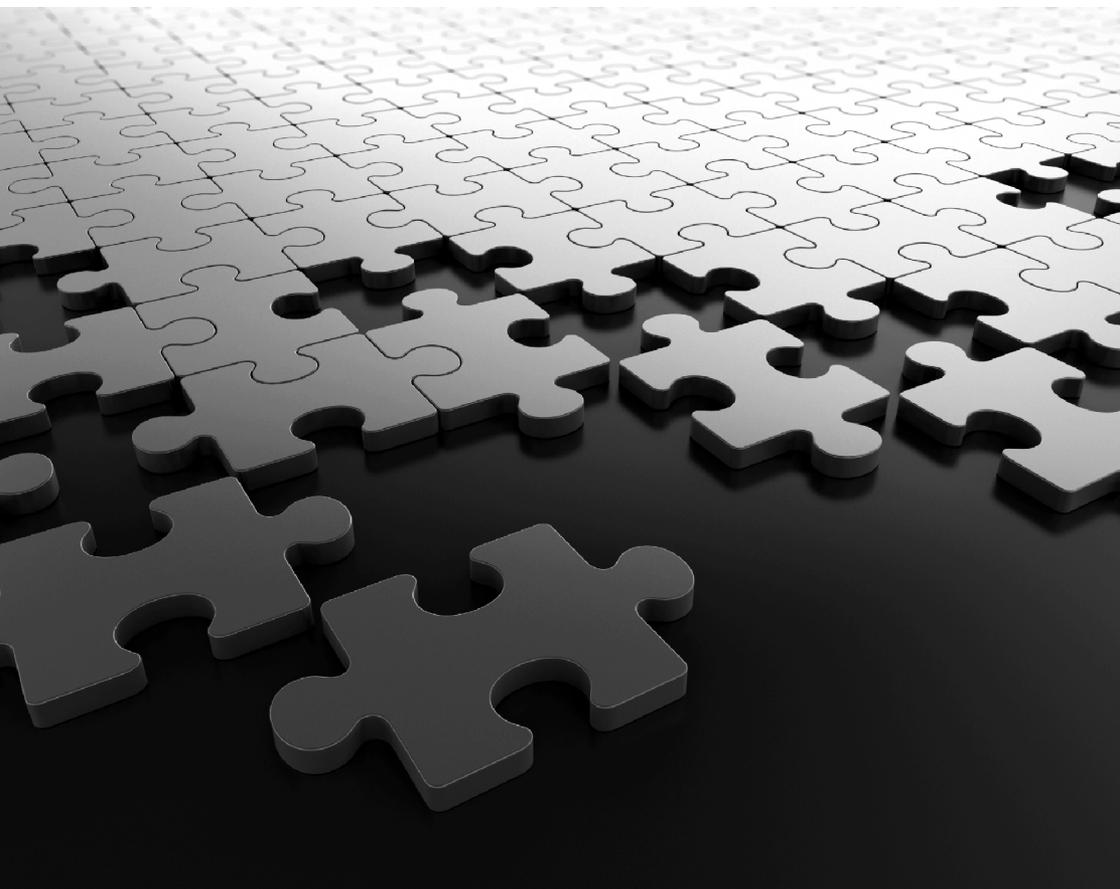


**SARVAM UMG**  
**Quick Start**





# **SARVAM UMG**

The Universal Media Gateway

Quick Start



## **Documentation Disclaimer**

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# Contents

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<b>Overview of SARVAM UMG .....</b>	<b>1</b>
<i>About the Product .....</i>	<i>1</i>
<b>Introduction .....</b>	<b>2</b>
<i>Hardware Overview .....</i>	<i>2</i>
<b>Installing ETERNITY GENX .....</b>	<b>5</b>
<i>Before you Start .....</i>	<i>5</i>
<i>Installing the VOCODER Module .....</i>	<i>7</i>
<i>Removing the VOCODER Module .....</i>	<i>10</i>
<i>Installing SLT and CO Cards .....</i>	<i>11</i>
<i>Installing the BRI Card .....</i>	<i>12</i>
<i>Installing Mobile Card .....</i>	<i>17</i>
<i>Installing the T1E1PRI Card .....</i>	<i>21</i>
<i>Switching ON the system .....</i>	<i>24</i>
<b>Configuring ETERNITY GENX .....</b>	<b>25</b>
<b>Configuring SARVAM UMG .....</b>	<b>28</b>
<i>Activating License Key .....</i>	<i>30</i>
<b>Appendix .....</b>	<b>43</b>
<i>Cable Diagram for ETERNITY GENX Cards .....</i>	<i>43</i>

# Overview of SARVAM UMG

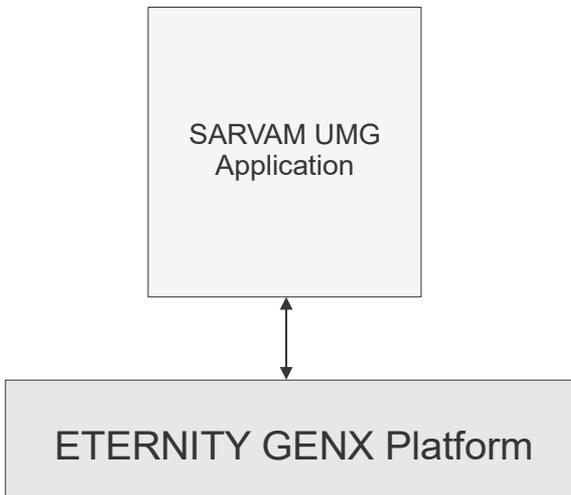
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## About the Product

The **SARVAM UMG** is the Universal Media Gateway Application that runs on the ETERNITY GENX Platform.

You need to purchase the **SARVAM UMG SME** License to use the platform as the Gateway.

The platform refers to an entity that includes the entire assembly of cards and the hardware enclosure.



The **SARVAM UMG** application when run on the ETERNITY GENX Platform acts as an IP-based system providing value added voice services. The system enables you to route calls from the Source port to the Destination port using Destination Number Determination and Destination Port Determination methods. It also offers a robust SIP Stack which gives a thorough interoperability and usability with various SIP trunk providers and IP-PBX. The system provides high performance and high reliability in a compact, modular design.

# *Introduction*

---

Thank you for choosing the Matrix SARVAM UMG! This Quick Start is meant to help you setup the SARVAM UMG and use the basic features.

For detailed description of the installation, advanced configuration and feature description, please refer to the SARVAM UMG System Manual. To download, click <https://www.matrixtelesol.com/product-manuals.html>

For instructions on using the features of the SARVAM UMG refer to the SARVAM UMG User Card.

You can also download these documents by scanning the QR code printed on the Product Label/ Packaging Label.

For product registration and warranty related details, please visit <http://www.matrixcomsec.com/product-registration-form.html>

## Hardware Overview

### **The Enclosure**

#### **Firmware Version V1R3 and earlier**

The enclosure of ETERNITY GENX has fixed and universal slots. The fixed slots are occupied by specific factory fitted cards. ETERNITY GENX has 12 universal slots.

If you upgrade the system firmware to V1R4, the Expansion Slots license will be applicable for the universal slots. No universal slots will be functional by default. You must purchase the SARVAM EXP4 ENT license to activate the universal slots as required.

For details, see Expansion Slots topic under License Management in the System Manual.

Inside the enclosure of ETERNITY GENX are slot connectors located on the motherboard on the backplane of the enclosure. Each slot has guide rails for inserting the cards.

#### **Firmware Version V1R4 and later**

The enclosure of ETERNITY GENX has fixed and universal slots. The fixed slots are occupied by specific factory fitted cards. ETERNITY GENX has 12 universal slots.

If you have upgraded the system firmware to V1R4 in the old ETERNITY GENX system, the Expansion Slots license will be applicable for the universal slots. No universal slots will be functional by default. You must purchase the SARVAM EXP4 SME license to activate the universal slots as required.

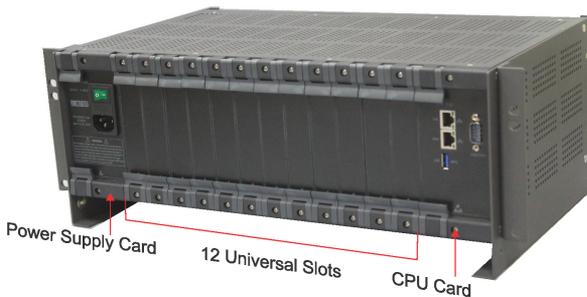
If you have purchased the new ETERNITY GENX system with the firmware V1R4, the Expansion Slots license will be applicable for the universal slots. The first four universal slots after the power supply card will be functional by default. If you require more functional universal slots, you must purchase the SARVAM EXP4 SME license.

