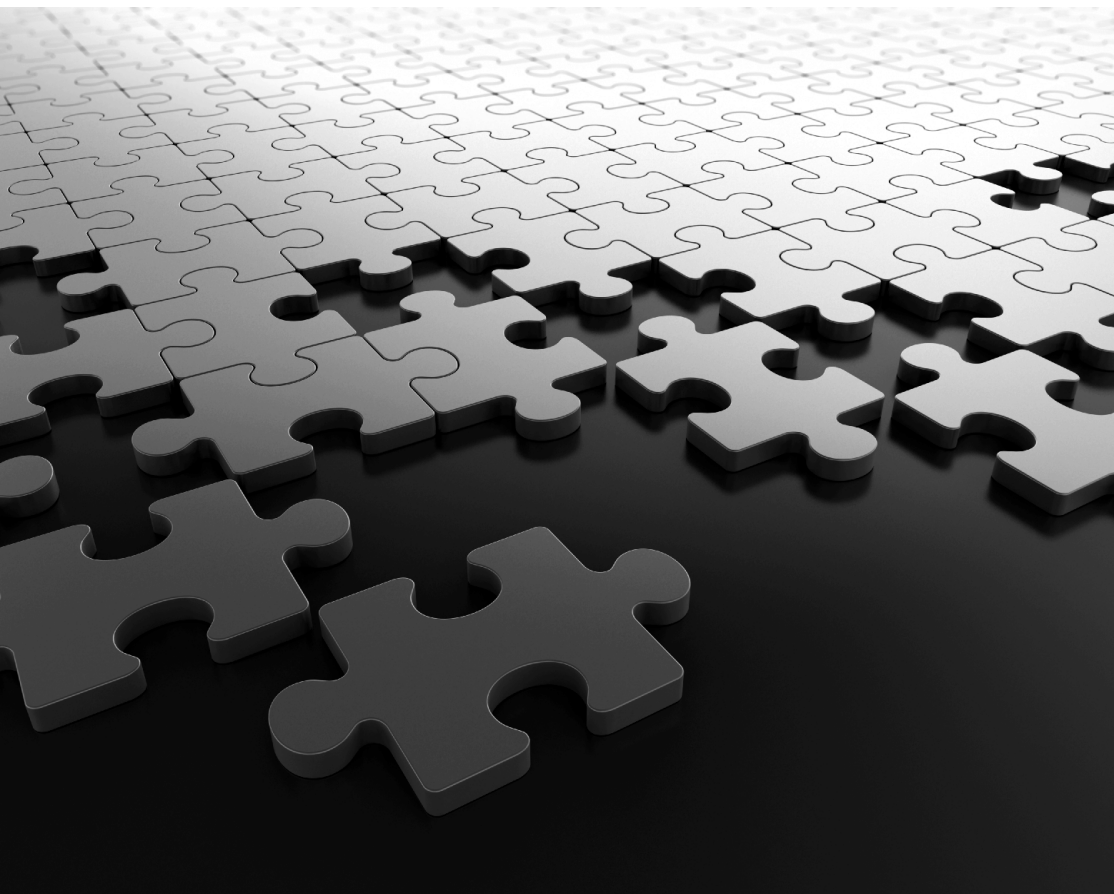


# **SETU VTEP**

## **Quick Start**





## **SETU VTEP**

An Out-n-Out VoIP to T1/E1 Gateway

### **Quick Start**



## Documentation Disclaimer

Matrix Comsec reserves the right to change, at any time, without prior notice, the product design, specifications, components, as engineering and manufacturing may warrant.

This is a general documentation for all models/configurations of the product. The product may not support some of the features/facilities described in this document.

