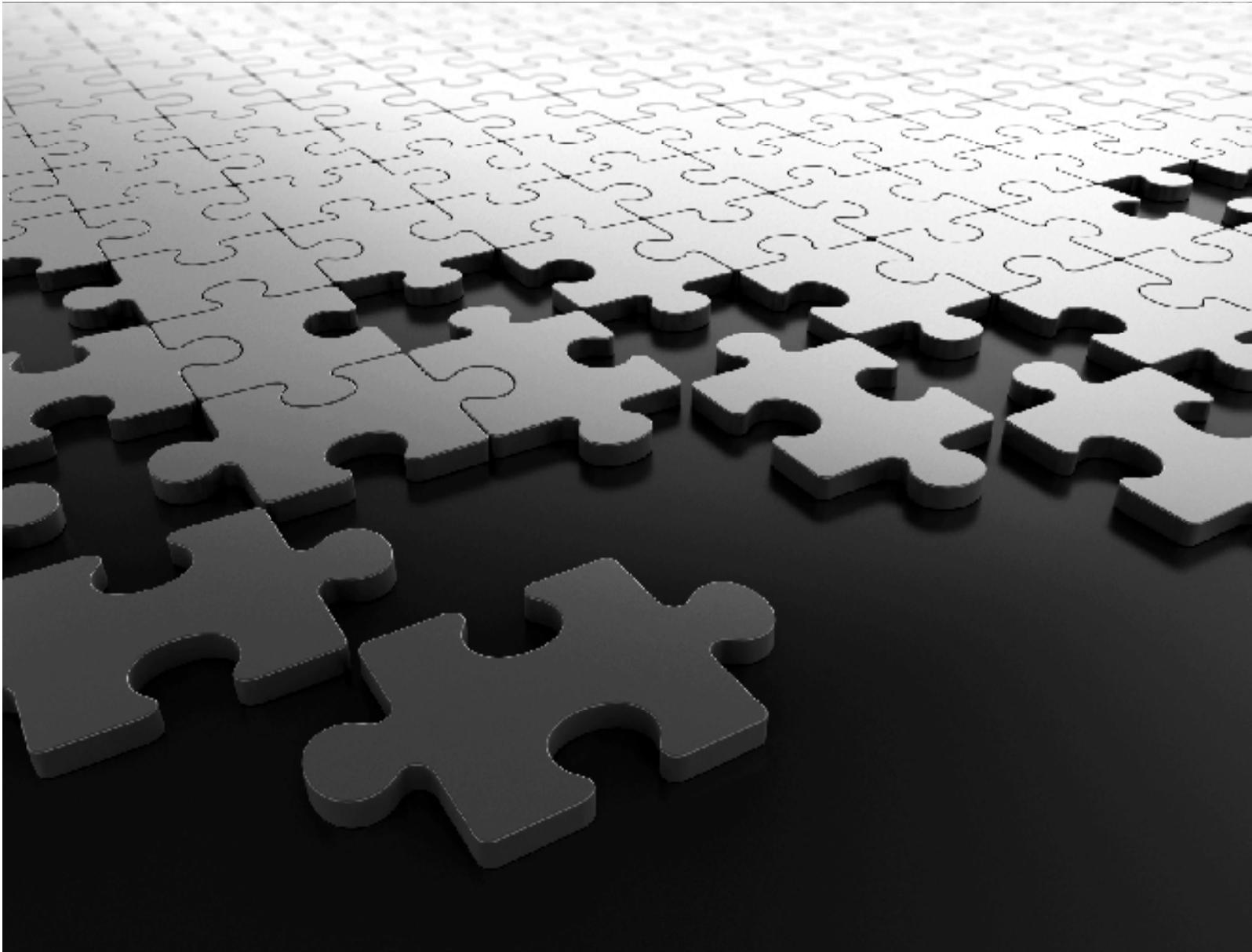
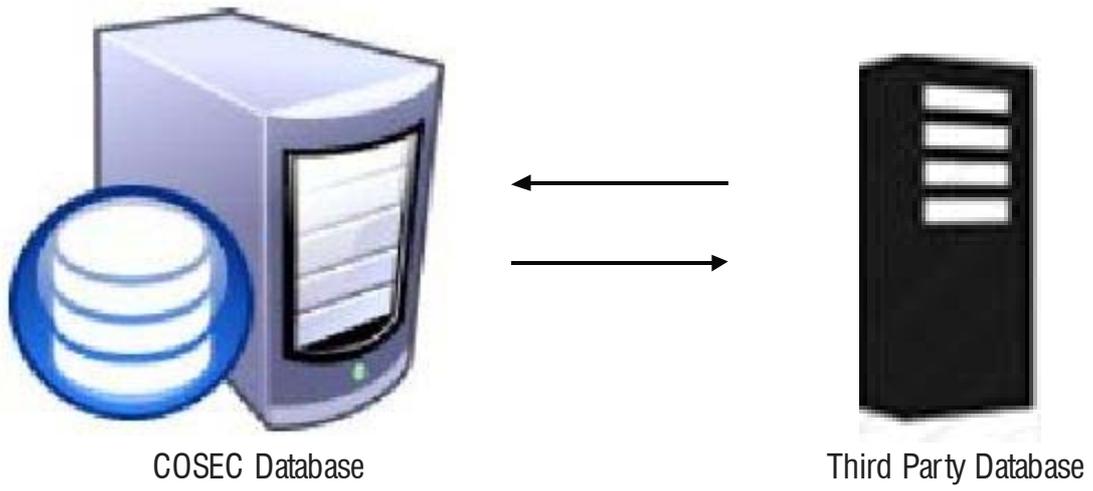


**COSEC INTEGRATE**  
User Manual



**COSEC INTEGRATE**  
**User Manual**



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This is a general documentation for all variants of the product. The product may not support all the features and facilities described in the documentation.

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*Version 15*

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# Introduction

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The COSEC INTEGRATE module enables the administrator to configure the following functionalities.

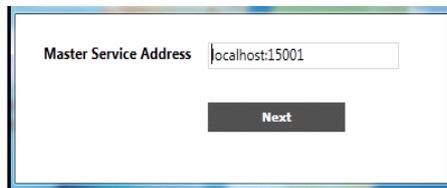
- Export data from the COSEC database to a third party MS SQL or Oracle database.
- Import user data from external data sources like MSSQL, Oracle, Postgre and the Microsoft Active Directory.
- Import User data from customized SAP table in MSSQL or Oracle.
- Export Device data and event logs to predefined tables in Postgre database.
- Import event data from 3rd party database (MS SQL and Oracle).

The COSEC installer utility has the COSEC INTEGRATE module option which needs to be selected for this application to be installed.

To access this application, double click on the COSEC INTEGRATE Module icon on the computer desktop. The following login page appears.

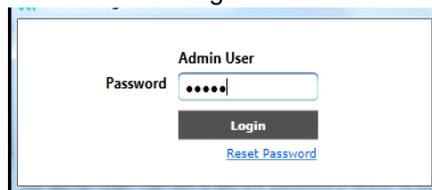
For COSEC VYOM, Enter the Tenant ID and Master Service Address as shown below. Both the parameters are available in Tenant activation Email sent to the Tenant by the Tenant administrator.

Enter the Master Service Address and click Next.



A screenshot of a web application window. It features a text input field labeled "Master Service Address" containing the text "localhost:15001". Below the input field is a dark grey button with the text "Next" in white.

Enter the password of the admin user and click Login.



A screenshot of a web application window. It features a text input field labeled "Admin User" with a password mask of "\*\*\*\*\*". Below the input field is a dark grey button with the text "Login" in white. Below the button is a blue hyperlink labeled "Reset Password".

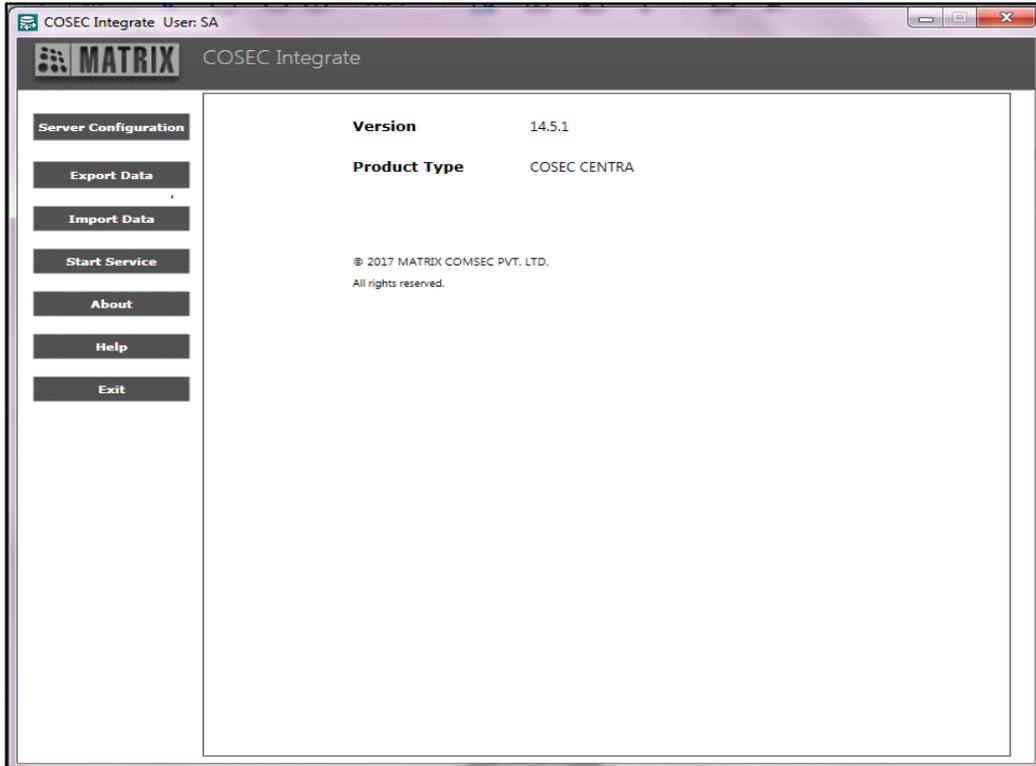
When logging in to the application for the first time, the admin user can set a secure password which is then set as the login password for subsequent logins.

The Reset Password option enables the user to reset the password in the event of the admin user forgetting the set password. Contact the authorized dealer or Matrix support for the reset code.



*For COSEC Integrate to work properly, it must be ensured that actual DB fields as well as their renamed versions (if any, i.e. if DB field is renamed with an alias during export template configuration) are both included in the template configuration. This shall be applicable to all exports.*

Click on the **Login** button after entering the password. The COSEC INTEGRATE home page appears as shown.



The COSEC INTEGRATE service needs to be stopped prior to starting the configuration of the various COSEC INTEGRATE parameters. Click on the **Stop Service** button as shown.



To know about the Export and Import from other database click on the following links.

["Export to MS SQL/ORACLE"](#)

["Export to MySQL"](#)

["Export to CSV"](#)

["Export to Text"](#)

["Export to Postgre Server"](#)

["Export to DB2"](#)

["Export to People Works"](#)

["Export FP Template to File"](#)

["Custom Export- FP Template"](#)

["Export to Progress OpenEdge"](#)

["Import from MS SQL/Oracle/Postgre"](#)

["Import from My SQL"](#)

["Importing Data from a Customized SAP"](#)

["Import from Active Directory"](#)

["Import Events"](#)

["Import from Progress OpenEdge"](#)

# Export to MS SQL/ORACLE

The application allows the administrator to map the data fields of the COSEC application database to the data fields of another SQL/Oracle database.

## Server Configuration

Click on the **Server Configuration** button to configure the Web server and Destination database for Export and Source database for Import.

Depending on the Integration mode selected, you must configure **Destination Database/ Destination Location/ Source Database**.

Select the **Export to MS SQL Server** option in the **Integration Mode** field.

The screenshot shows the 'COSEC Integrate' application window. On the left is a sidebar with buttons for 'Server Configuration', 'Export Data', 'Import Data', 'Start Service', 'About', 'Help', and 'Exit'. The main window is titled 'COSEC Integrate' and shows the 'Server Configuration' screen. The 'Integration Mode' dropdown is set to 'Export to MS SQL Server'. The 'COSEC Web Server' section contains the following fields: 'Web URL' (http://192.168.104.12/COSEC/api.svc/v), 'User Name' (sa), and 'Password' (masked with dots). The 'Destination Database' section contains: 'Database Type' (Sql Server), 'Server' ((local)\sqlexpress), 'Database Name' (COSECDB\_V13R2), 'User Name' (sa), and 'Password' (masked with dots). Both sections have a 'Test Connection' button. At the bottom of the main area are 'Edit', 'Save', 'Cancel', and 'Delete' buttons.

Click on the **Edit** button.

In the **COSEC Web Server** section:

- Specify the web URL of the API service of the COSEC WEB application as shown above.
- Enter the User Name and Password of the system administrator (sa) as set in the COSEC WEB application.

In the **Destination Database** Server section:

- The **Database Type** will be SQL SERVER.
- **Server:** Enter the database server name in the following format - **Database server name\Instance Name**  
e.g. dbserver\sqlexpress.

- **Database Name:** Specify the database name of the destination database as per the site settings. Eg: COSECDB\_V13R2 is the destination database which is newly created from Database Utility. You can export the data to this database.



*For newly created database, ensure that you have set the password in COSEC Web application. Then only Test connection from COSEC Integrate with Web server will be successful.*

- **User Name:** Specify the database administrator ID in this field. This is the user name which you have set while installing SQL Server Management Studio in your computer.
- **Password:** Enter the password of the Database administrator as per the site settings. This is the password which you have set while installing SQL Server Management Studio in your computer.

The **Test Connection** button is provided to test the connections with the web server as well as the SQL Server database.

Click on **Save** once done.

In the event of selecting the **Export to Oracle Server** option in the **Integration Mode** field, specify the Oracle server destination address as well as the user name and the password (case-sensitive for Oracle Server) in the respective fields as shown.

Test the connection and Save the configuration.

## Export Data Configuration

This option enables the Admin user to map the fields from the COSEC database tables to fields in a third party database. Click on the **Export Data** button. The following page appears.

COSEC Integrate User: SA

**MATRIX** COSEC Integrate

Server Configuration

Export Data

Import Data

Start Service

About

Help

Exit

Export

Database: MS SQL Server

Source Data Template: Template\_Daily

Table-Field Mapping

Destination Table: Mx\_ATDEventTrn

Source Field: ACTIVEFLAG | NUMERIC | 1 | 0

Destination Field: BLECode | numeric | 4 | 0

Source Field	Data Type	Length	Decima	Destination Field	Data Type	Length	Decima	Clear
--------------	-----------	--------	--------	-------------------	-----------	--------	--------	-------

Schedule

The COSEC INTEGRATE application provides four data templates in line with the default **Database Views** as shown. The COSEC System provides the following four Database views which would provide the relevant field options to be mapped with the fields of a destination database.

- Monthly Attendance Summary, for details refer to [“Monthly Attendance Summary”](#)
- Daily Attendance Detail, for details refer to [“Daily Attendance Detail”](#)
- Attendance Events, for details refer to [“Attendance Events or Access Control Events -Schedule”](#)
- Access Control Events, for details refer to [“Attendance Events or Access Control Events -Schedule”](#)

The following templates can be configured from COSEC Web which can be exported to other database.

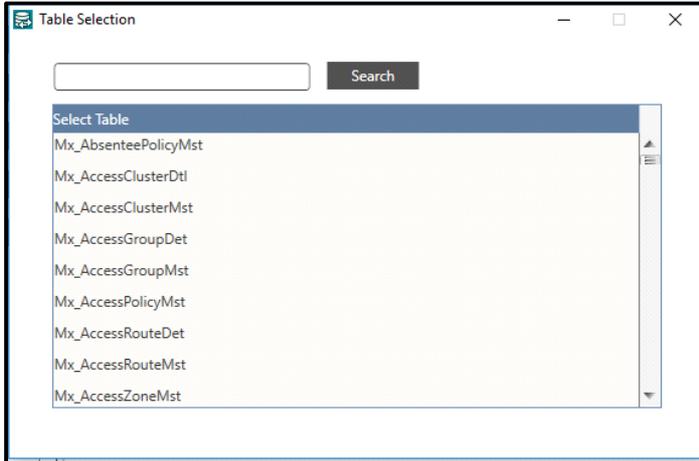
- First and Last Attendance Events
- Daily Attendance Template1
- Daily Cafeteria Events
- Monthly Cafeteria Summary
- Monthly Job Summary
- User Details

For details, refer [“Custom Template - User Details Template-Schedule”](#)

Each of the above database views would provide the relevant fields whose values can be exported from the COSEC database. Select the required data template and click on the **Edit** button.

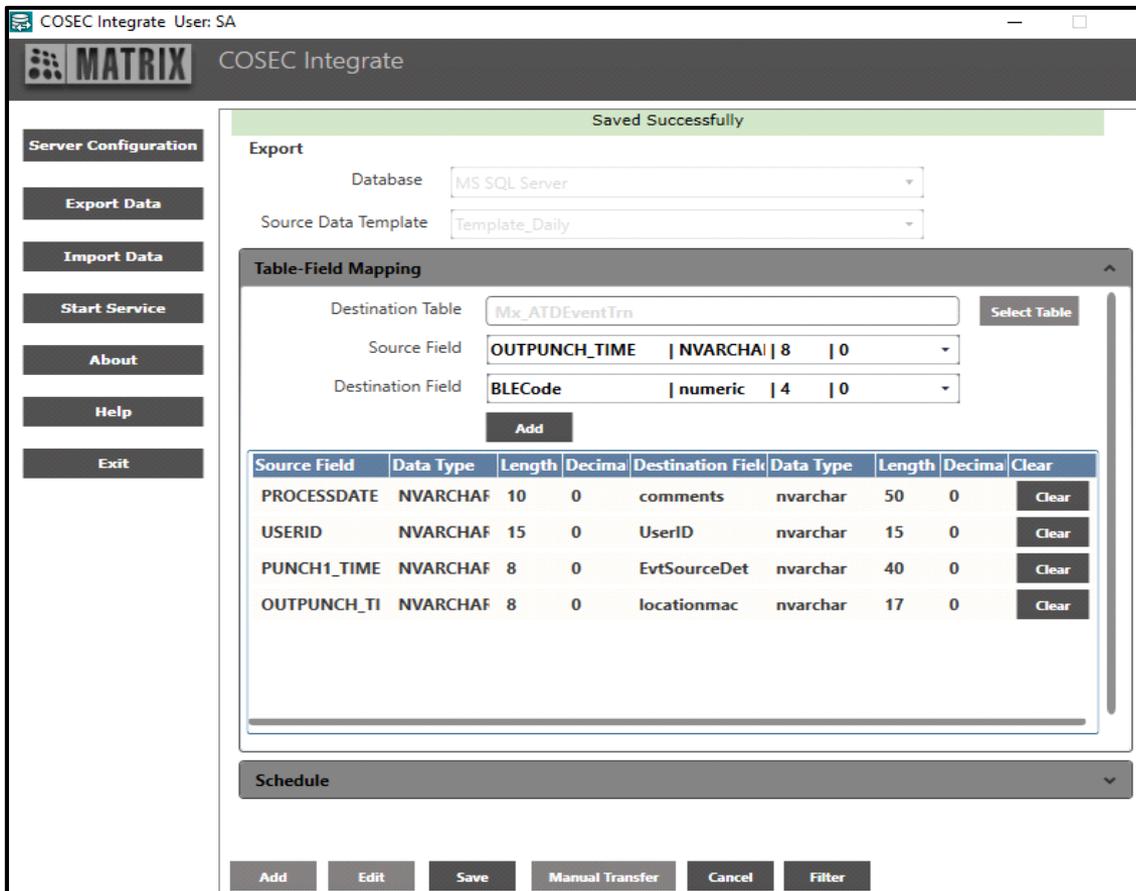
## Export

The **Destination Table** can be selected by clicking the **Select Table** button. Table Selection window appears as shown below. The desired table can be selected by scrolling or searching.



## Table Field Mapping

Now the Admin user can start the mapping of the fields from the source database to that of the destination database as shown.



- Select the **Source field** from the COSEC database.
- Select the **Destination field** from the drop down options to map with the source field.
- Click on the **Add** button. The mapped fields will be visible in the bottom grid.



*In the case of Attendance Events and Access Control Events the user needs to map the UserID and the EventDateTime\_D source fields to fields in the destination table.*

*Map the UserID, PMonth and Pyear source fields to appropriate fields in the destination table in the case of the Monthly Attendance Summary.*

*Map the UserID and ProcessDate\_D source fields to appropriate fields in the destination table in the case of the Daily Attendance Detail.*

The mapping between the following data types is allowed. Only a warning message is shown in case of mismatch in data types.

Source data type	Destination data type
Text (char, varchar,varchar2...)	Number (numeric, int, bigint, smallint, float, number, double,int32...)
Text	Datetime formats(depending on the date format configured for DB server. If format matches, the record will be accepted)
Number	Text
Date Time	Text



*The mapping from Number and Date time to Date time and Number respectively is restricted.*

## Schedule

The **Schedule** section enables the Admin user to schedule the data export process. The schedule option vary based on the selected Source Data Template.

## Daily Attendance Detail

The **Daily Attendance detail** will have the following options as shown.

The screenshot shows a configuration window for 'Daily Attendance Detail'. It includes an 'Export' section with 'Database' set to 'MS SQL Server' and 'Source Data Template' set to 'API\_Template\_Daily'. Below this is a 'Table-Field Mapping' section, followed by a 'Schedule' section. The 'Schedule' section has several options: 'Active' (unchecked), 'Enable Filter' (unchecked), 'Schedule' (Daily), 'Filter Date By' (Process Date), 'Every' (1), 'Day of the Month', 'Run time (HH:MM)', 'Retry Count' (1), 'Retry Interval' (1 Hour), 'Daily Attendance Of' (Previous Day), and 'Enable Alerts For' (Success, Failure). At the bottom, there are buttons for 'Add', 'Edit', 'Save', 'Manual Transfer', 'Cancel', and 'Filter'.

- Check the **Active** box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the events/users whose data is to be exported. Check this check box and click on the **Filter** button.

The Event Selection and User Selection Filters pop-up appears.



*Event Selection is applicable when Template selected is API\_Template\_ATDEvents or API\_Template\_ACSEvents or Template\_ATDEvents or Template\_ACSEvents.*

**Event Selection**  
 All     Allowed Events     Denied Events

**User Selection**  
 All     Select Groups     Select Users

Group

Search

<input type="checkbox"/> Select	ID	user
<input type="checkbox"/>	2678	Parth Kapadia
<input type="checkbox"/>	2Person	2Person
<input type="checkbox"/>	2Person01	2Person01

- **User Selection:** Select the desired option — All, Select Groups or Select Users.
  - If you select **All**, data of all the users will be exported.
  - If you select **Selected Groups**, the list of Groups appear in the grid. Select the check boxes of the desired Groups whose data is to be exported.
  - If you select **Selected Users**, the list of Users appear in the grid. Select the check boxes of the desired Users whose data is to be exported.
- Click **Apply** to save the configurations done or click **Cancel** to discard. The Filter pop-up closes.
- In **Schedule**, select the desired option for data transfer— **Daily** or **Monthly**.

- On selection of **Monthly** option, user can set data transfer process to run only once in a month. By default, **Monthly** option would be selected.

**Export**

Database

Source Data Template

**Table-Field Mapping**

**Schedule**

Active

Enable Filter

Schedule  Filter Date By

Every  Day of the Month

Run time (HH:MM)

Retry Count

Retry Interval  Hour

Attendance Period  Day of  To  Day of

Enable Alerts For  Success  Failure

- If you select Monthly, configure the **Attendance Period**, that is, the starting and the ending day of the attendance period for which the data is to be exported. Select the from Day of the Current/Previous Month to the Day of the Current/Previous Month

- When selecting **Daily** option for Schedule, the options appears as shown.

The screenshot shows the 'Export' configuration window. At the top, 'Database' is set to 'MS SQL Server' and 'Source Data Template' is set to 'Template\_Daily'. Below this is a 'Table-Field Mapping' section. The 'Schedule' section is expanded, showing the following settings:

- Active:**
- Enable Filter:**
- Schedule:** **Daily** (dropdown)
- Every:** 1 (dropdown) **Day of the Month**
- Run time (HH:MM):** 09:00 (text input)
- Retry Count:** 1 (dropdown)
- Retry Interval:** 1 (dropdown) **Hour**
- Daily Attendance Of:**  Previous Day  Current Day
- Enable Alerts For:**  **Success**  **Failure**

- If you select **Daily**, configure the **Daily Attendance of**. Configure to transfer data for either **Previous Day** attendance data or **Current Day** attendance data with respect to schedule run day.
- In **Every \_\_ Day of the Month**, specify the day of the month on which the export process is to be run.
- Specify the **Run time** in HH:MM format when the export process is to be run.
- Set the **Retry Count** to retry again for export in case of export failure.
- Set the **Retry Interval** in hours from the drop down list. This parameter specifies the time period between successive retries.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the check boxes as per your requirement:

Select **Success** check box to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** check box to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer, that is, if both the above check boxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

## Monthly Attendance Summary

The **Monthly Attendance Summary** will have the following unique options as shown.

**Export**

Database: MS SQL Server

Source Data Template: Template\_Monthly

**Table-Field Mapping**

**Schedule**

Active

Enable Filter

Every: 1 Day of the Month

Run time (HH:MM): 10:00

Retry Count: 1

Retry Interval: 1 Hour

Attendance Period: Previous Month

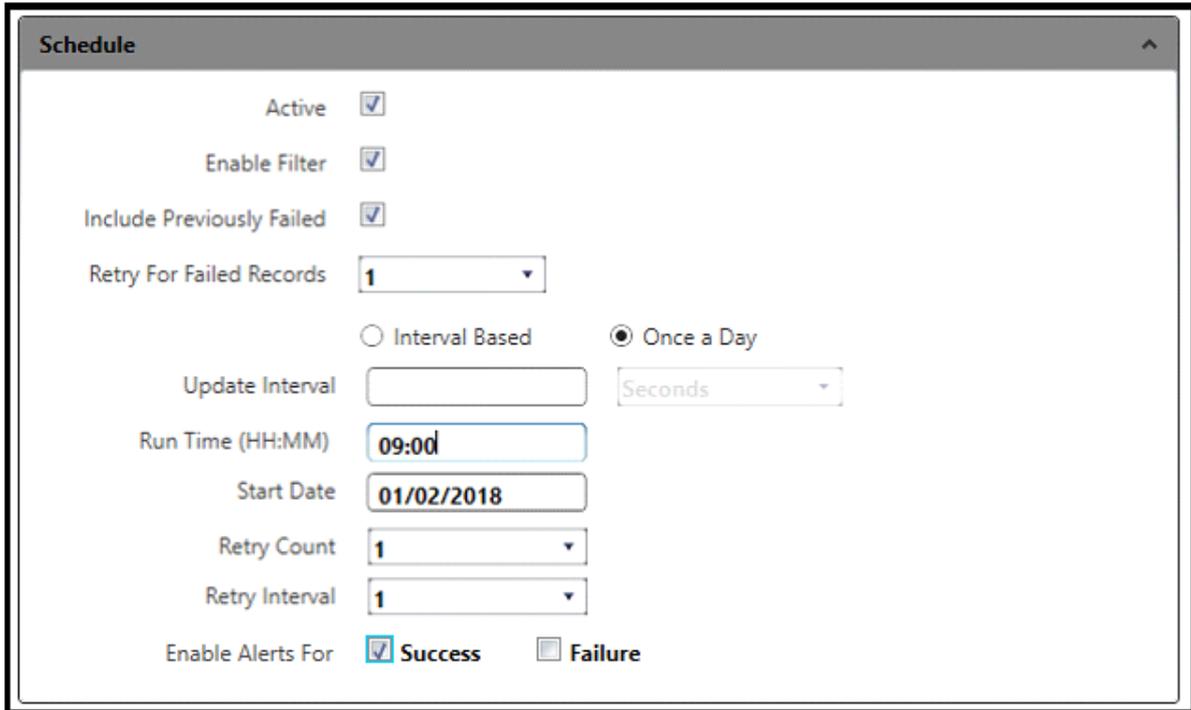
Enable Alerts For:  Success  Failure

- The configuration of the parameters is similar to Daily Attendance Details, except the below mentioned parameter.
- Select the **Attendance Period** for which the monthly Attendance summary data is to be exported. The Admin user can select either the **Previous Month** or **Current Month** option.

For details of other parameters, refer to ["Daily Attendance Detail"](#).

## Attendance Events or Access Control Events -Schedule

The following schedule options will be available.



The screenshot shows a 'Schedule' configuration window with the following settings:

- Active:
- Enable Filter:
- Include Previously Failed:
- Retry For Failed Records: 1 (dropdown)
- Update Interval:  Seconds (dropdown)
- Run Time (HH:MM): 09:00 (text input)
- Start Date: 01/02/2018 (text input)
- Retry Count: 1 (dropdown)
- Retry Interval: 1 (dropdown)
- Enable Alerts For:  Success  Failure

- Select the **Active** check box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the events/users whose data is to be exported. Check this check box and click on the **Filter** button.