Each SARVAM EXP4 SME license will provide the activation for next four universal slots in sequence.

For details, see Expansion Slots topic under License Management in the System Manual.

Inside the enclosure of ETERNITY GENX are slot connectors located on the motherboard on the backplane of the enclosure. Each slot has guide rails for inserting the cards.

Illustrated below is the design of the enclosure and the position of the slots in ETERNITY GENX.



The fixed slots are occupied by specific cards — Power Supply Card and the CPU Card. These are fixed and cannot be changed. Whereas, you can install any of the various cards in the universal slots.

The following cards types are supported by SARVAM UMG in the universal slots:

Card Type	Description
CO	FXO interface to connect Two-wire analog trunk lines
SLT	FXS interface to connect standard analog telephones
Mobile	Mobile interface to connect to the GSM networks

Card Type	Description
BRI	BRI interface (TE/NT) to connect BRI lines
T1E1PRI	T1E1 interface to connect T1 and E1 lines

# *Installing ETERNITY GENX*

---

## Before you Start

Before you begin the installation of the ETERNITY GENX, make sure that the required telecom wiring has been done and you have the following items ready:

- SARVAM UMG SME License.
- A Main Distribution Frame (MDF).
- A suitable location to install the Main Distribution Frame and the ETERNITY GENX platform. If you want to install the mobile card, make sure the place you select has sufficient signal strength.
- Cables for trunk lines and extensions.

Terminate the trunk lines from the service provider network and the extension lines from the phones into the Main Distribution Frame.

- The Cards of ETERNITY GENX, as required.
- One or more Single Line Telephone for testing.
- Power supply.

The ETERNITY GENX works with input voltages ranging between 100-240VAC or with 48VDC. Arrange for a separate power point and switch, close to the system. Power supply for the system must be separate from other heavy electrical loads like Air-conditioners, heaters, welding machines, electrical motors, etc.

- One or more active Two-wire Trunk lines (CO lines) for test calls.
- A modem for the ISDN T1E1PRI line.
- An NT1 termination device for the ISDN BRI line.
- Appropriate cables and connectors to set up and test the WAN interface of the ETERNITY GENX and the LAN connection.

- A standalone PC or a PC connected in LAN.
- A SIM card to test mobile network connectivity.
- A SIP Account to test VoIP connectivity.



- Make sure you have separate electrical earth and telecom earth for the safety of the product and the people handling it.
  - Always wear a properly earthed (grounded) electrostatic discharge preventive belt or wrist strap while handling the cards of the System.
  - Use Primary Protection on trunk and long distance extension lines to protect the system from lightning and electrical surges.
  - Do not install the system near any source of water, corrosive fumes, and electromagnetic noise such as radio equipment, heavy transformers, faulty electric chokes of tube-lights, device having a faulty coil, to avoid electromagnetic effect.

For detailed instructions, refer to the System Manual.

- Unpack the system.
- Make sure that your package contains all the below items. If any item is missing or damaged, please contact the source from where you have purchased the system.
  - ETERNITY GENX<sup>1</sup>
  - 3-pin Power Cord, MC-4 Black<sup>2</sup>
  - 3-pin DC Input Cable<sup>3</sup>
  - Two Screws M 7/30 for Wall Mounting
  - Two Screw Grips for Wall Mounting
  - Two Side Clamps
  - Four Screw M4X12 CSK for the Side Clamp
  - Mounting Templates



1. ETERNITY GENX AC with factory fitted AC Power Supply and CPU cards.  
ETERNITY GENX DC with factory fitted DC Power Supply and CPU cards.
2. Supplied with ETERNITY GENX AC.
3. Supplied with ETERNITY GENX DC.

- Place the system at the location you have selected.
- To install the ETERNITY GENX Cards,

- unscrew and remove the filler bracket of the slots you want to insert the cards.
- insert the cards into the Universal Slots. Make sure the connectors on the card and those on the motherboard on the backplane make perfect contact.
- press down the levers of the card mounting brackets and secure the card in its slot with the screws provided.

Refer [“Hardware Overview”](#) to know more about the Universal Slots.

## Installing the VOCODER Module

The system supports two NX DBM VOCODER64 Modules. Each module supports 64 Vocoder Channels. You must purchase the modules separately. The system provides 4 pre-activated Vocoder channels by default which can be used after installing NX DBM VOCODER64 module. If you require more channels, you can purchase the licenses accordingly. Matrix provides two licenses — SARVAM VOCODER CHNL4 and SARVAM VOCODER CHNL16.

If you require more than 64 Vocoder channels, you can install another NX DBM VOCODER64 Module.



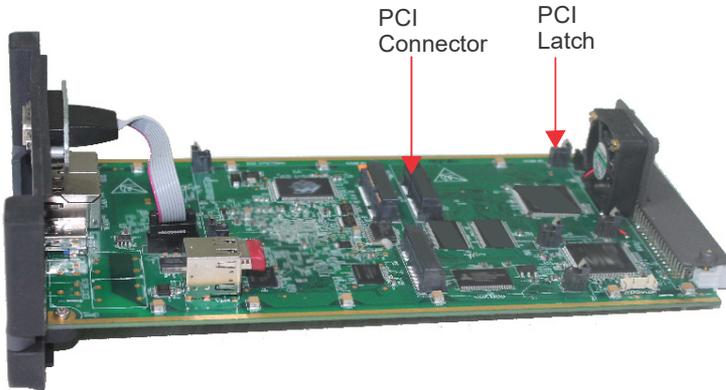
The number of Vocoder Channels that will be supported would be as per the license you purchase. However, during the Demo period, the number of Vocoder channels supported will be equal to the total number of channels available in the Vocoder module/s installed in the System.

To install,

- Unpack the NX DBM VOCODER64 Module.



- If the CPU Card is already installed, switch off power supply, unplug the power cord. Remove the screws securing the card. Lift the levers on the mounting bracket to release the card. As the card emerges from the slot, ease it out of the slot.
- Place the card carefully on a table with some packing underneath it. Avoid any physical contact with the PCB part of the card as this could cause Electrostatic Discharge (ESD) and may damage the hardware.
- The NX DBM VOCODER64 Module is to be mounted on the CPU board.



- Locate the PCI Connector and PCI Latch on the main-board.



- Carefully hold the NX DBM VOCODER64 Module from the edges. Make sure you do not touch the PCB area.



- Insert the NX DBM VOCODER64 Module into the PCI Connector socket.



- Press the Module with a finger to fix the latches perfectly into the mounting holes. Make sure you do not touch the PCB area of the module except the yellow line provided for grounding at the front end of the module.

Do not apply excessive pressure.

## Removing the VOCODER Module

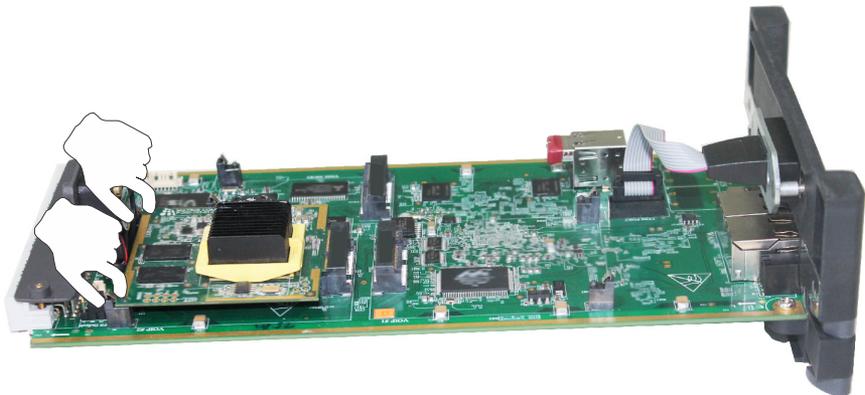
- Locate the NX DBM VOCODER64 Module you want to remove from the CPU Card.



- Press both the latches together.



Make sure you support the base of the latches from behind with your thumbs.



- Firmly hold the module and ease it out of the PCI connector carefully.



## Installing SLT and CO Cards

- Unpack the SLT and/or CO cards. Remove the filler brackets of the universal slots and insert the cards.
- Plug the MDF cables provided with each card into the connectors of the cards.
- Terminate the free ends of the MDF cables from the card connectors into the Krone modules of the Main Distribution Frame. Refer the cable connections given in the “[Appendix](#)” for terminating the cables into the Main Distribution Frame.
- Connect Single Line Analog Telephone instruments to the SLT ports over the MDF.
- Connect Two Wire Trunk (Analog Trunk) lines to the CO ports over the MDF.



The CO Card supports Power Fail Transfer (PFT). Refer to the topic Power Fail Transfer in the SARVAM UMG System Manual for details.

