Bose Work Configuration

User Guide
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>System/Browser Requirements</td>
<td>4</td>
</tr>
<tr>
<td>Trademark and Licensing Information</td>
<td>5</td>
</tr>
<tr>
<td>User Agreement and Privacy Information</td>
<td>5</td>
</tr>
<tr>
<td><strong>Home Screen</strong> (USB app only)</td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>Settings</strong></td>
<td><strong>7</strong></td>
</tr>
<tr>
<td>Administrator Settings</td>
<td><strong>8</strong></td>
</tr>
<tr>
<td><strong>Status Tab</strong></td>
<td><strong>10</strong></td>
</tr>
<tr>
<td><strong>Configuration Tab</strong></td>
<td><strong>11</strong></td>
</tr>
<tr>
<td>Firmware</td>
<td>11</td>
</tr>
<tr>
<td>Installing Firmware Manually</td>
<td>11</td>
</tr>
<tr>
<td>User Access</td>
<td>12</td>
</tr>
<tr>
<td>Profile</td>
<td>13</td>
</tr>
<tr>
<td>Restoring a Profile</td>
<td>13</td>
</tr>
<tr>
<td>Saving the Current Profile</td>
<td>13</td>
</tr>
<tr>
<td>Uploading a Profile</td>
<td>13</td>
</tr>
<tr>
<td>System</td>
<td>14</td>
</tr>
<tr>
<td>Identity</td>
<td>15</td>
</tr>
<tr>
<td><strong>Video Tab</strong></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td>Camera</td>
<td>16</td>
</tr>
<tr>
<td>Saving New Presets / Changing Presets</td>
<td>16</td>
</tr>
<tr>
<td>Viewing Existing Presets</td>
<td>16</td>
</tr>
<tr>
<td>Autoframing</td>
<td>17</td>
</tr>
<tr>
<td>Image</td>
<td>18</td>
</tr>
</tbody>
</table>
Audio Tab........................................................................................................19
  Microphones........................................................................................................19
    Dynamic Beams..............................................................................................19
    Static Beams.................................................................................................19
  Adding and Deleting Beams...............................................................................20
  Exclusion Zones..................................................................................................20
  Configure Room................................................................................................20
  Audio Controls..................................................................................................21
    Meters...............................................................................................................21

Network Tab ........................................................................................................22
  Wired..................................................................................................................22
  Wireless............................................................................................................23
    Advanced Wireless Security Settings..............................................................24
  SNMP Settings..................................................................................................24
Introduction

The Bose Work Configuration application allows you to control the digital pan-tilt-zoom (PTZ) camera, perform software updates, and configure VBI settings. The main configuration options include:

- Video settings (pan/tilt/zoom, brightness, contrast, etc.)
- User settings (autoframe, microphone, etc.)
- Administration settings (network parameters, Bluetooth connectivity, etc.)
- Firmware updates (included in Administration settings)

Notes:

- Basic settings, such as PTZ and camera presets, can be configured by any user and do not require a password to make changes. The remaining configuration options, including software updates, are available only to administrators and require a password for access.

- To use the HDMI Display port on the VBI, you must install the latest DisplayLink® driver and enable HDMI output in the User Access page in the Configuration tab.

- If you are using the Bose Work Configuration app in a browser (the WebUI app), you will also need a USB connection if you wish to see the camera image.

System/Browser Requirements

The Bose Work Configuration app works with the following operating systems and browsers:

Operating Systems:

- Microsoft Windows 8 (and higher)
- macOS® 10.12 (and higher)

Browsers:

- Google Chrome™, Version 75 (and higher)
- Microsoft Edge, Version 44 (and higher)
- Safari®, Version 12.1.1 (and higher)
- Mozilla Firefox, Version 67 (and higher)
Trademark and Licensing Information

Bose, Bose Work, and Videobar are trademarks of Bose Corporation.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Bose Corporation is under license.