The Event Selection and User Selection Filters pop-up appears.



*Event Selection is applicable when Template selected is API\_Template\_ATDEvents or API\_Template\_ACSEvents or Template\_ATDEvents or Template\_ACSEvents.*

Event Selection

All  Allowed Events  Denied Events

User Selection

All  Select Groups  Select Users

Group: user

Search: user

<input type="checkbox"/> Select	ID	user
<input type="checkbox"/>	2678	Parth Kapadia
<input type="checkbox"/>	2Person	2Person
<input type="checkbox"/>	2Person01	2Person01

Apply Cancel

- **Event Selection:** Select the desired option — All, Allowed Events or Denied Events.
  - If you select **Both**, all Allowed and Denied events will be exported.
  - If you select **Allowed Events**, only Allowed events will be exported.
  - If you select **Denied Events**, only Denied events will be exported.
- **User Selection:** Select the desired option — All, Select Groups or Select Users.
  - If you select **All**, data of all the users will be exported.
  - If you select **Selected Groups**, the list of Groups appear in the grid. Select the check boxes of the desired Groups whose data is to be exported.
  - If you select **Selected Users**, the list of Users appear in the grid. Select the check boxes of the desired Users whose data is to be exported.
- Click **Apply** to save the configurations done or click **Cancel** to discard. The Filter pop-up closes.
- **Include Previously Failed Records:** By enabling this check box, the records which are failed to export previously will be exported in the next retry.

The IN-OUT Attendance events and Access Control events of user which are failed to export during database connection error will be exported when database connection is restored.



*Only failed records due to Destination Table connectivity issue should be considered for this functionality.*

- **Retry for Failed Records:** Select the number of times for which the failed records will be tried again for export.
- Select the desired option for the frequency at which the application will update the destination database — Interval Based, Once a Day

#### **Interval Based**

If you select this option configure the **Update Interval** and **Start Date**.

- Specify the **Update Interval** in seconds, minutes or hours to define the frequency at which the application will update the destination database.

#### **Once a Day**

If you select this option configure the **Run Time**, **Retry Count** and **Retry Interval**.

- Select the **Once a Day** option to schedule the export once every day at a scheduled **Run Time (HH:MM)**.
- Specify the **Start Date** from which the export process is to be initiated. The records from the start date to the present date will be exported.
- Specify the **Retry count** as the number of times for which system will try again to export the failed records with an interval gap of hours set in **Retry Interval**.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the check boxes as per your requirement:

Select **Success** check box to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** check box to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer, that is, if both the above check boxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

## **Custom Template - User Details Template-Schedule**

This is not a default template. Custom Templates can be added from the COSEC Web. These are then visible in the Integrate. To add Custom Templates refer to the User Guide, Admin Module > System Utilities > Export Data.

- Check the **Active** box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the events/users whose data is to be exported. Check this check box and click on the **Filter** button.

The Event Selection and User Selection Filters pop-up appears.



*Event Selection is applicable when Template selected is API\_Template\_ATDEvents or API\_Template\_ACSEvents or Template\_ATDEvents or Template\_ACSEvents.*

Event Selection

All  Allowed Events  Denied Events

User Selection

All  Select Groups  Select Users

Group

Search

<input type="checkbox"/> Select	ID	user
<input type="checkbox"/>	2678	Parth Kapadia
<input type="checkbox"/>	2Person	2Person
<input type="checkbox"/>	2Person01	2Person01

- **User Selection:** Select the desired option — All, Select Groups or Select Users.
  - If you select **All**, data of all the users will be exported.
  - If you select **Selected Groups**, the list of Groups appear in the grid. Select the check boxes of the desired Groups whose data is to be exported.
  - If you select **Selected Users**, the list of Users appear in the grid. Select the check boxes of the desired Users whose data is to be exported.
- Click **Apply** to save the configurations done or click **Cancel** to discard. The Filter pop-up closes.
- **Include Previously Failed:** By enabling this check box, the records which are failed to export previously will be exported in the next retry.
- **Retry for Failed Records:** Select the number of times for which the failed records will be tried again for export.
- **Export Modified Only:** Enabling this check box will export only the changed or updated user details. Eg: at 10:00 hrs, details of 100 users is exported. At 14:00 hrs (interval based export) the change in 20 users is found. So details of only 20 users will be exported.
- **Export Update Time:** When the export of only modified records is done, then the time at which modified records were exported will get updated for the respective records in destination fields. Eg: For the modified 20 users, the timing will be displayed as 14:00 hours in the destination table..

- You can select the field from the drop down list where the export timing of modified records will be updated. Eg: Suppose you select Edatetime from the options, then the date time of export process will be displayed in Edatetime column of destination server.
- **Set Deleted User Flag:** Suppose the user is deleted from the COSEC system. But that user is already exported in the destination table. So by enabling this you can set the flag to 1 for the respective deleted users when next export will be done.
  - Select the field where the flag is to be updated.
- Select the desired option for the frequency at which the application will update the destination database — Interval Based, Once a Day

#### **Interval Based**

If you select this option configure the **Update Interval** and **Start Date**.

- Specify the **Update Interval** in seconds, minutes or hours to define the frequency at which the application will update the destination database.

#### **Once a Day**

If you select this option configure the **Run Time**, **Retry Count** and **Retry Interval**.

- Select the **Once a Day** option to schedule the export once every day at a scheduled **Run Time (HH:MM)**.
- Specify the **Retry count** as the number of times for which system will try again to export the failed records with an interval gap of hours set in **Retry Interval**.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the check boxes as per your requirement:

Select **Success** check box to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** check box to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer, that is, if both the above check boxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

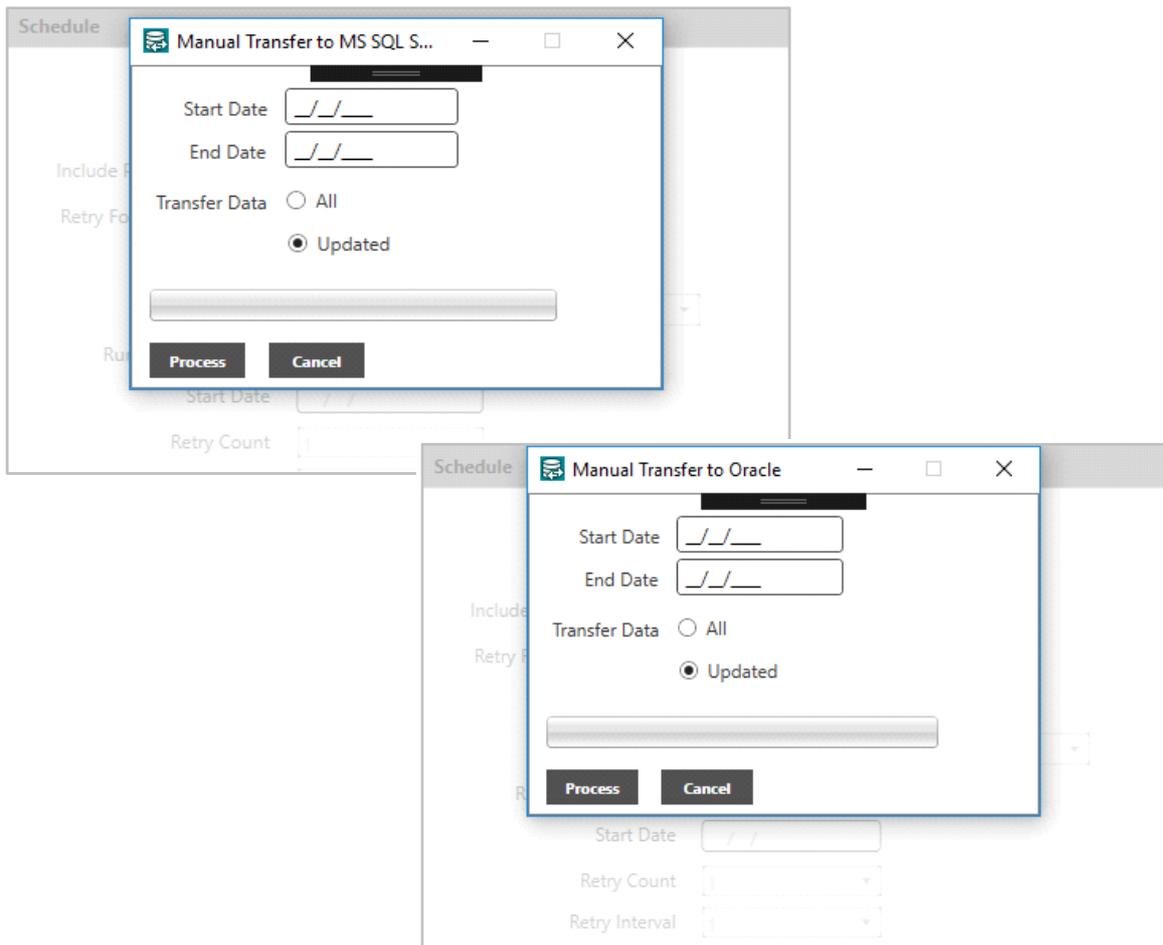
## **Manual Transfer**

The Manual Transfer option provides the Admin user the flexibility to export data of a specific time period as and when required. In order to access this functionality click on the **Stop Service** button to stop the COSEC INTEGRATE service.

Click the **Export Data** button.

On the **Export Data** page, edit and save the export settings as per your requirement.

Click the **Manual Transfer** button. The following window appears for *Manual Transfer to MS SQL Server* and for *Oracle Manual Transfer to Oracle*.



Enter the **Start Date** and **End Date**.

Select the **Transfer Data** mode— **All** or **Updated**.

**All:** All the past data falling within the selected date range will be transferred.

**Updated:** All the updated data falling within the selected date range will be transferred.

Click the **Process** button. The data of the specified time period will be exported to the destination table.

# Export to Postgre Server

---

The application allows the administrator to export device data and event logs from the COSEC application database to predefined tables of the Postgre SQL database. The Postgre SQL database needs to have the following tables in the database:

- **devices**
- **device logs**

The devices table holds the basic data of the COSEC devices like deviceid, serial number (MAC address), ipaddress. This information can be obtained by viewing the ControllerList view of the COSEC database. The MAC addresses however can be directly obtained from the devices. This table holds information on the last ping time and the last log download date for each of the devices.

The devicelogs table receives the event logs from the COSEC database received from each of the COSEC devices.

## Server Configuration

In order to configure this functionality click on the **Server Configuration** button. Select the **Export to Postgre SQL (CGG)** option in the **Integration Mode** field.

Click on **Edit**. The following page appears.

The screenshot shows a configuration window with two main sections: 'COSEC Web Server' and 'Postgre SQL'. The 'Integration Mode' is set to 'Export to Postgre Server'. The 'COSEC Web Server' section has fields for 'Web URL' (http://localhost/COSEC/api.svc), 'User Name' (sa), and 'Password' (masked with dots), and a 'Test Connection' button. The 'Postgre SQL' section has fields for 'Server' (localhost), 'Port' (5433), 'Database Name' (cosec), 'User Name' (postgreqa), and 'Password' (masked with dots), and a 'Test Connection' button. At the bottom are 'Edit', 'Save', and 'Cancel' buttons.

In the **COSEC Web Server** section:

- Specify the web url of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the sa user as set in the COSEC WEB application.

In the **Postgre SQL** section:

- **Server:** Enter the Postgre database server IP address or its network name.
- **Port:** Specify the TCP connection port as configured in the Postgre database server.

- **Database Name:** Specify the destination database name of the Postgre database.
- **User Name:** Specify the database owner ID in this field.
- **Password:** Enter the password of the Database owner as per the site settings.

The **Test Connection** button is provided to test the connections with the web server as well as the Postgre SQL Server database.

Click on **Save** once done.

The administrator can now start the COSEC INTEGRATE service by clicking on the **Start Service** button as explained earlier.

The Admin can now perform Export Data Configuration which is same as MSSQL/Oracle. For more information, refer "[Export Data Configuration](#)" of MSQl/Oracle Server.

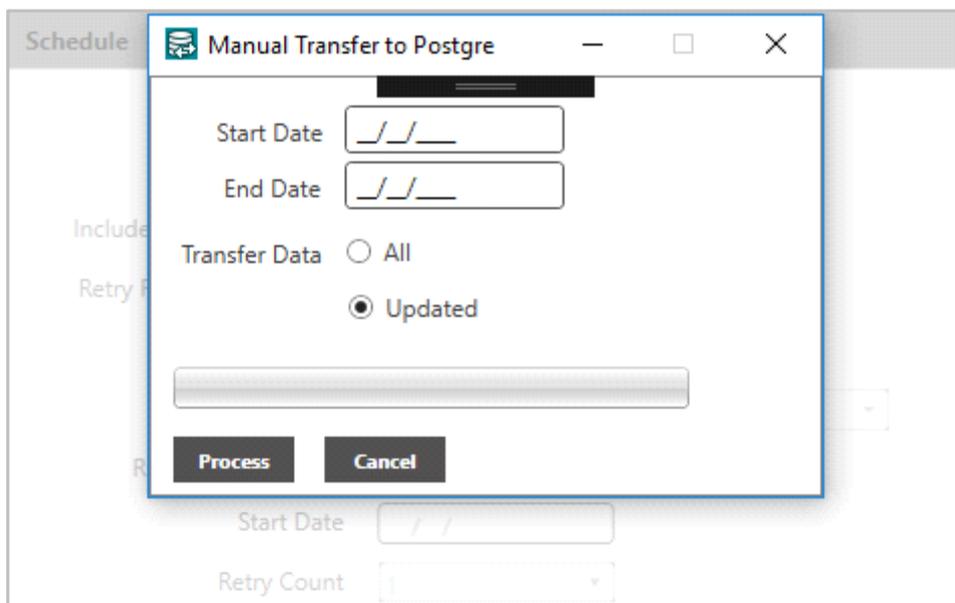
### Manual Transfer

The Manual Transfer option provides the Admin user the flexibility to export data of a specific time period as and when required. In order to access this functionality click on the **Stop Service** button to stop the COSEC INTEGRATE service.

Click the **Export Data** button.

On the **Export Data** page, edit and save the export settings as per your requirement.

Click the **Manual Transfer** button. The following window appears for *Manual Transfer to Postgre*.



Enter the **Start Date** and **End Date**.

Select the **Transfer Data** mode— **All** or **Updated**.

**All:** All the past data falling within the selected date range will be transferred.

**Updated:** All the updated data falling within the selected date range will be transferred.

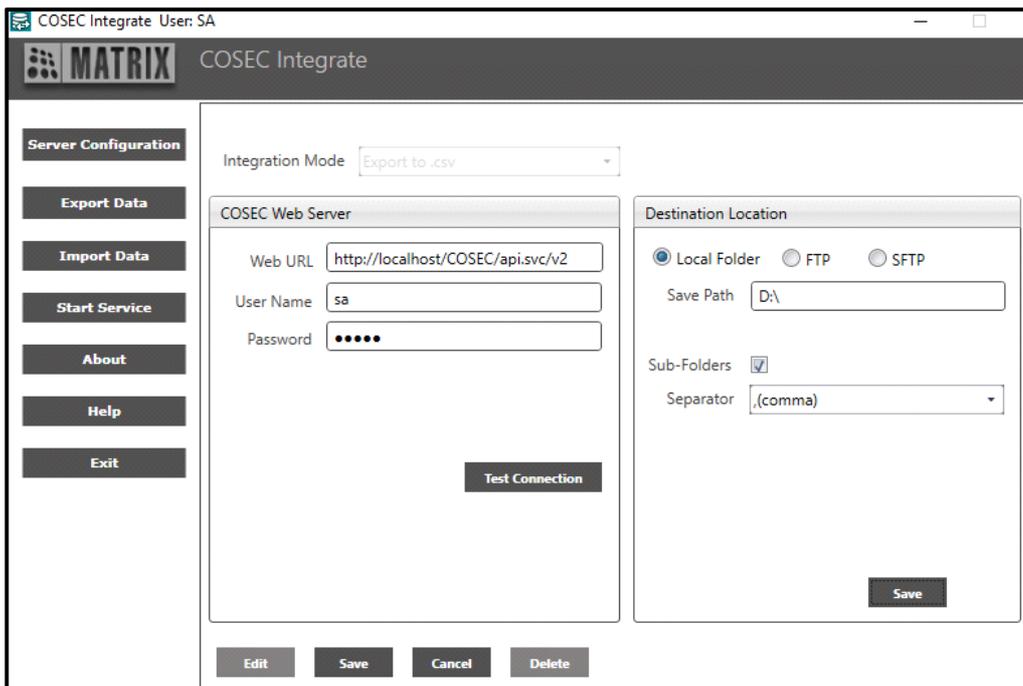
Click the **Process** button. The data of the specified time period will be exported to the destination table.

# Export to CSV

The application allows the administrator to export data related to various user events to a **.csv file** which can be stored at a specific location on FTP/SFTP server or in a local folder on the hard disk.

Click on the **Server Configuration** option select the **Export to .csv option** as the **Integration Mode** field.

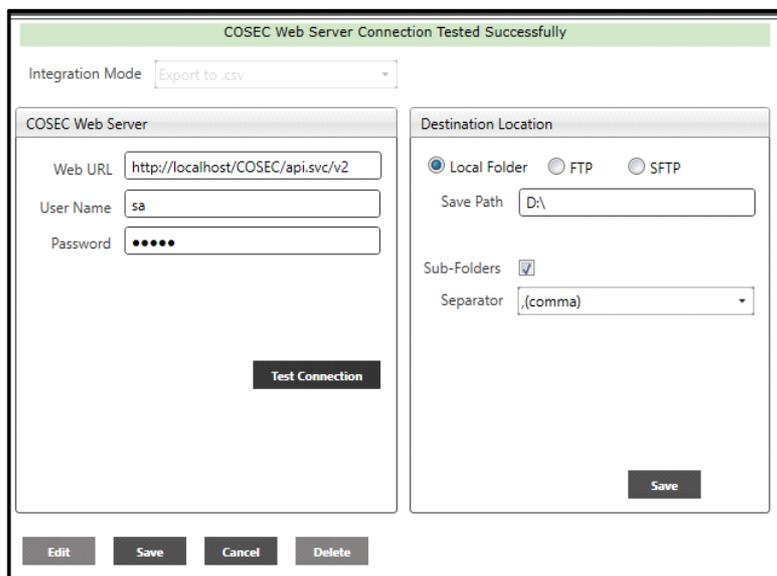
Click on the **Edit** button.



In the **COSEC Web Server** section:

- Specify the Web URL of the API service of the COSEC WEB application as shown.
- Enter the User Name and Password of the “sa” user as set in the COSEC WEB application.

The **Test Connection** button is provided to test the connection with the web server.



In the **Destination Location** section, specify the path at which the system will store the .csv files. For description of FTP and SFTP see [“Export to Text”](#)

Select the **Sub-Folders** check-box to enable a folder hierarchy to be created at the export destination for the export file.

Select the appropriate **Separator** which will be used to separate the fields in exported file.

CSV Data Saved Successfully

Integration Mode: Export to .csv

**COSEC Web Server**

Web URL: http://localhost/COSEC/api.svc/v2

User Name: sa

Password: ●●●●

Test Connection

**Destination Location**

Local Folder  FTP  SFTP

Save Path: D:\

Sub-Folders:

Separator: ,(comma)

Save

Edit Save Cancel Delete

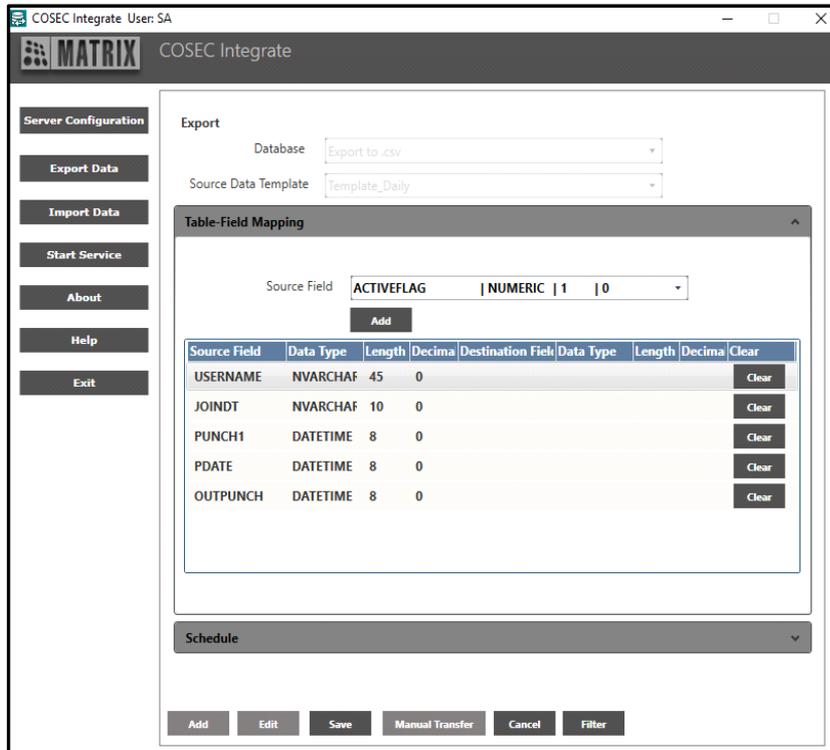
Click on **Save** once done.

## Export Data Configuration

This option enables the Admin user to specify the fields whose values are to be exported to the .csv file.

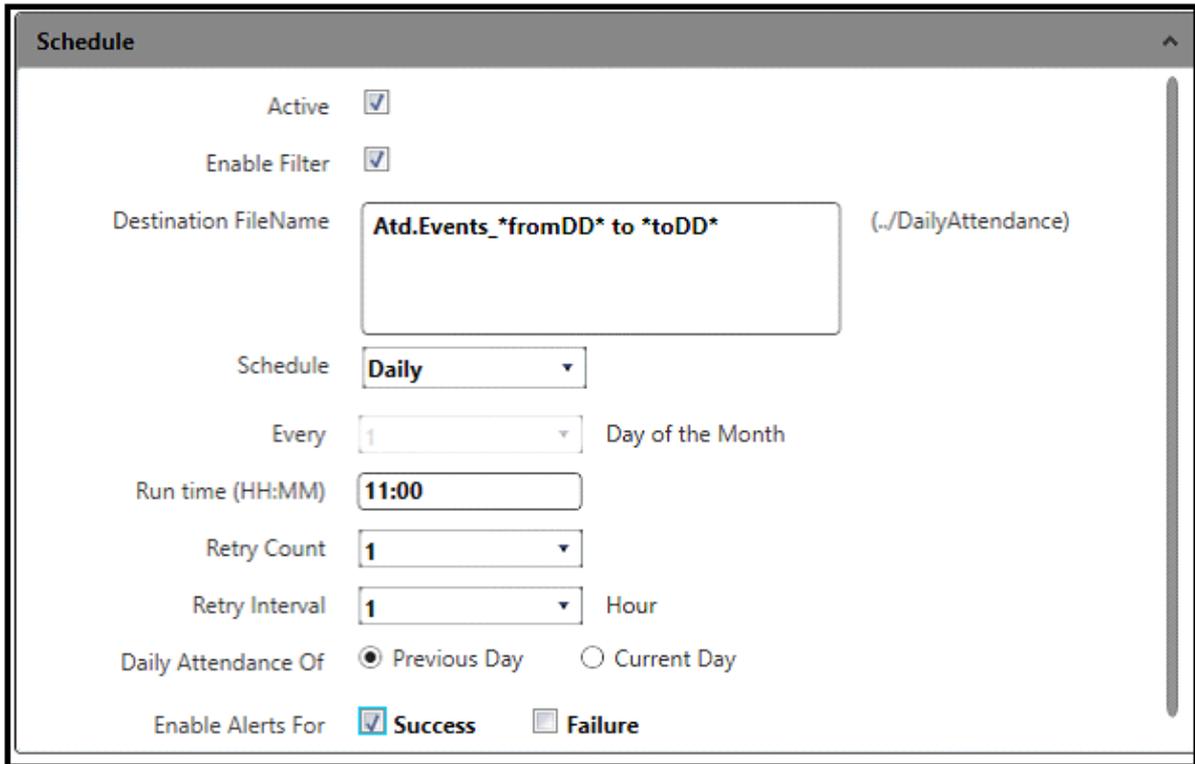
Each database views would provide the relevant fields whose values can be exported from the COSEC database.

**Source Data Template:** Select the required data template and click on the **Edit** button. Now the admin user can start the selection of the fields from the source database as shown.



Select the **Source field** from the drop down list and click on the **Add** button. The field will be added to the grid as shown above. You can remove a selected field by clicking on **Clear** button for the respective field.

The **Schedule** section enables the admin user to schedule the data export process. The schedule option vary based on the selected Source Data Template. The **Daily Attendance detail** will have the following options as shown.



- Check the **Active** box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the users whose data is to be exported. Check this box and click on the **Filter** button. The Multiple selection window appears. Select the users whose data is to be exported.
- **Destination FileName:** Enter a filename in this field. The max characters can be 200. The file name can include Alphanumeric characters, Special characters like **!@#\$%^&()\_+=[]{}';',.<space> A-Z a-z 0-9 and pair of asterisks(\*\*)**.

You can type '\*' in the text-area. This will show the list of variables as per the template type. Select the desired variable. It will be added by appending '\*' at the end. During the deployment of file, the current date-time values will be fetched and replaced instead of these variables.



1. When '\*' is typed in text area, another '\*' will be added automatically as it is allowed only in pair.
2. When you are entering filename and the appearing variable list is disturbing then you can enter **ESC** key to hide the variables for the instance.

Example of Variables:

**\*gdateDD\***- This variable will fetch and show the date on which the data is exported and file is generated. Similarly variables are available for month, year, hours. minute and seconds.

**\*fromDD\***- This variable will fetch and show the date value of the Start Date. Similarly variables are available for month and year. Suppose Start date is 1st date of current month. If current month is Feb so the value of variable will be "1".

**\*toDD\***- This variable will fetch and show the date value of the End Date. Similarly variables are available for month and year. Suppose End date is Last date of current month. If current month is Feb so the value of variable will be "28".

**atdMM\***- This variable will fetch and show the month value of attendance period. Similarly variables is available for year.

**Example** : A new template has been configured with Destination FileName = 'Atd. Events\_\*fromDD\*-\*fromMM\*-\*fromYY\*\_to\_\*toDD\*-\*toMM\*-\*toYY\*

Now, this template is manually exported with date-range, 01-01-2016 to 02-01-2016. Thus, the exported file name will be Atd. Events\_01-01-16\_to\_02-01-16.csv

The system creates a folder named **DailyAttendance** in the path as specified in the server configuration.

- **Schedule:** Select the option as **Daily** or **Monthly** to run the schedule
  - For **monthly schedule** specify the **day** of the month on which the export process is to be run. And select the **Attendance period** i.e. starting and the ending day of the attendance period for which the data is to be exported.
  - For **daily schedule** select the **Daily Attendance** of Previous Day or Current Day for which the attendance details is to be exported.
- **Run time:** Specify the Run time in HH:MM format when the export process is to be run.
- **Retry Count:** Set the Retry Count from the drop down list to retry the export if it gets failed.
- **Retry Interval:** Select the Retry Interval in hours from the drop down list. This parameter specifies the time period between successive retries.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.

Then click on **Save** button to save the schedule. Now you can start service for running the export schedule. See [“Exporting Data” on page 29.](#)

The **Monthly Template** will have the same options as mentioned above except the **Attendance Period** option.

**Schedule**

Active

Enable Filter

Destination FileName  (../MonthlyAttendance)

Every  Day of the Month

Run time (HH:MM)

Retry Count

Retry Interval  Hour

Attendance Period

Enable Alerts For  Success  Failure

The **ATD Events** and **ACS Events** templates' schedule is shown below.

**Schedule**

Active

Enable Filter

Destination FileName  (../AttendanceEvents)

Interval Based  Once a Day

Update Interval

Run Time (HH:MM)

Start Date

Retry Count

Retry Interval

Enable Alerts For  Success  Failure

- Specify the **Update Interval** in seconds, minutes or hours to define the frequency at which the application will export the data to the csv file.
- Specify the **Start Date** from which the export process is to be initiated.



*In the csv format for exporting data, the records in the csv file would be sorted in the same order as they were added.*

## Exporting Data

### Schedule Export

For starting the export of file, after saving the schedule; click on **Start Service** button. The exported file will be exported at the path specified in Server configuration.

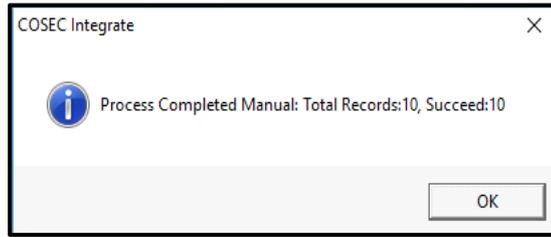
The Daily Attendance exported file is shown below.