# Installing the BRI Card

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- Unpack the BRI Card.
- A BRI Port can be configured in the TE/NT mode.

You must set the Orientation Type of the BRI Ports as **Terminal (TE)** or **Network (NT)** mode as per your installation requirement. By default, BRI Ports are configured in the NT mode.

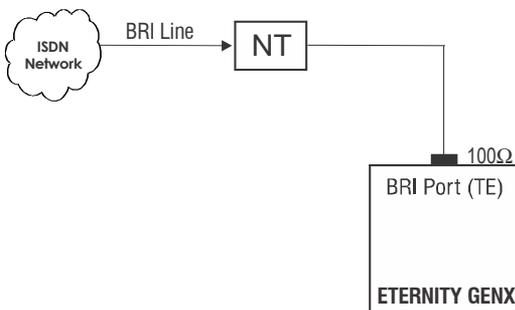
To set Orientation Type of the BRI Port, you must access the Web-based configuration tool, Jeeves.

Under **Basic Settings**, click the **BRI Port** link, click the desired port number and under General Parameters set the **Orientation Type**.

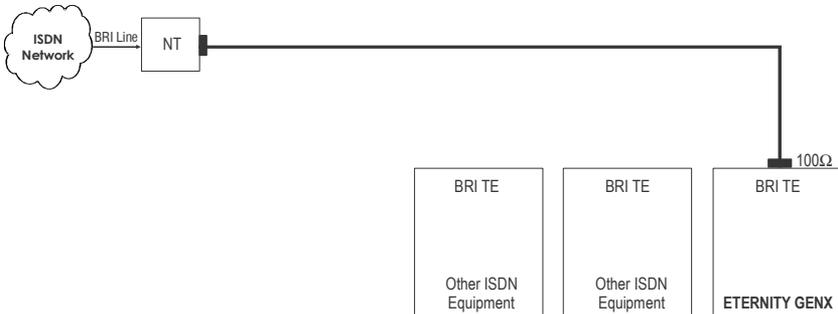
- Depending on the installation and configuration scenario, Termination Resistance of  $100\Omega$  should be inserted.

## Inserting Termination Resistance on the BRI Port

- Termination Resistance should be inserted in the following cases:
1. When the BRI Port is configured in **NT** mode.
  2. When the BRI Port is configured in **TE** mode and connected in a **Point-to-Point** configuration as shown in figure 1.



- When the BRI Port is configured in **TE mode** and connected as the **last terminal on the S0 bus** (Multi-point configuration) as shown in the figure below.



- Termination *need not* be inserted in case 2 and 3 above, if the S0 bus itself supports Termination resistors.
  - Termination need not be inserted if the BRI Port of ETERNITY GENX (configured in TE mode) is connected as any terminal other than the last terminal on the S0 bus (in a Multi-point configuration).
- To set the 100Ω termination on the BRI Port set the Jumpers on the BRI Module (daughterboard) to the position described below.

By default the Jumpers are set in AB position.

Function	Module 1 (M1)				Module 2 (M2)			
	BRI Port 1		BRI Port 2		BRI Port 3		BRI Port 4	
	Jumper Position		Jumper Position		Jumper Position		Jumper Position	
	J6	J8	J7	J9	J6	J8	J7	J9
To insert 100Ω termination	AB	AB	AB	AB	AB	AB	AB	AB
To remove 100Ω termination	BC	BC	BC	BC	BC	BC	BC	BC

## Feeding Power to Terminal Equipment

- When the BRI Port of the ETERNITY GENX is used as BRI-NT, you can feed power to the terminal equipment connected to the BRI-NT Port from the ETERNITY GENX. Power can be fed through Tx and Rx wires or through a separate pair of wires.

To Feed Power, you must access the Web-based configuration tool, Jeeves.

Under **Basic Settings**, click the **BRI Port** link, click the desired port number and under General Parameters select the **Feed Power** check box.

- By default, the Jumpers are set in AB position to feed power through Tx and Rx wires (Phantom Power).

If you want to feed power through a separate pair of wires, you may change the position of the Jumpers on the BRI module as mentioned in the table below.

Function	Module 1 (M1)				Module 2 (M2)			
	BRI Port 1		BRI Port 2		BRI Port 3		BRI Port 4	
	Jumper Position		Jumper Position		Jumper Position		Jumper Position	
	J4	J5	J2	J3	J4	J5	J2	J3
To feed power on Tx and Rx wires (Phantom Power)	AB	AB	AB	AB	AB	AB	AB	AB
To feed power on separate pair of wires	BC	BC	BC	BC	BC	BC	BC	BC



The number of ISDN Terminals that can be connected on the BRI Port configured in the NT mode depends on the power consumed by the ISDN terminals.

From signaling point of view, up to 8 terminal equipment can be connected on the BRI Port configured in the NT mode. But the maximum power that can be fed to a single BRI Port is 50mA. So, connect ISDN Terminals to the BRI Port according to the power consumed by them, which together do not exceed 50mA.

- Insert the BRI card in any free Universal Slot and secure the card.
- Use the cable supplied for each connector on the BRI card to connect the BRI Ports to the NT1 device supplied by your ISDN service provider. See the tables below for configuration and pinout details.

### Configuration of the U interface (RJ-45) on NT1

Pin Number	Pin Details
4	Tx
5	Rx

## Configuration of the S/T interface (RJ-45) on NT1

Pin Number	Pin Details
3	Rx1
4	Tx1
5	Tx2
6	Rx2

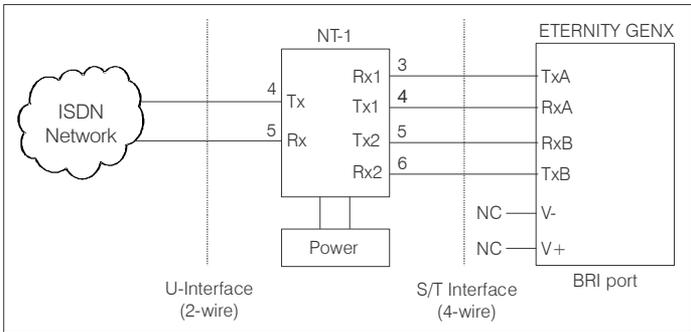
## Pin details of BRI Port in TE mode

Pin Number	Signal	Color
1	--	Orange-White
2	--	Orange
3	TX-A	Green-White
4	RX_A	Blue
5	RX_B	Blue-White
6	TX_B	Green
7	VOUT-	Brown-White
8	VOUT+	Brown

## Pin details of BRI Port in NT Mode

Pin Number	Signal	Color
1	--	Orange-White
2	--	Orange
3	RX-A	Green-White
4	TX_A	Blue
5	TX_B	Blue-White
6	RX_B	Green
7	VOUT-	Brown-White
8	VOUT+	Brown

This is a typical connection of a BRI Line to the BRI Port in the TE mode:



### LED indication for BRI Ports

Port Status	LED Color	LED Cadence
Commands from Application to BRI Port	Green	Toggle <sup>a</sup> at each command
Events to Application from BRI Port	Red	Toggle <sup>b</sup> at each event

*a. The current LED state will remain the same until the next command is received from the application on the BRI Port. For example, if the current LED state is Green/Red ON, on the next command received, the LED will be turned OFF. It will remain OFF until the next command is received. When the next command is received it will be turned Green/Red ON again. This process continues.*

*b. Same as above note.*

# Installing Mobile Card

---



For compatibility and use of Matrix GSM products (2G/3G/4G) in Russia and Iran Province connect with Matrix Sales or Technical Support Team.

- Unpack the Mobile Card.
- Connect the antenna (provided with the Mobile card) to the connector on the Mobile card.
- You may enable PIN Protection on your SIM card before inserting it into the Mobile Port to protect it from unauthorized use.



Disable Call Waiting in the SIM, else it may result in call disconnection.

- *If you want to use PIN Protection,*
  - Insert the SIM into a mobile handset first.
  - Enable PIN Protection from the mobile handset.
  - Assign the desired SIM PIN value.
  - Remove the SIM from the mobile handset.
  - Insert the SIM card (contact facing down) into the SIM holders on the GSM Card. Refer to the illustration given below.

If you do not want to use PIN protection, insert the SIM in the mobile handset and disable PIN protection.



