

## About This Quick Start Guide

This guide is for helping new customers get their Sencore VB440-Appliance setup and running as quickly and easily as possible.

The VB440-Appliance allows users to analyze SDI over IP streams such as SMPTE 2110 and SMPTE 2022-6, providing stream timing analysis, deep content analysis and detailed video/audio/ancillary data insight.

## Download the Full User's Manual

The current versions of the full user's manuals can be obtained from the Download tab of the VB440-Appliance product page on our website: [www.sencore.com](http://www.sencore.com) or by emailing Sencore ProCare support at [procare@sencore.com](mailto:procare@sencore.com).

## Unpack the Equipment

Check that there are no signs of damage to equipment due to transport. If the equipment appears to be damaged, please contact Sencore ProCare for support.

In addition to the Sencore VB440-Appliance server hardware itself, the box should include two power cables and various rackmount hardware.

## Equipment Installation and Power Up

The VB440-Appliance is designed for rack installation and should be securely connected to the rack using the included rack rails and screws suitable for the rack type. Note that there should be sufficient room for air to freely flow around the unit, ensuring proper cooling. The VB440-Appliance requires front-to-back airflow.

When the equipment is installed, it should be powered by connecting both power cables to power outlets. If one of the redundant power supplies is disconnected from power, an alarm will sound from the unit. Re-establish power to the second power supply or remove the second power supply to silence the alarm. The VB440-Appliance can operate in the range 100–240VAC.

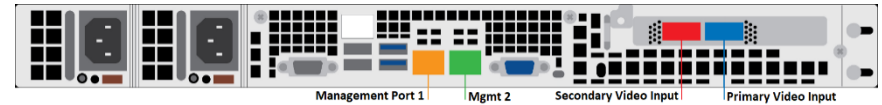


Figure 1: IP Port Connectors

## Establish Web Connection to the VB440-Appliance

In order to access the VB440-Appliances web user interface, it is necessary to establish an Ethernet connection to the device. There are two alternative ways to connect to or set the device's management IP address: using the pre-set management IP address or connecting a monitor and keyboard to the server.

### Using the Pre-Set Management IP Address

The Sencore VB440-Appliance is shipped with the following factory settings for management port 1:

Management Port 1 IP address:	<b>10.0.20.101</b>
Management Port 1 subnet mask:	<b>255.255.0.0</b>

In order to connect to management port 1, the PC used for setup should have corresponding network settings. Connect a PC directly to the device's management port using an Ethernet cable.

For Windows, the network parameters are set in the **Control Panel — Network and Internet — Network and Sharing Center — Network Connection — Properties — Internet Protocol Version 4 Properties** view, as shown in figure 2. Select the user defined address, and set the PC's IP address to 10.0.20.100 and the subnet mask to 255.255.0.0.

When the IP address of the PC has been set in the same subnet as the VB440-Appliance's factory setting, a web browser can be used to access the web user interface at 10.0.20.101 or the network settings can be edited using an SSH connection.

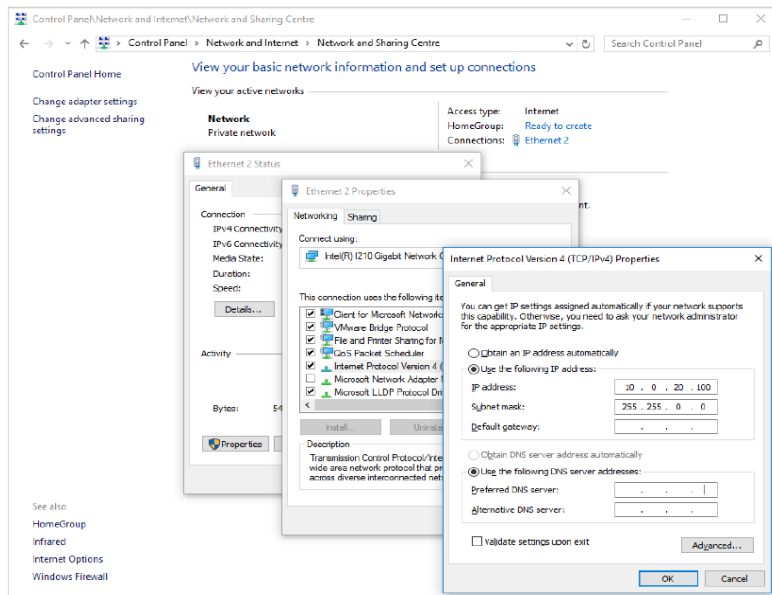


Figure 2: Setting the IP address manually in Windows

## Connecting to the VB440-Appliance Using SSH

In order to manage the VB440's IP address settings remotely or via the network connection, an SSH session must be established. Any regular SSH client can be used. One popular client, the free application PuTTY, can be downloaded from <http://www.chiark.greenend.org.uk/~sgtatham/putty>.

