BOSE WORK MANAGEMENT

USER GUIDE



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INTRODUCTION

With remote management capabilities, Bose Work Management software makes it simple to deploy and manage Bose Videobar™ VBIs anywhere — from a single device in a meeting room to hundreds installed throughout a corporate campus. Control critical functions from a single location: push updates to all or only selected devices, discover all devices on the network, configure devices either individually or by group, create and deploy profiles, or send configuration commands directly.

Features

Real-time device status and control functionality for all your Bose Videobar VB1 devices from a single location

Schedule software updates to all or only selected devices

View, edit, save parameters by device or group of devices

Discover all devices on the network; create, save, and apply device profiles

Availability and Compatibility

The Bose Work Management application is compatible with Windows and can be downloaded from **PRO.BOSE.COM**.

Trademark Notices

Bose, Bose Videobar, Bose Work, and Videobar are trademarks of Bose Corporation. *Bluetooth*[®] is a registered trademark of Bluetooth SIG, Inc.

Microsoft 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 Management application User Agreement or the <u>Bose</u> <u>Privacy Policy</u>, click the menu (≡), select **About Bose Work Management**, and then click **End User License Agreement** or **Privacy Policy**.

DEVICE LIST AND MENU BAR

The main screen of the app displays the Device List—a list of all VBIs on your network. Above the device list is the menu bar, which contains the menu (≡) and several buttons. This user interface enables you to:

monitor VB1s on your network

<u>add/remove columns</u> and <u>sort</u> the Device List to customize it to best suit your needs

<u>search</u> for a specific VB1 on your network

refresh the Device List

select the network(s) to search for VB1s

remove VB1s from the Device List

specify the **global password** for all VB1s on your network

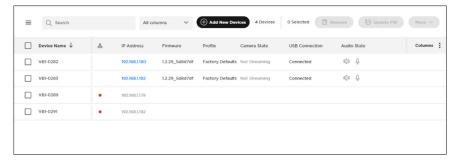
create and copy configuration profiles

reboot VB1s

restore VB1s to their default settings

update **firmware**

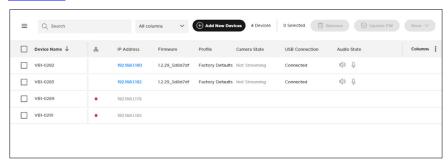
download system logs



Adding, Discovering, and Monitoring VB1 Devices

The Device List enables you to monitor the status of all VB1s on your network. You can organize the Device List to include columns for specific information (e.g., you can add a column for **Camera State**, which indicates whether the camera on a specific VB1 is streaming).

The app automatically and regularly scans the network in the background to discover new VB1s and add them to the Device List. You can also <u>manually add VB1s to the</u> <u>Device List</u>.



Device List Icons/Symbols

Icon/Symbol	Definition
8	Indicates the Network column.
•	The VB1 network connection is lost (disconnected). Appears in the Network column.
Q / &	The VB1 microphone is streaming and is unmuted/muted. Appears in the Audio State column.
0 / &	The VB1 microphone is not streaming and is unmuted/muted. Appears in the Audio State column.
$\mathbb{Q}) \big/ \mathbb{Z}$	The VB1 loudspeaker is streaming and is unmuted/muted. Appears in the Audio State column.
(1) / 以	The VB1 loudspeaker is not streaming and is unmuted/muted. Appears in the Audio State column.

Adding/Removing Columns

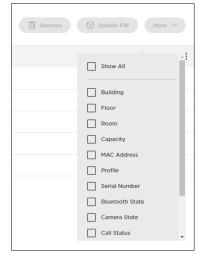
You can add or remove several optional columns to customize the Device List.

To add/remove optional columns to/from the Device List:

- Click Columns in the upper-right corner of the Device List.
- In list that appears, select/deselect a checkbox add/remove that column to/from the Device List. You can select Show All to select all columns.

The available columns are:

Building	<i>Bluetooth</i> State
Floor	Camera State
Room	Call Status
Capacity	USB Connection
MAC Address	Device Type
Profile	Audio State



Note: You cannot remove the columns for **Device Name**, **Network**, **IP Address**, and **Firmware**.