Name	Date modified	Type	Size
Atd.Events_01 to 05	07-Feb-18 3:16 PM	Microsoft Excel C...	1 KB

	A	B	C	D	E	F
1	Chirag		1-1-18 12:00 AM	9:00:00	19:00:00	
2	Khushbu		1-1-18 12:00 AM			
3	Chirag		2-1-18 12:00 AM	9:15:00	19:30:00	
4	Khushbu		2-1-18 12:00 AM			
5	Chirag		3-1-18 12:00 AM	9:00:54	19:00:53	
6	Khushbu		3-1-18 12:00 AM			
7	Chirag		4-1-18 12:00 AM	9:16:29	19:16:27	
8	Khushbu		4-1-18 12:00 AM			
9	Chirag		5-1-18 12:00 AM			
10	Khushbu		5-1-18 12:00 AM			
11						

### Manual Export

You can also do the Manual transfer of data by clicking **Manual Transfer** button.



The name of the exported text file will be as per the Destination File name and data will be as per the Table field Mapping. The exported file will be as shown in Schedule export.

# Export to MySQL

---

Select the **Export to MySQL Server** option in the **Integration Mode** field. Click on the **Edit** button.

The screenshot shows a configuration window with the following fields and buttons:

- Integration Mode:** A dropdown menu set to "Export to MySQL".
- COSEC Web Server section:**
  - Web URL:**
  - User Name:**
  - Password:**
  - Test Connection:** A button.
- MySQL section:**
  - Server:**
  - Port:**
  - Database Name:**
  - User Name:**
  - Password:**
  - Test Connection:** A button.
- Bottom buttons:** , ,

In the **COSEC Web Server** section:

- Specify the web url of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the sa user as set in the COSEC WEB application.

In the **Destination Database** Server section:

- The **Database Type** will be SQL SERVER.
- **Server:** Enter the database server name in the following format - **Database server name\Instance Name** e.g. dbserver\sqlexpress.
- **Database Name:** Specify the database name of the destination database as per the site settings.
- **User Name:** Specify the database administrator ID in this field.
- **Password:** Enter the password of the Database administrator as per the site settings.

The **Test Connection** button is provided to test the connections with the web server as well as the SQL Server database.

Click on **Save** once done.

## Export Data Configuration

This option enables the Admin user to map the fields from the COSEC database tables to fields in a third party database. Click on the **Export Data** button. The following page appears.

**Export**  
Database: MySQL Server  
Source Data Template: Daily Attendance Detail

**Table-Field Mapping**  
Destination Table: daily\_attendance  
Source Field: AdlUserID | numeric | 8 | 0  
Destination Field: AdlUser\_ID | Int32 | 11 | 0  
Add

Source Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
AdlUserID	numeric	8	0	AdlUser_ID	Int32	11	0	Clear
ProcessDate_D	datetime	8	0	processdate_d	DateTime	19	0	Clear
UserID	varchar	10	0	UserID	VarChar	10	0	Clear

The COSEC INTEGRATE application provides four data templates in line with the default **Database Views** as shown. The COSEC System provides the following four Database views which would provide the relevant field options to be mapped with the fields of a destination database.

- Monthly Attendance Summary
- Daily Attendance Detail
- Attendance Events
- Access Control Events

Each of the above database views would provide the relevant fields whose values can be exported from the COSEC database. Select the required data template and click on the **Edit** button.

Now the Admin user can start the **mapping of the fields** from the source database to that of the destination database as shown.

Source Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
AdlUserID	numeric	8	0	AdlUser_ID	Int32	11	0	Clear
ProcessDate_D	datetime	8	0	processdate_d	DateTime	19	0	Clear
UserID	varchar	10	0	UserID	VarChar	10	0	Clear

- Select the **Destination Table** from the pull down list.
- Select the **Source field** from the COSEC database.
- Select the **Destination field** from the selected destination table.
- Click on the **Add** button. The mapped fields will be visible in the bottom grid as shown.

*In the case of Attendance Events and Access Control Events the user needs to map the UserID and the EventDateTime\_D source fields to fields in the destination table.*



*Map the UserID, PMonth and Pyear source fields to appropriate fields in the destination table in the case of the Monthly Attendance Summary.*

*Map the UserID and ProcessDate\_D source fields to appropriate fields in the destination table in the case of the Daily Attendance Detail.*

The **Schedule section** enables the Admin user to schedule the data export process. The schedule option vary based on the selected Source Data Template. The **Daily Attendance detail** will have the following options as shown.

**Schedule** ^

Active

Enable Filter

Schedule Monthly ▼

Every 1 ▼ Day of the Month

Run time (HH:MM)  

Retry Count 1 ▼

Retry Interval 1 ▼ Hour

Attendance Period 1 ▼ Day of Current Month ▼ To

1 ▼ Day of Current Month ▼

Enable Alerts For  **Success**  **Failure**

- Check the **Active** box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the users whose data is to be exported. Check this box and click on the **Filter** button. The Multiple selection window appears. Select the users whose data is to be exported.
- Specify the day of the month on which the export process is to be run.
- Specify the **Run time** in HH:MM format when the export process is to be run.
- Set the **Retry Count** from the pull down list.
- Set the **Retry Interval** in hours from the pull down list. This parameter specifies the time period between successive retries.
- Specify the **Attendance Period** by specifying the starting and the ending day of the attendance period for which the data is to be exported.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

Select any one option for data transfer i.e, Daily or Monthly in the field **Schedule**.On selection of Monthly option, user can set data transfer process to run only once in a month.By default, **Monthly** option would be selected.When selecting **Daily** option from the drop down list, the options appears as shown.

User can configure to transfer data for either previous day's attendance data or current day's attendance data with respect to schedule run day.

The **Monthly Attendance Summary** will have the following unique options:

- Select the **Attendance Period** for which the monthly Attendance summary data is to be exported.The Admin user can select either the **previous month** or **current month** option.

On selecting the **Attendance Events** or the **Access Control Events** the following schedule options will be available.



- Check the **Active** box to enable the schedule.
- Set the filter parameters as described earlier.
- Specify the **Update Interval** in seconds, minutes or hours to define the frequency at which the application will update the destination database.
- Specify the **Start Date** from which the export process is to be initiated.

After defining the above parameters, the Admin user has to click on the **Start Service** button.



The application will start the **COSEC INTEGRATE** service as shown.

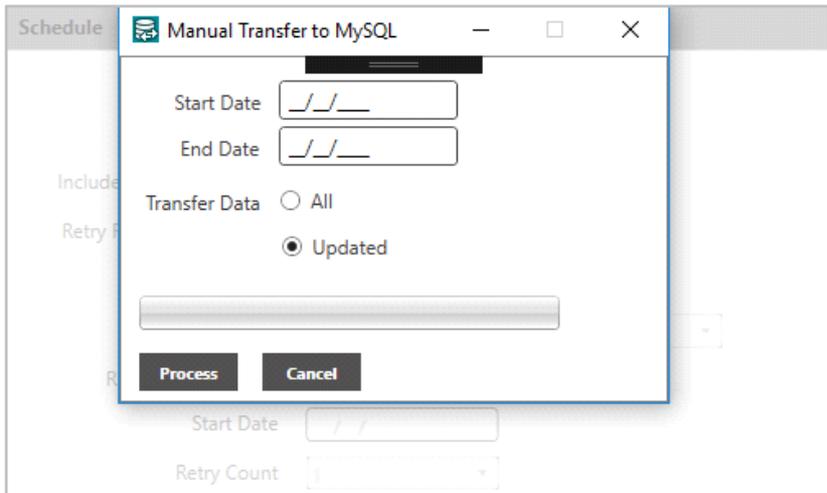
## Manual Transfer

The Manual Transfer option provides the Admin user the flexibility to export data of a specific time period as and when required. In order to access this functionality click on the **Stop Service** button to stop the COSEC INTEGRATE service.

Click the **Export Data** button.

On the **Export Data** page, edit and save the export settings as per your requirement.

Click the **Manual Transfer** button. The following window appears for *Manual Transfer to MySQL*.



Enter the **Start Date** and **End Date**.

Select the **Transfer Data** mode— **All** or **Updated**.

**All:** All the past data falling within the selected date range will be transferred.

**Updated:** All the updated data falling within the selected date range will be transferred.

Click the **Process** button. The data of the specified time period will be exported to the destination table.

# Export to Text

---

The application allows the administrator to export data related to various user events as mentioned earlier to a text file which can be stored at a specific location on FTP/SFTP server or in a local folder on the hard disk.

Click on the **Server Configuration** option and select the **Export to text file** option as the **Integration Mode**.

Click on the **Edit** button.

The screenshot displays a web-based configuration interface. On the left is a vertical sidebar with buttons for 'Server Configuration', 'Export Data', 'Import Data', 'Start Service', 'About', 'Help', and 'Exit'. The main area is divided into two panels. The top panel, 'Integration Mode', has a dropdown menu set to 'Export to Text File'. Below it is the 'COSEC Web Server' section with input fields for 'Web URL' (http://localhost/COSEC/api.svc/v2), 'User Name' (sa), and 'Password' (masked with dots), and a 'Test Connection' button. To the right is the 'Destination Location' section with radio buttons for 'Local Folder' (selected), 'FTP', and 'SFTP'. It includes a 'Save Path' field (D:\Security Documents\Sheetal\Cui), a checked 'Sub-Folders' checkbox, and a 'Separator' dropdown menu (comma). At the bottom of the main area are 'Edit', 'Save', 'Cancel', and 'Delete' buttons.

In the **COSEC Web Server** section:

- Specify the Web URL of the API service of the COSEC WEB application as shown.
- Enter the User Name and Password of the sa user as set in the COSEC WEB application.

The **Test Connection** button is provided to test the connections with the web server

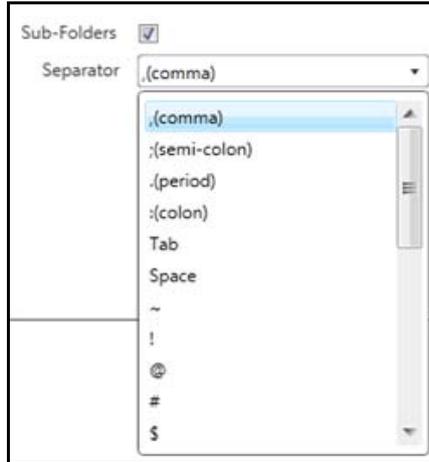
In the **Destination Location** section, you can select the storage as Local, FTP or SFTP.

## 1. Local Folder:

Specify the **Path** at which the system will store the text files.

Select the **Sub-Folders** checkbox to enable a folder hierarchy to be created at the export destination for the text file.

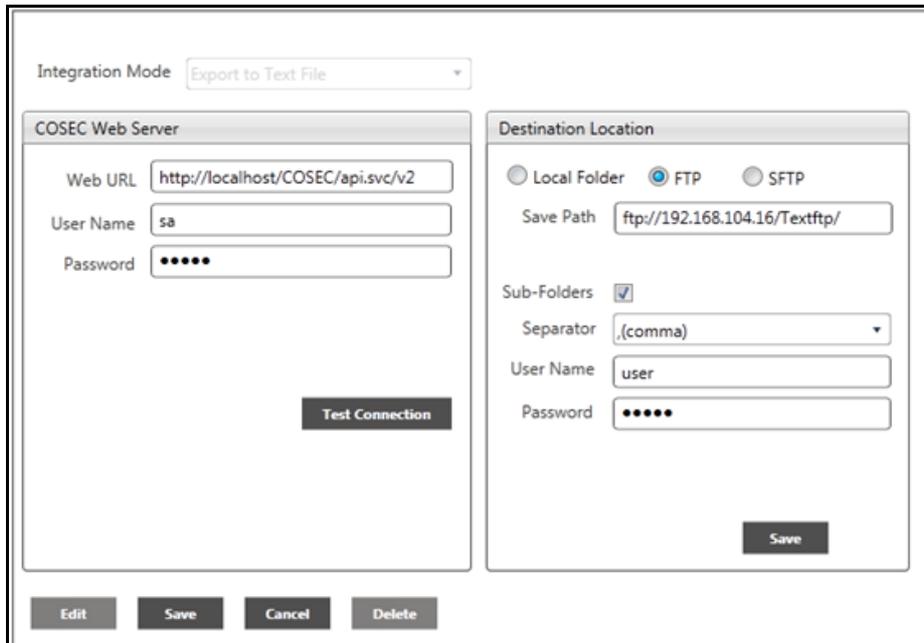
**Separator:** Select the separator which will be used to separate the fields in text file.



**2. FTP:**

Specify the **FTP** path to store the text file. The purpose for Sub-folders and Separator is described in Local Folder section.

Enter the **User Name** and **Password** to access the path.



**3. SFTP:**

SSH File Transfer Protocol (SFTP) is a network protocol which provides secure file transfer capabilities. The user has to configure the SFTP server, and provide login credentials which are to be used by COSEC Integrate to login as a client.

**Server:** Specify the IP address where SFTP server is installed.

COSEC Integrate works with SFTP on default port number 22. If user wants to use other port Eg: Port 33 then server can be written with port number like 192.168.104.20:33 in SFTP server configuration.

**Save Path:** Specify the path where the export data are to be saved. This path can be pre-configured while installing the SFTP server. In this case you can specify Path as “\”.

The purpose for Sub-folders and Separator is described Local Folder section.

The screenshot shows the 'COSEC Integrate' configuration window. At the top, 'Integration Mode' is set to 'Export to Text File'. The window is divided into two main sections: 'COSEC Web Server' and 'Destination Location'.

**COSEC Web Server:**

- Web URL:
- User Name:
- Password:
- Test Connection:

**Destination Location:**

- Local Folder:
- FTP:
- SFTP:
- Server:
- Save Path:
- Sub-Folders:
- Separator:
- User Name:
- Password:
- With Key:  Without Key:
- Key:
- Save:

Specify the **UserName** and **Password** to access the PC 192.168.104.20 where SFTP server is installed.

If you select **With Key** option, then you will need to enter the RSA key generated by the SFTP server. You can find the key in SFTP server Settings.

If you select **Without Key** option, then key is not required.

Click on **Save** after the configuration is done.

## Export Data Configuration

This option enables the admin user to specify the fields whose values are to be exported to the text file.

Each database views would provide the relevant fields whose values can be exported from the COSEC database.

**Source Data Template:** Select the required data template

The screenshot shows the 'COSEC Integrate' application window with the 'Export Data' configuration panel open. The window title is 'COSEC Integrate User: SA'. The 'Export' section is active, showing the following configuration:

- Database:
- Source Data Template:
- Text File Template:
- Text File Configuration: A list of templates is shown, with 'Template\_Daily' selected. The list includes: API\_Template\_Daily, API\_Template\_Monthly, API\_Template\_ATDEvents, API\_Template\_ACSEvents, Template\_Daily, Template\_Monthly, Template\_ATDEvents, and Template\_ACSEvents.
- Database Field:  (NUMERIC [1] [8])
- Column Name:
- Start-End Position:   Length:
- Alignment:  Padding:
- Data Formatting:
- Buttons: Add, Edit, Cancel, Delete
- Schedule:
- Buttons: Add, Edit, Save, Manual Transfer, Cancel, Filter

**Text File Template:** The templates will be generated once the Text file configuration is done. For configuring Text file template, click on **Add** button by scrolling the Text file Configuration section.

If the Text file template is available then you can select it and click on the **Edit** button for selecting the fields from the source database.

## Text File Configuration

**Template:** Specify the name of the Template to which the source file is to be mapped.

**File Header:** Click on the check box to enable this option. Click on the drop down arrow to select the options as mentioned below

- **Column Name:** Enable the checkbox. You can specify the name of the columns while selecting Data type and the related fields which is described later. The Column Name will then be exported as the header.
- **Custom:** For a common header of the page, you can select the custom option and specify a file header name in adjacent box.

The allowed functions are mentioned below:

**AVG:** Returns the average. Syntax: AVG(arg1)

**CONVERT:** Converts particular expression to a specified .NET framework type. Syntax: Convert(expression, type)

**COUNT:** Counts how many numbers are in the list of arguments. Syntax: COUNT(arg1,)

**IIF:** Specifies a logical test to perform. Syntax: IIF(expression, [value\_if\_true],[value\_if\_false])

**ISNULL:** Checks an expression and either returns the checked expression or a replacement value.  
Syntax: ISNULL(expression, replacement value)

**MAX:** Returns the maximum value in a list of arguments. Syntax: MAX(arg1)

**MIN:** Returns the minimum value in a list of arguments. Syntax: MIN(arg1)

**LEN:** Gets the length of a String. Syntax: CONVERT(expression)

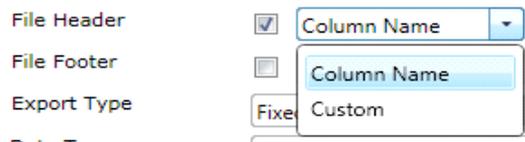
**SUBSTRING:** Gets a sub-string of a specified length, starting at a specified point in the string.  
Syntax: SUBSTRING(expression, start, length)

**SUM:** Adds its arguments. Syntax: SUM(arg1)

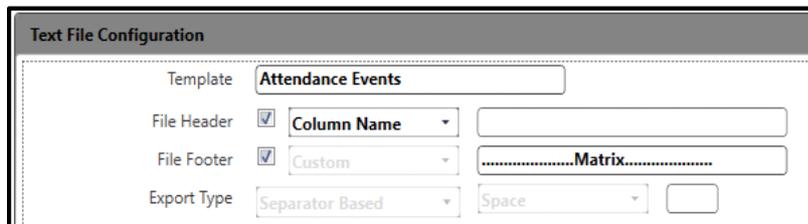
**STDEV:** Estimates standard deviation based on a sample. Syntax: STDDEV(arg1)

**VAR:** Estimates variance based on a sample. Syntax: VAR(arg1)

**TRIM:** Removes all leading and trailing blank characters like \r, \n, \t. Syntax: TRIM(arg1)



**File Footer:** Click on the check box to enable this option. Specify the desired footer in the adjacent box as shown below.

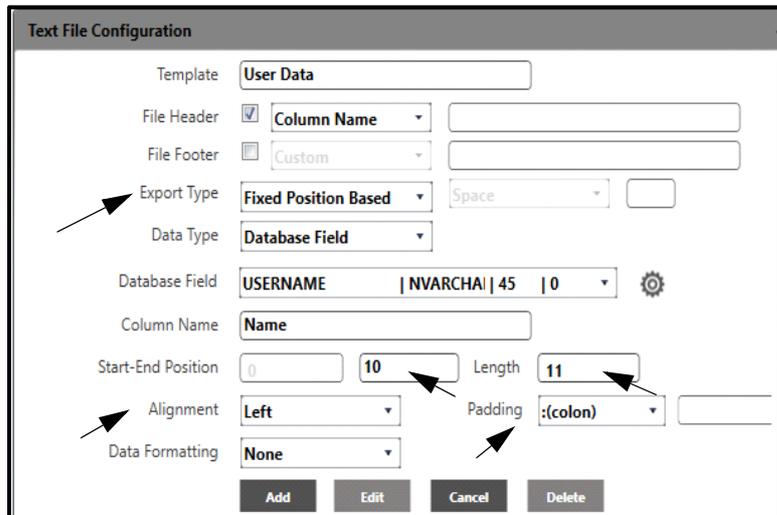


**Export Type:** Click on the drop down arrow to select the export type as Fixed Position based or Separator based.



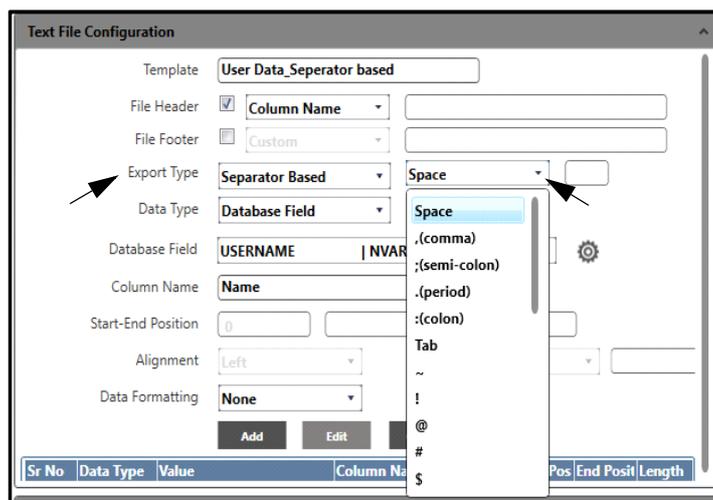
*The Export type option can be selected when the template is created for the first time. When the template is edited then Export type will be disabled.*

1. **Fixed Position Based:** Select this option if you want the columns to be fixed position based.
  - **Start-End Position:** Enter the position value. Eg: 0 to 10 position is set by entering end position as 10
  - **Length** will be updated automatically according to the fixed position value. You can manually enter the Length value less than the position value.
  - **Alignment** can be selected as Left or Right.
  - **Padding:** Select the Padding value from the drop down options for appending it after the data end point upto the position end point.
  - **Data formatting:** Select the Data formatting if required.

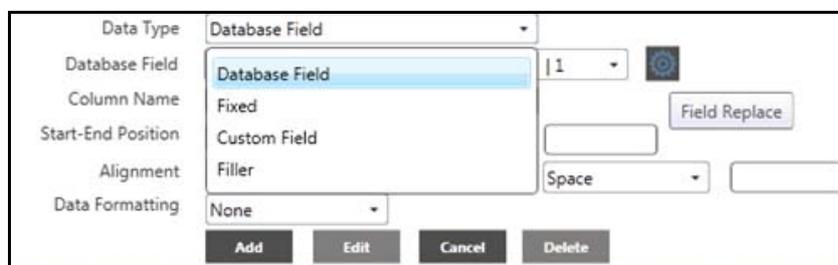


2. **Separator Based:** Select this option if you want the columns to be Separator based.

- Select the separator options from the drop down list as shown below. You can also select the custom separator option and specify the separator in the adjacent box.

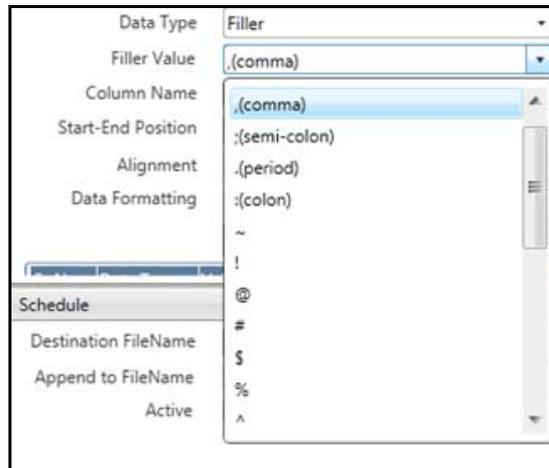


**Data Type:** Click on the drop down arrow to select the type of data to be exported.

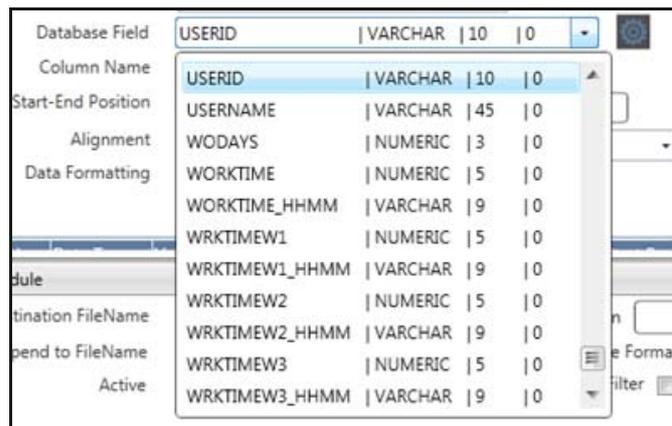


- **Fixed:** Select this option and enter the value in the Fixed value field as shown below. For eg: the organization name remains common to all the employees, so it is considered as fixed value.
- **Custom Field:** Select this option and enter the value in the Custom value field as shown below.

- **Filler:** If Export type is selected as Fixed position based, then the data type can be selected as Filler. This is used as the gap between the columns. Filler itself acts as a column, which has value other than data for eg: space, comma etc. Specify the filler value from the drop down list.



- **Database Field:** Click the drop down arrow and select the database field options.



When **Data Type** is selected as **Database Field**, then you have the option to Replace value. [“Example: Replace Value”](#)

When **Data Type** is selected as **Custom field**, the user can create an expression with the fields available in the selected export view template. The expression should be validated same as in the Text File Configuration section of Export to Text.

"Field Conditions support replacing value after performing comparison of field value with some fixed value / database field.

*Example: Replace Value*

To compare punch event date-time (EDateTime) and insertion date-time (IDateTime).

During door offline condition suppose only first punch(9:00 hrs) is recorded and after that punch was not recorded for that day. So punch can be inserted after the first punch.

The system will compare the inserted punch> event punch, then the Noteflag column will be replaced with the value 1. You can give any name to the column for the fields.

Click the Field Replace button  to replace the desired field value.

Condition	Field Value	Replace Value	Clear

**Field Value** can be Database Field value or fixed value with which the database field value (selected from the Text file configuration) will be compared.

**Replace Value** can be a fixed value or any custom value. (Here If IDATETIME > EDATETIME, then column will be replace with value 1)

Condition	Field Value	Replace Value	Clear
>	EVENTDATETIME	1	Clear

## Schedule Section

The **Schedule section** enables the Admin user to schedule the data export process. The schedule option vary based on the selected Source Data Template.

The **Daily Template** will have the following options as shown. (Attendance Period for monthly schedule and Daily Attendance for Daily schedule.)

The screenshot shows the 'Schedule' configuration window. It includes the following fields and options:

- Active:**
- Enable Filter:**
- File Generation:** **Single** (dropdown), **Organization** (dropdown)
- Destination FileName:** **Matrix\_attendance "from DD" to "to dd"** (text input), **txt** (Extension)
- Schedule:** **Monthly** (dropdown)
- Every:** **1** (dropdown), **Day of the Month**
- Run time (HH:MM):** **15:30** (text input)
- Retry Count:** **1** (dropdown)
- Retry Interval:** **1** (dropdown), **Hour**
- Attendance Period:** **1** (dropdown), **Day of** **Current Month** (dropdown), **To**

- Check the **Active** box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the users whose data is to be exported. Check this box and click on the **Filter** button. The Multiple selection window appears. Select the users whose data is to be exported.
- **File Generation:** Select **Single** or **Multiple** configuration for the file generation based on Enterprise groups. On Selecting **Multiple** option, second drop-down of File Generation will be activated. It enables to generate different files based on enterprise groups as shown below.

The screenshot shows the 'Schedule' configuration window with the 'File Generation' set to 'Multiple'. It includes the following fields and options:

- Active:**
- Enable Filter:**
- File Generation:** **Multiple** (dropdown), **Organization** (dropdown)
- Destination FileName:** **attendance "from dd" to "to dd"** (text input), **txt** (Extension)
- Schedule:** **Monthly** (dropdown)
- Every:** **1** (dropdown), **Day of the Month**
- Run time (HH:MM):** **15:30** (text input)
- Retry Count:** **1** (dropdown)
- Retry Interval:** **1** (dropdown), **Hour**
- Attendance Period:** **1** (dropdown), **Day of** **Current Month** (dropdown), **To**

- **Destination FileName:** Enter a filename in this field. The max characters can be 200. The file name can include Alphanumeric characters, Special characters like !@#%&()\_+=[]{};',.<space> A-Z a-z 0-9 and pair of asterisks(\*\*).

You can type '\*' in the text-area. This will show the list of variables as per the template type. Select the desired variable. It will be added by appending '\*' at the end. During the deployment of file, the current date-time values will be fetched and replaced instead of these variables.



1. When '\*' is typed in text area, another '\*' will be added automatically as it is allowed only in pair.
2. When you are entering filename and the appearing variable list is disturbing then you can enter **ESC** key to hide the variables for the instance.

Example of Variables:

**\*gdateDD\***- This variable will fetch and show the date on which the data is exported and file is generated. Similarly variables are available for month, year, hours, minute and seconds.

**\*fromDD\***- This variable will fetch and show the date value of the Start Date. Similarly variables are available for month and year. Suppose Start date is 1st date of current month. If current month is Feb so the value of variable will be "1".

**\*toDD\***- This variable will fetch and show the date value of the End Date. Similarly variables are available for month and year. Suppose End date is Last date of current month. If current month is Feb so the value of variable will be "28".

**atdMM\***- This variable will fetch and show the month value of attendance period. Similarly variables is available for year.