DisplayLink® is the registered trademark of DisplayLink Corp. in the EU, the US, and other countries.

Firefox is a trademark of the Mozilla Foundation in the U.S. and other countries.

Google Chrome is a trademark of Google LLC.

The term HDMI is a trademark or registered trademark of HDMI Licensing Administrator, Inc.

macOS and Safari are trademarks of Apple Inc., registered in the U.S. and other countries.

Microsoft, Microsoft Edge, and Windows are registered trademarks or trademarks of Microsoft Corporation.

All other trademarks are the property of their respective owners.

User Agreement and Privacy Information

To view the Bose Work Configuration application user agreement or the Bose Privacy Policy, click the desired link on the Settings page.
Home Screen (USB app only)

When you connect your computer to the USB-C-to-PC port on the Bose Videobar VB1, you can open the Bose Work Configuration app. The initial screen will be the Home screen where you can adjust camera settings.

Click the Home Screen icon to access this screen from elsewhere in the app.

Note: If the USB connection is not established, the screen will show a message prompting you to check that the VB1 is connected to a power outlet and to your computer’s USB port.

The Home screen is accessible to all users. There are some additional password-protected settings that are available only to system administrators.

1. Video Stream: Live video stream from the VB1 camera.
   
   Note: The camera streams to only one app at a time. If you see a message that the video stream is not available, you may have another app open that is using the camera.

2. Camera Pan and Tilt: Click a button once to pan or tilt the camera in increments, or click and hold a button for continuous pan or tilt.

3. Autoframe: Turns the autoframe feature on/off. Autoframe automatically adjusts pan/Tilt/Zoom (PTZ) settings to continuously frame all participants in the room. When autoframe is off, the icon appears with a slash through it.
   
   Note: Autoframe will be automatically turned off when any of the PTZ camera controls or preset buttons are selected.

4. Settings: Click the Settings icon to open the Settings screen. Click the Home Screen icon to return to the Home screen.

5. Administrator: Click the Administrator icon to access to the password-protected configuration settings in the Bose Work Configuration app. These settings are available only to system administrators.


7. Presets: There are three Preset buttons (Home, 1, and 2) that you can use to quickly position the camera at predefined pan, tilt, and zoom settings.

8. Zoom: Move the slider to the right to zoom the camera in, or to the left to zoom out.

9. Volume: Move the slider to the right increase the audio volume, or to the left to decrease the volume.
Settings

The Settings page provides version information for the app itself, the VB1 firmware/software, and the VB1 camera software. Links to the latest app and firmware versions are also provided if updates are available.

You can access the following documentation by clicking its link:

- Bose Work Configuration User Guide (user documentation for this app)
- Bose Videobar VB1 Owner’s Guide (user documentation for the VB1 hardware)
- Bose Work Configuration app End User License Agreement and Terms of Use
- Bose Privacy Policy

Click the Settings icon in the left pane of any page in the app to access the Settings page.

Click the Home Screen icon to return to the Home screen.
Administrator Settings

The app contains some password-protected settings that are available only to system administrators. These settings can be accessed from the Home screen includes camera control settings that are accessible to all users.

To access Administrator configuration settings:

1. Click the Administrator icon in the navigation panel. The Administration screen will appear.

   The first time you log into a VB1, you must enter the factory default password of Bose123! to access the Administrator configuration settings.

   As a best practice, you should change the password. See the Configuration Tab > System > Device Password for password requirements and instructions on changing the password.

2. Enter your Administrator password and then click the Sign In button.

   After five unsuccessful login attempts, you must manually reset the VB1 to restore its factory default settings (after which it can accept the factory default password again). To restore all settings of the VB1 to their factory defaults, do one of the following: (A) on the remote control, press and hold the Home button and Autoframe button simultaneously for five seconds; or (B) on the side of the VB1, press and hold the Mute button and Bluetooth button simultaneously for five seconds.
The Administration area of the app includes the following tabs:

- **Status**: Device information, access to available firmware updates, and audio, video, and connection status. This tab appears automatically after you have successfully logged into the Administrator area.