Sorting the Device List

Serial Number

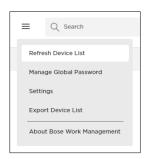
You can sort the Device List in ascending or descending order by the entries in one column or multiple columns.

To sort a column, click the column heading and select a sorting option:

Ascending order: ↓ and **A-Z**Descending order: ↑ and **Z-A**

Refreshing the Device List

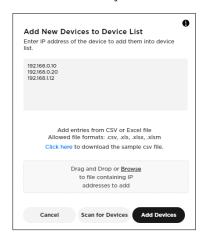
The app automatically scans in the background to discover new VB1s on the network and add them to the Device List. To manually force this discovery process, click the menu (≡) and select **Refresh Device List**.



Manually Adding to the Device List

To add VB1s to the Device List by entering their IP addresses manually:

- Click the + Add New Devices button at the top of the window.
- 2. In the window that appears, you can do any of the following:
 - Enter the IP addresses in the larger field at the top of the window. Use one line per IP address or per range of IP addresses (click the Φ icon in the upper-right corner to view the acceptable formats of IP addresses to enter here).
 - Drag and drop a file containing the IP addresses over the smaller field at the bottom of the window. The acceptable file formats are CSV, XLS, XLSX, or XLSM (click the Click here link to download an example of this type of file containing the proper IP address formatting).

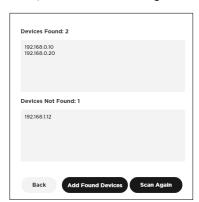


- Click Add Devices to add entries for each IP address to the Device List. The new VB1s will be added to the Device List whether they are online or offline. Information for each VB1 will appear if the VB1 is reachable by the host.
- Click Cancel to exit the process without adding any VB1s.
- 3. After entering the IP addresses of all desired VB1s, do one of the following:
 - Click Scan for Devices to scan the network for VB1s with those IP addresses.

IP addresses of VB1s that are online and reachable by the host will be listed under **Devices Found**.

IP addresses of VB1s that are offline or not reachable by the host will be listed under **Devices Not Found**.

You may click **Scan Again** to rescan the network or click **Add Found Devices** to add the VB1s with IP addresses listed under **Devices Found** to the Device List.



• Click **Back** to return to the previous screen.

After manually adding a VB1 to the Device List, its information will appear next to it and continue to update in real time.

Exporting the Device List

You can export the contents of the Device List to a spreadsheet. Each row of the spreadsheet corresponds to a VB1 in the Device List, and each column of the spreadsheet corresponds to a setting column of the Device List:

Device Name	Floor	Profile	Call Status
IP Address	Room	Serial Number	USB Connection
Firmware	Capacity	<i>Bluetooth</i> State	Device Type
Building	MAC Address	Camera State	Audio State

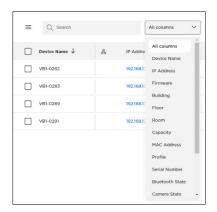
To export the current Device List:

- Click the menu (≡) and select Export Device List.
- Select where you want to save the file, enter a unique name, and then click Save.
 The default file name is DeviceList-[year][month][day]_[time].

Searching Information

To search for a specific VB1 or parameters, click the **Search** field in the upper-left corner of the window, and enter the desired search term.

To narrow your search to a specific parameter, click the down arrow (\checkmark) in the **Search** field and select the desired parameter. Select **All columns** to search through all parameters.



Identifying VB1 Devices

To identify a specific VB1 device in the network:

- Select the checkbox next to the desired VB1 in the Device List.
- Click More in the upper-right part of the window, and then click Identify Device.

On that VB1, a small section of lights in the center of the light bar will pulse purple repeatedly.

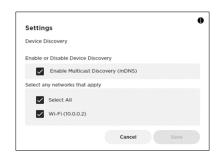


Selecting a Network

To select the network(s) in which to search for VB1s:

- Click the menu (≡), and then click Settings.
- In the window that appears, select the checkbox(es) for the network(s) you want to include in the search.

To enable or disable multicast discovery, select or deselect **Enable Multicast Discovery (mDNS)**.



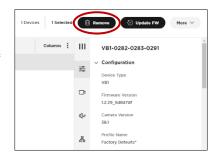
To include all listed networks in the search, select the **Select All** checkbox.