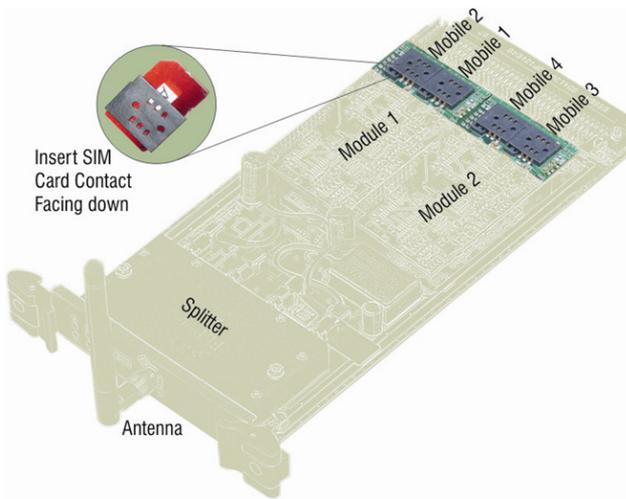
Failure to follow the instructions on PIN protection may cause your SIM Card to be blocked and you will require Personal Unblocking Number (PUK) to reactivate it again.

ETERNITY GENX support both types of Mobile Cards - with SIM Hot-swap and without SIM Hot-swap. Hot-swap allows you to insert or remove a SIM card from the SIM holder (present on the fascia of the Mobile card) without switching off the system.



SIM Hot-swap is supported for ETERNITY GE CARD GSM4, ETERNITY GE CARD GSM4 3G having hardware design V2R2, CPLD Version Revision V2R2 and PCB Version Revision V2R1 and later and ETERNITY GE CARD GSM4 4G.

## ETERNITY GE Card GSM4/GSM4 3G without SIM Hot-swap



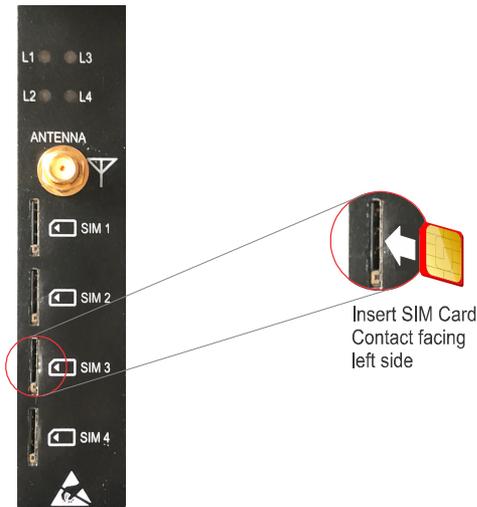
- Insert the SIM card, with its connector side down into the SIM holder on the Mobile card. You can insert multiple SIM cards of the same GSM service provider or of different service providers.
- Now, insert the Mobile card in any of the free Universal slots and secure it.
- Make sure you configure this value in SIM PIN for the Mobile Port using Jeeves. For detailed instructions, see *Mobile Port* in the System Manual.



If the wrong SIM PIN is entered thrice in a row, by a user, the SIM Card suspects the user and asks for the Personal Unlock Keyword (PUK).

- *If you don't want to use PIN Protection,*
  - Insert the SIM in the Mobile handset and disable PIN Protection.
  - Remove the SIM card from the Mobile handset.
  - Insert the SIM card (contact facing down) into the SIM holders on the GSM card in the same way as illustrated above.
  - Now, insert the Mobile card in any of the free Universal slots.

## Installing ETERNITY GE Card GSM4/GSM4 3G/GSM4 4G with SIM Hot-swap



- Insert the SIM with its contact side facing left into the SIM slot located on the fascia of the Mobile card.
- Push the SIM backwards into the slot until you hear a click and the SIM is locked in place.
- To unlock the SIM, push the protruded portion of the SIM backwards again and release it.
- Now, insert the Mobile card in any of the free Universal slots and secure it.
- Make sure you configure this value in SIM PIN for the Mobile Port using Jeeves. For detailed instructions, see *Mobile Port* in the System Manual.



If the wrong SIM PIN is entered thrice in a row, by a user, the SIM Card suspects the user and asks for the Personal Unlock Keyword (PUK).



The Mobile cards with SIM Hot - swap are designed keeping in mind the Standard Nano SIM size. In case, you face any issues due to the SIM size, contact your respective Service Provider for assistance.

## LED indication for Mobile Ports

Event	LED Color	Cadence in msec (1 cadence is of 3000msec)
Port Idle	--	LED Off
Port Active (All states other than Ring and Speech)	Red	Continuous On
Ring Event	Green	400ms On-200 ms Off- 400ms On-200 ms Off
Speech	Green	Continuous On
Module Initialization	Orange	200ms On-200ms Off- 200ms On-200ms Off- 200ms On-200ms Off- 200msOn-200ms Off- 200ms On-1200ms Off (5 Blinks)
PUK required	Orange	200ms On-200ms Off- 200ms On-200ms Off- 200ms On-200ms Off- 200msOn-1600ms Off
SIM PIN faulty	Orange	200ms On-200ms Off- 200ms On-200ms Off- 200ms On-2000ms Off (3 Blinks)
SIM Absent	Orange	200ms On-200ms Off- 200ms On- 2400ms Off (2 Blinks)
Network Link Down (absence of GSM Network)	Orange	200 ms On-2800 ms Off (1 Blink)

# Installing the T1E1PRI Card

---

- Unpack T1E1PRI Card.
- By default, termination resistance of T1E1 Port set as 120Ω for E1 connectivity.
- To use the T1E1 Port for T1 connectivity, termination resistance should be changed to 100Ω.
- Termination resistance can be changed, using Jumper J5.
- To set the Line Termination Resistor to T1 or E1 Connectivity, you must change the position of the jumper J5. Refer to the table below:

Jumper	Position	Meaning
J5	BC	To set termination resistance of 120Ω E1 connectivity
J5	AB	To set termination resistance of 100Ω T1 connectivity

- By default J5 is set to BC position to provide 120Ω termination resistance for E1 connectivity.
- To set 100Ω termination resistance for T1 connectivity, set jumper J5 to AB position.

## LED indication on ETERNITY GE Card T1E1PRI

- The ETERNITY GE T1E1 Card has 2 LEDs: LED1 and LED2.
- LED patterns are defined as shown below for different state and signaling as shown below.

### 1. Port Active Mode

*Signaling Type: E1-PRI*

LED1 Pattern:

Port Status	Color	Cadence
Layer 1 established successfully	Green	Continuous On
CRC4 Alarm	Green	100 ms On - 100 ms Off
BFA Alarm	Red	500 ms On - 500 ms Off
LOS Alarm	Red	Continuous On

LED2 Pattern:

Port Status	Color	Cadence
Layer 1 established successfully	Green	Continuous On

Port Status	Color	Cadence
RAI Alarm	Red	500 ms On - 500 ms Off
AIS or LOS Alarm	Red	Continuous On

*Signaling Type: E1-CAS*

**LED1 Pattern:**

Port Status	Color	Cadence
Layer 1 established successfully	Green	Continuous On
CRC4 Alarm	Green	100 ms On - 100 ms Off
MFA Alarm	Red	100 ms On - 100 ms Off
BFA Alarm	Red	500 ms On - 500 ms Off
LOS Alarm	Red	Continuous On

**LED2 Pattern:**

Port Status	Color	Cadence
Layer 1 established successfully	Green	Continuous On
Y-Bit Alarm	Green	100 ms On - 100 ms Off
AIS16 Alarm	Red	100 ms On - 100 ms Off
RAI Alarm	Red	500 ms On - 500 ms Off
AIS or LOS Alarm	Red	Continuous On

*Signaling Type: T1-RBS or T1-PRI*

**LED1 Pattern:**

Port Status	Color	Cadence
No Alarm	Green	Continuous On
BFA Alarm or MFA Alarm	Red	500 ms On - 500 ms Off
AIS Alarm	Red	100 ms On - 100 ms Off
LOS Alarm	Red	Continuous On

**LED2 Pattern:**

Port Status	Color	Cadence
Layer 1 established successfully	Green	Continuous On
RAI or LOS Alarm	Red	Continuous On

## 2. Port Disable Mode

LED1 Pattern:

Port Status	Color	Cadence
Port Disable	Red	Continuous On

LED2 Pattern:

Port Status	Color	Cadence
Port Disable	Off	Off

## Switching ON the system

---

- Switch ON the system.
- It takes 2 to 3 minutes for initiation.

### **Reset Cycle on ETERNITY GENX**

- On completion of the initialization, LED L1 will be turned ON Green continuously and LED L2 will be turned ON Green for 1 sec and OFF for 1 sec.

# Configuring ETERNITY GENX

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ETERNITY GENX Platform provides a Graphic User Interface (GUI), Jeeves, the proprietary web-based configuration software of Matrix. The built-in web server, Jeeves, allows you to select the application you want to run on the ETERNITY GENX platform.

The accessibility to the web-based GUI is secured by a password. This password cannot be used to configure the system using commands.