- **Configuration**: Install firmware; configure user access to certain video, audio, and connectivity settings; configure profiles, system settings, and identification settings.

- **Video**: Save/recall camera presets and restore factory default camera settings; enable/disable autofocus access and configure autofocus settings; and enable/disable automatic low-light compensation and configure low-light compensation settings.

- **Audio**: Configure the linear microphone array, control access to microphone and other audio settings, and view audio input and output levels.

- **Network**: Enable/disable both wired and wireless connections, configure Internet Protocol (IP) settings for network connections, and configure wireless network security settings.

*Note: If there is no activity in the app for 30 minutes, a message appears to indicate that you will be logged out after two minutes for security purposes. Click **Continue** to remain in the app, or click **Log Out** to close the app.*

To return to the camera controls/home screen, click the **Administrator** icon and then click the **Sign Out** button.
Status Tab

The Status tab provides information about the VB1 and connection status:

- **Name**: The name that was assigned to the VB1 (on the Identity page of the Configuration tab).

- **Profile Name**: The unique name of the saved configuration profile that was uploaded to the VB1.

- **Firmware Version**: The version number of the installed firmware. The Update Firmware button appears only when an update is available. Click the button to go to the Firmware page.

- **Camera Version**: The version number of the VB1 camera software.

- **Serial Number**: The serial number of the VB1.

- **USB Audio**: The Bluetooth audio streaming status: Streaming or Not Streaming.

- **Camera**: The camera (video) status: Streaming or Not Streaming.

- **Wired Connection**: The status of the wired connection:
  
  If a wired connection has not been set up, the status is Disabled.

  When a wired connection is established, the status is Connected and the IP address is displayed as an active link. Click the link to open a browser connection to the VB1.

  If a wired connection is established and the signal is lost, the status is Disconnected.

- **Wireless Connection**: The status of the wireless connection:
  
  If the wireless connection has not been set up, the status is Disabled.

  When a wireless connection is established, the name of the wireless network appears and the IP address is displayed as an active link.

  If a wireless connection is established and the signal is lost, the status is Disconnected.

- **Bluetooth**: The Bluetooth connection status: Connected or Not Connected. If connected, the name of the device that is paired to the VB1 is displayed along with the BT Audio and BT Call status as either Streaming or Not Streaming.
Configuration Tab

The Configuration tab includes firmware information and updating features; user access to certain video, audio, and connectivity settings; controls to manage profiles, system settings, and identification settings.

Firmware

The Firmware page shows the currently installed firmware version. If a newer version of the firmware is available, a message will appear next to an Install button.

To install the latest firmware:

1. Click the active Install button.
   
   You can click the Release Notes arrow to show/hide the release notes for the new firmware.

2. Confirm whether you wish to proceed with the firmware update by clicking either Cancel or Continue.

Installing Firmware Manually

The Firmware page also allows you to install a firmware directly. To do this:

1. Under Upload and Install another version, click the Bose Work link to locate and download the firmware version you wish to install.

2. In the gray box on the Firmware page, drag and drop or click Browse to locate and select the .swu file for the desired firmware, and then click Install below the gray box.

   If the installation fails, you will see a message that an error occurred during the installation. Click OK to close the dialog box.
User Access

The User Access page enables you to specify whether to grant user access to certain settings for video, audio, and network and connectivity.

Click the toggle to enable or disable access to the following Video, Audio, and Network & Connectivity features:

- **Video**
  - **Camera**: Enables/disables the VB1 camera.
  - **Autoframe Access**: Enables/disables the ability to turn autoframe on/off.
    
    **Note**: When disabled, autoframe will remain in the off state on the Home screen.
  - **DisplayLink**: Enables/disables HDMI output/DisplayLink. The default setting is Disabled.

