Picarro SI2000 Series switches to Linux OS

Security. Reliability. Value.

Cavity Ring-Down Spectroscopy (CRDS) is an ideal application for Linux operating systems. Linux provides:

- A more consistent programming interface
- More accurate and consistent monitoring due to less downtime
- More security from malware and viruses
- Lower costs (no licensing fees)
- Controlled updates
- Greater product longevity

Consistent Programming Interface

The control systems used in Airborne Molecular Contamination (AMC) and FOUP monitoring require an operating system that will not change frequently with software patches or version updates, but instead will provide a steady programming interface when updates become necessary. Frequent patches and version updates can complicate future development and often outweigh the benefits of those upgrades for software developers.
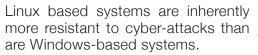
Accurate and Consistent Monitoring

AMC monitoring in cleanrooms must be continuous and any analyzer downtime results in data not being collected.

Linux is widely considered to crash less often than Windows. This means that Linux powered analyzers will exhibit more up-time and increased productivity.

Linux systems can generally be updated without a hardware reset, further reducing downtime, and increasing productivity.

Security

Linux based systems are inherently more resistant to cyber-attacks than are Windows-based systems.

On average, Windows operating systems are twice as susceptible to cyber-attacks as is a Linux system. An attack on a Windows operating system has the potential to cause more widespread damage than a similar attack on a Linux system.

Using Linux means less vulnerability, less downtime and increased monitoring time.

Lower Cost

Linux is an open source operating system. Open source programs are less expense to install, operate and update in specialized analyzer software packages.

Controlled Updates

Windows 7 & 10 automatically install operating system updates as soon as they are available via Internet and intranet access. Automatic updates can tax the CPU, causing data loss and forced computer restarts, slowing and/or stopping data collection.

PICARRO

Picarro SI2000 analyzers run Linux with disabled automatic updates. When a security or bug fix update is needed, an Update Pack can be installed at the customer's convenience. Linux updates much faster than Windows (in minutes instead of hours), and most updates can be installed while the analyzer is running in its real-time monitoring environment.

Product Longevity

Microsoft often releases a new version of the Windows operating system and drops sales and support of older versions periodically. If a customer wants to purchase a process analyzer identical to those purchased a few years earlier, they may find that licenses for the older operating system are no longer available.

As an open source software, changes to the Linux operating system are driven by the needs of the user, not automatically forced by the software manufacturer. This means that Picarro can support older systems much longer.

These positive factors have all contributed to our decision to change to a more robust, safer Linux operating system environment for our customers.

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