**Example :** A new template has been configured with Destination FileName = 'Atd. Events\_\*fromDD\*-\*fromMM\*-\*fromYY\*\_to\_\*toDD\*-\*toMM\*-\*toYY\*

Now, this template is manually exported with date-range, 01-01-2016 to 02-01-2016. Thus, the exported file name will be Atd. Events\_01-01-16\_to\_02-01-16.txt

- **Schedule:** Select the option as **Daily** or **Monthly** to run the schedule.
  - For **monthly schedule** specify the **day** of the month on which the export process is to be run. And select the **Attendance period** i.e. starting and the ending day of the attendance period for which the data is to be exported.
  - For **daily schedule** select the **Daily Attendance** of Previous Day or Current Day for which the attendance details is to be exported.
- **Run time:** Specify the Run time in HH:MM format when the export process is to be run.
- **Retry Count:** Set the Retry Count from the drop down list to retry the export if it gets failed.
- **Retry Interval:** Select the Retry Interval in hours from the drop down list. This parameter specifies the time period between successive retries.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

Then click on **Save** button to save the schedule. Now you can start service for running the export schedule. [See "Exporting Data" on page 49.](#)

The **Monthly Template** will have the same options as mentioned above except the **Attendance Period** option.

The screenshot shows the 'Schedule' configuration window with the following settings:

- Active:
- Enable Filter:
- File Generation: Multiple (dropdown)
- Organization: (dropdown)
- Destination FileName: Matrix Attendance \*atdMM\*-\*atdYY\* (text box)
- Extension: txt (text box)
- Every: 1 (dropdown)
- Day of the Month: (dropdown)
- Run time (HH:MM): 12:30 (text box)
- Retry Count: 1 (dropdown)
- Retry Interval: 1 (dropdown) Hour
- Attendance Period: Previous Month (dropdown) - An arrow points to this dropdown.
- Enable Alerts For:  Success  Failure

The **ATD Events** and **ACS Events** templates' schedule is shown below.

## Exporting Data

### Schedule Export

For starting the export of file, after saving the schedule; click on **Start Service** button. The exported file will be exported at the path specified in Server configuration.

The data in the exported file is as per the Text file configuration shown below.

```

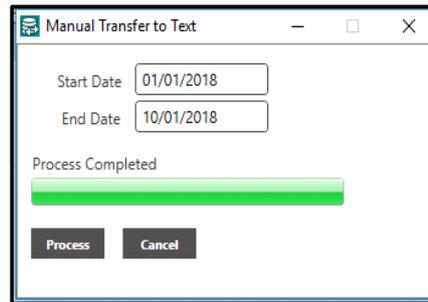
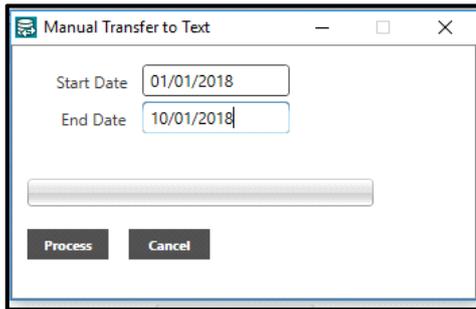
Matrix Attendance 01 to 10 - Notepad
File Edit Format View Help
Punch Date Shift Name IN Time OUT Time
01/01/2018 GS Chirag 09:00:00 19:00:00
GS Khushbu
02/01/2018 GS Chirag 09:15:00 19:30:00
GS Khushbu
03/01/2018 GS Chirag 09:00:54 19:00:53
GS Khushbu
04/01/2018 GS Chirag 09:16:29 19:16:27
    
```



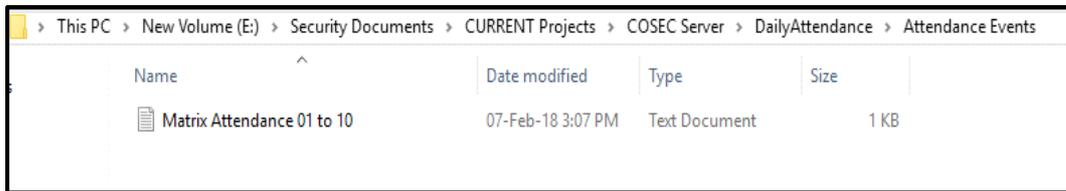
Sr No	Data Type	Value	Column Name	Start Pos	End Pos	Length
1	Database	PUNCH1	Punch Date			
2	Database	SCHEDULESHIFT	Shift			
3	Database	USERNAME	Name			
4	Database	PUNCH1_TIME	IN Time			
5	Database	OUTPUNCH_TIME	OUT Time			

### Manual Export

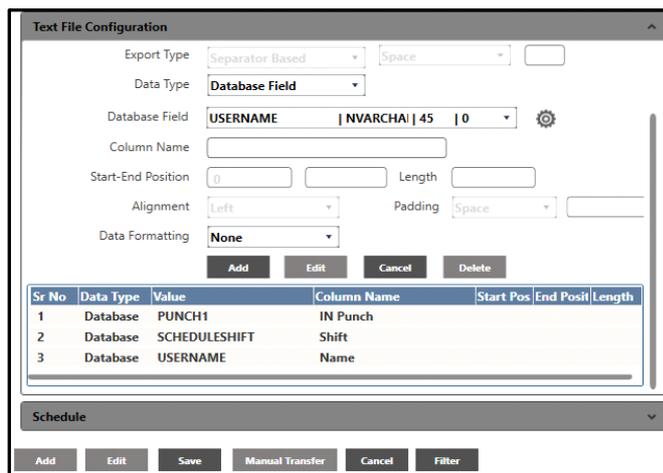
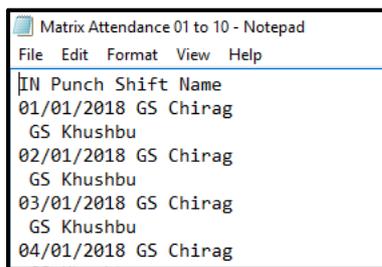
You can also do the Manual transfer of data by clicking **Manual Transfer** button.



The name of the exported text file is as per the Destination File name.



The data in the exported file is as per the Text file configuration shown below.

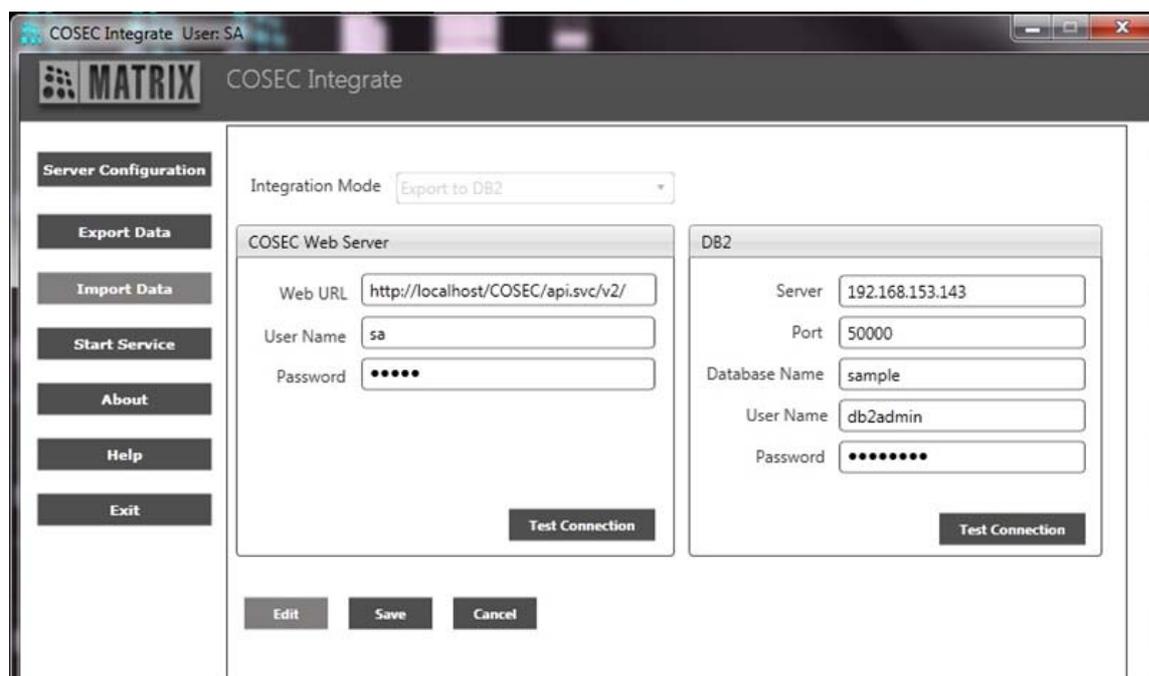


# Export to DB2

The application allows the administrator to export access events from the COSEC application database to a destination **IBM DB2 database server** (supported version 10.5.3 and above).

Click on the **Server Configuration** button to start the configuring process.

The following page appears. Select the **Export to DB2** option in the **Integration Mode** field.



Click on the **Edit** button.

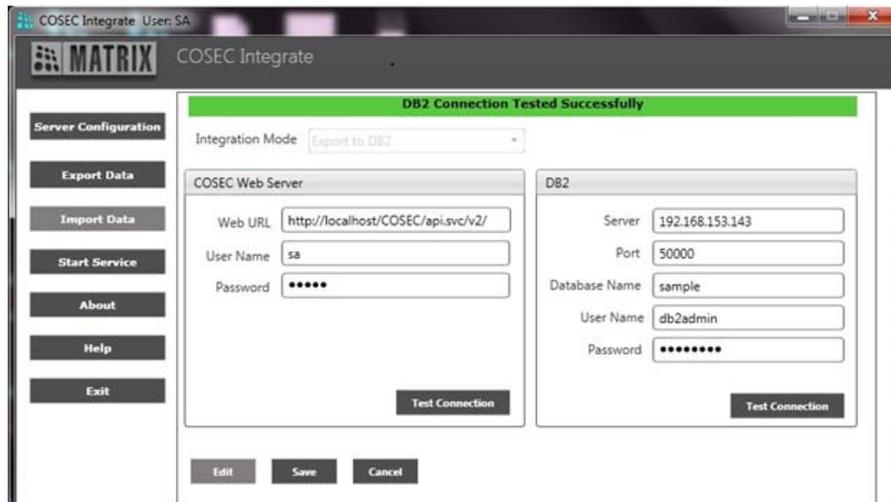
In the **COSEC Web Server** section:

- Specify the web url of the API service of the COSEC WEB application as shown.
- Enter the User Name and Password of the system administrator (sa) as set in the COSEC WEB application.

In the **DB2** destination database server section:

- Enter the database server name and port.
- Specify the database name of the destination database as per the site settings.
- Specify the database administrator ID as user name.
- Enter the password of the database administrator as per the site settings.

The **Test Connection** button is provided to test the connections with the web server as well as the DB2 database.

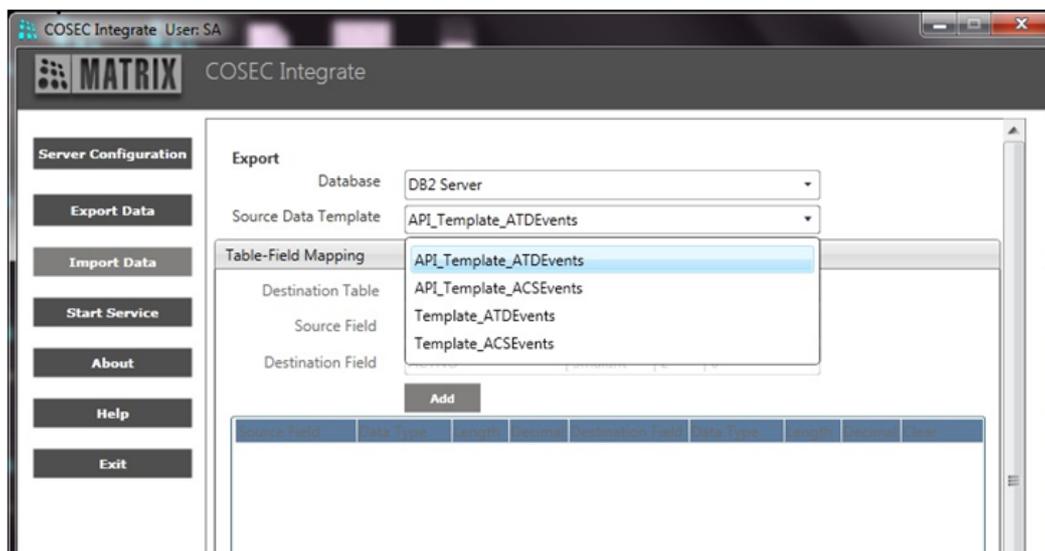


Click on **Save** once done.

## Export Data Configuration

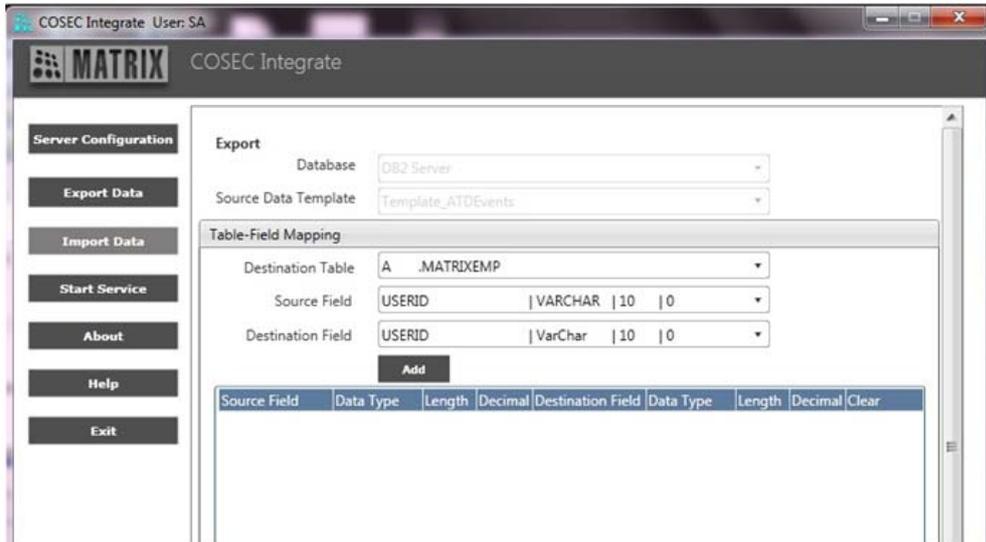
Click the **Export Data** button to map fields between source and destination tables.

For the DB2 Server Database, select a source template from the system-defined data templates or other custom export templates defined on COSEC that appear for selection.

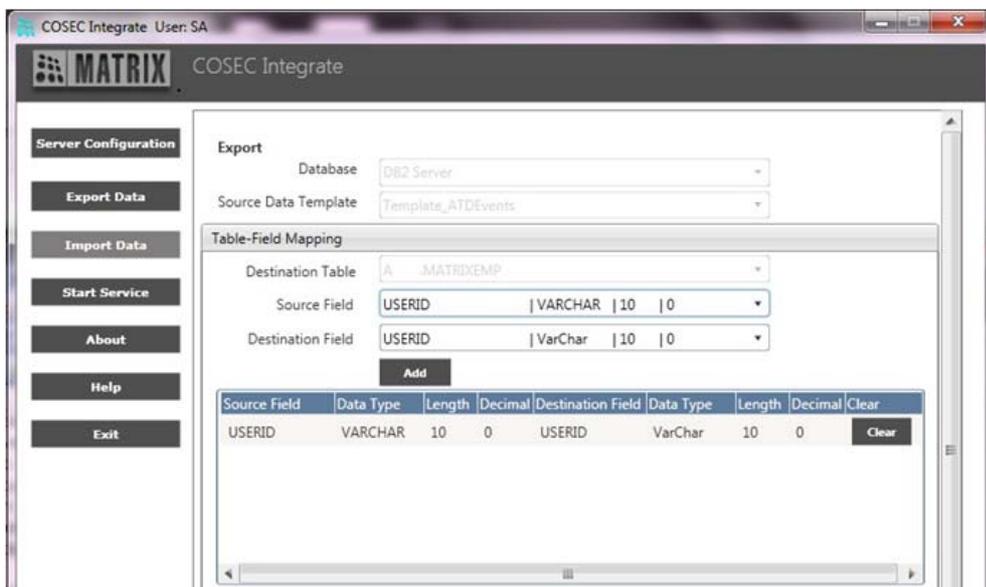


Each of the above database views would provide the relevant fields whose values can be exported from the COSEC database. Select the required data template and click on the **Edit** button.

Now the admin user can start the mapping of the fields from the source database to that of the destination database as shown.



- Select the **Destination Table** from the pull down list.
- Select the **Source field** from the COSEC database.
- Select the **Destination field** from the selected destination table.
- Click on the **Add** button. The mapped fields will be visible in the bottom grid as shown.



In the **Schedule** panel, user can set up a schedule for data update between source and destination databases or update data manually using the **Manual Transfer** option.

- Check the **Active** box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the users whose data is to be exported. Check this box and click on the **Filter** button. The Multiple selection window appears. Select the users whose data is to be exported.
- To use the exported data for SAP Integration, enable the **SAP Integration** checkbox.
- To set **Interval Based** data update, specify the **Update Interval**.
- To schedule data update **Once a Day**, specify the **Run time** in HH:MM format, **Start Date** (i.e. date since when export data is to be fetched from COSEC database), **Retry Count** and **Retry Interval**.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

- Click **Save** and start service.

# Export to People Works

This feature allows the user to export data from the COSEC application database to a user-defined FTP location in the .XLSX format. The export filename will follow the below format:

“PeopleWorks<ddmmyyy><hhmm>.xlsx”

Click on the **Server Configuration** button to start the configuring process.

The following page appears. Select the **Export to PeopleWorks** option in the **Integration Mode** field.

The screenshot shows the 'COSEC Integrate User: SA' application window. On the left is a sidebar with buttons: Server Configuration, Export Data, Import Data, Start Service, About, Help, and Exit. The main area is titled 'COSEC Integrate' and contains the following fields and buttons:

- Integration Mode:** A dropdown menu set to 'Export to PeopleWorks'.
- COSEC Web Server:**
  - Web URL:
  - User Name:
  - Password:
  - Test Connection** button
- Destination Location:**
  - Save Path:
  - Sub-Folders:
  - User Name:
  - Password:
  - Save** button
- At the bottom: **Edit**, **Save**, **Cancel**, and **Delete** buttons.

Click on the **Edit** button.

In the **COSEC Web Server** section:

- Specify the Web URL of the API service of the COSEC WEB application as shown.
- Enter the User Name and Password of the system administrator (sa) as set in the COSEC WEB application.

The **Test Connection** button is provided to test the connections with the web server

In the **Destination Location** section, specify the FTP based storage path (and access credentials) on which the system will export data as shown. Select the **Sub-Folders** checkbox to enable a folder hierarchy to be created at the export destination for the file.

Click on **Save** to save the destination settings.

COSEC Web Server Connection Tested Successfully

Integration Mode

COSEC Web Server	Destination Location
Web URL <input type="text" value="http://localhost/COSEC/api.svc/v2"/>	Save Path <input type="text" value="ftp:\\192.168.102.46"/>
User Name <input type="text" value="sa"/>	Sub-Folders <input checked="" type="checkbox"/>
Password <input type="password" value="....."/>	User Name <input type="text" value="ftpuser"/>
<input type="button" value="Test Connection"/>	Password <input type="password" value="....."/>
<input type="button" value="Save"/>	<input type="button" value="Save"/>

Data Saved Successfully

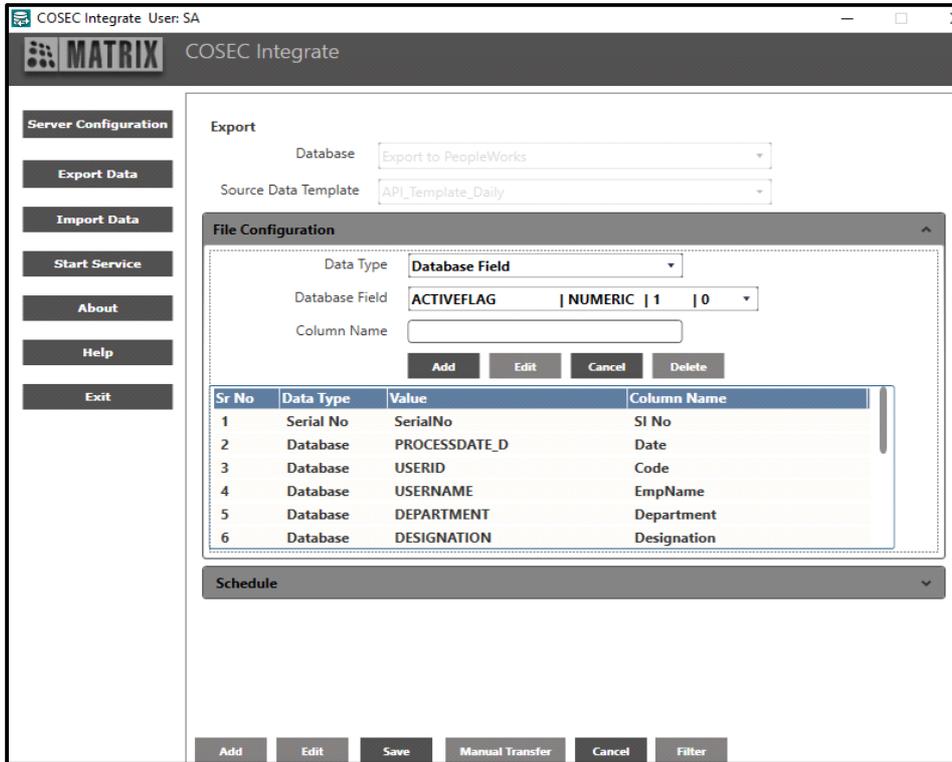
Integration Mode

COSEC Web Server	Destination Location
Web URL <input type="text" value="http://localhost/COSEC/api.svc/v2"/>	Save Path <input type="text" value="ftp:\\192.168.102.46"/>
User Name <input type="text" value="sa"/>	Sub-Folders <input checked="" type="checkbox"/>
Password <input type="password" value="....."/>	User Name <input type="text" value="ftpuser"/>
<input type="button" value="Test Connection"/>	Password <input type="password" value="....."/>
<input type="button" value="Save"/>	<input type="button" value="Save"/>

Click on **Save** to save the server configuration.

## PeopleWorks Export Configuration

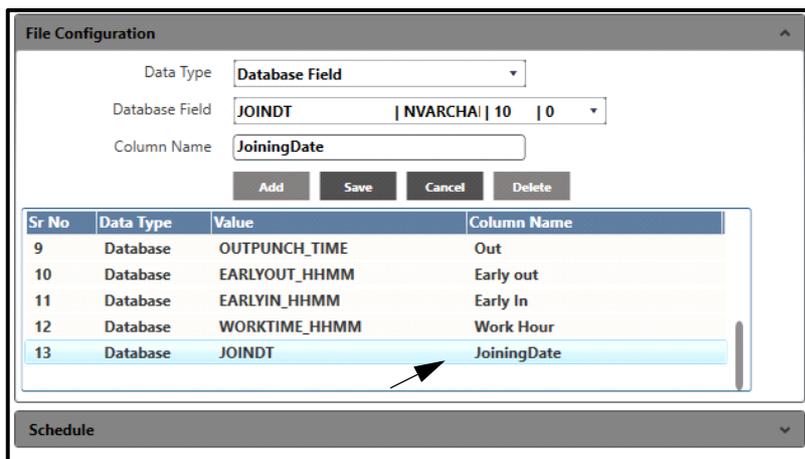
Click the **Export Data** button to map fields between source and destination tables. Select the Database type as **Export to PeopleWorks**.



Click on the **Edit** button.

Select a **Data Type** to configure fields. There are four data types to choose from:

- **Database Field:** Select a Database Field from the drop-down list to be added to the export file and define a new column name against it. Click **Add**.



- **Fixed:** Select this option to set a fixed value for a field as shown below. For eg: the organization name remains common to all the employees, so it is considered as fixed value. Click **Add**.

The screenshot shows the 'File Configuration' dialog box. At the top, there are three input fields: 'Data Type' set to 'Fixed', 'Fixed Value' set to 'Matrix Comsec', and 'Column Name' set to 'Organization'. Below these fields are four buttons: 'Add', 'Edit', 'Cancel', and 'Delete'. At the bottom, there is a table with the following data:

Sr No	Data Type	Value	Column Name
9	Database	OUTPUNCH_TIME	Out
10	Database	EARLYOUT_HHMM	Early out
11	Database	EARLYIN_HHMM	Early In
12	Database	WORKTIME_HHMM	Work Hour
13	Fixed	Matrix Comsec	Organization

An arrow points to the 'Organization' column name in the last row of the table.

- **Custom Field:** Select this option to assign a custom value to a field. Click **Add**.
- **Serial No:** Select this option to set serial number as value for a column. Click **Add**.

The screenshot shows the 'File Configuration' dialog box. The 'Data Type' dropdown is set to 'Custom Field'. Below it, there is a 'Custom Value' dropdown menu that is open, showing options: 'Database Field', 'Fixed', 'Custom Field' (which is highlighted), and 'Serial No'. There is also a 'Delete' button visible. At the bottom, there is a table with the following headers:

Sr No	Data Type	Value	Column Name
-------	-----------	-------	-------------

In the **Schedule** section, user can set up a daily or monthly schedule for data export or export data manually using the **Manual Transfer** option.

The screenshot shows the 'Schedule' configuration window with the following settings:

- Active:
- Enable Filter:
- FileName Format:
- Append to FileName:
- Schedule:  (indicated by a black arrow)
- Every:  Day of the Month
- Run time (HH:MM):
- Retry Count:
- Retry Interval:  Hour
- Daily Attendance Of:  Previous Day  Current Day
- Enable Alerts For:  Success  Failure

The screenshot shows the 'Schedule' configuration window with the following settings:

- Active:
- Enable Filter:
- FileName Format:
- Append to FileName:
- Schedule:
- Every:  Day of the Month
- Run time (HH:MM):
- Retry Count:
- Retry Interval:  Hour
- Attendance Period:  Day of  To  Day of
- Enable Alerts For:  Success  Failure

The description of above fields is given in Export to MSSQL.

- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.

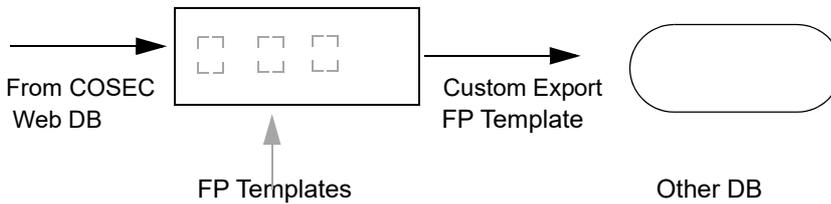


*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

Click **Save** and start service.

# Export FP Template to File

It is required to export FP Template of selected user to some directory path in physical file.



Click on the **Server Configuration** option and select the **Export FP Template to file** option as the **Integration Mode**.

Click on the **Edit** button.

The screenshot shows a web application interface with a sidebar on the left containing buttons for 'Server Configuration', 'Export Data', 'Import Data', 'Start Service', 'About', 'Help', and 'Exit'. The main area is titled 'Integration Mode' and is set to 'Export FP Template to File'. It is divided into two sections: 'COSEC Web Server' and 'Destination Location'. The 'COSEC Web Server' section has fields for 'Web URL' (http://localhost/COSEC/api.svc/v2), 'User Name' (sa), and 'Password' (masked with dots), along with a 'Test Connection' button. The 'Destination Location' section has radio buttons for 'Local Folder' (selected), 'FTP', and 'SFTP', and a 'Save Path' field containing 'D:\Security Documents'. At the bottom of the main area are buttons for 'Edit', 'Save', 'Cancel', and 'Delete'.

In the **COSEC Web Server** section:

- Specify the web url of the API service of the COSEC WEB application as shown.
- Enter the User Name and Password of the sa user as set in the COSEC WEB application.

The **Test Connection** button is provided to test the connections with the web server

In the **Destination Location** section, you can select the storage as Local, FTP or SFTP.

## 1. Local Folder:

Specify the **Path** at which the system will store the FP template files.

## 2. FTP:

Specify the **FTP** path to store the text file.

Enter the **User Name** and **Password** to access the path.

The image shows two side-by-side configuration panels. The left panel, titled 'COSEC Web Server', contains three input fields: 'Web URL' with the value 'http://localhost/COSEC/api.svc/v2', 'User Name' with the value 'sa', and 'Password' with masked characters. A 'Test Connection' button is located at the bottom right of this panel. The right panel, titled 'Destination Location', has three radio buttons: 'Local Folder' (unselected), 'FTP' (selected), and 'SFTP' (unselected). Below these is a 'Save Path' field with the value 'ftp://192.168.104.16/'. Further down are 'User Name' (value 'user') and 'Password' (masked) fields. A 'Save' button is at the bottom right of this panel.

### 3. SFTP:

SSH File Transfer Protocol (SFTP) is a network protocol which provides secure file transfer capabilities. The user has to configure the SFTP server, and provide login credentials which are to be used by COSEC Integrate to login as a client.

The image shows two side-by-side configuration panels. The left panel, titled 'COSEC Web Server', is identical to the previous screenshot, with 'Web URL' 'http://localhost/COSEC/api.svc/v2', 'User Name' 'sa', and 'Password' masked. The right panel, titled 'Destination Location', has three radio buttons: 'Local Folder' (unselected), 'FTP' (unselected), and 'SFTP' (selected). Below these is a 'Server' field with the value '192.168.104.20' and a 'Save Path' field with the value '\\E'. Further down are 'User Name' (value 'user') and 'Password' (masked) fields. At the bottom, there are two radio buttons: 'With Key' (unselected) and 'Without Key' (selected), followed by a 'Key' input field. A 'Save' button is at the bottom right of this panel.