Use the VB440's default management port IP address of 10.0.20.101 (or another address if it has been changed) as the Host Name and click the OPEN button. The default Linux login for Sencore VideoBRIDGE servers is **root** for the user and **mpeg101** for the password. Once you are logged in, use the nmtui tool to edit the network connections.

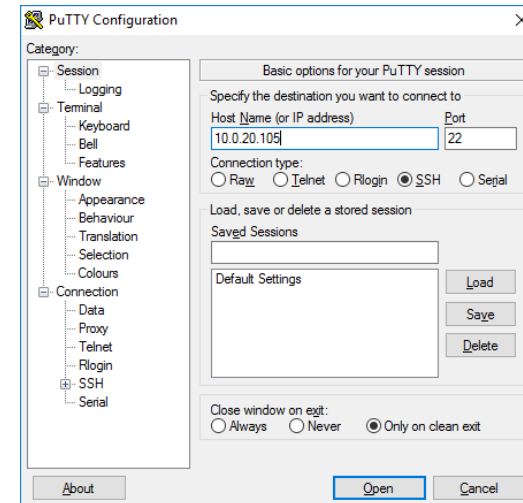


Figure 3: SSH Connection with PuTTY

## Connecting Monitor and Keyboard to the VB440-Appliance

It is also possible to configure the network settings of the VB440-Appliance using a monitor and keyboard connected directly to the server. Once the VB440-Appliance server boots, login to Linux. The default Linux login for Sencore VideoBRIDGE servers is **root** for the user and **mpeg101** for the password. Once you are logged in, use the nmtui tool to edit the network connections.

## Editing Network Connection Settings Using nmtui

The network settings of the VB440-Appliance can be edited using various methods applicable to Linux servers. Sencore recommends the use of the graphical tool nmtui. To load the nmtui tool, type **nmtui** in the command line and press ENTER.

Once the nmtui tool is loaded, use it to edit a connection. There should be four connections for the VB440-Appliance. The one called Management 1 should be preset to 10.0.20.101. Edit the network settings so that they are appropriate for your network. Then save and quit nmtui and reboot the server using the **reboot** command to apply the new settings.

Once the server reboots, the web user interface can be accessed using the IP address that was set for the management port. All further configuration takes place using a web browser over HTTP.

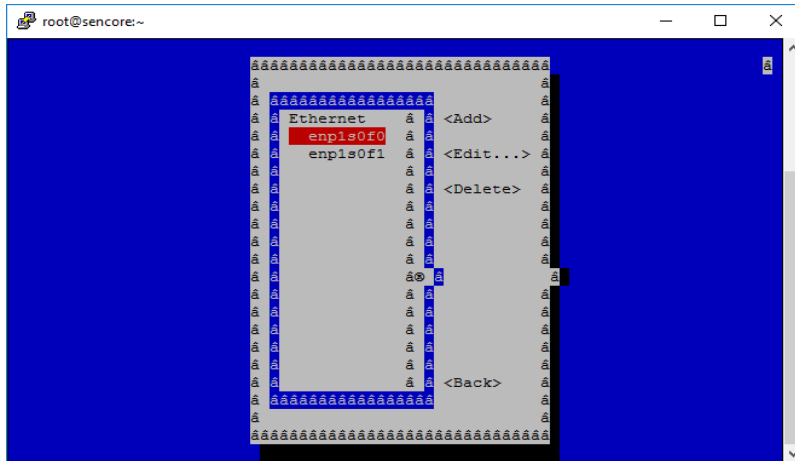


Figure 4: nmtui tool for editing network settings

## Connect to the Web User Interface of the VB440-Appliance

Launch a web browser application on the management PC. The following web browsers are supported:

- Microsoft Edge
- Microsoft Internet Explorer 11 or higher
- Mozilla Firefox 29 or higher
- Google Chrome
- Apple Safari

Type the management IP address of the VB440-Appliance in the browser URL field and press ENTER. The web UI will be displayed.