To be able to access Jeeves,

- the LAN/WAN Port of ETERNITY GENX must be connected with a stand-alone PC or in a LAN.
- a web-browser, either Internet Explorer 7 or later or Mozilla Firefox 3.5.1 or later, must be installed on the PC.



If the computer for accessing Jeeves is connected in a LAN Switch and the WAN Port of SARVAM UMG is connected behind a NAT router, make sure that both the LAN and WAN connections are in different Subnet Masks.

To login,

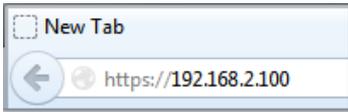
- Open the browser (Internet Explorer/Mozilla Firefox) on the PC (Standalone or LAN PC) to which the ETERNITY GENX is connected.
- Make sure the IP Address of the computer and the LAN Port of ETERNITY GENX do not conflict, and that both are in the same Subnet.

The default IP Address of the LAN Port is: **192.168.2.100**

The default Subnet Mask of the LAN Port is: **255.255.255.000**

Change the Subnet of the computer, if necessary.

- In the address bar of the browser, enter <https://192.168.2.100>.



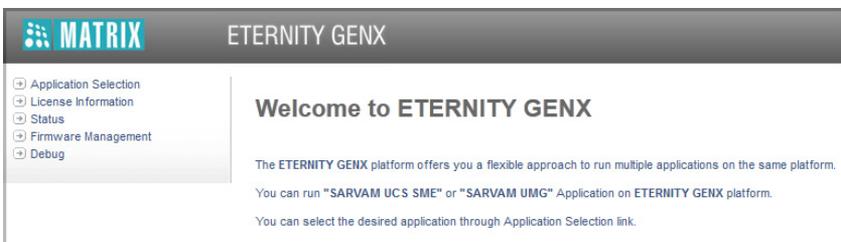
If you enter the IP Address **192.168.2.100** directly, you will be redirected to the HTTPS protocol for secure access. Click the <https://192.168.2.100> link on the page.

- The **Login** page will open.
- In **Login Password**, enter *1234*, the default Password.



- Click the **Login** button.
- On successful login, the **Home** page of Jeeves opens.

The left navigation bar displays the links — **Application Selection, License Information, Status, Firmware Management** and **Debug**.



**Application Selection** enables you to select the application you wish to run on the ETERNITY GENX platform. Select SARVAM UMG option.

**License Information** displays the License key along with the License details of the applications.

**Status** displays the system details and the status of all the ports.

**Firmware Management** enables you to upgrade the system software with a click of a button.

**Debug** allows you to enable and configure the debug settings.

## Application Selection

Through **Application Selection**, you can select the application you wish to run on the ETERNITY GENX Platform.

- In **Select an Application**, you must select the SARVAM UMG option.



The screenshot shows the 'Application Selection' window. On the left is a sidebar with a tree view containing 'Application Selection', 'License Information', 'Status', 'Firmware Management', and 'Debug'. The main area is titled 'Application Selection' and contains a dropdown menu labeled 'Select an application' with 'SARVAM UMG' selected. Below it is a checkbox labeled 'Always start the selected application when system restarts' which is currently unchecked. A 'Next' button is located at the bottom center.

- Select the Always start the selected application when system restarts check box to enable. The selected application will start whenever the system restarts.
- Keep the check box disabled only if you want to select the application to be run on the ETERNITY GENX platform every time the system restarts. Default: Disabled.



This screenshot is identical to the previous one, but the 'Always start the selected application when system restarts' checkbox is now checked. A mouse cursor is pointing at the 'Next' button.

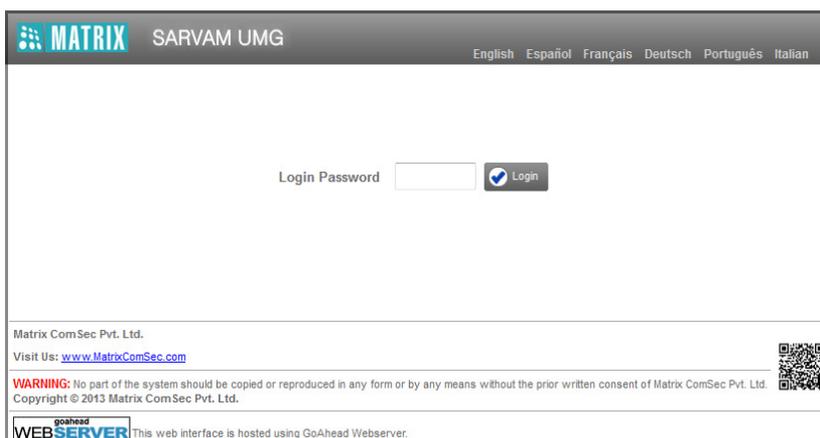
- Now, click on the **Next** button, you will be redirected to the SARVAM UMG Application.

# Configuring SARVAM UMG

SARVAM UMG Application provides an embedded web server with a Graphic User Interface (GUI), *Jeeves*, for configuration.

To access SARVAM UMG Jeeves,

- In **Login Password**, enter *1234*, the default Password.



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Visit Us: [www.MatrixComSec.com](http://www.MatrixComSec.com)

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goahead  
**WEBSERVER** This web interface is hosted using GoAhead Webserver.

- Click the **Login** button.



Before you start configuring the system, if you wish to download the *SARVAM UMG System Manual* or *SARVAM UMG User Card*, you can click or scan the QR Code present on the login page of Jeeves.

- You are prompted to change the default password.

**Password Change**

Login through default password is not allowed. Change the password to login.

**Current Password**

**New Password**

**Confirm New Password**

**Note :**

**Password must follow following requirements:**

- Minimum length must be 6 characters.
- Password must include atleast 1 uppercase , 1 lowercase , 1 number and 1 special character.
- Allowed characters are 0-9, a-z, A-Z, all special characters except %, =, #, +, &, \, <, >, " , ' and space.

 Submit

- In **Current Password**, enter the default SE Password.
- Enter the **New Password**. All ASCII characters (except Percentage %, Hash #, Equal to =, Plus +, And &, Backslash \, Less than <, Greater than >, Apostrophe ' , Double Quote " and **Space**) and digits 0 to 9 are allowed.

The new password must be:

- a minimum of 6 characters to a maximum of 12 characters.
  - include atleast one upper-case, one lower-case, one number and one special character.
- In **Confirm New Password**, re-enter the new password to confirm.
  - Click **Submit**. You will be re-directed to the Login page again.
  - In **Login Password**, enter the new password.

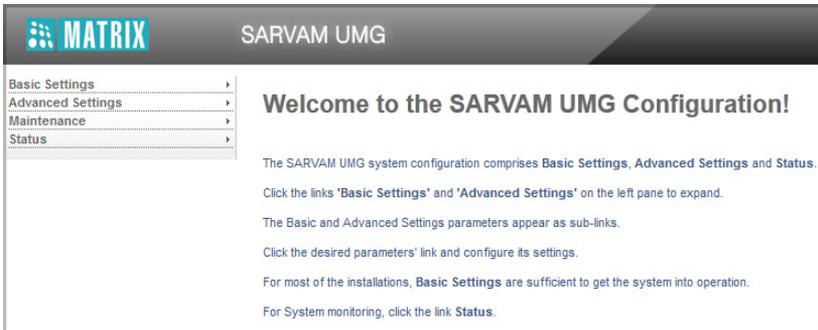


As this password is meant for restricting access to the SE mode, we strongly recommend you to:

- Keep the password secret.
- Select a complex password that cannot be easily guessed.
- Change the password regularly. For instructions, see the topic 'Login Password' in the System Manual.

On successful login, the **Home** page of Jeeves opens.

The left navigation bar shows the links **Basic Settings**, **Advanced Settings**, **Maintenance** and **Status**.



**Basic Settings** break down the complexities of configuration and are sufficient to get your system into operation.

**Advanced Settings** enable you to configure the advanced features and facilities of SARVAM UMG.

**Maintenance** allows you to carry out system maintenance and monitoring activities like uploading/upgrading firmware and configuration, system debug, system restart.

**Status** allows you to view the system details and the status of all the ports.

## Activating License Key

You must activate the **SARVAM UMG SME** License to run ETERNITY GENX as the Universal Media Gateway.

### Instructions for Matrix Channel Partners

Your license voucher may be a paper or a PDF (protected) file.

You may activate your License Online. For this, keep the following items ready:

- The SARVAM UMG SME License Voucher containing the 16-digit PIN.
- A valid, unique User ID and Password from the Matrix License Support Centre.
- Access to Internet.
- Current License Key of the system.

To activate License key,

- Open Jeeves.
- Log in as System Engineer.
- Under **Advanced Settings**, click **License Management** link.

The License Management page opens.

