SbC4000/SbC410x VM Appliance Secured by Cimetrics

Data Sheet

The **Secured by Cimetrics (SbC)** SbC4000 and SbC410x Virtual Machine (VM) Appliance platforms are advanced for securing, monitoring, and optimizing small to large-scale BACnet/SC networks in Building Automation Systems (BAS). These Appliances simplify deployments by addressing critical challenges such as network segmentation, diagnostics, and multi-vendor integration.

The SbC4000 and SbC410x serve as scalable BACnet/SC Diagnostic Primary and Failover Hubs, designed to adapt to the demands of growing BACnet/SC networks. With streamlined certificate management, efficient device onboarding, advanced diagnostics, and zero-trust security, SbC Appliances ensure reliable operation, enhanced performance, and seamless scalability for even the most largest, complex BACnet/SC networks.

SbC Appliance Key Features

Robust Diagnostic Primary and Fail over Hub Functionality:

- **SbC4000**: Supports up to 500 nodes per box as a BACnet/SC diagnostic primary or failover hub.
- **SbC410x**: Virtual Machine can function as a BACnet/SC diagnostic primary hub or failover hub, scaling from a few 100 nodes, up to 4000+ nodes in a virtualized deployment.
- The diagnostic hubs offer critical insights and tools to quickly identify and resolve network issues, ensuring rapid restoration of BACnet/SC network functionality.
- Ensures secure and reliable communication across large -scale BAS networks.

Centralized Scalable Certificate Management:

- Serves as a BACnet/SC Certificate Signing Authority with detailed diagnostics.
- Streamlines certificate issuance, renewal, and onboarding processes.
- Seamlessly integrates with external certificate authorities for multi-vendor environments.
- Securely maintains keys, data, and history, enabling smooth transitions of CA management to IT or BMS teams.

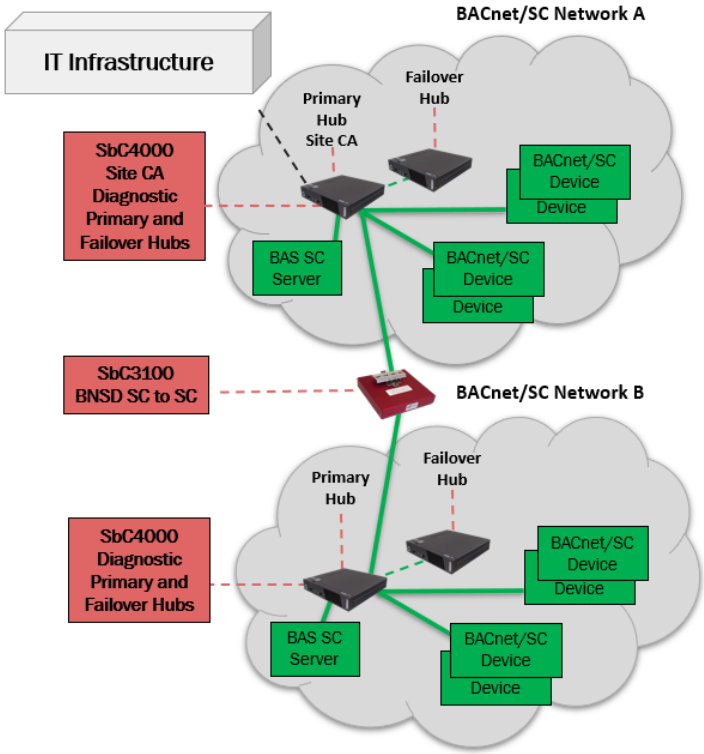
Advanced Diagnostics and Monitoring:

- Tracks device activity, including offline events, restarts, firmware updates, and network changes.
- Diagnoses BACnet/SC connectivity issues, failed hub connection attempts, and certificate-related problems.
- Monitors BACnet firewall policies for SbC BNSDs and uses Syslog for advanced troubleshooting.

Comprehensive Network Insights:

- Provides real-time browsing of BACnet devices.
- Displays network topology, identifies BACnet routers and BACnet/SC hubs, and detects duplicate or new devices.

SbC Segmented BACnet/SC Networks



Cimetrics BACnet Network Segmentation Devices

Cimetrics **BACnet Network Segmentation Devices (BNSDs)** enhance network security and efficiency by segmenting **BACnet/SC, BACnet/IP, and BACnet MS/TP** networks. They isolate unsecured devices, regulate traffic flow, and ensure reliable communication while providing real-time diagnostics to the **SbC Appliance and IT systems** for optimized performance, monitoring, and security management.

