Vertiv™ Avocent® HMX Advanced Manager

Release Notes

VERSION 5.10.20001, AUGUST 2024

Release Notes Section Outline

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IMPORTANT NOTE: In August 2024, Vertiv identified a critical update, referred to as Address Assignment Timeout, which is required for all Vertiv™ Avocent® HMX products. The sole purpose of this release is to address and resolve the Address Assignment Timeout. No new updates, enhancements or other fixes are included in this updated release patch.

To mitigate the timeout, you must upgrade the Vertiv™ Avocent® HMX Advanced Manager firmware from version 5.10 to this version (5.10.20001). Follow the instructions detailed in section 1 of these release notes to upgrade the firmware. For additional assistance, contact Vertiv Technical Support.

1. Upgrade Instructions

NOTE: For additional product information, please see the Vertiv™ Avocent® HMX Advanced Manager Installer/User Guide.

Important Prerequisites

Prior to upgrading your firmware, please ensure you have verified the following information:

- Ensure you make a backup of the Vertiv™ Avocent® HMX Advanced Manager before upgrading.

- Ensure you are using Chrome, Firefox or Safari for upgrading; Vertiv does not recommend using Microsoft IE or non-Chromium based Edge browsers.

- Check your Vertiv™ Avocent® HMX Advanced Manager factory firmware version. If it is below 4.1.36651, you MUST upgrade to version 4.15 before upgrading to firmware version 5.3 or higher.

- Ensure your Vertiv™ Avocent® HMX 5100, 5200, 6200 and 6210 extender firmware is version 4.9 or higher. (Version 4.9 is the minimum endpoint firmware requirement for those extenders to be listed in the Vertiv™ Avocent® HMX Advanced Manager software Transmitter and Receiver tabs.) After upgrading the Vertiv™ Avocent® HMX Advanced Manager, a warning message with a link to the list of endpoints not meeting the minimum firmware requirement will appear in the Transmitter and Receiver tabs.

- Check your Vertiv™ Avocent® HMX 6500 receiver firmware version. If it is a version lower than 1.1.0.16, it MUST be upgraded before upgrading the Vertiv™ Avocent® HMX Advanced Manager to version 4.15. or 5.5.

  NOTE: When upgrading the Vertiv™ Avocent® HMX 6500 receiver, do not select the *Reboot before Upgrade* option.

- If upgrading multiple Vertiv™ Avocent® HMX Advanced Manager servers, ensure you upgrade the primary first and then the backup.

  NOTE: Do not upgrade the primary and backup concurrently.

Upgrading the Firmware

To upgrade the firmware on the Vertiv™ Avocent® HMX Advanced Manager server:

1. In the user interface (OBWI) of the Vertiv™ Avocent® HMX Advanced Manager server, or the primary server, select *Dashboard – Settings - Managers* and ensure that the Require Authentication radio button is set to No. If it is not set to No, change it and click *Save*.

2. Select *Dashboard - Backups* and ensure the backup option to Download to your computer is selected. Click *Backup Now*.

3. Using the Vertiv™ Avocent® HMX Advanced Manager software server, verify that all transmitters and receivers are connected and online.

4. Navigate to *Dashboard - Updates* and browse to the location of the software update file.

5. Select the file and click *Open*.

6. Click *Upload*. Do not restart or turn the Vertiv™ Avocent® HMX Advanced Manager software server off until the upgrade is complete.

7. After the upgrade is complete, click *Restart Now*.

   NOTE: While the update is applied, the primary server temporarily loses communication. During this time, the backup server acts as the primary server. You are redirected to the backup server's web User Interface (UI) and automatically logged in. When the primary server becomes available, you are redirected back to that web UI.

8. If you have a Vertiv™ Avocent® HMX Advanced Manager backup server, repeat the steps above to upgrade the backup server. Then, proceed to the next step.

9. The upgrade should now be complete. To verify, select *Dashboard – Settings - Managers* on the primary Vertiv™ Avocent® HMX Advanced Manager software server and confirm both servers are upgraded and synchronized.