- 3. Click **Cancel** to exit the process without saving, or click **Save** to continue.
- If you clicked Save, a confirmation message will appear. Click OK to continue.
 Now, only the VB1s in the selected networks will appear in the Device List.

Removing VB1 Devices

To remove a VB1 from the Device List:

- Select the checkbox next to the desired VB1 in the Device List.
- Click **Remove** in the upper-right part of the window.
- In the message that appears, click
 Cancel to keep the VB1 in the network
 or click Remove to remove it.
- If you clicked **Remove**, a confirmation message will appear. Click **OK** to continue.



The VB1 will no longer appear in the Device List.

Note: If a VB1 remains on the network it will be rediscovered automatically.

Specifying a Global Password

You can specify a global password for all VB1s in your network. This is helpful so you do not have to remember multiple unique passwords assigned to all VB1s.

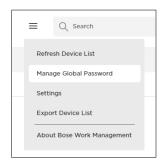
IMPORTANT: There is no password retrieval method available for the global password. If you forget/lose the global password, you must reset the VB1 to its original factory settings. The factory default password is **Bose123!**.

Note: We recommend changing the password after gaining access.

Note: To set or change the password of a specific VB1, select the desired VB1, and click the Configuration tab in the control panel. While setting or changing the password for a VB1, you will be given the option to assign that password as the global password.

To set the global password:

- Click the menu (≡), and then click Manage Global Password.
- In the window that appears, enter the global password once in the first field and then again in the second field to confirm it.
- Click Cancel to exit the process without saving or click Save to save the global password.
- If you clicked Save, a confirmation message will appear. Click OK to continue.



Managing Profiles

You can create and save a profile to include all of the parameters on one VB1 and quickly copy them to other VB1s.

Downloading (Saving) a Profile

To create and save (download) a profile from a VB1:

- Select a VB1 in the Device List and configure its parameters as desired. (See <u>Configuring Parameters</u> for more information.)
- Click More

 in the upper-right part of the window, and then click Download Profile.
- Select where you want to save the profile, enter a unique name for the profile, and then click Save.



4. In the window that appears, you can choose whether or not to apply the profile you saved to the baseline profile of that VB1. Click **Apply** to use the saved profile as the baseline profile, or click **Cancel** to keep the current profile.

Uploading (Copying) a Profile

To copy (upload) a profile to one or more VB1s:

- 1. Select the VB1(s) in the Device List to which you want to copy the profile.
- Click More

 in the upper-right part of the window, and then click Upload Profile(s).
- Locate and select the profile you want to upload to the VB1(s), and then click Save.

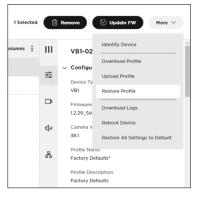


Restoring a Profile

To restore a profile by discarding any changes and reverting them to their originally applied profiles:

- 1. Select the VB1(s) in the Device List whose profile(s) you want to restore.
- Click More

 in the upper-right part of the window, and then click Restore Profiles.
- Click Cancel to return to the previous window, or click Restore to discard the changes and revert to the previous settings.

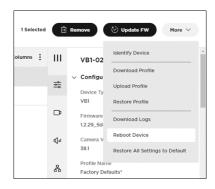


Rebooting VB1 Devices

To manually reboot one or more VB1s:

- Select the VB1(s) that you want to reboot in the Device List.
- Click More

 in the upper-right part of the window, and then click Reboot Device(s).
- In the window that appears, click
 Cancel to return to the previous window without rebooting anything, or click Reboot to reboot the VB1(s). Note that VB1 operation will be interrupted as it reboots.

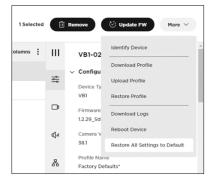


Restoring Default Settings

To restore the factory default settings of one or more VB1s:

- Select the VB1(s) in the Device List whose settings you want to restore to their defaults.
- Click More

 in the upper-right part
 of the window, and then click Restore
 All Settings to Default.
- Click Cancel to return to the previous window, or click Restore to restore the factory default settings of the selected VB1(s).



Updating Firmware

You can update the firmware of a single VB1 or multiple VB1s immediately or at a scheduled time. You can also install an older version of the firmware to revert to a previous release.