- **Audio**
  - **Microphone Mute Access**: Enables/disables the ability to mute the VB1 microphone.

- **Network & Connectivity**
  - **Wired Network**: Enables/disables wired network connection.
  - **Wireless Network**: Enables/disables wireless network connection.
  - **SNMP**: Enables/disables simple network management protocol (SNMP) over the network.
  - **Bluetooth**: Enables/disables Bluetooth connectivity.
Profile

The Profile page allows you to upload, download, and restore profiles. A profile contains a unique profile name and may also include an identifying description.

Restoring a Profile

The installed profile, whether it is the factory default or a newly updated version, appears with an asterisk (*) if it has been modified (one or more parameters within the profile have been changed).

*Note: Examples of changes include disabling Bluetooth connectivity or changing the wired network mode from DHCP to static.*

You can restore a profile to discard all changes by clicking the Restore button in the Active Profile section. A message will ask if you want to override the current profile with your changes. Click Cancel to keep your changes, or click Restore to discard the changes and revert to the previous settings.

Saving the Current Profile

After you change any settings, you can save your changes in a new profile. You can then upload that profile to other VB1s to save configuration time.

To save configuration changes in a new profile, click the Save As button in the Download Active Profile section. You can then add an identifying description of the profile to the Profile Description field that appears. This field has a 256-character limit.

Uploading a Profile

To upload a profile to a VB1, in the gray box in the Upload Profile section, drag and drop or click Browse to locate and select the file you want to upload, and then click Apply.

*Note: Uploading a profile will override any current VB1 settings.*
System

The System page contains system settings, system logs, and password settings as well as controls to restore factory default settings and restart the VB1:

- **GPI Active:** Specify the active state of the connected alarm system: **High** or **Low**.
- **Time Zone:** Select the local time zone.
- **NTP Server:** Select or enter the IP address of a Network Time Protocol (NTP) server. You must be connected to the network to use an NTP server.
- **Low Power Mode:** Enable/disable Low Power Mode. When enabled, the VB1 will enter a standby mode with low power consumption after being idle for two hours.
- **Download Logs:** Download system log files.
- **Device Password:** Click **Change** to reset the VB1 password. Enter the new password in both the **New Password** and **Confirm Password** fields, and then click **Save**.

Passwords must contain:
- 8–12 characters
- an uppercase letter
- a lowercase letter
- a number
- a special character

After five unsuccessful login attempts, you must manually reset the VB1 to restore its factory default settings (after which it can accept the factory default password again). To restore all settings of the VB1 to their factory defaults, do one of the following: **(A)** on the remote control, press and hold the **Home** button and **Autoframe** button simultaneously for five seconds; or **(B)** on the side of the VB1, press and hold the **Mute** button and **Bluetooth** button simultaneously for five seconds.

- **Restore All Settings to Default:** Click **Restore Factory Defaults** to restore the VB1 to its factory default settings.
- **Restart Device:** Click **Restart Now** to immediately restart the VB1. (You may need to scroll down to see this button.)
Identity

The Identity page includes user-editable location names for the VB1. These names are useful when viewing and sorting multiple devices (in multiple locations) in the Bose Work Management app.

You can edit the following fields to provide the identifying information for the VB1:

- **Device Name**
- **Building**
- **Floor**
- **Room**
**Video Tab**

The Video tab includes controls for directing the camera, autoframing, and image processing.

**Camera**

The Camera page provides pan/tilt/zoom (PTZ) controls for the camera and the ability to save camera presets. These presets allow users to quickly change the position of a camera.

**Saving New Presets / Changing Presets**

In the Controls section, adjust the Pan, Tilt, and Zoom settings, click Save as Preset, and then specify if you want to save it as Preset 1, Preset 2, or Home.

*Note:* Users can also save Preset 1 or 2 by pressing and holding the corresponding preset button on the VB1 remote control for three seconds, but the Home preset can be saved only in the Administration area of the app.