**Server:** Specify the IP address where SFTP server is installed.

**Save Path:** Specify the path where the export data are to be saved. This path can be pre-configured while installing the SFTP server. In this case you can specify Path as "\\".

Specify the **UserName** and **Password** to access the PC 192.168.104.20 where SFTP server is installed.

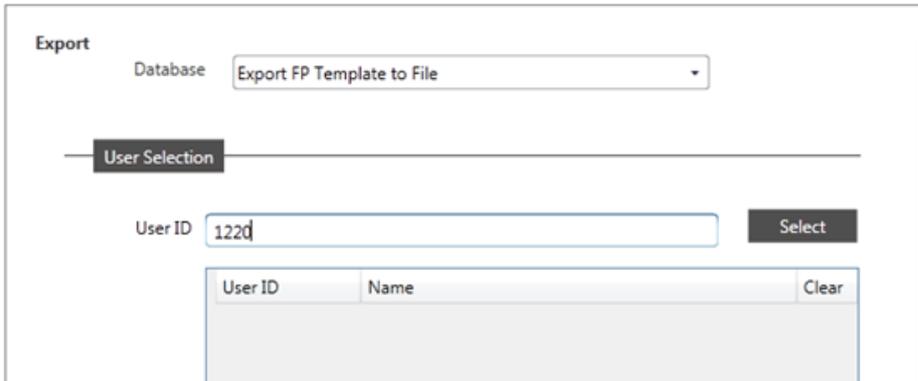
If you select **With Key** option, then you will need to enter the RSA key generated by the SFTP server. You can find the key in SFTP server Settings.

If you select **Without Key** option, then key is not required.

Click on **Save** after the configuration is done.

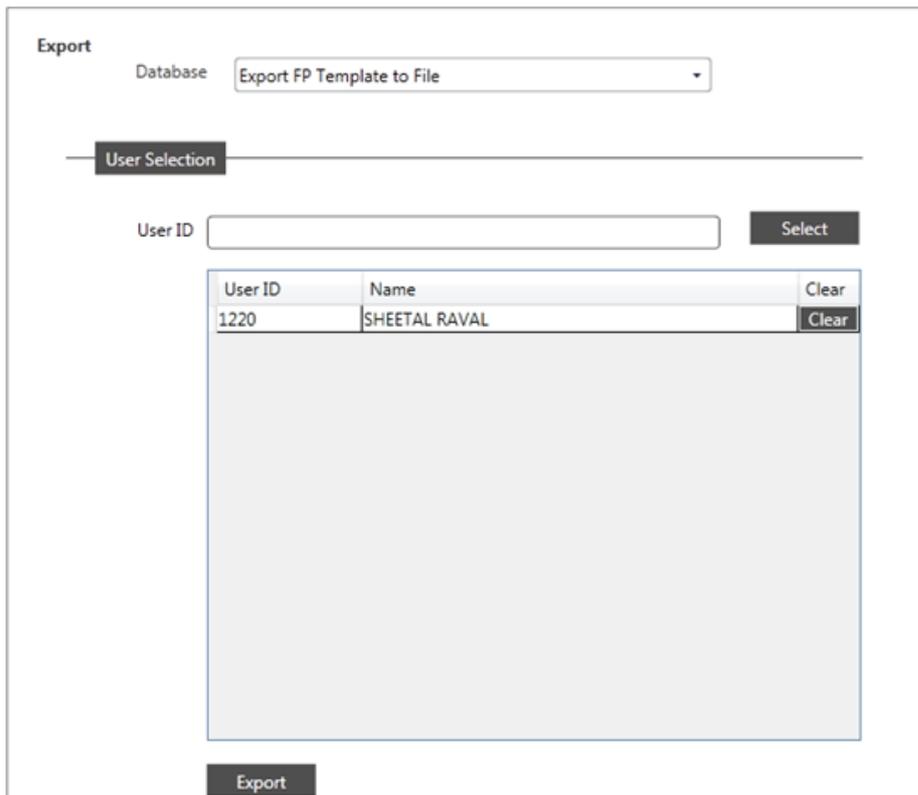
## Export Data Configuration

This option enables the admin user to specify the fields whose values are to be exported to the FP template file.



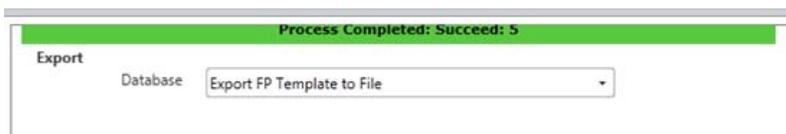
The screenshot shows the 'Export' section of the configuration form. The 'Database' dropdown is set to 'Export FP Template to File'. Below this is a 'User Selection' section with a 'User ID' input field containing '1220' and a 'Select' button. A table below the input field has columns for 'User ID', 'Name', and 'Clear'.

Enter the **User ID** of the user whose FP templates are to be backed up. And click on **Select** button. The user ID and name will be displayed in the grid.



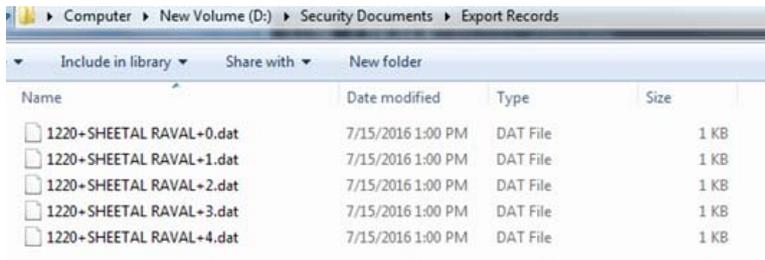
The screenshot shows the 'Export' section after the 'Select' button has been clicked. The 'User ID' input field is now empty. The table below it now contains one row with the user ID '1220' and the name 'SHEETAL RAVAL'. There are 'Clear' buttons for each cell in the row. An 'Export' button is visible at the bottom of the form.

Now click on **Export** button. The export completion will be shown as below:



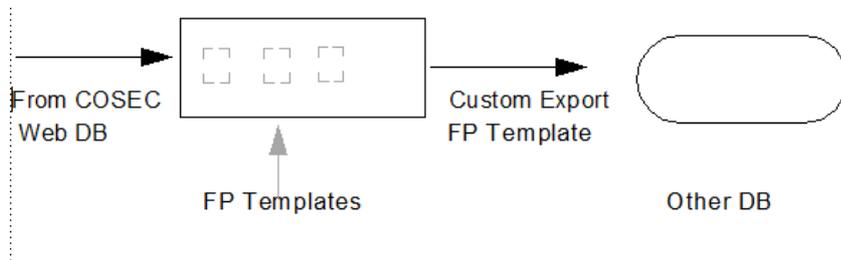
The screenshot shows the 'Export' section with a green banner at the top that reads 'Process Completed: Succeed: 5'. The 'Database' dropdown is still set to 'Export FP Template to File'.

Here you can find 5 FP templates of selected user which are exported as individual files at the Destination location.



# Custom Export- FP Template

Provision is required in Integrate from where user can select physical file of FP templates and insert them to configured database's table with various user details like user id, name, user photo and finger print location. This purpose is served through "Custom Export of FP Template".



Click on the **Server Configuration** option and select the **Custom Export- FP Template** option as the **Integration Mode**.

Click on the **Edit** button.

The screenshot shows a configuration interface divided into two main sections: "COSEC Web Server" and "Template Location".

**COSEC Web Server section:**

- Web URL:
- User Name:
- Password:
- Test Connection** button

**Template Location section:**

- Database Type:
- Server:
- Database Name:
- User Name:
- Password:
- Test Connection** button

In the **COSEC Web Server** section:

- Specify the web url of the API service of the COSEC WEB application as shown.
- Enter the User Name and Password of the sa user as set in the COSEC WEB application.

The **Test Connection** button is provided to test the connections with the web server

In the **Template Location** section:

- The **Database Type** can be selected as SQL SERVER or ORACLE server.
- **Server:** Enter the database server name in the following format - **Database server name\Instance Name** e.g. dbserver\sqlexpress.
- **Database Name:** Specify the database name of the destination database as per the site settings. Eg: COSEC\_HO is the destination database to which you can export the data.



For newly created database, ensure that you have set the password in COSEC Web application. Then only Test connection from COSEC Integrate with Web server will be successful.

- **User Name:** Specify the database administrator ID in this field. This is the username which you have set while installing SQL Server Management Studio in your computer.
- **Password:** Enter the password of the Database administrator as per the site settings. This is the password which you have set while installing SQL Server Management Studio in your computer.

The **Test Connection** button is provided to test the connections with the web server as well as the SQL Server database.

Click on **Save** once done.

In the event of selecting the **Export to Oracle Server** option in the **Integration Mode** field, specify the Oracle server destination address as well as the username and the password (case-sensitive for Oracle Server) in the respective fields as shown below:

The image shows two side-by-side configuration panels. The left panel, titled "COSEC Web Server", has three input fields: "Web URL" with the value "http://localhost/COSEC/api.svc/v2", "User Name" with the value "sa", and "Password" with masked characters. Below these fields is a "Test Connection" button. The right panel, titled "Template Location", has a "Database Type" dropdown menu set to "Oracle", a "Server" input field with the value "192.168.104.16", a "User Name" input field with the value "COSEC", and a "Password" input field with masked characters. Below these fields is a "Test Connection" button.

Test the connection and Save the configuration.

## Export Data Configuration

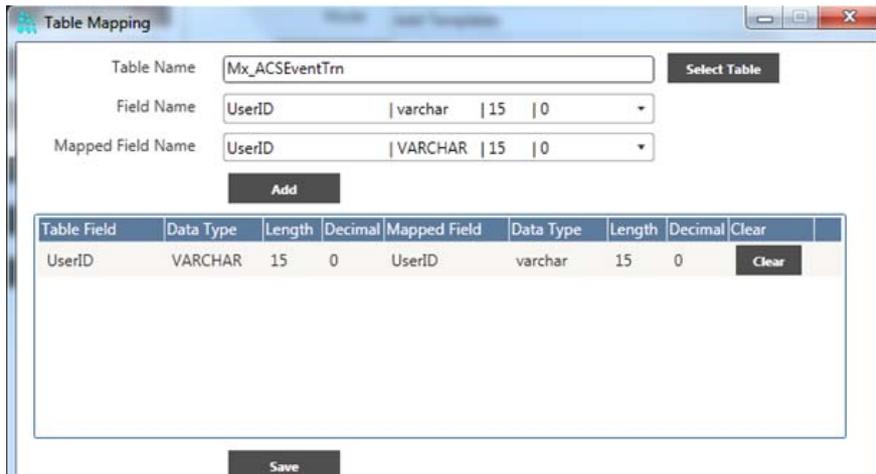
This option enables the admin user to specify the fields whose values are to be exported.

Select the Database "**Custom Export-FP Template SQL Server**".

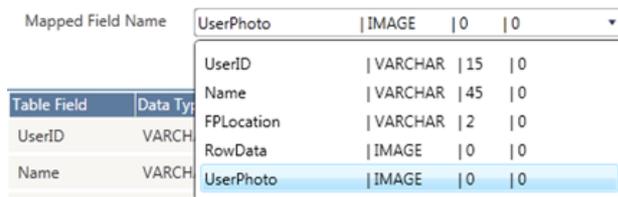
Select the Mode as **Add Templates** to add the FP templates or **Delete Templates** to delete the FP templates.

The image shows an "Export" configuration panel. It has two dropdown menus: "Database" set to "Custom Export-FP Template SQL Server" and "Mode" set to "Add Templates". To the right of the "Database" dropdown is a "Table Mapping" button. Below the dropdowns is a horizontal line. Underneath this line, on the left, is an "Add Templates" button. To the right of this line is the text "Select FP Template" followed by a "Browse" button.

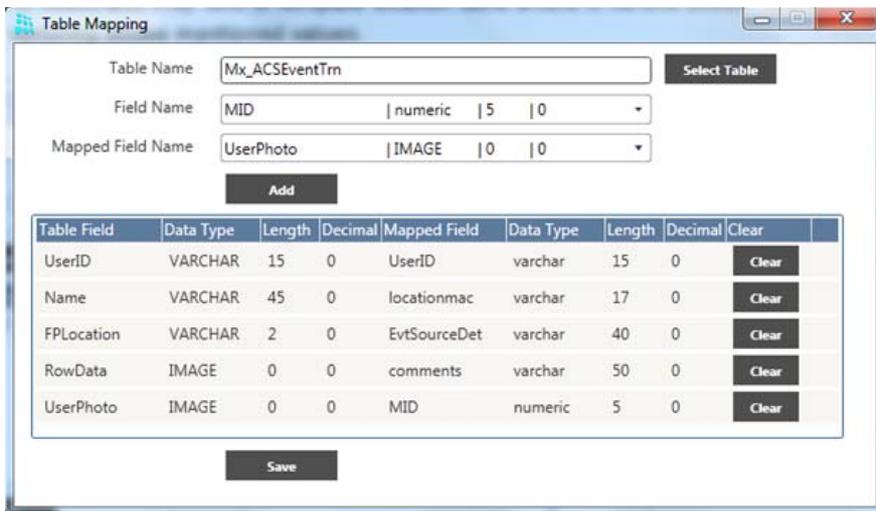
Click the **Table Mapping** button. Then select the table where the user details are to be mapped.



You have to map all the user fields shown below to the desired field selected from “Field Name” in above table mapping.



Eg: Name is mapped with locationmac as shown in second row.



After mapping all the user fields, click on **Save** button.

Now click on **Browse** button and select the FP template from the path (Local folder/FTP/SFTP) where the templates are stored.



Database: Custom Export-FP Template SQL Server Table Mapping

Mode: Add Templates

---

**Add Templates**

Select FP Template Browse

User Photo	User ID	User Name	FP Location	File Path	Edit	Remove
	1220	SHEETAL RAVAL	1	D:\Security Documents \Export Records \1220+SHEETAL RAVAL+1.dat		

**Add**

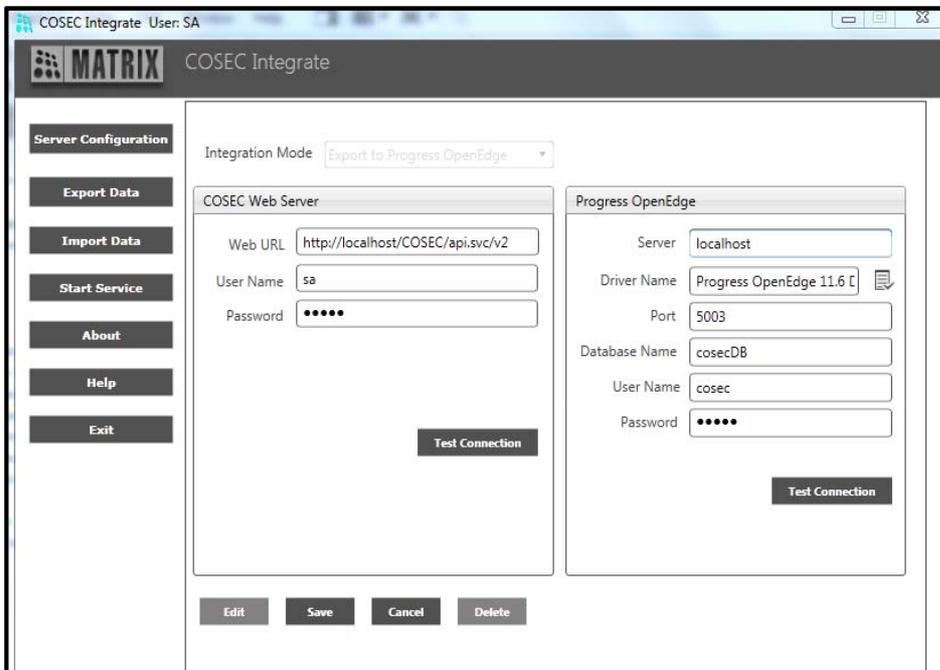
The template with User photo, ID, Name and FP location will appear as shown above.

Finally click **Add** button. System will insert/update records in mapped template table.  
 Clicking **Remove** will remove all records from mapped template table with selected User ID.

# Export to Progress OpenEdge

Click on the **Server Configuration** button to configure the Web server and Destination database for Export.

Select the **Export to Progress OpenEdge** option in the **Integration Mode** field. Click on the **Edit** button.

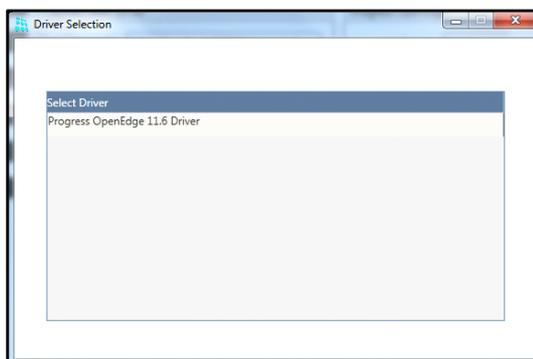


In the **COSEC Web Server** section:

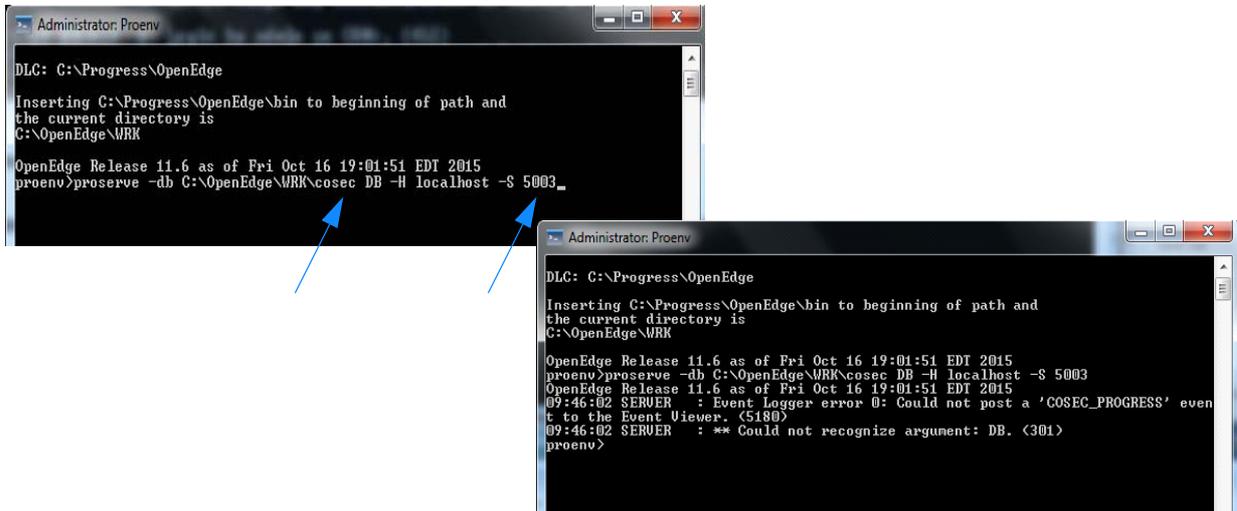
- Specify the web url of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the sa user as set in the COSEC WEB application.

In the **Progress OpenEdge** section:

- **Server:** Enter the server name with which the Progress OpenEdge database is started.
- **Driver Name:** Select the Progress OpenEdge driver from the picklist. It is the software driver which will appear in picklist, once the database is installed.

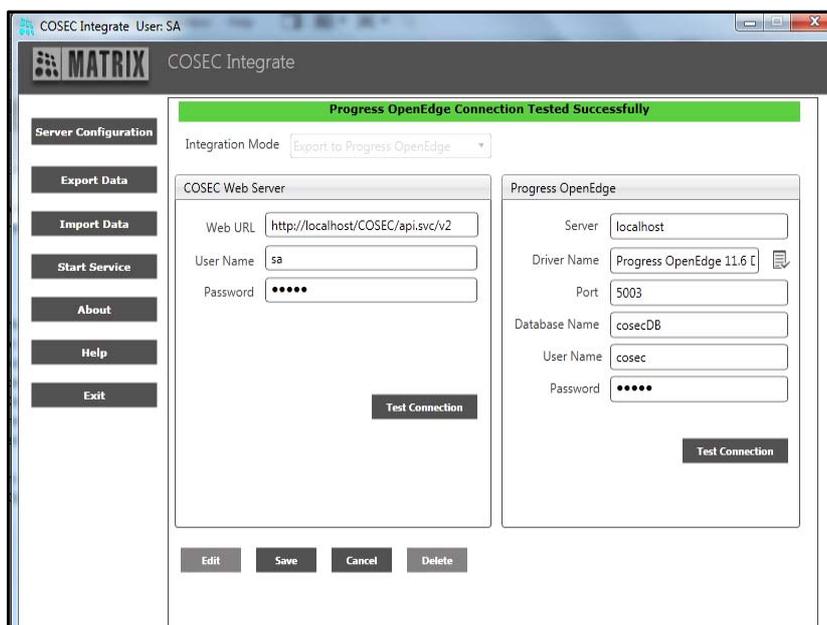


- **Port:** Enter the port number at which the Progress OpenEdge database is running. It is the port number(eg: 5003) entered in command prompt while starting the database as shown below.
- **Database Name:** Enter the database name with which Progress OpenEdge database is started. It is case sensitive. Thus if Database is started with name cosecDB as shown below then enter the name as “cosecDB”.



- **User Name:** Specify the username as entered while creating the database.
- **Password:** Specify the password as entered while creating the database. Eg: Username is cosec and Password is cosec.

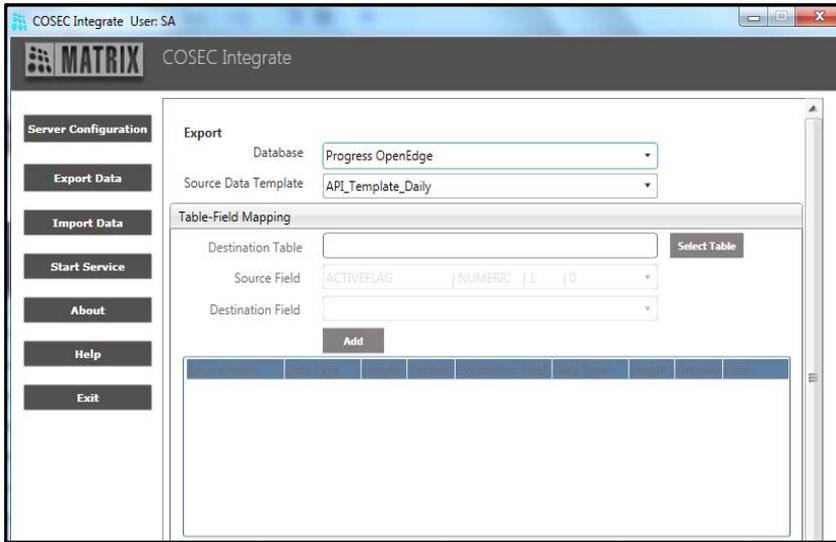
The **Test Connection** button is provided to test the connections with the web server as well as the Progress OpenEdge database.



Click on **Save** button to save the server configuration.

## Export Data Configuration

This option enables the admin user to map the fields from the COSEC database tables to fields in a third party database. Click on the **Export Data** button. The following page appears.



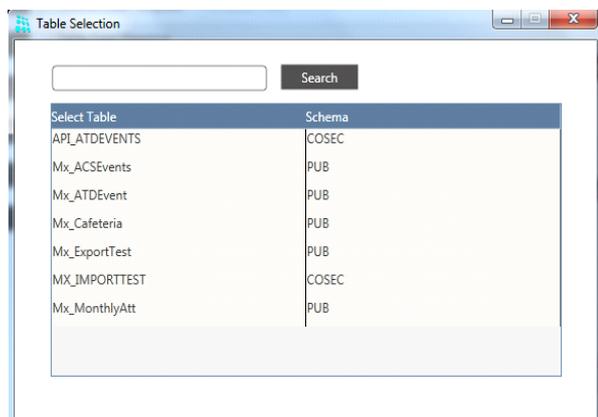
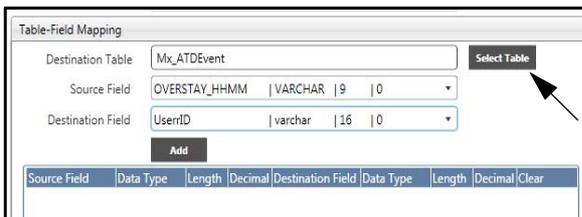
The COSEC INTEGRATE application provides four data templates in line with the default **Database Views** as shown. The COSEC System provides the following four Database views which would provide the relevant field options to be mapped with the fields of a destination database.

- Monthly Attendance Summary
- Daily Attendance Detail
- Attendance Events
- Access Control Events

Each of the above database views would provide the relevant fields whose values can be exported from the COSEC database. Select the required data template and click on the **Edit** button at the bottom of the page.

Now the admin user can start the **mapping of the fields** from the source database to that of the destination database as shown.

- Select the **Destination Table** by clicking **Select Table** button. The table selection picklist appears as below.



- Select the **Source field** from the COSEC database.

- Select the **Destination field** from the selected destination table.
- Click on the **Add** button. The mapped fields will be visible in the bottom grid as shown.

Source Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
OVERSTAY_HHMM	VARCHAR	9	0	UserID	varchar	16	0	Clear
AUTHORIZEDCOFF	VARCHAR	9	0	EventID	varchar	32	0	Clear
LATEIN_HHMM	VARCHAR	9	0	EventType	varchar	16	0	Clear



*In the case of Attendance Events and Access Control Events the user needs to map the UserID and the EventDateTime\_D source fields to fields in the destination table.*

*Map the UserID, PMonth and Pyear source fields to appropriate fields in the destination table in the case of the Monthly Attendance Summary.*

*Map the UserID and ProcessDate\_D source fields to appropriate fields in the destination table in the case of the Daily Attendance Detail.*

The **Schedule** section enables the admin user to schedule the data export process. The schedule option varies based on the selected Source Data Template. The **Daily Attendance detail** will have the following options as shown.

- Check the **Active** box to enable the schedule.
- The **Enable Filter** option is provided to enable the administrator to filter the users whose data is to be exported. Check this box and click on the **Filter** button. The Multiple selection window appears. Select the users whose data is to be exported.
- Specify the day of the month on which the export process is to be run.
- Specify the **Run time** in HH:MM format when the export process is to be run.
- Set the **Retry Count** from the drop down list.
- Set the **Retry Interval** in hours from the drop down list. This parameter specifies the time period between successive retries.
- Specify the **Attendance Period** by specifying the starting and the ending day of the attendance period for which the data is to be exported.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

Select any one option for data transfer i.e, Daily or Monthly in the field **Schedule**.On selection of Monthly option, user can set data transfer process to run only once in a month.

User can configure to transfer data for either previous day's attendance data or current day's attendance data with respect to schedule run day.

The **Monthly Attendance Summary** will have the following unique options:

- Select the **Attendance Period** for which the monthly Attendance summary data is to be exported.The Admin user can select either the **previous month** or **current month** option.

The screenshot shows a 'Schedule' configuration window with the following settings:

- Active:
- Enable Filter:
- Every: 1 (dropdown) Day of the Month
- Run time (HH:MM): (empty text box)
- Retry Count: 1 (dropdown)
- Retry Interval: 1 (dropdown) Hour
- Attendance Period: Current Month (dropdown)
- Enable Alerts For:  Success  Failure

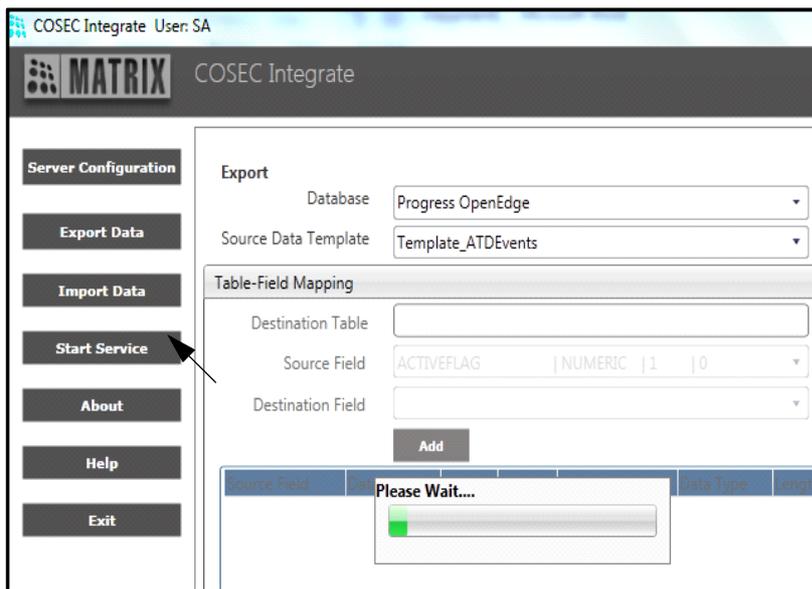
On selecting the **Attendance Events** or the **Access Control Events** the following schedule options will be available.

