accessroutedetails?action=get;type=panel;route=1;panelno=4
```

Sample Response:

```
AccessRouteID|MemberNumber|DoorNumber|DoorName|Level
1|1|6|PVR as Panel door|1
1|2|7|Door V3 as Panel Door|2
<EOT>
```

CHAPTER 10

Cafeteria Management

The following APIs enable the user to perform actions related to Cafeteria Management -

- *Getting Account Details*
- *Getting Expenditure Summary*
- *Getting Menu Details*
- *Getting List of Cafeteria Devices*
- *Getting Menu Schedules*
- *Getting Correction Application Details*
- *Making a Correction Application*
- *Updating a Correction Application*
- *Deleting a Correction Application*
- *Getting Expenditure Details*

Getting Account Details

This can be used to fetch a specific user's Cafeteria account details.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/canteen-account-details?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled. The user must have rights on the following ESS pages: ESS > Cafeteria > Account Details

Parameters

Table: Getting Cafeteria Account Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	Multiple IDs can be selected, each separated by “, (coma)” e.g.:”1, 3, 7, 9…” In case userid is provided along with id/ id & range, priority should always be given to userid . Value of id/id & range to be ignored in that case.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Cafeteria Account Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then User id should be considered. Argument ID can have multiple ids as value separated with comma. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

For this API, apply the following credentials in request header to authenticate response for the mentioned User ID, irrespective of role rights/user rights:

username : MatrixAdmin
password : admin

Response Fields

Table: Getting Cafeteria Account Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	-
Account Type	account-type	0 : Prepaid 1: Postpaid	As set by admin
Status	status	0: Disabled 1: Enabled	-
Discount Level	discount	0 : none 1: discount level 1 2: discount level 2 3: discount level 3 4: discount level 4	-
User Blocked for E-canteen	blocked	0 : not blocked 1 : blocked	If the user is blocked for Cafeteria application by the system, return blocked = 1.
Account Balance	balance	99999999999999.99- 99999999999999.99	Prepaid Account balance. Return blank if balance is not applicable.

Table: Getting Cafeteria Account Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Amount	previous-recharge-amount	0.1 – 99999.9	Return blank if recharge details are not available.
Recharged on	previous-recharge-date	mm/dd/yyyy	Previous Recharge Details: Return blank if recharge details are not available.
Max usage limit	max-limit	0.1 – 999999.9	Post Paid Account: Max usage limit Return blank if value is not available.
Current Month	current-usage	99999999999999.99-99999999999999.99	Usage Details: Current Month Return blank if value is not available.
Carry over due	carry-over	0.1 – 999999.9	Carry over due Return blank if value is not available.
Allowed usage	allowed-usage	0.1 – 999999.9	Allowed usage Return blank if value is not available.
Total	total-usage	99999999999999.99-99999999999999.99	Total Return blank if value is not available.
Amount	previous-amount	99999999999999.99-99999999999999.99	Previous Payment details: Amount Return blank if value is not available.
Payment on	previous-payment-date	mm/dd/yyyy	Previous Payment details: Payment on (Date) Return blank if value is not available.

Example

Sample Request:

```
http://matrixserver/api.svc/v2/canteen-account-details?action=get;userid=1234,100
```

Getting Expenditure Summary

Use this to fetch the cafeteria expenditure summary for a specific user.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/canteen-expenditure-summary?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the following pages (COSEC Web Application): Cafeteria Management > Transaction Management > Transaction Summary
ESS	Enabled. The user must have rights on the following ESS pages: ESS > Cafeteria > Expenditure Summary

Parameters

Table: Getting Cafeteria Expenditure Summary - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	Multiple IDs can be selected, each separated by “, (coma)” e.g.:”1, 3, 7, 9…” In case userid is provided along with id/ id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	No	Expenditure for current date	The period for which the expense details need to be fetched.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Cafeteria Expenditure Summary - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. If argument range is not mentioned and individual argument ID has specified, then User id should be considered.

Response Fields

Table: Getting Cafeteria Expenditure Summary - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	-
Expense date	date	mm/dd/yyyy	-
Total Amount	total-amount	0.0 – 999999.9	Amount spent on that particular date based
Total Discount	total-discount	0.0 – 999999.9	Total Discount Amount applicable for the user
Total Expenditure	total-expense	0.0 – 999999.9	Expense = Amount spent – discount. This is the total payable amount after deducting discount from the actual expenditure

Getting Menu Details

This can be used to fetch the details of a Cafeteria menu as configured on the COSEC server.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/canteen-menus?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the following pages (COSEC Web Application): Cafeteria Management > Menu
ESS	Enabled. The user must have rights on the following ESS pages: ESS > Cafeteria > Menu

Parameters

Table: Getting Menu Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1 to 999	No	All menus configured on COSEC.	This is the Menu ID. Multiple IDs can be selected, each separated by “, (coma)” e.g.:”1, 3, 7, 9…”

Response Fields

Table: Getting Menu Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Menu ID	menu-id	1-999	-
Menu Name	menu-name	15 alpha-numeric characters and space	-
Active	active	0 : Inactive 1: Active	-
Contains Default Item	default-item	0 : No 1 : Yes	If contains-default =1, the item with sequence number = 1 will be the default item for that menu.
Item ID	item-id	1-999	-

Table: Getting Menu Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Item Name	item-name	9 alpha-numeric characters and space	-
Item Sequence	sequence-number	1-99	The order of items in the Menu. Two items cannot have same sequence number.
Price	item-price	0 - 6553.5	-
Apply Discount	discount	0 : Discount not applicable 1: discount applicable	Discount is applicable or not. Consider discount-level only if apply-discount=1.
Discount Level 1	discount1	0 - 6553.5	value = discounted price, i.e. price – discount amount
Discount Level 2	discount2	0 - 6553.5	value = discounted price, i.e. price – discount amount
Discount Level 3	discount3	0 - 6553.5	value = discounted price, i.e. price – discount amount
Discount Level 4	discount4	0 - 6553.5	value = discounted price, i.e. price – discount amount

Example

Sample Request:

```
http://matrixserver/api.svc/v2/canteen-menus?action=get;id=1,2,3
```

Sample Response:

```
menu-id|menu-name|active|default-item|item-id|item-name|sequence-number|item-price|discount|discount1|discount2|discount3|discount4
1|Lunch HO|1|1|1|Lunch|1|40.00|1|20.00|30.00|0.00|0.00
2|Breakfast|1|1|2|Breakfast|1|10.00|1|5.00|7.50|0.00|0.00
3|Lunch Factory|1|1|3|Lunch Fac|1|38.00|1|28.50|19.00|0.00|0.00
<EOT>
```

Getting List of Cafeteria Devices

See “Getting a Device List” on page 20.

Getting Menu Schedules

This can be used to fetch the list of menus configured for the specified Cafeteria device.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/canteen-menus-schedule?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the following pages (COSEC Web Application): Cafeteria Management > Menus
ESS	Enabled. The user must have rights on the following ESS pages: ESS > Cafeteria > Menu

Parameters

Table: Getting Menu Schedules - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-id	1 to 65535	Yes	-	This is the device identification number for the device type. It should be up to 5 numeric digits (MID). Note: This is applicable only for the following doors: Door V2 NGT Wireless Direct Door Vega Controller Door V3 Door FMX ARC DC200 ARGO ARGO FACE Note: An ESS login user must be assigned on the device for which ID is specified.
device-type	3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 9 = Vega Controller 12 = Door V3 15 = Door FMX 20= ARGO 21= ARGO FACE	Yes	-	This is the type of device.

Response Fields

Table: Getting Menu Schedules - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device ID	device-id	1 to 65535	MID of the device
Device Name	device-name	30 characters	Allowed Characters A-Z a-z 0-9 -_. ()
Menu ID	menu-code	1-999	-
Menu Name	menu-name	15 alpha-numeric characters and space	-
Active	active	0 : Inactive 1: Active	-
Days	days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7:Saturday	Days for which the menu is enabled. Return days in comma-separated format: i.e. days=1,3,5
Start-time	start-time	HH:MM	Menu availability start time. (24-hour format)
End-time	end-time	HH:MM	Menu availability end time. (24-hour format)

Example

Sample Request:

```
http://matrixserver/api.svc/v2/canteen-menus-schedule?action=get;device-id=16;device-type=3
```

Getting Correction Application Details

A *Correction Application* is a formal request submitted by a Cafeteria user for manual correction in Cafeteria transaction records. This may be required in case there are errors in transaction records such as false punches, incorrect debit or credit etc.

A submitted correction application requires approval from the respective Reporting In-charges or an authorized COSEC System Account user before the corrections are updated in the COSEC database. This API can be used to get a list of correction applications submitted by users by specifying user IDs and a date-range.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/canteen-correction-application?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the following pages (COSEC Web Application): Cafeteria Management > Transaction Management > Manual Correction
ESS	Enabled. The user must have rights on the following ESS pages: ESS > Cafeteria > Transaction Correction

Parameters

Table: Getting Correction Application Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	System should allow user to select multiple id, each separated by ", (comma)" e.g.:"1, 3, 7, 9…" In case userid is provided along with id/ id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	No	All applications for current month	The period for which the expense details need to be fetched.

Table: Getting Correction Application Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID has specified, then User id should be considered. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Correction Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Expense date	date	mm/dd/yyyy	-
Expense time	time	HH:MM:SS	24-hour format
POS Device ID	device-id	1-65535	ID of device on which transaction occurred (MID)
Device Type	device-type	3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 9 = Vega Controller 12 = Door V3 15 = Door FMX 19 = Door V4 20 = ARGO 21 = ARGO FACE	-
Device Name	device-name	30 characters	Allowed Characters A-Z a-z 0-9 -_. ()
User ID	user-id	15 chars.	Allowed Characters A-Z a-z 0-9 /_\\.@:

Table: Getting Correction Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Username	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	-
Applied Date	application-date	mm/dd/yyyy	-
Item ID	item-id	1-999	-
Item Name	item-name	9 alpha-numeric characters and space	-
Quantity	old-quantity	0-9999	-
Payable	old-payable	0.0 – 999999.9	-
New Quantity	new-quantity	0-9999	-
New Payable amount	new-payable	0.0 – 999999.9	-
Verdict Date-time	verdict-date	mm/dd/yyyy HH:MM	Empty in case of pending approval
Status	status	0: None 1: Pending 2: Approved 3: Rejected	-
Reason	reason	100 characters	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\
Remark	remark	50 characters	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\

Response will contain records for only those devices on which the login user has rights assigned.

Making a Correction Application

This can be used to submit a new correction application.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/canteen-correction-application?action=set;<argument>=<value>...
```

User Rights

Same as *"Getting Correction Application Details" on page 302*

Parameters

Table: Making a Correction Application - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 characters	Yes	-	The login user must have appropriate rights on this user to make the application successfully. If login user is System Account User, the application will get auto-approved.
date	ddmmyyyy	Yes	All applications for current month	The application date
time	HHMMSS	Yes	-	24-hours format
device-id	1-65535	Yes	-	ID of device on which transaction occurred (MID). Note: Login user must have appropriate rights on this device.
device-type	3,4,5,9,12,15,19, 20, 21	Yes	-	Valid values are : 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 9 = Vega Controller 12 = Door V3 15 = Door FMX 19 = Door V4 20 = ARGO 21 = ARGO FACE
item-id	1-999	Yes	-	This is the item ID.
quantity	0-9999	Yes	-	The new value for the quantity should be mentioned here. The new quantity should not be greater than or same as existing quantity.
reason	Varchar 100	No	N/A	The reason for application.
menu-code	1-999	Yes	-	This is the menu code.

- *The combination of userid, event date-time, device-id, device-type and item-id will uniquely identify a transaction, and its corresponding application, if any.*
- *Correction application on a particular event will be allowed only when there is application for that event.*

Updating a Correction Application

Use this to update any existing *Correction Application* on the COSEC Database.

Action

action=update

Syntax

```
http://<servername>/api.svc/v2/canteen-correction-application?action=update;<argument>=<value>...
```

User Rights

Same as *"Getting Correction Application Details" on page 302*

User rights are disabled for System Account Users for this action.

Parameters

Table: Updating a Correction Application - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 characters	Yes	-	The login user must have appropriate rights on this user to update the application successfully.
date	ddmmyyyy	Yes	-	The application date
time	HHMMSS	Yes	-	24-hours format
device-id	1-65535	Yes	-	ID of device on which transaction occurred (MID)
device-type	3,4,5,9,12,15,19, 20, 21	Yes	-	Valid values are : 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 9 = Vega Controller 12 = Door V3 15 = Door FMX 19 = Door V4 20 = ARGO 21 = ARGO FACE
item-id	1-999	Yes	-	This is the item ID.
quantity	0-9999	No	Existing value	The new value for the quantity should be mentioned here. The new quantity should not be greater than or same as existing quantity.
reason	Varchar 100	No	N/A	The reason for application.
menu-code	1-999	No	N\A	This is the menu code.

Note: Canteen Correction Application API with action=update will only be applied for transactions that are being generated via device.

Application once approved will not be applicable for updating.

Deleting a Correction Application

Use this to delete existing Correction Applications from the COSEC database.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/canteen-correction-application?action=delete;<argument>=<value>...
```

User Rights

Same as *"Getting Correction Application Details" on page 302*

Parameters

Table: Deleting a Correction Application - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 characters	Yes	-	The login user must have appropriate rights on this user to delete the application successfully.
date	ddmmyyyy	Yes	-	The application date
time	HHMMSS	Yes	-	24-hours format
device-id	1-65535	Yes	-	ID of device on which transaction occurred (MID)
device-type	3,4,5,9,12,15,19, 20, 21	Yes	-	Valid values are : 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 9 = Vega Controller 12 = Door V3 15 = Door FMX 19 = Door V4 20 = ARGO 21 = ARGO FACE
item-id	1-999	Yes	-	This is the item ID.

Getting Expenditure Details

This can be used to get a user's item-wise cafeteria expenditure details.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/canteen-expenditure-details?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the following pages (COSEC Web Application): Cafeteria Management > Transaction Management > Transaction Summary
ESS	Enabled. The user must have rights on the following ESS pages: ESS > Cafeteria > Expenditure Summary

Parameters

Table: Getting e-Canteen Expenditure Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	The login user must have appropriate rights on this user to make the request successfully. In case userid is provided along with id/ id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case. Field supports user id, worker id, visitor id
date	ddmmyyyy	No	Expenditure for the current date.	The date for which the expense details need to be fetched.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting e-Canteen Expenditure Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

The response will contain the user's (includes - user, worker and visitor) date-wise expense details, for the requested period and will contain the following fields:

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 chars.	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	-
Expense date	date	mm/dd/yyyy	-
Expense time	time	HH:MM:SS	24-hour format
POS Device ID	device-id	1-65535	ID of device on which transaction occurred (MID)
Device Name	device-name	40 characters	-
Device Type	device-type	3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 9 = Vega Controller 12 = Door V3 15 = Door FMX 19 = Door V4 20 = ARGO 21 = ARGO FACE	-
Item ID	item-id	1-999	-
Item Name	item-name	9 alpha-numeric characters and space	-
Price/Item	price	0 – 6553.5	Price per Item
Quantity	quantity	0-99	-
Discount	discount	0 – 6553.5	Discount Amount

Field Name	Tag Name	Valid Values	Remarks
Payable	payable	0.0– 999999.9	Payable = (price*quantity) – (discount*quantity)
Event Status	status	0: None 1: Pending 2: Approved 3: Rejected	-

Example

Sample Request:

```
http://matrixserver/api.svc/v2/canteen-expenditure-details?action=get;userid=1234;date=01012014
```

CHAPTER 11

Data Import and Export

The *Data Templates* API allows users to define a sequence in which certain specified data fields can be imported/ exported from or to external modules, such as Payroll. This chapter lists COSEC APIs that allow users to retrieve specific import/export template-related data. These are as follows.

- Getting Export Template List
- Getting Export Template Details
- Getting Import Template List
- Getting Import Template Details
- Getting Template Data

Getting Export Template List

COSEC helps users to create data templates that can carry certain data specified by the user. Using this API, a user can obtain a list of all existing export templates configured on COSEC along with their IDs, names and types.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/template-list?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled
ESS	Enabled if user has ESS rights enabled.

Parameters

Table: Getting Export Template List - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
template-type	0: view name 1: actual template name	No	0 (view name)	If template-type=0, the API will return the view name to which the template belongs If template-type=1, the API will return the actual name of that template as configured in COSEC Web.

Response Fields

Table: Getting Export Template List - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Template ID	id	1-999	-
Name	name	40 alphanumeric characters	-
Template-Type	template-type	1: daily 2: monthly 3: event-ta 4: event-acs 5: user-details	-
View-ID	view-id	101 - 999	-

Example

The following examples illustrate how template list is fetched with different ***template-type*** values:

Sample Request:

```
http://matrixserver/api.svc/v2/template-list?action=get;template-type=0
```

Sample Response:

```
id|name
1|Daily Attendance Detail
2|Monthly Attendance Summary
3|Attendance Events
4|Access Control Events
101|Monthly Attendance Summary
102|Daily Attendance Detail
<EOT>
```

Sample Request:

```
http://matrixserver/api.svc/v2/template-list?action=get;template-type=1
```

Sample Response:

```
id|name|template-type|view-id
1|API_Template_Daily|1|9
2|API_Template_Monthly|2|8
3|API_Template_ATDEvents|3|7
4|API_Template_ACSEvents|4|6
101|MONTH ATTENDANCE|2|1
102|daily|1|2
<EOT>
```

Getting Export Template Details

This API allows the user to obtain the details such as fields, their type, length, name etc. for all or specified export templates on the COSEC database.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/template-details?action=get;<argument>=<value>...
```

User Rights

Same as *"Getting Export Template List" on page 314.*

Parameters

Table: Getting Export Template Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1 to 999	No	All	Export data template ID as per the configured templates in COSEC Web Application.
field-list	0 : view's fields 1 : all fields	No	0 (all fields as per the view structure)	Specifies the list of fields to be returned. If ***field-list=1***, return the combined list of all the fields (fields form view + custom fields + static fields)

Response Fields

The response will contain a list of fields defined for the specified templates. For each field the following will be provided:

Table: Getting Export Template Details - Response Table

Field Name	Tag Name	Valid Values	Remarks
Template Id	id	numeric	1-100 : API Templates 100 onwards : Export data Templates.
Field Name	field	alpha-numeric	as per COSEC Database.
Data Type	type		as per COSEC Database.
Maximum length	length	numeric	as per COSEC Database.
Decimal	decimal	numeric	as per COSEC Database.
Field type	field-type	0, 1, 2	0 : database field 1: static field 2: custom field
Mandatory	mandatory	0, 1	0: not mandatory 1: mandatory field

Getting Import Template List

This API can be used to fetch a list of all templates configured on the COSEC Web Application for user data import and event import (both Access Control and Attendance events table).

- 0- User master table
- 1- Event table

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/import-template-list?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled.

Response Fields

Table: Getting Import Template List - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Template Id	TemplateId	numeric	As configured in COSEC Web Application.
Code	code	alpha-numeric	As configured in COSEC Web Application.

Example

The following is a sample request-response.

Sample Request:

```
http://matrixserver/api.svc/v2/import-template-list?action=get
```

Sample Response:

```
TemplateID|Code
1|USER
2|EVENT
<EOT>
```

Getting Import Template Details

This API enables the user to fetch the internal table structure for the user master table and events table (both Access Control and Time and Attendance events table), indicating the fields, its data type and field length.

1- User master table
2- Event table
3- User_Shift Table

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/import-template-details?action=get;<argument>=<value>...
```

User Rights

Same as *"Getting Import Template List" on page 317.*

Parameters

Table: Getting Import Template Details - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1 to 3 1=user template schema 2=event template schema 3=user_shift template schema	No	all	This is the template id.

Response Fields

Table: Getting Import Template Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Field Id	id	numeric	auto-generated
Field Name	field	alpha-numeric	as per COSEC Database
Data Type	type	-	as per COSEC Database
Maximum length	length	numeric	as per COSEC Database
Decimal	decimal	numeric	as per COSEC Database

Getting Template Data

This is a common API that can be used to retrieve the data for a specified template.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/template-data?action=get;<argument>=<value>...
```

User Rights

Same as *"Getting Export Template List" on page 314.*

Parameters

Table: Getting Template Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	1-999	Yes	-	Export data template ID as per the configured templates in COSEC Web Application. 1- 99 : API Templates 101-999 : Custom Templates Note: For User-Defined templates use the "Template-List" API to get the template-id.
date-range	If it is a daily template or event template, date range should be : ddmmyyyy – ddmmmyyyy For a monthly template it should be : mmyyyy-mmyyyy	Yes except for templates of user-details view	-	The date range for which the data export is required. Note: For User-Defined templates use the "Template-List" API to get the template-type.
userid	Max 15 alphanumeric characters (for user)	No	All (If neither user ID nor any enterprise group ID is mentioned, all active users will be considered.)	User id for which data is required. Multiple IDs can be selected, each separated by a 'comma'. e.g.:"1, 3, 7, 9…" Note : If userid is mentioned, then the enterprise group fields mentioned below should not be considered.

Table: Getting Template Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
organization	1 to 999999	No	-	Data for the users belonging to the specified enterprise group and sub-groups (if mentioned) will be returned. Multiple IDs can be selected for the specified enterprise group, each separated by a 'comma'. e.g.:"1, 3, 7, 9…" Note: These parameters should not be mentioned if userid is mentioned.
branch				
department				
designation				
section				
category				
grade				
field-name	text	No	If no name is specified, all the configured fields will be considered	Comma separated field-names, for which the values should be returned. Note: For User-Defined templates use the "Template List" and "Template Details" APIs to get the list of configured templates, and their corresponding arguments.
index	numeric(18 digits) 1-999999999999999999	No	-	Index indicates the start point of an event. Note: This field is to be considered only if supplied template is of Attendance Events OR Access Control Events type.
count	numeric (1 - 999)	No	-	It is the count upto which the data is required. Note: This field is to be considered only if supplied template is of Attendance Events OR Access Control Events type.
return-field-name	0: display name (As per export template config) 1: actual field (As per view column) 2: both	No	-	If parameter is not mentioned the response will be as per existing system (i.e. 0 = display name)
last-run-time	ddmmyyyyHHMMSS	No	-	This parameter is applicable for User Details View only
Custom-group-1	1 to 999999	No	-	Data for the users belonging to the specified enterprise group and sub-groups (if mentioned) will be displayed. Multiple IDs can be selected for the specified enterprise group, each separated by a 'comma'. e.g.:"1, 3, 7, 9…" Note: These parameters should not be mentioned if userid is mentioned.
Custom-group-2	1 to 999999	No	-	
Custom-group-3	1 to 999999	No	-	

Table: Getting Template Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Active	0 : inactive 1: active 2:all	No	1 or 2	Return users as per their active flag status. For following Views, if not mentioned, consider '1' as default. i.Mx_VEW_APIDailyAttendance ii.Mx_VEW_APIMonthlyAtdSumry iii.Mx_VEW_APIUserAccessCtrlEvts iv. Mx_VEW_APIUserAttendanceEvents v.Mx_VEW_DailyAtdTemplate1 vi.Mx_VEW_DailyAttendance vii.Mx_VEW_MonthlyAtdSummary viii.Mx_VEW_MonthlyJobSummary ix.Mx_VEW_USerAccessCtrlEvts x.Mx_VEW_USerAttendanceEvents For following Views, if not mentioned, consider '2' as default : i.Mx_VEW_UserDetails ii.Mx_VEW_DailyCnteenEvts iii.Mx_VEW_FirstAndLastAtdEvts iv.Mx_VEW_MnthlyCnteenEvts
filter-date-by	0 = Process Date 1 = Process Date Updated	No	0 If parameter is not mentioned the response will be as per existing system.	

Response Fields

Table: Getting Template Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Template Id	template-id	1-999	Export data template ID as per the configured templates in COSEC Web Application. 1-99: API Templates 101-999: Custom Templates
User ID	user-id	upto 15 characters	Allowed characters A-Z a-z 0-9 /_\\.@:
User Name	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Process Date Updated	PROCESSDATE_U	mm/dd/yy HH:MM:SS	
Fields	fields	-	field-name: value pairs

Table: Getting Template Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Door ID for Punch1	DID1	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch1	MID1	5 numeric digits 1-65535	Device mid
Device Type for Punch1	DTYPE1	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch2	DID2	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch2	MID2	5 numeric digits 1-65535	Device mid
Device Type for Punch2	DTYPE2	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch3	DID3	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured

Table: Getting Template Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Master Controller ID for Punch3	MID3	5 numeric digits 1-65535	Device mid
Device Type for Punch3	DTYPE3	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch4	DID4	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch4	MID4	5 numeric digits 1-65535	Device mid
Device Type for Punch4	DTYPE4	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch5	DID5	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch5	MID5	5 numeric digits 1-65535	Device mid

Table: Getting Template Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch5	DTYPE5	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch6	DID6	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch6	MID6	5 numeric digits 1-65535	Device mid
Device Type for Punch6	DTYPE6	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch7	DID7	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch7	MID7	5 numeric digits 1-65535	Device mid

Table: Getting Template Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch7	DTYPE7	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch8	DID8	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch8	MID8	5 numeric digits 1-65535	Device mid
Device Type for Punch8	DTYPE8	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch9	DID9	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch9	MID9	5 numeric digits 1-65535	Device mid

Table: Getting Template Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch9	DTYPE9	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch10	DID10	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch10	MID10	5 numeric digits 1-65535	Device mid
Device Type for Punch10	DTYPE10	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch11	DID11	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch11	MID11	5 numeric digits 1-65535	Device mid

Table: Getting Template Data - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Type for Punch11	DTYPE11	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE
Door ID for Punch12	DID12	1-255 (device-type = 8) 0-99 (All Others)	For Panels :0 For Direct Doors :1 For Panel Doors :As configured
Master Controller ID for Punch12	MID12	5 numeric digits 1-65535	Device mid
Device Type for Punch12	DTYPE12	2 numeric digits	This specifies the device type, as set in cosec. 0 =Panel, 1 =Direct Door, 2 =Panel Lite 3 =Direct Door V2, 4 =NGT Direct Door, 5 =Wireless Direct Door 6 =Compact Direct Door 7 =PVR Direct Door 8 =Panel-lite V2 9 =Vega Controller 11 =Arc Controller 12 =Door V3 15 =Door FMX 16 =Path V2 18 =MODE 19 =Door V4 17 =ARC DC 200 20 =ARGO 21 =ARGO FACE

Example

Sample Request:

```
http://matrixserver/api.svc/v2/template-data?action=get;id=1;date-range=11022013-12022013
```

Sample Response:

```
TEMPLATE-ID|USERID|USERNAME|UserID1|UserName1|ProcessDate|Punch1|Punch2|WorkingShift|LateIn|EarlyOut|Overtime|WorkTime
1|1|SALIM ANSARI|1|SALIM ANSARI|11/02/2013|11/02/2013 08:28:00|11/02/2013 12:06:00|23|0|0|0|534
1|10|RAJENDRA GOSWAMI|10|RAJENDRA GOSWAMI|11/02/2013|11/02/2013 08:25:00|11/02/2013 12:50:00|23|0|0|0|492
1|1001|ANKITKUMAR SOHLIYA|1001|ANKITKUMAR SOHLIYA|11/02/2013|11/02/2013 09:29:00|11/02/2013 19:08:00|GS|0|0|0|529
1|1002|MEGHA H SHUKLA|1002|MEGHA H SHUKLA|11/02/2013|11/02/2013 14:08:00|11/02/2013 19:35:00|GS|0|0|0|327
1|1003|UMESH M TALANPURI|1003|UMESH M TALANPURI|11/02/2013|11/02/2013 09:20:00|11/02/2013 18:54:00|GS|0|0|0|524
1|1004|DARSHAK B PATEL|1004|DARSHAK B PATEL|11/02/2013|11/02/2013 09:07:00|11/02/2013 19:06:00|GS|0|0|0|549
1|1007|DHAVAL I PATEL|1007|DHAVAL I PATEL|11/02/2013|11/02/2013 09:25:00|11/02/2013 20:27:00|GS|0|0|0|612
1|1008|MAYANK K KORAT|1008|MAYANK K KORAT|11/02/2013|11/02/2013 09:01:00|11/02/2013 20:26:00|GS|0|0|0|635
1|1009|DIPTI K RATHWA|1009|DIPTI K RATHWA|11/02/2013|||GS|0|0|0|0
1|1010|RAHUL S SHAH|1010|RAHUL S SHAH|11/02/2013|11/02/2013 09:17:00|11/02/2013 19:23:00|GS|0|0|0|556
1|1011|PARIKA S PANDEY|1011|PARIKA S PANDEY|11/02/2013|11/02/2013 09:18:00|11/02/2013 18:58:00|GS|0|0|0|530
1|1012|PARIKSHIT DAS|1012|PARIKSHIT DAS|11/02/2013|11/02/2013 09:25:00|11/02/2013 20:24:00|GS|0|0|0|609
1|1015|SUMEDHA A GAWARIKAR|1015|SUMEDHA A GAWARIKAR|11/02/2013|11/02/2013 09:21:00|11/02/2013 19:32:00|GS|0|0|0|561
1|1016|BALAJI A|1016|BALAJI A|11/02/2013|||GN|0|0|0|0
1|1|SALIM ANSARI|1|SALIM ANSARI|12/02/2013|12/02/2013 08:25:00|12/02/2013 09:48:00|23|0|0|0|476
1|10|RAJENDRA GOSWAMI|10|RAJENDRA GOSWAMI|12/02/2013|12/02/2013 08:23:00|12/02/2013 12:55:00|23|0|0|0|495
1|1001|ANKITKUMAR SOHLIYA|1001|ANKITKUMAR SOHLIYA|12/02/2013|12/02/2013 09:24:00|12/02/2013 19:22:00|GS|0|0|0|548
1|1002|MEGHA H SHUKLA|1002|MEGHA H SHUKLA|12/02/2013|12/02/2013 09:27:00|12/02/2013 19:40:00|GS|0|0|0|563
1|1003|UMESH M TALANPURI|1003|UMESH M TALANPURI|12/02/2013|12/02/2013 09:15:00|12/02/2013 18:55:00|GS|0|0|0|530
1|1004|DARSHAK B PATEL|1004|DARSHAK B PATEL|12/02/2013|12/02/2013 09:24:00|12/02/2013 19:27:00|GS|0|0|0|553
1|1007|DHAVAL I PATEL|1007|DHAVAL I PATEL|12/02/2013|12/02/2013 09:23:00|12/02/2013 20:14:00|GS|0|0|0|601
1|1008|MAYANK K KORAT|1008|MAYANK K KORAT|12/02/2013|||GS|0|0|0|0
1|1009|DIPTI K RATHWA|1009|DIPTI K RATHWA|12/02/2013|||GS|0|0|0|0
1|1010|RAHUL S SHAH|1010|RAHUL S SHAH|12/02/2013|12/02/2013 09:35:00|12/02/2013 19:46:00|GS|0|0|0|561
1|1011|PARIKA S PANDEY|1011|PARIKA S PANDEY|12/02/2013|12/02/2013 09:03:00|12/02/2013 18:51:00|GS|0|0|0|538
1|1012|PARIKSHIT DAS|1012|PARIKSHIT DAS|12/02/2013|12/02/2013 09:30:00|12/02/2013 19:11:00|GS|0|0|0|531
1|1015|SUMEDHA A GAWARIKAR|1015|SUMEDHA A GAWARIKAR|12/02/2013|12/02/2013 09:10:00|12/02/2013 19:04:00|GS|0|0|0|544
1|1016|BALAJI A|1016|BALAJI A|12/02/2013|||GN|0|0|0|0
<EOT>
```

CHAPTER 12

Data Transfer

The *Data Transfer* API enables the COSEC system to send a user's image/finger print template/palm template/ medical certificate to a third party application. It also enables the system to receive the image/finger print template/ palm template for a user and save/update it in the COSEC database or delete it.

Only a single user's data can be sent in one request. Also, only one image/template can be transferred at a time.

The supported size limit for data transfer are as follows –

- Image - 250 KB
- FP Template (For finger-template-format = 0, 1) - 768 bytes
- FP Template (For finger-template-format=2) - 6 KB
- Palm template - 3 KB
- Medical Certificate - 5 MB
- Company Logo - 250 KB
- I-Card Authority Signature - 50 KB
- Visitor photo - 100 KB
- Visitor ID Proof - 5 MB
- Vehicle Photo - 100 KB
- Material Photo - 5 MB
- Enrolled Face - 50KB
- Driving license - 5 MB
- Passport no - 5 MB
- PAN - 5 MB
- Aadhar no - 5 MB
- PF no - 5 MB
- UAN - 5 MB
- ESI No - 5 MB
- Voter ID - 5 MB
- Visa No - 5 MB
- Field1 - 5 MB
- Field2 - 5 MB
- Field3 - 5 MB
- Field4 - 5 MB
- Service Tax No - 5 MB
- ESIC No - 5 MB
- License No - 5 MB
- Visitor Pass - 100 KB
- Group- FR - 15 MB
- Tour Document - 500 KB
- Modify Tour Document - 500 KB
- Capture Photo - 100 KB

The generic URL for a *Data transfer API* is mentioned below.

Syntax

```
http://<servername>/api.svc/v2/datatransfer?action=<value>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled
ESS	Enabled. For ESS Users, ***action= get/set/delete*** should be allowed only when type of data is 'image' or 'medical certificate' or icard authority signature(only get is allowed) If ESS Login user attempts to fetch Face, return corresponding enrolled faces If ESS Login user attempts to fetch or set FP/Palm template/, return invalid request message. If ESS Login user attempts to set Company logo/i-card issuing authority, return invalid request message.
Visitor	Enabled for All Registered Visitors with 'isVerified' flag = 1

COSEC supports the following data transfer APIs:

- *Retrieving User Data*
- *Sending User Data*
- *Deleting User Data*

Retrieving User Data

This functionality enables the third party to fetch user image/finger print template/palm templates from the COSEC database.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/datatransfer?action=get;<argument>=<value>...
```

Parameters

Table: Retrieving User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User/ESS User/ Worker 1 = Visitor	No	0	Specifies the type of user.
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes for type= 0/1/2/3/11/12/ 13/14/15/16/ 17/18/19/20/ 21/22/23/24/ 25/26/27/28/ 2931/32/33/ 34/35/36/37/ 38/39/40/41/ 42/43/44/45/ 46/49	-	The user identification number of the user whose data is to be requested.
visitor-id	0-9	Yes for type= 7/8/60/61/62/ 63/64	-	Specifies the ID of visitor.
appointment-no	0-9 12 Digits (Each Appointment No)	Yes for type= 9/10/50/51/ 52/53/54/55/ 56/57/58/59	-	-

Table: Retrieving User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
type	0: image 1: finger print template 2: palm template 3: medical certificate 4: company logo 5: icard authority signature 7: visitor photo 8: visitor id proof 9: vehicle photo 10: material photo 11:enrolled face 12: driving-license 13: passport-no 14: pan 15: aadhar-no 16: pf-no 17: uan 18: esi-no 19: voter-id 20: visa-no 21: field1 22: field2 23: field3 24: field4 25: service-tax-no 26: esic-no 27: contractor-license-no 28: contractor-pf-no 29: contractor-pan-no 30: visitor-pass 31: con-field1 32: con-field2 33: con-field3 34: con-field4 35: con-field5 36: con-field6 37: con-field7 38: con-field8 39: con-field9 40: con-field10 41: field5 42: field6 43: field7 44: field8 45: field9 46: field10 49: modify-medical certificate 50: Visit Field1 51: Visit Field2 52: Visit Field3 53: Visit Field4 54: Visit Field5 55: Visit Field6 56: Visit Field7 57: Visit Field8 58: Visit Field9 59: Visit Field10 60: Visitor Field1 61: Visitor Field2 62: Visitor Field3 63: Visitor Field4 64: Visitor Field5 65: capture-photo 66: tour-document 67: modify-tour-doc	Yes	-	The type of data being requested must be specified. Type=25/ 26/ 27/28/29/31/32/33/34/35/ 36/37/38/39/40 is applicable only for Contractor Type = 12,13,14,15,16,17,18,19,20,21,22,23,24,30,31,32,33,34,35,36,37,38,39, 40,41,42,43,44,45,46,47,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64 is valid for SA user. If “Upload” provision is disabled for type =21,22,23,24,31,32,33,34,35,36,37,38, 39, 40,41,42,43,44,45,46, 50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65 and user tries to GET uploaded file, if any file is present, then that uploaded file must be displayed.

Table: Retrieving User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Finger-template-format	0 : Suprema Proprietary 1: Suprema ISO 2: Lumidigm ISO 3: Lumidigm Proprietary	Yes for type= 1		
location	0-9 : if it is a palm template. 0-9 : if it is a finger print template. 0 - 1: if it is a visitor ID proof (ID Proof 1 & ID Proof 2) 0-5: if it is a vehicle photo (Photos: 1 to 6) 0-5: if it is a material photo (Photos: 1 to 6) 0-39: if it is an enrolled face	No	By default the template stored at location=0 will be sent.	The position of the template that should be returned. Valid only for type =1 (FP templates), type =2 (Palm templates), type =7 (Visitor ID Proof), type = 8 (Vehicle Photo) & type = 9 (Material Photo).
TID	max 10 numeric characters	Yes if type=3, type=49, type=66, type=67	-	TID is mandatory if type=3, type=49, type=66, type=67. For others it will be ignored.
passTID	1-9999	Yes for Type = 30		
faceupdatedtime	ddmmyyyyHH:MM:SS	No		faceupdatedtime will contain, the time when enrolled faces of corresponding userid was last fetched by the client application.
eid	15 numeric characters			eid is mandatory if type=65 and if parameters Type, MID, Flash Count, Roll Over Count, Event Sequence Number are not mentioned. For type!= 65, ignore eid.
dtype	2 numeric digits			For type!= 65, ignore dtype.
mid	5 numeric digits			For type!= 65, ignore mid.
flash_count	5 numeric digits			For type!= 65, ignore flash_count
roll_over_count	5 numeric digits			For type!= 65, ignore roll_over_count.
event_sequence_no	7 numeric digits			For type!= 65, ignore event_sequence_no.
get_updated_face	0= Old Format 1= New Format		0= Old Format	Applicable only when type=11. Should be ignored when type!=11

Table: Retrieving User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
duress	0= normal finger (default) 1= duress finger 2= Any		2	Parameter is not applicable for Visitor For type = 1 and Finger-template-format = 0,1 should indicate whether it is the finger enrolled as Duress Finger or not.