**Viewing Existing Presets**

You can view or recall any existing presets by clicking the View icon that appears when you hover the mouse over the preset name. This icon will not be shown if no preset exists.

*Note:* If you try to exit the page without saving changes you have made, a message will appear warning you about your unsaved changes. Click Cancel to return to the Camera page where you can save your changes, or click Leave to exit and discard changes.
Autoframing

The Autoframing page allows you to enable or disable **Autoframe Access**, which allows users to turn the autoframe feature on and off by using the remote control or the Bose Work app on a mobile device:

- **Autoframe Access**: Enable or disable user access to the autoframe feature.

- **Autoframe On/Off**: Click the autoframe icon to turn autoframe on or off.

  **Note**: When **Autoframe Access** is set to **Disabled** or if **Autoframe** is off, the other settings on this page will be grayed out.

- **Headroom Adjustment**: Select **Standing** or **Sitting** to specify the amount of space between the top of the camera frame and a subject’s head. Select **Standing** for stand-up meetings and **Sitting** for all others.

- **Zoom Speed**: Select how quickly the VB1 camera zooms in/out when people move in the room: **Slow**, **Normal**, or **Fast**.

- **Pan/Tilt Speed**: Select how quickly the VB1 camera pans/tilts when people move in the room: **Slow**, **Normal**, or **Fast**.

- **Autoframe Border Size**: Adjusts the border size of the framed image: **Small**, **Normal**, or **Large**. For minimal border (maximum zoom), select **Small**.

- **Autoframe Information**: Click this switch to enable/disable this troubleshooting feature. When set to **Enabled**, autoframe objects will be superimposed on the video image. These will be visible to the far-end meeting participants and in the self-view.
Image

The Image page provides the following camera image settings:

- **Low Light Compensation:** Select/deselect this button to turn automatic low-light compensation on/off. When set to On, low-light compensation optimizes video in dim lighting conditions.

You can set Low Light Compensation to On only when Backlight Compensation is set to Off.

- **Backlight Compensation:** Select Low, Medium, or High to set the level of adjustment to the image exposure in conditions with bright light sources. (For example, Backlight Compensation will better illuminate people who are silhouetted in front of bright lighting.) Select Off to disable Backlight Compensation.

If Backlight Compensation is set to Low, Medium, or High, Low Light Compensation will be set to Off automatically.

- **Antiflicker/Power Line Frequency:** Select 50 or 60 to specify the AC frequency (in Hz) of lighting in the room; this feature will compensate for any flickering seen in the video image. Select Off to disable this feature.

- **Brightness:** Set the overall lightness/darkness of the image.

- **Contrast:** Set the difference between the light and dark areas of the image.

- **Saturation:** Set the depth of colors in the image.

- **Sharpness:** Set the image clarity.

- **White Balance:** Set the balance of color temperature of the light source. Select Auto to set the balance automatically.

- **Restore Image Settings to Defaults:** Restore these settings to their factory defaults.

- **Video Resolution Overlay:** Select/deselect this to enable/disable this troubleshooting feature. When enabled, the screen resolution will be superimposed on the video image. This will be visible to the far-end meeting participants and in the self-view.
Audio Tab

The Audio tab provides access to microphone array settings, audio settings, and audio input and output levels.

Microphones

The Microphones page allows you to specify the microphone Beam Type and set beams (depending upon the beam type) to optimize the detection of people speaking in the room. You can also set exclusion zones to minimize unwanted noise.

The microphone beams are overlaid on the live video stream to provide a visual representation of the microphone beam coverage.

To view the image in full-screen mode, click the Expand icon.

Dynamic Beams

The default beam type is Dynamic, which includes a single beam (a white line) that freely searches for the loudest sound in the room, and additional dynamic beams (translucent colored shapes) that are automatically directed at the people speaking in the room.

If you have already saved static beams and want to return to dynamic beams, set the Beam Type to Dynamic, and then click Save Beams as Dynamic once it appears.