2. Package Version Information

APPLIANCE/PRODUCT	IMAGE/CODE VERSION
Vertiv™ Avocent® HMX Advanced Manager	V5.10.20001

3. Minimum Supported Firmware Versions

MODEL	MINIMUM VERSION	LATEST VERSION
HMX6200R (DVI)	v5.0.47185	v5.1.52546
HMX6200T (DVI)	v5.0.47185	v5.1.52546
HMX6210T	v5.0.47185	v5.1.52546
HMX5100R	v5.0.47185	v5.1.52546
HMX5100T	v5.0.47185	v5.1.52546
HMX5200R	v5.0.47185	v5.1.52546
HMX5200T	v5.0.47185	v5.1.52546
HMX5150T-VGA	v4.9.05	v4.9.05
HMX8000R	v5.05	v7.02
HMX8000T	v5.05	v7.02
HMX6500R	1.1.0	v1.2.023
HMX5160T-DVID	4.08.40000	v4.9.09
HMX6150T-HDMI	4.08.40000	v4.9.09
HMX6150T-DP	4.08.40000	v4.9.09
HMX6200R (DP)	v5.02	v8.0
HMX6200T (DP)	v5.02	v8.0
HMX6200T (HDMI)	v5.02	v8.0
HMX8000T	v5.05	v7.02
HMX6500R	1.1.0	v1.2.023
HMX5160T-DVID	4.08.40000	v4.9.09
HMX6150T-HDMI	4.08.40000	v4.9.09
HMX6150T-DP	4.08.40000	v4.9.09
HMX6200R (DP)	v5.02	v8.0
HMX6200T (DP)	v5.02	v8.0
HMX6200T (HDMI)	v5.02	v8.0

4. Features and Enhancements

This version of the Vertiv™ Avocent® HMX Advanced Manager introduces the following features and maintenance improvements for the new hardware platform (HMXAMGR24G2) and the HMXAMGR24-XXX, which is now EOL.

- User Authentication:
    - Added support for Open LDAP: Microsoft AD, Azure Active Directory, Open LDAP, RedHat IDM and Google Workspace are now supported. Synchronization times are now editable to avoid conflicts and can be set hourly, daily or weekly. Users can also specify User base DN and Group Base DN separately for import/update and sync.
    - Added Two-Factor Authentication (2FA): 2FA can now be set per user for logging into the Vertiv™ Avocent® Advanced HMX Manager or user station. Both Google Authenticator and Microsoft Authenticator are supported.
    - Added a User filter on the User page in respect of Directory Server.

- Added support for the user to save the Active Directory configuration with all field blanks.
- Syslog:
  - Added security to syslog connections. Users can now add certificates from an external CA server.
- Virtual Desktop Infrastructure (VDI):
  - Added display of channel name on the RDP login page.
  - Added support for connecting to VDI sources with the addition of VMWare Horizon viewers in the V1.3 release of the Vertiv™ Avocent® HMX6500R receiver.

    NOTE: It is mandatory to have the Vertiv™ Avocent® Advanced HMX Manager system connected to the NTP server(s) to maintain accurate time. The 2FA OTP (One Time Password) is renewed every thirty seconds; a mismatch in time could prevent login to the system.
- Application Programming Interface (API):
  - Added feature to log out user from a specific receiver.
  - Added additional fields to the GetDevices command.
- Web User Interface (UI):
  - Updated the icons and names for the Vertiv™ Avocent® HMX Advanced Manager.
  - Added ability to sort and filter the Receivers and Transmitters list by model.
  - Added ability get a list of users and their channel permissions.
  - Added ability to configure access to the Administration page from the KVM network via the UI settings.
  - Added support for the Replace function to work with the new Vertiv™ Avocent® HMX 6200DP device to replace the Vertiv™ Avocent® HMX 6200 (DVI) device.
- On-Screen Display (OSD):
  - Added error message that will display when a user tries to connect the channel without permission through hotkeys.
- Network:
  - Added the state of the Vertiv™ Avocent® HMX Advanced Manager network interfaces to SNMP.
- Logging:
  - Added ability to capture a Network Trace from the Vertiv™ Avocent® HMX Advanced Manager.
  - Added new event types to the event log that are triggered when the Vertiv™ Avocent® HMX Advanced Manager boots, when a Backup/Satellite unit takes over and when primary regains control.
- Video:
  - Added support for Magic Eye control extension: When countering dithering at SDR10 (10 bit color depth per pixel) on Apple Mac computers, a setting level of 4 is required for the Vertiv™ Avocent® HMX8000 extenders.