The screenshot shows a 'Schedule' configuration window with the following settings:

- Active:
- Enable Filter:
- Include Previously Failed:
- Retry For Failed Records: 1 (dropdown)
- Interval Based:  Once a Day:
- Update Interval: (empty text box) Seconds (dropdown)
- Run Time (HH:MM): (empty text box)
- Start Date: // // (text box)
- Retry Count: (empty dropdown)
- Retry Interval: (empty dropdown)
- Enable Alerts For:  Success  Failure

- Check the **Active** box to enable the schedule.
- Set the filter parameters as required.
- For **Interval based** schedule; Specify the **Update Interval** in seconds,minutes or hours to define the frequency at which the application will update the destination database.  
Specify the **Start Date** from which the export process is to be initiated.
- For **Once a Day** schedule, Specify the Run Time at which export will be initiated. You can mention Retry count and Retry Interval for which the retry for export will be done in case of failure.

After defining the above parameters, the admin user has to click on the **Start Service** button.

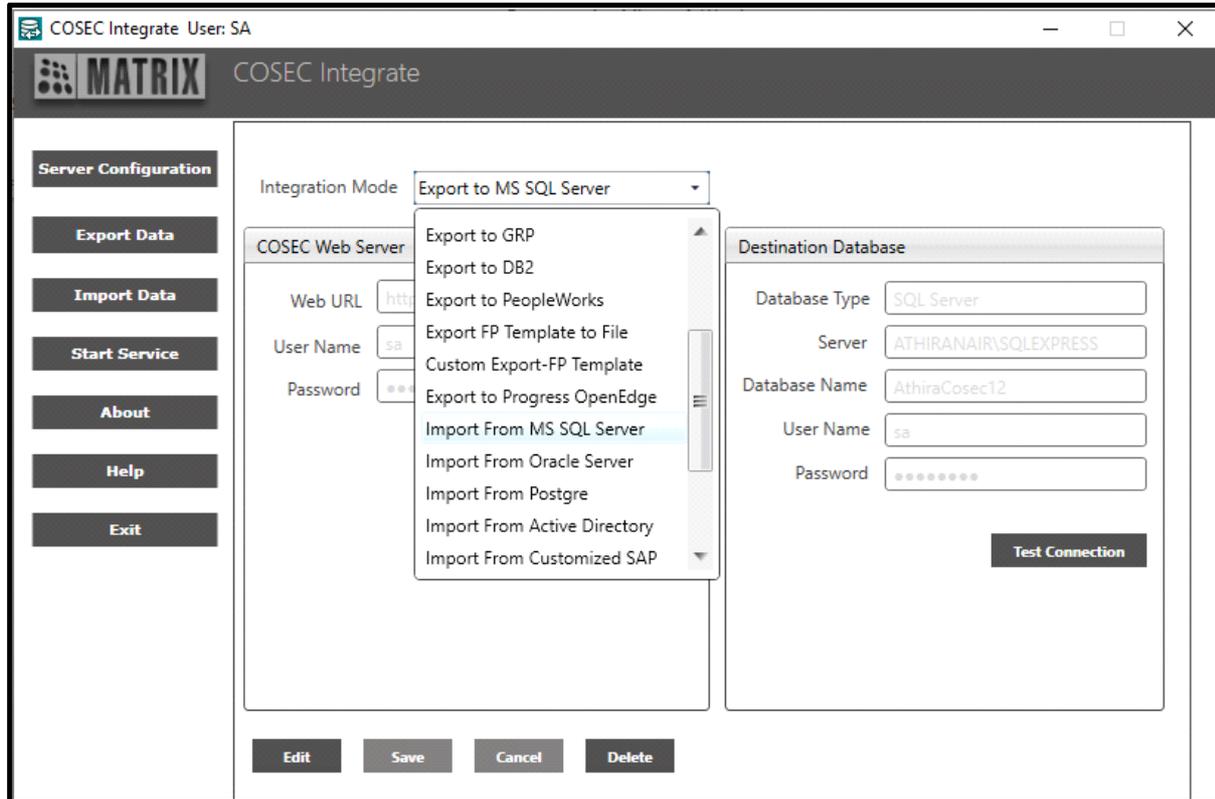


# Import from MS SQL/Oracle/Postgre

The application allows the user to import user data from an external SQL, Oracle or Postgre database.

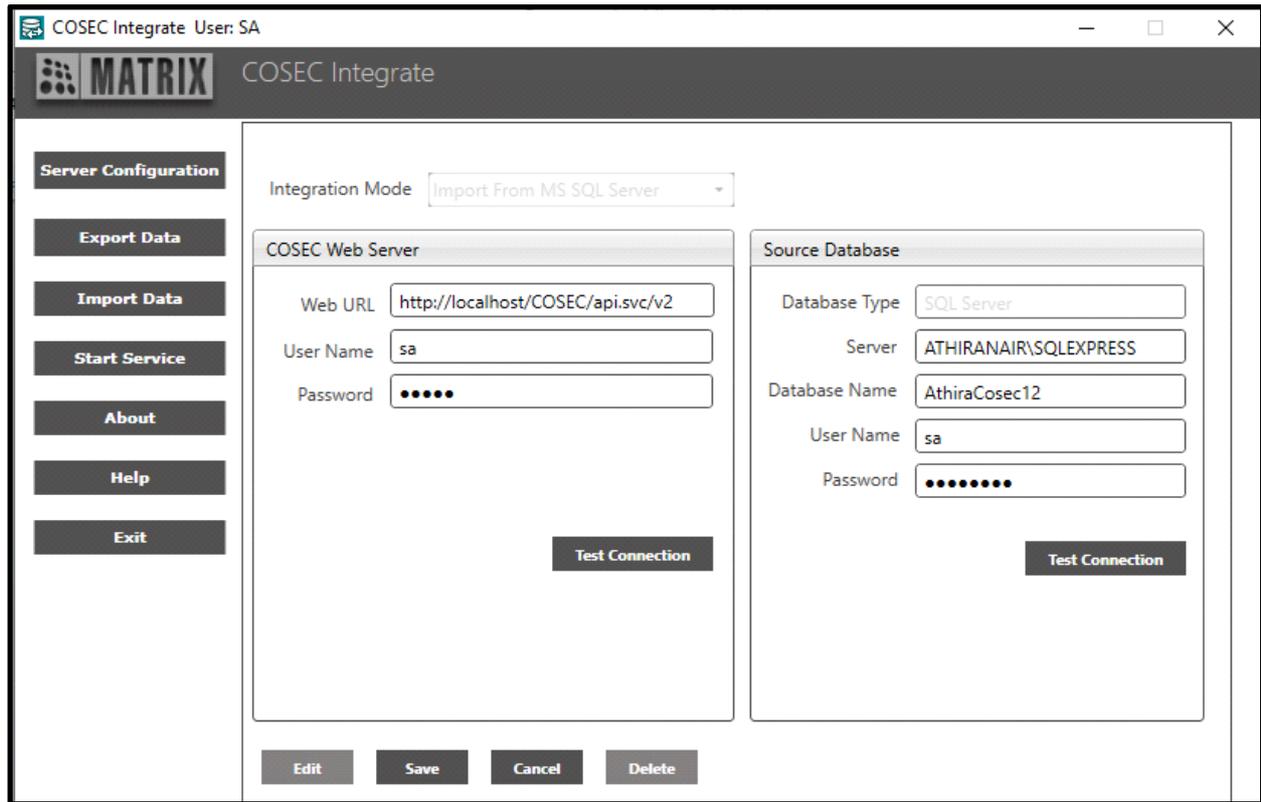
Click on the **Server Configuration** button to start the configuring process. The following page appears.

Select the **Import from MS SQL Server** option in the **Integration Mode** field. Click on the **Edit** button.



In the **COSEC Web Server** section:

- Specify the web URL of the API service of the COSEC WEB application as shown.
- Enter the User Name and Password of the SA user as set in the COSEC WEB application.



In the Source Database Server section:

- Select the **Database Type** as SQL SERVER.
- **Server:** Enter the database server name in the following format:  
**Database server name\Instance Name** e.g. dbserver\sqlexpress.
- **Database Name:** Specify the database name of the source SQL database as per the site settings.
- **User Name:** Specify the database administrator ID in this field.
- **Password:** Enter the password of the Database administrator as per the site settings.

The **Test Connection** button is provided to test the connections with the web server as well as the MS SQL or Oracle Server database.

Click on **Save** once done.

In the event of selecting the **Import from Oracle Server** option in the **Integration Mode** field, specify the source Oracle server address as well as the user name and the password (case-sensitive for Oracle server) in the respective fields as shown.

The screenshot shows the COSEC Integrate configuration window with the **Integration Mode** dropdown set to **Import From Oracle Server**. The window is divided into two main sections: **COSEC Web Server** and **Oracle**.  
In the **COSEC Web Server** section, the **Web URL** is `http://localhost/COSEC/api.svc/v2`, **User Name** is `sa`, and **Password** is masked with six dots. A **Test Connection** button is located below these fields.  
In the **Oracle** section, the **Server** is `192.168.102.38`, **User Name** is `cosec1`, and **Password** is masked with six dots. A **Test Connection** button is located below these fields.  
At the bottom of the window, there are four buttons: **Edit**, **Save**, **Cancel**, and **Delete**. On the left side, a vertical menu contains buttons for **Server Configuration**, **Export Data**, **Import Data**, **Start Service**, **About**, **Help**, and **Exit**.

In the event of selecting the **Import from Postgre SQL** option in the **Integration Mode** field, specify the source Postgre SQL server address, Port number as well as the user name and the password (case-sensitive for Postgre SQL server) in the respective fields as shown.

The screenshot shows the COSEC Integrate configuration window with the **Integration Mode** dropdown set to **Import From Postgre**. The window is divided into two main sections: **COSEC Web Server** and **Postgre SQL**.  
In the **COSEC Web Server** section, the **Web URL** is `http://localhost/COSEC/api.svc/v2`, **User Name** is `sa`, and **Password** is masked with six dots. A **Test Connection** button is located below these fields.  
In the **Postgre SQL** section, the **Server** is `Postgre SQL`, **Port** is `5060`, **Database Name** is `dbserver\postgresql`, **User Name** is `admin`, and **Password** is masked with ten dots. A **Test Connection** button is located below these fields.  
At the bottom of the window, there are four buttons: **Edit**, **Save**, **Cancel**, and **Delete**. On the left side, a vertical menu contains buttons for **Server Configuration**, **Export Data**, **Import Data**, **Start Service**, **About**, **Help**, and **Exit**. The window title bar reads "COSEC Integrate User: SA" and the application logo "MATRIX" is visible in the top left corner.

## Import Data Configuration

After completing the server configuration, click on **Import Data** button. The page appears as shown below.

The screenshot shows the 'Import Data Configuration' window in the COSEC Integrate application. The window title is 'COSEC Integrate User: SA'. The main header displays the 'MATRIX' logo and 'COSEC Integrate'. On the left, a sidebar contains several buttons: 'Server Configuration', 'Export Data', 'Import Data', 'Start Service', 'About', 'Help', and 'Exit'. The 'Import Data' button is highlighted. The main content area is titled 'Import' and contains the following fields: 'Source' (MS SQL Server), 'Data' (User Details), 'Fields Mapping' (Source Table: Rx\_AbsenteePolicyMst, Source Field: ABPLCID, Destination Field: AADHAR-NO), and 'Schedule'. At the bottom, there are buttons for 'Edit', 'Save', 'Manual Transfer', and 'Cancel'.

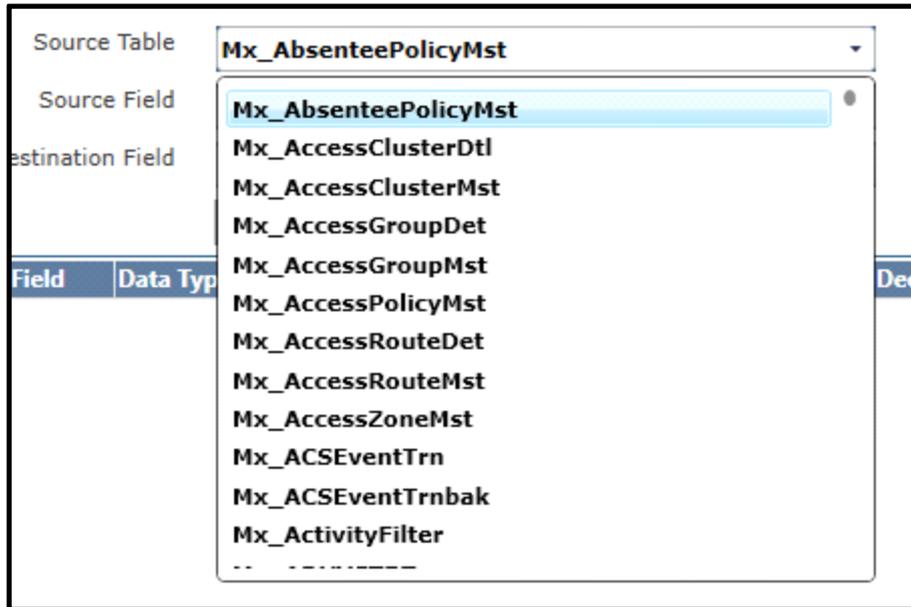
**Source:** If import from SQL server is to be done then the source will be MS SQL Server. If import from Oracle is to be done then the source will be Oracle.

**Data:** You can select the option as User Details to import the details of user, User-Wise Shift Assignment to import the shifts assigned to user on specific dates, Leave Transactions to import leave transactions and Leave Balance to import the available leave balance.

The close-up screenshot shows the 'Data' dropdown menu in the Import Data Configuration window. The dropdown is open, showing four options: 'User Details', 'User-Wise Shift Assignment', 'Leave Transactions', and 'Leave Balance'. The 'User Details' option is highlighted in blue.

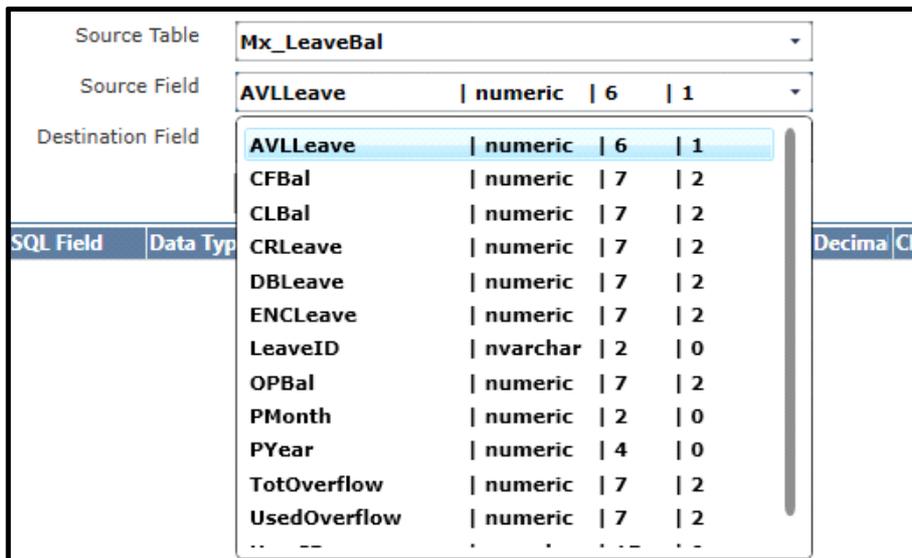
Now click on the **Edit** button. The Admin user can start mapping of the fields from the external source database table to that of the destination COSEC database table as shown.

- Select the **Source Table** whose fields are to be mapped.



- Select the **Source field** from the COSEC database. Source field is dependent on the Source selected from the Source Table.

E.g: If `Mx_LeaveBal` is selected as source from the Source table then the Source field will show all the fields related to leave balance as shown below.



- Select the **Destination** field from the drop down options to map with the source field. Destination field will always be fixed. It is dependent neither on Source table nor on Source field.

Destination Field

ACCRUAL-POLICY | NUMERIC | 2 | 0

ACCRUAL-POLICY	NUMERIC	2	0
C-OFFHRS	NUMERIC	4	0
CREDIT-MODE	NUMERIC	1	0
DATE	DATETIME	8	0
DAYS	NUMERIC	6	2
ENCASHMENT-MOD	NUMERIC	1	0
ENCASHMENT-TYPE	NUMERIC	1	0
ENTRY-TYPE	NVARCHAR	1	0
LASTUPDATEDTIME	DATETIME	8	0
LEAVE-CODE	NVARCHAR	2	0
MONTH	NUMERIC	2	0
PERIOD	NVARCHAR	1	0
PRO-RATA	NUMERIC	1	0
REMARK	NVARCHAR	30	0
USERID	NVARCHAR	15	0
YEAR	NUMERIC	4	0

- Click on the **Add** button. The mapped fields will be visible in the bottom grid as shown.

COSEC Integrate User: SA

**MATRIX** COSEC Integrate

Server Configuration

Export Data

Import Data

Start Service

About

Help

Exit

Import

Source: MS SQL Server

Data: Leave Balance

Fields Mapping

Source Table: Mx\_LeaveBal

Source Field: CFBal | numeric | 7 | 2

Destination Field: PRO-RATA | NUMERIC | 1 | 0

Add

MS SQL Field	Data Type	Length	Decima	Destination Field	Data Type	Length	Decima	Clear
CFBal	numeric	7	2	DAYS	NUMERIC	6	2	Clear
CFBal	numeric	7	2	ENCASHMENT-	NUMERIC	1	0	Clear
CFBal	numeric	7	2	MONTH	NUMERIC	2	0	Clear
CFBal	numeric	7	2	PRO-RATA	NUMERIC	1	0	Clear

Schedule

Edit Save Manual Transfer Cancel



The mapping between the following data types is allowed. Only a warning message is shown in case of mismatch in data types.

Source data type	Destination data type
Text(char, varchar,varchar2...)	Number (numeric, int, bigint, smallint, float, number, double,int32... )
Text	Datetime formats(depending on the date format configured for DB server. If format matches, the record will be accepted)
Number	Text
Date Time	Text

The mapping from Number and Date time to Date time and Number respectively is restricted.



Source field's data type must always match with the Destination field's data type. In case of mismatch, a warning is generated as shown below and mapping will not be done.

Source field does not match with Destination field

**Import**

Source: MS SQL Server  
Data: Leave Balance

**Fields Mapping**

Source Table: Mx\_LeaveBal  
Source Field: CFBal | numeric | 7 | 2  
Destination Field: DATE | DATETIME | 8 | 0

Add

MS SQL Field	Data Type	Length	Decima	Destination Field	Data Type	Length	Decima	Clear
CFBal	numeric	7	2	DAYS	NUMERIC	6	2	Clear
CFBal	numeric	7	2	ENCASHMENT-	NUMERIC	1	0	Clear
CFBal	numeric	7	2	MONTH	NUMERIC	2	0	Clear
CFBal	numeric	7	2	PRO-RATA	NUMERIC	1	0	Clear
CFBal	numeric	7	2	YEAR	NUMERIC	4	0	Clear



In case of mismatch of lengths of data types of source field and destination field, a warning is generated but if you click on Yes, mapping will be done.

**Fields Mapping**

Source Table: Mx\_AbsenteePolicyMst  
Source Field: ABPLCID | numeric | 2 | 0  
Destination Field: ALLOW-OFFLINE-PI | NUMERIC | 1 | 0

**Field Mapping**

Length of Field is not Matching. Do you still want to Continue?

Yes No

MS SQL Field	Data Type	Length	Decima
ABPLCID	NUMERIC	2	0



In the case of selecting data as **User details**, the user needs to map the **UserID**, **Name** and **BLNUPDATEFIELD/LASTUPDATEDTIME** destination fields to fields in the source table.

In the case of selecting Data as **User-Wise Shift Assignment**, the user needs to map **UserID**, **Shift-ID**, **StartDate** and **EndDate** destination fields to fields in the source table.

In the case of selecting Data as **Leave Transaction**, the user needs to map **UserID**, **StartDate**, **Leave-Code** and **LASTUPDATEDTIME** destination fields to fields in the source table.

In the case of selecting Data as **Leave Balance**, the user needs to map **UserID**, **Entry-Type**, **Days**, **Accrual-Policy**, **Leave-Code**, **Date**, **C-Offhrs** and **LASTUPDATEDTIME** source fields to fields in the destination table.

The **Schedule** section enables the Admin user to schedule the data import process. After saving the data you can manually transfer the data.

The screenshot shows the 'Import' configuration interface. At the top, there are two dropdown menus: 'Source' set to 'MS SQL Server' and 'Data' set to 'User-Wise Shift Assignment'. Below these is a 'Fields Mapping' section, which is currently collapsed. The 'Schedule' section is expanded and contains the following settings:

- Active:**
- Schedule:** Monthly (dropdown)
- Every:** 1 (dropdown) Day Of the Month
- Run Time (HH:MM):** 09:00 (text input)
- Start Date:** 01/02/2018 (text input)
- Update Records:** Duration-Based (dropdown)
- Duration Prior Current Date:** 7 (text input) (Days)
- Duration Post Current Date:** 7 (text input) (Days)
- Enable Alerts For:**  Success  Failure

Check the **Active** box to enable the schedule.

Select the **Schedule** for data transfer as **Daily** or **Monthly**.

- On selection of **Monthly** option, user can select the day for data transfer process to run once in a month. By default, **Monthly** option would be selected.
- On selection of **Daily** option, you can run the schedule “once in a day” or “Interval based”. Enter the value in minutes or hours for interval based schedule.

**Import**

Source: MS SQL Server

Data: User-Wise Shift Assignment

**Fields Mapping**

**Schedule**

Active:

Schedule: **Daily**

Once In a Day  Interval Based

Run Time (HH:MM): **09:00**

Start Date: **01/02/2018**

Update Records: **Duration-Based**

Duration Prior Current Date: **7** (Days)

Duration Post Current Date: **7** (Days)

Enable Alerts For:  **Success**  **Failure**

- Specify the **Run time** in HH:MM format when the import process is to be run.
- Enter the **Start date** from which import process is to be started.
- **Update Records:** You can select the option as **Duration- Based** or **Differential** based on which records is to be updated.

#### Duration-Based

- **Duration Prior Current Date (Days):** Enter the no. of days to be considered for import before current date. Suppose Current date or the process date is 20th, and duration prior is set as 5 so the import will run from 15th.
- **Duration Post Current Date (Days):** Enter the no. of days to be considered for import after current date. Suppose Current date or the process date is 20th, and duration post is set as 8 so the import will run upto 28th.

#### Differential

If Update Records is switched from Duration-Based to Differential, a pop-up (with close icon and OK button) will be displayed with the message: All Records will be imported for First Time. Thereafter, only updated ones will be imported.

- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.

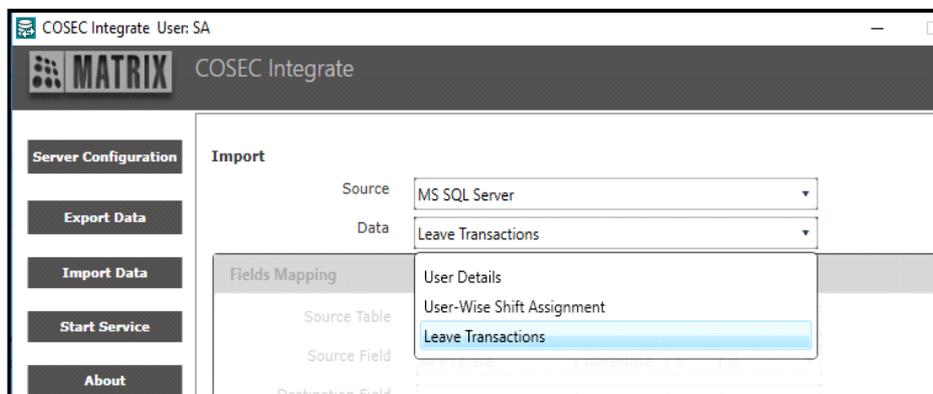


*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

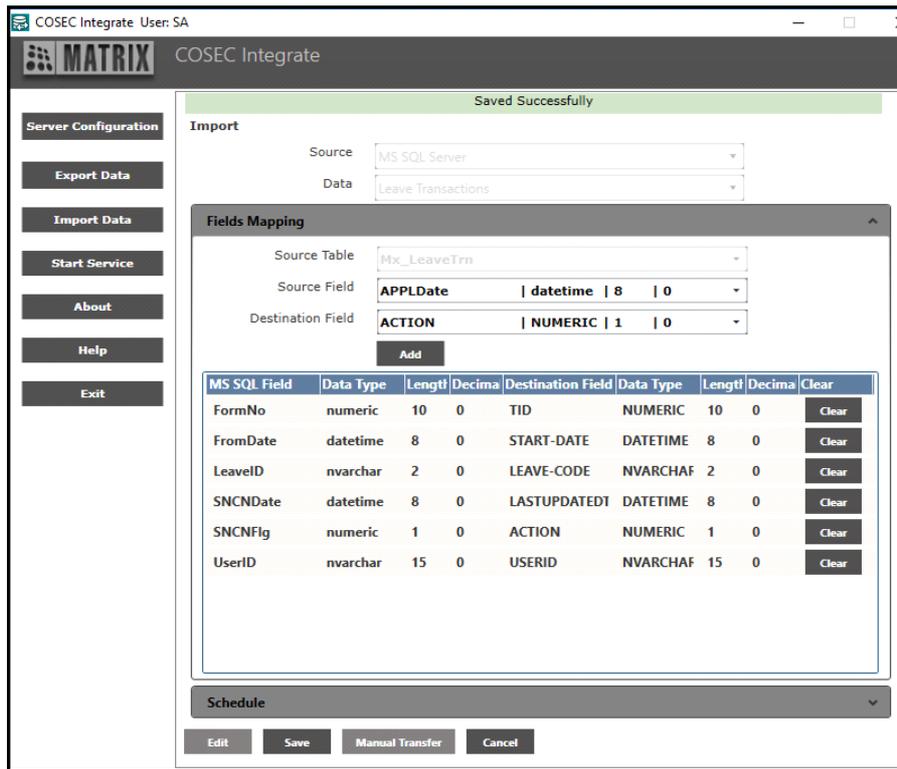
## Import Leave Transactions

When leave data is in Human Resource software and T&A calculations are done by COSEC; then it is must to import leave data from Human Resource software to COSEC to perform calculations of T&A management.

The leave transactions can be imported from MS SQL database, Oracle database or Excel file via Integrate. Select the **Data** as Leave Transactions.