- *The image/template shall be sent in API data and not in API arguments.*
- *This API cannot be tested on a browser.*

Sending User Data

This API can be used by a third party application to send a user's data to the COSEC database. This user data is subsequently saved or updated in the database.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/datatransfer?action=set;<argument>=<value>...
```

Parameters

Table: Sending User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User / ESS User / Worker 1 = Visitor	No	0	-
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	The user identification number of the user whose data is to be sent. User ID is mandatory only for type = 0/1/2/3/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29.
visitor-id	0 to 9	Yes (Only for type=7/8/60/61/62/63/64)	-	-
appointment-no	0-9 12 Digits (Each Appointment No)	Yes (Only for type=9/10/50/51/52/53/54/55/56/57/58/59)	-	-

Table: Sending User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
type	0: image 1: finger print template 2: palm template 3: medical certificate 4: company logo 5: icard authority signature 7: visitor photo 8: visitor id proof 9: vehicle photo 10: material photo 11:enrolled face 12: driving-license 13: passport-no 14: pan 15: aadhar-no 16: pf-no 17: uan 18: esi-no 19: voter-id 20: visa-no 21: field1 22: field2 23: field3 24: field4 25: service-tax-no 26: esic-no 27: contractor-license-no 28: contractor-pf-no 29: contractor-pan-no 30: visitor-pass 31: con-field1 32: con-field2 33: con-field3 34: con-field4 35: con-field5 36: con-field6 37: con-field7 38: con-field8 39: con-field9 40: con-field10 41: field5 42: field6 43: field7 44: field8 45: field9 46: field10 48: grp-fr-pht 49: modify-medical certificate 50: Field1 51: Field2 52: Field3 53: Field4 54: Field5 55: Field6 56: Field7 57: Field8 58: Field9 59: Field10 60: Field1 61: Field2 62: Field3 63: Field4 64: Field5 65: Captured Photo 66: tour-document 67: modify-tour-doc	Yes	-	The type of data being sent must be specified. Type = 12,13,14,15,16,17,18,19,20,21,22,23,24,41,42,43,44,45,46 is valid for ESS user/worker. Type=25/ 26/ 27/28/29 is applicable only for Contractor For successful image/pdf upload display message- File saved successfully For failure of upload of image/pdf display message- File not saved For any exception- Invalid File should be displayed Messages for image/pdf upload file deleted successfully. file not deleted. file not exist. Vehicle File is not available Material File is not available

Table: Sending User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Finger-template-format	0 : Suprema Proprietary 1: Suprema ISO 2: Lumidigm ISO 3: Lumidigm Proprietary	Yes (Only for type=1)		Value should be ignored if type != 48
location	0-9 : if it is a palm template. 0-9 : if it is a finger print template. 0 - 1: if it is a visitor ID proof (ID Proof 1 & ID Proof 2) 0-5: if it is a vehicle photo (Photos: 1 to 6) 0-5: if it is a material photo (Photos: 1 to 6) 0-29: if it is a enrolled face	No	By default, the template will be stored at the first available (empty) location for the user.	The position of the template / Visitor ID Proof / Material Photo / Vehicle Photo/ Enrolled Face that should be set. Valid only for FP and Palm templates. Note: Location value entered will be ignored for both normal and duress finger. The finger will be set at the next empty location if location value is passed
overwrite	0 = no 1 = yes	No	0 (no)	Option to overwrite the template, if a template already exists at the mentioned position for the user. If type=3, Always overwrite existing medical certificate with new one. Overwrite should be applicable for type = 1,2,3,4,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65
data-format	1	No		Applicable only for type=0: image, 3: medical certificate, 49: Modify Medical-certificate, 66: tour-document, 67: modify-tour-doc.
TID	max 10 numeric characters	Yes if type=3, type=49, type=66, type=67		TID is mandatory if type=3, type= 49, type=66, type=67. For others it will be ignored.
temporary-id	max 10 numeric character	Yes	Yes (when type= 48)	For type other than 48, should be ignored.
eid	15 numeric characters			eid is mandatory if type=65. For type! = 65 ignore eid.
filetype	0 = image 1= pdf			Field value (file-type=1) should be sent whenever any pdf file is uploaded. Field value (file-type=0) should be sent whenever any image file is uploaded. If no value passed, by default consider file-type=0
duress	0= normal finger (default) 1= duress finger 2= Any	2	No	Parameter not applicable for visitor For type = 1 and Finger-template-format = 0,1 should indicate whether it is the finger enrolled as Duress Finger or not.

Table: Sending User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
conflict-check	0 = No 1 = Yes	No	1 (Yes)	Applicable for type=11 only If no value is passed, by default consider conflict-check=1 If conflict-check=0, conflict check should be bypassed and faces should be enrolled if all other face-related checks are valid. If conflict-check=1, conflict check should be performed.

An "Invalid Command" error message is returned in the following scenarios:

- If ***type=1*** and location is other than 0-9.
- If ***type=2*** and location is other than 0-9.
- If location specified is out of range.
- If a template already exists at the mentioned location.
- If no free locations are available.

Supported data size limits for type= 48 is 15MB. Return image-id in response on successful API execution if Type=48.

Below given table defines error codes for Enrolled faces SET and UPDATE request's error codes and messages:

Validation	Error Code SET/UPDATE	Message	Remarks
If user's face is not detected	0280203008/0280303008	Face Not Detected	
If user's face is detected but with angel verification failing	0280203008/0280303008	Straight Face Not Detected	
If user's face is detected with mask	0280203008/0280303008	Face Not Visible	
Size limit exceeded for the selected Image	0280203005/0280303005	Maximum Allowed File Size is 15MB	
Space is not available	0280203005/0280303005	Maximum {number} images are allowed to be uploaded.	
If Identification Service is not defined (blank) in Cosec Admin login	0280203008/0280303008	Identification Service not defined	
If Identification Service is not reachable	0280203008/0280303008	Identification Service not reachable	

If conflict is found	0280203008/0280303008	User Conflict Detected with User ID:< ID of user with whom conflict occurs>, Name: < Short Name of user with whom conflict occurs> For example: User Conflict Detected with User ID: 2546, Name: Joseph	User ID is the User ID of the user against which conflict is detected. Maximum 15 Alphanumeric characters allowed: A to Z a to z 0 to 9 /_\.@:} Name is the Short Name of the user against which conflict is detected. Maximum 15 Alphanumeric characters allowed: A to Z a to z 0 to 9 -_.()[Space]}
When user tries to enroll on already enroll location with Overwrite =0	0280203006/0280203006	Face already exists for this location	

Deleting User Data

This API can be used by a third party application to delete a user's image from the COSEC database.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/datatransfer?action=delete;<argument>=<value>...
```

Parameters

Table: Deleting User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	-

Table: Deleting User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Type	0: image 1: finger print template 2: palm template 3: medical certificate 4: company logo 5: icard authority signature 7: visitor photo 8: visitor id proof 9: vehicle photo 10: material photo 11:enrolled face 12: driving-license 13: passport-no 14: pan 15: aadhar-no 16: pf-no 17: uan 18: esi-no 19: voter-id 20: visa-no 21: field1 22: field2 23: field3 24: field4 25: service-tax-no 26: esic-no 27: contractor-license-no 28: contractor-pf-no 29: contractor-pan-no 30: visitor-pass 31: con-field1 32: con-field2 33: con-field3 34: con-field4 35: con-field5 36: con-field6 37: con-field7 38: con-field8 39: con-field9 40: con-field10 41: field5 42: field6 43: field7 44: field8 45: field9 46: field10 48: grp-fr-pht 49: modify-medical certificate 50: Field1 51: Field2 52: Field3 53: Field4 54: Field5 55: Field6 56: Field7 57: Field8 58: Field9 59: Field10 60: Field1 61: Field2 62: Field3 63: Field4 64: Field5 65: Captured Photo 66: tour-document 67: modify-tour-doc	Yes	-	Type = 12,13,14,15,16,17,18,19,20,21,22,23,24,41,42,43,44,45,46 is valid for ESS user/worker. Type=25/ 26/ 27/28/29 is applicable only for Contractor. For SA login and Type=25/ 26/ 27/28/ 29/ 31/32/33/34/35/36/37/38/39/40

Table: Deleting User Data - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Location	0 - 9: if it is a palm template 0 - 9: if it is a finger print template 0 - 1: if it is a visitor ID proof (ID Proof 1 & ID Proof 2) 0 - 5: if it is a vehicle photo (Photos: 1 to 6) 0 - 5: if it is a material photo (Photos: 1 to 6) 0-39: if it is enrolled faces	No	By default the template stored at location=0 will be sent.	Valid only for type type =8 (Visitor ID Proof), type = 9 (Vehicle Photo) & type = 10 (Material Photo) The number of ID proof / Vehicle Photo / Material Photo should be returned.
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes (when type = 0,49 and user-type=0)	-	The user identification number of the user whose image is to be deleted.
visitor-id	0-9	Yes (when type = 7/8 and user-type=1)	-	Visitor ID is mandatory only when type = 7/8/50/51/52/53/54/55/56/57/58/59 and user-type=1. For type other than 7/8, should be ignored.
appointment-no	0-9 12 Digits (Each Appointment No)	Yes (when type = 9,10,60,61,62 ,63,64)		For type other than 9,10,60,61,62,63,64, should be ignored. For other types, appointment-no should be ignored.
TID	max 10 numeric characters			TID is mandatory if type=3, 49, 66 or 67. For others it will be ignored.
Image-id	max 10 numeric characters	Yes (when type= 48)		For type other than 48, should be ignored.
temporary-id	max 10 numeric characters	Yes (when type= 48)		For type other than 48, should be ignored.
eid	15 numeric characters			eid is mandatory if type=65. For type! = 65 ignore eid.

Delete Command will be Applicable only to type = 0 (Image), 3 (Medical Certificate),7(visitor photo), 8(visitor id proof), 9(Vehicle Photo) & 10(Material Photo)./ 11 (Enrolled Face) / 12= driving-license/13= passport-no/ 14=pan / 15=aadhar-no/ 16=pf-no / 17=uan / 18=esi-no /19=voter-id / 20=visa-no /21= field1 / 22= field2 / 23=field3 / 24=field4 /25= service-tax-no / 26=esic-no / 27=contractor-license-no/28=contrctor-pf-no/29=contractor-pan-no/ 30: vistor-pass / 31: con-field1 / 32: con-field2 / 33: con-field3 / 34: con-field4 / 35: con-field5 / 36: con-field6 / 37: con-field7 / 38: con-field8 / 39: con-field9 / 40: con-field40 / 41: field5 / 42: field6 / 43: field7 / 44: field8 / 45: field9 / 46: field10/48:grp-fr-pht/49:Modify Medical-certificate.

CHAPTER 13

Events

The *Events APIs* enable users to perform the following functions:

- *Adding an Event*
- *Obtaining Time and Attendance Events*
- *Obtaining Time and Attendance Events by Date*
- *Obtaining Access Control Events*
- *Obtaining Access Control Events by Date*
- *Obtaining Door/Alarm/System Events*
- *Obtaining Visitor Events*

Events arriving via Events API of COSEC v1 APIs, will not undergo Event authorization process. This feature is applicable only for COSEC v2 APIs.

Adding an Event

This API allows the user to add an event into COSEC for processing. This can include both time and attendance, as well as access control events.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/events?action=set;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled only if the following option is enabled in *User Configuration* (COSEC Web Application): Users > User Configuration > ESS tab > Settings sub-tab > Punch Marking Via API

Parameters

Table: Adding an Event - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
event-datetime	dd/mm/yyyy HH:MM:SS format	Yes	-	This is the date and time when the event actually happened.
userid	Varchar(15)	Yes	-	This is the user id for the event. This will link the event with the user in COSEC.
in-out	Valid values 0,1 0=IN (default) 1=OUT	Yes	-	This specifies whether the event is “in” or “out” type.
spfid	2 digits Valid range = 0-10	-	0	This value specifies any special functions associated with the event.
event-src-details	Max. 100 characters	-	N/A	This field is for information purpose only. Here the event source details can be specified for later identification for the event. For e.g. it can mention a source IP address from where the event originated.
event-type	Valid values 0,1 0=attendance event 1=access control event	-	0	This field will determine where the event should be saved and how it is to be processed.
access	Valid values 0,1 0=denied (event 151) 1=allowed (event 101)	-	1 (allowed)	This value will determine the access value for the event.
mid	1 to 65535 (panel, panel-lite) 1 to 65535 (direct doors)	-	0	This specifies the device MID as set in COSEC.

Table: Adding an Event - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
did	Numeric (3,0)	-	1	This specifies the device ID (DID) as set in COSEC. Note: For Direct Doors, DID will always be 1.
dtype	Numeric (1,0)	-	0	This specifies the device type, as set in COSEC. 0 = Panel 1 = Door V1 2 = Panel Lite 3 = Door V2 4 = NGT Direct Door 5 = Wireless Direct Door 6 = Path Controller 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 15 = Door FMX 18 = MODE 19 = Door V4 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE Enum-13 is reserved for COSEC SAMAY Door V3.
wphoto	Valid values 0,1 0=no photo 1=with photo	-	0	This field specifies that the event has image associated with it or not.
credentials	None = 0, PIN = 1, Card = 2, Card + PIN = 3, FingerPrint = 4, Finger + PIN = 5, Finger + Card = 6, Finger + Card + PIN = 7, Palm = 8, Palm + PIN = 9, Palm + Card = 10, Palm + Card + PIN = 11, Palm + Group = 24 Face = 64 PIN + Face =65 Card + Face=66 Finger + Face=68 API = 32 API + Finger = 36 API + Palm = 40 API + Face = 96 API + PIN = 33 API + Card = 34 BLE = 128 BLE + Finger = 132 BLE + Palm = 136 BLE + Face = 192 BLE + PIN = 129 BLE + Card = 130	-	0	This will specify the credentials used for the event. These are applicable to all devices and the following as per the Firmware Versions mentioned: ARGO: Earlier than V01R42. VEGA: Earlier than V01R71. ARGO FACE: Earlier than V01R20. PATH V2: Earlier than V01R34. ARC DC 200: Earlier than V01R40.

Table: Adding an Event - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
credentials	None = 0, PIN = 1, Card 1 = 258, Card 1 + PIN = 259, Finger = 4, Finger + PIN = 5, Finger + Card 1 = 262, Finger + Card 1 + PIN = 263, Palm = 8, Palm + PIN = 9, Card 1 + Palm = 266, PIN + Card 1 + Palm = 267, Group + Palm = 24, API = 32, API + Finger = 36, API + Palm = 40, API + Face = 96, API + PIN = 33, Group + Finger = 20, API + Card 1 = 290, Face = 64, PIN + Face = 65, Card 1 + Face = 322, Finger + Face = 68, Palm + Face = 72, BLE 1 = 384, BLE 2 = 640, BLE 1 + Card 1 = 386, BLE 2 + Card 1 = 898, BLE 1 + Finger = 388, BLE 2 + Finger = 644, BLE 1 + Palm = 392, BLE 2 + Palm = 648, BLE 1 + Face = 448, BLE 2 + Face = 704, BLE 1 + PIN = 385, BLE 2 + PIN = 641, Card 2 = 514, Card 2 + PIN = 515, Card 2 + Finger = 518, Card 2 + Finger + PIN = 519, Card 2 + Palm = 522, Card 2 + PIN + Palm = 523, API + Card 2 = 546, Card 2 + Face = 578, BLE 1 + Card 2 = 898, BLE 2 + Card 2 = 642, QR 1 = 1280, QR 1 + PIN = 1281, QR 1 + API = 1312, QR 1 + Face = 1344, BLE 1 + QR 1 = 1408, BLE 2 + QR 1 = 1920, QR 2 = 1536, QR 2 + PIN = 1537, QR 2 + API = 1568, QR 2 + Face = 1600, BLE 1 + QR 2 = 1920, BLE 2 + QR 2 = 1664	-	0	Applicable the following devices as per the Firmware Versions as mentioned: ARGO:V01R42 and later VEGA: V01R71 and later ARGO FACE: V01R20 and later PATH V2: V01R34 and later ARC DC 200: V01R40 and later

Table: Adding an Event - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
event_src	0=Device 1=USB 2=ESS 3=SMS 4=PIM 5=Others 6=APP		5 (Others)	This will indicate the event source to the COSEC software. Note : Specify event_src=6 when Events are submitted using a Mobile Application.
gps_latitude	11 characters	No	-	When location is calculated via GPS. This parameter will contain : latitude Format : +XXX.XXXXXX or –XXX.XXXXXX Valid Values : -90.000000 to +90.000000
gps_longitude	11 characters	No	-	When location is calculated via GPS. This parameter will contain : longitude Format : +XXX.XXXXXX or –XXX.XXXXXX Valid Values : -180.000000 to +180.000000
gsm_latitude	11 characters	No	-	When location is calculated via GSM. This parameter will contain : latitude Format : +XXX.XXXXXXor –XXX.XXXXXX Valid Values : -90.000000 to +90.000000
gsm_longitude	11 characters	No	-	When location is calculated via GSM. This parameter will contain : longitude Format : +XXX.XXXXXX or –XXX.XXXXXX Valid Values : -180.000000 to +180.000000
mac_address	17 characters	No	-	When location is calculated via Wi-Fi. This parameter will contain : MAC Address of source Each byte should be separated by colon. Format : XX:XX:XX:XX:XX:XX
online_status	0 : Offline 1 : Online	No	1 (Online)	To be sent by third party applications to differentiate in online and offline events.
comment	50 characters 0-9 A-Z a-z ! @ $ * ( ) _ - + [ ] \ : , . / and space	-	-	-

Table: Adding an Event - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
JobID	10 characters 0, 4294967295	0 = Job Assignment Type = "Fixed" or "None" 1-4294967294 = Job Reference ID corresponding to respective Job Codes 4294967295 = Job Reference ID selected = None	-	1-4294967292 = Job Reference ID corresponding to respective Job Codes 4294967293 = Job Reference ID selected = Continue Job 4294967294 = Job Reference ID selected = Default Job
ble_code	0 to 9999	No	-	-
ble_name	Max. upto 20 characters Allowed only A-Z a-z 0-9 -_.,():@!$*+ /	No		-
app-event-mode	0: Manual Punch 1: Manual Punch-FR 2: Auto Punch 3: Auto Punch-FR 4: Auto Punch - Face Scan Mode	No	-	To send events with the mode used for registering punch using APTA
punch-reason	Max 50 alphanumaric characters. A-Z a-z 0-9 _- <space> ()[].,/\+!@$:#*	No	-	Reason for the marked Punch
temperature	Fahrenheit: 90.0 - 110.0 Celsius: 32.0 – 43.0	No	-	-
temperature-unit	0: Fahrenheit 1: Celsius	No	-	-
formatted_address	50 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	-	This field indicates a precise street address

Table: Adding an Event - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
route	50 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	-	This field indicates a name of route (such as" US 101")
administrative_area_level_2	50 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	-	This field indicates area name
administrative_area_level_1	50 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	-	This field indicates area address
countrypostal_code	max 10 numeric characters	No	-	This field indicates postal code of the country
eid-required	Valid values 0,1 0=eid not required 1=eid required	-	0	This field is applicable if event_src is 6 i.e. application. This field specifies that eid is required in response or not. If not specified then default value (0) should be considered.

- *If “Time and Attendance” license is not available when this request is called, all the parameters will be saved in DB, but no process (i.e. Punch posting process, Attendance Calculation process etc.) will be called.*
- *When event_src= 0 (Device), 1(USB) and 3(SMS) it is mandatory to specify the correct dtype, did and mid.*

Example1

Following are some sample cases for this API:

Sample Request:

To add an event for FVM user:

```
http://192.168.104.12/cosec/api.svc/v2/events?action=set;event-datetime=21052018123000;userid=FVM1;in-out=0;dtype=12;did=1;gps_latitude=+22.2563;gps_longitude=+073.1833;
```

Sample Response:

```
success: 0210200001 : successful
```

Obtaining Time and Attendance Events

This can be used to fetch a specific number of Time and Attendance events in the required format.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/event-ta?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled only if the following option is enabled in *User Configuration* (COSEC Web Application): Users > User Configuration > ESS > Punch via ESS

Parameters

Table: Obtaining Time and Attendance Events - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
field-name	The list of valid fields is mentioned in the “Response Fields” section.	No	If “field-name” is not mentioned, then system should consider configured “field-name” for the respective template in ‘API Data Template’.	Multiple field-names can be selected, each separated by “, (comma)” e.g.:”indexno, userid, username, orgid…”
index	000000000000000-999999999999999	No	0	Index indicates the start point of an event. It shall be of 15 numeric digits. Response shall be provided with an error message, in case of invalid index. The default value of index shall be 0 (in case where the index not mentioned).
count	numeric	No	If count is not mentioned then system should send 999 (maximum value of count) events from given start point i.e. index.	It’s the count up to which the data is required. It shall be of 3 numeric digits. e.g. index=50, and count=100, then system should provide total 100 events, starting from index =50 up to index =149
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	Multiple IDs can be selected, each separated by “, (comma)” e.g.:”1, 3, 7, 9…” In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.

Table: Obtaining Time and Attendance Events - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss	No	If Field does not contain hh mm ss values then by default assume: Start as -00:00:00 and End as- 23:59:59	Provide this to get events within a particular date range.
orderby	0: default 1: userid, event date-time 2: event date-time	No	-	If parameter is not mentioned, the sorting will be based on default methods. If **orderby=1**, then sorting will occur first by userid and then by event date-time. If **orderby=2**, records will be sorted as per event date-time only
return-field-name	0: display name (As per export template config) 1: actual field (As per view column) 2: both	No	-	If “return-field-name” is not mentioned the response will be as per existing system (i.e. 0 = display name)
Active	0 : inactive 1: active 2:all	No	1	Return users as per their active flag status.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 Custom-group-3	No	User (if If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user)	No		If argument range is not mentioned and individual argument ID has specified, then id should be considered of User. In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
event-status	0: Both 1: allowed 2: denied	No	0 (when parameter is not provided)	

Response Fields

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Index number	INDEXNO	numeric 15 digits	-

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	USERID	15 characters.	-
User Name	USERNAME	45 characters	-
Short Name	short_name	max 15 characters	-
Organization ID	ORGID	1-999999	-
Branch ID	BRCID	1-999999	-
Department ID	DPTID	1-999999	-
Section ID	SECID	1-999999	-
Category ID	CTGID	1-999999	-
Grade ID	GRDID	1-999999	-
Designation ID	DSGID	1-999999	-
Reference No.	ADLUSERID	numeric	System generated
Gender	GENDER	M : Male F: Female NA : Not available	-
Marital Status	MRTLSTAT	M : Married U : Unmarried NA : Not available	-
Birth Date	BIRTHDT	dd/mm/yyyy	-
Joining Date	JOINDT	dd/mm/yyyy	-
Leaving Date	LEAVEDT	dd/mm/yyyy	-
Event Date and Time	EVENTDATETIME	dd/mm/yyyy HH:MM:SS	-
Event Date and Time	EVENTDATETIME_D	mm/dd/yyyy HH:MM:SS	-
Entry/Exit Type	ENTRYEXITTYPE	0 : Entry 1 : Exit	-
Master Controller ID	MASTERCONTROLLERID	1-65535	Device ID
Door Controller ID	DOORCONTROLLERID	1-255 (PANEL_DOOR_TYPE=8) 1-75(All Others)	-
Special Function ID	SPECIALFUNCTIONID	numeric	-
Event ID	EVENTID	numeric	-

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Panel/Door Type	PANEL_DOOR_TYPE	0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 15 = Door FMX 18 = MODE 17 = ARC DC 200 19 = Door V4 20 = ARGO 21 = ARGO FACE	Enum 13 is reserved for COSEC SAMAY Door V3
Event Date	EDATE	dd/mm/yyyy	-
Event Time	ETIME	HH:MM	-
Insertion Date Time	IDATETIME	datetime	as per server configuration
Site ID	SITEID	1-999	-
Device Name	device_name	30 alphanumeric characters	-
Source	event_src	0=controller 1=USB 2=ESS 3=SMS 4=PIM 5=Others 6=APP	This will indicate the event source to the COSEC software.
Access Allowed or Denied	access_allowed	0 : denied 1: allowed	-
GPS Latitude	gps_ latitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Example: -77.008112
GPS Longitude	gps_ longitude	11 characters	When location is calculated via GPS. This parameter will contain : longitude Example: 38.889723
GSM Latitude	gsm_ latitude	11 characters	When location is calculated via GSM. This parameter will contain : latitude
GSM Longitude	gsm_ longitude	11 characters	When location is calculated via GSM. This parameter will contain : longitude
MAC Address	mac_address	17 characters	When location is calculated via Wi-Fi. This parameter will contain : MAC Address of source

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Location Code	Loc_code	6 characters	It shows location code corresponding to MAC address or GPS/GSM latitude-longitude details.
Location Name	Loc_name	50 characters	It shows location name corresponding to MAC address or GPS/GSM latitude-longitude details. Or it will display Location Name as per Google.
Event Online/Offline Status	online_status	0 : Offline 1 : Online	Not mandatory. If not mentioned, default-value will be online=1 (Online) To be sent by Mobile Applications to differentiate in online and offline events.
Comment	comment	50 characters	
Job ID	JobID	10 characters 0, 4294967295	0 = Job Assignment Type = "Fixed" or "None" 1 to 4294967292 = Job Reference ID corresponding to respective Job Codes 4294967293 = Job Reference ID selected = Continue Job 4294967294 = Job Reference ID selected = Default Job 4294967295 = Job Reference ID selected = None
BLE Code	ble_code	0-9999	
BLE Name	ble-name	Allowed Characters A-Z a-z 0-9	10 alphanumeric characters (max.) If not available, return blank
Custom Group 1 ID	CustomGroup1ID	1-999999	This is Enterprise group ID
Custom Group 2 ID	CustomGroup2ID	1-999999	
Custom Group 3 ID	CustomGroup3ID	1-999999	

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Full Name	full-name	max 200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ ' (single quote) [Space] When Multi Language is On, Invalid Character set = Set3
Authorization Status	Event_Auth_status	0 : Pending 1 : Authorized	
Reason	punch-reason	Max 50 alphanumaric characters. A-Z a-z 0-9 _- <space> ()[].,/+!@$:*	When Multi Language is On, Invalid Character set = Set 1
Wphoto	wphoto	Valid values 0,1 0=no photo 1=with photo	
eid	eid	Max 15 numeric digits	As stored against the event in the server DB
DType	dtype	2 numeric digits	
MID	mid	5 numeric digits	
Flash Count	flash_count	5 numeric digits	
Roll Over Count	roll_over_count	5 numeric digits	
Event Sequence Number	event_sequence_no	7 numeric digits	

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final -ric-verdict-date	MM/DD/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1:pending 2:authorized	
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric-verdict	1: pending 2: authorized	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal -ric2 -verdict	1: pending 2: authorized	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: authorized	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	

Table: Obtaining Time and Attendance Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: authorized	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Job Code	job-code	15 Characters	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Job Name	job-name	30 Characters	Allowed Characters A-Z a-z 0-9 - _ . ( ) [ ]
Credential Type	Evtcred	45 Characters	
App Event Mode	App_evt_mode	45 Characters	
Auth Mode	Auth_mode	45 Characters	
Auth By	Auth_by	45 Characters	
Auth Date	Auth_date	45 Characters	
Auth Remarks	Auth_remarks	45 Characters	
Invalid Shift	Invalid_shift	45 Characters	
Invalid Access Route	Invalid_access_route	45 Characters	

Example

Calling T&A events with default values.

Sample Request:

```
http://matrixserver/api.svc/v2/event-ta?action=get
```

Sample Response:

```
IndexNo|UserID|UserName|EventDateTime|EntryExitType|MasterControllerID|DoorControllerID|SpecialFunctionID|LeaveDT|IDateTime
33|1|sam|01/10/2011 17:31:18|0|1|1|0||10/01/2011 17:31:21
34|1|sam|03/10/2011 09:28:48|0|1|1|0||10/03/2011 09:28:55
35|2|hardik|03/10/2011 09:54:00|0|1|1|0||10/03/2011 09:54:07
36|3|shwetang|03/10/2011 09:54:10|0|1|1|0||10/03/2011 09:54:17
37|9|home|26/07/2012 16:08:17|0|0|0|0||07/26/2012 16:08:17
38|9|home|26/07/2012 16:08:44|0|0|0|0||07/26/2012 16:08:44
39|9|home|26/07/2012 16:08:49|0|0|0|0||07/26/2012 16:08:49
40|9|home|26/07/2012 16:09:09|0|0|0|0||07/26/2012 16:09:09
<EOT>
```

Obtaining Time and Attendance Events by Date

This API is similar to "*Obtaining Time and Attendance Events"*. However, in this case, the Time and Attendance events can be obtained for a specified date range.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/event-ta-date?action=get;<argument>=<value>...
```

User Rights

Same as *"Obtaining Time and Attendance Events" on page 351*

Parameters

Table: Obtaining Time and Attendance Events by Date - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
field-name	The list of valid fields is mentioned in the "Response Fields" section.	No	If "field-name" is not mentioned, then system should consider configured "field-name" for the respective template in 'API Data Template'.	Multiple field-names can be selected, each separated by ", (comma)" e.g.:"indexno, userid, username, orgid…"
date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss	Yes	-	This is date-range. T&A events stored in the specified date-range will be fetched.
userid	15 Char. (for user)	No	-	Multiple IDs can be selected, each separated by ", (comma)" e.g.:"1, 3, 7, 9…"
return-field-name	0: display name (As per export template config) 1: actual field (As per view column) 2: both	No	-	If "return-field-name" is not mentioned the response will be as per existing system (i.e. 0 = display name)
Active	0 : inactive 1: active 2:all	No	1	Return users as per their active flag status.
event-status	0: Both 1: allowed 2: denied	No	0 (when parameter is not provided)	

Response Fields

Table: Obtaining Time and Attendance Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Index number	INDEXNO	numeric 15 digits	-
User ID	USERID	15 characters.	-

Table: Obtaining Time and Attendance Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User Name	USERNAME	45 characters	-
Short Name	short_name	max 15 alphanumeric characters	-
Organization ID	ORGID	1-999999	-
Branch ID	BRCID	1-999999	-
Department ID	DPTID	1-999999	-
Section ID	SECID	1-999999	-
Category ID	CTGID	1-999999	-
Grade ID	GRDID	1-999999	-
Designation ID	DSGID	1-999999	-
Reference No.	ADLUSERID	numeric	System generated
Gender	GENDER	M : Male F: Female NA : Not available	-
Marital Status	MRTLSTAT	M : Married U : Unmarried NA : Not available	-
Birth Date	BIRTHDT	dd/mm/yyyy	-
Joining Date	JOINDT	dd/mm/yyyy	-
Leaving Date	LEAVEDT	dd/mm/yyyy	-
Event Date and Time	EVENTDATETIME	dd/mm/yyyy HH:MM:SS	-
Event Date and Time	EVENTDATETIME_D	datetime	as per server configuration
Entry/Exit Type	ENTRYEXITTYPE	0 : Entry 1 : Exit	-
Master Controller ID	MASTERCONTROLLERID	1-65535	Device ID
Door Controller ID	DOORCONTROLLERID	1-255 (PANEL_DOOR_TYPE=8) 1-75 (All Others)	-
Special Function ID	SPECIALFUNCTIONID	numeric	-
Event ID	EVENTID	numeric	-
Panel/Door Type	PANEL_DOOR_TYPE	0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 15 = Door FMX 18 = MODE 17 = ARC DC 200 19 = Door V4 20 = ARGO 21 = ARGO FACE	Enum 13 is reserved for COSEC SAMAY Door V3

Table: Obtaining Time and Attendance Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Event Date	EDATE	dd/mm/yyyy	-
Event Time	ETIME	HH:MM	-
Insertion Date Time	IDATETIME	datetime	as per server configuration
Site ID	SITEID	1-999	-
Device Name	device_name	Max 30 alphanumeric character	-
Source	event_src	0=controller 1=USB 2=ESS 3=SMS 4=PIM 5=Others 6=APP 11=Group FR-ESS 12=Group FR-APP	This will indicate the event source to the cosec software.
Access Allowed or Denied	access_allowed	0 : denied 1: allowed	-
GPS Latitude	gps_ latitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Example: -77.008112
GPS Longitude	gps_longitude	11 characters	When location is calculated via GPS. This parameter will contain : longitude Example: 38.889723
GSM Latitude	gsm_latitude	11 characters	When location is calculated via GSM. This parameter will contain : latitude
GSM Longitude	gsm_longitude	11 characters	When location is calculated via GSM. This parameter will contain : longitude
MAC Address	mac_address	17 characters	When location is calculated via Wi-Fi. This parameter will contain : MAC Address of source
Location Code	Loc_code	6 characters	It shows location code corresponding to MAC address or GPS/GSM latitude-longitude details.
Location Name	Loc_name	50 characters	It shows location name corresponding to MAC address or GPS/GSM latitude-longitude details. Or it will display Location Name as per Google.
Event Online/Offline Status	online_status	0 : Offline 1 : Online	Not mandatory. If not mentioned, default-value will be online=1 (Online) To be sent by ESS APPs to differentiate in online and offline events.

Table: Obtaining Time and Attendance Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Comment	comment	50 characters	
Job ID	JobID	10 characters 0, 4294967295	0 = Job Assignment Type = "Fixed" or "None" 1-4294967294 = Job Reference ID corresponding to respective Job Codes 4294967295 = Job Reference ID selected = None
BLE Code	ble_code	0-9999	
BLE Name	ble-name	Allowed Characters A-Z a-z 0-9	10 alphanumeric characters (max.) If not available, return blank
Custom Group 1 ID	CustomGroup1ID	1-999999	This is Enterprise group ID
Custom Group 2 ID	CustomGroup2ID	1-999999	
Custom Group 3 ID	CustomGroup3ID	1-999999	
Full Name	full-name	max 200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ ' (single quote) [Space] When Multi Language is On, Invalid Character set = Set3
Authorization Status	Event_Auth_status	0 : Pending 1 : Authorized	

Table: Obtaining Time and Attendance Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reason	punch-reason	Max 50 alphanumaric characters. A-Z a-z 0-9 _- <space> ()[].,/+!@$:*	When Multi Language is On, Invalid Character set = Set 1
Wphoto	wphoto	Valid values 0,1 0=no photo 1=with photo	
eid	eid	Max 15 numeric digits	As stored against the event in the server DB
DType	dtype	2 numeric digits	
MID	mid	5 numeric digits	
Flash Count	flash_count	5 numeric digits	
Roll Over Count	roll_over_count	5 numeric digits	
Event Sequence Number	event_sequence_no	7 numeric digits	
Job Code	job-code	15 Characters	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Job Name	job-name	30 Characters	Allowed Characters A-Z a-z 0-9 - _ . ( ) [ ]
Credential Type	Evtcred	45 Characters	
App Event Mode	App_evt_mode	45 Characters	
Auth Mode	Auth_mode	45 Characters	
Auth By	Auth_by	45 Characters	
Auth Status	Event_Auth_status	45 Characters	
Auth Date	auth_date	45 Characters	
Auth Remarks	auth_remarks	45 Characters	
Invalid Shift	invalid_shift	45 Characters	

Table: Obtaining Time and Attendance Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Invalid Access Route	invalid_access_route	45 Characters	

Example

This example presents a case where no time-attendance records are available for the specified date range.

Sample Request:

```
http://matrixserver/api.svc/v2/event-ta-date?action=get;date-range=01012011000000-02012011235959
```

Sample Response:

```
success : <response code> : No records found
```

Obtaining Access Control Events

This can be used to get a specific number of Access Control events (All events other than Time and Attendance events) in the required format.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/event-acs?action=get;<argument>=<value>...
```

User Right

User	Rights
System Account	Enabled.
ESS	Enabled.

Parameters

Table: Obtaining Access Control Events - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
field-name	The list of valid fields is mentioned in the “Response Fields” section.	No	If “field-name” is not mentioned, then system should consider configured “field-name” for the respective template in ‘API Data Template’.	Multiple field-names can be selected, each separated by “, (comma)” e.g.:”indexno, userid, username, orgid…”
index	000000000000000-999999999999999	No	0	Index indicates the start point of an event. It shall be of 15 numeric digits. The default value of index shall be 0 (in case where the index not mentioned)
count	numeric	No	If count is not mentioned then system will send 999 (maximum value of count) events from given start point i.e. index.	It’s the count up to which the data is required. It shall be numeric digits. e.g. index=50, and count=100, then system should provide total 100 events, starts from index =50 up to index =149
userid	15 Char. (for user)	No	-	Multiple IDs can be selected, each separated by “, (comma)” e.g.:”1, 3, 7, 9…”
date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss	No	If Field does not contain hh mm ss values then by default assume: Start as -00:00:00 and End as- 23:59:59	Provide this to get events within a particular date range.

Table: Obtaining Access Control Events - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
orderby	0: default 1: userid, event date-time 2: event date-time	No	-	If parameter is not mentioned, the sorting will be based on default methods. If **orderby=1**, then sorting will occur first by userid and then by event date-time. If **orderby=2**, records will be sorted as per event date-time only
return-field-name	0: display name (As per export template config) 1: actual field (As per view column) 2: both	No	-	If “return-field-name” is not mentioned the response will be as per existing system (i.e. 0 = display name)
Active	0 : inactive 1: active 2:all	No	1	Return users as per their active flag status.
event-status	0: Both 1: allowed 2: denied	No	0 (when parameter is not provided)	

Response Fields

Table: Obtaining Access Control Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Index number	INDEXNO	numeric 15 digits	-
User ID	USERID	15 characters.	Allowed characters A-Z a-z 0-9 /_\\.@:
User Name	USERNAME	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short_name	max 15 alphanumeric characters	-
Event Date and Time	EVENTDATETIME	dd/mm/yyyy HH:MM:SS	-
Event Date and Time	EVENTDATETIME_D	datetime	as per server configuration
Entry/Exit Type	ENTRYEXITTYPE	0 : Entry 1 : Exit	-
Master Controller ID	MASTERCONTROLLERID	1-65535	Device ID
Door Controller ID	DOORCONTROLLERID	1-255 (PANEL_DOOR_TYPE=8) 1-75 (All Others)	-
Special Function ID	SPECIALFUNCTIONID	numeric	-
Event ID	EVENTID	numeric	-

Table: Obtaining Access Control Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Panel/Door Type	PANEL_DOOR_TYPE	0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 15 = Door FMX 18 = MODE 17 = ARC DC 200 19 = Door V4 20 = ARGO 21 = ARGO FACE	Enum-13 is reserved for COSEC SAMAY Door V3
Event Date	EDATE	dd/mm/yyyy	-
Insertion Date Time	IDATETIME	datetime	as per server configuration
Site ID	SITEID	1-999	-
Organization ID	ORGID	1-999999	-
Branch ID	BRCID	1-999999	-
Department ID	DPTID	1-999999	-
Section ID	SECID	1-999999	-
Category ID	CTGID	1-999999	-
Grade ID	GRDID	1-999999	-
Designation ID	DSGID	1-999999	-
Device Name	device_name	Max 30 alphanumeric character	
Source	event_src	0=controller 1=USB 2=ESS 3=SMS 4=PIM 5=Others 6=APP	This will indicate the event source to the cosec software.
Event Time	ETIME	HH:MM	-
Access Allowed or Denied	access_allowed	0 : denied 1: allowed	-
GPS Latitude	gps_ latitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Example: -77.008312
GPS Longitude	gps_longitude	11 characters	When location is calculated via GPS. This parameter will contain : longitude Example: 38.889723

Table: Obtaining Access Control Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
GSM Latitude	gsm_latitude	11 characters	When location is calculated via GSM. This parameter will contain : latitude
GSM Longitude	gsm_longitude	11 characters	When location is calculated via GSM. This parameter will contain : longitude
MAC Address	mac_address	17 characters	When location is calculated via Wi-Fi. This parameter will contain : MAC Address of source
Location Code	Loc_code	6 characters	It shows location code corresponding to MAC address or GPS/GSM latitude-longitude details.
Location Name	Loc_name	50 characters	It shows location name corresponding to MAC address or GPS/GSM latitude-longitude details. Or it will display Location Name as per Google.
Event Online/Offline Status	online_status	0 : Offline 1 : Online	Not mandatory. If not mentioned, default-value will be online=1 (Online) To be sent by Mobile Applications to differentiate in online and offline events.
Comment	comment	50 characters	
Job ID	JobID	15 characters 0, 4294967295	0 = Job Assignment Type = "Fixed" or "None" 1-4294967294 = Job Reference ID corresponding to respective Job Codes 4294967295 = Job Reference ID selected = None
BLE Code	ble_code	0-9999	
Custom Group 1 ID	CustomGroup1ID	1-999999	This is Enterprise group ID
Custom Group 2 ID	CustomGroup2ID	1-999999	
Custom Group 3 ID	CustomGroup3ID	1-999999	

Table: Obtaining Access Control Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Full Name	full-name	max 200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ ' (single quote) [Space] When Multi Language is On, Invalid Character set = Set3
Reason	punch-reason	Max 50 alphanumaric characters.' A-Z a-z 0-9 _- <space> ()[].,/+!@$:*	When Multi Language is On, Invalid Character set = Set 1
Wphoto	wphoto	Valid values 0,1 0=no photo 1=with photo	
eid	eid	Max 15 numeric digits	As stored against the event in the server DB
DType	dtype	2 numeric digits	
Flash Count	flash_count	5 numeric digits	
Roll Over Count	roll_over_count	5 numeric digits	
Event Sequence Number	event_sequence_no	7 numeric digits	
Credential Type	Evtcred	45 Characters	
Invalid Shift	Invalid_shift	45 Characters	
Invalid Access Route	Invalid_access_route	45 Characters	

Example

For default values,

Sample Request:

```
http://matrixserver/api.svc/v2/event-acs?action=get
```

Sample Response:

```
IndexNo|UserID|UserName|EventDateTime|EntryExitType|MasterControllerID|DoorControllerID|IDateTime
30904|555013|KRISHNANAND SHIVRATAN PAL|23/02/2013 12:40:08|0|48|1| 30905|555013|KRISHNANAND SHIVRATAN PAL|23/02/
2013  12:40:15|0|48|1|
30906|8515|KARANSINGH DILBAHADUR DHAMI|23/02/2013 12:41:26|0|48|1|
30907|8699|RAJIV RANJAN PRAKASH SINGH|23/02/2013 12:41:35|0|48|1|
30908|8515|KARANSINGH DILBAHADUR DHAMI|23/02/2013 12:42:05|0|48|1|
30909|8515|KARANSINGH DILBAHADUR DHAMI|23/02/2013 12:43:13|0|48|1| 30910|555013|KRISHNANAND SHIVRATAN PAL|23/02/
2013 12:44:48|0|48|1|
30911|8515|KARANSINGH DILBAHADUR DHAMI|23/02/2013 12:44:55|0|48|1|
30912|8699|RAJIV RANJAN PRAKASH SINGH|23/02/2013 12:46:29|0|48|1|
30913|8699|RAJIV RANJAN PRAKASH SINGH|23/02/2013 16:11:46|0|48|1|
30914|555013|KRISHNANAND SHIVRATAN PAL|25/02/2013 10:52:46|0|48|1|
```