IMPORTANT: After the firmware installation process has completed on a VB1, that VB1 will reboot automatically.

To view the currently installed firmware version on a VB1:

- Select the checkbox next to the desired VB1 in the Device List, enter its password, and then click **Submit**.
- 2. In the control panel, click the **Configuration** tab.

The version number will be displayed under **Firmware Version**.

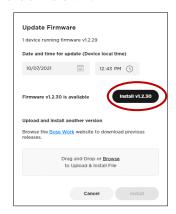
Note: The current firmware version for each VB1 is also shown in the **Firmware** column of the Device List.



Immediate Updates

To immediately install the latest firmware version on one or more VB1s:

- Select the checkbox(es) next to the desired VB1(s) in the Device List.
- Click **Update FW** in the upper-right corner of the window.
 - In the **Update Firmware** window that appears, the version number of the currently installed firmware will appear at the top.
- If a newer version of the firmware is available, an Install v___ button will be shown (where v___ is the version number of the latest available firmware).



Scheduled Updates

You can schedule a firmware update to occur at a specific date and time (e.g., outside of regular business hours to avoid any impact on users).

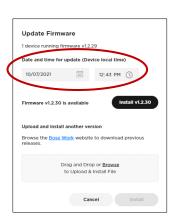
A clock icon will be shown in the **Firmware** column of the Device List for any VB1 with a scheduled firmware update.



Scheduling a Firmware Update

To schedule a firmware update:

- Select the checkbox(es) next to the desired VB1(s) in the Device List.
- Click **Update FW** in the upper-right corner of the window.
 - In the **Update Firmware** window that appears, the version number of the currently installed firmware will appear at the top.
- Under Date and time for update (Device local time), select the desired date and time for the update. You can type directly in the fields or click the calendar and clock icons.
- Click Schedule Install.



Changing a Scheduled Update

To change the date and time of a scheduled update:

- 1. Select the checkbox(es) next to the desired VB1(s) in the Device List.
- Click Edit FW Update in the upper-right corner of the window. Alternatively, in the Configuration section of the Control Panel, click Edit under Firmware Version.

In the **Edit Scheduled Firmware Update** window that appears, the message will show the version numbers of the currently installed firmware and the firmware that will be installed.

 Under Date and time for update (Device local time), select the desired date and time for the update. You can type directly in the fields or click the calendar and clock icons.



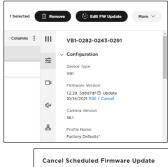
 Click Cancel to close the window without making any changes or click Reschedule Install to continue.

If you clicked **Reschedule Install**, the **Firmware update rescheduled** message appears in the lower-left part of the window.

Cancelling a Scheduled Update

To cancel a scheduled update:

- Select the checkbox(es) next to the desired VB1(s) in the Device List.
- In the Configuration section of the Control Panel, click Cancel under Firmware Version.
- In the Cancel Scheduled Firmware Update window that appears, click Cancel Update to cancel the update or Don't Cancel to close the window without making any changes.



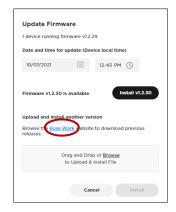


Installing a Previous Firmware Version

To install an older version of the firmware to revert to a previous release:

- 1. Select the checkbox(es) next to the desired VB1(s) in the Device List.
- 2. Click **Update FW** in the upper-right corner of the window.
- In the **Update Firmware** window that appears, click the **Bose Work** link to locate and download the firmware version you wish to install.
- In the gray box on the Firmware window, 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 you clicked **Install**, the **File upload in progress** message appears in the lower-left part of the window. When the process is complete, the VB1 will reboot automatically.



Downloading Logs

To download system log files:

- Select the VB1(s) in the Device List whose system log files you want to download.
- Click More

 in the upper-right part of the window, and then click Download Logs.
- Select where you want to save the system log files, enter a unique name, and then click Save.



CONTROL PANEL

The app enables you to administer one or multiple VB1s via the control panel. Use this interface to configure a range of parameters, including VB1 identification and profile parameters, camera settings and presets, microphone beams and settings, and settings for both wired and wireless network connections.