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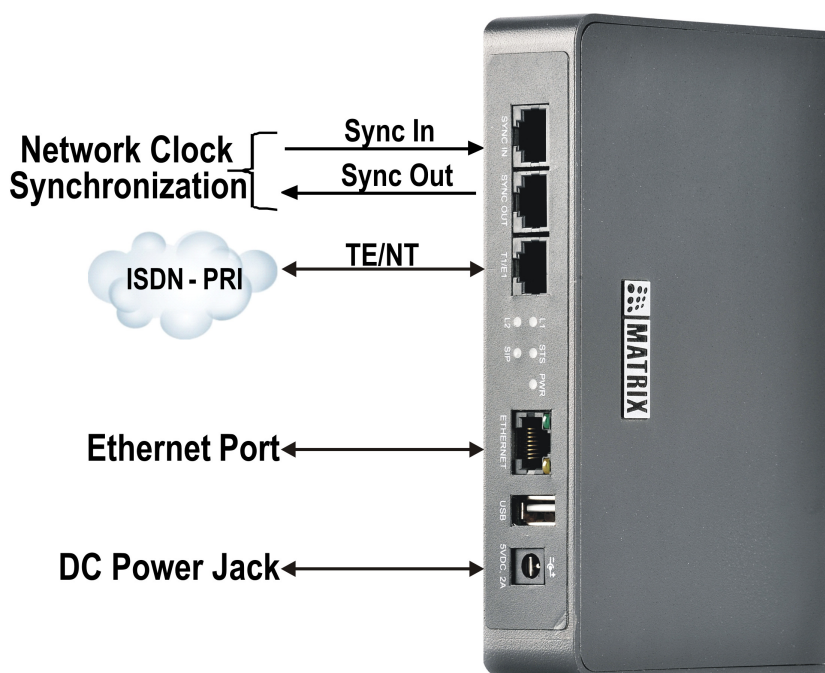


# Know Your SETU VTEP

Thank you for choosing the Matrix SETU VTEP. Please read the instructions in this Quick Start to install and operate SETU VTEP.

This Quick Start is meant to help you install SETU VTEP and access its User Interface for configuration. For detailed instructions for configuration and feature description, refer the *System Manual*. To download, click <http://www.matrixtelesol.com/technical-document.html>.

## Overview



## Ports and Connectors

Port	Description
<b>5VDC-2A (Max)</b>	Connector for the Power Adapter.
<b>USB Port</b>	Unused
<b>Ethernet Port</b>	Ethernet port can be used as <ul style="list-style-type: none"><li>• <b>LAN</b> interface to connect a computer/LAN Switch.</li><li>• <b>WAN</b> interface to connect to IP network. You can connect a DSL modem/Router or a LAN Switch.</li></ul>
<b>T1/E1 Port</b>	T1/E1 Port to connect the T1 or E1 line.
<b>SYNC IN &amp; SYNC Out</b>	SYNC IN and SYNC Out Ports for synchronizing the system's clock with that of the Public ISDN Network.

## LED

LED	Description
<b>PWR</b>	Turns on when power is supplied.
<b>STS</b>	Blinks to indicate health of the system.
<b>L1</b>	Indicates the status of layer 1 of the T1/E1 line.
<b>L2</b>	Indicates the status of layer 2 of the T1/E1 line.
<b>SIP</b>	Indicates the status of the SIP Trunk to which the LED is assigned.



# *Installing SETU VTEP*

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## Before you Start

- Select a suitable location to mount SETU VTEP.
- Keep the following ready:
  - A standalone PC to access the User Interface.
  - A SIP Account for VoIP connectivity.
  - A T1 or E1 line for ISDN connectivity.



- Do not install this product near any area where
  - it is exposed to direct sunlight, heat, excessive cold or humidity, dust, oil, corrosive fumes.
  - there is a water source (wash basin, tub, shower, pool, sprinkler, etc.)
  - there is source of electromagnetic noise such as radio equipment, heavy transformers, faulty electric chokes of tube-lights, device having a faulty coil.
- Ensure proper electrical earth and telecom earth for the safety of the product and persons handling it.

## Getting Started

### Package Contents

- Unpack the SETU VTEP and check the package contents. The product package must have the following items:
  - SETU VTEP unit
  - A Power Adapter
  - Two M7/30 screws and screw grips
  - One Ethernet cable
  - One PRI Cross cable
  - A Wall Mounting Template
  - A Warranty Card set
  - Two 19 inch Rack Mounting Clamp
  - SETU VTEP Quick Start (printed copy)

If any of these items is missing or damaged, please contact the dealer/reseller from whom you purchased the system.

- Place the system at the selected site.

If you are mounting the system on a wall, you may refer to the mechanical dimensions of the product and use the mounting template for drilling holes on the wall.

## Connecting SETU VTEP

### Connecting to the VoIP Network

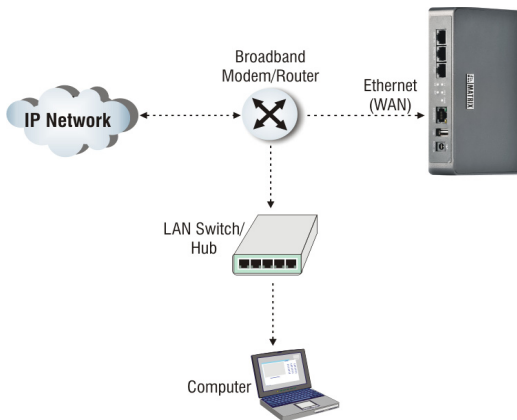


Before you connect the system to WAN, we recommend that you first connect a computer to the Ethernet Port of SETU VTEP, configure the Basic Settings, and then connect to WAN.