Obtaining Access Control Events by Date

This API is similar to "*Obtaining Access Control Events"*. However, in this case, the Access Control events can be obtained for a specified date range.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/event-acs-date?action=get;<argument>=<value>...
```

User Rights

Same as *"Obtaining Access Control Events" on page 367*

Parameters

Table: Obtaining Access Control Events by Date - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
field-name	The list of valid fields is mentioned in the "Response Fields" section.	No	If "field-name" is not mentioned, then system should consider configured "field-name" for the respective template in 'API Data Template'.	Multiple field-names can be selected, each separated by ", (comma)" e.g.:"indexno, userid, username, orgid…"
date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss	Yes	-	This is date-range. Access Control events stored in the specified date-range will be fetched.
userid	15 Char. (for user)	No	-	Multiple IDs can be selected, each separated by ", (comma)" e.g.:"1, 3, 7, 9…"
return-field-name	0: display name (As per export template config) 1: actual field (As per view column) 2: both	No	-	If "return-field-name" is not mentioned the response will be as per existing system (i.e. 0 = display name)
Active	0 : inactive 1: active 2:all	No	1	Return users as per their active flag status.
event-status	0: Both 1: allowed 2: denied	No	0 (when parameter is not provided)	

Response Fields

Table: Obtaining Access Control Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Index number	INDEXNO	numeric 15 digits	-

Table: Obtaining Access Control Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	USERID	15 characters.	Allowed characters A-Z a-z 0-9 /_\\.@:
User Name	USERNAME	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short_name	max 15 alphanumeric characters	-
Event Date and Time	EVENTDATETIME	dd/mm/yyyy HH:MM:SS	-
Event Date and Time	EVENTDATETIME_D	datetime	as per server configuration
Entry/Exit Type	ENTRYEXITTYPE	0 : Entry 1 : Exit	-
Master Controller ID	MASTERCONTROLLERID	1-65535	Device ID
Door Controller ID	DOORCONTROLLERID	1-255 (PANEL_DOOR_TYPE=8) 1-75 (All Others)	-
Special Function ID	SPECIALFUNCTIONID	numeric	-
Event ID	EVENTID	numeric	-
Panel/Door Type	PANEL_DOOR_TYPE	0 = Panel, 1 = Direct Door, 2 = Panel Lite 3 = Direct Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 15 = Door FMX 18 = MODE 17 = ARC DC 200 19 = Door V4 20 = ARGO 21 = ARGO FACE	Enum-13 is reserved for COSEC SAMAY Door V3.
Event Date	EDATE	dd/mm/yyyy	-
Insertion Date Time	IDATETIME	datetime	as per server configuration
Site ID	SITEID	1-999	-
Organization ID	ORGID	1-999999	-
Branch ID	BRCID	1-999999	-
Department ID	DPTID	1-999999	-
Section ID	SECID	1-999999	-
Category ID	CTGID	1-999999	-
Grade ID	GRDID	1-999999	-
Designation ID	DSGID	1-999999	-

Table: Obtaining Access Control Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Device Name	device_name	Max 30 alphanumeric character	-
Source	event_src	0=controller 1=USB 2=ESS 3=SMS 4=PIM 5=Others 6=APP	This will indicate the event source to the cosec software.
Event Time	ETIME	HH:MM	-
Access Allowed or Denied	access_allowed	0 : denied 1: allowed	-
GPS Latitude	gps_ latitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Example: -77.008212
GPS Longitude	gps_longitude	11 characters	When location is calculated via GPS. This parameter will contain : longitude Example: 38.889723
GSM Latitude	gsm_latitude	11 characters	When location is calculated via GSM. This parameter will contain : latitude
GSM Longitude	gsm_longitude	11 characters	When location is calculated via GSM. This parameter will contain : longitude
MAC Address	mac_address	17 characters	When location is calculated via Wi-Fi. This parameter will contain : MAC Address of source
Location Code	Loc_code	6 characters	It shows location code corresponding to MAC address or GPS/GSM latitude-longitude details.
Location Name	Loc_name	50 characters	It shows location name corresponding to MAC address or GPS/GSM latitude-longitude details. Or it will display Location Name as per Google.
Event Online/Offline Status	online_status	0 : Offline 1 : Online	Not mandatory. If not mentioned, default-value will be online=1 (Online) To be sent by Mobile Applications to differentiate in online and offline events.
Comment	comment	50 characters	-

Table: Obtaining Access Control Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Job ID	JobID	10 characters 0, 4294967295	0 = Job Assignment Type = "Fixed" or "None" 1-4294967294 = Job Reference ID corresponding to respective Job Codes 4294967295 = Job Reference ID selected = None
BLE Code	ble_code	0-9999	-
Custom Group 1 ID	CustomGroup1ID	1-999999	This is Enterprise group ID
Custom Group 2 ID	CustomGroup2ID	1-999999	
Custom Group 3 ID	CustomGroup3ID	1-999999	
Full Name	full-name	max 200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ ' (single quote) [Space] When Multi Language is On, Invalid Character set = Set3
Reason	punch-reason	Max 50 alphanumaric characters.' A-Z a-z 0-9 _- <space> ()[].,/+!@$:*	When Multi Language is On, Invalid Character set = Set 1
Wphoto	wphoto	Valid values 0,1 0=no photo 1=with photo	

Table: Obtaining Access Control Events by Date - Response Fields

Field Name	Tag Name	Valid Values	Remarks
eid	eid	Max 15 numeric digits	As stored against the event in the server DB
DType	dtype	2 numeric digits	
MID	mid	5 numeric digits	
Flash Count	flash_count	5 numeric digits	
Roll Over Count	roll_over_count	5 numeric digits	
Event Sequence Number	event_sequence_no	7 numeric digits	
Credential Type	Evtcred	45 Characters	
Invalid Shift	Invalid-shift	45 Characters	
Invalid Access Route	Invalid-access-route	45 Characters	

Example

The following example illustrates a case where no records of access control events are present in the given date range.

Sample Request:

```
http://matrixserver/api.svc/v2/event-acs-date?action=get;date-range=01012012000000-02012012235959
```

Sample Response:

```
IndexNo|UserID|UserName|EventDateTime|EntryExitType|MasterControllerID|DoorControllerID|IDateTime
1890|112|PARESH CHAUHAN|01/01/2012 08:39:29|0|4|1|01/01/2012 08:40:00
1921|443|BHARGAV M PATEL|02/01/2012 09:41:29|0|4|1|01/02/2012 09:41:32
1923|112|PARESH CHAUHAN|02/01/2012 09:42:25|0|4|1|01/02/2012 09:42:27
1924|621|patel vishal H|02/01/2012 09:42:28|0|4|1|01/02/2012 09:42:32
1925|521|PRAVINSINH GANPATSINH CHAUHAN|02/01/2012 09:42:34|0|4|1|01/02/2012 09:42:36
1926|489|KADIR I MANSURI|02/01/2012 09:42:37|0|4|1|01/02/2012 09:42:39
1927|424|VIMAL S TADVI|02/01/2012 09:42:40|0|4|1|01/02/2012 09:42:41
1928|684|JADAV MAYUR G|02/01/2012 09:42:46|0|4|1|01/02/2012 09:42:47
1929|449|CHINTAN A VARU|02/01/2012 09:42:50|0|4|1|01/02/2012 09:42:52
1930|644|Dhramesh Thakkar|02/01/2012 09:43:05|0|4|1|01/02/2012 09:43:07
1931|496|MILAN TRIVEDI|02/01/2012 09:43:11|0|4|1|01/02/2012 09:43:13
1932|515|KAMLESH KANUBHAI PARMAR|02/01/2012 09:43:26|0|4|1|01/02/2012 09:43:29
1933|498|RAVINDRA RAJPUT|02/01/2012 09:43:29|0|4|1|01/02/2012 09:43:33
1934|686|Saikh Sajid Usmanbhai|02/01/2012 09:43:33|0|4|1|01/02/2012 09:43:35
1935|514|BABU MANSUKHBHAI PALASH|02/01/2012 09:43:35|0|4|1|01/02/2012 09:43:38
1936|417|RAJESH P MACHHI|02/01/2012 09:44:07|0|4|1|01/02/2012 09:44:09
1937|434|KISHOR SOLANKI|02/01/2012 09:44:15|0|4|1|01/02/2012 09:44:18
1938|5|AMBALAL PADHIYAR|02/01/2012 09:44:24|0|4|1|01/02/2012 09:44:27
1940|4|DEVENDRA L MACHHI|02/01/2012 09:45:47|0|4|1|01/02/2012 09:45:49
```

Obtaining Door/Alarm/System Events

This will be used to fetch the COSEC door, alarm and system events for a specified date range. The date should be insertion date and all the events that are offline and yet to be inserted will be left out.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/event-others?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled
ESS	Disabled

Parameters

Table: Obtaining Door/Alarm/System Events - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
type	0: all (default) 1: door 2: alarm 3. system	No	0 (all)	If type= 1. The response should contain all door events. Event ID range : 201-299 if type= 2. The response should contain all alarm events. Event ID range : 301-399 if type= 3. The response should contain all system events. Event ID range : 401-499
date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss	Yes	-	This is the event date-range. Events stored in the specified date-range will be fetched. **Note: -** The events that have already occurred, but are yet to be inserted, will not be returned. The record should be requested again at a later stage.

Response Fields

Table: Obtaining Door/Alarm/System Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Master Controller ID	mid	1-65535	Device MID
Door Controller ID	did	1-255	-
Event Type	type	-	0: all (default) 1: door 2: alarm 3. system
Site ID	siteid	1-999	-

Table: Obtaining Door/Alarm/System Events - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Event Date and Time	eventdatetime	dd/mm/yyyy HH:MM:SS	-
Event ID	eventid	door events: 201-299 alarm events: 301-399 system events: 401-499	-
Event Field	field-1	As Per configuration	Field-1 can be User ID for event 401 . But Transaction ID for event 403.
Event Field	field-2	As Per configuration	-
Event Field	field-3	As Per configuration	-

Events Reference

Table: List of Events

Event ID	Event Description
101	User Allowed
102	User Allowed – with Duress
103	User Allowed – Anti-Pass Back-soft
104	User Allowed - Dead-man Zone
105	User Allowed – Door Not open
106	User Allowed – Smart Secure Access
107	User Allowed – Smart card based route access - soft
108	User Allowed – Panel route access - soft
109	User Allowed – two person rule - primary user
110	User Allowed – two person rule - secondary user
151	User Denied – User Invalid
152	User Denied – Occupancy Control
153	User Denied – 2-Person Rule
154	User Denied – Time Out
155	User Denied – Visitor Escort Rule
156	User Denied – Anti-Pass Back
157	User Denied – Disabled User
158	User Denied – Blocked User
159	User Denied – First IN User
160	User Denied – DND Enabled
161	User denied – Control zone
162	User Denied – Door Lock
163	User Denied – Invalid Access Group
164	User Denied – Validity date expired

Table: List of Events

Event ID	Event Description
165	User Denied – Invalid Route Access
166	User Denied – Invalid Shift Access
201	Door Status changed
202	Dead-man timer changed
203	DND status changed
204	Aux input status changed
205	Aux output status changed
206	Door sense input status
207	Door Controller Communication status
301	Dead-man timer expired Alarm– User IN
302	Duress detection
303	Panic Alarm
304	FP Memory Full – Alarm
305	Door Held open too long
306	Door Abnormal
307	Door force open
308	Door Controller Offline
309	Door Controller -Fault
310	Tamper Alarm
311	Master Controller Mains fail Alarm
312	Master Controller Battery fail
313	Master Alarm – MC Alarm input
314	RTC
315	Event Buffer Full
351	Alarm acknowledged
352	Alarm cleared
353	Alarm Re-issued
401	User Block/Restore
402	Login to ACS
403	Message transaction confirmation to ACMS
404	Guard Tour-status
405	Enrolment
406	Master Alarm sense input status
407	Master Aux Output status
408	Input Output Group Link status
409	Credentials Deleted

Table: List of Events

Event ID	Event Description
410	Time Triggered Function
411	Time Stamping Function
412	Guard tag
413	Camera Event for time stamp
451	Configuration Change
452	Roll over of events
453	Master Controller Power ON
454	Configuration Defaulted
455	Soft Override
456	Backup and Update
457	Default System
458	Sensor Calibration

- Response will not contain the following alarm events :

  - 351 : Alarm acknowledged
  - 352 : Alarm cleared

- The status changes are not registered as new events, as they are being updated against the current event itself.

The events returned will be ordered according to the date-time of the event (edatetime).

Obtaining Visitor Events

This will be used to fetch the Visitor events for a specified date range.

Action

action = get

Syntax

```
http://<servername>/api.svc/v2/visitor-event?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled (Only when System Account user has view for Visitor Events Admin Module ' System Accounts ' Roles And Rights Configuration)
ESS	Disabled

Parameters

Table: Obtaining Visitor Events - Parameters

Argument	Valid Values	Description
appointment-no	0-9 12 Digits (Each Appointment No)	Mandatory (Not mandatory when either mobile-no or date-range or both is provided) When Appointment number is mentioned, other parameters- mobile-no, date-range should be ignored. System should provide all the events of the visitor that are available in duration of that appointment period.
mobile-no	0-9 + - () Max length=20 characters	Not mandatory. Provide this parameter to get events corresponding to particular mobile-no. When this parameter is provided, all events corresponding to this mobile-no till date should be shown
date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss	Not mandatory. Provide this parameter to get events within a particular date-range. The mentioned dates should be compared against Event Date Time. Not Insertion Date time. When this parameter is provided, all events falling between the date-range mentioned should be shown. If field does not contain hh mm ss values then by default assume: Start as - 00:00:00 and End as - 23:59:59 Example- if parameter value is: date-range = 23012015-24012015 Then convert it to: 23012015000000 - 24012015235959 If proper value is mentioned, i.e. date-range = 23012015000000 - 23012015130000; then return only events that fall between the start and end date time mentioned above e.g. - all events that occurred between 23 Jan 00:00:00 hrs to 23 Jan 13:00:00 hrs.

Table: Obtaining Visitor Events - Parameters

Argument	Valid Values	Description
Field-name	The list of valid fields is mentioned in the response section.	-

Response

Field Name	Tag Name	Valid Values	Remarks
Appointment Number	appointment-no	numeric 12 digits	
Visitor Name	visitor-name	40 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Mobile Number	mobile-no	20 characters	Allowed Characters 0-9 + - ()
Event Date and Time	eventdatetime	dd/mm/yyyy HH:MM: SS	
Entry/Exit Type	entryexittype	0: Entry 1: Exit	
Access Allowed or Denied	access_allowed	0: denied 1: allowed	
Source	event_src	0=device 6= APP 7=station 8=email 10=system	This will indicate the event source to the cosec software.
Device Name	device_name	Max 30 alphanumeric characters	
Station Name	station_name	Max 30 alphanumeric characters	
GPS Latitude	gps_latitude	11 characters	When location is calculated via GPS. This parameter will contain: latitude Example: -77.008212
GPS Longitude	gps_longitude	11 characters	When location is calculated via GPS. This parameter will contain: longitude Example: 38.889723
GSM Latitude	gsm_latitude	11 characters	When location is calculated via GSM. This parameter will contain: latitude
GSM Longitude	gsm_longitude	11 characters	When location is calculated via GSM. This parameter will contain: longitude
MAC Address	mac_address	17 characters	When location is calculated via Wi-Fi. This parameter will contain: MAC Address of source
Master Controller ID	mastercontrollerid	1-65535	Device's master id

Field Name	Tag Name	Valid Values	Remarks
Door Controller ID	doorcontrollerid	1-255 (PANEL_DOOR_TYPE = 8) 1-75 (All Others)	Door id
Panel/Door Type	panel_door_type	0 = Panel, 1 = Direct Door, 2 = Panel Lite 3 = Direct Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Compact Direct Door 7 = PVR Direct Door 8= Panel-lite V2 9= Vega Controller 11 = Arc Controller 12 = Door V3 14 = ARC IO 800 15 = Door FMX 16=Path V2 18 = MODE 17 = ARC DC 200 19 = Door V4 20 = ARGO 21 = ARGO FACE	Enum - 13 is reserved for COSEC SAMAY Door V3.
Location Name	loc_name	50 characters	This will display the location name, fetched from **LocationMst** Table from the column name **LOCName** corresponding to the MAC Address or the GPS/GSM latitude-longitude details.

CHAPTER 14

Sending Commands to Device

This API can be used to send a command to a COSEC device from a third-party application. Certain commands can be sent directly to devices to initiate specific actions. The following commands can be sent to a COSEC device via API:

- **Set Date-Time** - Sends the current system date and time to the device.
- **Normalize Door/Lock Door/Unlock Door** - Sends the appropriate commands to the DOOR to reset the door lock status.
- **Delete FP** - Sends command to delete the fingerprints (FP) from the fingerprint module of a device.
- **Sync Credentials** - Sends command to synchronize credentials from the PANEL to the DOORs. It is recommended to first send the delete fingerprints command to the DOORs before starting the synchronizing process for finger print templates.
- **Clear All Alarms** - Sends the command to clear all alarms configured on the COSEC system.
- **Factory Defaults** - Sends the command to default the device settings to the default factory settings.
- **Delete Palms** - Sends command to delete the palm templates from a palm vein reader device.

Action

action=command

Syntax

```
http://<servername>/api.svc/v2/device-commands?action=command;<argument>=<value>......
```

The Login User must have rights on the device to send a valid command.

User Rights

User	Rights
System Account	Enabled.
ESS	Disabled

Parameters

Table: Sending Commands to Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-id	1 to 65000 (panel, panel-lite) 1 to 65000 (direct doors)	Yes	-	This is the device identification number.
device-type	0,1,2,3,4,5,6,7,8,9,11,12, 14,15,18,19,17,20, 21	Yes	-	This is the type of device to which command is to be sent. Here, 0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Path Controller 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 14 = ARC IO 800 15 = Door FMX 18 = MODE 19 = Door V4 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE
Panel-door-no	1 to 255 (device-type=8) 1 to 75 (All Others)	No	-	Vaild only when command is to be sent to a Panel Door. **Note:** If this value is not specified with device type 0 and 2, 8 then the interpretation is that the command is intended for the corresponding Panel or Panel-lite.

Table: Sending Commands to Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
command-type	1 - set date-time 2 - normalize door 3 - lock door 4 - unlock door 5 - delete FP (clears all finger prints) 6 - sync credentials 7 - clear all alarms 8 - factory defaults 9 - delete palms 10-open door 11-activate aux output 12-delete faces 13 -manual forgiveness	Yes	-	To specify a command. For device-type = 14, the applicable commands are 1,8,11. For a Panel-door-no of type =8 and if it is ARC IO 800 - Panel Lite V2 Door, then applicable command is s are 1,8,11. Delete Faces is applicable only for Device-type =9/15/18/21 Delete Faces will be applicable for Device-type =16/17 Delete Faces will be applicable for Device-type =8 Manual Forgiveness is applicable only for device-type=5/7/8/9/12/15/21 For device-type = 21, the applicable commands are 1,2,3,4,7,8,10,12,13 For Duress Finger feature, command-type = 5,6,7 should respectively delete Duress Finger same as normal finger, should sync Duress Finger same as Normal Finger, Clear Duress alarm due to Duress Finger same as Duress PIN.
time-interval	1-99 seconds	Yes (If command type=11)		To specify the time interval.
aux-output-port	1 - Auxiliary Output Port 1 2 - Auxiliary Output Port 2 3 - Auxiliary Output Port 3 4 - Auxiliary Output Port 4 5 - Auxiliary Output Port 5 6 - Auxiliary Output Port 6 7 - Auxiliary Output Port 7 8 - Auxiliary Output Port 8	Yes (If command type=11 for ARC IO800)		
Forgiveness	1-global 2-local	No	1-global	Applicable only for command-type=13 and Device-type=5/7/8/9/12/15/16/17/19/20/21
Access-zone	1-99	Yes (Only If Forgiveness =2)	-	For forgiveness =1, aceess-zone=0
Userid	A-Z a-z 0-9 @ _ : ./ \s	Yes (Only If command-type=13)		

Applicable device-commands based on device-type:

a) Panel: Applicable Commands: 1, 7, 8

b) Panel Door: Applicable Commands: 2 - 7,10, 11 and 9 (if it is a PVR Door)

c) Direct Door: Applicable Commands: 1 - 5, 7, 8, 10,11 and 9 (if it is a PVR Door)

Example

The following is an example of a command sent to a panel door for credentials synchronization:

Sample Request:

```
http://matrixserver/api.svc/v2/device-commands?action=command;device-id=1;device-type=0;Panel-door-
no=1;command-type=6;
```

Sample Response:

```
success: <response code> : Command received successfully
```

Now, in the next example, a command is sent to the same device to clear all alarms.

Sample Request:

```
http://matrixserver/api.svc/v2/device-commands?action=command;device-id=1;device-type=0;Panel-door-
no=1;command-type=7;
```

Sample Response:

```
failed: <response code> : No alarms to clear
```

In this case, the selected device has no alarms to be cleared.

CHAPTER 15

User Count on Device

Request the total count of users assigned on a device by specifying the device type and device ID.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/device-users?action=get;<argument>=<value>......
```

User Rights

User	Rights
System Account	Enabled.
ESS	Disabled

Parameters

Table: User Count on Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-id	1 to 65000 (panel, panel-lite) 1 to 65000 (direct doors)	Yes	-	This is the device identification number.

Table: User Count on Device - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
device-type	0,1,2,3,4,5,6,7,8,9,11, 12,15,18,19,17,20, 21	Yes	-	This is the type of device to which command is to be sent. Here, 0 = Panel, 1 = Door V1, 2 = Panel Lite 3 = Door V2, 4 = NGT Direct Door, 5 = Wireless Direct Door 6 = Path Controller 7 = PVR Direct Door 8 = Panel200 9 = Vega Controller 11 = ARC Controller 12 = Door V3 15 = Door FMX 18 = MODE 19 = Door V4 17 = ARC DC 200 20 = ARGO 21 = ARGO FACE

Example

The following is an example of a request sent to "***matrixserver***" to obtain the user count for a *Direct Door V2* with device-id=1,

Sample Request:

```
http://matrixserver/api.svc/v2/device-users?action=get;device-id=11,;device-type=3
```

Sample Response:

```
DeviceID|DeviceName|UserCount|TotalUserCapacity
11|RnD Basement V2|464|2000
<EOT>
```

The Login User must have rights on the device for which user count is to be fetched.

CHAPTER 16

Notifications

These APIs can be used to fetch as well as delete the notification messages for various updates related to the login user such as leave approvals, leave application rejections, missing IN/OUT punches etc. The following functions can be performed:

- Retrieving Notifications
- Deleting Notifications

Retrieving Notifications

To fetch notification messages for a login user.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/notifications?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled.

Parameters

Table: Retrieving Notifications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	Varchar(15)	Yes	-	If login user is an ESS user, it should be the logged in user's ID.

Response Fields

Table: Retrieving Notifications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed Characters 15 alphanumeric char. A-Z a-z 0-9 /_\\.@:
Username	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	Allowed Characters A-Z a-z 0-9 -_. ()
Count	notification-count	-	The total number of new notification available for that user
Generation Date	generation-date	mm/dd/yyyy	-
Generation Time	generation-time	HH:MM:SS	-

Table: Retrieving Notifications - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Type	notification-type	1 = Leave Approved, 2 = Leave Rejected, 3 = Tour Approved, 4 = Tour Rejected, 5 = Leave Modification Approved, 6 = Leave Modification Rejected, 7= Leave Cancellation Approved, 8 = Leave Cancellation Rejected, 9 = Attendance Authorized, 10 = Attendance Correction Approved, 11 = Attendance Correction Rejected, 12 = COFF Approved, 13 = COFF Rejected, 14 = Missing IN Punch, 15 = Missing OUT Punch, 16 = Overtime Authorized, 17 = Tour Cancellation Approved, 18 = Tour Cancellation Rejected, 19 = Tour Modification Approved, 20 = Tour Modification Rejected, 21 = COFF Cancellation Approved, 22 = COFF Cancellation Rejected, 23 = Short Leave Approved, 24 = Short Leave Rejected, 25 = Official Leave Approved, 26 = Official Leave Rejected 28= Overtime Approved 29= Overtime Rejected	-
Message	message	alphanumeric characters as per COSEC Web configuration.	Message for that notification type

Example

Sample Request:

```
http://matrixserver/api.svc/v2/notifications?action=get;userid=1234
```

Sample Response:

```
user-id|user-name|short-name|notification-count|generation-date|generation-time|notification-type|message
1234|Harish Patel|Harish P|1|04/23/2014|17:45|10|Attendance Correction application for 07/03/2014 is Approved.
<EOT>
```

Deleting Notifications

To delete notification messages of the login user.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/notifications?action=delete;<argument>=<value>…
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled.

Parameters

Table: Deleting Notifications - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	Varchar(15)	Yes	-	If login user is an ESS user, it should be the logged in user's ID.
generation-datetime	ddmmyyyyhhmm	Yes	-	All the notifications generated before the specified date and time, will be deleted from the COSEC database.

CHAPTER 17

Login User Details

This API enables the third party software to fetch the login user's basic details.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/loginuser?action=get;<argument>=<value>…
```

User Rights

User	Rights
System Account	Disabled
ESS	Enabled

Response Fields

Table: Getting Login User's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
User Short Name	short-name	max 15 alphanumeric characters	Allowed Characters A-Z a-z 0-9 -_. ()
Reporting In-charge	reporting-in-charge	1 = yes 0 = no	-
Gender	gender	na male female	-

Table: Getting Login User's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Enabled for ESS	enabled	0: disabled 1: enabled	-
IMEI Number	imei	upto 40 characters. Allowed Characters: Alphanumeric -	It will be blank of no IMEI number is registered or if a registration request was rejected by System Admin.
IMEI Authorized or not	imei-authorized	0: Pending 1: Authorized 2: Rejected 3: Deleted (When IMEI is authorized, but system admin removes it manually using the COSEC Web application and saves it.)	imei-authorized=0 if a registration request is in pending state. imei-authorized=1 if a registration request is in authorized state. imei-authorized=2 if a registration request is in rejected state. It will be blank if no IMEI number is registered or there is no request in pending state or if a registration request was rejected by System Admin.
Attendance marking via ESS enabled	attendance-via-ess	1 = enabled 0 = disabled	-
Allow edit user details	edit-user-details	1 = allowed 0 = not allowed	-
Attendance Period	attendance-period	0 = Calendar Month 1 = Customized	This parameter will be based on Attendance Policy assigned to the login user.
Month Start-End Date	month-start-end	XX-XX where valid values for XX = 1 to 28	If Start Date : 15th day of the month and End Date : 16th of next month. then, the response will contain : month-start-end = 15-16 This parameter is applicable only if attendance-period=1 If attendance-period=0, return blank value.

Table: Getting Login User's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
ESS rights : <cosec page names>	Tags for ESS pages	1 = Yes 2 = No	Reference ESS Menu:
			ESS Menu - T&A
			Basic
	events		Events
	holiday-schedule		Holiday Schedule
	user-basic-details		User Basic Details
	visitor-preregistration		Visitor Pre-Registration
	self-declaration		self-declaration
	health-records		health-record
			Time Attendance
	daily-attendance		Daily Attendance
	attendance-summary		Attendance Summary
	attendance-details		Attendance Details
	shift-schedule		Shift Schedule
	short-leave		Short Leave/Official In-Out
	attendance-correction		Attendance Correction
	overtime-application		Overtime Application
			shift-change-application
			Leave Management
	leave-balance		Leave Balance
	leave-application		Leave Application
	tour-application		Tour Application
	coff-application		C-Off Application
			E-Canteen
	account		Account Details
	menu		Menu
	expenditure		Expenditure
	transaction-correction		Transaction Correction
			FVM
	field-visit-schedule		Field Visit Schedule
	field-visit-status		Field Visit Status
	field-visit-correction-application		Field Visit Correction Application
			Reports
	schedule-status-summary-report		Schedule Status Summary Report
	shift-change-application		

Table: Getting Login User's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
In-charge Permissions : <in-charge pages name>	Blank if user is not a reporting in-charge.	1 = Yes 2 = No	Reference ESS menu for reporting in-charge
	Tags for ESS pages		**ESS Menu - Reporting In-charge**
			Group Details
	group-summary		Group Summary
	member-daily-attendance		Daily Attendance
	member-events		Member Events
	member-attendance		Member Attendance
			Approval/Authorization
	attendance-authorization		Attendance Authorization
	short-leave-authorization		Short Leave/Official IN-OUT Authorization
	overtime-authorization		Overtime/C-OFF Authorization
	leave-approval		Leave Approval
	tour-approval		Tour Approval
	attendance-correction-authorization		Attendance Correction
	coff-approval		C-OFF Approval
	visitor-preregistration-approval		Visitor Pre-Registration Approval
	mark-group-attendance		Mark Group Attendance
	invite-visitor-authorization		invite-visitor-authorization
			shift-change-approval
			Group Details
	member-field-visit-schedule		Field Visit Schedule
	member-field-visit-status		Field Visit Status
			Approval/Authorization
	field-visit-correction-authorization		Field Visit Correction Authorization
	shift-change-approval		
COSEC Version	cosec-version	Maximum 10 alphanumeric characters	Format: VXXRXX.XX For e.g. V06R01, V06R02, V05R08.20
Punch Marking Via API	punch-api	0 : Disabled 1 : Enabled	-
Auto-Punch Marking	auto-attendance	0 : Disabled 1 : Enabled	Enabled/Disabled status of auto-attendance marking feature.

Table: Getting Login User's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Manual Punch Marking	manual-punch	0 : Disabled 1 : Enabled	-
Location Data Mandatory from Apps	location-mandatory	0 : None 1 : Any Location 2 : Configured Locations	-
Door Access Through API	door-access-api	0 : Disabled 1 : Enabled	
API security Key	api-security-key	Maximum 2 alphanumeric characters	
FVM Flag	FVM-enable	0 : Disabled 1 : Enabled	
Job Assignment Type	job-assignment-type	0: None 1: Fixed 2: Device Based	
Restrict Half Day Considerations	Restrict-half-day	0 or 1	0 : Disabled 1 : Enabled
Timezone for Punch Marking	Punch-marking-timezone	0: Server Timezone 1 : Local Timezone	
Authorized Host User	auth-host-user	0 or 1	0: Unauthorized Host 1: Authorized Host
Face Mandatory For Punch	face-mandatory	0 : None 1 : Attendance 2 : Access Control 3 : Both	If Enable FR/Punch Marking Via API/Manual Punch Marking is disabled for a user, face-mandatory tag will be available only for value 0 : None
Enrolled faces	enrolled_faces	0-40	Total Number of faces enrolled for this user
PIN Authentication For Door Access	pin-authentication	0 : Disabled 1 : Enabled	
Reason for punching from unassigned location	punch-reason-flg	0 : disabled 1 : enabled	enabled only when Location Mandatory For Punch = 0,1
Advance Overtime Component	ot-applicable	0: Disable 1: Enable	This Component refers whether user is allowed to apply for advance overtime or not. Logic to set value as 0 or 1 has been provided in server' SRS. This parameter's value is combination of below parameters: 1. Auto-Authorization Overtime 2. Enable Attendance Calculation 3. OT/C-OFF Eligibility 4. Enable OT/C-OFF Calculation

Table: Getting Login User's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Get Location details	Get-location-details	0 : Disabled 1 : Enabled	When 0 is obtained, then Reverse Geo Coding API should not be fired to get location address When 1 is obtained, Reverse Geo Coding API should be fired to get location address
Google API Key	google-api-key	100 characters	
APTA Face Anti-Spoofing	apta-face-anti-spoofing	0 : Disabled 1 : Enabled	Returns value from User Configuration > ESS.
Capture Photo	capture-photo	1 : enabled 0 : disabled	

- If T&A license is not available, "0" will be returned for the following pages:

ESS Menu – Time Attendance	ESS Menu – Reporting In Charge
Time Attendance	**Group Details**
Daily Attendance	Group Summary
Attendance Summary	Daily Attendance
Attendance Details	Member Events
Shift Schedule	Member Attendance
Short Leave/Official In-Out	**Approval/Authorization**
Attendance Correction	Attendance Authorization
Leave Management	Short Leave/Official IN-OUT Authorization
Leave Balance	Overtime/C-OFF Authorization
Leave Application	Leave Approval
Tour Application	Tour Approval
C-Off Application	Attendance Correction
	C-OFF Approval
	Mark Group Attendance
	Invite Visitor Authorization

- If e-Canteen license is not available, then "0" will be returned for the following pages:

ESS Menu – Time Attendance
E-Canteen
Account Details
Menu

ESS Menu – Time Attendance
Expenditure
Transaction Correction

- If Visitor Management license is not available, then “0” will be returned for the following pages:

ESS Menu – Time Attendance	ESS Menu – Reporting In Charge
Basic	**Approval/Authorization**
Visitor Pre-Registration	Visitor Pre-Registration Approval

- If FVM license is not available, then “0” will be returned for the following pages.

ESS Menu – FVM	ESS Menu – Reporting In Charge
FVM	**Group Details**
Field Visit Schedule	Field Visit Schedule
Field Visit Status	Field Visit Status
Field Visit Correction Application	
Reports	**Approval/Authorization**
Schedule Status Summary Report	Field Visit Correction Authorization

- For an ESS user, who is not reporting-group in-charge, the following pages will always be marked as “0”.

ESS Menu – Reporting In Charge
Group Details
Group Summary
Daily Attendance
Member Events
Member Attendance

The above pages will be marked as 1, only if the login user is a reporting group in-charge, and T&A license is available.

For the field Reporting In-charge, the system will allow all the configured new RIC in the Reporting Group page for fetching the information.

Example

This example demonstrates a sample request fetching details of the login user in XML format, with details of the ESS application pages on which the user has, or does not have access rights.

Sample Request:

```
http://matrixserver/api.svc/v2/loginuser?action=get;format=xml
```

Sample Response:

```
<DocumentElement>
 <LoginUserDetail>
  <user-id>2455</user-id>
  <user-name>JOBIN SAMUEL</user-name>
  <short-name>JOBIN SAMUEL</short-name>
  <reporting-in-charge>0</reporting-in-charge>
  <gender>male</gender>
  <enabled>1</enabled>
  <imei>353345052067690</imei>
  <imei-authorized>1</imei-authorized>
  <attendance-via-ess>0</attendance-via-ess>
  <edit-user-details>1</edit-user-details>
  <location-mandatory>0</location-mandatory>
  <auto-attendance>0</auto-attendance>
  <attendance-period>0</attendance-period>
  <month-start-end />
  <events>1</events>
  <holiday-schedule>1</holiday-schedule>
  <user-basic-details>1</user-basic-details>
  <visitor-preregistration>1</visitor-preregistration>
  <daily-attendance>1</daily-attendance>
  <attendance-summary>1</attendance-summary>
  <attendance-details>1</attendance-details>
  <shift-schedule>1</shift-schedule>
  <short-leave>1</short-leave>
  <attendance-correction>1</attendance-correction>
  <leave-balance>1</leave-balance>
  <leave-application>1</leave-application>
  <tour-application>1</tour-application>
  <coff-application>1</coff-application>
  <account>1</account>
  <menu>1</menu>
  <expenditure>1</expenditure>
  <transaction-correction>1</transaction-correction>
  <group-summary>0</group-summary>
  <member-daily-attendance>0</member-daily-attendance>
  <member-events>0</member-events>
  <member-attendance>0</member-attendance>
  <attendance-authorization>0</attendance-authorization>
  <short-leave-authorization>0</short-leave-authorization>
  <overtime-authorization>0</overtime-authorization>
  <leave-approval>0</leave-approval>
  <tour-approval>0</tour-approval>
  <attendance-correction-authorization>0</attendance-correction-authorization>
  <coff-approval>0</coff-approval>
  <visitor-preregistration-approval>0</visitor-preregistration-approval>
  <cosec-version>V09R01</cosec-version>
 </LoginUserDetail>
</DocumentElement>
```

CHAPTER 18

Password

Changing Password

This API can be used by an ESS user to change the login password.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/change-password?action=set;<argument>=<value>…
```

User Rights

User	Rights
System Account	Disabled
ESS	Enabled

Parameters

Table: Changing Password - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	Maximum 15 characters	Yes	-	This is the ESS user's ID.
birthdate	ddmmyyyy	Yes	-	When user applies for new password, he should be asked to enter his birthdate, and the same should be supplied in this parameter. Birthdate entered by the user will be authenticated against the birthdate stored in COSEC database.
imei	upto 40 characters. Allowed characters: Alphanumeric -	Yes	-	This will be the IMEI number of the mobile device on which the ESS application is being used. IMEI number supplied here will be authenticated against the number stored in COSEC DB.

Table: Changing Password - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-verified-for-password	0= Not Verified 1= Verified		0	0meansthatweneedtoverifytheuser 1 means that we do not need to verify the user To be considered only when type=1(set password) If user verified for password = 0, it means that Server needs to generate mobile and email OTP and then send it to the particular user's contact details. Send Success response with message "OTP generated successfully". If user verified for password = 1, it means that Server need not generate OTP and should allow the user to set his password without OTP verification
encryption	0 : No Encryption (Plain Text Password) 1: RSA Encryption	No	0 (no encryption)	If encryption=0, password will not be decrypted by server. If encryption=1, password will be decrypted using Public encryption key.
new-password	Will depend on encryption method	Yes	-	The new password submitted by the user will be supplied here. If encryption=1, Password must be encrypted using the public encryption key. New-password field should be encoded string to allow special characters in URL. The maximum length for value entered for new password is 200 characters.
type	0= change password 1= set password	No	-	0 means the API is being used by the user for changing his password. 1 means the API is being used by the user for setting his password.

For this API, the request header should contain the user's existing credentials.

For any subsequent API requests, the new password should be submitted.

Password Change Process:

- The request will contain user id parameter
- Validate the API request parameters. It should have user-id, birthdate and IMEI number when type=0 and user-id and new password when type=1:
- If the birthdate is invalid or not as per specified ddmmyyyy format, return message: "Invalid birthdate."
- If there is a mismatch in birthdate, return message : "In-correct Birthdate"
- If the IMEI is invalid or not as per specified format, return message: "Invalid IMEI number."
- If there is a mismatch in IMEI, return message: "Unrecognized Device."

- If the birthdate and IMEI number supplied in the request matches with that stored in DB, save the new password
- The new password mentioned in the request, should be decoded first.
- Then if encryption=1, it should be decrypted using the public encryption key.
- Then it should be hashed and encrypted as per existing policy, and saved in the DB.
- “Success: Password Changed successfully” message will be returned.
- For any subsequent API requests, the new password should be submitted.
- When the “Deny Password Reuse” flag is enabled on the server and the user tries to resuse a previuos password give error “New password should not be same as last “x” old passwords.”

Generating Password

This API shall be used to set a new password for an ESS user. A new password needs to be set in the following situation:

- If user forgets his password, and requests server for a new password.
- If a password has not been set by the user.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/generate-password?action=set;<argument>=<value>…
```

User Rights

User	Rights
System Account	Disabled
ESS	Disabled

For this API, the request header should contain following credentials :
username : MatrixAdmin
password : admin

Parameters

Table: Generating Password - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	Maximum 15 characters	Yes	-	This is the ESS user’s ID.
birthdate	ddmmyyyy	Yes	-	When user applies for new password, he should be asked to enter his birthdate, and the same should be supplied in this parameter. Birthdate entered by the user will be authenticated against the birthdate stored in COSEC database.

Table: Generating Password - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
imei	upto 40 characters. Allowed characters: Alphanumeric -	Yes	-	This will be the IMEI number of the mobile device on which the ESS application is being used. IMEI number supplied here will be authenticated against the number stored in COSEC DB.

The new password will be a randomly generated 8-digit number.
It will be sent to the user's registered Email ID and/or mobile number through the alert.

CHAPTER 19

Encryption Key

This API enables you to retrieve the RSA encryption public key for password encryption from the COSEC server.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/encryption-key?action=get;<argument>=<value>...
```

User Rights

Not Applicable. No COSEC login credentials are required to use this API. Use:

userid = anonymous-user
password = anonymous.

Response Fields

Table: Getting Password Encryption Key - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Modulus	modulus	N/A	N/A
Exponent	exponent	N/A	N/A

The password encryption key will be case-sensitive.

CHAPTER 20

IMEI Registration

This API can be used to register the IMEI number for any new mobile device on which ESS application needs to be used.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/imei-registration?action=set;<argument>=<value>...
```

User Rights

User	Rights
System Account	Disabled.
ESS	Enabled.

Parameters

Table: IMEI Number Registration - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	upto 15 characters	Yes	-	This will be the login user's ID.
imei	upto 40 characters. Allowed characters: Alphanumeric -	Yes	-	This will be the IMEI number of the mobile device to be registered for accessing ESS application.

CHAPTER 21

Location Master

This API can be used to send the Location master details as configured on COSEC server to COSEC mobile applications. The location master will contain Latitude-Longitude, Wi-Fi and Bluetooth details which can uniquely identify a location.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/location-master?action=get;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. User must have rights on following pages (COSEC Web Application): Admin > System Configuration > Location Master
ESS	Enabled.

When Logged-IN User is **System Account** User, fetch all configured locations as per request.

"When Logged-IN User is **ESS** User,

1. If "Location Mandatory for Punch" is selected as 'None' or 'Any Location' against logged in user, fetch all configured locations as per request.

2. If "Location Mandatory for Punch" is selected as 'None' or 'Any Location' or 'Assigned Locations Only' against logged in user, return response will contain only those locations which are assigned to user.Also locations belong to assigned location group(s). When a location belongs to multiple location groups, it will be returned only once.

Parameters

Table: Location Master - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
time-stamp	ddmmyyyyHHMM	No	-	Time must be in 24 hour format only. Time-stamp will contain, the time when location master was fetched by the client application. If time-stamp is blank, then response will contain all the records from location master. Is time-stamp < location master update time, it implies that the master has been updated after the client fetched it. Hence response will contain all the locations form location master. If time-stamp>= location master update time, then it implies that the client application has the latest location master. (i.e. no updates occurred after the last get request).
id	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	No		Userid is to be passed through this parameter.