Basic Settings

Advanced Settings

- System Parameters
- Dial Plan
- Number Lists
- Automatic Number Translation (ANT)
- SP Profile
- Destination Number Determination
- Destination Port Determination
- Group
- Peer-to-Peer Dialing
- PIN Authentication
- Digest Authentication
- Static Routing Table
- Access Code
- Virtual Access Codes
- Virtual User
- Emergency Number
- Disconnect Tone
- Prefix to Domain Name Conversion
- License Management**
- Certificate Manager
- Call Detail Records(CDR)

**License Management**

Enter License Key

License Key A48E-0FF5-F543-80D9-6228-00B3-0051-2941-1AC5-...

Service Profile	As Per License Key
SARVAM UMG SME	No
Expansion Slots	1 - 4
Vocoder Channels	4
Virtual User	No

Submit

Demo Period

Demo Period Left 60 Days, 00 Hours

- Note down or copy the current **License Key** on this page.

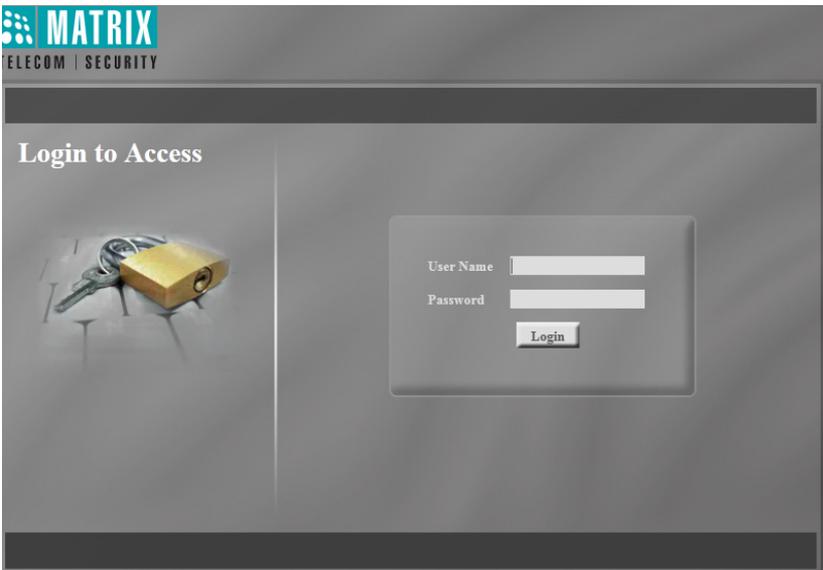
You can view the features and functions that are currently available to you under **Service Profile**.

- Keep your Current License Key and the License Voucher ready.

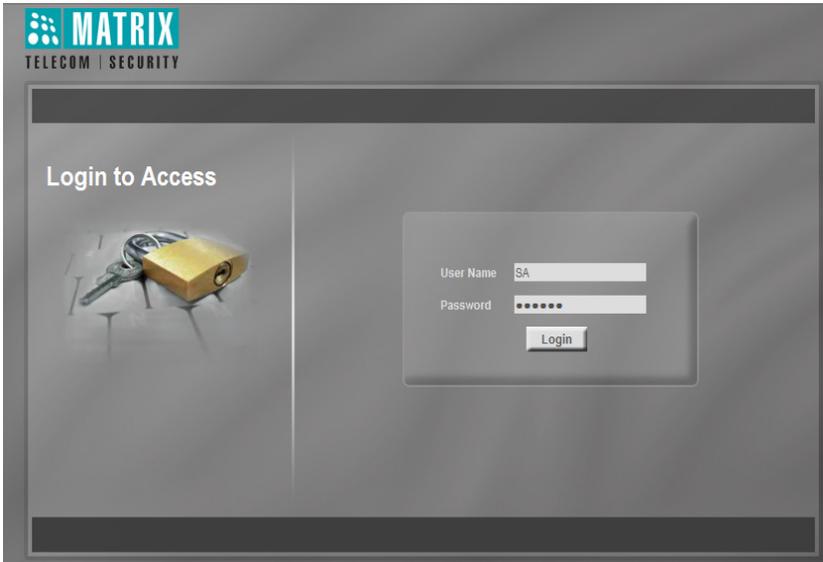
- Open a new window on your browser. Enter **http://www.matrixcomsec.com/MatrixLicense** in the address bar.



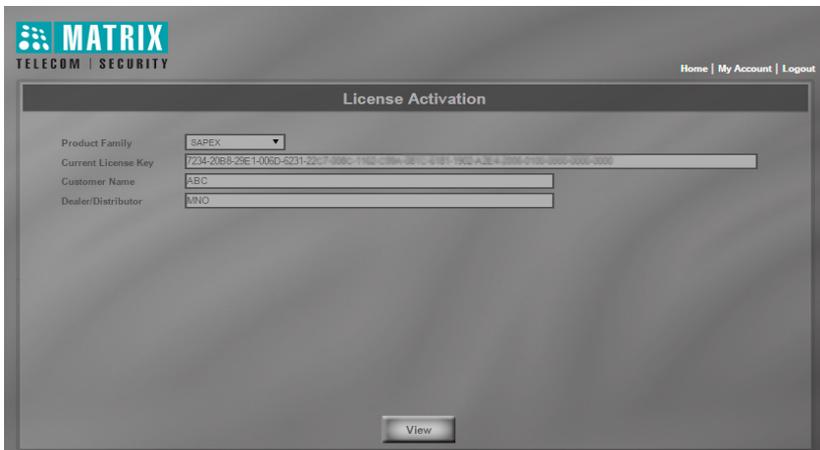
- Click **Login to Access**.
- The Login to Access page will open.



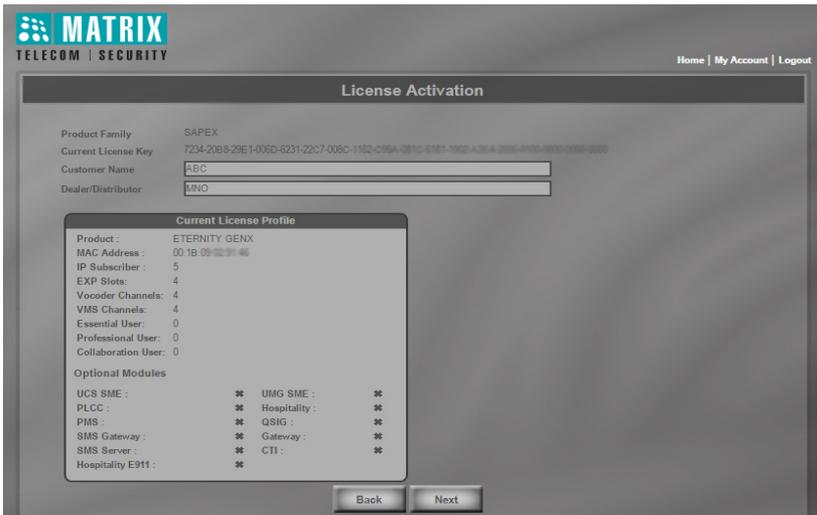
- Enter your **User Name** and **Password** provided by Matrix and click the **Login** button.



On successful login, the License Activation page will open.



- As **Product Family**, select the option **SAPEX**.
- In the field **Current License Key**, paste or type the current product license key you noted from the *License Management* page of Jeeves.
- Click **View** button.

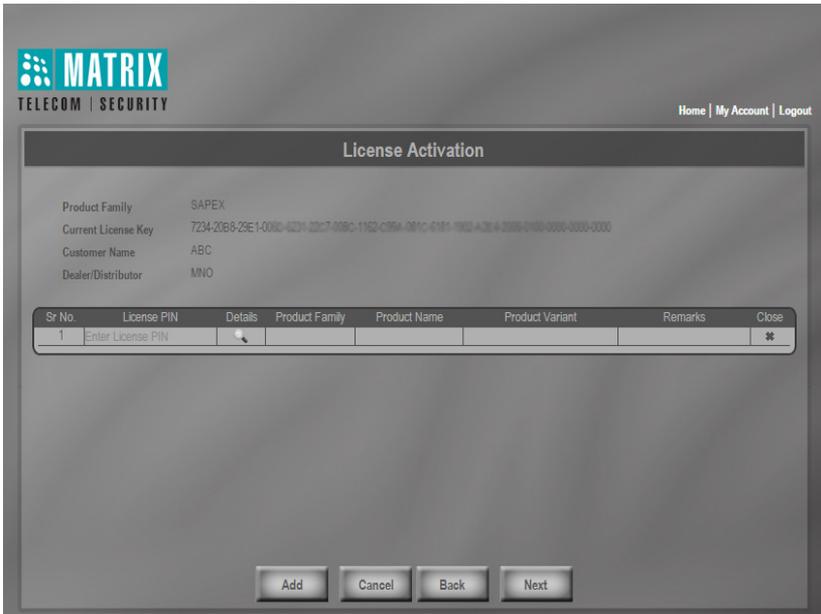


- The page displays the current License Profile on ETERNITY GENX. Click the **Next** button to continue.