Configuring Parameters

To open the control panel for a VB1, select the checkbox to the left of the **Device Name** in the Device List, enter the password in the control panel that appears on the right side of the window, and then click **Submit**.

Note: You can set a **global password** instead of specifying a different password for each VB1.



The control panel includes the following sections. Jump to each by clicking its respective tab.



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



<u>Video</u>: Save/recall camera presets and restore factory default camera settings; enable/disable autoframe access and configure autoframe settings; and enable/disable automatic low-light compensation and configure low-light compensation settings.

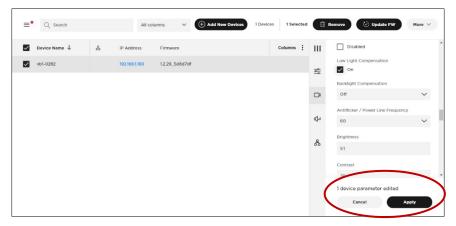


Audio: Configure the linear microphone array, control access to microphone and other audio settings, and view audio input and output levels.



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

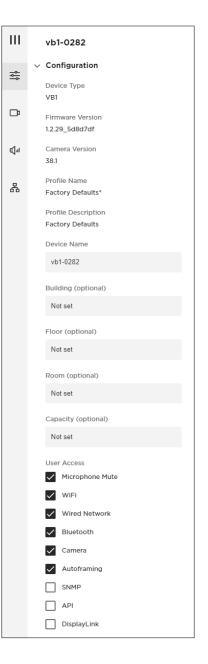
Note: After you edit a parameter, **Cancel** and **Apply** buttons appear at the bottom of the control panel. Click **Cancel** to discard the changes or click **Apply** to save the changes and implement them for the selected VB1(s).



Configuration Section

The Configuration section 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 Version:** The version number of the currently installed firmware. If a newer version of the firmware is available, a message will appear next to a link to install the latest version. See **Updating Firmware** to learn more.
- Camera Version: The version number of the VB1 camera software.
- Profile Name: The unique name of the configuration profile that was uploaded to the VB1.
- Profile Description: An identifying description of the configuration <u>profile</u>.
- Device Name: A configurable name assigned to the VB1.
- Building: A configurable setting to identify the location of the VB1.
- **Floor:** A configurable setting to identify the location of the VB1.
- Room: A configurable setting to identify the location of the VB1.
- Capacity: A configurable setting to identify the room capacity of the location of the VB1.
- User Access: Select/deselect these checkboxes to enable/disable user access to the following features:
 - Microphone Mute:
 Enables/disables the ability to mute the VB1 microphone.
 - WiFi: Enables/disables wireless network connection.
 - Wired Network: Enables/disables wired network connection.
 - o *Bluetooth*: Enables/disables *Bluetooth* connectivity.



- Camera: Enables/disables the VB1 camera.
- Autoframing: Enables/disables the ability to turn autoframe on/off. Autoframe automatically adjusts the pan/tilt/zoom (PTZ) camera settings to present a panoramic view of all participants in the room at all times.
- SNMP: Enables/disables SNMP (simple network management protocol) over the network. See SNMP Settings to learn more.
- API: Enables/disables REST API over the network. See <u>API</u> <u>Settings</u> to learn more.
- DisplayLink: Enables/disables HDMI output/DisplayLink. The default setting is Disabled.
- Password: Click Change Password to change the password for a VB1.

Passwords must contain:

8-12 characters

an uppercase letter

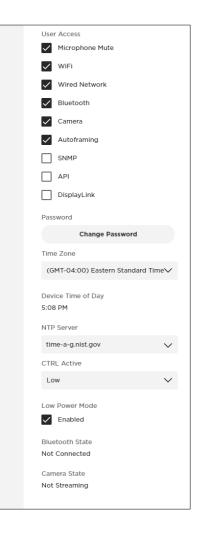
a lowercase letter

a number

a special character

Note: Select/deselect the **Set as Global Password** checkbox to
enable/disable use of the new
password for all VB1s in the network.