Response Fields

Table: Location Master- Response

Field Name	Tag Name	Valid Values	Remarks
Code	code		6 alpha-numeric characters.
Location Name	name	Allowed Characters A-Z a-z 0-9 -_. ()[]	50 characters
Latitude	latitude	-90.0000 to 90.0000	9 characters (max.)
Longitude	longitude	-180.0000 to 180.0000	9 characters (max.)
Location Radius	radius	10 - 10000 metres	Range : 10 meters to 10000 meters
MAC Address	mac		17 characters (each byte separated by colon)

Table: Location Master- Response

Field Name	Tag Name	Valid Values	Remarks
Type	type	0 : GPS 1 : Wi-Fi 2 : BLE-Beacon 3 : BLE-Device	
BLE Code	ble-code	0-9999	Will return the BLE Code assigned to a specific location
BLE Name	ble-name	Allowed Characters A-Z a-z 0-9	10 alphanumeric characters (max.)
Address	address	A-Z a-z 0-9 ! @ # $ * ( ) _ - + [ ] \ : , . / and space	125 chars
mode	mode	0 : Attendance 1 : Access Control 2 : Both	
MID	Mid	0-65535 (Direct Door or Panel200)	MID of the device
DID	Did	1 to 255 (Panel200 Door)	DID of the device if device is a panel door
IP	ip	Should support IP address or Domain Name of Device upto 40 characters	IP of Panel if device= panel door IP of Direct Door if device = direct door
Port	port	5 Characters Range = 1-65535	Should return configured Device Port value
Event_type	Event_type	0: Entry 1: Exit	Returns the type of event configured for specific location

CHAPTER 22

COSEC Server Details

This API can be used to send the COSEC Server Details to COSEC Mobile applications. The Server Details will contain COSEC-Version and Server-Timestamp parameters.

Action

action=get

Syntax

```
http://<matrixserver>/api.svc/v2/server-details?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled.

Response Fields

Table: Getting COSEC Server's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Cosec Server Version	cosec-server-version	-	-
Server Timestamp	server-time	dd/mm/yyyy HH:MM:SS	-
User Last Modified	user-last-modified	dd/mm/yyyy HH:MM:SS	-
User Last Deleted	user-last-deleted	dd/mm/yyyy HH:MM:SS	-
Support Multi-Language Input	Support-multi-language-input	0: Off 1: On	-
Input Alignment	Input-alignment	0: Left To Right 1: Right To Left	-

Table: Getting COSEC Server's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Server Time Zone	server-timezone	Format: ±HH:MM	Return COSEC Web Server's Time Zone Offset for the Tenant. Example: In case of IST return: +05:30
Logged-in User	logged-in-user	0: System Account User 1: ESS User	Return logged in user's type
UTC	UTC	Format: dd/mm/yyyy HH:MM:SS	Return Universal Time Coordinates.
Allow E-Pass Generation Before Duration	allow-epass-generation-before-duration	0-999 (Time in Minutes)	Return the value of this textbox
Default-Host-User-ID	default-host-user-id	max 45 alphanumeric characters	
Default-Host-User-Name	default-host-user-name	max 15 characters	
Security Guard	security-guard	0: No 1: Yes	Return this as 1 if the logged in user is a System Account User with Role assigned Rights of VMS Utility. Otherwise return 0.
Official Work IN	official-work-in	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table.
Official Work OUT	official-work-out	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table.
Short Leave IN	short-leave-in	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table
Short Leave OUT	short-leave-out	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table
Break End	break-end	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table
Break Start	Break-start	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table
Overtime IN	overtime-in	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table
Overtime OUT	overtime-out	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table

Table: Getting COSEC Server's Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Regular IN	regular-in	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table
Regular OUT	regular-out	0:Unchecked 1:Checked	Displays the respective values set in GSYSPLCMst table
APTA Face Anti-Spoofing Mode	apta-face-anti-spoofing-mode	0:Advance 1:Moderate	Returns value from Global Policy > Face Recognition
APTA Face Anti-Spoofing Threshold	apta-face-anti-spoofing-threshold	1 to 99 , . (5 numeric char max)	Returns value from Global Policy > Face Recognition

CHAPTER 23

Field Visit Management

The following APIs enable the user to perform actions related to Field Visit Management -

Action=Get

- *Getting Field Visit Schedule*
- *Getting Field Visit Punches*
- *Getting Field Visit Correction*

Action=Set

- *Applying for Field Visit Correction*
- *Authorizing Field Visit Correction Applications*

Action=Delete

- *Deleting Field Visit Correction Application*

Getting Field Visit Schedule

This API can be used to fetch the user's assigned Field Visit Schedule for specified date-range.

Action

action=get

Syntax

```
http://<matrixserver>/api.svc/v2/field-visit-schedule?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled.

Parameters

Table: Getting Field Visit Schedule Records- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	System should allow user to select multiple id, each separated by ", (comma)" For example "1, 3, 7, 9…". In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	-	Current date records	The period for which field visit schedule records is to be requested.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Field Visit Schedule Records- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Field Visit Schedule Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	
Schedule date	schedule-date	mm/dd/yyyy	
Start Date Time	schedule-start	mm/dd/yyyy HH:MM	
End Date Time	schedule-end	mm/dd/yyyy HH:MM	
Task ID	task-id	6 characters	Allowed Characters 0-9
Task Name	task-name	30 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Location Code	location-code	6 characters	Allowed Characters A-Z a-z 0-9

Table: Getting Field Visit Schedule Records - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Location Name	location-name	50 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Location Group ID	location-group-id	6 characters	Allowed Characters 0-9
Location Group Name	location-group-name	50 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Remark	remark	50 characters	Allowed Characters A-Z a-z 0-9 ! @ # $ & * ( ) _ - + [ ] \ : , . /
Scheduled By	scheduled-by	10 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Transaction Status	status	0: Failure 1: Success	

Example

Sample Request:

```
http://matrix-server/api.svc/v2/field-visit-schedule?action=get;userid=1234,5678;date-range=01092015-02092015
```

Getting Field Visit Punches

This API shall be used to get the FVM user's FVM punches as per specified Process Date range.

Action

action=get

Syntax

```
http://<matrixserver>/api.svc/v2/field-visit-punch?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS	Enabled.

Parameters

Table: Getting FVM Punches- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	To specify the user identification number. Multiple IDs can be selected, separated by a 'comma'. E.g. "Userid=1,3,7,9..." In case userid is provided along with id/id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	-	Current date records	The period for which field visit schedule records is to be requested.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting FVM Punches- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: FVM Punches - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	
Attendance Date	attendance-date	mm/dd/yyyy	
Punch Time	punch-time	mm/dd/yyyy HH:MM:SS	
IO Type	iotype	0-In 1-Out	
Special Function ID	spfid	numeric	
Punch Date Index	punch-index	numeric	
Location Code	location-code	6 characters alpha-numeric	Allowed Characters A-Z a-z 0-9
Location Name	location-name	50 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]

Table: FVM Punches - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Location GPS Latitude	gps-latitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Example:-77.008123
Location GPS Longitude	gps-longitude	11 characters	When location is calculated via GPS. This parameter will contain : longitude Example: -38.889712
Location GSM Latitude	gsm-latitude	11 characters	When location is calculated via GSM. This parameter will contain : latitude
Location GSM Longitude	gsm-longitude	11 characters	When location is calculated via GSM. This parameter will contain : longitude
Location MAC Address	mac-address	17 characters	When location is calculated via Wi-Fi. This parameter will contain : MAC Address of Source
Comment	comment	50 characters	Allowed Characters 0-9 A-Z a-z ! @ # $ * ( ) _ - + [ ] \ : , . / and space
BLE Code	ble-code	4 characters numeric	Allowed Characters 0-9
BLE Name	ble-name	Allowed Characters A-Z a-z 0-9	10 alphanumeric characters (max.) If not available, return blank

Example

Sample Request:

```
http://matrix-server/api.svc/v2/field-visit-punch?action=get;userid=1234;date-range=01092015-01102015
```

Getting Field Visit Correction

This can be used to get the FVM user's field application data for the specific date period.

Action

action=get

Syntax

```
http://<matrixserver>/api.svc/v2/field-visit-correction?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the either of the following pages: FVM > Utilities > Field Visit Correction FVM > Utilities > Field Visit Correction Authorization
ESS	Enabled. The user must have rights on the either of the following ESS pages: ESS > Approval/Authorization > Field Visit Correction Authorization ESS > FVM > Field Visit Correction

Parameters

Table: Getting Field Visit Correction Application Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-filter	0: individual 1: group	-	0	user-filter=0 will fetch single user's record and user-filter=1 will fetch all users' records. Note: user-filter=1, is applicable if login user is a reporting in-charge or system account user. When argument Range & Id or Id is mentioned and argument user-id is not provided , default value user-filter=0 should not be considered Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Getting Field Visit Correction Application Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	To specify the user identification number. Multiple IDs can be selected, separated by a 'comma'. E.g. "Userid=1,3,7,9..." In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	-	Current date records	The period for which correction applications are to be fetched.
Application-status	0: all 1: pending 2: approved 3: rejected	-	All	To view the status of field visit correction application.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 Custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Getting Field Visit Correction Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Application Id	application-id	10 numeric characters	
Applied Date and Time	applied-date	mm/dd/yyyy HH:MM:SS	
User ID	user-id	15 characters	Allowed characters A-Z a-z 0-9 /_\\.@:

Table: Getting Field Visit Correction Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User Name	user-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Short Name	short-name	max 15 alphanumeric characters	
Application Status	application-status	1: pending 2: approved 3: rejected	
Attendance Date	attendance-date	mm/dd/yyyy	
Punch Index	punch-index	numeric	
Previous Punch Time	previous-punch-time	mm/dd/yyyy HH:MM:SS	
Previous IO Type	previous-iotype	0: IN 1: OUT	
Previous Location Code	previous-location-code	6 characters alpha-numeric	Allowed Characters A-Z a-z 0-9
Previous Location Name	previous-location-name	50 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Previous Location GPS Latitude	previous-gps-latitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Example:-77.008123
Previous Location GPS Longitude	previous-gps-longitude	11 characters	When location is calculated via GPS. This parameter will contain : longitude Example: 38.889712
Previous Location GSM Latitude	previous-gsm-latitude	11 characters	When location is calculated via GSM. This parameter will contain : latitude
Previous Location GSM Longitude	previous-gsm-longitude	11 characters	When location is calculated via GSM. This parameter will contain : longitude
Previous Location MAC Address	previous-mac-address	17 characters	When location is calculated via Wi-Fi. This parameter will contain : MAC Address of Source

Table: Getting Field Visit Correction Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Previous Comment	previous-comment	50 characters	Allowed Characters A-Z a-z 0-9 - . , [ ] ( ) : @ $! # * + / \ _ [space]
Changed Punch Time	changed-punch-time	mm/dd/yyyy HH:MM:SS	
Changed IO Type	changed-iotype	0: IN 1: OUT	
Changed Location Code	changed-location-code	6 characters alpha-numeric	Allowed Characters A-Z a-z 0-9
Changed Location Name	changed-location-name	50 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Changed Comment	changed-comment	50 characters	Allowed Characters A-Z a-z 0-9 - . , [ ] ( ) : @ $! # * + / \ _ [space]
Application Reason	reason	50 characters	Allowed Characters A-Z a-z 0-9 - . , [ ] ( ) : @ $! # * + / \ _ [space]
Application Verdict Date Time	verdict-date	mm/dd/yyyy HH:MM	
Application Verdict By	verdict-by	10 characters	Shows User-ID who approved/rejected the application.
Application Approval Remark	application-remark	Max 50 chars	Allowed Characters A-Z a-z 0-9 - . , [ ] ( ) : @ $! # * + / \ _ [space]
Previous BLE Code	previous-ble-code	4 characters numeric	Allowed Characters 0-9
Previous BLE Name	previous-ble-name	Allowed Characters A-Z a-z 0-9	10 alphanumeric characters (max.) If not available, return blank

Table: Getting Field Visit Correction Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict	final-ric-verdict	1: pending 2: authorized	Provides status of application.
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal -ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal -ric-verdict	1: pending 2: authorized	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	1: pending 2: authorized	

Table: Getting Field Visit Correction Application Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: authorized	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: authorized	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Example1

Sample Request:

To get pending application details for specified user.

```
http://192.168.104.12/cosec/api.svc/v2/field-visit-correction?action=get;user-filter=0;userid=FVM1;date-range=21052018-25052018;Application-status=1
```

Sample Response:

```
application-id|applied-date|user-id|user-name|short-name|application-status|attendance-date|punch-index|previous-punch-time|previous-iotype|previous-location-code|previous-location-name|previous-gps-latitude|previous-gps-longitude|previous-gsm-latitude|previous-gsm-longitude|previous-mac-address|previous-comment|changed-punch-time|changed-iotype|changed-location-code|changed-location-name|changed-comment|reason|verdict-date|verdict-by|application-remark|previous-ble-code
1|05/21/2018 14:46:58|FVM1|Jinu|Jinu|1|05/21/2018|1|05/21/2018 12:30:00|0|HO|Head Ofc|+22.2563|+073.1833|||||05/21/2018 12:35:00|0|HO|Head Ofc|Sample delivered|Applied Field Visit Correction||||
<EOT
```

Applying for Field Visit Correction

This API is to submit new field visit correction applications.

Action

action=set

Syntax

```
http://<matrixserver>/api.svc/v2/field-visit-correction?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the either of the following pages: FVM > Utilities > Field Visit Correction FVM > Utilities > Field Visit Correction Authorization
ESS	Enabled. The user must have rights on the either of the following ESS pages: ESS > Approval/Authorization > Field Visit Correction Authorization ESS > FVM > Field Visit Correction

Parameters

Table: Applying for Field Visit Correction Application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 Char	Yes	-	To specify the user identification number.
attendance-date	ddmmyyyy	Yes	-	The date for which correction application is made.
punch-index	numeric	No	-	If supplied consider change to be done in existing FVM Punch. If not supplied consider as new FVM punch to be added.
punch-time	ddmmyyyyHHMMSS	Yes if punch-index is not specified	-	It is the punch time of FVM user.
iotype	0: IN 1: OUT	Yes if punch-index is not specified and exit reader is enabled	All	It specifies the input/output type of the FVM punch.

Table: Applying for Field Visit Correction Application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
location-code	6 Characters A-Z a-z 0-9	No	-	Location Code is from configured location master.
comment	50 Characters A-Z a-z 0-9 - . , [ ] ( ) : @ $! # * + / \ _ [space]	No	-	Comment has to max 50 characters long
reason	50 Characters A-Z a-z 0-9 - . , [ ] ( ) : @ $! # * + / _ [space]	No	-	Reason has to max 50 characters long
authorization-required	0: not required 1: required	No	0 (Not required)	Applicable for System Account User only. If authorization required = 1, then the application will be considered as applied by an ESS User (UserID mentioned in API.)

Example1

Following are some sample cases for this API:

Sample Request:

To apply for Field Visit correction application for a user from system account login mentioning the requirement of authorization:

```
http://192.168.104.12/cosec/api.svc/v2/field-visit-correction?action=set;userid=FVM1;attendance-
date=12022018;punch-time=12022018143500;iotype=0;location-code=HO;authorization-required=1
```

Sample Response:

```
success: 0710200002 : saved successfully
```

Authorizing Field Visit Correction Applications

This API will be used by a COSEC reporting-incharge user to approve/reject the field visit correction applications submitted by a particular user.

Action

action=set

Syntax

```
http://<matrixserver>/api.svc/v2/field-visit-correction-
authorization?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled. The user must have rights on the following page: FVM > Utilities > Field Visit Correction Authorization
ESS	Enabled. If Login User is a reporting group in-charge and has the permissions on following page: ESS > Approval/Authorization > Field Visit Correction Authorization

Parameters

Table: Authorizing Field Visit Correction Application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 Char	Yes	-	To specify the user identification number.
application-id	numeric	Yes	-	User Id must belong to the user's reporting group. You can get application ID by using API "Getting Field Visit Correction"
Verdict	1: Approve 2: Reject	Yes	-	User cannot approve/reject a record which is already approved/rejected. Closed period data cannot be edited.
Remark	Max 50 Char Alphabets Numbers _ - ( ) [ ] . , / + ! @ $ * : and <space>	No	-	Remark should not be beyond max limit

Example1

Sample Request:

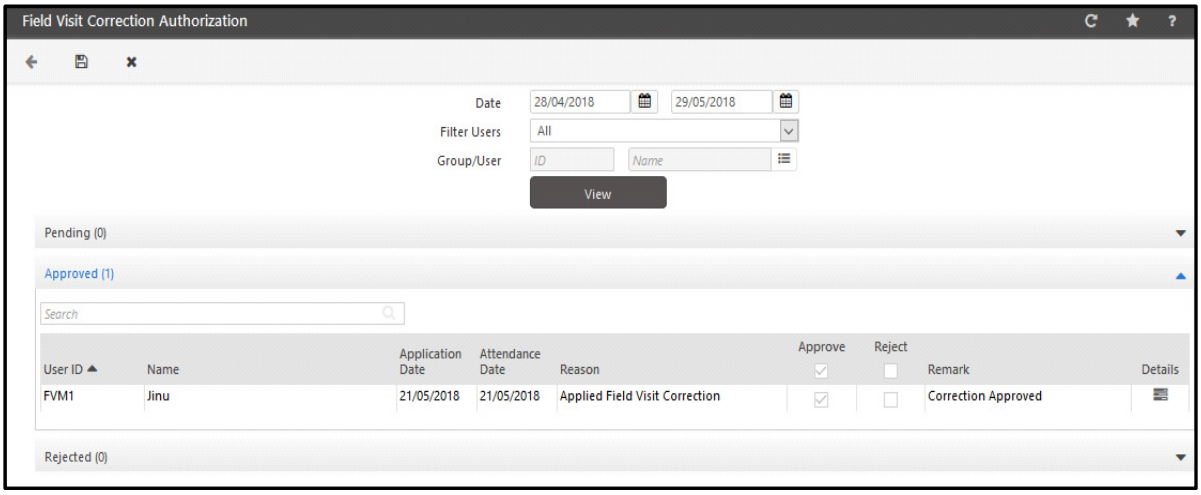
To give the verdict for Field visit correction application.

```
http://192.168.104.12/cosec/api.svc/v2/field-visit-correction-authorization?action=set;
Userid=FVM1;application-id=1;Verdict=1;Remark=Correction Approved;
```

Sample Response:

```
success: 0720200002 : saved successfully
```

The FVM correction application will be shown in Approved/Rejected section after the verdict is given.



Deleting Field Visit Correction Application

This API is to delete the field visit correction applications.

Action

action=delete

Syntax

```
http://<matrixserver>/api.svc/v2/field-visit-correction?action=<delete>;<argument>=<value>...
```

Parameters

Table: Deleting Field Visit Correction Application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
application-id	numeric	Yes	-	The approved/rejected application cannot be deleted. Only Pending application can be deleted.

CHAPTER 24

Job Processing and Costing

The following API enable the user to perform actions related to Job Processing and Costing. This is used to get list of jobs as per existing Job master, process the job costing of user.

Action= Get

- *Getting Jobs list*
- *Timesheet details*
- *Get Timesheet Correction Application*

Action= Command

- *Job Costing Process*

Action= Set

- *Setting Jobs*
- *Timesheet Correction Application*
- *Timesheet Correction Authorization*

Getting Jobs list

This API is used to get list of Jobs as per existing Job Master.

Action

action=get

Syntax

```
http://<matrixserver>/api.svc/v2/job?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled.
ESS User	Enabled If User's Job Assignment type is not None

Parameters

Table: Getting Jobs List- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Id	1-4294967295	-	All	To specify the user identification number. Multiple IDs can be selected, separated by a 'comma'. E.g. "1,3,7,9..."
status	0: All 1: Open 2: In Progress 3: Finished		All	-
ess-assignment	0 : All Jobs in the Job Master 1 : All Jobs in the User Master 2 : Enabled Jobs for ESS Assignment	No		By default if the parameter is not mentioned than the value should be considered as 0 i.e. All Jobs in the Job Master. When value = 0 all the jobs in the system should be sent in response When value = 1 all the jobs assigned to the ESS user whose credentials are fed while firing the API should be sent in response When value = 2 the jobs assigned to the ESS user(credentials are fed while firing the API) whose ess assignment flag is enabled should be sent in response If the parameter named Show all Jobs while Punching is enabled in global policy then this parameter would be ignored.

Table: Getting Jobs List- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
creation-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the Job creation date range. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if creation-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for Job details. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Getting Jobs List - Response Fields

Field Name	Tag Name	Valid Values	Remarks
ID	id	1 - 4294967295	
Job Code	job-code	10 characters (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )

Table: Getting Jobs List - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Job Name	job-name	30 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Phase Code	phase-code	10 characters (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Phase Name	phase-name	30 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Project Code	project-code	10 characters (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Project Name	project-name	30 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Cost Centre ID	cost-centre-id	1-99999	
Cost Centre Name	cost-centre-name	30 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Job Start Date	start-date	mm/dd/yyyy	
Job End Date	end-date	mm/dd/yyyy	
Estimated Hours	estimated-hours	1-99999	
Merge Jobs	merge-jobs	0= no 1= yes	
Allowance	allowance	0 = no 1 = yes	
Creation Date	creation-date	dd/mm/yyyy hh:mm:ss	This defines the Job creation date.
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the Job details were last modified.

Timesheet details

This API is used to get the user's timesheet data for the specific date period.

Action

action= get

Syntax

```
http://<matrixserver>/api.svc/v2/timesheet?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled If User has rights on any of the following Page. JPC > Utilities> Timesheet Correction JPC > Utilities> Timesheet Correction Authorization
ESS User	Enabled if User has rights on any of the following Page. ESS > Approval/Authorization > Timesheet Correction Authorization ESS > Approval/Authorization > Award/Penalty Authorization ESS > Job Costing > Timesheet Correction Application

Parameters

Table: Timesheet correction authorization- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
User-id	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	To specify the ID of the user. In case userid is provided along with id/ id & range, priority should always be given to userid. Value of id/id & range to be ignored in that case.
date-range	ddmmyyyy-ddmmyyyy	No	-	To specify the period for which the Timesheet details are to be fetched.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 Custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Timesheet correction authorization- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999 In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Response Fields

Table: Timesheet correction authorization- Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Attendance Date	attendance-date	mm/dd/yyyy	Date on which timesheet record is available
Job Code	job-code	10 Characters. (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Phase Code	phase-code	10 Characters. (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Project Code	project-code	10 Characters. (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Start Date Time	start-date-time	mm/dd/yyyy HH:MM:SS	
End Date Time	end-date-Time	Mm/dd/yyyy HH:MM:SS	
Transaction Type	transaction-type	0 - Un-Assigned Hours 1 - Job Hours 2-Out Time 3-Break Hours	
Job Hours	job-hours	HH:MM	
Job Count	job-count	1-99999	

Table: Timesheet correction authorization- Response Fields

Field Name	Tag Name	Valid Values	Remarks
Adjustment Type	adjustment-type	0 - Award 1 - Penalty	
Adjustment-Hours	adjustment-hours	HH:MM	
Remark	remark	50 characters (max)	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\
Transaction ID	transaction-id	1-999	
OT1	ot1	HH:MM	
OT2	ot2	HH:MM	
OT3	ot3	HH:MM	
OT4	ot4	HH:MM	
OT5	ot5	HH:MM	
Job ID	job-id	15 characters 0-4294967295	0 = Job Assignment Type = “Fixed” or “None” 1-4294967294 = Job Reference ID corresponding to respective Job Codes 4294967295 = Job Reference ID selected = None
Job Name	job-name	30 Characters	Allowed Characters A-Z a-z 0-9 - _ . ( ) [ ]

Get Timesheet Correction Application

This API is used to get the user's timesheet correction application details of the user for the specific date period for Transaction/Attendance Value = Applied.

Action

action= get

Syntax

```
http://<matrixserver>/api.svc/v2/timesheet-correction-application?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled If User has rights on any of the following Page. JPC > Utilities> Timesheet Correction JPC > Utilities> Timesheet Correction Authorization
ESS User	Enabled if User has rights on any of the following Page. ESS > Approval/Authorization > Timesheet Correction Authorization ESS > Job Costing > Timesheet Correction Application

Parameters

Table: Timesheet correction application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
date-range	ddmmyyyy-ddmmyyyy	No	-	To specify the period for which the Timesheet correction application details are to be fetched.
User-filter	0: individual 1: group	No	0	To get the data based on individual user or group of user. When argument Range & Id or Id is mentioned and argument user-id is not provided , default value user-filter=0 should not be considered Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.

Table: Timesheet correction application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Userid	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	To specify the ID of the user. The Timesheet Correction Application data will be fetched only if the user meets the following condition : "User is Active "User with Attendance Calculation Enable. "User with Job Processing & Costing Enable. For ESS user : If user-filter=0, the userid should be login user's ID or of any user belonging to the group for which login user is reporting in-charge. In case userid & user-filter are provided along with id/id & range, priority should always be given to userid & user-filter. Value of id/id & range to be ignored in that case.
application-status	0: all 1: pending 2: approved 3: rejected	No	-	If application-status is not mentioned, “All” will be considered by default.
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID has specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

The Timesheet Correction Application data will be fetched only if the user meets the following condition:
•User is Active
•User with Attendance Calculation Enabled.
•User with Job Processing & Costing Enabled.

Response Fields

Table: Timesheet correction application- Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	upto 15 characters	Allowed Characters A-Z a-z 0-9 /_\\.@:
Username	user-name	upto 45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Application-id	application-id	1-99999	
Application Date Time	application-date-time	mm/dd/yyyy HH:MM:SS	
Attendance Date	attendance-date	mm/dd/yyyy	
First Half	first-half		First Half Attendance Status on Attendance Date.
Second Half	second-half		Second Half Attendance Status on Attendance Date.
Transaction Id	transaction-id	1 - 999	
Project Code	project-code	10 Characters. (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Phase Code	phase-code	10 Characters. (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Job Code	job-code	10 Characters. (max)	Allowed Characters A-Z, a-z 0-9 . - _ ( )
Start Date Time	start-date-time	mm/dd/yyyy HH:MM:SS	
End Date Time	end-date-Time	Mm/dd/yyyy HH:MM:SS	
Transaction Type	transaction-type	0 - Un-Assigned Hours 1 - Job Hours 2- Out Time 3- Break Hours	
Job Hours	job-hours	HH:MM	
Job Count	job-count	1-99999	
Application Status	application-status	0 - Pending 1 - Approved 2 - Rejected	

Table: Timesheet correction application- Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reason	reason	50 characters (max)	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\
Remark	remark	50 characters (max)	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final-ric-verdict-date	MM/DD/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	Provides status of application.
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfinal-ric-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	

Table: Timesheet correction application- Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC3 Verdict	nonfinal-ric-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Timesheet correction application- Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Job ID	job-id	15 characters 0-4294967295	0 = Job Assignment Type = “Fixed” or “None” 1-4294967294 = Job Reference ID corresponding to respective Job Codes 4294967295 = Job Reference ID selected = None
Job Name	job-name	30 Characters	Allowed Characters A-Z a-z 0-9 - _ . ( ) [ ]

Job Costing Process

This API is used for Processing the Job Costing of the Users.

Action

action=command

Syntax

```
http://<matrixserver>/api.svc/v2/job-costing-process?action=<command>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled If User has rights on the following Page. JPC > Utilities> Job Costing Process

Parameters

Table: Process job costing- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
date-range	ddmmyyyy-ddmmyyyy	Yes	-	To specify the period for which job costing is to be processed
reprocess-events	0 (= No) 1 (= Yes)	-	-	To reprocess job costing for: (from-date - 1) to Current date.
user-selection	0 (=All) 1 (=Organization) 2 (=Branch) 3 (=Department) 4 (=Designation) 5 (=Section) 6 (=Category) 7 (=Grade) 8 (=Individual)	-	0	To select the user randomly or based on enterprise group.
id	1 to 999999 [For all the user-selection value except 0 (=All) & 8 (=Individual)] or 15 Char. [for user, user-selection 8 (=Individual)]	Yes (if user selection is other than All)	-	For system user, this can be the user Id or Enterprise Group Id of any Enterprise/User on which admin has appropriate user rights.

The process will be executed only if the user meets the following condition:
•User is Active
•User with Attendance Calculation Enable.
•User with Job Processing & Costing Enable.

Setting Jobs

This API is used for submitting new Jobs for the user.

Action

action= set

Syntax

```
http://<matrixserver>/api.svc/v2/job?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled If User has Add and Edit rights on the following Page. JPC > Project Management > Job

Parameters

Table: Setting Jobs- Parameters

Argument	Valid Values	Mandatory	Description
job-code	15 Alphanumeric Characters A to Z a to z 0 to 9 /_\\.@:	Yes	To create a new job with the specified Job Code. If Argument value belongs to any existing Job then the Job details will be updated.
job-name	30 Alphanumeric Characters A to Z a to z 0 to 9 /_\\.@:	Yes	To define the name of the Job.
start-date	ddmmyyyy 01/01/1900 - 31/12/2099	Yes	To define the Start Date of the Job.
end-date	ddmmyyyy 01/01/1900 - 31/12/2099	Yes	To define the End Date of the Job.
cost-centre-id	0-9	Yes	To define the Cost Centre of the Job.
estimated-hours	hhhhhmm 00000:01 - 99999:59	No	To define the Estimated Time period of the Job. For example, if estimated-hours=0000010, the value should be considered as 00000:10 (that is, 10 min). If Argument range is not mentioned then consider the estimated-hours as 00000:01 (that is, 1 min).

Argument	Valid Values	Mandatory	Description
merge-jobs	0 - Disable 1 - Enable Default=0	No	To enable/disable the merging of job in succeeding or preceding job. If Argument value is not specified then consider it disabled.
allowance	0 - Disable 1 - Enable	No	To allow/deny the allowance for the Job. If Argument value is not specified then consider it disabled.

Timesheet Correction Application

This API is used for submitting the user's timesheet correction application of the user for the specific date period.

Action

action= set

Syntax

```
http://<matrixserver>/api.svc/v2/timesheet-correction-application?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled If User has rights on any of the following Page. JPC > Utilities> Timesheet Correction JPC > Utilities> Timesheet Correction Authorization
ESS User	Enabled if User has rights on any of the following Page. ESS > Approval/Authorization > Timesheet Correction Authorization ESS > Job Costing > Timesheet Correction Application

Parameters

Table: Timesheet correction application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
userid	15 Characters	Yes	-	To specify the ID of the user.
attendance-date	ddmmyyyy	Yes	-	The date for which application is being submitted.
transaction-id	1-999	Yes	-	
correction-type	0 =edit 1 =split	No	0	Correction-type=0, for the corrections in start-date-time, end-date-time, job code, job count. Correction-type=1, for splitting the transactions in one or more transactions.
job-code	15 Characters. (max) (=removejobcode)	No	-	Job-code = removejobcode should be passed when user is willing to remove job code from the supplied transaction.
start-date-time	ddmmyyyyhhmm	No	-	Applicable only for correction-type=0 (edit).
end-date-time	ddmmyyyyhhmm	No	-	Applicable only for correction-type=0 (edit).
split-date-time	ddmmyyyyhhmm	Yes (for correction-type = 1)	-	Applicable only for correction-type = 1 (split)
job-count	1-99999	No	-	-

Table: Timesheet correction application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
adjustment-type	0 - Award 1 - Penalty	No	-	-
adjustment-hours	HH:MM 00:00 - 23:59	Yes (If adjustment-type is specified)	-	-
remark	50 Char A-Z a-z 0-9 ! @ $ & ( ) - _ + [ ] : , . / space	No	-	NA if adjustment-type is not supplied.
reason	50 Char A-Z a-z 0-9 space	No	-	Applicable only for Login as ESS User.
authorization-required	0: not required 1: required	No	0 (Not required)	Applicable for System Account User only. If authorization required = 1, then the application will be considered as applied by an ESS User (UserID mentioned in API.)

The Timesheet Correction Application will be made only if the user meets the following condition:
•User is Active
•User with Attendance Calculation Enabled.
•User with Job Processing & Costing Enabled.

Example1

Following are some sample cases for this API:

Sample Request:

To apply for Timesheet correction application for a user to add the Job Code

```
http://192.168.104.12/cosec/api.svc/v2/timesheet-correction-
application?action=set;userid=JPC2;attendance-date=12022018;transaction-id=1;job-code=SRS
```

Sample Response:

```
success: 0800200001 : successful
```

Example2

Sample Request:

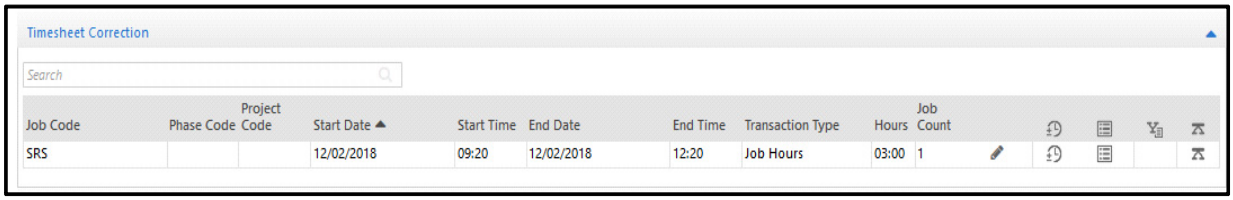
To apply for Timesheet correction application for a user to split the transaction along with the requirement of authorization.

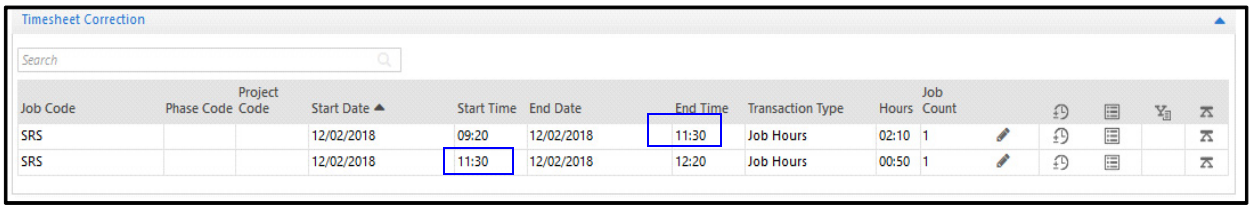
```
http://192.168.104.12/cosec/api.svc/v2/timesheet-correction-
application?action=set;userid=JPC2;attendance-date=12022018;transaction-id=1;job-code=SRS;correction-
type=1;split-date-time=120220181130;authorization-required=1
```

Sample Response:

```
success: 0800200001 : successful
```

The application will go to the reporting incharge or administrator for authorization. Once the application is approved, the transaction will be split by the time mentioned in API as shown below.





Example3

Sample Request:

To apply for Timesheet correction application for a user to change the start and end time of transaction along with the requirement of authorization.

```
http://192.168.104.12/cosec/api.svc/v2/timesheet-correction-
application?action=set;userid=JPC2;attendance-date=12022018;transaction-id=1;job-code=SRS;correction-
type=0; start-date-time=120220180930;end-date-time =120220181115;authorization-required=1
```

Sample Response:

```
success: 0800200001 : successful
```

Timesheet Correction Authorization

This API is used for the authorization of Timesheet Correction Application & Job Splitting Application.

Action

action=set

Syntax

```
http://<matrixserver>/api.svc/v2/timesheet-correction-authorization?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled If User has rights on the following Page. JPC > Utilities> Timesheet Correction Authorization
ESS User	Enabled if User has rights on the following Page. ESS > Approval/Authorization > Timesheet Correction Authorization

Parameters

Table: Timesheet correction authorization- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-id	15 Characters	Yes	-	To specify the ID of the user for whom JPC is enabled.
application-id	1-99999	Yes	-	This is the identification number for the timesheet correction application. The login user must have rights on the user ID associated with this Application ID.
verdict	1: Approve 2: Reject	Yes	-	This is the approval verdict to be applied to an application. A verdict can be passed only for applications that are pending for approval.
remark	Max 50 chars _ - ( ) [ ] . , / + ! @ $ * : and <space>	No	-	To mention the remark while giving verdict to the application.

Example1

Sample Request:

To approve the Timesheet correction application for a user.

```
http://192.168.104.12/cosec/api.svc/v2/timesheet-correction-
authorization?action=set;userid=JPC2;application-id=2;verdict=1;
```

Sample Response:

```
success: 0780200002: saved successfully
```

CHAPTER 25

Visitor Management

The following API enable the user to perform actions related to Visitor Management. This is used to get list of Vehicle types, Visitor types, Visit types as per the Visit components and APIs for Visitor pre-registration and approval. Make sure you have the VMS module license.

Action= Get

- *Getting Vehicle Types*
- *Getting Visitor Types*
- *Getting Visit Types*
- *Getting Station Locations*
- *Getting Pre-Registration Templates*

Visitor Pre-Registration APIs

Action= Get

- *Getting Visitor Pre-registration details*

Action= Set

- *Visitor Pre-registration Application*

Action= Update

- *Updating Visitor Pre-registration Application*

Action= Delete

- *Deleting Visitor Pre-registration application*

Additional Visitors Details APIs

Action= Get

- *Getting Additional Visitors details*

Action= Set

- *Adding Additional Visitor details*

Action= Update

- *Updating Additional Visitor details*

Action= Delete

- *Deleting Additional Visitor details*

Visitor Pre-registration Approval API

Action= Set

- *Visitor Pre-registration Approval*

Seamless VMS

The ESS user who is not authorized host user will be validated for accessing APIs concerned with Seamless VMS.

Visitor Registration

Action= Set

Action= Get

- *Visitor Registration*

Authorized Host user

Action= Get

- *Getting Authorized Host User*

VMS Setting

Action= Get

- *Getting VMS Setting*

Action= Set

- *Setting VMS Configuration*

Host Unavailability Days

Action= Get

- *Getting Host Unavailability Days*

Action= Set

- *Set Host Unavailability Days*

Action= Update

- *Update Host Unavailability Days*

Action= Delete

- *Delete Host Unavailability Days*

Visitor API

Action= Get

- *Getting Visitor Details*

Action= Set

- *Set Visitor Details*

Action= Delete

- *Deleting Visitor Details*

Visitor Profile API

Action= Get

- *Getting Visitor Profile*

Action= Set

- *Setting Visitor Profile*

Action= Delete

- *Deleting Visitor Profile*

Invite Visitor API

Action= Set

- *Sending the Invite Visitor Link*

Visitor Invites Approval API

Action= Set

- *Visitor Invites Approval*

Security Approval API

Action= Set

- *Set Security Approval*

Visit State API

Action= Set

- *Set Visit State*

System Account User

Action= Get

- *System Account User*

OTP Verification

Action= Command

- *OTP Verification*

Tenant Identifier API

Action= Set

- *Tenant Identifier API*

Getting Vehicle Types

This API is used to get the Vehicle types as defined in Visit components of VMS module.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/vehicle-type?action=<get>
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Visit Components VMS > Pre-Registration VMS > Pre-Registration Approval
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled if Visitor is registered and verified by using assigned token.

Parameters

Table: Getting Vehicle type- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	To get the visitor types defined in visit components of VMS module.

Response Fields

Table: Getting Vehicle type - Response Fields

Field Name	Tag Name	Valid Values	Remarks
ID	id	0 -9	Max 2 digits
Name	name	20 Characters	
Default	default	0 = Not Default 1 = Default is set	

Example1

Sample Request:

To fetch vehicle types configured in visit components:

```
http://192.168.104.12/cosec/api.svc/v2/vehicle-type?action=get;
```

Sample Response:

```
id|name|default
1|None|0
2|2-Wheeler|1
3|4-Wheeler|0
4|3-Wheeler|0
<EOT>
```

Getting Visitor Types

This API is used to get the Visitor types as defined in Visit components of VMS module.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/visitor-type?action=<get>
```

License

COSEC Centra:

- System Account User: Basic + VMS
- ESS User: BASIC + ESS + VMS

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Visit Components VMS > Pre-Registration VMS > Pre-Registration Approval
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled if Visitor is registered and verified by using assigned token.

Parameters

Table: Visitor Type- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	To get the visitor types defined in visit components of VMS module.

Response Fields

Table: Visitor Type- Response Fields

Field Name	Tag Name	Valid Values	Remarks
ID	id	0 -9	Max 2 digits
Name	name	200 Characters	

Table: Visitor Type- Response Fields

Field Name	Tag Name	Valid Values	Remarks
Color Code	color-code		
Default	default	0 = Not Default 1 = Default is set	

Example1

Sample Request:

To fetch visitor types configured in visit components:

```
http://192.168.104.12/cosec/api.svc/v2/visitor-type?action=get;
```

Sample Response:

```
id|name|color-code|default
1|General Visitor||1
2|Supplier||0
3|Interviewee||0
4|Media Personnel||0
5|Technical Personnel||0
6|Courier Personnel||0
7|Customer||0
8|Partner||0
<EOT>
```

Getting Visit Types

This API is used to get the Visit types as defined in Visit components of VMS module.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/visit-type?action=<get>
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Visit Components VMS > Pre-Registration VMS > Pre-Registration Approval
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled if Visitor is registered and verified by using assigned token.

Parameters

Table: Getting Visit Type- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	To get the visit types defined in visit components of VMS module.

Response Fields

Table: Getting Visit type - Response Fields

Field Name	Tag Name	Valid Values	Remarks
ID	id	0 -9	Max 2 digits
Name	name	200 Characters	
Default	default	0 = Not Default 1 = Default is set	

Example1

Sample Request:

To fetch vehicle types configured in visit components:

```
http://192.168.104.12/cosec/api.svc/v2/visit-type?action=get;
```

Sample Response:

```
id|name|default
1|Personal|1
2|Official|0
<EOT>
```

Getting Station Locations

This API is used to get the Station Locations as configured in VMS module.

Action

action=get

Syntax

```
http://<cosec_server>/cosec/api.svc/v2/station-location?action=<get>;<argument>=<value>..
```

User Rights

User	Rights
System Account	Enabled if User has rights on the following Page. VMS > Station Location
ESS User	Enabled if User is an Authorized Host User

Response Fields

Table: Getting Visit type - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Station ID	station-id	1 -99	
Station Name	station-name	20 Characters A- Z a - z 0 - 9 -_.()[]	

Example1

Sample Request:

To fetch station locations configured in VMS module:

```
http://192.168.103.99/cosec/api.svc/v2/station-location?action=<get>;format=xml;
```

Sample Response:

```
<station-location>
<station-id>1</station-id>
<station-name>Default Location</station-name>
</station-location>
<station-location>
<station-id>2</station-id>
<station-name>Matrix RnD 1st Floor</station-name>
</station-location>
<station-location>
<station-id>3</station-id>
<station-name>2nd Floor</station-name>
</station-location>
<station-location>
<station-id>4</station-id>
<station-name>3rd Floor</station-name>
</station-location>
```

Getting Pre-Registration Templates

This API is used to get the Pre-Registration Template details used to create Visitor Pre-Registration.