When ETERNITY GENX is used as the Universal Media Gateway, only UMG and Vocoder Channels Licenses are applicable. Other licenses are applicable when you run the ETERNITY GENX as the Unified Communication Server.

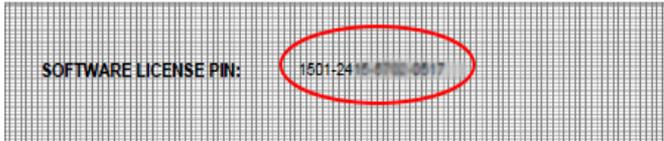
The **License Activation** page opens.



- In the **License PIN** field on this page, enter the License PIN from the Voucher.

**How to Activate the License:**

- Step 1: Ensure compatibility of this new license with Matrix product by checking the product name, variant and version.  
 Step 2: Open web interface of the product and go to the License Management page.  
 Step 3: Verify existing licenses active on the product and note down the existing license code.  
 Step 4: Ensure that this new license is meaningful on the product.  
 Step 5: Send existing license key and this PIN together to Matrix.  
 Step 6: Matrix will send you new license key.  
 Step 7: Enter new license key you received from Matrix on the License Management page of the product.  
 Step 8: The new license is activated on your Matrix product.  
 Step 9: The License Management page should now show all the licenses including the new license you just activated.



**Where to Contact for License Information:**

MATRIX COMSEC PVT. LTD.  
 15&19,GIDC,Waghodia- 391760, Dist. Vadodara, Gujarat, India  
 Ph:+91 2668 263172/73 , Fax: +91 2668 262631.  
 E-mail: License@MatrixComSec.com

**CAUTION:**

Once a license is activated on a product, it cannot be uninstalled or reinstalled on any other product.

**MATRIX TELECOM | SECURITY** Home | My Account | Logout

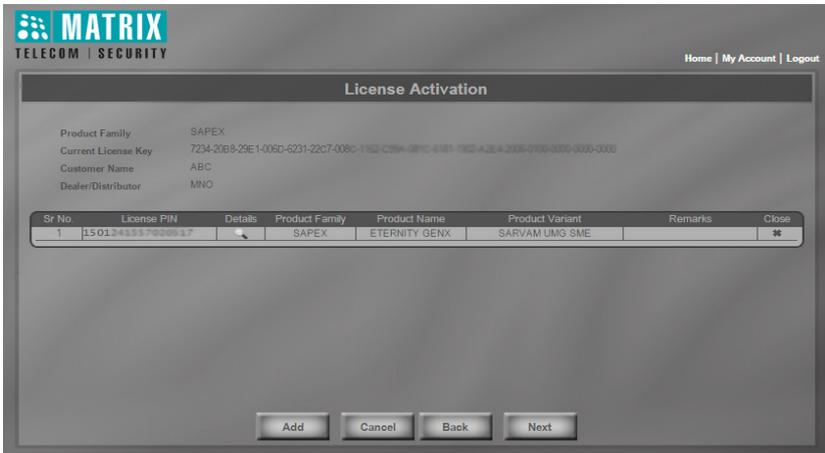
### License Activation

Product Family: SAPEX  
 Current License Key: 7234-2088-29E1-006D-6231-22C7-008C-1762-C994-88FC-4181-1932-A2E4-2506-0105-0000-0000  
 Customer Name: ABC  
 Dealer/Distributor: MNO

Sr No.	License PIN	Details	Product Family	Product Name	Product Variant	Remarks	Close
1	1501241587920617		SAPEX	ETERNITY GENX	SARVAM UMG SME		*

Buttons: Add, Cancel, Back, Next

- Click **Details**. The details appear in the fields **Product Family**, **Product Name**, **Product Variant**.



- Click the **Next** button. Your **Current License Profile** and your **New License Profile** will appear on this page.



- Click the **Activate** button and wait for a few seconds, as the activation is initiated.

On successful activation, the confirmation message will appear on your screen along with the activation date and time.



The screens for **Current License Profile** and the **New License Profile** may differ according to the licenses purchased by you.

A confirmation mail will also be sent to your e-mail ID (registered with Matrix).

**MATRIX**  
TELECOM | SECURITY

Home | My Account | Logout

### License Activation

Activated successfully but Failure sending mail. Unable to connect to the remote server  
Activation Date : 02/05/2017 15:07:40

Product Family : SAPEX  
Current License Key : 7234-20B8-29E1-006D-6231-22C7-008C-1183-4394-081C-6181-1932-A264-2088-6106-0000-0000  
Customer Name : ABC  
Dealer/Distributor : MNO  
New License Key : 43E0-56F6-00C8-02CB-008D-8727-088A-9308-3C48-0060-5DCC-1489-938D-7489-0000-0000-0000

Current License Profile		New License Profile	
Product :	ETERNITY GENX	Product :	ETERNITY GENX
MAC Address :	00:1B:05:02:91:46	MAC Address :	00:1B:05:02:91:46
IP Subscriber :	5	IP Subscriber :	5
EXP Slots :	4	EXP Slots :	4
Vocoder Channels :	4	Vocoder Channels :	4
VMS Channels :	4	VMS Channels :	4
Essential User :	0	Essential User :	0
Professional User :	0	Professional User :	0
Collaboration User :	0	Collaboration User :	0
Optional Modules		Optional Modules	
UCS SME :	☒	UMGM SME :	☒
PLCC :	☒	Hospitality :	☒
PMS :	☒	QSIG :	☒
SMS Gateway :	☒	Gateway :	☒
SMS Server :	☒	CTI :	☒
Hospitality E911 :	☒		

Print Save Email

You may **Save**, **Print**, or **Email** this information for your records, by clicking the relevant button on the bottom of the page.

- Note down or copy the New License Key generated on this page.
- Go back to the Jeeves window (or log in as System Engineer again, if your session has ended).



The Service Profile on this page will be updated according to the license.

**License Management**

Enter License Key  -  -  -  -  -  -  -  -  -  -

License Key A48E-0FF5-F543-80D9-6228-00B3-0051-2941-1AC5-~~5853-C385-7349-8F4C-8844-0000-0000~~

Service Profile	As Per License Key
SARVAM UMG SME	Yes
Expansion Slots	1 - 4
Vocoder Channels	4
Virtual User	No

Demo Period

Demo Period Left 60 Days, 00 Hours

- To log off, click **Logout**.



If you are unable to use Online Activation of the License Key or have no internet access, contact the Matrix License Support Centre for assistance in generating the new License key.

## Instructions for Customers

To activate your License, you would need the License Voucher containing the 16-digit License PIN. Contact your Dealer/Distributor in this regard. Your License Voucher may be a paper or a protected PDF file.

- Open Jeeves.
- Log in as System Engineer.

- Under **Advanced Settings**, click **License Management**. The License Management page opens.

The screenshot shows the 'License Management' page. On the left, a navigation menu lists various settings, with 'License Management' highlighted. The main content area includes:

- An 'Enter License Key' field with a grid of input boxes.
- A 'License Key' field containing the value: A48E-0FF5-F543-80D9-6228-00B3-0051-2941-1AC5.
- A table with two columns: 'Service Profile' and 'As Per License Key'.
 

Service Profile	As Per License Key
SARVAM UMG SME	No
Expansion Slots	1 - 4
Vocoder Channels	4
Virtual User	No
- A 'Demo Period' section with a 'Start' button and 'Demo Period Left' showing '60 Days, 00 Hours'.
- A 'Submit' button with a checkmark icon.

- Note down the current **License Key** on this page.

You may view the features and functions that are currently available to you under **Service Profile**.

- Send your Current License Key and the License PIN (on the Voucher) to the Matrix License Support Centre.
- You will receive a new License Key.
- Open Jeeves again.
- Log in as System Engineer.

- Under **Advanced Settings**, click **License Management**.

**License Management**

Enter License Key

License Key A48E-0FF5-F543-80D9-6228-00B3-0051-2941-1AC5-8063

Service Profile	As Per License Key
SARVAM UMG SME	No
Expansion Slots	1 - 4
Vocoder Channels	4
Virtual User	No

Submit

Demo Period

Demo Period Left 60 Days, 00 Hours

- Enter the New License Key you obtained from Matrix in the field **Enter License Key**.