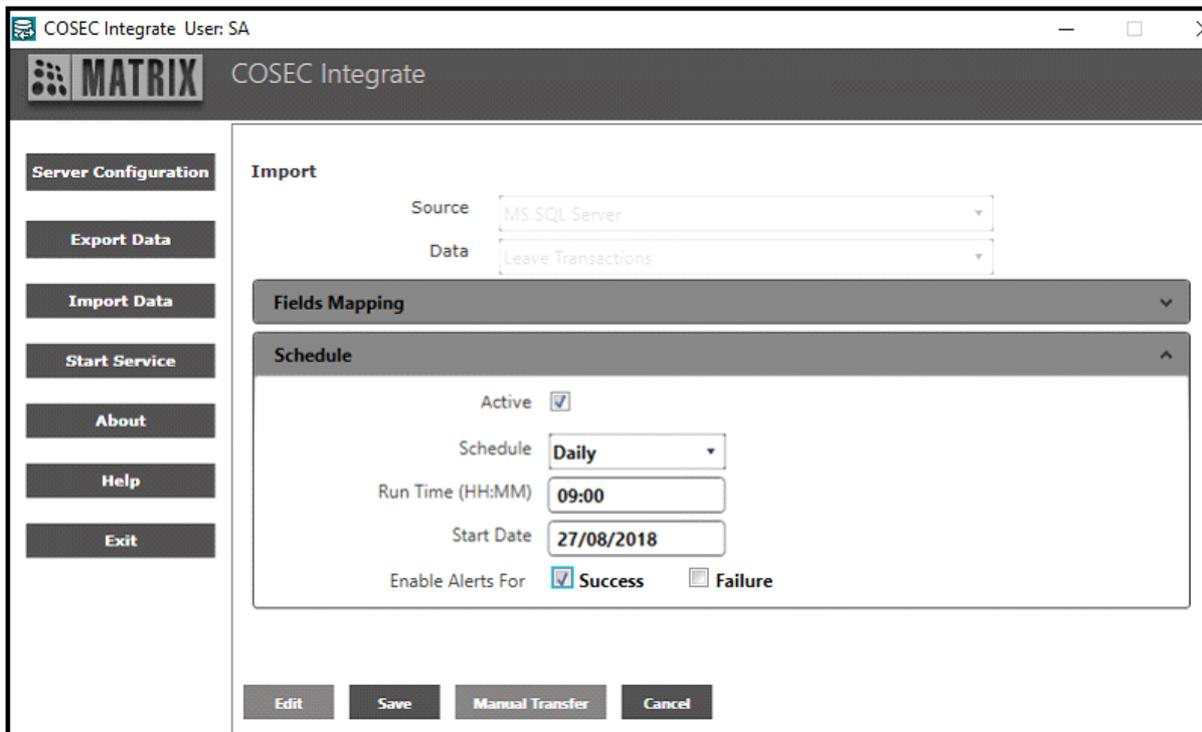


Then map the source and destination fields

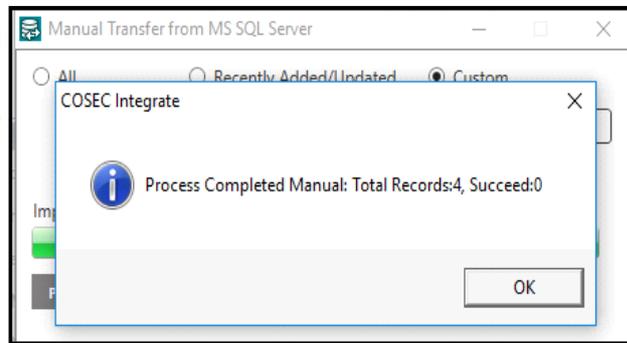
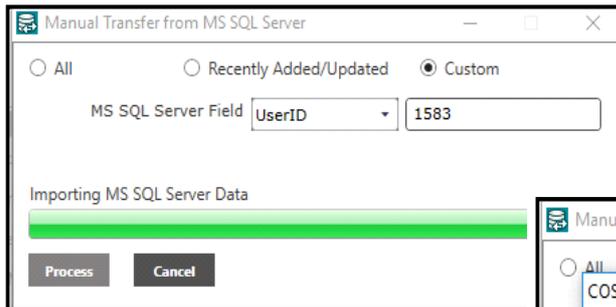
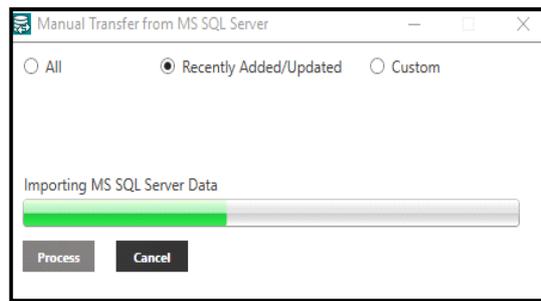


The fields USERID, START-DATE, LEAVE-CODE and LASTUPDATEDTIMESTAMP are mandatory for mapping. If TID is mapped; then ACTION is required to be mapped for importing based on TID.

After mapping, click on Save button.



The import can be scheduled or manual transfer can be done.



 *Client database should have a field containing primary key.*

## Import Leave Balance

Import Leave Balance allows user to perform **Leave Encashment** as the 'Credit/Debit', 'C-OFF Encashment' and 'Overflow Management' of the leave records. It can be done through the Import as shown below.

The Import can be done through the sources; **MS SQL/Oracle, Excel, Progress Open Edge, Postgre, Customized SAP** and **My SQL**. Select the respective source, the Data as Leave balance and configure the rest parameters the same way as described in Import Leave Transaction.

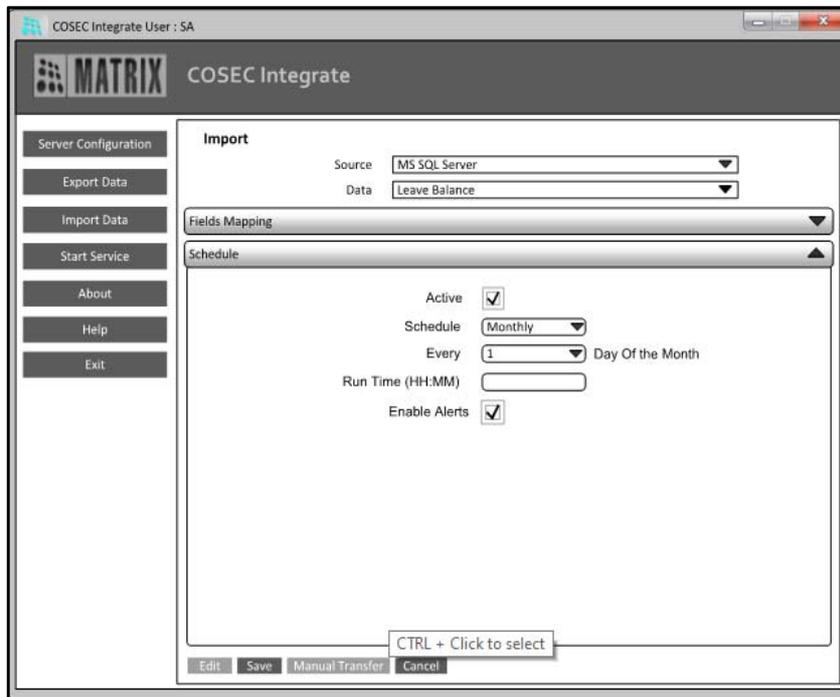
Map the source and destination fields from Fields Mapping.

MS SQL Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear

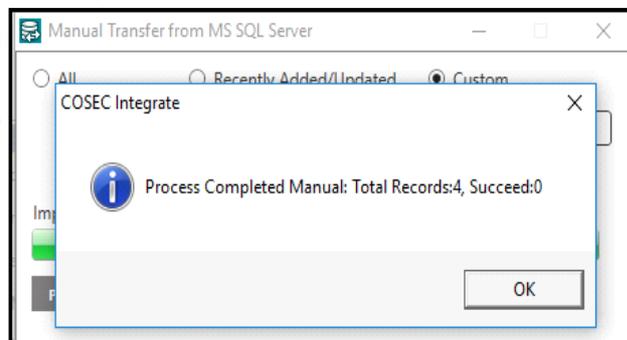
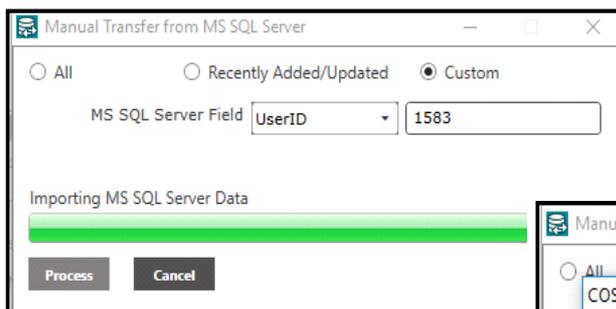
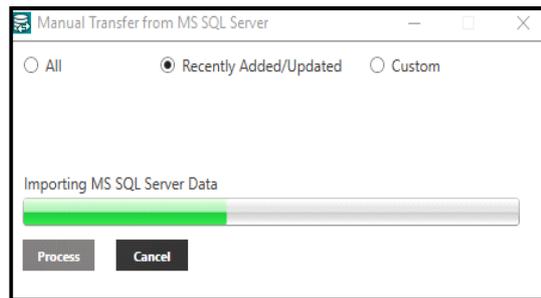
Map the source and destination fields from Fields Mapping.

The fields **USERID, START-DATE, LEAVE-CODE** and **LASTUPDATEDTIMESTAMP** are mandatory for mapping. If **TID** is mapped; then **ACTION** is required to be mapped for importing based on **TID**.

After mapping, click on Save button.



The import can be scheduled or manual transfer can be done.



*The Import with the other sources are explained in further examples.*

# Import from Active Directory

The COSEC INTEGRATE application provides the functionality to import user data from the Active Directory service of Windows.

The application allows the administrator to map the data fields of the COSEC application database to the data fields of the active directory.

Now user can click on the **Server Configuration** button to start the configuring process. The following page appears. Select the **Import from Active Directory** option in the **Integration Mode** field.

The screenshot shows the 'COSEC Integrate' application window. On the left is a sidebar with buttons: 'Server Configuration' (highlighted), 'Export Data', 'Import Data', 'Start Service', 'About', 'Help', and 'Exit'. The main area has a dropdown for 'Integration Mode' set to 'Import From Active Directory'. Below this are two panels: 'COSEC Web Server' and 'Active Directory'. The 'COSEC Web Server' panel contains fields for 'Web URL' (http://localhost/COSEC/api.svc/v2), 'User Name' (sa), and 'Password' (masked with dots), with a 'Test Connection' button. The 'Active Directory' panel contains fields for 'Server' (192.168.103.27), 'Port' (389), 'Domain' (DC=matrix,DC=cosectest2016), 'User Name' (anil), and 'Password' (masked with dots), with an 'Enable SSL' checkbox and a 'Test Connection' button. At the bottom are 'Edit', 'Save', 'Cancel', and 'Delete' buttons.

In the **COSEC Web Server** section:

- Specify the web url of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the sa user as set in the COSEC WEB application.

In the **Active Directory** section:

- Specify the IP address or the network name of the Domain Controller.
- **Port:** Enter the port no. if configured.
- **Domain Name:** Specify the domain name as shown. For e.g. if the domain name is matrix.com the domain name is specified as: **dc=matrix,dc=com**.
- **User Name:** Specify the username having administrator rights in this field. e.g. **matrix\administrator**.
- **Password:** Enter the password of the administrator as per the site settings.
- **Enable SSL:** To establish secured connection and protecting Data, click on check-box given next to **Enable SSL**. It is compulsory to enable this check-box.

The **Test Connection** button is provided to test the connections with the web server as well as the Active Directory service.

Click on **Save** once done.

## Active Directory Import Configuration

This option enables the Admin user to map the fields from the Active Directory service to the appropriate fields in the COSEC database. The application will list all the fields in the COSEC database which are relevant to the User Configuration. The administrator needs to select the relevant fields in the Active Directory and then map the same to the relevant fields of the COSEC database.

Click on the **Import Data** button. The following page appears.

Active Directory	Data Type	Length	Decima	Destination Field	Data Type	Length	Decima	Clear
attributeDisplay				DSG	NUMERIC	6	0	Clear
fRSPrimaryMen				FULL-NAME	NVARCHAR	200	0	Clear
objectSid				DEVICE-GROUP	NUMERIC	5	0	Clear
telephoneNuml				OFFICIAL-CELL	VARCHAR	32	0	Clear
uid				ID	VARCHAR	15	0	Clear
uidNumber				NAME	VARCHAR	45	0	Clear

- Select **Active Directory** from the **Source** drop down list.
- Click on **Edit**.
- In the **Fields Mapping** section, select the **Source Field** and **Destination Field** from the respective drop down lists.

Click on the **Add** button. The mapped fields will be visible in the bottom grid as shown. The schedule section enables the administrator to set the frequency at which the COSEC service will check the active directory for updates.

- Check the **Active** box to enable the schedule.
- Specify the **Update Interval** in seconds, minutes or hours to define the frequency at which the application will update the destination COSEC database.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

- **Filter Records:** You can filter the records that are to be imported at scheduled runtime by selecting All or Custom option.
  - If **Custom** option is selected then select the option for “**Apply Filter As Per**” and enter the respective value in the text box.

Click on **Save** once done.

## Manual Transfer

The manual transfer option provides the admin user the flexibility to import user data from the active directory database as and when required. In order to access this functionality click on the **Stop service** button to stop the COSEC INTEGRATE service.

Click on the **Active Directory** button followed by the **Manual Transfer** button. The following window appears.

Manual Transfer from Active Directory

All  Recently Added/Updated  Custom

Active Directory Field

Select from one of the following options.

- **All** - Imports all users from the active directory database.
- **Recently Added/Updated** - Imports only those users whose records have been updated after the last import.
- **Custom** - Imports users as per the defined filter.

Click on the **Process** button. The application will import data of the users as per the specified filter and displays the status of the import process as shown.



Click on **OK** to close the window.

# Importing Data from a Customized SAP

The application allows the user to import user data from a customized external SQL or Oracle database table. The following figure depicts a sample of the source table structure.

Column Name	Data Type	Allow Nulls
▶ EMPNO	varchar(8)	<input type="checkbox"/>
ENAME	varchar(40)	<input checked="" type="checkbox"/>
DOB	datetime	<input checked="" type="checkbox"/>
DOJ	datetime	<input checked="" type="checkbox"/>
DOR	datetime	<input checked="" type="checkbox"/>
BGROUP	varchar(6)	<input checked="" type="checkbox"/>
GENDER	varchar(1)	<input checked="" type="checkbox"/>
ADDLOC	varchar(60)	<input checked="" type="checkbox"/>
ADDPER	varchar(60)	<input checked="" type="checkbox"/>
CITY	varchar(40)	<input checked="" type="checkbox"/>
PINCODE	varchar(10)	<input checked="" type="checkbox"/>
STATE	varchar(20)	<input checked="" type="checkbox"/>
COUNTRY	varchar(3)	<input checked="" type="checkbox"/>
DIDNO	varchar(30)	<input checked="" type="checkbox"/>
MOBNO	varchar(30)	<input checked="" type="checkbox"/>
EXTNO	varchar(30)	<input checked="" type="checkbox"/>
MAILID	varchar(100)	<input checked="" type="checkbox"/>
DEPT	varchar(4)	<input checked="" type="checkbox"/>
COMP CODE	varchar(4)	<input checked="" type="checkbox"/>
BRNLOC	varchar(4)	<input checked="" type="checkbox"/>
DESIG	varchar(60)	<input checked="" type="checkbox"/>
GRADE	varchar(2)	<input checked="" type="checkbox"/>
CATEGORY	varchar(1)	<input checked="" type="checkbox"/>
P_FLAG	numeric(1, 0)	<input checked="" type="checkbox"/>
insert_dt	datetime	<input checked="" type="checkbox"/>
process_dt	datetime	<input checked="" type="checkbox"/>
Module	char(1)	<input checked="" type="checkbox"/>

The user can map the required fields as explained earlier. In this case too, the following destination fields need to be compulsorily mapped with appropriate fields of the source table as shown.

- id
- name
- BLNUPDATEFIELD

The import data options have the following **Schedule** options.

The screenshot shows a configuration window for data import. At the top, under the 'Import' header, there are two dropdown menus: 'Source' set to 'Customized SQL Server' and 'Data' set to 'User Details'. Below these are two expandable sections: 'Fields Mapping' and 'Schedule'. The 'Schedule' section is expanded and contains the following options: an 'Active' checkbox which is currently unchecked, an 'Update Interval' field with a text input box and a dropdown menu set to 'Seconds', and 'Enable Alerts For' checkboxes for 'Success' and 'Failure', both of which are currently unchecked.

- Check the Active box to enable the schedule.

- Specify the **Update Interval** in seconds, minutes or hours to define the frequency at which the application will import the data from the source table.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



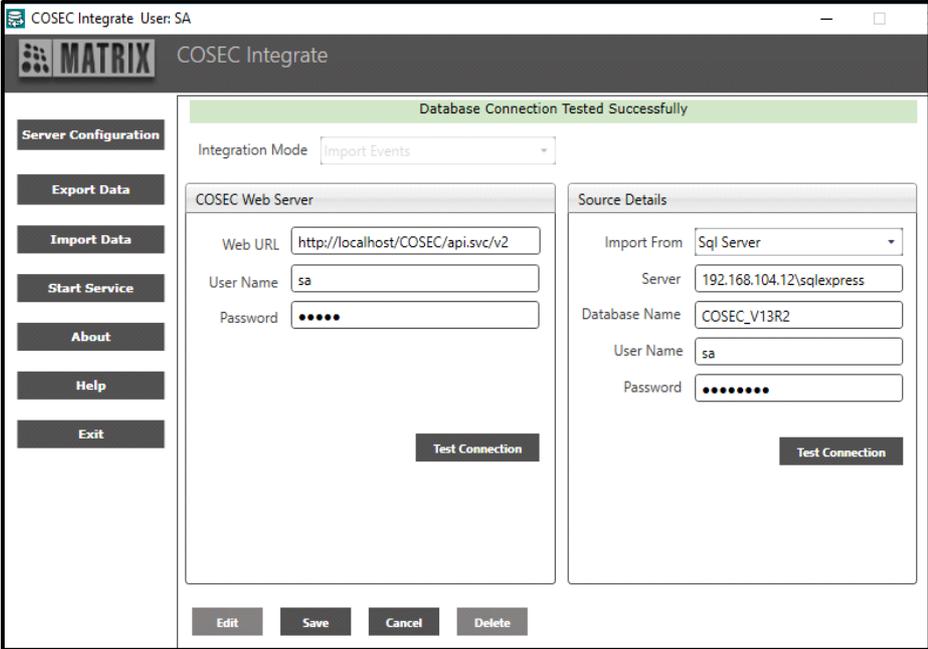
*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

Click on **Save** once done.

# Import Events

The COSEC INTEGRATE application provides the functionality to import event data from 3rd party database i.e. MS SQL and Oracle as well as from Excel.

Now user can click on the **Server Configuration** button to start the configuring process. The following page appears. Select the **Import Events** option in the **Integration Mode** field.



The screenshot shows the COSEC Integrate application window. The title bar reads "COSEC Integrate User: SA". The main window has a dark header with the "MATRIX" logo and "COSEC Integrate". A green banner at the top says "Database Connection Tested Successfully". On the left is a sidebar with buttons: "Server Configuration", "Export Data", "Import Data", "Start Service", "About", "Help", and "Exit". The main area is divided into two panels. The "COSEC Web Server" panel has fields for "Web URL" (http://localhost/COSEC/api.svc/v2), "User Name" (sa), and "Password" (masked with dots), with a "Test Connection" button below. The "Source Details" panel has a dropdown for "Import From" (Sql Server), "Server" (192.168.104.12\sqlexpress), "Database Name" (COSEC\_V13R2), "User Name" (sa), and "Password" (masked with dots), with a "Test Connection" button below. At the bottom are "Edit", "Save", "Cancel", and "Delete" buttons.

In the **COSEC Web Server** section:

- Specify the web URL of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the SA user as set in the COSEC WEB application.

In the **Source Details** section:

- Select the **Import From** option as SQL SERVER, ORACLE SERVER or EXCEL.
- **Server:** Enter the database server name in the following format - **Database server name\Instance Name** e.g. dbserver\sqlexpress.
- **Database Name:** Specify the database name of the source database as per the site settings.
- **User Name:** Specify the database administrator ID in this field.
- **Password:** Enter the password of the Database administrator as per the site settings.

The **Test Connection** button is provided to test the connections with the web server as well as the MS SQL or Oracle Server database.

Click on **Save** once done.

Now click on **Import Data** button. The following page appears. This option enables the Admin user to select the external source database from where the data is to be imported in the destination COSEC table.

Select the source table from the drop down list. The system will get the details of the fields from the source table and display the same in the **Source Field** parameter.

Now the Admin user can start the mapping of the fields from the source database to that of the destination database as shown. Select the appropriate source and the destination fields and click on the **Add** button.

The mapped fields will be visible in the bottom grid as shown. The following destination fields need to be compulsorily mapped with appropriate fields of the source table as shown.

- userid

- event-datetime
- BLNUPDATEFIELD

Click on **Save** button to commit the changes.

The **Schedule** section enables the administrator to set the frequency at which the COSEC service will check the active directory for updates.

- Check the **Active** box to enable the schedule.
- Specify the **Update Interval** in seconds, Minutes or Hours to define the frequency at which the application will update the destination COSEC database.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

Click on **Save** once done.

## Import Events from Excel

COSEC Integrate User: SA

MATRIX COSEC Integrate

COSEC Web Server Connection Tested Successfully

Integration Mode: Import Events

COSEC Web Server

Web URL: http://localhost/COSEC/api.svc/v2

User Name: sa

Password: \*\*\*\*\*

Test Connection

Source Details

Import From: Excel

Edit Save Cancel Delete

- Select the **Import From** option as Excel.
- Click Test connection button to test the connection with COSEC web server.
- Then click **Save** button.

## Import Data

In Import Data page, select the Source as Import Events from Excel.

Import

Source: Import Events From Excel

Data: User Details

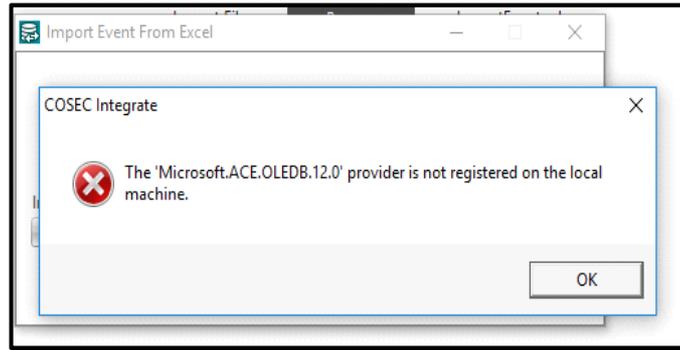
Mode: Add Templates

Add Templates

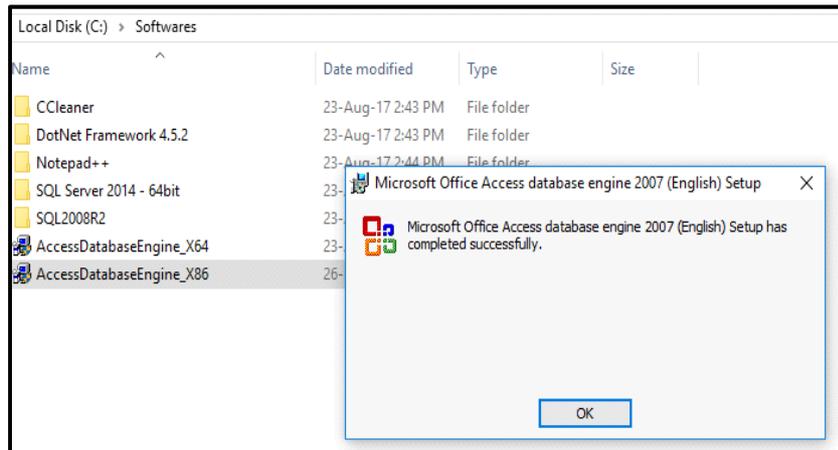
Select FP Template Browse

You can click on  to import the sample Import Events file. Then save the sample file at desired location. Click on **Browse** button and select the excel file for importing events. You can import excel file of max 15 MB.

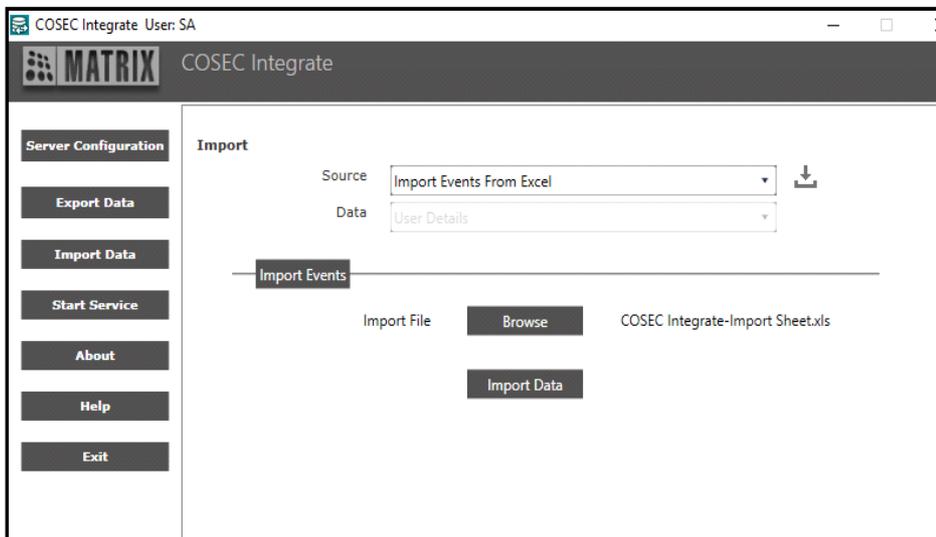
For importing excel file, you must have drivers to import.



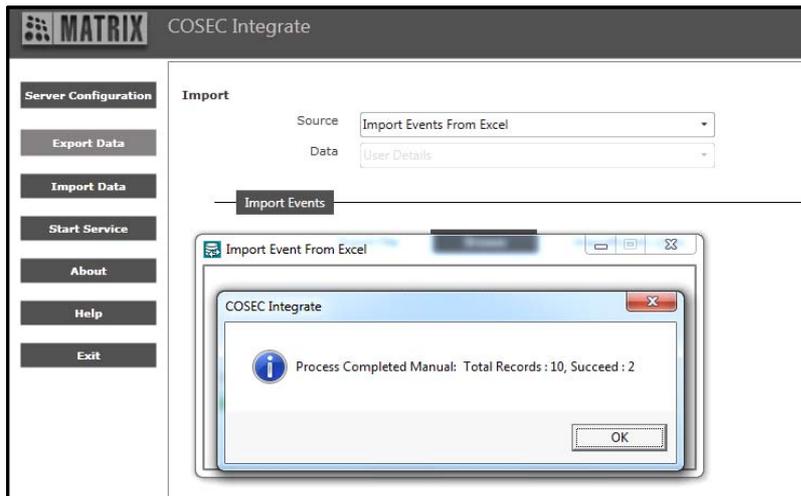
You must install Access Database Engine compatible to your computer as shown below.



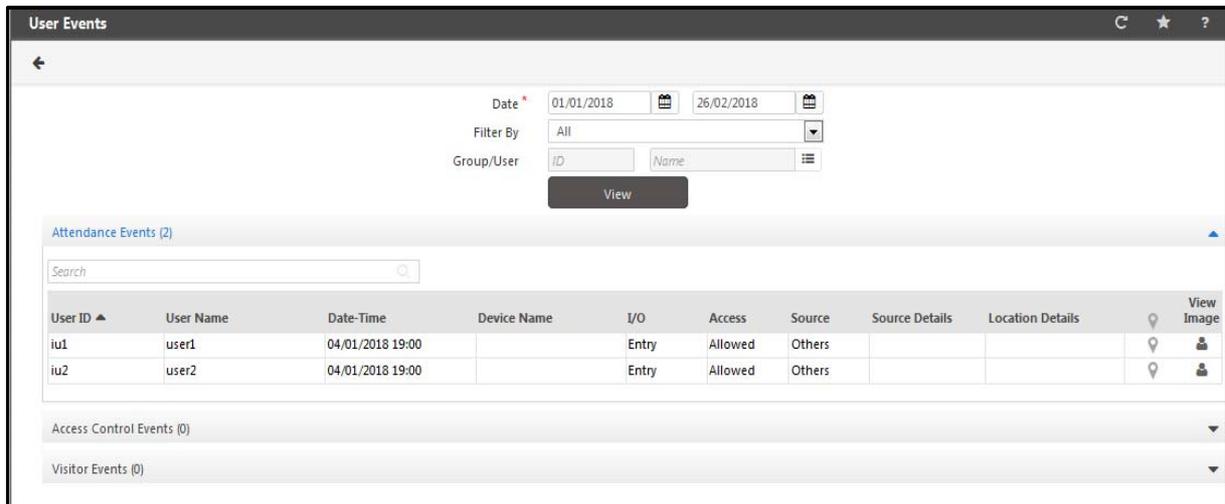
Now the Excel file is selected as shown below.



Then click on **Import Data** button. The import process is shown below.

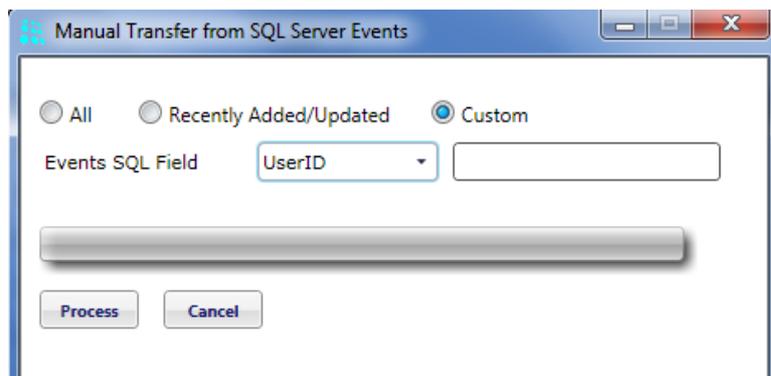


You can view the imported records in User events as shown below.



The manual transfer option provides the Admin user the flexibility to import events from the source database as and when required. In order to access this functionality click on the **Stop service** button to stop the COSEC INTEGRATE service.

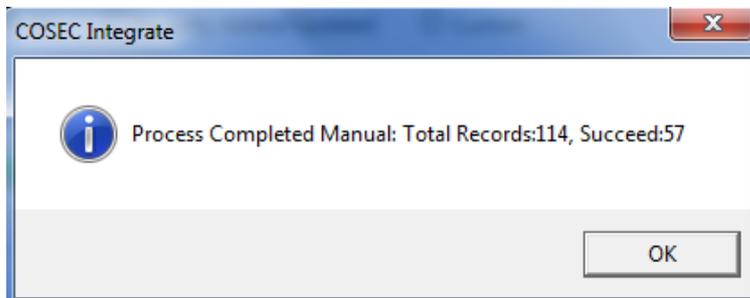
Click on the **Import Data** button followed by the **Manual Transfer** button. The following window appears.



Select from one of the following options.