Use the Ethernet cable supplied for the Ethernet Port of SETU VTEP to connect the system to the IP network, which may be Public Internet or a LAN.

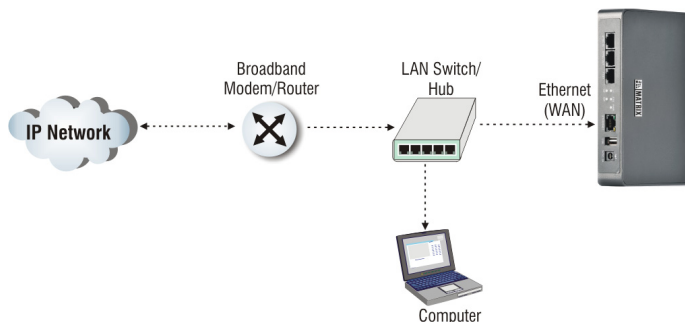
#### **If connecting to the Public IP Network,**

- Plug one end of the RJ45 Ethernet cable into the Ethernet Port of SETU VTEP and the other end into the Broadband Router/Modem.



### If connecting to a Private Network (Behind a NAT Router),

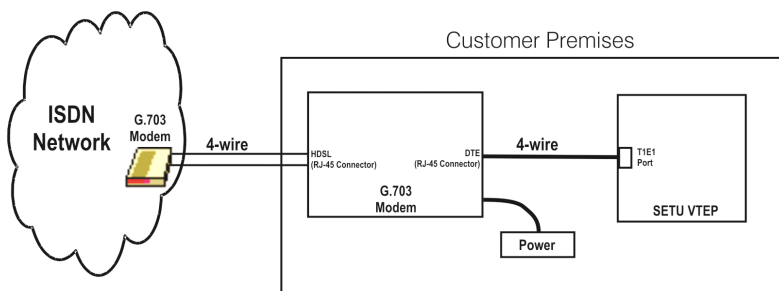
- Plug one end of the RJ45 Ethernet cable into the Ethernet Port of SETU VTEP and the other end into the LAN Switch/Hub.



### Connecting to the ISDN Network

- By default, the T1/E1 Port is set for E1 Line connectivity.
- Connect the T1 or E1 line from your Service Provider / an ISDN PBX to the T1/E1 port of SETU VTEP, according to your installation requirement.

Illustrated below is a typical connection of a T1/E1 line to the T1/E1 port of SETU VTEP.



Here, the SETU VTEP is the Terminal Equipment, so the Orientation Type of the T1/E1 port must be configured as Terminal. For more details, refer the **E1 Port** and **T1 Port** topics under **Basic Settings** in the System Manual.

Refer the following pin details for connecting the Network Termination Unit with the T1/E1 Port of SETU VTEP.

### Pin details of HDSL Interface of the G.703 Modem (HDSL Network Termination Unit)

Pin Number	Pin Details
1	Line A
2	Line A
3	Not used
4	Line B
5	Line B
6	Not used
7	Not used
8	Not used

### Pin details of DTE Interface of G.703 Modem (HDSL Network Interface Unit)

Pin Number	Pin Details
1	TX1 (Tip)
2	TX2 (Ring)
3	Not used
4	RX1 (Ring)
5	RX2 (Tip)
6	Not used
7	Not used
8	Not used



- The pin out details of the HDSL interface and DTE interface are of a stand-alone HDSL Network Termination Unit; the Model HTU-E from RAD Data Communication. Most of the HDSL Network Termination Unit manufacturers use these connectors. But you are advised to read the installation guide of the HDSL Network Termination Unit you are using.
- You may use PRI Cross cable depending on the pin out of the DTE Interface of the terminal.