Action

action=get

Syntax

```
http://<cosec_server>/cosec/api.svc/v2/pre-registration-template?action=<get>;<argument>=<value>..
```

User Rights

User	Rights
System Account	Enabled if User has rights on the following Page. VMS > Pre-Registration Template
ESS User	Enabled if User is an Authorized Host User

Response Fields

Table: Getting Pre-Registration Template - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Field No.	field-no	1 = Host User 2 = Additional Hosts 3 = Mobile No. 4 = Visitor Name 5 = Organization Name 6 = Email 7 = Date of Birth 8 = Designation Name 9 = Address 10 = City 11 = State 12 = Country 13 = Pin Code 14 = Gender 15 = Nationality 16 =ID Proof 1 17 = ID Proof 2 18 = Visitor Type 19 = Additional Visitors 20 = Visit Date 21 = Visit Until Date 22 = Repeat Mode 23 = Visit Start Time 24 = Visit End Time 25 = Visit Type 26 = Visit Station 27 = Visit Location 28 = Purpose 29 = Status 30 = Appointment No. 31 = Field 1 32 = Filed 2 33 = Field 3 34 = Field 4 35 = Field 5 36 = Field 6 37 = Field 7 38 = Field 8 39 = Field 9 40 = Field 10 41 = Registration No. 42 = Vehicle Type 43 = Description	
Active	active	0 = Inactive 1 = Active	
Field Name	field-name	Maximum 100 Characters A- Z a - z 0 - 999 -_.()[]<space>	

Table: Getting Pre-Registration Template - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Type	type	1 = Search Textbox 2 = Textbox with Picklist 3 = Textbox 4 = Date Picker 5 = Drop down 6 = Input List 7 = Time Picker 8 = Textbox with Upload 9 = Date Picker with Upload	
Mandatory	mandatory	0 = Not Mandatory 1 = Mandatory	

Example1

Sample Request:

To fetch Pre-Registration Template configured in VMS module:

```
http://192.168.103.99/cosec/api.svc/v2/pre-registration-template?action=<get>;format=xml;
```

Sample Response:

```
<pre-registration-template>
<field-no>1</field-no>
<active>1</active>
<field-name>Host User</field-name>
<type>1</type>
<mandatory>1</mandatory>
 </pre-registration-template>

<pre-registration-template>
<field-no>2</field-no>
<active>1</active>
<field-name>Additional Hosts</field-name>
<type>2</type>
<mandatory>0</mandatory>
</pre-registration-template>
```

Getting Visitor Pre-registration details

This API is used to get the visitor pre-registration details for the required date range and specified user filter & user id.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/visitor-pre-registration?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration VMS > Pre-Registration Approval VMS > EPass Approval
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled for All Registered Visitors with “isVerified” flag=1

Parameters

Table: Getting Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	-
date-range	ddmmyyyy- ddmmyyyy	No	-	To specify the period for which visitor pre-registration details are required. This range is for Visit Dates. If date range is not specified, then records between current date to current date+45 will be fetched.

Table: Getting Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-filter	0: individual 1: group 2: All	No	0	If user-filter=0, a single (host) user's records will be fetched. If user-filter=1, records for all the group members (host users) will be fetched. "If user-filter = 2, records for all visitor pre-registration records will be fetched. **Note:** user-filter=1, is applicable if login user is a reporting in-charge or system account user. "user-filter=2, is applicable if logged in user is system account user. **Note:** It is not applicable when Logged IN User is Visitor. When argument Range & Id or Id is mentioned and argument user-id is not provided default value user-filter=0 should not be considered. Argument user-filter should only be applied when argument user-id is provided, else it should be ignored.
user-id	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes when user-filter = 0 or 1.	-	Not Applicable when Logged IN User is Visitor. Not Applicable when user-filter = 2. **For ESS user:** If **user-filter=0**, the user-id must be login user's ID or of any user belonging to the group for which login user is reporting in-charge If **user-filter=1**, the user-id must be same as login user's ID. If it is reporting group in-charge's id, the records of his group members will be returned. **For a System Account user:** If **user-filter=0**, the user-id can be any user's id which is authorized host user. If **user-filter=1**, the user-id can be any user's ID.If it is reporting group in-charge's id, the records of his group members are returned. **Note:** It is not applicable when Logged IN User is Visitor. In case user-id & user-filter are provided along with id/id & range, priority should always be given to user-id & user-filter. Value of id/id & range to be ignored in that case.
visitor-id	0-9	No	-	Not Applicable when Logged IN User is Visitor.

Table: Getting Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
status	0: all 1: pending 2: approved 3: rejected	No	0	If status is not specified, then "All" is considered by default.
filter	**For Host** 0 (= All) 1 (= Pending) 2 (= Accepted) 3 (= Cancelled By You) 4 (=Cancelled By Visitor) 5 (= Rescheduled By You) 6 (= Rescheduled By Visitor) 7 (= Completed) 8 (= Sent By Me) **For Visitor** 0 (= All) 1 (= Pending) 2 (= Accepted) 3 (= Cancelled By You) 4 (=Cancelled By Host) 5 (= Rescheduled By You) 6 (= Rescheduled By Host) 7 (= Completed) **For Security / System Account User** 0 (=All) 1 (= Accepted) 2 (= Completed) 3 (= Self- Created)	No	All	Applicable to Host User, Visitor & Security. Not Applicable for RIC Users. For a Security / System Account user: 0 = All- All the visits should be displayed when filter is passed 0. It is the default value when parameter is not passed. 1 = Accepted - Visits which are accepted by security or whose visit state is 0,1,2,3 should be displayed when filter is passed 1. 2 = Completed - Visits whose visit state is 4,5 should be displayed when filter is passed 2. 3 = Self-created - Visits which are created by SA himself should be displayed when filter is passed 3.
appointment-no	0-9 12 Digits (Each Appointment No)	No	-	Specify the appointment number whose pre-registration details are required. You can pass multiple appointment-no, each separated by ", (comma)" e.g.:" 240118000001,240118000002, 240118000003"
Range	All Organization Branch Department Designation Section Category Grade User Custom-group-1 Custom-group-2 custom-group-3	No	User (If argument Range is not specified)	In this argument only single value should be allowed. If argument range's value is specified as "All", ids of all the users that login user has rights over will return. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.

Table: Getting Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
ID	1 to 999999 (for all the ranges except all & user) Max 15 alphanumeric characters (for user) A to Z a to z 0 to 9 /_\\.@:	No	-	If argument range is not mentioned and individual argument ID is specified, then id should be considered of User. Argument ID can have multiple ids as value with comma separated. For example Id=1,2,…..999. In case user-id /user-id & user-filter are provided along with id/id & range, priority should always be given to user-id / user-id & user-filter. Value of id/id & range to be ignored in that case.
dynamic-id	0-9 8 digits (each dynamic-id)	No		Argument dynamic-id will be ignored when appointment-no is passed.
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for Visit Pre-Registration details. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Appointment No.	appointment-no	0-9	12 Digits
Visit Date	visit-date	mm/dd/yyyy	
Visit Days	visit-days	0-9	Max 3 Digits

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Visitor Arrival Time	visitor-arrival-time	hh:mm	
Visiting Hours Per Day	visiting-hours-per-day	hh:mm	
Visitor Name	visitor-name	200 Characters	
Organization	organization-name	45 Characters	
Mobile No.	mobile-no	20 Characters	0-9 ( ) - +
Email	email	125 Characters	
Visitor Type	visitor-type	0-9	Max 2 digits
Visit Type	visit-type	0-9	Max 2 digits
Additional Visitors	additional-visitor-count	0-9	Max 2 digits
Host User ID	host-id	15 characters	Allowed characters A-Z a-z 0-9 /_\\.@:
Host User Name	host-name	45 characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Purpose	purpose	50 characters	
Send Notification To Visitor	send-notification-to-visitor	0 = No (Not Set) 1 = Yes (Set)	
Status	status	0 = Pending/Applied 1 = Approved 2 = Rejected	
Vehicle Registration No.	vehicle-registration-no	15 Characters	
Vehicle Type	vehicle-type	0-99	Max 2 digits
Vehicle Description	vehicle-description		50 Characters

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Visit Until Date	visit-until-date	mm/dd/yyyy	
Visit Start Time	visit-start-time	hh:mm	Range: 00:00 - 23:59
Visit End Time	visit-end-time	hh:mm	Range: 00:00 - 23:59
Repeat Mode	repeat-mode	0 = Do Not Repeat 1 = Daily 2 = Weekly	
Repeat Days	repeat-days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	Return repeat days in comma-separated format. i.e. repeat-days=1,3,5
Visit Station ID	visit-station-id	1-99	20 characters Displays the Station ID for which the visit is scheduled.
Visit Station Name	visit-station-name	A- Z a - z 0 - 9 -_.()[]	20 characters Displays the Station Name for which the visit is scheduled.
Location Code	location-code		6 alpha-numeric characters. If not available, return blank.
Latitude	latitude	-90.0000 to +90.0000	11 characters (max.) If not available, return blank.
Longitude	longitude	-180.0000 to +180.0000	11 characters (max.) If not available, return blank.
Remark	remark		50 Characters
Additional Host	additional-host		Return additional host User's ID(s) in comma-separated format. i.e. additional-host=1542,1421,1320,1528
Visitor ID	visitor-id	0-9	15 characters
Designation	designation-name		45 Characters

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Visitor Address	address		60 Characters
Visitor-City	city		30 Characters
Visitor-State	state		30 Characters
Visitor-Country	country		30 Characters
Pincode	pincode		10 Characters
Gender	gender	NA, Male, Female	
Date Of Birth	date-of-birth	mmddyyyy	
Nationality	nationality		30 Characters
ID Proof 1	id-proof1		30 Characters
ID Proof 2	id-proof2		30 Characters
Initiated By	initiated-by	0 = Visitor 1 = Host	
Reschedule By	reschedule-by	0 = Visitor 1 = Host	
Reschedule Date Time	reschedule-date-time		
Verdict By	verdict-by	0 = Visitor 1 = Host	
VisitorHostApproval	visitor-host-approval	0 = Pending 1 = Approved 2 = Rejected	
Verdict Date Time	verdict-date-time		
Cancellation Reason	cancellation-reason	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	Max 50 chars.

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Transfer Host ID	transfer-host-id	Max 15 Alphanumeric Characters	
Visit State	visit-state	0_mm/dd/yyyy HH:MM = Check-IN 1_mm/dd/yyyy HH:MM = Start 2_mm/dd/yyyy HH:MM = Paused 3_mm/dd/yyyy HH:MM = Resume 4_mm/dd/yyyy HH:MM = Stop 5_mm/dd/yyyy HH:MM = Check-OUT Here, For visitor valid values = 0 & 5 For Host valid values = 1,2,3,4	Return visit state with state changes time stamp.
Visit Profile ID	visit-profile-id	15 alphanumeric	
Visit Profile Name	visit-profile-name	max 45 alphanumeric characters	Allowed Characters A-Z a-z 0-9 -_. ()[]
Visit State Change By	visit-state-change-by	Allowed characters A-Z a-z 0-9 /_\\.@:	15 characters
EPass Approval	epass-approval	0 - Pending 1 - Approved 2 - Rejected	
Epass Approval By	epass-approval-by	Allowed characters A-Z a-z 0-9 /_\\.@:	15 characters
Epass Remark	epass-remark	Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	Max 30 chars
Host Organization	host-org	Allowed Characters A –Z a-z 0 – 9 ( ) [ ]_-. /&,@‘[Space]	45 characters
Visitor Organization	visitor-org	Allowed Characters A –Z a-z 0 – 9 ( ) [ ]_-. /&,@‘[Space]	45 characters

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Location Name	location-name	Allowed Characters A-Z a-z 0-9 -_. ()[]	50 characters
Host Personal Cell	host-personal-cell		max 32 numeric characters
Host Personal E-mail	host-personal-email		max 100 alphanumeric characters
Host Official Cell	host-official-cell		max 20 numeric characters
Host Official E-mail	host-official-email		max 100 alphanumeric characters
Visit Custom Field 1	Field1	Max 100 characters ddmmyyy	
Visit Custom Field 2	Field2	Max 100 characters ddmmyyy	
Visit Custom Field 3	Field3	Max 100 characters ddmmyyy	
Visit Custom Field 4	Field4	Max 100 characters ddmmyyy	
Visit Custom Field 5	Field5	Max 100 characters ddmmyyy	
Visit Custom Field 6	Field6	Max 100 characters ddmmyyy	
Visit Custom Field 7	Field7	Max 100 characters ddmmyyy	
Visit Custom Field 8	Field8	Max 100 characters ddmmyyy	
Visit Custom Field 9	Field9	Max 100 characters ddmmyyy	
Visit Custom Field 10	Field10	Max 100 characters ddmmyyy	

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Uploaded Doc	uploaded-doc	50: Field1 51: Field2 52: Field3 53: Field4 54: Field5 55: Field6 56: Field7 57: Field8 58: Field9 59: Field10	Uploaded document tag is added for checking the status of uploaded images for respective field. Multiple values are possible in this field. If documents/images are present in field1,2 and 5 then uploaded-doc shouldcontain value of field1, field 2 and 5 be provided in respective field. For Example in Json: "uploaded-doc": "50,51,54" Example in xml: <?xml version="1.0" encoding="UTF-8" ?> <field5>String</field5> <field6>String</field6> <uploaded-doc>50,51,54</uploaded-doc>
Applied On	application-date	DD/MM/YY HH:MM	
Final RIC ID	final-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Final RIC Name	final-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Final RIC Verdict Date Time	final-ric-verdict-date	DD/MM/YYYY HH:MM	
Final RIC Verdict	final-ric-verdict	1: pending 2: approved 3: rejected	Provides status of application.
Final RIC Remark	final-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC ID	nonfinal-ric	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC Name	nonfinal-ric-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC Verdict Date Time	nonfinal-ric-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC Verdict	nonfina-ric-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC Remark	nonfinal-ric-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC2 ID	nonfinal-ric2	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC2 Name	nonfinal-ric2-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC2 Verdict Date Time	nonfinal-ric2-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC2 Verdict	nonfinal-ric2-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC2 Remark	nonfinal-ric2-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC3 ID	nonfinal-ric3	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC3 Name	nonfinal-ric3-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC3 Verdict Date Time	nonfinal-ric3-verdict-date	MM/DD/YYYY HH:MM	

Table: Getting Visitor Pre-registration details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Non-Final RIC3 Verdict	nonfinal-ric3-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC3 Remark	nonfinal-ric3-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Non-Final RIC4 ID	nonfinal-ric4	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	
Non-Final RIC4 Name	nonfinal-ric4-name	Max 45 chars Allowed Characters A-Z a-z 0-9 -_. ()[]	
Non-Final RIC4 Verdict Date Time	nonfinal-ric4-verdict-date	MM/DD/YYYY HH:MM	
Non-Final RIC4 Verdict	nonfinal-ric4-verdict	1: pending 2: approved 3: rejected	
Non-Final RIC4 Remark	nonfinal-ric4-remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	
Dynamic ID	dynamic-id	0-9	8 digits
COSEC Version	cosec-version	Maximum 10 alphanumeric characters	Format: VXXRXX.XX Example: V06R01 , V06R02 , V05R08.20
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the Visitor Pre-Registration details were last modified.

Example1

Sample Request:

To fetch visitor pre-registration details of the user for whom host user- id is specified.

```
http://192.168.103.99/cosec/api.svc/v2/visitor-pre-registration?action=get;user-id=2;user-type=0;date-range=23042024-24042024;
```

Sample Response:

```
appointment-no|visit-date|visit-days|visitor-arrival-time|visiting-hours-per-day|visitor-name|organization-name|mobile-no|email|visitor-type|visit-type|additional-visitor-count|host-id|host-name|purpose|send-notification-to-visitor|status|vehicle-registration-no|vehicle-type|vehicle-description|visit-until-date|visit-start-time|visit-end-time|repeat-mode|repeat-days|visit-station-id|visit-station-name|location-code|latitude|longitude|remark|additional-host|visitor-id|designation-name|address|city|state|country|pincode|gender|date-of-birth|nationality|id-proof1|id-proof2|initiated-by|reschedule-by|reschedule-date-time|verdict-by|visitor-host-approval|verdict-date-time|cancellation-reason|transfer-host-id|visit-state|visit-state-change-by|epass-approval|epass-approval-by|epass-remark|host-org|visitor-org|location-name|host-personal-cell|host-personal-email|host-official-cell|host-official-email|visit-profile-id|visit-profile-name|field1|field2|field3|field4|field5|field6|field7|field8|field9|field10|uploaded-doc|application-date|final-ric|final-ric-name|final-ric-verdict-date|final-ric-verdict|final-ric-remark|nonfinal-ric|nonfinal-ric-name|nonfinal-ric-verdict-date|nonfinal-ric-verdict|nonfinal-ric-remark|nonfinal-ric2|nonfinal-ric2-name|nonfinal-ric2-verdict-date|nonfinal-ric2-verdict|nonfinal-ric2-remark|nonfinal-ric3|nonfinal-ric3-name|nonfinal-ric3-verdict-date|nonfinal-ric3-verdict|nonfinal-ric3-remark|nonfinal-ric4|nonfinal-ric4-name|nonfinal-ric4-verdict-date|nonfinal-ric4-verdict|nonfinal-ric4-remark|dynamic-id|cosec-version
240422000004|04/23/2024|1|09:00|02:00|Visitor 1|Siemens|9869852142||1|1|0|2|Host User||1|0||1||04/23/2024|09:00|11:00|0||2|Matrix RnD 1st Floor||+22.2561|+073.1833|||1|||||||NA|||||1|||||||||||||Organization-1|Siemens|||||||||||||||||||04/22/2024 14:07|3|Host User RIC||1|||||||||||||||||||||||V2OR07
<EOT>
```

Example 2

Sample Request:

To fetch visitor pre-registration details of users belonging to the same Reporting In-charge.

```
http://192.168.103.99/cosec/api.svc/v2/visitor-pre-registration?action=get;user-id=3;user-filter=1;
```

Sample Response:

```
appointment-no|visit-date|visit-days|visitor-arrival-time|visiting-hours-per-day|visitor-name|organization-
name|mobile-no|email|visitor-type|visit-type|additional-visitor-count|host-id|host-name|purpose|send-
notification-to-visitor|status|vehicle-registration-no|vehicle-type|vehicle-description|visit-until-date|visit-
start-time|visit-end-time|repeat-mode|repeat-days|visit-station-id|visit-station-name|location-
code|latitude|longitude|remark|additional-host|visitor-id|designation-
name|address|city|state|country|pincode|gender|date-of-birth|nationality|id-proof1|id-proof2|initiated-
by|reschedule-by|reschedule-date-time|verdict-by|visitor-host-approval|verdict-date-time|cancellation-
reason|transfer-host-id|visit-state|visit-state-change-by|epass-approval|epass-approval-by|epass-remark|host-
org|visitor-org|location-name|host-personal-cell|host-personal-email|host-official-cell|host-official-
email|visit-profile-id|visit-profile-
name|field1|field2|field3|field4|field5|field6|field7|field8|field9|field10|uploaded-doc|application-
date|final-ric|final-ric-name|final-ric-verdict-date|final-ric-verdict|final-ric-remark|nonfinal-ric|nonfinal-
ric-name|nonfinal-ric-verdict-date|nonfinal-ric-verdict|nonfinal-ric-remark|nonfinal-ric2|nonfinal-ric2-
name|nonfinal-ric2-verdict-date|nonfinal-ric2-verdict|nonfinal-ric2-remark|nonfinal-ric3|nonfinal-ric3-
name|nonfinal-ric3-verdict-date|nonfinal-ric3-verdict|nonfinal-ric3-remark|nonfinal-ric4|nonfinal-ric4-
name|nonfinal-ric4-verdict-date|nonfinal-ric4-verdict|nonfinal-ric4-remark|dynamic-id|cosec-version
240422000005|04/24/2024|1|09:00|02:09|Visitor 2|ABB|9871234856||1|1|0|1|Host User 2||1|0||1||04/24/
2024|09:00|11:09|0||3|2nd Floor||||||2|||||||NA|||||1|||||||||||||Organization-1|ABB||||||||||||||||||||04/22/
2024 14:23|3|Host User RIC||1|||||||||||||||||||||||V2OR07
240422000004|04/23/2024|1|09:00|02:00|Visitor 1|Siemens|9869852142||1|1|0|2|Host User||1|0||1||04/23/
2024|09:00|11:00|0||2|Matrix RnD 1st Floor||+22.2561|+073.1833|||1|||||||NA|||||1|||||||||||||Organization-
1|Siemens||||||||||||||||||||04/22/2024 14:07|3|Host User RIC||1|||||||||||||||||||||||V2OR07
240422000002|04/22/2024|1|14:00|02:00|Visitor 16|ABB|9871234215||1|2|0|2|Host User||1|1||1||04/22/
2024|14:00|16:00|0||2|Matrix RnD 1st Floor||||Approved Visitor Visit||24|||||||NA|||||1||||1|04/22/2024
11:14|||||1|SA|Approved E-Pass|Organization-1|ABB||||||||||||||||||||04/22/2024 11:12|3|Host User RIC|04/22/2024
11:14|2|Approved Visitor Visit||||||||||||||||||||||V2OR07
<EOT>
```

All the pre-registration applications for the Users- Host User 2 and Host User are fetched who are authorized host users and members of the Reporting In-charge -Host User RIC. These details are fetched when the Host User RIC (user-id=3) fires the API.

Visitor Pre-registration Application

This API is used for applying the visitor pre-registration application for the required date and specified user id. The Visitor Pre-Registration Application will set only if the user is an Authorized Host User.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/visitor-pre-registration?action=<set>;<argument>=<value>...
```

User Rights

Parameters

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration VMS > Pre-Registration Approval VMS > EPass Approval
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled for All Registered Visitors with “isVerified” flag=1

Table: Visitor Pre-registration application- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	N	To specify type of user
visit-date	ddmmyyyy	Yes	-	N	The date for which application is being submitted.
visit-days	0-9 Range: 1-9999	No	-	N	The days for which visitor is supposed to visit. **Note:** "Not Applicable when Logged IN User is Visitor.
visit-until-date	ddmmyyyy Range: Current Date to 31/12/2037	No	-	N	Visit Until Date should be greater than or equals to Visit Date. Note: If Visit Days & Visit Until Date is not supplied or If Logged IN User is visitor and this field is not supplied then it will lead to incomplete command.
repeat-mode	0 = Do Not Repeat 1 = Daily 2 = Weekly	No	-	N	-

Table: Visitor Pre-registration application- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
repeat-days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	No	-	N	**Note:** Mandatory only when repeat-mode = 2
visitor-arrival-time	hhmm Range: 00:00 - 23:59	No	-	N	Not Applicable when Logged IN User is Visitor, that is, user-type=1.
visit-start-time	hhmm Range: 00:00 - 23:59	No	-	N	**Note:** If visitor-arrival-time & visit-start-time not supplied / If Logged IN User is visitor and this field is not supplied then it will lead to incomplete command.
visiting-hours-per-day	hhmm	No	-	N	The hours for which visitor is supposed to visit. Not Applicable when Logged IN User is Visitor.
visit-end-time	hhmm Range: 00:00 - 23:59	No	-	N	**Note:** If visiting-hours-per-day & visit-end-time not supplied / If Logged IN User is visitor and this field is not supplied, then it will lead to incomplete command. Visit End Time should be later than Visit Start Time.
visit-station-id	1-99	No	-	NA	Not Applicable when Logged IN User is Visitor, that is, user-type=1.
location	0 =Select 1=Configured Location 2 = Custom Location	No	0	N	-
location-code	6 alpha-numeric characters.	No	0	NA	Mandatory only when location = 1.
latitude	-90.0000 to +90.0000	No	0	N	Mandatory only when location = 2.
longitude	-180.0000 to +180.0000	No	0	N	Mandatory only when location = 2.
visitor-name	200 characters	Yes	-	Y (Set2)	The name of the visitor. Mandatory field if supplied mobile number is new.
organization-name	45 characters 0-9 A-Z a-z _- ()[].,/+!@$:&* <SPACE>	No	-	Y (Set3)	The name of the visitor’s organization. Mandatory field if supplied mobile number is new.

Table: Visitor Pre-registration application- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
designation-name	45 characters 0-9 A-Z a-z _- ()[].,/+!@$:&* <SPACE>	No, for user-type=1. Yes, for user-type=0, only if Mandatory and Active check box is enabled in Pre-Registration Template.	-	Y(Set3)	The name of the visitor's designation.
mobile-no	20 characters 0-9 ( ) - +	Yes	-	NA	The mobile number of the visitor.
email	125 characters	No, for user-type=1. Yes, for user-type=0, only if Mandatory and Active check box is enabled in Pre-Registration Template.	-	Y(Set1)	The Email ID of the visitor.
visitor-type	Valid Range: 1-99	No	-	N	General, Supplier, Interviewee, Courier etc
visit-type	Valid Range: 1-99	No	-	N	Personal, Official etc
additional-visitors	0-99	No	-	N	Escort visitor
host-id	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	No-for ESS user Yes- for SA user	-	N	**For ESS users:** (Not Mandatory field) 'host-id' should be login ESS user's ID. If not supplied, logged In user id will be set. **For SA users:** (Mandatory field) host-id' should be authorized host user. Mandatory field if supplied mobile number is new. **For Visitor:** (Not Mandatory field if Default Host User is configured)

Table: Visitor Pre-registration application- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
additional-host	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@: Range: Maximum 99 Host Users	No	-	N	"Multiple hosts User's ID(s) with comma-separated format. i.e. additional-host=1542,1421,1320,1528
purpose	50 characters 0-9 A-Z a-z <space> !@$*()_-+/[]:.	No, for user-type=1. Yes, for user-type=0, only if Mandatory and Active check box is enabled in Pre-Registration Template.	-	NA	It is the purpose of visit.
send-notification-to-visitor	0 = No (Not Set) 1 = Yes (Set)	No	0	N	To send notification to the visitor.
vehicle-registration-no	15 Characters A-Z a-z 0-9	No, for user-type=1. Yes, for user-type=0, only if Mandatory and Active check box is enabled in Pre-Registration Template.	-	NA	It is the vehicle number.
vehicle-type	Valid Range: 1-99	No	-	NA	2 wheeler, 4 wheeler etc
vehicle-description	50 Characters A-Z a-z 0-9 <space> !@$^*()_-+/[].:	No, for user-type=1. Yes, for user-type=0, only if Mandatory and Active check box is enabled in Pre-Registration Template.		NA	It is the description of vehicle.
return-appointment-no	0 = Not Required 1 = Required	No	-	NA	If value of this argument is given as 1, then appointment number of the application will be returned. If this argument is not given then consider as 0

Table: Visitor Pre-registration application- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
field<no> (where <no> will vary from 1 to 10, the user has to enter any one number here from 1 to 10)	"If control type for respected custom fields is selected as Textbox in Global Policy: Max 100 Alphanumeric Characters A-Z a-z 0-9 [ ] ( ) . - _ / <Space> "If control type for respected custom fields is selected as Date in Global Policy: ddmmyyyy When Multi Language is enabled, Invalid character set = SET1	No	-	NA	Mandatory field, if 'Active' & 'Mandatory' checkbox is checked for respective custom fields in Global Policy. Otherwise Not- Mandatory field. When user-type=Visitor, the fields should not be mandatory regardless its value configured in global policy
invite-req-id	9 numeric	No	-	NA	Needs to be supplied when Pre-registration is requested using Invite Visitor Link

If login user is System Account user, and an appointment is submitted using action= set. It will get automatically approved. (Same as Web Page)

Example1

Sample Request:

To apply for visitor pre-registration through SA user for a valid host user.

```
http://192.168.104.12/cosec/api.svc/v2/visitor-pre-registration?action=set;visit-date=17012018;visit-days=1;visitor-arrival-time=1600;visiting-hours-per-day=0100;visitor-name=Rupal;mobile-no=9685243157;host-id=1;
```

Sample Response:

```
success: 0860200002 : saved successfully
```

The visitor Rupal will be pre-registered with host user Id as 1. You can see the reflection in Visitor Management module> Pre-Registration.

Example2

Sample Request:

To apply for visitor pre-registration for ESS user login who is a valid host user.

```
http://192.168.104.12/cosec/api.svc/v2/visitor-pre-registration?action=set;visit-date=17012018;visit-
days=1;visitor-arrival-time=1700;visiting-hours-per-day=0100;visitor-name=Meena;mobile-no=9685243158;
```

Sample Response:

```
success: 0860200002 : saved successfully
```

The visitor Meena will be pre-registered with host user Id as 101. Because the ESS login ID was 101. You can see the reflection in Visitor Management module> Pre-Registration.

Example3

Sample Request:

To apply for visitor initiated pre-registration application.

```
http://192.168.104.12/cosec/api.svc/v2/visitor-pre-registration?action=set;user-type=1;visit-
date=05122018;visit-until-date=31122018;visit-start-time=1100;visit-end-time=1600;visitor-
name=Naman;mobile-no=8766678909;
```

Sample Response:

```
success: 0860200002 : saved successfully
```

Once the visitor is pre-registered successfully (Visitor initiated applications) then it will go to "Visit Approval" to the selected/default host user.

Updating Visitor Pre-registration Application

This API is used for editing the visitor pre-registration application for the required date and specific user id.

Action

action= update

Syntax

```
http://<servername>/api.svc/v2/visitor-pre-registration?action=<update>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre Registration
Visitor	Enabled for All Registered Visitors with 'isVerified' flag = 1

Parameters

Table: Updating Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	N	To specify type of user
appointment-no	0-9 12 Digits	Yes	-	N	If appointment-no not supplied, message for Incomplete command: appointment-no will be displayed. If appointment-no is invalid or no corresponding record is found for logged in user, message : “Invalid command: appointment-no=” will be displayed If logged in SA User / ESS User / Visitor tried to update visitor pre-registration application which is in Checked IN / Start / On Hold / Resume / Checked OUT state, message: “Not allowed to update requested appointment” will be displayed.
visit-date	ddmmyyyy	No	-	N	The date for which application is being submitted.
visit-days	0-9 Range: 1 - 9999	No	-	N	The days for which visitor is supposed to visit. **Note:** "Not Applicable when Logged IN User is Visitor.

Table: Updating Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
visit-until-date	ddmmyyyy Range: Current Date to 31/12/2037	No	-	N	Visit Until Date should be greater than or equals to Visit Date."
repeat-mode	0 = Do Not Repeat 1 = Daily 2 = Weekly	No	-	N	-
repeat-days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	No	-	N	**Note:** Mandatory only when repeat-mode = 2 Multiple days are allowed with comma-separated format. i.e. repeat-days=1,3,5
visitor-arrival-time	hhmm Range: 00:00 - 23:59	No	-	N	Not Applicable when Logged IN User is Visitor. Visit Time should be less than Visit End Time for same visit date and visit until date.
visit-start-time	hhmm Range: 00:00 - 23:59	No	-	N	Visit Start Time should be less than Visit End Time for same visit date and visit until date.
visiting-hours-per-day	hhmm	No	-	N	The hours for which visitor is supposed to visit. Not Applicable when Logged IN User is Visitor.
visit-end-time	hhmm Range: 00:00 - 23:59	No	-	N	Visit End Time should be later than Visit Start Time,for same visit date and visit until date.
visit-station-id	1-99	No	-	NA	Not Applicable when Logged IN User is Visitor, that is, user-type=1.
location	0 =Select 1=Configured Location 2 = Custom Location	No	0	N	Not Applicable when Logged IN User is Visitor
location-code	6 alpha-numeric characters.	No	0	NA	Mandatory only when location = 1.
latitude	-90.0000 to +90.0000	No	0	N	Mandatory only when location = 2.
longitude	-180.0000 to +180.0000	No	0	N	Mandatory only when location = 2.

Table: Updating Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
visitor-name	200 characters 0-9 A-Z a-z .-_()[] <SPACE>	No	-	Y (Set2)	The name of the visitor. Mandatory field if supplied mobile number is new.
organization-name	45 characters 0-9 A-Z a-z _- ()[].,/+!@$:&* <SPACE>	No	-	Y (Set3)	The name of the visitor's organization. Mandatory field if supplied mobile number is new.
designation-name	45 characters 0-9 A-Z a-z !@$&.,/*()_-+[]: <SPACE>	No	-	Y(Set3)	The name of the visitor's designation.
mobile-no	20 characters 0-9 ( ) - +	Yes	-	NA	The mobile number of the visitor.
email	125 characters	No	-	Y(Set1)	The Email ID of the visitor.
visitor-type	Valid Range: 1-99	No	-	N	General, Supplier, Interviewee, Courier etc
visit-type	Valid Range: 1-99	No	-	N	Personal, Official etc
additional-visitors	0-99	No	-	N	Escort visitor
host-id	15 characters	No	-	N	**For ESS users:** (Not Mandatory) host-id can be any authorized host user to whom the visit is to be transferred **For SA users:** (Not Mandatory) host-id should be authorized host user. **For Visitor:** (Not Mandatory) host-id should be authorized host user.
additional-host	Allowed characters A-Z a-z 0-9 /_\\.@: Range: Maximum 99 Host Users Max Length for User ID: 15 Characters	No	-	N	"Multiple hosts User's ID(s) with comma-separated format. i.e. additional-host=1542,1421,1320,1528
purpose	50 characters	No	-	NA	It is the purpose of visit.

Table: Updating Visitor Pre-registration details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
send-notification-to-visitor	0 = No (Not Set) 1 = Yes (Set)	No	0	N	To send notification to the visitor.
vehicle-registration-no	15 Characters A-Z a-z 0-9	No	-	NA	It is the vehicle number.
vehicle-type	Valid Range: 1-99	No	-	NA	2 wheeler, 4 wheeler etc
vehicle-description	50 Characters	No	-	NA	It is the description of vehicle.
field<no.> (where <no> will vary from 1 to 10, the user has to enter any one number here from 1 to 10)	"If control type for respected custom fields is selected as Textbox in Global Policy: Max 100 Alphanumeric Characters A-Z a-z 0-9 [ ] ( ) . - _ / <Space> "If control type for respected custom fields is selected as Date in Global Policy: ddmmyyyy When Multi Language is enabled, Invalid character set = SET1	No	-	NA	Mandatory field, if 'Active' & 'Mandatory' checkbox is checked for respective custom fields in Global Policy. Otherwise Not- Mandatory field. When user-type=Visitor, the fields should not be mandatory regardless its value configured in global policy

Example1

Sample Request:

To update the arrival time for visitor pre-registration application.

```
http://192.168.104.12/cosec/api.svc/v2/visitor-pre-registration?action=update;appointment-no=180117000005;visit-date=17012018;visit-days=1;visitor-arrival-time=1730;visiting-hours-per-day=0100;visitor-name=Meena;mobile-no=9685243158;
```

Sample Response:

```
success: 0860300001: successful
```

The arrival time of visitor Meena is updated from 17:00 to 17:30 hrs. You can see the reflection in Visitor Management module> Pre-Registration.

Deleting Visitor Pre-registration application

This API is used for deleting the visitor pre-registration application.

Action

action= delete

Syntax

```
http://<servername>/api.svc/v2/visitor-pre-registration?action=<delete>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre Registration
Visitor	Enabled for All Registered Visitors with 'isVerified' flag = 1

Parameters

Table: Deleting Visitor Pre-registration application- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	To specify type of user.
appointment-no	0-9 12 Digits	Yes	-	To specify the appointment number of the pre-registered application. This number is available in Pre-registered visitors' details. If logged in ESS user tried to delete visitor pre-registration application with status = approved/ rejected or for past visit date & visitor arrival time, then it will be failed. If logged in Visitor tried to delete visitor pre-registration application with status = approved/ rejected or tried to delete host initiated request, then it will be failed.

For SA Users:
All type of applications can be deleted. (Host/Visitor Initiated, Approved, Rejected, Applied/Pending)

For Host Users:
Host user can delete only those applications which are initiated by host (Self) and are in pending/applied state.

For Visitor:
Visitor can delete only those applications which are initiated by Visitor (Self) and are in pending/applied state.

Getting Additional Visitors details

This API is used to get the additional visitors details in visitor pre-registration application.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/additional-visitors-details?action=<get>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre-Registration

Parameters

Table: Getting Additional Visitor details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
appointment-no	Valid Values: 0-9 12 Digits	No	-	To specify the appointment number of the pre-registered application. This number is available in Pre-registered visitors' details. If logged in ESS user tries to get additional visitor's details for some other host user, then it will be failed.

Response Fields

Table: Getting Additional Visitor details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
SRNO	srno	0 to 9	Max 2 digits
Name	name	200 Characters	
Gender	gender	M: Male F: Female	
Mobile No.	mobile-no	20 Characters	

Adding Additional Visitor details

This API is used to add the additional visitors details in visitor pre-registration application.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/additional-visitors-details?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre-Registration

Parameters

Table: Adding Additional Visitor details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi Language Support	Description
appointment-no	0-9 Max 12 Characters	Yes	-	N	To specify the appointment number of the pre-registered application in which additional visitor is to be added.This number is available in Pre-registered visitors' details. If logged in ESS user tries to add additional visitor's details for some other host user, then it will be failed. If logged IN SA User / ESS User tried to set additional visitor's information in visitor pre-registration application which is in Checked IN / Start / On Hold / Resume / Checked OUT state, then it will be failed
name	Max 200 Characters	Yes	-	Set1	Name of the additional visitor
gender	Male Female	Yes	-	N	Gender of the additional visitor
mobile-no	Max 20 Characters	No	-	N	Mobile number of the additional visitor

Example1

Sample Request:

To add the additional visitor in visitor pre-registration application.

```
http://192.168.104.12/cosec/api.svc/v2/additional-visitors-details?action=set;appointment-
no=180117000005;name=Aditi;gender=Female;
```

Sample Response:

```
success: 0880200002 : saved successfully
```

The additional visitor Aditi is added to the pre-registration application no=180117000005

Updating Additional Visitor details

This API is used to edit the additional visitors details in visitor pre-registration application.

Action

action=update

Syntax

```
http://<servername>/api.svc/v2/additional-visitors-details?action=<update>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre-Registration

Parameters

Table: Updating Additional Visitor details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi-Language Support	Description
appointment-no	0-9 Max 12 Characters	Yes	-	N	To specify the appointment number of the pre-registered application in which additional visitor is to be updated.This number is available in Pre-registered visitors' details. If logged in ESS user tries to update additional visitor's details for some other host user, then it will be failed. If logged IN SA User / ESS User tried to set additional visitor's information in visitor pre-registration application which is in Checked IN / Start / On Hold / Resume / Checked OUT state, then it will be failed.
srno	0-9 Max 2 Digits	Yes	-	N	It is the Serial number of additional visitors. It can be found from the list of Additional visitor details in VMS module or VMS Utility.
name	Max 200 Characters	No	-	Set1	Name of the additional visitor
gender	Male Female	No	-	N	Gender of the additional visitor
mobile-no	Max 20 Characters	No	-	N	Mobile number of the additional visitor

Deleting Additional Visitor details

This API is used to delete the additional visitors details in visitor pre-registration application.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/additional-visitors-details?action=<delete>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration
ESS User	Enabled if User has rights on the following Page. ESS > Basic > Visitor Pre-Registration

Parameters

Table: Deleting Additional Visitor details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
appointment-no	numeric	Yes	-	To specify the appointment number of the pre-registered application which is to be deleted.This number is available in Pre-registered visitors' details. If logged in ESS user tries to delete additional visitor's details for some other host user, then it will be failed.
srno		Yes	-	It is the Serial number of additional visitors. It can be found from the list of Additional visitor details in VMS module or VMS Utility. If logged in SA User / ESS User tried to delete additional visitor's information in visitor pre-registration application which is in Checked IN / Start / On Hold / Resume / Checked OUT state, then it will be failed.

Visitor Pre-registration Approval

This API is used for approving or rejecting the visitor pre-registration application. The Visitor Pre-Registration Application will set only if the user is an Authorized Host User.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/visitor-pre-registration-approval?action=<set>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration Approval
ESS User	Enabled if User is RIC user and has rights on the following Pages. ESS > Approval/Authorization > Pre-Registration Approval

Parameters

Table: Visitor Pre-registration approval- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
appointment-no	Max 12 digits	Yes	-	N	To specify the appointment number of the pre-registered application which is to be deleted.This number is available in Pre-registered visitors' details.
verdict	1 : Approve 2 : Reject	Yes	-	N	Multiple applications can be approved/ rejected at once. If user tries to approve/reject a record which is already approved/rejected, then it will be failed. Host Official Cell Host Official E-mail For an application if first reporting in-charge has rejected it then it will be failed. For Any1 mode; if any one of RICs/SA user has already provided verdict and if other RIC/SA tries to provide verdict then it will be failed. For "All" mode, if final authority in-charge has provided verdict, and other RICs/SA tries to provide verdict then it will be failed.

Table: Visitor Pre-registration approval- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
remark	Max 50 Characters _ - ( ) [ ] . , / + ! @ $ * : and <space>	Yes	-	Y(Set2)	It is the remark given by RIC while authorizing the application.