- **All** - Imports all events from the source database.
- **Recently Added/Updated** - Imports only those events whose records have been updated after the last import.
- **Custom** - Imports events as per the defined filter.

Click on the **Process** button. The application will import data of the users as per the specified filter and displays the status of the import process as shown.



Click on **OK** to close the window.

# Import from My SQL

---

Select the **Import from My SQL Server** option in the **Integration Mode** field. Click on the **Edit** button.

The screenshot shows a configuration window with two main sections: 'COSEC Web Server' and 'MySQL'. At the top, the 'Integration Mode' dropdown is set to 'Import From MySQL'. The 'COSEC Web Server' section contains fields for 'Web URL' (http://localhost/COSEC/api.svc), 'User Name' (sa), and 'Password' (masked with dots), along with a 'Test Connection' button. The 'MySQL' section contains fields for 'Server' (127.0.0.1), 'Port' (3306), 'Database Name' (new\_schema), 'User Name' (root), and 'Password' (masked with dots), also with a 'Test Connection' button.

In the **COSEC Web Server** section:

- Specify the web URL of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the SA user as set in the COSEC WEB application.

In the **Source Database Server** section:

- The **Database Type** will be SQL SERVER.
- **Server:** Enter the database server name in the following format - **Database server name\Instance Name** e.g. dbserver\sqlexpress.
- **Database Name:** Specify the database name of the source SQL database as per the site settings.
- **User Name:** Specify the database administrator ID in this field.
- **Password:** Enter the password of the Database administrator as per the site settings.

The **Test Connection** button is provided to test the connections with the web server as well as MS SQL. Click on **Save** once done.

## Import Data Configuration

This option enables the Admin user to map the fields from the external source database table to fields in the destination COSEC User table. Click on the **Import Data** button. The following page appears.

**Import**

Source MySQL Server

---

**Fields Mapping**

Source Table usermaster

Source Field id | VarChar | 10 | 0

Destination Field id | VARCHAR | 10 | 0

MySQL Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
pin	VarChar	6	0	pin	VARCHAR	6	0	<input type="button" value="Clear"/>
policy	String	4	0	policy	CHAR	4	0	<input type="button" value="Clear"/>
qualification	VarChar	50	0	qualification	VARCHAR	50	0	<input type="button" value="Clear"/>
reasonforleaving	VarChar	15	0	reason-for-leavir	VARCHAR	15	0	<input type="button" value="Clear"/>
weight	Int32	5	0	weight	NUMERIC	5	1	<input type="button" value="Clear"/>

Select the source table from the pull down list. The system will get the details of the fields from the source table and display the same in the **Source Field** parameter.

Now the Admin user can start the mapping of the fields from the source database to that of the destination database as shown. Select the appropriate source and the destination fields and click on the **Add** button.

**Fields Mapping**

Source Table usermaster

Source Field id | VarChar | 10 | 0

Destination Field id | VARCHAR | 10 | 0

MySQL Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
pin	VarChar	6	0	pin	VARCHAR	6	0	<input type="button" value="Clear"/>
policy	String	4	0	policy	CHAR	4	0	<input type="button" value="Clear"/>
qualification	VarChar	50	0	qualification	VARCHAR	50	0	<input type="button" value="Clear"/>
reasonforleaving	VarChar	15	0	reason-for-leavir	VARCHAR	15	0	<input type="button" value="Clear"/>
weight	Int32	5	0	weight	NUMERIC	5	1	<input type="button" value="Clear"/>

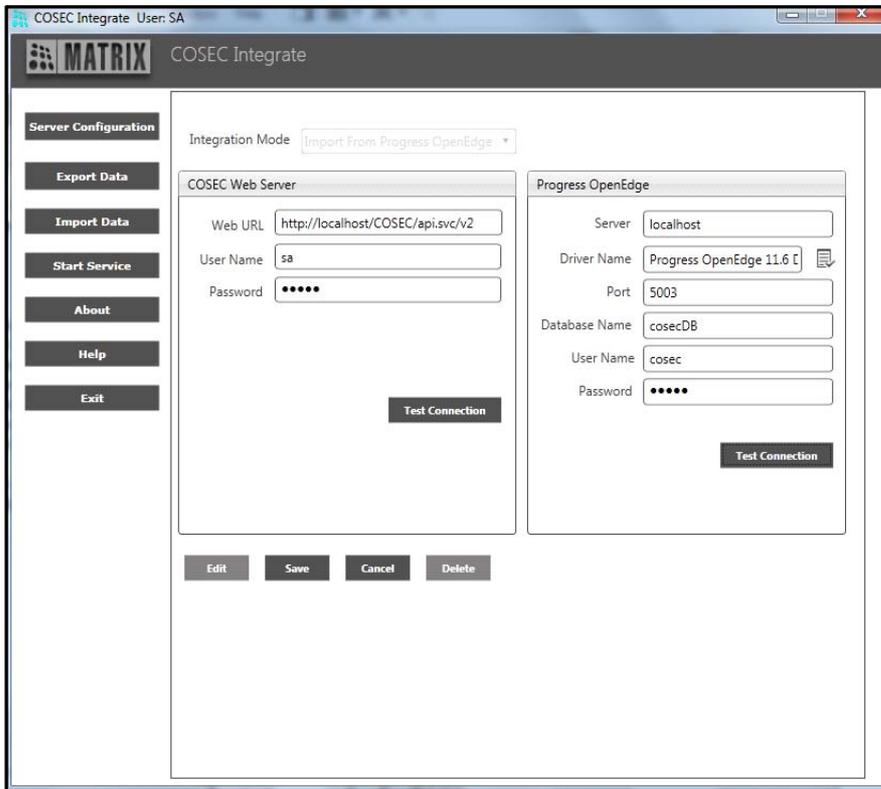
The mapped fields will be visible in the bottom grid as shown. The following destination fields need to be compulsorily mapped with appropriate fields of the source table as shown.

- id
- name
- BLNUPDATEFIELD

This is common to all the import options except the Active directory option.

# Import from Progress OpenEdge

Select the **Import from Progress OpenEdge** option in the **Integration Mode** field. Click on the **Edit** button.



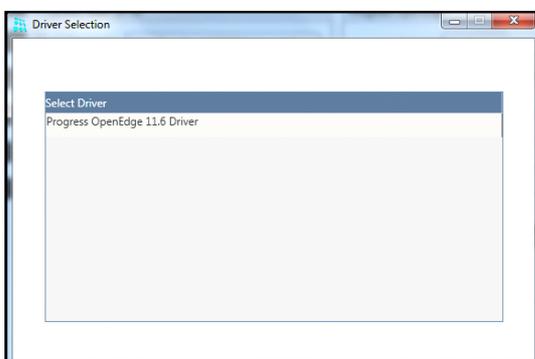
The screenshot shows the 'COSEC Integrate' application window. The 'Integration Mode' dropdown is set to 'Import From Progress OpenEdge'. The 'COSEC Web Server' section contains fields for 'Web URL' (http://localhost/COSEC/api.svc/v2), 'User Name' (sa), and 'Password' (masked with dots), with a 'Test Connection' button below. The 'Progress OpenEdge' section contains fields for 'Server' (localhost), 'Driver Name' (Progress OpenEdge 11.6), 'Port' (5003), 'Database Name' (cosecDB), 'User Name' (cosec), and 'Password' (masked with dots), with a 'Test Connection' button below. At the bottom of the main configuration area are buttons for 'Edit', 'Save', 'Cancel', and 'Delete'.

In the **COSEC Web Server** section:

- Specify the web URL of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the SA user as set in the COSEC WEB application.

In the **Progress OpenEdge** section:

- **Server:** Enter the server name with which the Progress OpenEdge database is started.
- **Driver Name:** Select the Progress OpenEdge driver from the picklist. It is the software driver which will appear in picklist, once the database is installed.



The screenshot shows a 'Driver Selection' dialog box with a list box containing 'Progress OpenEdge 11.6 Driver'. The list box is titled 'Select Driver'.

- **Port:** Enter the port number at which the Progress OpenEdge database is running. It is the port number (eg: 5003) entered in command prompt while starting the database as shown below.

- **Database Name:** Enter the database name with which Progress OpenEdge database is started. It is case sensitive. Thus if Database is started with name cosecDB as shown below then enter the name as “cosecDB”.

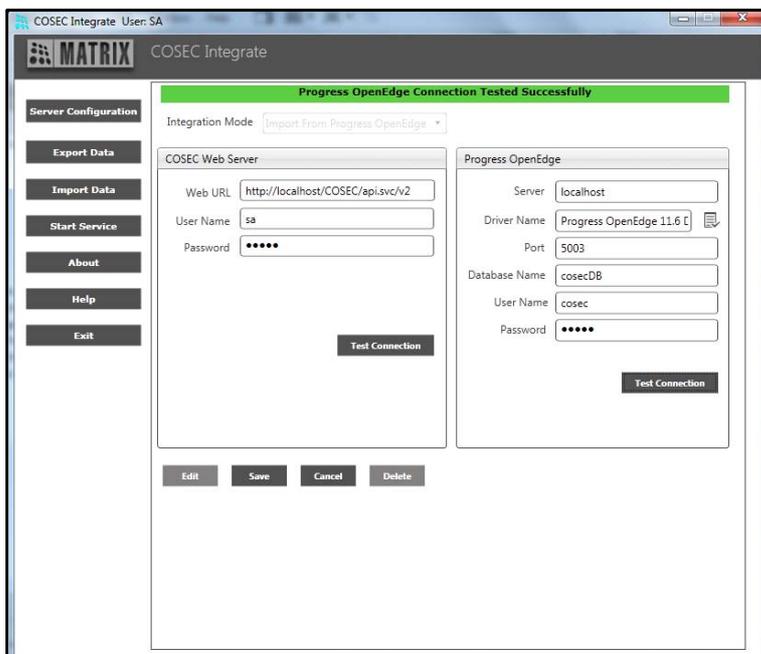
```

proenu>proserve -db C:\OpenEdge\WRK\cosecDB -H patricpillai -S 5003
OpenEdge Release 11.6 as of Fri Oct 16 19:01:51 EDT 2015
11:31:09 BROKER This broker will terminate when session ends. <5405>
11:31:09 BROKER The startup of this database requires 17Mb of shared memory.
Maximum segment size is 128Mb.
11:31:09 BROKER 0: Multi-user session begin. <333>
11:31:09 BROKER 0: Before Image Log Initialization at block 0 offset 6031. <15321>
11:31:09 BROKER 0: Login by admin on CON:. <452>
11:31:09 BROKER 0: This server is licensed for local logins only. <4393>
11:31:09 BROKER 0: Started for 5003 using TCP IPV4 address 127.0.0.1, pid 10172. <5644>

```

- **User Name:** Specify the user name as entered while creating the database.
- **Password:** Specify the password as entered while creating the database. Eg: User name is cosec and Password is cosec.

The **Test Connection** button is provided to test the connections with the web server as well as the Progress OpenEdge database.



Click on **Save** button to save the server configuration.

## Import Data Configuration

This option enables the Admin user to map the fields from the external source database table to fields in the destination COSEC User table. Click on the **Import Data** button. The following page appears.

The screenshot shows the 'Import' configuration page in the COSEC Integrate application. The interface includes a sidebar with navigation options: Server Configuration, Export Data, Import Data, Start Service, About, Help, and Exit. The main content area is titled 'Import' and features a 'Source' dropdown menu currently set to 'Progress OpenEdge'. Below this is the 'Fields Mapping' section, which contains three dropdown menus: 'Source Table' (set to 'Benefits'), 'Source Field' (set to 'DependentCare'), and 'Destination Field' (set to 'ABSENTEE-POLICY'). Each dropdown menu also displays the field's data type and length. An 'Add' button is positioned below the 'Destination Field' dropdown. A large, empty grid is located below the 'Fields Mapping' section. The 'Schedule' section at the bottom includes an 'Active' checkbox and an 'Update Interval' field set to 'Seconds'. At the very bottom of the page are four buttons: 'Edit', 'Save', 'Manual Transfer', and 'Cancel'.

Select the Source and click on the **Edit** button at the bottom of the page.

Select the **Source Table** from the drop down list. The system will get the details of the fields from the source table and display the same in the **Source Field** parameter.

This close-up view of the 'Fields Mapping' section shows the 'Source Table' dropdown set to 'Employee' and the 'Source Field' dropdown set to 'Address'. The 'Destination Field' dropdown is open, displaying a list of fields from the 'Employee' table. The 'Address' field is highlighted in blue. The list includes fields such as Address, Address2, Birthdate, City, DeptCode, EmpNum, FirstName, HomePhone, LastName, Position, PostalCode, and SickDaysLeft. A 'Progress OpenEdge Data Type' window is visible in the background, and a 'Decimal Clear' button is located to the right of the dropdown list.

Select the appropriate **destination field** and click on the **Add** button. The mapped fields will be visible in the bottom grid as shown.

Progress	OpenEdc	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
		varchar	30	0	ESI-NO	VARCHAR	30	0	Clear
		varchar	40	0	NAME	VARCHAR	45	0	Clear



The following destination fields need to be compulsorily mapped with appropriate fields of the source table as shown.

- *id*
- *name*
- *BLNUPDATEFIELD*

This is common to all the import options except the Active directory option.

## Schedule

- Check the **Active** box to enable the schedule.
- Specify the **Update Interval** in seconds, minutes or hours to define the frequency at which the application will update the destination database.
- **Enable Alert For:** When scheduled process gets completed then it will send an Alert to the configured COSEC Server. The Alert can be sent for both Successful as well as Failed transfers.

Select the checkboxes as per your requirement:

Select **Success** checkbox to send an alert mentioning the details of successfully transferred records to the configured COSEC Server.

Select **Failure** checkbox to send an alert mentioning the details of failure in transferring records to the configured COSEC Server.

If you require Alerts for both the above events, select both the check boxes.

In case of partial data transfer i.e. if both the above checkboxes are selected then the connection status will be considered as Failure and Reason for Failure will be displayed in the Alert.

Example: There are in total 100 records which are to be transferred.

Now, out of 100 records, only 60 records are transferred Successfully and the remaining 40 records have Failed. Such data transfers are known as partial data transfers.

So here the connection status will be Failure and an alert will be sent to the configured COSEC Server along with the reason for failed data transfer.



*It is to be supported for all integrate modes defined in COSEC Integrate where enable alerts provision is present i.e. for all the integration modes except for Custom Export-FP Template & Export FP Template to File.*

# Import from Excel

---

The COSEC INTEGRATE application provides the functionality to import leave transaction data from Excel.

Now user can click on the **Server Configuration** button to start the configuring process. The following page appears. Select the **Import From Excel** option in the **Integration Mode** field.

The screenshot shows the COSEC Integrate application window. The title bar reads "COSEC Integrate User: SA". The main header features the "MATRIX" logo and "COSEC Integrate". A green notification bar at the top says "Saved Successfully". On the left, a sidebar contains buttons for "Server Configuration", "Export Data", "Import Data", "Start Service", "About", "Help", and "Exit". The "Server Configuration" section is active, showing a dropdown menu for "Integration Mode" set to "Import From Excel". Below this are two panels: "COSEC Web Server" and "Source Details". The "COSEC Web Server" panel has input fields for "Web URL" (http://localhost/COSEC/api.svc/v2), "User Name" (sa), and "Password" (\*\*\*\*\*), along with a "Test Connection" button. The "Source Details" panel has an "Import From" dropdown set to "Excel". At the bottom, there are "Edit", "Save", "Cancel", and "Delete" buttons.

In the **COSEC Web Server** section:

- Specify the web URL of the api service of the COSEC WEB application as shown.
- Enter the User Name and Password of the SA user as set in the COSEC WEB application.

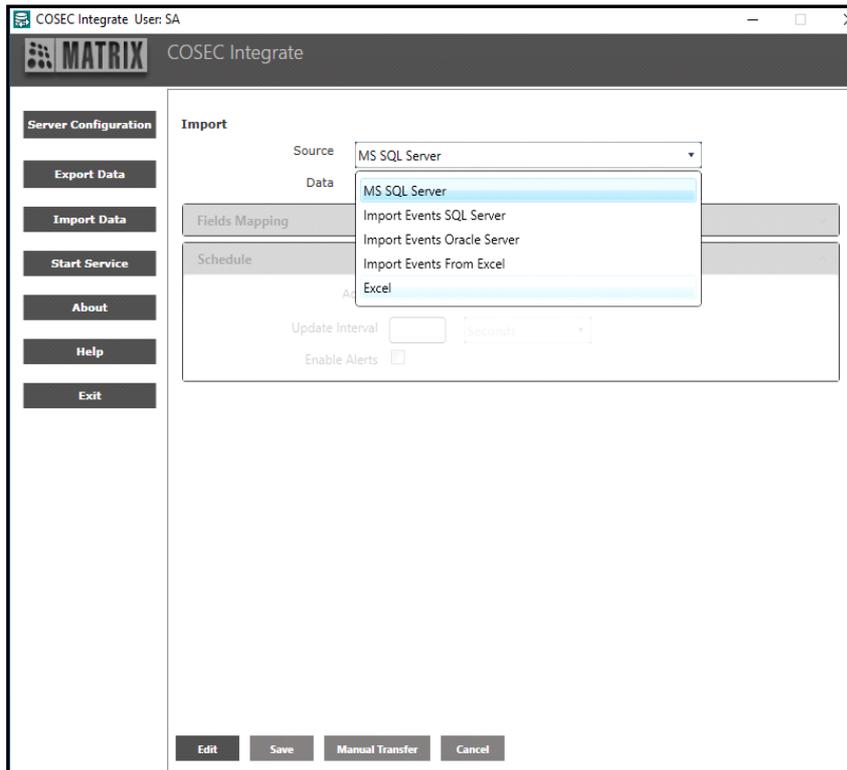
In the **Source Details** section:

- Select the **Import From** option as Excel.

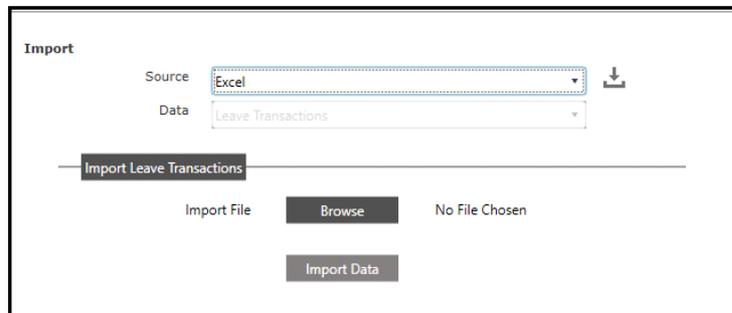
The **Test Connection** button is provided to test the connections with the web server.

Click on **Save** once done.

Now click on **Import Data** button. The following page appears. This option enables the admin user to select the external source database from where the data is to be imported in the destination COSEC table.

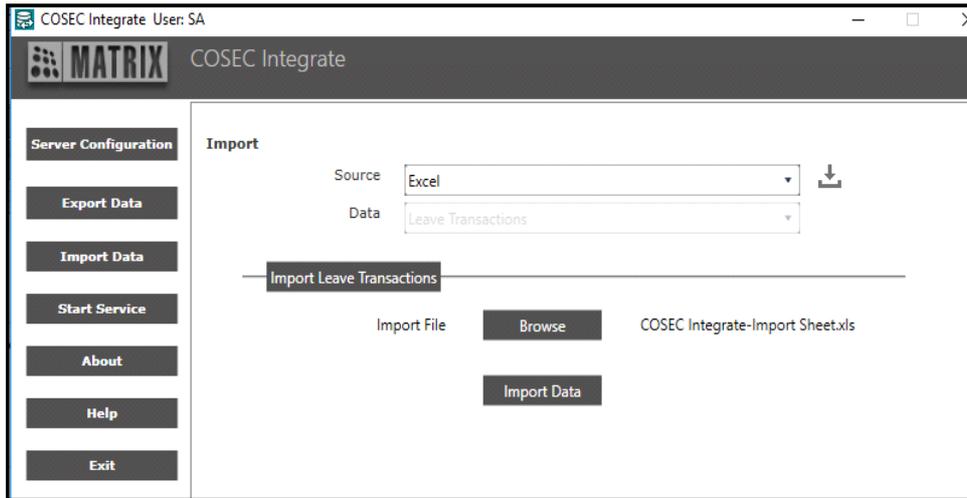


Select the source as **Excel**. The Data field shows the Leave Transaction.



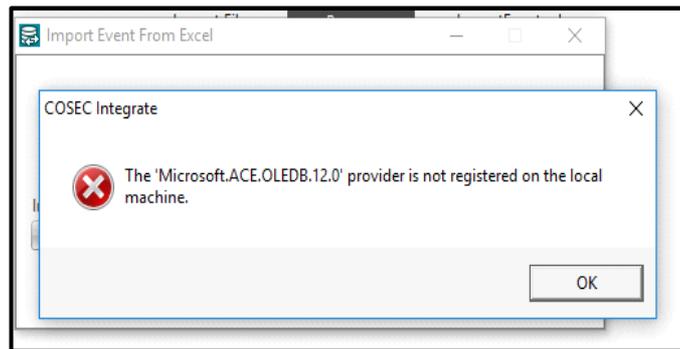
You can click on  to import the sample file for leave transaction. Then save the sample file at desired location. The leave records can be entered in the sample file.

Then click on **Browse** button to browse the file from where leave transactions are to be imported. Only .xls and .xlsx file of maximum size 15 MB is allowed for import.

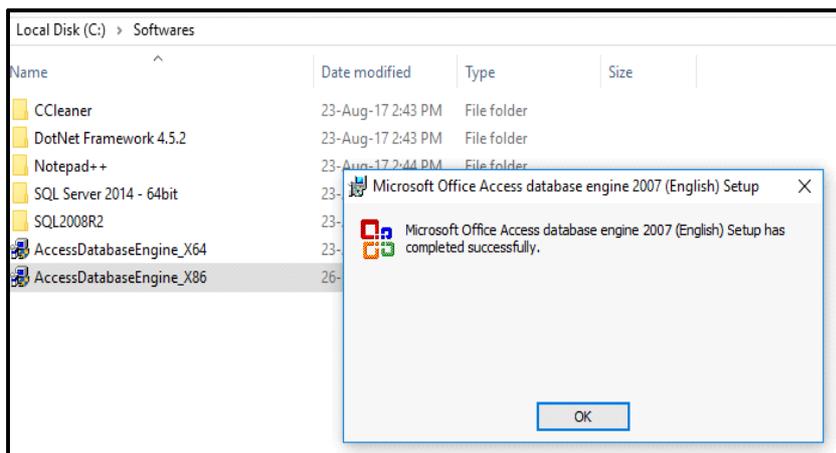


Then click on **Import Data**. The leave transaction data will be imported from the selected Excel file to the configured web server's database.

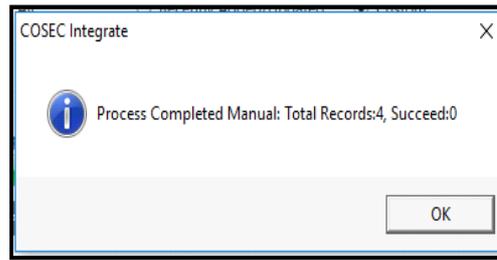
For importing excel file, you must have drivers to import.



You must install Access Database Engine compatible to your computer as shown below.



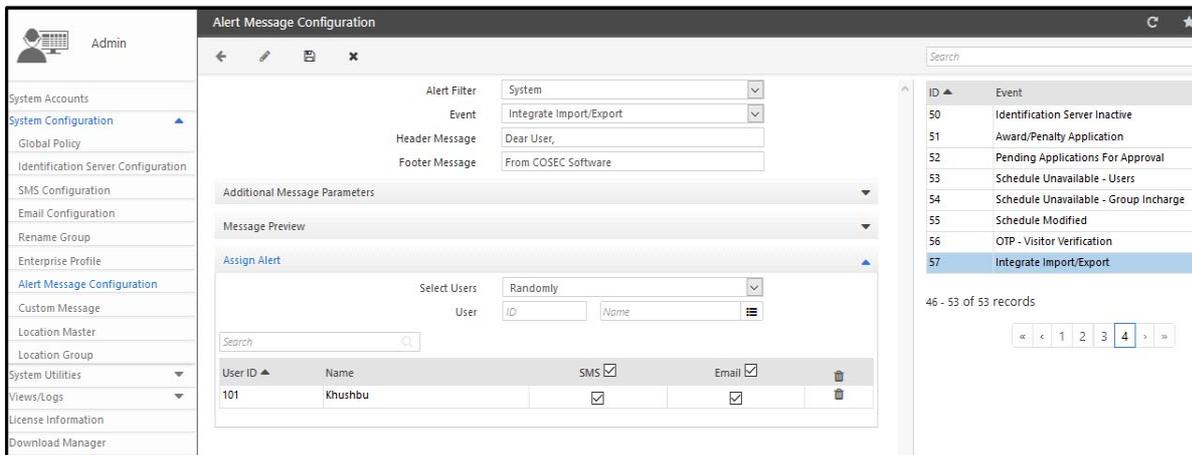
Then click on **Import Data** button. The import process is shown below.



# Integrate Alert

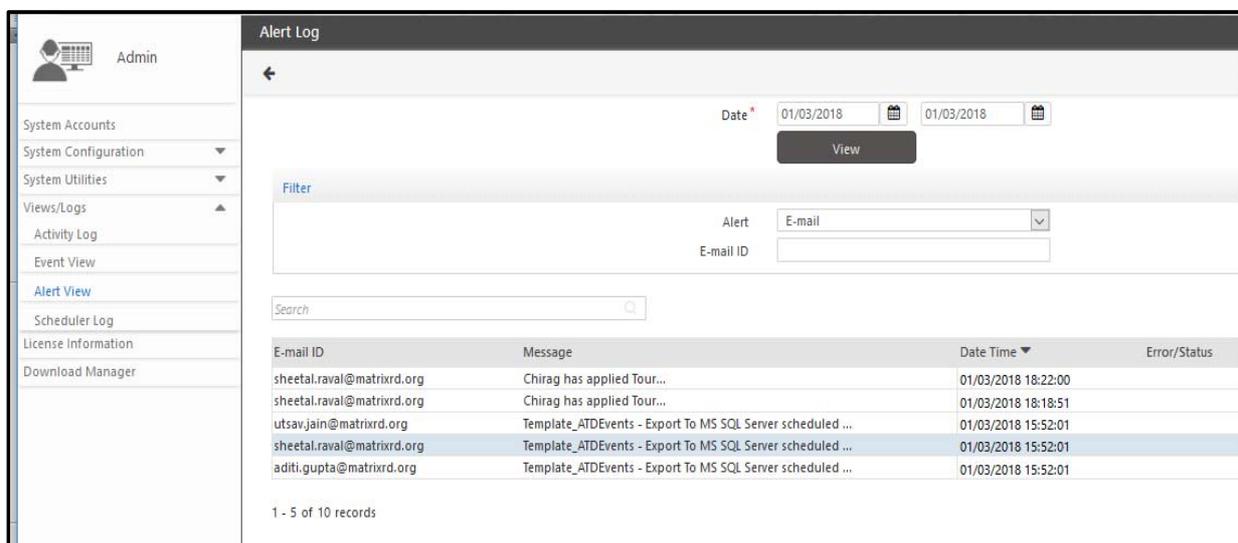
When the Integrate scheduled process gets completed, an API will be triggered to the configured COSEC server.

An Alert would be generated for the same and sent to those users as SMS or Email, for whom alert message is configured in Alert Message Configuration as shown below.



*The Contact number and Email ID on which the alert is to be sent; must be specified in User Configuration.*

An alert log with error/status message would be generated and displayed in Admin > Views/Logs > Alert View.



Consider a scenario, with configurations: **Include Previously Failed** is enabled and **Retry for failed records =3**, then count will be shown in Alert Message Configuration as displayed in below table.

**Export**

Database: MS SQL Server

Source Data Template: Template\_ATDEvents

**Table-Field Mapping**

**Schedule**

Active

Enable Filter

Include Previously Failed

Retry For Failed Records: 3

Interval Based  Once a Day

Update Interval: 6 Hours

Run Time (HH:MM):

Start Date: 01/02/2018

Retry Count: 1

Retry Interval: 1

Enable Alerts

Process number	Currently Scheduled Records	Successfully Transferred	Previously Failed Records	Successfully Transferred (from previously Failed Records)	To be displayed in Alert Message
1st Scheduled process	100	70	0	0	Scheduled Success =100 70
2nd Scheduled process	50	20	30 (1st scheduler)	10 (1st scheduler)	Scheduled Success =50 20
3rd Scheduled Process	100	90	20(1st scheduler) 30(2nd scheduler) Total=50	5(1st scheduler) 15 (2nd scheduler) Total=20	Scheduled Success =100 90 Previously Failed Success = 50 20
4th scheduled Process	50	50	15(2nd scheduler) 10(3rd scheduler) Total=25	10(2nd scheduler) 5 (3rd scheduler) Total=15	Scheduled Success =50 50 Previously Failed Success = 25 15



*If the Integrate version and COSEC Server version are different then no alert would be sent to Server and assigned users even though Alert is configured.*



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