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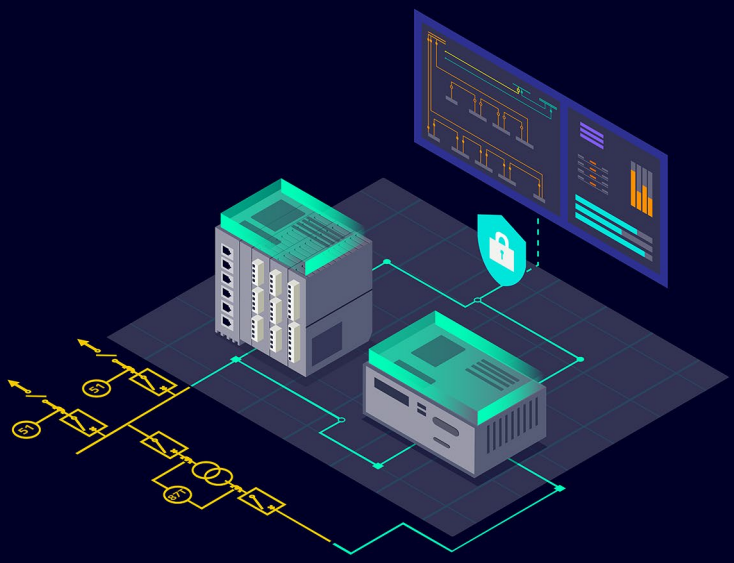

ENERGY AUTOMATION PRODUCTS

SICAM S8000 OS

siemens.com/sicam-s8000

Ready-to-run SICAM 8 software for virtualized power automation and control with a Siemens-maintained operating system

The challenge

Power automation needs to become more flexible, scalable, and less dependent on dedicated hardware. Virtualization enables this shift, but also adds complexity in managing the underlying software environment.

The solution

SICAM S8000 OS combines SICORE, the runtime of the SICAM 8 power automation platform, with a pre-hardened Debian operating system in one ready-to-run software package.

Delivered as a virtual machine image, SICAM S8000 OS reduces the effort required to deploy and maintain the operating system. The operating system is hardened according to CIS Level 2 Server Hardening, while Siemens qualifies and provides compability-tested patches for SICORE and the operating system.

At the same time, the solution retains the flexibility and scalability of SICAM S8000, with consistent engineering through SICAM Device Manager across the SICAM 8 portfolio.

Your benefits

- **Reduce setup effort** with SICORE and a pre-hardened Debian operating system delivered as one integrated software package
- **Get up and running quickly** with a guided installer and first-boot wizard
- **Simplify operating system maintenance** with Siemens-qualified and compatibility-tested updates and patches
- **Start with a hardened operating system** according to CIS Level 2 Server Hardening
- **Manage the operating system** centrally with operating system information, restart, and updates handled through SICAM WEB
- **Consolidate automation functions** on existing server infrastructure alongside other virtual machines
- **Engineer consistently** with SICAM Device Manager across the SICAM 8 portfolio

Engineering with SICAM Device Manager
One engineering tool for runtimes and applications across the SICAM 8 family supports consistent engineering while helping reduce maintenance and training effort.

Runtime selection

SICAM S8000 OS is delivered as a virtual machine image for Microsoft Hyper-V. The host resources assigned to the virtual machine define the performance limits.

Initial system requirements

- Windows 10 or Windows 11 Pro or Enterprise with Hyper-V enabled
- 64-bit processor with hardware virtualization support, such as Intel VT-x
- At least 100 GB free disk space
- Up to eight virtual network adapters

Major features

- Pre-hardened Debian operating system according to CIS Level 2 Server Hardening
- Managed update processes for SICORE, other SICAM applications and the operating system via SICAM WEB
- SICAM S8000 OS Management Console for instances, network interfaces and administrative settings
- Integration of up to 1,200 stations (IEDs)
- TCP/IP-based communication protocols:
  - IEC 61850
  - IEC 60870-5-104
  - DNP 3.0i
  - Modbus TCP
  - OPC UA Server
  - OCPP Client
- CFC logics
- TLS and IPsec encryption
- Redundant configurations
- Support of SIAPPs
- Support for additional SICAM 8 applications such as SICAM HMI, SICAM EVA, SICAM Archive, and SICAM GridEdge
- Three-year SICORE OS license including updates and patches; after expiry, the system continues running, while further updates require a new license

Detailed information about available features and system requirements is provided in the SICAM S8000 OS Installation Guide and product manual.

Example use cases for SICAM S8000 OS

Multiple applications can be combined on one runtime:

- Virtual station controller / RTU for substation automation and telecontrol without having to build and harden a Linux system first
- Monitoring of digitalized distribution substations, combining data collection, on-premises visualization, and a gateway to Electrification X with SICAM HMI, SICAM EVA, SICAM Archive, and SICAM GridEdge
- Virtual SCADA front end and gateway consolidated on an existing server alongside other virtual machines
- Virtual closed-loop testbed connected to SIPROTEC DigitalTwin to accelerate pre-FATs, FATs, firmware updates and other engineering processes

Ready to deploy?

1 Order

Get the SICAM S8000 OS license via the License Manager and download the Hyper-V image package from SiePortal.

2 Install & configure

Run the guided installer, which automatically creates the virtual machine, and complete the setup with the first-boot wizard.

3 Engineer & maintain

Engineer with SICAM Device Manager and maintain SICORE, SICAM applications, and the operating system through SICAM WEB.

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