Example1

Sample Request:

To authorize the visitor pre-registration application.

```
http://192.168.104.12/cosec/api.svc/v2/visitor-pre-registration-approval?action=set;appointment-no=180118000001;verdict=1;remark=Application approved
```

Sample Response:

```
success: 0890200002 : Saved Successfully
```

Visitor Registration

This API is used for registering the visitor details. It is mandatory to create visitor profile before planning any visit. So the Visitor Registration API will set details of the visitor.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/visitor-registration?action=<set>;<argument>=<value>...
```

License

User	Rights Enabled
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration VMS > Frequent Visitor
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Basic > Visitor Pre Registration
Visitor	There should be no restrictions provided for Visitor. It should remain to work without any authentication.

Parameters

Table: Visitor Registration- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
user-type	0 = Host User / SA User 1 = Visitor	No	1	NA	If not supplied, default 1 should be considered.
visitor-name	200 Characters Valid Characters: A-Z a-z 0-9 -_. ()[]	Yes	-	Y(Set2)	It is the name of the visitor.
mobile-no	20 Digits Valid Values: 0 - 9 - + ( )	Yes	-	NA	It is the Mobile number of the visitor.

Table: Visitor Registration- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
email-id	125 Characters Valid Characters: Same as User/ Contractor Email Id Field.	No	-	Y(Set1)	It is the Email ID of the visitor.
organization	45 Characters Valid Characters: A -Z, a-z, 0 - 9, # _- ()[].,/+!@$:&* <space>	Yes	-	Y(Set3)	It is the organization of visitor
designation	45 Characters Valid Characters: A -Z, a-z, 0 - 9, # !@$&.,/*()_-+[]: <space>	No	-	Y(Set3)	It is the designation of visitor
address	60 Characters Valid Values: A -Z, a-z, 0 - 9, # _- ()[].,/ +!@$:&* <space>	No	-	Y(Set1)	It is the address of visitor
city	30 Characters A -Z, a-z, 0 - 9, # _- ()[].,/ +!@$:&* <space>	No	-	Y(Set1)	It is the city of visitor
state	30 Characters A -Z, a-z, 0 - 9, # _- ()[].,/ +!@$:&* <space>	No	-	Y(Set1)	It is the state of visitor
country	30 Characters A -Z, a-z, 0 - 9, # _- ()[].,/ +!@$:&*	No	-	Y(Set1)	It is the country of visitor

Table: Visitor Registration- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
pincode	10 Characters	No	-	N	It is the pincode of visitor
gender	NA, Male, Female	No	-	NA	It is gender of visitor. If not supplied, consider as NA (Default).
date-of-birth	ddmmyyyy	No	-	N	It is date of birth of visitor
nationality	30 Characters A -Z, a-z, 0 - 9, # _- ()[].,/ +!@$:&* <space>	No	-	Y(Set1)	It is the nationality of visitor
id-proof1	30 Characters A-Z a-z 0-9 <space> _-()[].,/+!@$:*	No	-	Y(Set1)	It is id proof-1 of visitor
id-proof2	30 Characters A-Z a-z 0-9 <space> _-()[].,/+!@$:*	No	-	Y(Set1)	It is id proof-2 of visitor
is-watchlist	0: No 1: Yes	No		N	
field<no> (where <no> will vary from 1 to 10, the user has to enter any one number here from 1 to 5)	If control type for respected custom fields is selected as Textbox in Global Policy: Max 100 Alphanumeric Characters A-Z a-z 0-9 [ ] ( ) . - _ / <Space> If control type for respected custom fields is selected as Date in Global Policy: ddmmyyyy When Multi Language is enabled, Invalid character set = SET1	No	-	NA	Mandatory field, if 'Active' & 'Mandatory' checkbox is checked for respective custom fields in Global Policy.

For both returning / new visitors, return visitor id in response on successful API execution. Also if OTP is generated for Mobile Number Verification, return Mobile OTP = 1, otherwise return Mobile OTP = 0.

If OTP is generated for Email ID verification, return Email OTP = 1, otherwise return Email OTP = 0.

If visitor is already registered visitor, return ***'RegisteredVisitor' = 1,*** *otherwise* ***'Registered Visitor' = 0.***

Example1

Following are some sample cases for this API:

Sample Request:

To register the visitor:

```
http://192.168.104.12/cosec/api.svc/v2/visitor-registration?action=set;visitor-name=Nishit;mobile-
no=9687624826;organization=Samsung;
```

Sample Response:

```
success: 0910200002 : saved successfully. Visitor ID = 2, Mobile OTP = 1, Email OTP = 0
```

The Mobile OTP is generated which is used for verification of the visitor.

Action

action= get

Argument	Valid Values	Description
Mobile-number	20 Digits Valid Values: 0 – 9 - + ( )	-

Response

Field Name	Tag Name	Valid Values	Remarks
Visitor ID	visitor-id	0-9	
Visitor Name	visitor-name	A-Z a-z 0-9 -_. ()[]	200 Characters
Mobile No	mobile-no	0 to 9 - + ( )	20 Digits
Email ID	email-id	125 characters Valid Characters Use same characters type as for pre registration API	125 Characters
Organization	organization	45 Characters Valid Characters: A –Z, a-z, 0 – 9, _- ()[].,/ +!@$:#&*)	45 Characters
Designation	designation	45 Characters Valid Characters: A –Z, a-z, 0 – 9, _- ()[].,/ +!@$:#&*)	45 Characters

Field Name	Tag Name	Valid Values	Remarks
Address	address	60 Characters Valid Values: A –Z, a-z, 0 – 9, _- ()[].,/ +!@$:#&*)	50 Characters
ID Proof 1	Id-proof1	30 Characters A –Z, a-z, 0 – 9, _- ()[].,/ +!@$:#&*)	30 Characters
ID Proof 2	id-proof2	30 Characters A –Z, a-z, 0 – 9, _- ()[].,/ +!@$:#&*)	30 Characters
Mobile OTP	mobile-otp	0=not generated 1=generated	--
Email OTP	email-otp	0=not generated 1=generated	--
Visitor Custom Field 1	Field1	Max 100 characters ddmmyyy	--
Visitor Custom Field 2	Field2	Max 100 characters ddmmyyy	--
Visitor Custom Field 3	Field3	Max 100 characters ddmmyyy	--
Visitor Custom Field 4	Field4	Max 100 characters ddmmyyy	--
Visitor Custom Field 5	Field5	Max 100 characters ddmmyyy	--

Field Name	Tag Name	Valid Values	Remarks
Uploaded Doc	uploaded-doc	60: Field1 61: Field2 62: Field3 63: Field4 64: Field5	Uploaded document tag is added for checking the status of uploaded images for respective field. Multiple values are possible in this field. If documents/images are present in field1,2 and 5 then uploaded-doc should contain value of field1, field 2 and 5 be provided in respective field. For Example in Jason: "uploaded-doc": "60,61,64" Example in xml: <?xml version="1.0" encoding="UTF-8" ?> <field5>String</field5> <field6>String</field6> <uploaded-doc>60,61,64</ uploaded-doc>

Getting Authorized Host User

This API is used to get details of authorized host user for visitor pre-registration request based on different parameters.

action= get

Syntax

```
http://<servername>/api.svc/v2/authorized-host-user?action=<get>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Visitor Management > Utilities > Authorized Host User
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled for All Registered Visitors with 'isVerified' flag = 1

Parameters

Table: Getting Authorized Host Users- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	-
search-criteria	1: All 2: Mobile-No 3: Email-Id 4: Name	No	All	For Mobile-No and Email-Id, consider both personal as well as official contact info.

Table: Getting Authorized Host Users- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
search-string	If search-criteria=2 / 3, minimum 3 digits is required. If search-criteria=4, minimum 1 characters.	Yes (For Search-criteria=2,3,4)	-	**search-criteria = 1** All Characters except few special characters such as &, ', ", <, >, ; & # \ **search-criteria = 2** 0-9 **search-criteria = 3** All Characters except few special characters such as &, ', ", <, >, ; & # \ **search-criteria = 4** Allowed Characters A-Z a-z 0-9 -_. ()[]

Response Fields

Table: Authorized Host Users - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	15 characters	-
User Name	user-name	45 characters	-
Default-Host	default-host	0: No 1: Yes	-
Personal Mobile No	personal-mobile-no	0-9	-
Official Mobile No	official-mobile-no	0-9	-
Personal Email Id	personal-email-id	-	-
Official Email Id	official-email-id	-	-
Organization	Organization	1-999999	This is the 'Organization' of the user.
Department	Department	1-999999	This is the 'Department' of the user.

Table: Authorized Host Users - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Designation	Designation	1-999999	This is the 'Designation' of the user.

Getting VMS Setting

This API is used to get VMS configuration for HOST Users regarding auto transfer & auto approval configuration.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/vms-setting?action=<get>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Visitor Management > Utilities > Visit Request Handling
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Visitor Management > Visit Request Handling

Parameters

Table: Getting VMS Setting- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-id	15 characters	Yes	-	For ESS user: User-id can be login user's ID. For a System Account user: User-id can be any user's id which is authorized host user.

Response Fields

Table: Getting VMS Setting - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	Max 15 characters	
User Name	user-name	max 45 alphanumeric characters	

Table: Getting VMS Setting - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Auto Transfer	auto-transfer	1: Enable 0: Disabled	-
Transfer To	transfer-to	Maximum 15 characters	-
Auto Approval-Rejection	auto-approval-rejection	1: Enable 0: Disabled	-
Working Days	working-days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	Days for which auto approval of visitor initiated pre-registrations are enabled. Return working days in comma-separated format: i.e. working-days=1,3,5
Work Start Time	work-start-time	hh:mm	00:00 - 23:59
Work End Time	work-end-time	hh:mm	00:00 - 23:59
Break Start Time	break-start-time	hh:mm	00:00 - 23:59
Break End Time	break-end-time	hh:mm	00:00 - 23:59
Allow Overlap Time	allow-overlap-time	0-9	Range: 0-999 Time in minutes. Overlapping visit duration must be within entered time to auto approval.

Setting VMS Configuration

This API is used to set VMS configuration for HOST Users regarding auto transfer & auto approval configuration.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/vms-setting?action=<set>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Visitor Management > Utilities > Visit Request Handling
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Visitor Management > Visit Request Handling

Parameters

Table: Setting VMS Configuration- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
user-id	15 characters	Yes	-	N	For ESS user: User-id can be login user's ID. For a System Account user: User-id can be any user's id which is authorized host user.
auto-transfer	1: Enable 0: Disabled	No	-	N	-
transfer-to	Maximum 15 characters.	Mandatory (when auto-transfer = 1)		N	For a System Account user: "User-id can be any user's id which is authorized host user.
auto-approval-rejection	1: Enable 0: Disabled	No	-	N	

Table: Setting VMS Configuration- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
working-days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	Mandatory when auto-approval-rejection = 1.	-	N	Days for which auto approval of visitor initiated pre-registrations are enabled. You can also select multiple working-days, each separated by ", (comma)" e.g: working-days=1,2,3,4,5
work-start-time	hhmm (24 Hrs Format)	Mandatory when auto-approval-rejection = 1.	-	N	-
work-end-time	hhmm (24 Hrs Format)	Mandatory when auto-approval-rejection = 1.	-	N	-
break-start-time	hhmm (24 Hrs Format)	Mandatory when auto-approval-rejection = 1.	-	N	-
break-end-time	hhmm (24 Hrs Format)	Mandatory when auto-approval-rejection = 1.	-	N	-
allow-overlap-time	0-9	No	-	N	It is the time in minutes.Applicable only when auto-approval-rejection = 1.

Getting Host Unavailability Days

This API is used to get Holidays / Unavailable Days for Host User for Visitor initiated Pre-Registration Application.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/host-unavailability-days?action=<get>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Visitor Management > Utilities > Visit Request Handling
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Visitor Management > Visit Request Handling

Parameters

Table: Getting Host Unavailability Days- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-id	15 characters	Yes	-	For ESS user: User-id can be login user's ID. For a System Account user: User-id can be any user's id which is authorized host user.

Response Fields

Table: Getting Host Unavailability Days - Response Fields

Field Name	Tag Name	Valid Values	Remarks
User ID	user-id	Allowed Characters A-Z a-z 0-9 /_\\.@:	15 characters

Table: Getting Host Unavailability Days - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Name	name	Allowed Characters A-Z a-z 0-9 -_. ()[]	45 characters
SRNO	srno	0-9	Max 2 digits
Date	date	mm/dd/yyyy	-
Unavailability Reason	unavailability-reason	Allowed Characters: All Characters except few special characters such as &, ', ", <, >, ; & #	Max 30 Characters

Set Host Unavailability Days

This API is used to set Holidays / Unavailable Days for Host User for Visitor initiated Pre-Registration Application.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/host-unavailability-days?action=<set>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Visitor Management > Utilities > Visit Request Handling
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Visitor Management > Visit Request Handling

Parameters

Table: Set Host Unavailability Days- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
user-id	15 Characters	Yes	-	N	For ESS user: User-id should be login user's ID. For a System Account user: User-id can be any user's id which is authorized host user.
date	ddmmyyyy	Yes	-	N	
unavailability-reason	Max 30 Char Allowed Char: All Characters except few special characters such as &, ', ", <, >, ; & #	Yes	-	Y Invalid Char Set: NA	It is the reason for unavailability of the host.

Update Host Unavailability Days

This API is used to update Holidays / Unavailable Days for Host User for Visitor initiated Pre-Registration Application.

Action

action= update

Syntax

```
http://<servername>/api.svc/v2/host-unavailability-days?action=<update>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Visitor Management > Utilities > Visit Request Handling
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Visitor Management > Visit Request Handling

Parameters

Table: Update Host Unavailability Days- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
user-id	15 Characters	Yes	-	N	For ESS user: User-id should be login user's ID. For a System Account user: User-id can be any user's id which is authorized host user.
srno	0-9 Max 2 Digits	Yes	-	N	
date	ddmmyyyy	Yes	-	Y Invalid Char Set: NA	

Table: Update Host Unavailability Days- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
unavailability-reason	Max 30 Char Allowed Char: All Characters except few special characters such as &, ', ", <, >, ; & #	Yes	-	-	It is the reason for unavailability of the host.

Delete Host Unavailability Days

This API is used to delete Holidays / Unavailable Days for Host User for Visitor initiated Pre-Registration Application.

Action

action= delete

Syntax

```
http://<servername>/api.svc/v2/host-unavailability-days?action=<delete>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. Visitor Management > Utilities > Visit Request Handling
ESS User	Enabled if User has rights on any one of the following Pages. ESS > Visitor Management > Visit Request Handling

Parameters

Table: Delete Host Unavailability Days- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-id	15 Characters	Yes	-	For ESS user: User-id should be login user's ID. For a System Account user: User-id can be any user's id which is authorized host user.
date	ddmmyyyy	Yes	-	if invalid date is specified or no date is specified, then it will be failed.

Getting Visitor Details

This API is used to get visitor details.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/visitor?action=<get>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration VMS > Pre-Registration Approval
ESS User	Enabled only for Action= Get and Set, if User has rights on any one of the following Pages. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled for All Registered Visitors

Parameters

Table: Getting Visitor Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	
visitor-filter	0 : individual 1: all	No	0	Visitor-filter=1 is not applicable if logged in user is Visitor.
search-criteria	1: All 2: Mobile-No 3: Email-Id 4: Name	No	0	Applicable only for visitor-filter = 1

Table: Getting Visitor Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
search-string	If search-criteria=2 / 3, minimum 1 digits is required. If search-criteria=4, minimum 1 characters.	No	-	Applicable only for visitor-filter = 1, otherwise it should be ignored. **search-criteria = 1** All Characters except few special characters such as &, ', ", <, >, ; & # **search-criteria = 2** 0-9, ( ) - + **search-criteria = 3** All Characters except few special characters such as &, ', ", <, >, ; & # **search-criteria = 4** Allowed Characters A-Z a-z 0-9 -_. ()[]
visitor-id	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes (when visitor-filter=0)	-	if logged IN user is visitor and supplied visitor-id is of some other visitor's id, then it will not be allowed.

Response Fields

Table: Getting Visitor Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Visitor ID	visitor-id	0-9	-
Visitor Name	visitor-name	-	200 characters
Mobile No	mobile-no	0-9	20 Digits
Email ID	email-id	-	125 Characters
Organization	organization	-	45 Characters
Designation	designation	-	45 Characters
Address	address	-	60 Characters

Table: Getting Visitor Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
City	city	-	30 Characters
State	state	-	30 Characters
Country	country	-	30 Characters
Pincode	pincode	-	30 Characters
Gender	gender	NA, Male, Female	
Date of Birth	date-of-birth	ddmmyyyy	
Nationality	nationality	-	30 Characters
ID Proof 1	Id-proof1	-	30 Characters
ID Proof 2	id-proof2	-	30 Characters
Verified User	verified-user	1: Yes 0: No	Return this flag as 0 till the time OTP Verification is done, system should mark the Visitor as 'Unverified'. Once OTP verification is successfully done, return this flag as 1.
Watchlist User	is-watchlist	0: Frequent Visitor 1: Watchlist 2: Blacklist	Only Host and System Admin login have the rights for firing API to set the value for parameter > is-watchlist= 0 or 1 or 2
Visitor Custom Field 1	Field1	Max 100 characters ddmmyyy	--
Visitor Custom Field 2	Field2	Max 100 characters ddmmyyy	--
Visitor Custom Field 3	Field3	Max 100 characters ddmmyyy	--
Visitor Custom Field 4	Field4	Max 100 characters ddmmyyy	--
Visitor Custom Field 5	Field5	Max 100 characters ddmmyyy	--

Table: Getting Visitor Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Uploaded Doc	uploaded-doc	60: Field1 61: Field2 62: Field3 63: Field4 64: Field5	Uploaded document tag is added for checking the status of uploaded images for respective field. Multiple values are possible in this field. If documents/images are present in field1,2 and 5 then uploaded-doc should contain value of field1, field 2 and 5 be provided in respective field. For Example in Jason: "uploaded-doc": "60,61,64" Example in xml: <?xml version="1.0" encoding="UTF-8" ?> <field5>String</field5> <field6>String</field6> <uploaded-doc>60,61,64</uploaded-doc>

Set Visitor Details

This API is used to edit visitor profile details.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/visitor?action=<set>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration VMS > Pre-Registration Approval
ESS User	Enabled only for Action= Get and Set, if User has rights on any one of the following Pages. ESS > Basic > Visitor Pre Registration ESS > Approval/Authorization > Pre-Registration Approval
Visitor	Enabled for All Registered Visitors

Parameters

Table: Set Visitor Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	N	
visitor-id	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	0	N	Visitor-filter=1 is not applicable if logged in user is Visitor.

Table: Set Visitor Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
email-id	125 Characters Valid Characters: All Characters except few special characters such as `~#%^*={}|\\;\"'<>?	No	-	Y (Set1)	It is the Email ID of the visitor.
visitor-name	200 Characters Valid Characters: A-Z a-z 0-9 -_. ()[]	No	-	Y (Set2)	
mobile-no	20 Digits Valid Values: 0 - 9 - + ( )	No	-	NA	It is the Mobile number of the visitor.
organization	45 Characters 0-9 A-Z a-z _- ()[].,/+!@$:&* <SPACE>	Yes	-	Y (Set 3)	It is the organization of visitor
designation	45 Characters 0-9 A-Z a-z !@$&.,/*()_-+[]: <SPACE>	No	-	Y (Set 3)	It is the designation of visitor
address	60 Characters A-Z a-z 0-9 _- ()[].,/+!@$:&* <SPACE>	No	-	Y (Set 1)	It is the address of visitor
city	30 Characters A-Z a-z 0-9 _- ()[]/+!@$:&*., <SPACE>	No	-	Y (Set 1)	It is the city of visitor
state	30 Characters A-Z a-z 0-9 _- ()[].,/+!@$:&* <SPACE>	No	-	Y (Set 1)	It is the state of visitor

Table: Set Visitor Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
country	30 Characters A-Z a-z 0-9 _- ()[].,/+!@$:&* <SPACE>	No	-	Y (Set 1)	It is the country of visitor
pincode	10 Characters	No	-	N	It is the pincode of visitor
gender	Male, Female	No	-	NA	It is gender of visitor
date-of-birth	ddmmyyyy	No	-	NA	It is date of birth of visitor
nationality	30 Characters A-Z a-z 0-9 _- ()[].,/+!@$:* <SPACE>	No	-	Y (Set 1)	It is the nationality of visitor
id-proof1	30 Characters A-Z a-z 0-9 _- ()[].,/+!@$:* <SPACE>	No	-	Y (Set 1)	It is id proof-1 of visitor
id-proof2	30 Characters A-Z a-z 0-9 _- ()[].,/+!@$:* <SPACE>	No	-	Y (Set 1)	It is id proof-2 of visitor
is-watchlist	0: Frequent Visitor 1: Watchlist 2: Blacklist	No	0,if no value is supplied.	N	Only Host and System Admin login have the rights for firing API to set the value for parameter > is-watchlist= 0 or 1 or 2

Table: Set Visitor Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
field<no> (where <no> will vary from 1 to 10, the user has to enter any one number here from 1 to 5)	If control type for respected custom fields is selected as Textbox in Global Policy: Max 100 Alphanumeric Characters A-Z a-z 0-9 [ ] ( ) . - _ / <Space> If control type for respected custom fields is selected as Date in Global Policy: ddmmyyyy When Multi Language is enabled, Invalid character set = SET1	No	-	NA	Mandatory field, if 'Active' & 'Mandatory' checkbox is checked for respective custom fields in Global Policy. When user-type=Visitor, the fields should not be mandatory regardless its value configured in global policy.

Deleting Visitor Details

This API is used to delete visitor profile details.

Action

action= delete

Syntax

```
http://<servername>/api.svc/v2/visitor?action=<delete>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS > Pre-Registration VMS > Pre-Registration Approval

Parameters

Table: Delete Visitor Details- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	
visitor-id	15 alphanumeric Char. (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	0	Visitor-filter=1 is not applicable if logged in user is Visitor.

Getting Visitor Profile

This API will be used to fetch the details of Visitor profiles.

Action

action= get

Syntax

```
http://<cosec_server>/api.svc/v2/visitor-profile?action=<get>;<argument>=<value>...
```

License

Basic+VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System account user	Enabled if User has rights on Page : Visitor Management > Visitor Profile > view rights
ESS User	Disabled

Parameters

Table: Getting Visitor Profile- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	15 characters Valid Values: A-Z a-z 0-9 @ _ : . /	No	-	This is the visitor profile Id. If not mentioned, return records of all Visitor Profiles as per the rights available to the logged in system account user. Should allow to pass comma separated ids.

Table: Getting Visitor Profile- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
filter	0 : All 1 : Active Visitor Profiles 2 : Inactive Visitor Profiles	No	0	Non mandatory field. Default value = 0. **Conditions:** 1.Argument mentioned, but value not specified, then ignore this parameter. 2.If filter=0 is specified, return all visitor profiles configured in the system. 3.If filter=1 is specified, return only active visitor profiles configured in the system. 4.If filter=2 is specified, return only inactive visitor profiles configured in the system. **Note:** If filter=1 is specified and multiple-ids are passed or any enterprise group is passed, out of which some of them are inactive, then do not return those visitor profiles and vice-versa should also be applicable. If filter=2 is specified and multiple-ids are passed or any enterprise group is passed, out of which some of them are active, then do not return those visitor profiles and vice-versa should also be applicable.
creation-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the Visitor Profile creation date range. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered. For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if creation-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Table: Getting Visitor Profile- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	01/01/1900 00:00:00 - 31/12/2099 23:59:59	This defines the last modified date range for Visitor Profile details. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Getting Visitor Profile - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Id	id	Max 15 chars	Allowed Characters A-Z a-z 0-9 /_.@: \
Active	active	0 or 1	Field defines whether visitor profile is active or not
Status	status	0 or 1 0 = Free 1 = Occupied	Defines whether the Visitor Profile is free or in use. If the Profile is free then can be assigned to visitor else not.
Name	name	Max 45 Characters	Allowed Characters A-Z a-z 0-9 -_. () []

Table: Getting Visitor Profile - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Full Name	Full-name	Max 200 chars	A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / & , (comma) @ '(single quote) [Space]
Access Validity Date	access-validity-date	ddmmyyyy format	Defines validity end date of visitor profile.
short-name	short-name	Max 15 chars	
Reference ID	reference-code	1 to 99999999 (max 8 digits)	This is the Reference ID field
Integration Reference	integration-reference	max 20 alphanumeric characters	This is the Integration Reference field
Device Group ID	device-group-id		This is the ID of the device group If more than one group is assigned, then it should fetch multiple group id separated with comma. When 99 device (maximum device allowed) with individual ID of 5 NUMcharacter is GET then 600 NUMcharacter are allowed.
Device Group	device-group		This is the name of the device group If more than one group is assigned, then it should fetch multiple group name separated with comma.
PIN	pin	0 to 999999999999999	This is the access control system PIN number of the Visitor
Roaming User	roaming-user-flg	0= unchecked 1=checked	This is a field that shows whether Visitor is Reaming User or not.
Access Card 1	card-1	max 20 numeric characters max 21 characters= 20 numeric + comma	This is the Access Card 1 of the Visitor, required for access control system.

Table: Getting Visitor Profile - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Access Card 2	card-2	max 20 numeric characters max 21 characters= 20 numeric + comma	This is the Access Card 2 of the Visitor, required for access control system.
Enrolled Fingers (Suprema Proprietary)	suprema-proprietary-count	0-10	Number of fingers enrolled in suprema proprietary type against a Visitor Profile
Enrolled Fingers (Suprema ISO)	suprema-iso-count	0-10	Number of fingers enrolled in suprema ISO type against a Visitor Profile
Enrolled Fingers (Lumidigm ISO)	lumidigm-iso-count	0-10	Number of fingers enrolled in Lumidigm ISO type against a Visitor Profile
Enrolled Fingers (Lumidigm Proprietary)	lumidigm-proprietary-count	0-10	Number of fingers enrolled in Lumidigm proprietary type against a Visitor Profile
Enrolled Palm	enrolled-palms	0-10	Number of palms enrolled for this Visitor Profile
Enrolled Faces	Enrolled-faces	0-40	Total Number of faces enrolled for this Visitor Profile
Bypass Finger	bypass-finger	1 – enable bypass 0 – disable bypass	Enable/disable visitor bypass the finger credential for any access control feature/rule
Bypass Palm	bypass-palm	1 – enable bypass 0 – disable bypass	Enable/disable visitor bypass the palm credential for any access control feature/rule.
Access Validity	access-validity-flg	0= unchecked 1=checked	Access Validity applicable to the Visitor or not.
Access Level	access-level	1 to 15	This is the access level assigned to Visitor, used for access control features.
Holiday Schedule	holiday-schedule	1 to 99	This field is the the visitor's allowed holidays
Enable Advance Access Control	enable-advance-access-control	0= unchecked 1=checked	This flag tells whether Advance Access Control applicable for the visitor or not
Smart Access Route	smart-access-route	1 to 99	The access route assigned to the Visitor. (For Smartcard Users only)
Max Route Level	max-route-level	0 to 75	Maximum level assigned to which Visitor can access the Smart Access Route.

Table: Getting Visitor Profile - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Enable Elevator Access Control	enable-elevator-access-control	0= unchecked 1=checked	This flag tells whether Elevator Access Control applicable for the visitor or not.
Elevator Floor Group	elevator-floor-group	1 to 999	The floor group assigned for which Visitor should have elevator rights
Enable Cafeteria Account	allow-ecanteen	0= unchecked 1=checked	This flag tells whether the ecanteen. (Cafeteria) features allowed for the selected Visitor or not.
Discount Level	discount-level	0 to 4	Visitor applicable discount level for any canteen transactions.
Account Type	account-type	0 = Prepaid 1= Postpaid	This parameter determines the Visitor's Cafeteria account type.
Balance Management	balance-management	balance-management	This parameter determines the Visitor's Cafeteria Pre-Paid Account Balance Management type
Device-Server Balance Check	device-server-balance-check	0= unchecked 1=checked	This flag tells whether the Device-Server Balance Check allowed for the selected Visitor or not.
Allowed Usage Per Month	max-allowed-limit	0.01 to 999999.99	This defines the max allowed limit for the canteen user for a month.
Max Usage Limit Per Month	max-usage-limit	0.01 to 999999.99	This defines the max usage limit for the canteen user beyond which the Visitor's canteen account will be blocked. Value should be as per Account Type, i.e., Prepaid or Postpaid
Max Usage Limit Per Day	max-usage-limit-per-day	0.01 to 999999.99	This defines the max daily usage limit for the canteen user beyond which the Visitor's canteen account will be blocked. Value should be as per Account Type, i.e., Prepaid or Postpaid
Cafeteria Usage Policy	cafeteria-usage-policy	1 to 99	Cafeteria usage policy for Visitor.
Enable Face Recognition	enable-fr	0= unchecked 1=checked	This flag determines whether the Face Recognition feature applicable for access control of visitor or not.
Organization ID	organization	1 - 999999	-

Table: Getting Visitor Profile - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Branch ID	branch	1 - 999999	-
Department ID	department	1 - 999999	-
Section ID	section	1 - 999999	-
Category ID	category	1 - 999999	-
Grade ID	grade	1 - 999999	-
Designation ID	designation	1 - 999999	-
Custom Group 1 ID	customgroup1ID	1 -9 99999	-
Custom Group 2 ID	customgroup2ID	1 - 999999	-
Custom Group 3 ID	customgroup3ID	1 - 999999	-
Organization Code	organization_code	max 6 alphanumeric characters	-
Branch Code	branch_code	max 6 alphanumeric characters	-
Department Code	department_code	max 6 alphanumeric characters	-
Category Code	category_code	max 6 alphanumeric characters	-
Grade Code	grade_code	max 6 alphanumeric characters	-
Designation Code	designation_code	max 6 alphanumeric characters	-
Section Code	section_code	max 6 alphanumeric characters	-
Custom Group 1 Code	customgroup1_code	max 6 alphanumeric characters	-
Custom Group 2 Code	customgroup2_code	max 6 alphanumeric characters	-
Custom Group 3 Code	customgroup3_code	max 6 alphanumeric characters	-
Organization Name	organization-name		Should return the Organization Name of User
Branch Name	branch-name		Should return the Branch Name of User
Department Name	department-name		Should return the Department Name of User
Category Name	category-name		Should return the Category Name of User
Grade Name	grade-name		Should return the Grade Name of User
Designation Name	designation-name		Should return the Designation Name of User
Section Name	section-name		Should return the Section Name of User
Custom Group 1 Name	customgroup1_name		Should return the Custom Group 1 Name of User
Custom Group 2 Name	customgroup2_name		Should return the Custom Group 2 Name of User
Custom Group 3 Name	customgroup3_name		Should return the Custom Group 3 Name of User

Table: Getting Visitor Profile - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Enable Offline-Transaction	enable-offline-transaction	0= None 1= Allow With Discount 2= Allow Without Discount	
Creation Date	creation-date	dd/mm/yyyy hh:mm:ss	This defines the Visitor Profile creation date.
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the Visitor Profile details were last modified.

Setting Visitor Profile

This API will be used to set new visitor's profile.

Action

action= set

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
id	Should be same as per User API	Yes	This is the visitor profile ID.
name	Max 45 Characters Allowed Characters A-Z a-z 0-9 -_. ()[] [Space]	No	This is the name field. Mandatory field (Optional, if full name tag is mentioned or case of edit model.)
full-name	max 200 chars A –Z a-z 0 – 9 ( ) [ ] _ ***(underscore)*** - ***(Hyphen)*** . ***(full Stop)*** / & , ***(comma)*** @ '(single quote) [Space] When Multi Language is On, Invalid Character set = Set 3	No	This is the Full Name field. Mandatory only if "name" tag is not mentioned. Otherwise, Not Mandatory
short-name	should be as per User API	No	This is the short name field.
reference-code	1 to 99999999	No	This is the Reference ID field. Unique Reference code for every Visitor Profile ID should be auto-generated by system if mentioned value already exists.
active	0 : Inactive 1 : Active 2 : Inactive and Revoke Devices	No	This is a field that shows whether Visitor Profile is active or not. ***Note:*** *While creating new Visitor Profile, if active = 2 is passed then no action should be performed and created Visitor Profile will be active by default.*

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
integration-reference	Should be same as per User API	No	This is the Integration Reference field. This field is provided for integration with third party software applications (e.g.: Payroll). In third party applications where the visitor ID has more number of characters and if it wants to integrate with COSEC Application then it can use Integration reference to map COSEC to third party software. (*same as per User API*)
device-group-id	Maximum length 600 NUMCHAR Blank	No	This is the ID of the device group. Allow passing multiple device group ID values separated by comma. Note: Any value SET from this API will overwrite the existing value. If from the entered Device Group IDs only partial values are valid, then assign the valid Device Groups mentioned. When 99 device (maximum device allowed) with individual ID of 5 NUMcharacter is SET then 600 NUMcharacter are allowed.
device-group			This is the name of the device group. Multiple device group names are allowed to pass. If maximum 99 device group names are added, there is a possibility that it would lead to exceed maximum URL limit. In such cases the server will notify the SA via message and the SA needs to hit multiple API.
pin	0 to 999999999999999 Blank	No	This is the access control system PIN number of the Visitor.
roaming-user-flg	0= unchecked 1=checked	No	This is a field that shows whether Visitor is Reaming User or not.
card-1	max 20 numeric characters max 21 characters= 20 numeric + comma		This is the Access Card 1 of the Visitor, required for access control system. **Note:** *System should not allow same value of “card-1” & “card-2” against any ID*
card-2	max 20 numeric characters max 21 characters= 20 numeric + comma		This is the Access Card 2 of the Visitor, required for access control system. **Note:** *System should not allow same value of “card-1” & “card-2” against any ID.*
bypass-finger	0= unchecked 1=checked	No	This flag determines whether the visitor can bypass the finger credential for any access control feature/rule.

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
bypass-palm	0= unchecked 1=checked	No	This flag determines whether the visitor can bypass the palm credential for any access control feature/rule.
access-validity-flg	0= unchecked 1=checked	No	This flag determines whether the Access Validity should be applicable to the Visitor or not
access-validity-date	ddmmyyyy format	No	This is the access validity date of the Visitor. This is an Optional field. (Mandatory, if “access-validity-flg =1”) Not applicable when “access-validity-flg =0”. So, skip the value mentioned in “access-validity-date” tag. Applicable only when “access-validity-flg =1”
access-level	1-15	No	This is the access level assigned to Visitor, used for access control features
holiday-schedule	1-99	No	This field defines the visitor’s allowed holidays.
enable-advance-access-control	0= unchecked 1=checked	No	This flag determines whether Advance Access Control should be applicable for the visitor or not.
smart-access-route	1-99	No	This field assigns the access route to the Visitor. (For Smartcard Users only) Not applicable when “enable-advance-access-control =0”. So, skip the value mentioned in “smart-access-route” tag. Applicable only when “enable-advance-access-control =1”
max-route-level	0 to 75	No	This field assigns maximum level to which Visitor can access the Smart Access Route. Not applicable when “enable-advance-access-control =0”. So, skip the value mentioned in “max-route-level” tag. Applicable only when “enable-advance-access-control =1”
enable-elevator-access-control	0= unchecked 1=checked	No	This flag determines whether Elevator Access Control should be applicable for the visitor or not. Not applicable when “enable-advance-access-control =0”. So, skip the value mentioned in “enable-elevator-access-control” tag. Applicable only when “enable-advance-access-control =1”

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
elevator-floor-group	1-999	No	This field assigns the floor group for which Visitor should have elevator rights This is an Optional field. Not applicable when either “enable-advance-access-control =0” or “enable-elevator-access-control =0”. So, skip the value mentioned in “elevator-floor-group” tag. Applicable only when both “enable-advance-access-control =1” and “enable-elevator-access-control =1”
allow-ecanteen	0= unchecked 1=checked	No	0= unchecked 1=checked
discount-level	0 to 4	No	This value defines the Visitor applicable discount level for any canteen transactions
account-type	0 = Prepaid 1= Postpaid	No	This parameter determines the Visitor’s Cafeteria account type.
max-allowed-limit	0.01 - 999999.99	No	This defines the max allowed limit for the canteen user for a month
max-usage-limit	0.01 - 999999.99	No	This defines the max usage limit for the canteen user beyond which the Visitor’s canteen account will be blocked. (Consideration for Value passed should be as per Account Type, i.e., Prepaid or Postpaid
max-usage-limit-per-day	0.01 - 999999.99	No	This defines the max daily usage limit for the canteen user beyond which the Visitor’s canteen account will be blocked. (Consideration for Value passed should be as per Account Type, i.e., Prepaid or Postpaid
balance-management	0 = Device Based 1= Server Based	No	This parameter defines the Visitor’s Cafeteria Pre-Paid Account Balance Management type
device-server-balance-check	0= unchecked 1=checked	No	This flag determines whether the Device-Server Balance Check should be allowed for the selected Visitor or not. If “balance-management=0” passed then “device-server-balance-check =0” should be considered.
cafeteria-usage-policy	1-99	No	Cafeteria usage policy for Visitor.
enable-fr	0= unchecked 1=checked	No	This flag determines whether the Face Recognition feature should be applicable for access control of visitor.

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
organization	1 - 999999	No	This is the 'Organization' of the user. **Note**: if the user specifies the organization id and organization code in same http request, then give error “Organization ID and Code cannot be specified together” Default organization of respective system account user who is creating/updating visitor OR Default organization defined in Enterprise structure
branch	1 - 999999	No	This is the 'Branch' of the user. **Note**: if the user specifies the Branch id and Branch code in same http request, then give error “Branch ID and Code cannot be specified together” Default branch of respective system account user who is creating/updating visitor OR Default branch defined in Enterprise structure
department	1 - 999999	No	This is the 'Department' of the user. **Note**: if the user specifies the Department id and Department code in same http request, then give error “Department ID and Code cannot be specified together” Default department of respective system account user who is creating/updating visitor OR Default department defined in Enterprise structure
section	1 - 999999	No	This is the 'Section' of the user. **Note**: if the user specifies the Section id and Section code in same http request, then give error “Section ID and Code cannot be specified together” Default section of respective system account user who is creating/updating visitor OR Default section defined in Enterprise structure

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
category	1 - 999999	No	This is the 'Category' of the user. **Note**: if the user specifies the Category id and Category code in same http request, then give error “Category ID and Code cannot be specified together” Default category of respective system account user who is creating/updating visitor OR Default category defined in Enterprise structure
grade	1 - 999999	No	This is the 'Grade' of the user. **Note**: if the user specifies the Grade id and Grade code in same http request, then give error “Grade ID and Code cannot be specified together” Default grade of respective system account user who is creating/updating visitor OR Default grade defined in Enterprise structure
designation	1 - 999999	No	This is the 'Designation' of the user. **Note**: if the user specifies the Designation id and Designation code in same http request, then give error “Designation ID and Code cannot be specified together” Default designation of respective system account user who is creating/updating visitor OR Default designation defined in Enterprise structure
customgroup1ID	1 -9 99999	No	This is the 'Custom Group 1' of the user. **Note**: if the user specifies the Custom Group 1 id and Custom Group 1 code in same http request, then give error “Custom Group 1 ID and Code cannot be specified together” Default customGroup1ID of respective system account user who is creating/ updating visitor OR Default customGroup1ID defined in Enterprise structure

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
customgroup2ID	1 - 999999	No	This is the 'Custom Group 2' of the user. **Note**: if the user specifies the Custom Group 2 id and Custom Group 2 code in same http request, then give error “Custom Group 2 ID and Code cannot be specified together” Default customGroup2ID of respective system account user who is creating/ updating visitor OR Default customGroup2ID defined in Enterprise structure
customgroup3ID	1 - 999999	No	This is the 'Custom Group 3' of the user. **Note**: if the user specifies the Custom Group 3 id and Custom Group 3 code in same http request, then give error “Custom Group 3 ID and Code cannot be specified together” Default customGroup3ID of respective system account user who is creating/ updating visitor OR Default customGroup3ID defined in Enterprise structure
organization_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If code is invalid or does not exist, the system should give error “Organization Code is either invalid or does not exist” If organization id is also specified then the system should give error “Organization ID and Code cannot be specified together” Default organization code of respective system account user who is creating/ updating visitor OR Default organization code defined in Enterprise structure

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
branch_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If branch id is also specified then the system should give error “Branch ID and Code cannot be specified together” Default branch code of respective system account user who is creating/updating visitor OR Default branch code defined in Enterprise structure
department_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Department id is also specified then the system should give error “Department ID and Code cannot be specified together” Default department code of respective system account user who is creating/ updating visitor OR Default department code defined in Enterprise structure
section_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Section id is also specified then the system should give error “Section ID and Code cannot be specified together” Default section code of respective system account user who is creating/updating visitor OR Default section code defined in Enterprise structure

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
category_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Category id is also specified then the system should give error “Category ID and Code cannot be specified together” Default category code of respective system account user who is creating/ updating visitor OR Default category code defined in Enterprise structure
grade_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Grade id is also specified then the system should give error “Grade ID and Code cannot be specified together” Default grade code of respective system account user who is creating/updating visitor OR Default grade code defined in Enterprise structure
designation_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Designation id is also specified then the system should give error “Designation ID and Code cannot be specified together” Default designation code of respective system account user who is creating/ updating visitor OR Default designation code defined in Enterprise structure

Table 1: Set Visitor profile- Parameters

Argument	Valid Values	Mandatory	Description
customgroup1_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Custom Group 1 id is also specified then the system should give error “Custom Group 1 ID and Code cannot be specified together” Default customgroup1 code of respective system account user who is creating/ updating worker OR Default customgroup1 code defined in Enterprise structure
customgroup2_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Custom Group 2 id is also specified then the system should give error “Custom Group 2 ID and Code cannot be specified together” Default customgroup2 code of respective system account user who is creating/ updating worker OR Default customgroup2 code defined in Enterprise structure
customgroup3_code	max 6 alphanumeric characters	No	When this code is specified, the system should get the code's corresponding id and apply this id to the user. If Custom Group 3 id is also specified then the system should give error “Custom Group 3 ID and Code cannot be specified together” Default customgroup3 code of respective system account user who is creating/ updating worker OR Default customgroup3 code defined in Enterprise structure
enable-offline-transaction	0= None 1= Allow With Discount 2= Allow Without Discount	No	This is a field that allows to configure the transaction type to be allowed when device is offline.

Return created Visitor Profile id in response on successful API execution.

Deleting Visitor Profile

This API will be used to delete visitors' profile.

Action

action= delete

Table 2: Deleting Visitor Profile

Arguments	Valid Values	Mandatory	Description
id	Max 15 alphanumeric characters	Yes	This is the Visitor Profile ID. While deleting the profile rights checking would be done, i.e. whether the logged in user has the rights for that particular profile or not.

Return success message in response on successful API execution (only when API has been executed successfully)

Sending the Invite Visitor Link

This API is used for host to generate an alert on the server to send the invite along with the configuration file to the visitor.

Action

action= set

Syntax

http://<servername>/api.svc/v2/Invite-Visitor?action=<set>;<argument>=<value>...

License

COSEC Centra:

- System Account User: Basic (PLT) License + VMS
- ESS User: BASIC + ESS + VMS

User Rights

User	Rights
System Account	Enabled if User has rights on any one of the following Pages. VMS >Invite Visitor
ESS User	Enabled if User has rights on any one of the following Pages. ESS >Visitor Management > Invite Visitor

Parameters

Table: Set Invite Visitor- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
visitor name	200 characters Valid Characters: A-Z a-z 0-9 -_. ()[]	No	-	Yes	

Table: Set Invite Visitor- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
Visitor-email-id	125 Valid characters Use same characters type as for visitor pre-registration API	Optional	-		• Mandatory if Mobile number is not provided. • The visitor should be sent the configuration file attached in an email on this mail ID.
Visitor Mobile no.	20 characters 0-9 - + ()	-	-	NA	Mandatory if email-id is not provided.
visit-date	ddmmyyyy Range: Current Date to 31/12/2037	No	-	N	The date for which application is being submitted.
visit-until-date	ddmmyyyy Range: Current Date to 31/12/2037	No	-	N	
repeat-mode	0 = Do Not Repeat 1 = Daily 2 = Weekly	No	-	N	
repeat-days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	No	-	N	Mandatory and Applicable only when repeat-mode = 2 Multiple days are allowed with comma-separated format. i.e. repeat-days=1,3,5
visit-start-time	hhmm Range: 00:00 – 23:59	No	-	N	
visit-end-time	hhmm Range: 00:00 – 23:59	No	-	N	
additional visitors	0-99	No	-	N	
host id	15 characters Allowed characters A-Z a-z 0-9 /_\\.@:		-	N	**For ESS users**: (Mandatory field) 'host-id' should be login ESS user's ID If not supplied, logged In user id should be set. **For SA users**: (Mandatory field) 'host-id' should be authorized host user.
purpose	50 characters (same as used fro visitor pre-registration API)		-	Y	If not supplied, then it should be '**NULL**'.

Table: Set Invite Visitor- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
visit-station-id	1-99	No	-	NA	
location	0=Select 1=Configured Location 2=Custom Location	No	0	N	If not supplied, then default value should be 0.
location-code	6 alpha-numeric characters	No	-	NA	Mandatory and applicable only when location=1.
latitude	-90.0000 to +90.0000	No	-	N	Mandatory and applicable only when location=2.
longitude	-180.0000 to +180.0000	No	-	N	Mandatory and applicable only when location=2.

In the response of successful API execution return the Invite link to the user as generated on the server.

Example:

*success: 1090200002: saved successfully ,Invite Link :<**URL>/cosecvisitor/visitorinvite/<RequestID>***
<RequestID> = ID of the requested application. (Mx_VMSVSTRInvite.ID)
<URL> = Tenant URL to access visitor portal for the respective tenant.
For Cloud with Enable SSL OFF:
<URL> = Tenant URL to access visitor portal for the respective tenant.
For Premise with Enable SSL On:
<URL> = External URL to access visitor portal. [i.e. COSEC Visitor URL (External)]
For Premise with Enable SSL Off:
<URL> = External URL to access visitor portal. [i.e. COSEC Visitor URL (External)]

Visitor Invites Approval

This API is used for host to approve / reject/transfer visit initiated or rescheduled by Visitor and for Visitor to approve/reject Visit Initiated or rescheduled by Host.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/visitor-invites-approval?action=<set>;<argument>=<value>...
```

License

COSEC Centra:

- System Account User: Basic + VMS
- ESS User: BASIC + ESS + VMS
- Visitor User: Basic + VMS

User Rights

User	Rights
System Account User	Enabled if System account user has view and edit rights on Visitor Management > Visit Approval
Host User	Enabled if User has rights on the following Pages. ESS > Visitor Management > visit Approval
Visitor	Enabled if Visitor is registered and verified by using assigned token

Parameters

Table: Set Visitor Invites Approval- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
user-type	0 = Host User 1 = Visitor	No	0	N	
appointment-no	Max 12 Digits 0-9	Yes	-	N	The user can select multiple appointment-no, each separated by ", (comma)" e.g.:"171212000001, 171212000003, 171213000007…". For "Approve All" / "Reject All"/"Transfer All" to Approve/ Reject/transfer multiple visitors invite applications.