5. Resolved Issues

This version of the Vertiv™ Avocent® HMX Advanced Manager resolves the following issues.

- Fixed issue with Get Channels/USB6000 discrepancy in the API.
- Fixed issue with the message timeout using the incorrect time format for the individual receiver set from the Global setting.

6. Known Issues

The following issues apply to the Vertiv™ Avocent® HMX Advanced Manager.

AREA	ISSUE DESCRIPTION	WORKAROUND
Application Programming Interface (API)	The get_presets API fails to update the preset count and details for the exclusive mode preset.	Enable all connection modes on the preset.
	The API remains active when web access is blocked on the KVM network.	No workaround at this time.
Logging	Users are not able to create automatic schedules for deleting logs from the backup or satellite manager.	This functionality should not be available on the pages for the backup and satellite managers.
Network	The DHCP server does NOT check if an IP address is available before issuing it.	To allow for the replacement of Vertiv™ Avocent® HMX Advanced Manager servers, ensure the pool of IP addresses for the endpoints are separated away from the IP addresses for the manager.
	An error occurs when attempting to disable the second Ethernet port on the satellite manager via the primary manager.	First, manually take down the eth1 interface port on the satellite manager, then revert the eth2 interface setting for the satellite manager.
	Communication between the satellite and primary managers stops when the eth1 port is set to DHCP on the primary manager.	Use a static route, which is available on the primary manager's web UI.
	If there is no network connection present during configuration of the DHCP address, it will not be assigned on the Eth2 network interface.	Ensure a network connection is available when booting the unit. Otherwise, a re-boot will be required.
	Users are unable to add a new classless route after removing all existing routes.	Save or cancel the configuration.
	Classless routes from the Graphical User Interface (GUI) get cleared if the user leaves the second row empty.	DO NOT save an empty row.
	Bonded Mode does not work when the "Disable Vertiv Avocent Advanced HMX Manager UI over KVM Network" option is enabled.	Bonded mode should not be used when the "Disable Vertiv Avocent Advanced HMX Manager UI over KVM Network" option is enabled.
	When using Bonded Broadcast mode, replication errors may appear in the Event log.	When utilizing the Bonded Broadcast mode on the Vertiv™ Avocent® HMX Advanced Manager, it is important to handle duplicate packets effectively in the connected switch to prevent the generation of unnecessary logs, which are typically classified as RC.
Upgrades	Occasionally, the Hostname and DNS Domain do not populate when upgrading from Vertiv™ Avocent® HMX Advanced Manager firmware v4.12 to v5.5.	Prior to performing the update, make note of the settings in case they are not transferred.
	Reboots introduce an issue on the Vertiv™ Avocent® HMX 6500R receiver, where if multiple upgrades are in progress, only the first unit will be upgraded.	Do not select the option to reboot before upgrade.