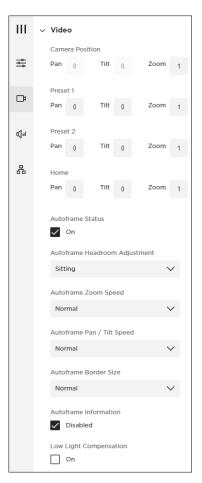
- Time Zone: Select the local time zone.
- **Device Time of Day:** Read-only display of the current time of the VB1.
- NTP Time Server: Select or enter the IP address or domain name of the Network Time Protocol (NTP) server.
- CTRL Active: Specify the active state of the connected alarm system: High (active) or Low (inactive).
- 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.
- Bluetooth State: Name of any device that is paired and connected to the VB1 via
 a Bluetooth connection.
- Camera State: The camera (video) status: Streaming or Not Streaming.



Video Section

The Video section includes controls for configuring the VB1 camera, autoframing, and image processing:

- Camera Position: Adjust the Pan, Tilt, and Zoom settings for the camera.
- **Preset 1:** Adjust the **Pan**, **Tilt**, and **Zoom** settings for the **Preset 1** camera position.
- Preset 2: Adjust the Pan, Tilt, and Zoom settings for the Preset 2 camera position.
- **Home:** Adjust the **Pan**, **Tilt**, and **Zoom** settings for the **Home** camera position.
- Autoframe Status: Select/deselect this checkbox to turn autoframe on/off.
- Autoframe 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.
- Autoframe 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.



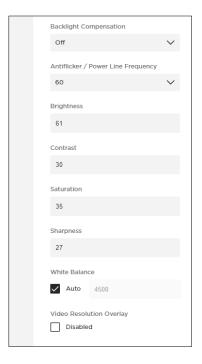
- Autoframe Information: Select/deselect this checkbox to enable/disable this
 troubleshooting feature. When set to Enabled, autoframe objects will be
 superimposed on the video image. These will be visible to the far-end meeting
 participants and in the self-view.
- **Low-light Compensation:** Select/deselect this checkbox to enable/disable automatic low-light compensation. When enabled, Low-light Compensation optimizes video in dim lighting conditions.

Note: You can enable low-light compensation 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.

Note: If Backlight Compensation is set to **Low**, **Medium**, or **High**, Low-light Compensation will be disabled automatically.

- Antiflicker/Power Line Frequency:
 Select 50 or 60 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.
- Video Resolution Overlay: Select/deselect this checkbox 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 Section

The Audio section provides access to microphone array settings (including beam configuration), audio settings, and audio input and output levels:

 Microphone Beam Type: Select Static or Dynamic to specify whether the microphone beams are automatically or manually adjusted.

The default beam type is **Dynamic**, which includes a single beam that freely searches for the loudest sound in the room and additional dynamic beams that are automatically directed at the people speaking in the room.

Static beams can be manually aimed at designated speaking locations.

 Microphone Beams 1–4: Specify the angle of each beam to optimize the detection of people speaking in the room. You can do this only when the Microphone Beam Type is set to Static. You can create a maximum of four beams.

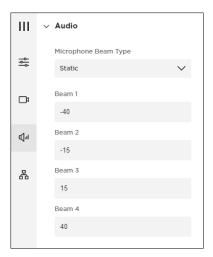
Note: Leaving a beam's value blank removes it from the microphone beam coverage.

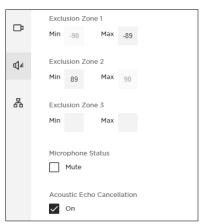
 Exclusion Zones 1–3: Specify the Min and Max angles of the area in which dynamic microphone beams will never be directed. There is a maximum of three exclusion zones.

Note: Leaving these values blank removes that exclusion zone from the coverage area.

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

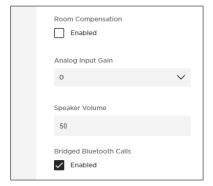






 Acoustic Echo Cancellation: Enable/disable Acoustic Echo Cancellation (AEC), which suppresses acoustic feedback between the loudspeaker and the microphone.

- Room Compensation: Enable/disable audio processing for rooms that are more reverberant. Enable this feature to improve VB1 microphone intelligibility in a reverberant room (e.g., with glass walls). The default is **Disabled**.
- 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.
- Bridged Bluetooth Calls: Enable/disable the ability of Bluetooth calls and media to bridge to the active UC call.