Table: Set Visitor Invites Approval- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
verdict	1 : Approve 2 : Reject 3 : Transfer 4: Reschedule	Yes	-	N	Approving/Rejecting/Transferring multiple appointment is also allowed.
visit-station-id	1-99	No	-	NA	Applicable only when user-type = 0 and verdict =1 and 4 Not Applicable when Logged IN user is Visitor, that is, user-type=1.
visit-location	0 : Select 1: Configured 2: custom	No	0	N	Applicable only when user-type = 0 and verdict =1
location-code	Max 6 chars 0-9 a-z A-Z	No	-	N	Mandatory and applicable only when user-type = 0, verdict =1 and visit-location=1.
latitude	Max 8 chars -90.0000 to +90.0000 Format: XX.XXXX	No	-	N	Mandatory and applicable only when user-type = 0, verdict =1 and visit-location=2.
longitude	Max 9 chars -180.0000 to +180.0000 Format: XXX.XXXX	No	-	N	Mandatory and applicable only when user-type = 0, verdict =1 and visit-location=2.
additional-host	Allowed characters A-Z a-z 0-9 /_\\.@: Range: Maximum 99 Host Users	No	-	N	Applicable only when user-type = 0, verdict =1. Multiple hosts User's ID(s) with comma-separated format. i.e. additional-host=1542,1421,1320,1528
cancellation-reason	Max 50 chars. Allowed Characters A-Z a-z 0-9 _.,()[]:@!$*+ <space>	No	-	Y (Set 1)	Applicable only when user-type = 0, verdict =2.

Table: Set Visitor Invites Approval- Parameters

Argument	Valid Values	Mandatory	Default Value	Multilanguage Support	Description
transfer-host-id	Max 15 Alphanumeric Characters (for user) A to Z a to z 0 to 9 /_\\.@:	Yes	-	N	Mandatory field when user-type = 0 and verdict =3 **NOTE:** while transferring visit, check if transfer to host id is available in additional host, then remove that host from Additional hosts list and then allow successful transfer
visit-date	ddmmyyyy Range: Current Date to 31/12/2037	Yes	-	N	Optional Mandatory field when verdict =4 is supplied (i.e. from visit date, visit-until-date, visit time, repeat-mode, repeat-days, repeat-dates anyone must be mentioned).
visit-until-date	ddmmyyyy Range: Current Date to 31/12/2037	Yes	-	N	Optional Mandatory field when verdict =4 is supplied (i.e. from visit date, visit-until-date, visit time, repeat-mode, repeat-days, repeat-dates anyone must be mentioned).
visit-start-time	hhmm Range: 00:00 - 23:59	Yes	-	N	Optional Mandatory field when verdict =4 is supplied (i.e. from visit date, visit-until-date, visit time, repeat-mode, repeat-days, repeat-dates anyone must be mentioned). Visit Start Time should be less than Visit End Time.
visit-end-time	hhmm Range: 00:00 - 23:59	Yes	-	N	Optional Mandatory field when verdict =4 is supplied (i.e. from visit date, visit-until-date, visit time, repeat-mode, repeat-days, repeat-dates anyone must be mentioned). Visit End Time should be later than Visit Start Time.
repeat-mode	0 = Do Not Repeat 1 = Daily 2 = Weekly	Yes	-	N	Optional Mandatory field when verdict =4 is supplied (i.e. from visit date, visit-until-date, visit time, repeat-mode, repeat-days, repeat-dates anyone must be mentioned).
repeat-days	1: Sunday 2: Monday 3: Tuesday 4: Wednesday 5: Thursday 6: Friday 7: Saturday	Yes	-	N	Optional Mandatory field when verdict =4 is supplied (i.e. from visit date, visit-until-date, visit time, repeat-mode, repeat-days, repeat-dates anyone must be mentioned). Mandatory only when repeat-mode = 2 Multiple days are allowed with comma-separated format. i.e. repeat-days=1,7,2,3

In this API, as we can add maximum upto 99 additional host users, there is a possibility that it will lead to exceed maximum URL limit. So in such case server will throw an exception.

Set Security Approval

This API is used by the security (system account user) to give verdict on application which is in approved state for allowing visitor to generate E-Pass.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/security-approval?action=<set>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
System Account	Enabled if User has rights on the following Page. Visitor Management > Authorization/Approval> Security Approval

Parameters

Table: Set Security Approval- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi-Language	Description
appointment-no	Max 12 Digits 0-9	Yes	0	N	You can select multiple appointment-no, each separated by ", (comma)" e.g.:"171212000001, 171212000003, 171213000007…". For "Approve All" / "Reject All" to Approve/Reject multiple visitors invite applications.
verdict	1 : Approve 2 : Reject	Yes	0	N	Approving/Rejecting multiple appointment is also allowed
remark	Max 30 chars Allowed Characters A-Z a-z 0-9 _.,()[]:@!#$*+/\	No	Default Remark as per verdict	Y (Set 2)	-

Set Visit State

This API is used to update state of any visit. This API is applicable for both Host & visitor, any of them can update possible Visit State.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/visit-state?action=<set>;<argument>=<value>...
```

License

VMS (Visitor Management System) License is required for this API.

User Rights

User	Rights
Host User	Enabled if User is Authorized Host User
Visitor	Enabled if Visitor is registered and verified by using assigned token
System Account User (security)	Enabled if User has VMS Utility rights

Parameters

Table: Set Visit State- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi Language Support	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	N	To specify the type of user.
appointment-no	Max 12 Digits 0-9	Yes	-	N	"You can select multiple appointment-no, each separated by ", (comma)" e.g.:"171212000001, 171212000003, 171213000007…". For "Approve All" / "Reject All" to Approve/Reject multiple visitors invite applications. **Note:** If host/visitor user tries to change state for an application which is not requested to him then there will be error in processing request.
profile-id	Max 15 chars Valid Values: A-Z a-z 0-9 @ _ : . /	No	0	N	Applicable only when logged in as system account user & state-change = Check-In. Profile Id will be assigned based on visitor profile rights to system account user on create pass.

Table: Set Visit State- Parameters

Argument	Valid Values	Mandatory	Default Value	Multi Language Support	Description
station-id	Max 2 chars 1-99	No	-	N	Applicable only when logged in as system account user & state-change = Check-In
state-change	0:Check-IN 1:Start 2:On Hold 3:Resume 4:Stop 5:Check-OUT Here, For visitor & Security valid values = 0 & 5 'For Host valid values = 1,2,3,4	Yes	-	N	**Note:** 1.If entered value is of value other than possible Next Visit State then Invalid Command will occur. Example: If visit current state= Check-IN, & in API value=3 (means Resume) is entered then it is invalid value 2. If Host tries to Check-In or Check-Out then it will not be allowed. 3. If Security/visitor tries to Start/Pause/ Resume/Stop then it will not be allowed. 4. The user cannot Check-In before [Time] mins from the Visit Start Time. 5. If visitor/security applies check-In (that is state-change=0) and no visitor profile is available then error -Maximum concurrent visit limit reached will occur.

Response:

When state-change = 0 and single appointment-no is passed, return visitor-profile-id and visitor-profile-name in response on successful API execution.

Example: success: 1180100001: saved successfully. Visitor Profile ID = < visitor-profile-id>, Visitor Profile Name = < visitor-profile-name>

System Account User

This API is used to get the System Account user information of logged in user.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/system-account-user?action=<get>;<argument>=<value>...
```

License

Basic License is required for this API.

Response Fields

Table: System Account User - Response Fields

Field Name	Tag Name	Valid Values	Remarks
System Account User ID	system-account-user-id	15 Characters	-
System Account User Name	system-account-user-name	45 characters	-
Linked-ESS-User ID	linked-ess-user-id	15 characters	-
Linked ESS User Name	linked-ess-user-name	45 Characters	-
VMS Utility Rights	vms-utility-rights	0 = Disabled 1 = Enabled	If logged in system account user has VMS Utility rights, then this should return as 1, otherwise 0.
Email	email	125 characters	Fetch the value from field Email configured for System Account User (i.e. stored in LoginUserMst)
COSEC Version	cosec-version	Maximum 10 alphanumeric characters	Format: VXXRXX.XX Example: V06R01 , V06R02 , V05R08.20

OTP Verification

This API is used to verify the visitor for visitor registration and also to verify ESS user when he is trying to change/ set his account password.

Action

action= command

Syntax

```
http://<servername>/api.svc/v2/otp-verification?action=<command>;<argument>=<value>...
```

License

COSEC Centra:

- System Account User: Basic (PLT) License + VMS
- ESS User: BASIC + ESS + VMS
- Visitor User: Basic + VMS
- Apply license based on user-type defined below. If User-type=0, VMS license is not mandatory. If User-type=1, VMS license is mandatory

User Rights

This API will work without any authentication.

Parameters

Table: OTP Verification- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
type	0 = Verify 1 = Resend 2= Validate 3= Resend for validation	No	0	To verify the OTP or Resend the OTP
User-type	0= ESS User 1= Visitor	No	1	When 0=ESS User Consider for password set verification When 1-visitor Consider for contact details verification
mobile-otp	6 Digits Valid Values: 0 - 9	Yes when type=0	-	Mandatory Field only when type = 0 (=Verify) is supplied & OTP is generated for Mobile Number Verification. Note- System should check and compare the values for Maximum Inavlid Attempts, Auto Unlock Timer (Min) as with the values configured in the server.
email-otp	6 Digits Valid Values: 0 - 9	Yes when type=0	-	Mandatory Field only when type = 0 (=Verify) is supplied & OTP is generated for Email ID Verification

Table: OTP Verification- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
visitor-id	0-9	Yes	-	Mandatory field only when type = 1.It is the visitor's ID.
User-id	15 characters	Yes	-	Mandatory field only when type = 0. For an ESS user, this will be the Login user's ID. If the ID is invalid or does not match the login user's ID, return message for Invalid Argument Value

For Type: 0 (=Verify)
On successful OTP verification, set Mx_VMSVSTRMST >***IsVerified*** flag as 1 and return message, success: 1000500002 : Visitor Verified successfully.

Login Token =<GUID> ,
Tenant Identifier = NmI1NDVlZDEtYjMzOC00ZWFkLTk5OTgtMDcwZTI0NGFhMzJm

For Type: 1 (=Resend for Validation)
On successful API request, send OTP generated alert & return message: "success: 1000500001 : OTP Sent Successfully."

When the OTP verification for user-type=0 is successful update the value of the parameter "user verified for password" from 1 to 0 again.

Example1
Following are some sample cases for this API:

Sample Request:

To verify the registered visitor using mobile OTP:

```
http://192.168.104.12/cosec/api.svc/v2/otp-verification?action=command;type=0;mobile-otp=434655;visitor-id=2;
```

Sample Response:

```
success: 1000500002 : Visitor Verified successfully. Login Token = d4975589-5733-471e-976a-138cefb87673
```

The generated token must be saved as it will be used as Password for Pre-registration of the visitor.

Tenant Identifier API

This API is used to fetch the visitor tenant identifier from Global Policy of COSEC Server.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/tenant-identifier?action=<get>;<argument>=<value>...
```

License

COSEC Centra:

- System Account User: Basic (PLT) License + VMS
- ESS User: BASIC + ESS + VMS
- Visitor User: Basic + VMS

User Rights

User	Rights
System Account	Enabled
ESS User	Enabled
Visitor	Enabled for All Registered Visitors with 'isVerified' flag = 1

Parameters

Table: Tenant Identifier API- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	-

Response Fields

Table: Tenant Identifier API - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Visitor Tenant Identifier	tenant-identifier	-	Fetches tenant identifier from COSEC DB

CHAPTER 26

Contract Worker Management

The following API enable the user to perform actions related to Contract Worker Management. This is used to get list of Contractor, Work Order etc as per the requirement.

Contractor APIs

- *Getting Contractor Types*
- *Set Contractor Types*
- *Delete Contractor Types*

Work Order APIs

- *Getting Work -Order Details*
- *Delete Work-Order*

Worker APIs

- *Getting Worker Details*
- *Setting Worker Details*
- *Deleting Worker Details*

Getting Contractor Types

This API will be used to get existing contractor details.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/contractor?action=<get>
```

License

System Account User: Basic + T&A + CWM

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Contractor > Contractor Profile

Parameters

Table: Getting Contractor type- Parameters

Argument	Valid Values	Mandatory	Description
id	15 chars Allowed Characters: A-Z a-z 0-9 / _ . @ :	No	This is the Contractor ID

Response Fields

Table: Getting Contractor type - Response Fields

Field Name	Tag Name	Valid Values	Remarks
ID	id	Max 15 alphanumeric characters	Allowed Characters A-Z a-z 0-9 /_.@:
Name	name	max 45 alphanumeric characters	Allowed Characters A-Z a-z 0-9 <space> -_. ()[]

Table: Getting Contractor type - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Contractor Type	con-type	1-999	
Validity End Date	validity-end-date	Dd/mm/yyyy format	The validity period will not include this date.
Address-1	address-1	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Address-2	address-2	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Street	street	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
City	city	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Pincode	pincode	Max 10 numeric characters	
State	state	40 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Country	country	20 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Phone	phone	30 chars	0-9 + ( ) -
Contact Person 1	contact-person1	max 45 alphanumeric characters	Allowed Characters A-Z a-z 0-9 <space> -_. ()[]
Mobile	mobile-1	32 characters	0-9 + ( ) -

Table: Getting Contractor type - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Email	email-1	max 100 alphanumeric characters	
Contact Person 2	contact-person2	max 45 alphanumeric characters	Allowed Characters A-Z a-z 0-9 <space> -_. ()[]
Mobile	mobile-2	32 characters	0-9 + ( ) -
Email	email-2	max 100 alphanumeric characters	
PF No.	pf-no	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
PAN No.	pan	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Service Tax No.	service-tax-no	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
ESIC No.	esic-no	Max 31 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
License No.	license-no	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Enable Account	enable-acc	0 or 1	
Edit Basic Details	edit-basic-details	0 or 1	
Preferred Language	Pref-lang	Language assigned to contractor	
Blacklisted	Blacklisted		0 : Not Blacklisted 1 : Blacklisted

Table: Getting Contractor type - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Blacklisted reason	Blacklisted-reason		Max 50 chars Valid Values : A-Z a-z 0-9 [space] ! @ $ * ( ) _ - + \ [ ] , . :

Set Contractor Types

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/contractor?action=<set>
```

License

System Account User: Basic + T&A + CWM

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Contractor > Contractor Profile

Parameters

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
id	15 chars Allowed Characters: A-Z a-z 0-9 / _ . @ :		NA	N	This is the Contractor Id.
Prefix	Max 15 chars Allowed Characters A-Z a-z 0-9 /_.@:	No	NA	N	If Id is mentioned, ignore this parameter
Auto-generation-serial-length	1 to 15	No	NA	N	Mandatory if ID is not mentioned.
Zero-padding	0: unchecked 1: checked	No	1	N	If Id is mentioned, ignore this parameter
name	Max 45 Characters	Yes		Y(Set1)	This is the Contractor Name.
contractor-type	Max 3 chars 1-999	No	Default Contractor type	N	**NOTE:** If contractor-type is not passed or values for contractor type are not mentioned, default contractor-type should be assigned.

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
validity-end-date	ddmmyyyy format	Yes	NA	N	This is the validity end date of contractor.
Address-1	30 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	The First Address of the Contractor.
Address-2	30 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	The Second Address of the Contractor.
street	30 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	Enter the Name of Street
city	30 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	Enter the Name of City
pincode	max 10 numeric characters	No	-	N	Enter the Pincode
state	40 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	Enter the Name of State
country	20 chars A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	
phone	max 30 numeric characters + ( ) -	No	NA	N	

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
contact-person1	max 45 alphanumeric characters Allowed Characters A-Z a-z 0-9 -_. ()[]	No	NA	Y (Set1)	
mobile-1	max 32 numeric characters 0-9 + ( ) - ,	No	-	N	The Mobile Number of the Contractor.
email-1	max 100 alphanumeric characters @ . -	Yes	-	-	The Email ID of the Contractor.
contact-person2	max 45 alphanumeric characters Allowed Characters A-Z a-z 0-9 -_. ()[]	No	-	Y(Set1)	
mobile-2	max 32 numeric characters 0-9 + ( ) -	No	-	N	The Mobile Number of the Contractor.
email-2	max 100 alphanumeric characters @ . -	No	-	-	The Email ID of the Contractor.
pf-no	Max 30 Alphanumeric Characters A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	The PF Number of the Contractor.
pan	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	-	Y(Set1)	The PAN Number of the Contractor.

Argument	Valid Values	Mandatory	Default Value	Multi language Support	Description
service-tax-no	Max 30 Alphanumeric Characters A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	-	Y(Set1)	The Service-Tax Number of the Contractor.
esic-no	Max 31 Alphanumeric Characters A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	-	Y(Set1)	The ESIC Number of the Contractor.
license-no	Max 30 Alphanumeric Characters A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	Yes	-	Y(Set1)	The Licence Number of the Contractor.
License-description	Max 250 Alphanumeric Characters A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>	No	NA	Y(Set1)	
Blacklisted	0 : Not Blacklisted 1 : Blacklisted	No	NA	N	This is a field that shows whether contractor is blacklisted or not
Blacklisted-reason	Max 50 Chars A-Z a-z 0-9 [space] ! @ $ * ( ) _ - + \ [ ] , . :	No	NA	N	This field specifies the reason for blacklisting.

Delete Contractor Types

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/contractor?action=<get>
```

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Contractor > Contractor Profile

Parameters

Table: Deleting Visit Type- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	15 chars Allowed Characters: A-Z a-z 0-9 / _ . @ :	Yes	-	-

Getting Work -Order Details

This API will be used to get Work-Order details.

Action

action= get

Syntax

```
http://<servername>/cosec/api.svc/v2/work-order?action=<get>
```

License

System Account User: Basic + T&A + CWM

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Work Order > Work Orders

Parameters

Table: Getting Work Order Details- Parameters

Argument	Valid Values	Mandatory	Description
id	Max 15 alphanumeric characters Allowed Characters A-Z a-z 0-9 /_.@:	No	This is Work Order ID

Response Fields

Table: Getting Work Order Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Work Order id	id	Max 15 alphanumeric characters	Allowed Characters A-Z a-z 0-9 /_.@:
Name	name	max 45 alphanumeric characters	Allowed Characters A-Z a-z 0-9 -_. ()[]

Table: Getting Work Order Details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Type	work-order-type	Max 3 numeric characters 1-999	-
Validity Start	validity-start	dd/mm/yyyy	-
Validity End	validity-end	dd/mm/yyyy	-
Total Assigned Worker	total-worker-assigned		-
Description	description	Max 250 aphanumeric chars	
Associated Contractor	associated-contractor-id	max 15 alphanumric characters Allowed characters A-Z a-z 0-9 /_.@:	Returns the ID of contractor
Site In-Charge	site-incharge-id	Max 15 alphanumeric characters A-Z a-z 0-9 /_.@:	Returns the ID of Site In-Charge
Approval Stage	approval-stage-id	Max 3 numeric characters 1-999	Returns the ID of Approval Stage
Max Worker Limit	max-worker-limit	Max 5 numeric characters 0-99999	
Organization	organization	Max 6 numeric characters 1-999999	
Branch	branch	Max 6 numeric characters 1-999999	-
Department	department	Max 6 numeric characters 1-999999	-
Device Group id	Device-group-id	Max 600 NUMcharacters	If more than one group is assigned, then it should fetch multiple group ID separated with comma. When 99 device (maximum device allowed) with individual ID of 5 NUMcharacter is GET then 600 NUMcharacter are allowed.
Check Limit While Assigning Worker	worker-check-limit	Max 1 numeric value 1/0	-

Setting Work-Order

This API will be used to set Work-Order details.

Action

action= set

Syntax

```
http://<servername>/api.svc/v2/work-order?action=<set>
```

License

System Account User: Basic + T&A + CWM

Parameters

Table: Setting Work Order- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	Max 15 alphanumeric characters Allowed Characters: A-Z a-z 0-9 / _ . @ :	Yes	-	This is the Work-order Id. Either ID OR (Prefix and Auto-generation-serial-length) OR only "Auto-generation-serial-length" is a mandatory field to be mentioned in API
prefix	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / :	No		-
Auto-generation-serial-length	1-15	No		Mandatory if ID is not mentioned. If ID is mentioned, then ignore this parameter.
Zero-padding	0: unchecked 1: checked	No	1	

Table: Setting Work Order- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
name	Max 45 Characters Allowed Characters A-Z a-z 0-9 _ - [ ] . ( )	Yes		Work order name.
work-order-type	Max 3 chars 1-999	No	-	-
validity-start	ddmmyyyy valid range : Current date to 31/12/2099	Yes	-	-
validity-end	ddmmyyyy valid range : Current date to 31/12/2099	Yes	-	-
associated-contractor-id	Max 15 chars Allowed values: A-Z a-z 0-9 @_:./	Yes	-	-
site-incharge-id	Max 15 chars Allowed Characters A-Z a-z 0-9 @_ / : .	No	-	This field specifies user id which is to be used as an in charge of site
approval-stage-id	Max 3 chars 1-999	Yes	-	This field defines stages in which the Induction Approval required
max-worker-limit	Max 5 chars Valid range 0-99999	Yes	-	This field defines stages in which the Induction Approval required.
organization	Max 6 characters 1-999999	No	-	-
branch	Max 6 characters 1-999999	No	-	-

Table: Setting Work Order- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
department	Max 6 characters 1-999999	No	-	-
Description	A-Z a-z 0-9 @ ! $ * ( ) _ - + [ ] : , . / [space]	No	-	-
worker-check-limit	1=checked 0-unchecked	No	1	This parameter will strictly map worker's limit while assigning new worker to work order.

Delete Work-Order

This API will be used to delete Work-Order details.

Action

action= delete

Syntax

```
http://<servername>/api.svc/v2/work-order?action=<delete>
```

License

System Account User: Basic + T&A + CWM

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Work Order > Work Orders

Parameters

Table: Deleting Work Order- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	Max 15 alphanumeric characters Allowed Characters: A-Z a-z 0-9 / _ . @ :	Yes	-	-

Getting Worker Details

This API will be used to get existing Worker details.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/worker?action=<get>
```

License

System Account User: Basic + T&A + CWM

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Workers > WorkerProfile

Parameters

Table: Getting Worker details- Parameters

Argument	Valid Values	Mandatory	Description
Range	All, organization, branch ,department, designation, section, category, grade, custom-group-1, custom-group-2, custom-group-3	No	Specifies range of workers
id	15 chars Allowed Characters A-Z a-z 0-9 /_.@:	No	This is worker id
Field-name	field-1 field-2 field-3 field-4	No	These are the fields that can be specified to fetch worker's specific data.

Table: Getting Worker details- Parameters

Argument	Valid Values	Mandatory	Description
filter	0 : All 1 : Active Workers 2 : Inactive Workers Default: 0	No	Non mandatory field. Default value = 0. **Conditions:** 1.Argument mentioned, but value not specified, then ignore this parameter. 2.If filter=0 is specified, return all workers configured in the system. 3.If filter=1 is specified, return only active workers configured in the system. 4.If filter=2 is specified, return only inactive workers configured in the system. **Note:** If filter=1 is specified and multiple-ids are passed or any enterprise group is passed, out of which some of them are inactive, then do not return those workers and vice-versa should also be applicable. If filter=2 is specified and multiple-ids are passed or any enterprise group is passed, out of which some of them are active, then do not return those workers and vice-versa should also be applicable.
creation-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	Default Value = 01/01/1900 00:00:00 - 31/12/2099 23:59:59 This defines the worker creation date range. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if creation-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Table: Getting Worker details- Parameters

Argument	Valid Values	Mandatory	Description
last-modified-date-range	ddmmyyyyhhmmss-ddmmyyyyhhmmss ddmmyy-ddmmyy Valid Range: 01/01/1900 00:00:00 - 31/12/2099 23:59:59	No	Default Value = 01/01/1900 00:00:00 - 31/12/2099 23:59:59 This defines the last modified date range for worker details. For example, if date range is 09/05/2024 15:30:30 - 11/05/2024 15:30:30, then valid value will be 09052024153030 - 11052024153030 If hhmmss value is not specified, then by default 00:00:00 - 23:59:59 should be considered.For example, if date range is 09052024 - 11052024183030, then system will consider the range as 09052024000000 - 11052024183030. If multiple dates are passed in the argument, then the system will consider only the first 2 dates as the date range. For example, if last-modified-date-range= 01092024103050-04092024185025-15092024-20092024182550, then system will consider the range as 01092024103050-04092024185025.

Response Fields

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Id	id	Max 15 alphanumeric characters	Allowed Characters A-Z a-z 0-9 /_.@:
Active	active	0 or 1 or 2	0: Inactive 1 : Active 2 : Inactive and Revoke Devices
Full-name	full-name	max200 alphanumeric characters	Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / , (comma) @ ' (single quote) [Space]
Short name	short name	Max 15 Alphanumeric Characters	

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Reference Code	reference-code	1 to 99999999	
Integration Reference	integration-reference	max 20 alphanumeric characters	
Date of Birth	date-of-birth	ddmmyyyy format	
Birthday message	birthday-message-flg	0 or 1	
Joining Date	joining date	ddmmyyyy formate	
Confirmation date	confirmation-date	ddmmyyyy format	
Leaving Date	Leaving-date	ddmmyyyy format	
Reason for Leaving	Reason-for-leaving	Max 15 Alphanumeric Characters	Allowed characters A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Vehicle Registration No	vehicle-reg-no	Max 50 Alphanumeric Characters	Characters and comma(,)
Driving License	driving-license	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Passport No.	passport-no	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
PAN No.	pan	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Aadhar No.	aaadhar-no	max 12 numeric characters	0-9

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
PF No	pf-no	Max 30 Alphanumeric Characters	.A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
UAN	uan	max 12 numeric characters	
ESI No	esi-no	.Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Voter ID	voter-id	max 10 alphanumeric characters	A-Z a-z 0-9
Visa No.	visa-no	Max 30 Alphanumeric Characters	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Visa Expiry Date	visa-expiry	ddmmyyyy format	
Nationality	nationality	20 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Qualification	qualification	50 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Experience	experience	50 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Gender	gender	NA M F	
Blood Group	blood-group	+NA,A+,A-,B+,B-,AB+,AB-,o+,o-,A1-,A1+, A1B-, A1B+,A2-,A2+,A2B-,A2B+,B1	
Height	height	0 to 999	
Weight	Weight	0 to 999	

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Medical History	medical-history	max 50 alphanumeric characters	
Marital Status	marital-status	married,unmarried,na	
Father/Spouse	Namefather-spouse-name	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Personal Phone	personal-phone	max 30 characters	numeric characters or -
Personal Cell	personal-cell	max 32 numeric characters	numeric characters + ( ) - Comma for separting multiple mobile nos.
Personal E-mail	personal-email	max 100 alphanumeric characters.	alphanumeric characters @ - .
Official Phone	official-phone	max 30 numeric characters	numeric characters or -
Official Extension	official-extension	max 10 numeric characters	
Official Cell	official-cell	max 32 numeric characters	numeric characters + ( ) - Comma for separting multiple mobile nos.
Official E-mail	official-email	max 100 alphanumeric characters	alphanumeric characters @ - .
Local Address1	local-address1	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Local Address2		30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Local Street		30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Local City		40 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Local Pin code	pin	max 10 numeric characters	
Local State	local-state	40 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Local Country	local-country	20 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Permanent Address1	permanent-address1	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Permanent Address2	permanent-address2	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Permanent Street	permanent-street	30 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Permanent City	permanent-city	40 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Permanent Pin Code	permanent-pincode	max 10 numeric characters	
Permanent State	permanent-state	40 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Permanent Country	permanent-country	20 chars	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
Organization ID	organization	1-999999	
Branch ID	branch	1-999999	

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Department ID	department	1-999999	
Section ID	section	1-999999	
Category ID	category	1-999999	
Grade ID	grade	1-999999	
Designation ID	designation	1-999999	
Custom group 1 ID	customgroup1ID	1-999999	
Custom group 2 ID	customgroup2ID	1-999999	
Custom group 3 ID	customgroup3ID	1-999999	
Reporting In-Charge	reporting-incharge	1 to 9999	
Approval Policy ID	Approval-Policy	1 to 999	
Leave Group ID	leave_group	2 Digits	
Week Off Group	week-off-group	Max 2 chars	Numeric
PIN	pin	1 to 999999	
Roaming-user-flg	Roaming-user-flg	0 or 1	
Card-1	card-1	max 20 numeric characters max 21 characters= 20 numeric + comma	
Card-2	card-2	max 20 numeric characters max 21 characters= 20 numeric + comma	
Attendance Calculation	attendance-calc	1 : enabled 0 : disabled	

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Attendance Policy (T&A)	attendance-policy	Max 2 characters	1 to 99
Absentee Policy	absentee-policy	1 to 99	
Overtime Policy	overtime-policy	1 to 99	
Late-In Policy	lateIn-policy	1 to 99	
Early Out policy	earlyOut-policy	1 to 99	
C-Off Policy	coff-policy	1 to 99	
Shift Schedule	Shift-schedule	1 to 999	
Start Shift	start-shift	max 2 alpha-numeric characters	
Holiday Schedule	holiday-schedule	1 to 99	
Skill ID	SkillID	1-999	
Contractor ID	ContractorID	Max 15 chars	Valid values A-Z a-z 0-9 @_\:.
Work Order ID	WorkorderID	Max 15 chars	Valid Values A-Z a-z 0-9 @_\:.
Assignment Period -start date	Assignment-start-date	ddmmyyyy	
Assignment Period -end date	Assignment-end-date	ddmmyyyy	
Door Access Through API	door-access-api	0 : Disabled 1 : Enabled	
PIN Authentication For Door Access	pin-authentication	0 : Disabled 1 : Enabled	
Driving License Expiry Date	driving-license-expiry	ddmmyyyy	

Table: Getting Worker details - Response Fields

Field Name	Tag Name	Valid Values	Remarks
Passport Expiry Date	passport-expiry	ddmmyyyy	
Blacklisted	blacklisted	0 : Not Blacklisted 1 : Blacklisted	
Blacklisted reason	Blacklisted-reason		Max 50 chars Valid Values : A-Z a-z 0-9 [space] ! @ $ * ( ) _ - + \ [ ] , . :
Reason for punching from unassigned location	punch-reason-flg	0 : unchecked 1 : checked	enabled only when Location Mandatory For Punch = 0,1
Custom Field 1 -10	field1-10	Max 100 characters ddmmyyyy	Valid Characters : A-Z a-z 0-9 space [ ] ( ) . - _ /
Uploaded-doc	uploaded-doc	12: driving-license 13: passport-no 14: pan 16: pf-no 18: esi-no 21: field1 22: field2 23: field3 24: field4 41: field5 42: field6 43: field7 44: field8 45: field9 46: field10	Uploaded document tag is added for checking the status of uploaded images for respective field. Multiple values are possible in this field. If documents/images are present in field1,2 and 5 then uploaded-doc should contain value of field1, field 2 and 5 be provided in respective field.
Device Group Name	device-group		If more than one group is assigned, then it should fetch multiple device group name separated with comma.
Device Group ID	device-group-id	max 600 NUMcharacters	If more than one group is assigned, then it should fetch multiple device group id separated with comma.
Creation Date	creation-date	dd/mm/yyyy hh:mm:ss	This defines the worker creation date.
Last Modified Date	last-modified-date	dd/mm/yyyy hh:mm:ss	This defines the date on which the worker details were last modified.

Setting Worker Details

This API will be used to set existing Worker details.

Action

action=set

Syntax