AREA	ISSUE DESCRIPTION	WORKAROUND
Upgrades (continued)	Due to incompatibility in versions of underlying OS and DB between firmware versions 4 and 5, not all information is transferred between the two versions.	Make note of the following settings before you upgrade to the new version: • Active Directory (all settings) • Email (Domain/IP, Username, Password) • NTP (NTP Key) • SNMP (Authentication & Privacy Password) • RDP (Passwords)
	The RDP passwords are lost after upgrading from firmware v4 to v5.	Unfortunately, due to the nature of the new version, there is no workaround.
	Downgrading from V5.10 to v5.9 or lower causes the Active Directory server settings to be removed.	No workaround. The settings have to be manually reapplied.
	After upgrading the primary manager from V5.9 to V5.10, a backup can remain active.	Reboot the backup manager.
User Access	Session is not disconnected if the user group is deleted in session.	No workaround at this time.
User Authentication	Users are unable to filter the Active Directory server fetched user from the advanced manager when DS includes the plus (+) symbol in its name.	No workaround at this time.
	Preview button activation also performs a sync with the Active Directory server.	No workaround at this time.
	2FA is suspended when the backup manager is acting as primary.	No workaround at this time.
	Setting a password for Anon user stops the NO login required from working.	No workaround at this time.
On-Screen Display (OSD)	Channel names have been truncated in the OSD.	The OSD can only support 25 characters, whereas in the Vertiv™ Avocent® HMX Advanced Manager menu 45 characters are allowed. **NOTE: Some Japanese, Korean and Chinese characters are considered as two or more characters.**
	Channel location information can sometimes be displayed under the Description column in the OSD of the Vertiv™ Avocent® HMX6200DP/8000 receivers.	No workaround at this time.
Primary/Backup Unit	The backup server will not be added to the primary manager if it's powered on and not on the same network as the primary during configuration.	Power cycle the backup manager while on the same network as the primary.
Satellite Unit	Occasionally, when adding the satellite manager to the primary, the satellite manager gets stuck on the link local IP address.	Reset the satellite manager.

AREA	ISSUE DESCRIPTION	WORKAROUND
Security	Secure SSL access has moved to **https://**<appliance.IP>**:4433**	
SMTP	SMTP function is inoperable after upgrading from V5.8 to V5.10. This is a rare occurrence triggered by upgrading and downgrading from various versions.	Manually update the SMTP IP address in the mail configuration page of the Vertiv™ Avocent® HMX Advanced Manager web UI. Access the SMTP config file located at "/etc/ssmtp/ssmtp.conf" and edit the IP address accordingly. After completing these steps, users should be able to send mail successfully.
SNMP	SNMP only works on the primary manager or Acting primary in firmware v5.5 and above.	This issue will be considered for change in a future release.
	SnmpB client fails to display updated server status when fetching from the backup or satellite manager.	No workaround at this time. This issue will be resolved in the next release.
	SNMP MIB is not available on Ethernet port 2.	Use Ethernet port 1 instead. SNMP will operate on both ports.
Video	In the General setting for Fixed EDID, Generic modes have no effect on either the Vertiv™ Avocent® HMX 8000 or 6200 DP extenders.	The modes do not appear in the specific pages for each transmitter, but if selected via the General setting, the Vertiv™ Avocent® HMX 8000/6200 DP series devices will work with the connected monitors EDID.
	The RDP channel still connects as single-head after modifying the channel to add a second head.	For the change to take effect in the Vertiv™ Avocent® HMX Advanced Manager, you must log out of the Vertiv™ Avocent® HMX6500R receiver, then log back in again.
Virtual Desktop Infrastructure (VDI)	The Configure channel allows VNC, SSH and HTML channels to select two heads, despite only one head (monitor) being supported for these modes.	Ensure video 2 is set to OFF.
Web User Interface (UI)	When using the Replace function for the Vertiv™ Avocent® HMX 5000/6000 extender system devices with the Vertiv™ Avocent® HMX 6200 DP extenders, the channel does not reconnect.	A manual re-connect must be initiated. This only happens when it is not directly a like-for-like model replacement.

7. Important Virtual Machine Information

In order to access a virtual machine via the Vertiv™ Avocent® HMX 6500 high performance KVM receiver, your system must be set up in a specific configuration where the receiver is connected to two separate networks. Then, through the Vertiv™ Avocent® HMX Advanced Manager software, you are able to configure the receiver, access hosts connected with Vertiv™ Avocent® HMX transmitters and access virtual machines running RDP hosts on a corporate network. For instructions on configuring access to a virtual machine, see the Vertiv™ Avocent® HMX 6500 High Performance KVM Receiver Configuring Access to a Virtual Machine Technical Note available on the product page at Vertiv.com.