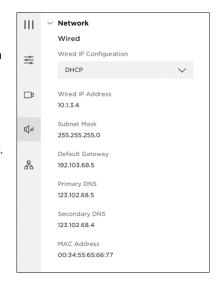


Network Section

The Network section provides access to wired, wireless, SNMP, and REST API configuration settings.

Wired Network Settings

- Wired IP Configuration: Select the IP configuration type: DHCP or Static.
 - DHCP (Dynamic Host Configuration Protocol) dynamically assigns the Wired IP Address, Subnet Mask, and other network parameters (when applicable) for the VB1.
 - Select Static to manually enter a Wired IP Address and Subnet Mask.
- The following optional settings can only be configured when the Wired IP Configuration is set to Static. These settings are read-only when the Wired IP Configuration is set to DHCP. The MAC Address is always read-only.
 - Wired IP Address: The IP address of the wired network.



- Subnet Mask: The IP address of the wired network's subnet mask.
- 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).

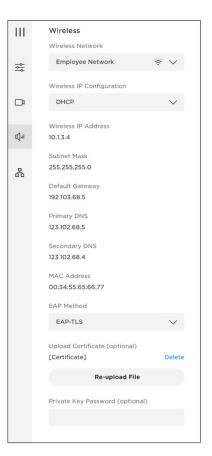
Note: VB1 also supports AutoIP. If **Wired IP Configuration** is set to **DHCP** and no DHCP server is found, the VB1 will automatically assign itself an IP address in the AutoIP range.

Wireless Network Settings

- Wireless Network: This menu includes a list of available networks, the signal strength of each network, and a lock icon if the network is passwordprotected. If you select a WPA2 network, enter the password in the field that appears, and then click Join to connect to the network.
- Wireless IP Configuration: Select the IP configuration type: **DHCP** or **Static**.
 - DHCP (Dynamic Host Configuration Protocol) dynamically assigns the Wireless IP Address, Subnet Mask, and other network parameters (when applicable) for the VB1.
 - Select Static to manually enter a Wired IP Address and Subnet Mask.
- The following optional settings can only be configured when the Wireless IP Configuration is set to Static. These settings are read-only when the Wireless IP Configuration is set to DHCP. The MAC Address is always read-only.
 - Wireless IP Address: The IP address of the wireless network.
 - Subnet Mask: The IP address of the wireless network's subnet mask.
 - 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 **Wireless 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.

 EAP Method: Select the type of Extensible Authentication Protocol (EAP), if applicable.

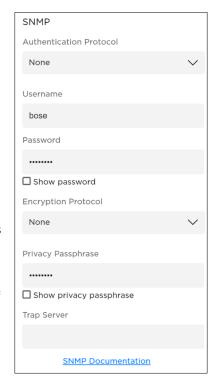


- Phase 2 Authentication: Select the method to be used for the EAP second authentication phase.
- Upload Certificate (optional): If there is no certificate uploaded, click the
 Upload File button and select the desired certificate to upload for certificate
 authority (CA) validation. When a certificate is uploaded, it will appear in this
 section. You can click Delete to remove the certificate or click Re-upload File to
 select a different certificate to upload.
- **Private Key Password (optional):** Enter the password to establish the connection.

SNMP Settings

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

- 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.



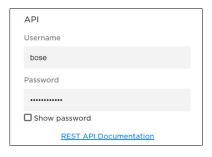
 Trap Server: Enter the IP address of the SNMP server. The VB1 will send traps and event notifications to this address per the MIB.

Note: Click the **SNMP Documentation** link for detail on specific polls and traps supported by VB1 via SNMP.

API Settings

The VB1 supports representational state transfer application programming interface (REST API) for network management and monitoring.

These settings are available only if the API is enabled. If the API is disabled, **Disabled** will appear in this section in place of these settings. Use the Bose Work Configuration app or WebUI to enable/disable the API; you cannot enable/disable the API within the Bose Work Management app.



- **Username:** Enter the username of the user who can access REST API information (maximum of 32 characters).
- Password: Enter the password for the user who can access REST API information (maximum of 32 characters). Select or deselect the **Show Password** checkbox to show or hide the password.

Note: Click the **REST API Documentation** link for detail on specific messages supported by VB1 via REST API.