**License Management**

Enter License Key A48E - 0FF5 - F543 - 80D9 - 6228 - 00B3 - 0051 - 2941 - 1AC5 - 8063

License Key A48E-0FF5-F543-80D9-6228-00B3-0051-2941-1AC5-8063

Service Profile	As Per License Key
SARVAM UMG SME	No
Expansion Slots	1 - 4
Vocoder Channels	4
Virtual User	No

Submit

Demo Period

Demo Period Left 60 Days, 00 Hours

- Click the **Submit** button.

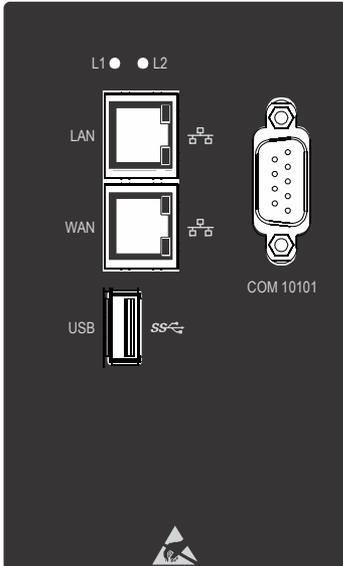


# Appendix

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## Cable Diagram for ETERNITY GENX Cards

### ETERNITY GENX CPU Card



### Ports and Connectors

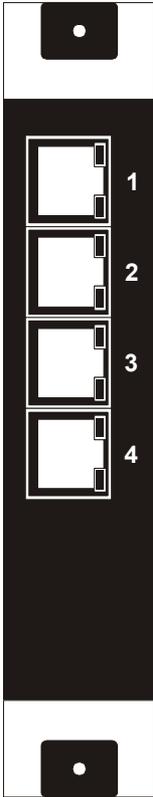
Port	Connector	Description
LAN	RJ45	Used for connecting the Ethernet cable into LAN Port to connect to a PC or a LAN Switch.
WAN	RJ45	Used for connecting the Ethernet cable into WAN Port to connect to a Broadband Router/Modem.
USB	-	For future use
COM	DB-9	For future use

# ETERNITY GE SLT8



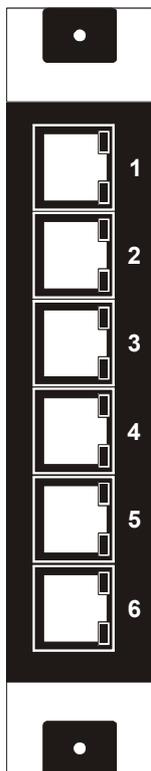
Connector	Color	Connection	H/w Port Offset
RJ45-1	Blue - (Blue & White)	SLT	01
	Orange - (Orange & White)	SLT	02
	Green - (Green & White)	SLT	03
	Brown - (Brown & White)	SLT	04
RJ45-1	Blue - (Blue & White)	SLT	05
	Orange - (Orange & White)	SLT	06
	Green - (Green & White)	SLT	07
	Brown - (Brown & White)	SLT	08

# ETERNITY GE SLT16



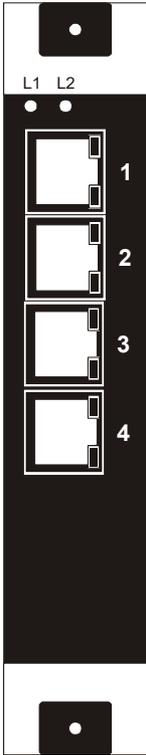
Connector	Color	Connection	H/w Port Offset
RJ45-1	Blue - (Blue & White)	SLT	01
	Orange - (Orange & White)	SLT	02
	Green - (Green & White)	SLT	03
	Brown - (Brown & White)	SLT	04
RJ45-2	Blue - (Blue & White)	SLT	05
	Orange - (Orange & White)	SLT	06
	Green - (Green & White)	SLT	07
	Brown - (Brown & White)	SLT	08
RJ45-3	Blue - (Blue & White)	SLT	09
	Orange - (Orange & White)	SLT	10
	Green - (Green & White)	SLT	11
	Brown - (Brown & White)	SLT	12
RJ45-4	Blue - (Blue & White)	SLT	13
	Orange - (Orange & White)	SLT	14
	Green - (Green & White)	SLT	15
	Brown - (Brown & White)	SLT	16

## ETERNITY GE SLT20



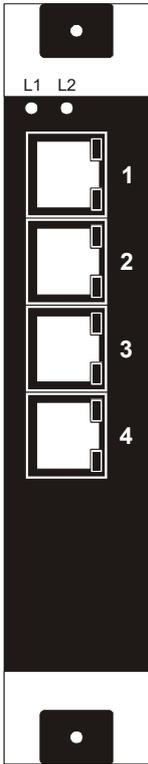
Connector	Color	Connection	H/w Port Offset
RJ45-1	Blue - (Blue & White)	SLT	01
	Orange - (Orange & White)	SLT	02
	Green - (Green & White)	SLT	03
	Brown - (Brown & White)	SLT	04
RJ45-2	Blue - (Blue & White)	SLT	05
	Orange - (Orange & White)	SLT	06
	Green - (Green & White)	SLT	07
	Brown - (Brown & White)	SLT	08
RJ45-3	Blue - (Blue & White)	SLT	09
	Orange - (Orange & White)	SLT	10
	Green - (Green & White)	SLT	11
	Brown - (Brown & White)	SLT	12
RJ45-4	Blue - (Blue & White)	SLT	13
	Orange - (Orange & White)	SLT	14
	Green - (Green & White)	SLT	15
	Brown - (Brown & White)	SLT	16
RJ45-5	Blue - (Blue & White)	SLT	17
	Orange - (Orange & White)	SLT	18
	Green - (Green & White)	-	-
	Brown - (Brown & White)	-	-
RJ45-6	Blue - (Blue & White)	SLT	19
	Orange - (Orange & White)	SLT	20
	Green - (Green & White)	-	-
	Brown - (Brown & White)	-	-

# ETERNITY GE C08



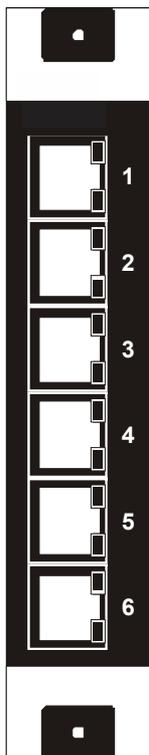
Connector	Color	Connection	H/w Port Offset
RJ45-1	Blue - (Blue & White)	CO	01
	Orange - (Orange & White)	CO	02
	Green - (Green & White)	CO	03
	Brown - (Brown & White)	CO	04
RJ45-2	Blue - (Blue & White)	CO	05
	Orange - (Orange & White)	CO	06
	Green - (Green & White)	CO	07
	Brown - (Brown & White)	CO	08
RJ45-3	Unused		
RJ45-4	Unused		

# ETERNITY GE C016



Connector	Color	Connection	H/w Port Offset
RJ45-1	Blue - (Blue & White)	CO	01
	Orange - (Orange & White)	CO	02
	Green - (Green & White)	CO	03
	Brown - (Brown & White)	CO	04
RJ45-2	Blue - (Blue & White)	CO	05
	Orange - (Orange & White)	CO	06
	Green - (Green & White)	CO	07
	Brown - (Brown & White)	CO	08
RJ45-3	Blue - (Blue & White)	CO	09
	Orange - (Orange & White)	CO	10
	Green - (Green & White)	CO	11
	Brown - (Brown & White)	CO	12
RJ45-4	Blue - (Blue & White)	CO	13
	Orange - (Orange & White)	CO	14
	Green - (Green & White)	CO	15
	Brown - (Brown & White)	CO	16

## ETERNITY GE Card CO4+SLT16



Connector	Color	Connection	H/w Port Offset
RJ45-1	Blue - (Blue & White)	SLT	01
	Orange - (Orange & White)	SLT	02
	Green - (Green & White)	SLT	03
	Brown - (Brown & White)	SLT	04
RJ45-2	Blue - (Blue & White)	SLT	05
	Orange - (Orange & White)	SLT	06
	Green - (Green & White)	SLT	07
	Brown - (Brown & White)	SLT	08
RJ45-3	Blue - (Blue & White)	SLT	09
	Orange - (Orange & White)	SLT	10
	Green - (Green & White)	SLT	11
	Brown - (Brown & White)	SLT	12
RJ45-4	Blue - (Blue & White)	SLT	13
	Orange - (Orange & White)	SLT	14
	Green - (Green & White)	SLT	15
	Brown - (Brown & White)	SLT	16
RJ45-5	Blue - (Blue & White)	CO	01
	Orange - (Orange & White)	CO	02
RJ45-6	Blue - (Blue & White)	CO	03
	Orange - (Orange & White)	CO	04





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### **Head Office**

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[www.MatrixTeleSol.com](http://www.MatrixTeleSol.com)