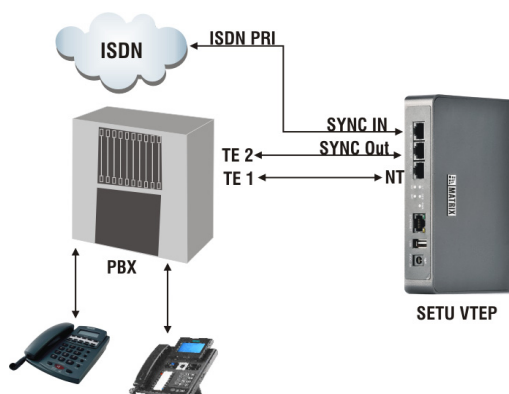
## Pin details of the T1/E1 Port of SETU VTEP

Pin	Function
1	Receive Data Input Rx1
2	Receive Data Input Rx2
3	Not connected
4	Transmit Data Output Tx1
5	Transmit Data Output Tx2
6	Not connected
7	Not connected
8	Not connected

## Connecting SYNC IN and SYNC Out Ports

The SYNC IN and SYNC OUT ports of SETU VTEP are used for synchronizing the system's clock with that of the Public ISDN Network to prevent possible clock slips that affect voice quality. Clock synchronization becomes necessary when the T1/E1 Port is in **Network** mode and no direct T1 or E1 line from the Public ISDN Network is terminated in the SETU VTEP.

See the figure below for connecting the SYNC IN and SYNC OUT ports for Network Clock synchronization.



The T1/E1 Line from the Public ISDN Network is connected to the SYNC IN port of SETU VTEP and the same line emerges from SYNC OUT port and is terminated on the T1/E1 (TE) port of the PBX.

Here, the T1/E1 port of the ISDN PBX is the 'Terminal' and the T1/E1 Port of the SETU VTEP to which it is connected is the 'Network'. So, the Orientation Type of the T1/E1 Port of the SETU VTEP must be configured as **Network**.

## Power On SETU VTEP

- Connect the power adapter to SETU VTEP.
- Plug in the power adapter of SETU VTEP into the power outlet.
- Switch on power supply and wait for the Reset Cycle to complete.

## Reset Cycle

The Reset Cycle (Power-ON Self Test) takes about 2 minutes to finish.

### LED Indication - Reset Sequence

System Status	Color	L1	L2	STS	Time in msec
Application Load	Green	On	Off	On	200ms
All Init Done, System goes live	Green	On	On	On	1000ms
	Red	On	On	On	1000ms
		Off	Off	Off	1000ms
	Green	Off	On	Off	1000ms
		Off	Off	Off	1000ms (Continuous Last 2 steps)

### LED Indication - SIP Trunk

Event/State/Status	Color	Cadence (1 cadence is of 4000msec)			
		ON	OFF	ON	OFF
SIP Disable		OFF			
SIP Registered (Active)	Green	Continuous			
SIP Registration Failed	Red	Continuous			
SIP Authentication Failed	Red	200	200	200	3400

# Accessing Jeeves

You may now access the web-based programming tool, *Jeeves*, for configuration. To access Jeeves, you will need to connect a computer to SETU VTEP.

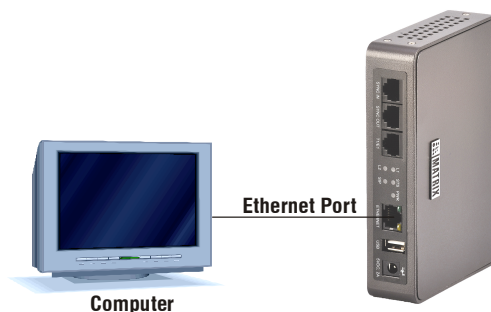
## Connecting a Computer

You may connect a standalone computer to SETU VTEP or grab any computer connected in the same LAN as SETU VTEP.



Connect a standalone computer to SETU VTEP when installing the system for the very first time. You may connect it to a computer on LAN at a later stage, once you have finished installation and configuration of the system.

Make sure a web-browser, either Internet Explorer (Version 7 or higher) or Mozilla Firefox (Version 3.5 or higher), is installed on your computer.



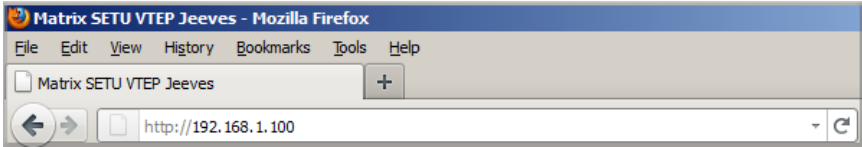
To connect a standalone computer,

- Plug one end of the Ethernet cable supplied into the Ethernet Port of SETU VTEP. Plug the other end into the LAN port of the computer.
- Make sure the IP Address of the computer and the Ethernet Port of SETU VTEP do not conflict, and that both are in the same Subnet.

