Vertiv™ Avocent® HMX 6500 High Performance KVM Receiver

Release Notes

VERSION 1.2, AUGUST 25, 2023

Release Notes Section Outline

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1. Upgrade Instructions (Extender System)

NOTE: For additional product information, please refer to the Vertiv™ Avocent® HMX High Performance KVM Extender System Installer/User Guide and the Vertiv™ Avocent® HMX Advanced Manager Installer/User Guide.

Transmitters and receivers are flash upgradable at any time to ensure that your system is running the most current version available. If your system is running the most current firmware version and is managed by the Vertiv™ Avocent® HMX Advanced Manager software, then that same version must be used across all units in your system. Firmware versions can be mixed in configurations not using the Advanced Manager software, but it is always recommended to use the most current version. The Advanced Manager software On-Board Web Interface (OBWI) provides a central location for you to perform a firmware upgrade on any linked unit.

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 interface and automatically logged in. When the primary server becomes available, you are redirected back to that web interface.
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.

To upgrade the firmware on the transmitters and receivers:

1. In the user interface (OBWI) of the Vertiv™ Avocent® HMX Advanced Manager server, select *Dashboard - Updates*.
2. In the Upload new TX/RX Firmware section, click *Browse*.
3. Select the firmware file and click *Open*.
4. Click *Upload*.
5. For each transmitter and receiver to be upgraded, select the corresponding checkbox.

   -or-

   Select the Upgrade All checkbox.
6. Click *Upgrade Selected Transmitters*.

   -or-

   Click *Upgrade Selected Receivers*.

2. Package Version Information

APPLIANCE/PRODUCT	IMAGE/CODE VERSION
Vertiv™ Avocent® HMX 6500 Receivers	V1.2

3. Features and Enhancements

This version of the Vertiv™ Avocent® HMX 6500 high performance KVM receiver adds the following features and enhancements:

NOTE: This release requires Vertiv™ Avocent® HMX Advanced Manager software version 4.12 or higher. It is recommended to use v5.7.

- Added new VDI viewers – VNC, HTML, and Terminal (SSH)
- Added new USB subsystem – A new USB subsystem has been put into place to replicate USB functionality of the existing Vertiv™ Avocent® HMX 5000/6000 extender system range, including support for USB mass storage devices and many more NON HID devices (HID already supported).

  NOTE: Touch Screen support is incomplete and variable depending on the model types and if it is connected to Vertiv™ Avocent® HMX extender system devices or VDI sessions.
- Added new audio subsystem – The new audio subsystem now provides both analog and digital audio via the Vertiv™ Avocent® HMX 6500 receiver display connectors, which are sourced from the transmitter's analog or USB audio ports. Digital audio on the transmitter's video connector is not supported.

4. Resolved Issues

- Added support to reverse behavior of the CAPS and NUM lock keys when switching between different host computers or On-Screen Display (OSD).

5. Known Issues

The following issues apply to the Vertiv™ Avocent® HMX 6500 high performance KVM receiver.

AREA	ISSUE DESCRIPTION	WORKAROUND
Audio Microphone	The microphone audio does not work if the microphone is not connected at boot up.	Connect and reboot unit.
Certificates	.CRT certificates are not working for HTML channels.	None at this time. This is a Vertiv™ Avocent® HMX Advanced Manager issue that will be resolved in V5.8 . Please use .pem files only.
USB	Only USB HID devices are supported in v1.	None at this time. No support for mass storage or any other type of complex USB devices, including touch monitors. Support for Windows 10 compliant devices will be added in an upcoming release.
	Only nine unique USB devices can be connected at once to the Vertiv™ Avocent® HMX receiver.	None at this time. This is by design. While a normal USB hub can support 13 endpoints, we have reserved ports for internal operations.
	The Vertiv™ Avocent® HMX 6500 receiver cannot be used for headless operation.	None at this time. Unlike other Vertiv™ Avocent® HMX receivers, the Vertiv™ Avocent® HMX 6500 receiver USB system does not work without monitors being plugged in.
USB- Mouse	Dell MS111/116/M105 mice need to have USB merging turned off to work.	See the user instructions that accompany your mice for information on how to turn off merging.
	Mouse buttons cannot be used for any Vertiv™ Avocent® HMX Advanced Manager hotkey functions.	None at this time. This is currently not supported on the Vertiv™ Avocent® HMX 6500 receiver.
UBS-Keyboard	Apple A1243 keyboard has incomplete support.	None at this time. Not all the functions are currently supported. Additionally, the default English keyboard mapping does not match, so some characters, such as §, " and @, are not in the correct key. This does not affect the channels for the Vertiv™ Avocent® HMX extender system or Remote Desktop Protocol (RDP) as the Windows host determines the mapping in those cases. The OSD, VNC, SSH and HTML channels use the Keyboard Country Code setting on Vertiv™ Avocent® HMX Advanced Manager to determine the character mapping, for which there is currently no option for a Mac map in English or any other language.
Video	Only Pixel Perfect video is enabled.	None at this time. Other video modes will be enabled in an upcoming release.
	When decoding UHD content from the Vertiv™ Avocent® HMX 8000 transmitters, occasional decode errors and low frame rates occur.	Ultimately, this is a network issue related to the Vertiv™ Avocent® HMX 6500 receiver's efficiency with handling up to 2Gbps of data. To improve this issue, remove teaming or change to the recommended maximum resolution for the Vertiv™ Avocent® HMX 8000 transmitter, which is a single 2560 x 1440 resolution.
Password / Security	When connecting to the Vertiv™ Avocent® HMX 6210 transmitter via VNC, password hashing needs to be disabled on the unit.	Please see the Vertiv™ Avocent® HMX High Performance KVM Extender System Installer/User Guide for instructions. **NOTE: After disabling password hashing, ensure that you re-enter the passwords.**

AREA	ISSUE DESCRIPTION	WORKAROUND
Time	Time mismatch between the Vertiv™ Avocent® HMX Advanced Manager and the Vertiv™ Avocent® HMX 6500 receiver is preventing firmware upgrades.	This only occurs if Network Time Protocol (NTP) is enabled on the Vertiv™ Avocent® HMX Advanced Manager. Sometimes, the Vertiv™ Avocent® HMX 6500 receiver does not update. This is a Vertiv™ Avocent® HMX Advanced Manager issue and will be resolved in a future build.
VDI Sessions	HTML: Right-clicking a hyperlink presents the option for downloading linked files. This is not supported by design; however, it does stop the channel from working.	The page still updates (Vertiv™ Avocent® HMX Advanced Manager periodically updates) but cannot be interacted with until the channel is disconnected and reconnected.
	HTML: Clicking on links that want to open another tab do not work.	This is by design. To work around it, load the link as a separate channel.
	HTML: It is not possible to download files from a website.	None at this time. This is by design.
	VNC/SSH: Backtick (`) key is not behaving properly.	VNC into Windows / SSH into Ubuntu - The backtick key (left of the 1 key) acts as a grave accent diacritic “dead” key, so it is the only output when another key is pressed. With certain keys (such as E), it will output the accented character (È). VNC into Ubuntu - The backtick key only outputs when the **Shift** button is simultaneously pressed (outputting ¬). The unshifted backtick key and **AltGr |**, which is labelled as a split pipe, can't be produced.
	VNC: Only absolute pointing modes is supported.	None at this time.
VNC Session - Password	When the server is using the VNCAuth authentication method, passwords of up to 8 characters are supported for VNC.	It is possible to enter more characters, but the server will ignore them when it validates the password. This is common for all VNC setups using VNCAuth.

6. 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.