```
http://<servername>/api.svc/v2/worker?action=<set>
```

License

System Account User: Basic + T&A + CWM

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Workers > WorkerProfile

Parameters

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
id	15 chars Allowed Characters A-Z a-z 0-9 /_.@:	No	N	NA	This is worker id. When Auto Generate ID flag is OFF *(in Global Policy)* then: Either “id” or “Prefix Auto-generation-serial-length” or only “Auto-generation-serial-length” should be mentioned in API. When Auto Generate ID flag is ON *(in Global Policy)* then: id/Prefix + Auto-generation-serial-length/ only Auto-generation-serial-length” not required to be mentioned in API
Zero-padding	0: unchecked 1: checked	No	N	1	The 'zero-padding' tag defines whether in mentioned <auto-generation-serial-length> '0(zero)' is to be appended or not.
Prefix	Max 15 chars Allowed Characters A-Z a-z 0-9 /_.@:	No	N	NA	If Id is mentioned, ignore this parameter. The Prefix tag shows the fixed text which is to be used while creating new worker Id's
Auto-generation-serial-length	1-15		N	NA	

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
active	0 or 1	No	N	Default value =1	This is a field that shows whether worker is active or not. It has two values 0 and 1 for inactive and active respectively. **Note:** If active is supplied as 1 and the worker is blacklisted then error code "0070203002" will be generated with validation message "worker is Blacklisted."
name	Max 45 Characters	Yes	Set 2	NA	This is the User Name. Allowed Characters A-Z a-z 0-9 -_. ()[]
full-name	max200 alphanumeric characters	Yes (if name not mentioned)	Set 3	NA	Either "name" or "full-name" is a mandatory field to be mentioned in API. I.e. if "name" tag is mentioned than "full-name" is optional and vice versa. Allowed Characters A -Z a-z 0 - 9 ( ) [ ] _ (underscore) - (Hyphen) . (full Stop) / , (comma) @ ' (single quote) [Space]
short-name	Max 15 Alphanumeric Characters	No	Set 2	If name /full name is supplied then first 15 characters eliminating invalid values will be set as default svalue of short-name	This is the short name of worker Allowed Characters A-Z a-z 0-9 - .
reference - code	1 to 99999999	No	N	NA	This is the unique Reference code for every Worker.
integration - reference	max 20 alphanumeric characters		N	NA	Valid values: !@#$ *()_- +[] . , / A-Z a-z 0-9

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
date-of-birth	ddmmyyyy format	Yes (If Date of Birth Mandatory check box is enabled in Global Policy > CWM > Minimum Age Requirement for Workers)	N	Blank	This is the date of birth of the worker. **Note: -** date-of-birth shall be lower than joining-date.
birthday-message-flg	0 or 1	No	N	0	0=Unchecked 1=Checked
joining-date	ddmmyyyy formate	This is the unique Reference code for every User.	N	Blank	This is the Joining Date of the worker. **Note: -** joining-date should be higher than date-of-birth. Allow Joining Date same as Confirmation Date and Leaving Date.
confirmation-date	ddmmyyyy format	No	N	blank	This is the Confirmation Date of the worker **Note: -** confirmation-date shall not be lower than joining-date. Allow Confirmation Date same as Joining Date and Leaving Date.
leaving-date	ddmmyyyy format	Yes (if reason for leaving to be configured)	N	blank	This is the date of Leaving of the worker. **Note: -** leaving-date shall not be lower than joining-date. Allow Leaving Date same as Joining Date and Confirmation Date.
reason-for - leaving	Max 15 Alphanumeric Characters	No	Set 1	blank	This is the reason of leaving an organization.Allowed characters A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
vehicle-registration-no	Max 50 Alphanumeric Characters	No	Set 1	blank	This is the Vehicle Registration No of the user. Characters and comma(,)
driving-license	Max 30 Alphanumeric Characters	No	Set 1	blank	This is the driving license of the user. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
passport-no.	Max 30 Alphanumeric Characters	No	Set 1	blank	This is the Passport no. of the user. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
pan-no.	Max 30 Alphanumeric Characters	No	Set 1	blank	This is the PAN of the user. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
aadhar-no.	max 12 numeric characters	No	N	blank	This is the Aadhar Number of the user. 0-9 If Aadhaar no entered is not Unique then it will display validation; “Aadhaar No. already exists for User: *id*” If Aadhar no is mandatory but still it is not entered then it will display validation; “Enter Aadhaar No”
pf-No	Max 30 Alphanumeric Characters	No	Set 1	blank	This is the PF Number of the user. .A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
uan	max 12 numeric characters	No	N	blank	This is the UAN of the user
esi-no	.Max 30 Alphanumeric Characters	No	Set 1	blank	This is the ESI Number of the A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
voter-id	max 10 alphanumeric characters	No	Set 1	blank	This is the Voter ID of the user. A-Z a-z 0-9
visa-no.	Max 30 Alphanumeric Characters	Yes (If visa-expiry date to be configured)	Set 1	blank	This is the IQAMA number of the user. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
visa-expiry-date	ddmmyyyy format	No	N		This is the date of expiry of the IQAMA or visa.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
nationality	20 chars	No	Set 1	blank	This is the nationality of the user. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
qualification	50 chars	No	Set 1	blank	This is the qualification of the user. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
experience	50 chars	No	Set 1	blank	This is the work experience of the user. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
gender	NA M F	No	N	NA	This is the gender of the user.
blood-group	+NA,A+,A-,B+,B-,AB+,AB-,o+,o-,A1-,A1+, A1B-,A1B+,A2-,A2+,A2B-,A2B+,B1	No	N	NA	This is the blood group of the worker
height	0 to 999	No	N	blank	This is the height of the worker
weight	0 to 999	No	N	blank	This is the weight of the worker
medical-history	max 50 alphanumeric characters	No	Set 2	blank	This is the medical history of the worker
marital-status	married,unmarried,na	No	N	NA	This is the marital status of the worker
father/spouse	30 chars	No	Set 1	blank	This is the father or spouse name of the worker. A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
personal-phone	max 30 characters	No	N	NA	numeric characters or -
personal-cell	max 32 numeric characters	No	N	blank	numeric characters + ( ) - Comma for separting multiple mobile nos.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
personal-e-mail	max 100 alphanumeric characters.	No	N	blank	alphanumeric characters @ - .
official-phone	max 30 numeric characters	No	N	blank	numeric characters or -
official-extension	max 10 numeric characters	No	N	blank	This is the extension of the worker.
official-cell	max 32 numeric characters	No	N	blank	This is the official mobile number of the worker. numeric characters + ( ) - Comma for separting multiple mobile nos.
official-e-mail	max 100 alphanu-meric characters	No	N	blank	This is the official e-mail of the worker. alphanumeric characters @ - .
local-address1	30 chars	No	Set 1	blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
local-address2	30 chars	No	Set 1	blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
local-street	30 chars	No	Set 1	blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
local-city	40 chars	No	Set 1	blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
local-pin-code	max 10 numeric characters	No	N	blank	
local-state	40 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
local-country	20 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
permanent-address1	30 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
permanent-address2	30 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
permanent-street	30 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
permanent-city	40 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
permanent-pincode	max 10 numeric characters	No	N	Blank	
permanent-state	40 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
permanent-country	20 chars	No	Set 1	Blank	A-Z a-z 0-9 !*@$()_-+[]:,./ <Space>
organization	1-999999	No	N	Default organization of respective system account user who is creating/updating worker OR Default organization defined in Enterprise structure	This is the ‘Organization’ of the worker.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
branch	1-999999	No	N	Default branch of respective system account user who is creating/updating worker OR Default branch defined in Enterprise structure	This is the ‘branch’ of the worker.
department	1-999999	No	N	Default department of respective system account user who is creating/updating worker OR Default department defined in Enterprise structure	This is the ‘department’ of the worker.
section	1-999999	No	N	Default section of respective system account user who is creating/updating worker OR Default section defined in Enterprise structure	This is the ‘section’ of the worker.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
category	1-999999	No	N	Default category of respective system account user who is creating/updating worker OR Default category defined in Enterprise structure	This is the ‘category’ of the worker.
grade	1-999999	No	N	Default grade of respective system account user who is creating/updating worker OR Default grade defined in Enterprise structure	This is the ‘grade’ of the worker.
designation	1-999999	No	N	Default designation of respective system account user who is creating/updating worker OR Default designation defined in Enterprise structure	This is the ‘designation’ of the worker.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
customgroup 1D	1-999999		N	Default customgroup1id of respective system account user who is creating/updating worker OR Default custom group 1 defined in Enterprise structure	This is the 'custom-group 1' of the worker.
customgroup 2 ID	1-999999		N	Default customgroup2id of respective system account user who is creating/updating worker OR Default custom group 2 defined in Enterprise structure	This is the 'custom-group 2' of the worker.
customgroup 3 ID	1-999999		N	Default customgroup3id of respective system account user who is creating/updating worker OR Default custom group 3 defined in Enterprise structure	This is the 'custom-group 3' of the worker.
reporting-in-Charge	1 to 9999	No	N		This is the 'reporting incharge' of the worker.
approval-policy ID	1 to 999	No	N		This is the 'approval policy' of the worker.
leave-group ID	2 Digits	No	N		This is the leavegroup' of the worker.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
week-off-group	Max 2 chars	No	N		This is the 'week-off' of the worker. Numeric
pin	1 to 999999	No	N		This is the access control system pin number of the worker. **Note: -** Same pin will not be allowed against any two worker IDs.
roaming-user-flg	0 or 1	No	N	0	This is for roaming worker
card-1	max 20 numeric characters max 21 characters= 20 numeric + comma	No	N		
card-2	max 20 numeric characters max 21 characters= 20 numeric + comma	No	N		
attendance-calc	1 : enabled 0 : disabled	No	N	1	This is the 'attendance calculation' of the worker
attendance-policy (T&A)	Max 2 characters 1 to 99	No	N		This is the 'attendance policy' of the worker 1 to 99
absentee-policy	1 to 99	No	N		This is the absentee policy of the worker. For a worker the policy can be updated 99999 times.
overtime-policy	1 to 99	No	N		This is the overtime policy of the worker. For a worker the policy can be updated 99999 times.
late-in-policy	1 to 99	No	N		This is the late-in policy of the worker. For a worker the policy can be updated 99999 times.
earlyOut-policy	1 to 99	No	N		This is the early-out of the worker. For a worker the policy can be updated 99999 times.
coff-policy	1 to 99	No	N		This is the c-off policy of the worker. For a worker the policy can be updated 99999 times.
Shift-schedule	1 to 999	No	N		This is the shift-schedule of the worker.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
start-shift	max 2 alpha-numeric characters	No	N		This is the start shift of the worker.
holiday-schedule	1 to 99	No	N		This is the holiday schedule of the worker.
Skill ID	1-999	No	N	default skill	This is the skill of the worker.
ContractorID	Max 15 chars	No	N		This is the contractor id for the worker Valid values A-Z a-z 0-9 @_\:.
WorkOrderID	Max 15 chars	No	N		This is the work order id for the worker Valid Values A-Z a-z 0-9 @_\:.
Assignment-start date	ddmmyyyy		N	Work Order's validity start date	This is the assignment start period of work assigned to worker. If the entered start date is greater than work order's end date then fail message will returned.
Assignment-end date	ddmmyyyy			Work Order's validity end date	This is the assignment period of work assigned to worker.If the entered end date is less than current date then fail message will be returned.
door-access-api	0 : Disabled 1 : Enabled	No	N	0	If invalid value is mentioned or value supplied is blank then, message returned: Invalid value entered for Allow Door Access Through API. It can be 0 or 1.
pin-authentication	0 : Disabled 1 : Enabled	No	N	0	
driving-license-expiry	ddmmyyyy	No	N	-	This is the date of expiry of Driving License
passport-expiry	ddmmyyyy	No	N	-	This is the date of expiry of Passport.

Table: Setting Worker details- Parameters

Argument	Valid Values	Mandatory	Multi-Language Character set	Default Value	Description
Blacklisted	0 : Not Blacklisted 1 : Blacklisted 2 : Blacklist and Revoke Devices	No	N	-	This is a field that shows whether user/worker is blacklisted or not. NOTE : If an worker is already blacklisted and Blacklisted = 1 or 2 is passed, then no action should be performed. If a worker is blacklisted and Blacklisted = 0 is passed, then the user should be restored back, but should remain in inactive state.
Blacklisted-reason	Max 50 Chars A-Z a-z 0-9 [space] ! @ $ * ( ) _ - + \ [ ] , . :	No	-	-	This specifies the reason for being black-listed.
field <no> (where <no> will vary from 1 to 10, the user has to enter any one number here from 1 to 10)	If control type for repeated custom fields is selected as Textbox in Global Policy: Max 100 Alphanumeric Characters: A-Z a-z 0-9 [ ] ( ) . - _ / <Space> If control type for respeted custom fields is selected as Date in Global Policy: ddmmyyyy When Multi Language is enabled, Invalid character set = SET1	No	-	-	This is to set value in custom fields. If field is mandatory; and some value is already stored in DB for this field, then not necessary to pass this argument in API syntax again

Return created worker id in response on successful API execution.

Example:

success: 1060100001: saved successfully. Worker ID = <WorkerID>

If maximum limit in case of IDs is reached, for e.g., if auto – generation serial length=2 and zero-padding =1, and all IDs from 00 to 99 are already existing, then return message : "failed: 1060203005 : Maximum limit reached for this configuration for ID creation"

If Contractor-id is updated and Work-order is set to 'Null', which further on set Assignment Start Date and Assignment End Date as 'NULL'.

While creating new worker, If active =0 is mentioned and any of the CWM related fields (Skill ID, Contractor ID, Work order ID, Assignment Start Date, assignment end Date) is/are mentioned then return message: "failed : 1060203002 : CWM related parameters cannot be added for inactive worker"

When ID is auto generated (by auto generate User ID flag in global policy) and maximum limit is reached, then return message: "failed : 1060203005 : Maximum ID Creation limit reached by Auto Generation process. "

Deleting Worker Details

This API will be used to delete existing Worker details.

Action

action=delete

Syntax

```
http://<servername>/api.svc/v2/worker?action=<delete>
```

License

System Account User: Basic + T&A + CWM

User Rights

User	Rights
System Account	Enabled if User has rights on Page. CWM > Workers > WorkerProfile

Parameters

Argument	Valid Values	Mandatory	Default Value	Description
id	15 chars Allowed Characters A-Z a-z 0-9 /_.@:	yes		This is worker id.If values other than the valid values are entered, then fail message will be returned.

CHAPTER 27

Integrate Alert API

This API is used to send the alert to the configured COSEC Server on completion of scheduled Integrate Process as well as Retry Process.

Action = Command

- Alerting COSEC Server

Alerting COSEC Server

This API is used to send the alert to the COSEC server after the completion of schedule process in Integrate.

Action

action= command

Syntax

```
http://<servername>/api.svc/v2/integrate-alert?action=<command>;<argument>=<value>...
```

User Rights

User	Rights
System Account	Enabled if Enable API Access is enabled
ESS User	Disabled

Parameters

Table: Sending Integrate Alert to COSEC Server - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Integration-mode	1-37 except 10,12,15,18,19,20, 25,26,29,30,32,33, 35,36	Yes	-	This is the value of Integration mode to be sent to the server: 1 : Export To MS SQL Server 2 : Import From Active Directory 3: Export To Postgre Server 4 : Export To Oracle Server 5 : Export To .csv 6: Export To MYSQL 7: Export To Text File 8: Export To GRP 9 : Export To DB2 11 : Import From MS SQL 13 : Import From Postgre 14 : Import From Oracle Server 16 : Import From MySQL 17: Export To PeopleWorks 21 : Import From Customized SAP : Sql Server 22: Custom Export-FP Template: Sql Server 23 : Custom Export-FP Template: Oracle 24 : Import From Customized SAP : Oracle 27 : Export To Progress OpenEdge 28 : Export FP Template To File 31 : Import Events : SQL Server 34 : Import Events : Oracle 37 : Import From Progress OpenEdge
Export-Template-id	1-999	Yes if Integration Mode= 1/ 3/4/5/6/7/8/9/17/22/23/ 27/28	-	It will fetch and send the export-template-id to configured COSEC server corresponding to Integration Mode.

Table: Sending Integrate Alert to COSEC Server - Parameters

Argument	Valid Values	Mandatory	Default Value	Description
Import-Template-id	1-3	Yes If Integration Mode= 2/ 11/13/14/16/21/24/31/ 34/37	-	Here, values should be sent to server corresponding to following template type : 1=User 2=Event 3=User_Shift
Schedule-datetime	ddmmyyyyhhmm	Yes	-	It will fetch and send the scheduled time of export/import process to COSEC server. Schedule-datetime cannot be later than current datetime"
Total-records	0-9(valid values)	Yes	-	It will fetch and send the total number of records for export/import process to COSEC server
Succeeded-records	0-9(valid values)	Yes	-	It will fetch and send the number of records, that were successfully transferred in scheduled export/import process to COSEC server
Previously-failed-total	0-9(valid values)	Yes only if COSEC Integrate >Schedule> Include Previously Failed is enabled and checked	-	It will fetch and send the total number of records that were failed in previous scheduled process to COSEC server
previous-succeeded	0-9(valid values)	Yes only if COSEC Integrate >Schedule> Include Previously Failed is enabled and checked	-	It will fetch and send the number of records(that were failed in previous scheduled process but successfully transferred in current scheduled process) to COSEC server

CHAPTER 28

Multiple APIs Call

This API is a common API which can invoke multiple APIs from a single POST request.

Syntax

```
http://<servername>/api.svc/v2/multipleapi?
```

License Required

Time and Attendance License or VMS License

User Rights

User	Rights
System Account	Enabled
ESS User	Enabled for all ESS users.
Visitor	Enabled for All Registered Visitors with 'isVerified' flag = 1

Parameters

Table: Multiple APIs Call- Parameters

Argument	Valid Values	Mandatory	Default Value	Description
user-type	0 = Host User / SA User 1 = Visitor	No	0	If value not supplied, default 0 will be considered.

Send the array of multiple API URLs as post data.

CHAPTER 29

API Response

Every time a request is received the syntax, format and the supported authentication shall be validated prior to generating a response. This chapter discusses the response structure of COSEC Web APIs. The API response shall consist of the following:

- Response Message
- Response Code

The generic response format will be as follows:

<status> : <response code> : <response message>

Response Messages

The called HTTP request shall be parsed by the system before it returns an appropriate response depending on the nature of success or failure. Some common response messages are as follows:

- If a request is successful:

```
<success: <response code> : successful>
```

- If an argument is mentioned but no value is provided:

```
<failed: <response code> : Incomplete command “[argument-name]=”>
```

- If any unexpected arguments are encountered or for other syntax errors:

```
<failed: <response code> Invalid syntax “#”>
```

- For incorrect argument values:

```
<failed: <response code> Invalid command “[argument-name]=*”>
```

- If a mandatory argument is missing:

```
<failed: <response code> Incomplete command “#”>
```

- *" * " Specifies the value mentioned in the request against its respective arguments.*
- *" # " specifies the entire request string.*

Response Codes

Every COSEC API response message is accompanied by a 10 digit numeric response code. The response code is structured as follows:

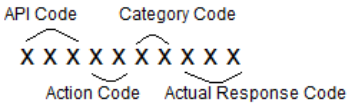


Fig. Response Code

- API Code - Digits 1-3. Valid values: 000-999. Identifies the API (See Table).
- Action Code - Digits 4-5. Valid values: 00-99. Identifies the Action requested (See Table).
- Category Code - Digits 6-7. Valid values: 00-99. Identifies the category of response (See Table).
- Actual Response Code - Digits 8-10. Valid values: 000-999. Identifies the actual response (See Table).

Table: API Codes

API Request Type	API Code
none	000
attendance-daily	001
attendance-monthly	002
event-ta	003
event-ta-date	004
event-acs	005
event-acs-date	006
user	007
device	008
organization	009
branch	010
designation	011
section	012
department	013
category	014

Table: API Codes

API Request Type	API Code
grade	015
group-rename-list	016
template-list	017
template-details	018
import-template-list	019
import-template-details	020
events	021
accessroutemaster	022
accessroutedetails	023
site	024
event-others	025
device-commands	026
device-users	027
datatransfer	028
template-data	029
leave-balance	030
leave-group	031
leave-details	032
leave-application	033
leave-approval	034
holiday	035
group-members	036
attendance-correction	037
canteen-account-details	038
canteen-expenditure-summary	039
canteen-menus	040
canteen-menus-schedule	041
canteen-correction-application	042
shift-schedule	043
shift-details	044
notifications	045
loginuser	046
attendance-correction-approval	047
short-leave-entry	048
short-leave-authorization	049
attendance-authorization	050

Table: API Codes

API Request Type	API Code
ot-coff-authorization	051
encryption-key	052
coff-details	053
search-user	054
in-out-reasons	055
canteen-expenditure-details	056
change-password	058
imei-registration	059
coff-balance	060
monthly-process	061

Table: Action Codes

Action	Description	Action Code
none	Action not available	00
get	To fetch details from server	01
set	To create new records	02
update	To update existing records	03
delete	To delete a particular record	04
command	To send command to server	05
assign	To assign devices to user	06
del-credential	To delete user's credentials from the system	07
enroll	To enroll new credentials	08
list	To get a list of devices	09
revoke	To revoke user's access	10
set-credential	To save user's credentials	11
setphoto	To save user's photo	12

Table: Category and Actual Response Codes

Category: Success	Description	Category Code	Actual Response Code
No Records Found	Request is valid, but no records are present	00	000
Successful	Data/Request Submitted and processed successfully	00	001
Saved Successfully	For Set/Update APIs	00	002

Table: Category and Actual Response Codes

Other Messages for Success	Applied/Deleted/Updated/ Changed Successfully	00	003
Category: URL	**Description**	**Category Code**	**Actual Response Code**
Syntax Errors	Error in processing the URL	01	001
License	Required License not available for API	01	002
Parameter	Mandatory parameter is missing	01	003
	Parameter is invalid	01	003
Value	Correct Parmeter specified but value is missing	01	004
	Correct Parameter specified but value is Invalid	01	004
Category: Access	**Description**	**Category Code**	**Actual Response Code**
API Access Rights	Login user does not have rights to access any API	02	001
API Specific Rights	Login user does not have rights to access a specific API	02	002
Rights on Users	Insufficient User Rights	02	003
Rights on Device	Insufficient Device Rights	02	004
Server Access	URL Access is denied	02	005
Category: Process	**Description**	**Category Code**	**Actual Response Code**
Invalid Command	Wrong/Unexpected parameter Values	03	001
Invalid Command	Restrictions or checks on parameter value	03	002
Invalid Command	Parameter combination violation	03	003
Invalid Command	Date Validations	03	004
Invalid Command	Maximum Limit	03	005
Invalid Command	Already Exists	03	006
Invalid Command	A value does Not exist or Disabled	03	007
Invalid Command	Process Failure/Exception/ Error	03	008

Example

Sample Request:

```
http://matrixserver/api.svc/v2/organization?action=set;code=Apex;name=Apex Industries
```

Sample Response:

```
success: 0090200001 : successful
```

In the given example, the request sent to add an organization to the COSEC database returns a successful response. The response code “0090200001” can be read as shown:

- 009 - API code for “organization”
- 02 - Action code for “set”
- 00 - Category code for “success”
- 001 - Actual Response Code for successful submission and processing of data.

In the following example, the API requests a user’s profile to be updated with ‘date of birth’. However the ‘id’ argument is left without a value.

Sample Request:

```
http://matrixserver/api.svc/v2/user?action=set;id=;date-of-birth=22061978
```

Sample Response:

```
failed: 0070201003 : Incomplete command id
```

- *Response Messages accompanying a Response Code are descriptive and may vary or change depending on the parameters, values etc. of the particular case in question. Third party applications should use only Response codes for decision making.*
- *In each API response, a specific validation message may also appear depending on the API, access rights, device rights etc. For e.g. “User is not a Reporting Group In-Charge”, “Insufficient User Rights” or “Authorization not allowed for Dates later than current date” etc.*

CHAPTER 30

Symptoms

This shall be used to get server's configured symptoms, their threshold values & warning message.

Action

action=get

Syntax

```
http://<servername>/api.svc/v2/symptoms?action=<get>
```

License Requirement:

COSEC Centra:

- System Account User: Basic License
- ESS User: BASIC + ESS

If license is not available, return message: "License not available for this API."

User Rights

User	Rights
System Account	Enabled
ESS	Enabled

Response Field

Response should be the configured values in server at Admin, User, Temperature and Threshold Configuration. The response will contain the following fields:

Field Name	Tag Name	Valid Values	Remarks
Temperature Applicable	temperature-applicable	0: Disable 1: Enable	Parameter will indicate whether temperature regarding field and details needs to be display or not on self declaration page and records page. Also, if value is enable then only, application will receive temperature in further responses.

Field Name	Tag Name	Valid Values	Remarks
Temperature Type	temperature-type	0: Fahrenheit 1: Celsius	Provide the value set in server regarding type of temperature.
Temperature Threshold	temperature-threshold	max 5 characters	Threshold value of temperature should return.
Symptoms Applicable	symptoms-applicable	0: Disable 1: Enable	Parameter will indicate whether symptoms regarding field and details needs to be display or not on self declaration page and records page. Also, if value is enable then only, application will receive symptoms in further responses.
Symptoms ID	symptoms-id	0-99999	All the configured symptoms ID should be sent with comma separated values Symptom ID = 0 has been fixed for value 'None'
Symptoms Name	symptoms-name	50 characters	Name of the symptoms should be returned, Name should be synchronized with ID of symptom. For e.g. Symptoms ID are : 0,1,3,5 Symptoms Name are: None, Fever, Cold, Headache The mapping should be: 0-None, 1-Fever, 3-Cold, 5-Headache
Symptoms Threshold ID	Symptoms-threshold-id	0-99999	Configured symptoms ID threshold should be sent. Symptoms Threshold ID = 0 has been fixed for value 'All'. Below will be the mapping: All - 0 Any one - 1 Any two - 2 Any three - 3 Any four - 4
Symptoms Threshold Name	symptoms-threshold-name	NA	Threshold value of Symptoms should return. Symptoms Threshold Name should be mapped with Symptoms Threshold ID.
Warning	warning	Max 100 characters	Warning message which should display when user reaches/exceeds threshold value.

CHAPTER 31

Health Declaration

This shall be used to get the user's declared Health Records data for the specific date-range, and to submit new Self-Declaration for Temperature and Symptoms.

Action

For Action= GET
For Action= SET
For Action= UPDATE

Syntax

```
http://<servername>/api.svc/v2/health-declaration?action=<get/set/update>;<argument>=<value>...
```

License Requirement

ESS License. If license is not available, return message: "License not available for this API."

COSEC Centra:

- ESS User: BASIC + ESS

If license is not available, return message: "License not available for this API."

User Rights

User	Rights
System Account	Enabled if SA has rights on provided user and rights on Admin > System Account > Roles & Rights Configuration > Users > Health Declaration (For Declaration page) Admin > System Account > Roles & Rights Configuration > Users > Health Records (For Records page)
ESS	Enabled if User has ESS enabled and has User Rights on the following Page: ESS >Health > Self Declaration ESS > Health > Health Records

Parameters

For Action = GET

Argument	Valid Values	Description
userid	varchar(15)	Mandatory field. **Note:** **For ESS user:** The userid should be login user's ID. **For a System Account user:** The userid can be any user's id. If the System account user has rights on that user, return the records. Otherwise, return message as per mentioned below. With comma separation, SA can provide multiple user's ID.
date-range	ddmmyyyy-ddmmyyyy (From Date – To Date) Valid Values: dd (Date): 01-31 mm (Month): 01-12 yyyy (Year): 4 digits	The period for which the User Health Records need to be fetched. Not a mandatory field. If not mentioned, then by default the response will contain Health Records for the current date.
field-name	temperature symptoms temperature, symptoms	Not mandatory field. This argument will return specific parameter's value for the user for specified date. If argument passed with value temperature then, in response only 'Temperature' of user for the defined date should be sent. If argument passed with value symptoms then, in response only 'Symptoms' of user for the defined date should be sent. If argument passed with value temperature, symptoms then, in response 'Temperature & Symptoms' of user for the defined date should be sent.

Response Field

Based on the value of supplied arguments, the API will return the health Data for the users, for selected date. The response will contain the following fields:

Field Name	Tag Name	Valid Values	Remarks
User ID	userid	15 characters	Allowed characters A-Z a-z 0-9 /_\\.@:
TID (form no.)	tid	10 Digits	Same as form-number. Auto Generated on submitting health parameters through health declaration
Declaration-Date	declaration-date	dd/mm/yyyy	Date for which Self-Declaration is done. Valid values: mm(Month): 01-12 dd(Date): 01-31 yyyy(Year): 4 digits
Date Time	time	dd/mm/yyyyhh:mm	Date-Time of each entry for the selected date. **Note:** Server will have multiple entries for each day.
Temperature Source	Temperature-source	1: ESS 2: App 3: SA 4: Device 5: Others	Source of the temperature and will be provided. Provide ID of the source. **Note:** ID should be internally fixed in server and application as per provided. As per our updated new design, we will always keep new records of temperature when we are receiving temperature through others and when we receive symptoms through 'Others' then we will overwrite it as we will keep only one record for symptoms for a day.
Temperature	temperature	For Fahrenheit: 90.0 - 110.0 For Celcius: 32.0 – 43.0	Provide declared/detected temperature

Field Name	Tag Name	Valid Values	Remarks
Symptoms Source	Symptoms-source	1: ESS 2: App 3: SA 5: Others	Source of the symptoms declaration will be provided. Provide ID of the source. **Note:** As of now, in this argument we will never receive 'Device' as currently there is no provision of providing symptoms through device.
Symptoms	symptoms	0-999 comma	Here, server will send corresponding selected ID of the symptom. While displaying the symptoms to user, application needs to map ID with name through API 'symptoms'.

Below is the example of user's records of a date: 10/05/2020

1. Self-Declaration through ESS at 10:00
   - Temperature: 100.5
   - Symptoms: Fever, Headache
   - TID: 001

2. Device Detected Temperature at 10:30
   - Temperature: 101.5
   - TID: 002
3. Received Temperature through source others at 15:00
   - Temperature: 101.1
   - TID: 003

Response should be:

```
<health-declaration>
        <userid> 123 </userid>
        <tid> 001 </tid>
        <declaration-date> 10/05/2020 </declaration-date>
        <time> 10/05/202010:00 </time>
        <temperature-source> 1 </temperature-Source>
        <temperature> 100.5 </temperature>
        <symptoms-source> 1 </symptoms-Source>
        <symptoms> 1,2 </symptoms>
</health-declaration>
<health-declaration>
        <userid> 123 </userid>
        <tid> 002 </tid>
        <declaration-date> 10/05/2020 </declaration-date>
        <time> 10/05/202010:30 </time>
        < temperature-source> 4 </ temperature-Source>
        <temperature> 101.5 </temperature>
</health-declaration>
```

<health-declaration>
<userid> 123 </userid>
<tid> 003 </tid>
<declaration-date> 10/05/2020 </declaration-date>
<time> 10/05/202015:00 </time>
< temperature-source> 5 </ temperature-Source>
<temperature> 101.1 </temperature>
</health-declaration>

For Action= SET

Argument	Valid Values	Multi-language character set	Default View	Description
action	set	NA	NA	This is a command to set health-declaration of user. When SET request is received then rights of self-declaration needs to be checked. Mandatory Field.
user id	Max 15 chars	NA	NA	Mandatory Field.
declaration-date	8 characters Format: ddmmyyyy dd(Date): 01-31 mm(Month): 01-12 yyyy: Year	NA	NA	Mandatory Field.
Source	2,5	NA	NA	Mobile Application needs to provide source ID while sending SET request to server. For SET request, application will always needs to send ID = '2' (i.e. App) for temperature and/or symptoms declaration.
temperature	Fahrenheit: 90.0 - 110.0 Celcius: 32.0 – 43.0	NA	NA	If 'temperature-applicable' is enable under 'symptoms' API then, this argument is mandatory. If disable then it is non-mandatory.

Argument	Valid Values	Multi-language character set	Default View	Description
symptoms	0-999 comma	NA	None	If 'symptoms-applicable' is enable under 'symptoms' API then, this argument is mandatory. If disable then it is non-mandatory.

NOTE: Return success message in response on successful API execution (only when API has been executed successfully)
Example:
Success: 1160200002: saved successfully.

For Action= UPDATE

Argument	Valid Values	Description
Action	update	This is a command to update health-Declaration of user for specified Declaration Date. When UPDATE request is received then rights of self-declaration needs to be checked. Mandatory field.
tid	max 10 numeric characters	Mandatory field.
userid	Max 15 chars	Mandatory field. An application will be identified, based on tid and userid.
Source	2,5	Mobile Application needs to provide source ID while sending UPDATE request to server. For UPDATE request, application will always needs to send ID = '2' (i.e. App) for temperature and/or symptoms declaration.
temperature	Fahrenheit: 90.0 - 110.0 Celsius: 32.0 – 43.0	If 'temperature-applicable' is enable under 'symptoms' API then, this argument is mandatory. If disable then it is non-mandatory.
symptoms	0-9999	If 'symptoms-applicable' is enable under 'symptoms' API then, this argument is mandatory. If disable then it is non-mandatory. If argument not available even if 'symptoms-applicable' is enable, then system should consider the value as 'None'.

The response will contain the actual validation as seen on the web page.

NOTE: Return success message in response on successful API execution (only when API has been executed successfully)

Example:
success: 1160300002: saved successfully

CHAPTER 32

Custom Field

This shall be used to get the status of custom fields, for 3rd party applications as well as for APTA application.

Action

action= get

Syntax

```
http://<servername>/api.svc/v2/custom-field?action=<get>;<argument>=<value>...
```

License Requirement:

If license is not available, return message: “License not available for this API.”

User Rights

User	Rights
System Account	Enabled
ESS	Enabled
Visitor	Enabled if Visitor is registered and verified by using assigned token

For Action= Get

Argument	Valid Values	Description
user-type	0: User/Worker 1: Contractor 2: Visit 3: Visitor	Not Mandatory Field. If not supplied, default 0 should be considered. If user-type is set 0 then all the field should be returned for User / Worker in response. If user-type is set 1 then all the field should be returned for Contractor in response. If user-type is set 2 then all the field should be returned for Visit in response. If user-type is set 3 then all 5 fields should be returned for Visitor in response
visitor-login	0=No 1=Yes	Not Mandatory Field. If not supplied, default 0 should be considered. "If visitor-login is set 1 then it implies that it is visitor login and they can view custom fields of Visit/Visitor through user-type parameter.

Response Field:

Field Name	Tag Name	Valid Values	Description
Field No.	field-no	1=field1 2=field2 3=field3 4=field4 5=field5 6=field6 7=field7 8=field8 9=field9 10=field10	
Active	active	0= Inactive 1= Active	
Field Name	field-name	Max 100 characters	A-Z a-z 0-999 [ ] ( ) . - _ / <Space>
Type	type	1 = Textbox 0= = Datepicker	

Field Name	Tag Name	Valid Values	Description
Upload	allow-upload	0 = Uploading document not allowed 1 = Uploading document allowed	
Mandatory	mandatory	0 = Not Mandatory 1 = Mandatory	
Applicable For	applicable-for	0 = User/Worker 1= Contractor 2= Visit 3= Visitor	Applicable For field name is used to differentiate between User and Contractor and Visit and Visitor.

CHAPTER 33

Mark Group Attendance

This shall be used to submit new Mark Group Attendance application and to get or delete Mark Group Attendance records from server via APTA or 3rd party application.

Syntax

```
http://<servername>/api.svc/v2/mark-group-attendance?action=<get/set/delete>;<argument>=<value>...
```

License Requirement:

- System Account User: Basic (PLT) License + T&A
- ESS User: BASIC + ESS + T&A
- If license is not available, return message: "License not available for this API."

User Rights

User	Rights
System Account	Enabled if SA has "Add /Delete" rights on: Admin > System Account > Roles & Rights Configuration > Time and Attendance > Mark Group Attendance
ESS User	Enabled if User is RIC user & has In-charge Permissions' of Mark Group Attendance.

It supports the following APIs:

- GET APIs
- SET APIs
- DELETE APIs

GET APIs

Action

action= get

Parameters For Action= Get

Argument	Valid Values	Description
month-year	Mmyyyy	Month-year for which Group Attendance Entry are to be fetched. If month-year is not mentioned then consider it to be “current month” and “current year” by default.

Response:

- No Group Attendance entry added by user, then return "No Record Found"
- If any Group Attendance entry added by user, then return id, name, and attendance detail like "in-out, event-datetime, count, spfid, User-id's, source used in that attendance.
- For RIC User, the mark Group attendance added by him will be shown in the list. for SA, all mark group attendance entries will be shown.

Example:

Tag	Valid Values	Description
Id	max 15 numeric characters	Unique ID of the attendance
application-datetime	ddmmyyyyhhmmss format	This is the date time with group attendance application was generated
Name	Max 45 Characters	Name of the Attendance.
In-out	0=IN 1=OUT	This is the IO type for the event.
event-datetime	ddmmyyyyhhmmss format	This is the event date time. i.e. the date time when actually happened.
Count	numeric characters Max 3 digit	Count of user for which event is generated
Spfid	2 digits Valid range = 0-12	This value specifies any special functions associated with the event.
user-id	Varchar(15)	This is the ids of the users for whom event is marked. Multiple user-id should be comma separated. (The userid passed should be unique.)
Source	11= ESS 12= APP	Source of the application

SET APIs

Action

Action= set

Field Name	Valid Values	Description
Name	Max 45 chars	This is the application Name. Allowed Characters A-Z a-z 0-9 -_. ()[]
Application	0= Create 1= Save	Not Mandatory Field. If not supplied, default 0 should be considered.
Temporary-id	Allowed Characters : 10 numeric Char. 0 to 9	It is a mandatory field when application = 1 (save). Value should be ignored if application = 0
mark-user-id	Allowed Characters : 15 alphanumeric Char. A to Z a to z 0 to 9 /_\\.@:	This is the user id for which attendance is to be marked. Allow to set multiple id, each separated by ", (comma)" e.g.:"1, 3, 7, 9…" Mandatory field if application= 1. System should provide message for incomplete command, if this field is not provided. Value should be ignored if Application is not 1.
event-datetime	ddmmyyyyhhmmss format	This is the event date time. i.e. the date time when actually happened. Mandatory field if Application=1. If value has more than 14 characters length, then system will consider only first 14 characters for processing in the format of ddmmyyyyhhmmss. Value should be ignored if Application is not 1.
In-out	Valid values 0,1 0= IN (Default) 1=OUT	This is the IO type for the event. If Application=1 and value is not specified, default value will be considered. Value should be ignored if Application is not 1.
Spfid	2 digits Valid range = 0-12	This value specifies any special functions associated with the event. If Application=1 and value is not specified then default (0) will be considered. Value should be ignored if Application is not 1.

Field Name	Valid Values	Description
Gps_latitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Format : +XXX.XXXXXX or -XXX.XXXXXX Valid Values : -90.000000 to +90.000000 If Latitude is invalid or out of range, return error message for invalid parameter. Value should be ignored if Application is not 1.
Gps_longitude	11 characters	When location is calculated via GPS. This parameter will contain : latitude Format : +XXX.XXXXXX or -XXX.XXXXXX Valid Values : -180.000000 to +180.000000 If Latitude is invalid or out of range, return error message for invalid parameter. Value should be ignored if Application is not 1.
location-code	6 characters A-Z a-z 0-9	Not Mandatory. Location Code from configured location master.
punch-reason	Max 50 alphanumaric characters. A-Z a-z 0-9 _- <space> ()[].,/+!@$:*	Not Mandatory. Value should be ignored if Application is not 1.

'temporary-id'" - duration for this HTTP session will be maximum 30 minutes

DELETE APIs

Action

action= delete

Field Name	Valid Values	Description
Temporary-id	Allowed Characters : 10 numeric Char. 0 to 9	It is a mandatory field when application = 1 (save). Value should be ignored if application = 0

CHAPTER 34

Group FR Process

This shall be used to request for FR Process on Image or to Update FR result on image via APTA or 3rd party application.

Action

action= command

Syntax

```
http://<servername>/api.svc/v2/group-fr-process?action=<command/update >;<argument>=<value>...
```

License Requirement:

- System Account User: Basic (PLT) License + T&A
- ESS User: BASIC + ESS + T&A
- If license is not available, return message: “License not available for this API.”

User Rights

User	Rights
System Account	Enabled if SA has "Add /Delete" rights on: Admin > System Account > Roles & Rights Configuration > Time and Attendance > Mark Group Attendance
ESS User	Enabled if User is RIC user & has In-charge Permissions' of Mark Group Attendance.

For Action = Command

Argument	Valid Values	Description
temporary-id	Allowed Characters : 10 numeric Char. 0 to 9	It is a mandatory field when application = 1 (save). Value should be ignored if application = 0
image-id	Allowed Characters : 10 numeric Char. 0 to 9	Mandatory field if application= 1. System should provide message for incomplete command, if this field is not provided.

Response:

If Face is detected then return the

- All the Detected Face Co-ordinates
- FR result of each face
- Detected user's ID for whom Face Recognition Feature is enabled and current user is Reporting Group In-Charge (Login User has rights).

The response will contain Face Count and list of Face ID, FR result, Face Co-ordinates and User ID in below defined fields

Tag	Valid Values	Description
detected-face	0-20	Defines the count of faces detected from a image
face-id	max 10 numeric characters	Unique ID of the face.
fr-result	0- Not recognized 1- Not in your group 2- recognized	Result of the face.
user-id		ID of the recognized user
Coordinates		States the co-ordinates of the detected face Should be send in below format: StartX, LengthX, StartY, LengthY Example: 1,3,4,7

Example:

Face ID	FR Result	User ID	Coordinates
1	0		1,3,4,7
2	1		6,6,3,5
3	2	1001	2,5,7,4

Action

action= update

Field Name	Valid Values	Description
temporary-id	Allowed Characters : 10 numeric Char. 0 to 9	It is a mandatory field when application = 1 (save). Value should be ignored if application = 0
image-id	max 10 numeric characters	Mandatory field if application= 1. System should provide message for incomplete command, if this field is not provided.
face-id	max 10 numeric characters	Mandatory field if application= 1. System should provide message for incomplete command, if this field is not provided.
fr-result	0- Not recognized (Default) 1- recognized	Result of the face.
tag-user-id	15 alphanumeric Char. A to Z a to z 0 to 9 /_\\.@:	ID of the recognized user. It is a mandatory field if fr-result=2

CHAPTER 35

Face Recognition

The *Face Recognition API* enables the third party applications to send a user's face image and verify the enrolled user with the COSEC system. This shall also be used to fetch the matching face images from the COSEC system against the sent user's face image using POST request method.

Only a single user's data can be sent at a time. Also, only one face image can be sent at a time.

The supported formats for images are .jpg and .jpeg and the size limit for images is 15 MB.

Action

action= get

Syntax

```
http://<cosec_server>/cosec/api.svc/v2/facerecognition?action=<get >;<argument>=<value>...
```

License Requirement:

- System Account User: Basic (PLT) License
- If license is not available, return message: "License not available for this API."

User Rights

User	Rights
System Account	Enabled if SA has "Add /Delete" rights on: Admin > System Account > Roles & Rights Configuration > Admin > Identification Server Configuration.

For Action = Get

Argument	Valid Values	Description
operation-type	0= User Verification 1= Matching Result	It is a mandatory field. System should provide message for incomplete command, if this field is not provided.
userid	15 Alphanumeric Characters Allowed Characters: A to Z a to z 0 to 9 /_\\.@:	It is a mandatory field if operation-type= 0 Value should be ignored if operation-type=1

Argument	Valid Values	Description
matching-result-count	1: return 1 matching response 2: return 2 matching response 3: return 3 matching response 4: return 4 matching response 5: return 5 matching response	It is a non-mandatory field and applicable for operation-type=1 **Note**: If matching-result-count=3 is provided and IDS has only 1 matching response then system will provide 1 matching response. If matching-result-count=3 is provided and IDS provides 5 matching response then system will provide top 3 matching response.
data-format	1	It is a non-mandatory field. You can upload images for which matching response is required.

- *The image shall be sent in API data and not in API arguments.*
- *This API cannot be tested on a browser.*

Below given table defines request error codes and messages:

Validation	Error Code	Message
If Identification Service is not defined (blank)	1250103008	Identification Service not defined
If Identification Service is not reachable	1250103008	Identification Service not reachable
If connection with Identification Service not establish (time out) If for IDS more time required to search data	1250103008	Image Process Time Out
When face is not matched	1250103008	No Match Found
If face is not detected	1250103008	Face Not Detected
Size limit exceeded for the selected Image	1250103008	Maximum Allowed File Size is 15 MB
Image Format not supported	1250101004	Supported File Formats are *.jpg, *.jpeg
If image is invalid (blank, or after receiving it loading fails), if other than image anything is uploaded, that is, xls,pdf	1250101004	Invalid Image
If data-format is not passed but image data is in byte format	1250000000	Invalid Image

Response:

The response will contain Message and Matching Score in below defined fields when operation-type=0.

Field Name	Tag	Valid Values	Description
Message	message	Successfully Verified	Displays the result when match is successful.
Matching-score	matching-score	0-100	Defines the Matching Threshold for image recognized.

The response will contain User ID, Name of User and Matching Score in below defined fields when operation type=1.

Field Name	Tag	Valid Values	Description
User ID	userid	15 Alphanumeric Characters Allowed Characters: A to Z a to z 0 to 9 /_\\.@:	Displays the ID of the recognized user. Based on the matching-result-count,
Name	name	Max 45 Characters Allowed Characters: A to Z a to z 0 to 9 -_.()[] [Space]	Displays the name of the user. Based on the matching-result-count,
Matching-score	matching-score	0-100	Defines the Matching Threshold for image recognized. Based on the matching-result-count,

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