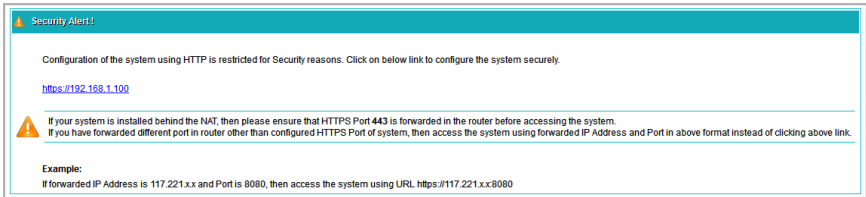
The default IP Address of the Ethernet Port of SETU VTEP is **192.168.1.100** and the default Subnet Mask is **255.255.255.0**.

- Change the Subnet of the computer, if necessary.
- Open the recommended web-browser (Internet Explorer or Mozilla Firefox).

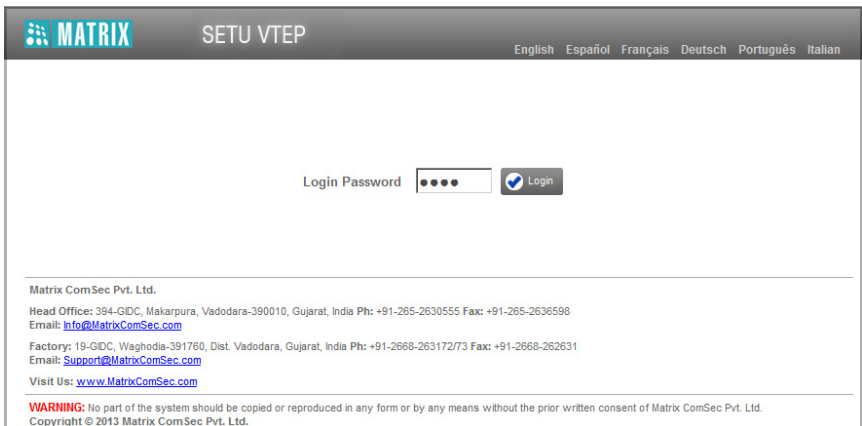
- Enter the default IP address **192.168.1.100** of the Ethernet Port of SETU VTEP in the address bar of the browser.



- You will be redirected to the HTTPS protocol for security reasons.



- Click the <https://192.168.1.100> link.
- The **Login** page will open.
- In **Login Password**, enter **1234**, the default SE Password.
- Click the **Login** button.





- You will be prompted to change the default SE 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

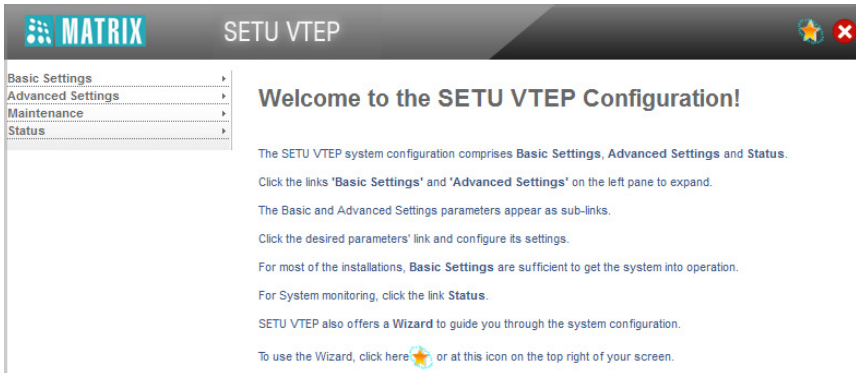
- In **Current Password**, enter the default SE Password.
- Enter the **New Password**. All ASCII characters (except Percentage %, Hash #, Equal to =, Plus +, And &, Backslash \, Less than <, Greater than >, Apostrophe ' , Double Quote " and **Space**) and digits **0** to **9** are allowed. The new password must be:
  - a minimum of 6 characters to a maximum of 16 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. See **Login Password** topic in the System Manual for instructions.

On successful login, the home page of Jeeves opens.



On the left navigation bar the following links appear:

- **Basic Settings:** Sufficient to get your system into operation.
- **Advanced Settings:** Enable you to configure the advanced features and facilities of SETU VTEP.
- **Maintenance:** Allows you maintenance and monitoring tasks—uploading configuration and firmware, system debug, system restart.
- **Status:** Allows you to view the system details and status of all the SIP trunks, T1/E1 Layer and the Network port.
- You may now configure the Basic Settings of SETU VTEP.

You may use the configuration Wizard or selectively configure the Basic Settings pages, whichever works best for you. Refer the *SETU VTEP System Manual* for detailed instructions.





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