Resource Guide

Matrix Hardware

The server runs the following:

- VLink Matrix software

Server Requirements should include the following:

- Windows OS (XP, 7, Server 2003 or 2008)
- 1.7 GHz processor
- 6GB RAM
- Dual power supplies, if possible
- RAID HDD, if possible

Audio Interfaces for Analog Audio Inputs

This device accepts analog audio XLR inputs and converts them to digital over Firewire connection to the matrix server. These devices are recommended to be installed on their own PC for redundant operation.

NOTE: The PC requires a firewire connection.

RECOMMENDATIONS:

- AudioFire 12 – 12 XLR Inputs for 12 channels each (recommended for large implementations with more than six (6) audio inputs
- Henry Engineering USB Matchbox – Only two (2) channels and more expensive per port, but allows for input gain adjustments and has ample headroom for better operation with ADAM output gain and should not require input pads
- It is recommended to install the audio interfaces first so you can immediately configure when installing the matrix.
- When installing the AudioFire interfaces, follow the instructions included, and also go to the AudioFire website to download and install the updated drivers immediately after initial installation.
- Be sure to set the AudoFire 12 so the inputs are not fed directly back to the outputs.

Audio Pads

Audio Pads reduce the input gain going into the Audio Interfaces from the ADAM frame so the VLink software can run at default/unity.

When shopping for audio pads, look for the following:

- Needs to lower gain about 10dB. Line level inputs on many computer audio interfaces are typically more sensitive than they should be for actual line levels encountered in broadcast.Some ADAM users do not mind lowering the ADAM port levels, but others may not want to.

Control Panel Hardware

The Control Panel is the end user computer running the VLink Control Panel software, allowing communications with other VLink Users or RTS keypanels.

The computer requirements for the control panel machine are as follows:

- Windows OS XP or higher
- Dual-core processor or higher
- 2GB of RAM

Installation (Matrix) Recommendations

- Download and install the Matrix software to the Matrix system.
- Once installed, configure the matrix software to run as a service upon startup.
- Confirm via reboot the matrix software runs as a service upon startup.
- Reference the Matrix User Guide for more information.

Installation Tips

- Aim for having all matrix levels in unity, so add Audio Pads where possible.
- AudioFire settings–there is not much to do other than install the drivers and confirm working, however, on the setting tab there are a couple settings:
    - Sample Rate: 48k
    - Clock: Internal
- AudioFires have failed out of the box, so be prepared to do the following before confirming they work correctly:
    - install
    - update firmware and drivers
    - test thoroughly
- Any USB headset will work fine, Logitech is easily available.
- You must have a public IP Address for the matrix or you need to have a VPN for all the devices not on the subnet.
- Be careful not to update the default setting, but instead to update the specific panel.
- Make sure you have admin access on the control panel

    - If you have WIN 7, right-click and run as admin when you run and need to update

I/O Audio Interface Devices

- Edirol Model (UA1EX) – 2 IN / 2 OUT USB Audio Interface
- Edirol Model (AU101) – 10 IN / 10 OUT USB Audio Interface
- Henry Engineering Model (MatchBox) – 2 IN / 2 OUT USB Audio Interface
- M Audio Model (Fast Track Ultra) – 4 IN / 4 OUT USB Audio Interface
- M Audio Model (ProFire 2626) – 26 IN / 26 OUT FireWire Audio Interface
- Echo Model (AudioFire12) – 12 IN / 12 OUT FireWire Audio Interface

GPIO Interface Devices

- Advantech Model (USB-4761) – 8 RYL / 8 ISO Inputs Interface

IP Gateway Device

- AudioCodes Model (MP114/40/SIP) – FXO/SIP Interface

X Keys

- X Keys Model (MW11 Stick) – Programmable USB Key Module

Headsets

- Logitech USB headsets are adequate, however some users may prefer Plantronics models. They are a bit more expensive, but available in more styles.

Speaker/Mic Box

- Phoenix Audio Model (Duet PCS) – Desktop Mic / Speaker Phone - is excellent and has built in hardware echo cancellation since the mic and speaker are built in to one unit and allows full-duplex operation. In addition to momentary-only operation, speaker dim with talk should be set higher than default or to full mute (half-duplex operation). Phoenix audio now makes a stand-alone echo cancellation device that can be used with speakers and microphones to provide full-duplex operation.

NOTE: Open mics with separate speakers almost always produce echo and should never be used unless in an unlatchable implementation where you hold to talk.

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