## Video Input IP Ports

The primary and secondary video IP ports on the VB440-Appliance require SFPs to connect to the customer's video network. The unit should work with any MSA compliant SFP. Customers must provide SFPs (and potentially adapters) that are compliant with their network.

The following types of SFPs are supported directly by both video IP ports:

- QSFP28 – 100 and 50Gbps
- QSFP – 40Gbps

The following types of SFPs are supported with adapters by both video IP ports:

- SFP28 – 25Gbps
  - Requires QSFP28 to SFP28 adapter such as the Mellanox/Nvidia MAM1Q00A-QSA28
- SFP+ - 10Gbps
  - Requires QSFP to SFP+ adapter such as the Mellanox/Nvidia MAM1Q00A-QSA
  - One QSFP to SFP+ adapter is included with the VB440-APPLIANCE to assist customers in getting started with the product.



Figure 5: QSFP to SFP+ Adapter

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## Configuring Video Input IP Ports

The IP addresses of the primary and secondary video IP ports on the VB440-Appliance can be configured using the Networking link on the Admin web UI once a web connection to the management port has been established.

`http://<Management IP>/admin`

The default username is **root** and the password is **mpeg101**.

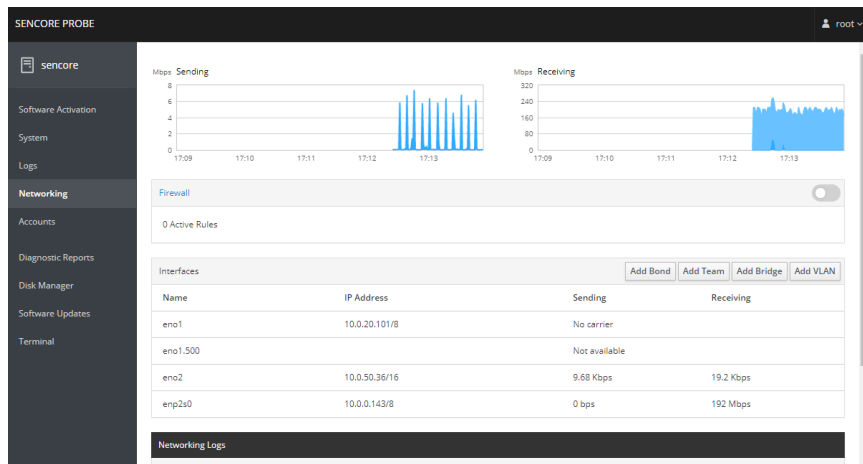


Figure 6: VB440-Appliance Admin Web UI

## Define Input Streams in the VB440-Appliance

Input streams should be defined in the VB440-Appliance so that they can be monitored. Click the triple-bar menu and then the cog icon to access the classic probe web UI. The streams to be monitored are defined in the **Multicasts – Streams** tab in the VB440-Appliance web UI.

`http://<Management IP>`

In order to setup for monitoring SMPTE 2110 streams with separate video and audio multicasts, stream groups are used. Please refer to the full VB440-Appliance user manual for more details on how to do this.

## Verify Correct Operation

Once everything is configured for analysis, the results can be viewed by clicking the triple-bar menu and then the TV icon. Refer to the full user manual for more details on the analysis capabilities.

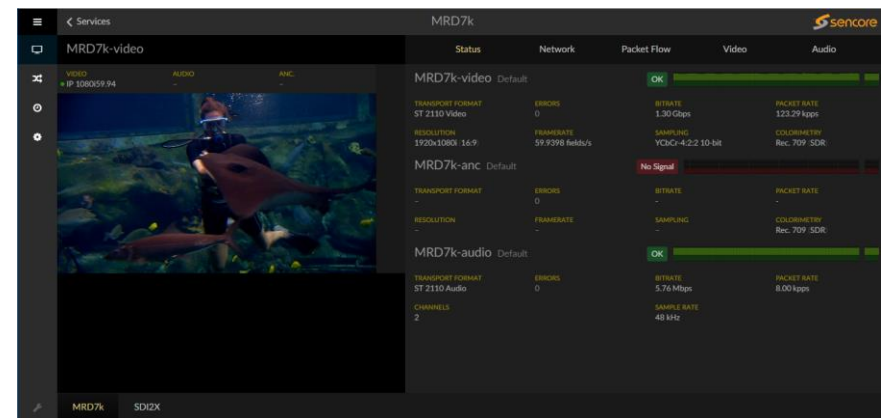


Figure 7: VB440-Appliance Analysis UI

## Support

Contact Sencore ProCare for support, if required.

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