Static Beams

In some situations, you can achieve better performance by aiming static beams at designated speaking locations. In this case, set the Beam Type to Static, click +Beam to manually add a beam, and then click and drag the beam to a designated speaking location in the room.

To save these beams, click Save Beams as Static.

To cancel, set the Beam Type back to Dynamic or exit the Microphones page.
Adding and Deleting Beams

To add a beam, click +Beam.

To delete a beam, click to select it, and then click the Delete icon (which appears only when you select a beam and is the same color as the selected beam).

**Note:** You can create a maximum of four beams. The +Beam button will be active only when there are fewer than four beams.

Exclusion Zones

Exclusion zones can help minimize unwanted noise by designating areas in which dynamic microphone beams will never be directed.

By default, two exclusion zones exist and are represented by the gray areas at the lower-left and lower-right sides of the room image.

**Note:** You cannot delete the default exclusion zones or make them smaller, but you can make them larger.

To add another exclusion zone, click +Exclusion Zone, which adds a gray beam to the image.

**Note:** There is a maximum of three exclusion zones. The +Exclusion Zone button will active only when there are fewer than three exclusion zones.

To increase or decrease the coverage of an exclusion zone, click and drag the edge of an exclusion zone to the desired angle.

To delete an exclusion zone, click to select it, and then click the Delete icon (which appears only when you select an exclusion zone).

Configure Room

The Configure Room settings do not affect the VB1 microphone beams. They change only the length of the visual representation of the beams as they appear in the image. You can adjust the **Width** and **Depth** to shorten or lengthen the beams, which may help when viewing how the beams intersect with presenters in the room.

**Note:** Click Restore Defaults to restore these settings to their factory defaults.
Audio Controls

The Controls page enables you to enable or disable access to the following features:

- **Microphone Mute Access:**
  Enable/disable users' ability to mute the VB1 microphone.

- **Acoustic Echo Cancellation:**
  Enable/disable Acoustic Echo Cancellation.

- **Analog Input Gain:**
  Set the gain as needed to balance the volume of an external source with the other audio sources (USB and Bluetooth audio signal).

- **Speaker Volume:**
  Set the audio level of the VB1 loudspeaker. This setting can also be adjusted using the computer's volume control, the remote control, or the volume control on a paired mobile device.

- **Bridged Bluetooth Calls:**
  Enable/disable the ability of Bluetooth calls and media to bridge to the active UC call.

- **Restore Audio Controls to Defaults:**
  Restore these settings to their factory defaults.

Meters

The Meters page includes audio Input Levels for Bluetooth audio, USB audio, and the VB1 microphone array as well as Output Levels for Bluetooth audio, USB audio, and the VB1 loudspeaker.
Network Tab
The Network tab provides access to wired, wireless, and Simple Network Management Protocol (SNMP) network configuration settings.

Wired
Click the Status switch on the Wired page to enable or disable the wired network.

You can view and configure the following IP settings when the wired network is enabled:

- **IP Configuration**: Select the IP configuration type: DHCP or Static.
  - **DHCP** (Dynamic Host Configuration Protocol) dynamically assigns the IP Address, Subnet Mask, and other network parameters (when applicable) for the VB1.
  - Select Static to manually enter an IP Address and Subnet Mask. When you are finished configuring settings, click Apply.

  The Apply button (for Static IP configuration) remains inactive until you enter the minimum required information: the IP Address and Subnet Mask. Changes do not take effect until you click Apply.

The following optional settings can only be configured when the IP Configuration is set to Static. These settings are read-only when the IP Configuration is set to DHCP. The MAC Address is always read-only.

- **Default Gateway**: The IP address for the VB1 used to forward traffic to other networks.
- **Primary DNS**: The IP address of the primary DNS server that assigns an IP address to a VB1.
- **Secondary DNS**: The IP address of the primary DNS server that assigns an IP address to a VB1 when the Primary DNS server is not available.
- **MAC Address**: The media access control address, which is a unique identifying number assigned to the network interface controller (NIC).
- **Restore Defaults**: Restore all network settings to their factory defaults.