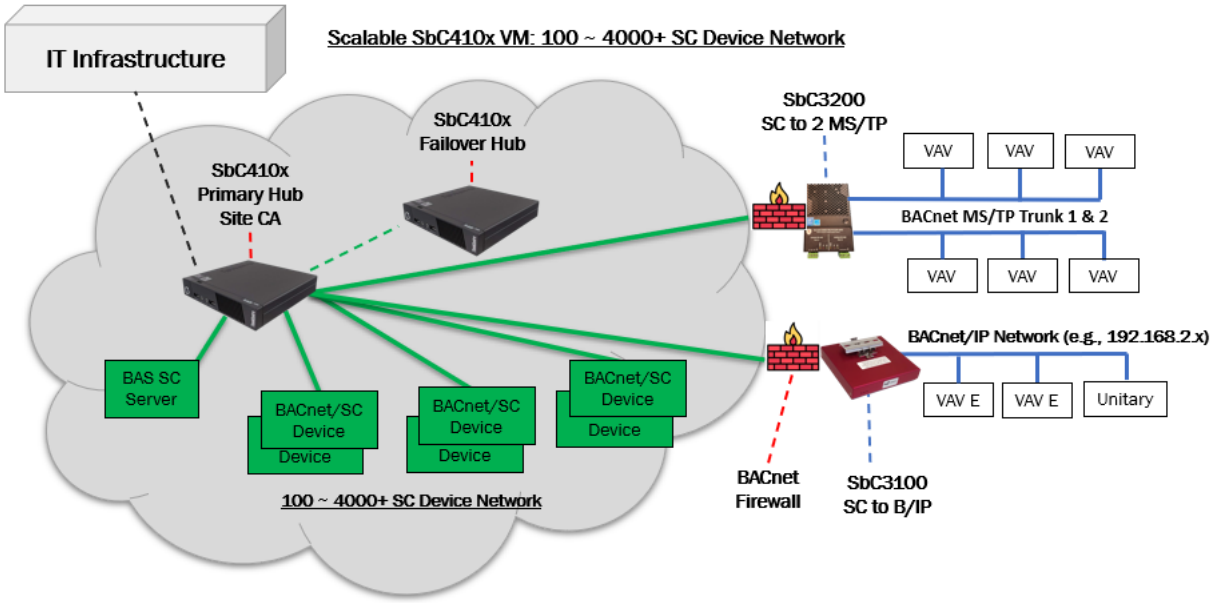
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SbC Virtual Machine Large Scale BACnet/SC Deployment

The **Secured by Cimetrics™ platform** provides a secure and scalable solution from small to large 4000+ node BACnet/SC sites. Using two SbC410x Virtual Machines—one as a diagnostic primary hub and the other as a failover hub — ensures reliable communication and rapid issue resolution with advanced hub diagnostics. One VM serves as the Site Certificate Authority (CA), streamlining certificate management, enhancing security, and maintaining optimal network performance.

Supporting this architecture, BACnet Network Segmentation Devices (BNSDs) like the SbC3100 and SbC3200 securely integrate BACnet/SC, BACnet/IP, and BACnet MS/TP networks. These devices enforce advanced firewall policies, monitor traffic, and provide diagnostics, ensuring seamless operation across secured and unsecured network segments. Together, the SbC4100 and BNSDs deliver a resilient, efficient solution for managing complex BAS networks.



HARDWARE SPECIFICATIONS

Communication

Ethernet ports:

(1) 10/100/1000 Mbps

Operating Temperature: 0 to 40 C

Storage Temperature: -30 to 50 C

Power Adapter Input Voltage:

100-240 VAC, 50-60 Hz

Dimensions: 15.8 X 16 X 2.5 CM

Weight: 1 lb

Approvals

FCC Class A, CE

BACnet DETAILS

1 BACnet/SC Ethernet interfaces

Configurable as diagnostic primary or failover hub

Site certificate authority

Support for Addendum CS bulk file format and Addendum CP device authentication

BACnet Protocol Revision 17

ORDERING INFORMATION

SbC Appliance Ordering Part Numbers

SbC4000 Hardware: Up to 500 SC nodes

Power adaptor included

Virtual Machine

SbC4100: Up to 500 SC nodes

SbC4101: Up to 1000 SC nodes

SbC4102: Up to 2000 SC nodes

SbC4104: Up to 4000 SC nodes

Product Support

2 Year warranty on SbC4000 hardware

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