



ALCOR® Scientific Instrument Cybersecurity FAQs

Q *What Operating System do ALCOR Scientific instruments use?*

A ALCOR Scientific's iSED® ELITE, miniiSED®, iSED PRO, and MIZAR® use an ALCOR Scientific-customized version of embedded Linux based on Debian.

Q *The device runs on "ALCOR Scientific-customized version of Linux based on Debian". Does this mean the OS being used is proprietary? If it is proprietary, will ALCOR Scientific support patching?*

A ALCOR Scientific instruments have a proprietary Operating System based on Debian that is supported by patching via ALCOR Scientific approved, validated, and maintained software updates.

Q *Debian X is already EOL (End of Life); is there a plan to upgrade the Operating System?*

A ALCOR Scientific assesses the cybersecurity of our instruments on a regular basis, including the need to upgrade the Operating System. Since ALCOR Scientific instruments use an embedded Linux variant of Debian customized for the specific hardware used in our devices, OS upgrades may not always align with the life cycle of Debian's desktop/server releases, nor does it necessarily need to align based on the instruments' fixed embedded hardware environment. ALCOR Scientific will notify you when an upgrade, patch, or OS upgrade is available. ALCOR Scientific will continue to provide support and updates for any security vulnerabilities that may arise.

Q *Can antivirus/antimalware security utilities from the lab's IT group be installed on the instruments?*

A No, only ALCOR Scientific can install any software on the instruments, including antivirus/antimalware. Due to the customized embedded Linux distribution and constraints ALCOR Scientific has applied to the root filesystem to ensure device operation and performance, it is not possible for clients to install third party applications or utilities on the instrument.

Q *Is an MDS2 form (Manufacturer Disclosure Statement for Medical Device Security) available for your devices?*

A Yes, an MDS2 form is available for each device upon request.

Q *What security features are implemented on the ALCOR Scientific instruments?*

A The Debian OS installed in ALCOR Scientific instruments has been customized to lock down the instrument for essential functions only. Some examples below:

- The ethernet connection only allows traffic (specifically LIS-related traffic) on the TCP/UDP port specified in the user interface. All other TCP/UDP ports are disabled.
- The instruments run in kiosk-mode only, and as such do not have the command line exposed for security purposes.
- Remote access is not allowed.
- The instruments have a Host-Based Intrusion Detection System (HIDS) installed to monitor the OS for security breaches.
- Auto-running of code stored on USB storage media is disabled.
- More information is provided in the MDS2.