*Note*: VB1 also supports AutoIP. If IP Configuration is set to DHCP and no DHCP server is found, the VB1 will automatically assign itself an IP address in the AutoIP range.
**Wireless**

Click the **Status** switch on the **Wireless** page to enable or disable the wireless network.

The **Network** menu includes a list of available networks, the signal strength of each network, and a lock icon if the network is password-protected. If you select a WPA2 network, enter the password in the field that appears, and then click **Join** to connect to the network.

After the wireless connection is established, the **Status** will appear as **Connected**. You can then select the **Automatically Connect** checkbox to allow automatic reconnection to that network in the future.

You can view and configure the following IP settings when the wireless network is enabled:

- **IP Configuration**: Select the IP configuration type: **DHCP** or **Static**.
  - **DHCP** (Dynamic Host Configuration Protocol) dynamically assigns the **IP Address**, **Subnet Mask**, and other network parameters (when applicable) for the VB1.
  - Select **Static** to manually enter an **IP Address** and **Subnet Mask**. When you are finished configuring settings, click **Apply**. The **Apply** button (for Static IP configuration) remains inactive until you enter the minimum required information: the **IP Address** and **Subnet Mask**. Changes do not take effect until you click **Apply**.

The following optional settings can only be configured when the **IP Configuration** is set to **Static**. These settings are read-only when the **IP Configuration** is set to **DHCP**. The **MAC Address** is always read-only.

- **Default Gateway**: The IP address for the VB1 used to forward traffic to other networks.
- **Primary DNS**: The IP address of the primary DNS server that assigns an IP address to a VB1.
- **Secondary DNS**: The IP address of the primary DNS server that assigns an IP address to a VB1 when the Primary DNS server is not available.
- **MAC Address**: The media access control address, which is a unique identifying number assigned to the network interface controller (NIC).

**Note**: VB1 also supports AutoIP. If **IP Configuration** is set to **DHCP** and no DHCP server is found, the VB1 will automatically assign itself an IP address in the AutoIP range.
Advanced Wireless Security Settings

If you select a network that requires advanced security settings, the system will automatically detect and display the associated configuration fields.

For example, if you select an 802.1x EAP network, a message will appear and indicate the network requires an 802.1x EAP password. In addition to the Password field, menus will allow you to specify security settings associated with an 802.1x EAP network:

- EAP Method
- Phase 2 Authentication
- CA Certificate
- Identity
- Anonymous Identity

If you select Join Other Network from the network menu, a Find and Join a Wireless Network message will open and prompt you to enter the Network Name and select the security type from the Security menu. Upon selecting a security type, additional configuration fields for the associated security settings will appear.

To restore all network settings to their previous values, click Restore Defaults.

SNMP Settings

The VB1 supports the Simple Network Management Protocol (SNMP) for network management and monitoring:

- **Status**: Enable/disable VB1 to accept SNMP polls/traps.

- **Authentication Protocol**: VB1 supports SNMP v3. Select an optional authentication protocol to ensure the identity of users.

- **Username**: Enter the username of the user who can access SNMP v3 information (maximum of 32 characters).

- **Password**: Enter the password for the user who can access SNMP v3 information (maximum of 32 characters). This password is sometimes referred to as the **authentication passphrase**.

- **Encryption Protocol**: VB1 supports SNMP v3. Select an optional privacy protocol to ensure the confidentiality of data.

- **Privacy Passphrase**: Enter the privacy passphrase for the user who can access SNMP v3 information. You cannot enable privacy without enabling authentication.

- **Trap Server**: Enter the IP address of the SNMP server. The VB1 will send traps and event notifications to this address per the MIB.

*Note: Please see the VB1 API for detail on specific polls and traps supported by VB1 via SNMP.*