



## Chipkin's solutions for BACnet SC

BACnet SC (BACnet Secure Connect) is the latest add-on feature to the BACnet Protocol. It is one of the largest addendums to the protocol and one of the most important. It is a feature that BACnet International has been promoting as it provides the means to create secure communications connections between edge devices, Building Automation Systems (BAS), and the cloud.

**CHIPKIN**

**CAS BACnet Explorer 4.0**

**90 Day Free Trial**

**BACnet SC Supported**

We can Test, diagnose and solve your BACnet problems.

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[www.chipkin.com](http://www.chipkin.com)

The banner features a dark blue background with a network of glowing nodes and lines, overlaid with a faint circuit board pattern. The text is presented in a clean, modern font, with key information highlighted in yellow and white.

## **The Challenges**

A key concern among all parties is network and information security and infrastructure integrity. With a sharply increasing interest in cloud-based applications, owners, managers, BA, and IT professionals have a strong desire to create BA infrastructures that provide very high levels of security. At the same time, on the IT side there is a mature set of best practices for implementing and managing secure communications infrastructure. Previous attempts by BACnet to address these concerns went in a different direction than the IT community, ultimately frustrating efforts to gain acceptance.

## **The Solution**

To solve this problem, Chipkin is excited to announce that it has added the BACnet SC feature to our CAS BACnet Stack as well as to redesign and improve the popular CAS BACnet Explorer tool to support BACnet SC.

- Supports BACnet server simulation which users can use the simulator to test their BACnet clients to ensure that they are working as expected.
  - One of each Object type: analog\_input, analog\_output, analog\_value, binary\_input, binary\_output, binary\_value, multi\_state\_input, multi\_state\_output, multi\_state\_value, trend\_log, trend\_log\_multiple, bitstring\_value, characterstring\_value, data\_value, integer\_value, large\_analog\_value, octetstring\_value, positive\_integer\_value, time\_value, NetworkPort, dateTimeValue,
- Supports following BACnet Client function: Who-is, I-am, Read property, read property multiple, write property, write property multiple. subscribeCOV
- Creates easy to read reports in HTML/XML suitable for documentation.
- Simpler and Smarter user interface with many Automated tasks to simplify and streamline the user experience. Simple enough to be used by someone without any BACnet protocol knowledge
- Enumerations are user expandable to support vendor proprietary enumerations.

- Uses the latest version of the CAS BACnet Stack, protocol Revision 19 with BACnet SC support.
- Easily discover BACnet devices on your network.
- Network card selection.
- Ability to read/write any property of a BACnet Object.
- Tested with 100s of 3rd party BACnet devices.
- Supports selection of BACnet network devices on PCs with more than one network card.

### **How It Works**

In essence, it adds the ability to secure communications of all devices within a BAS and the cloud. For a detailed description, please read the [BACnet SC Whitepaper linked here.](#)

### **Conclusions**

Today various approaches are used to secure BACnet infrastructure, but these solutions can be difficult to setup, and they place a burden on IT groups. BACnet/SC will make it much easier to create secure and standardized BA infrastructure that is fully compatible with existing BACnet deployments, friendly to IT best practices, and that enables cloud-based applications.

### **About Chipkin**

Chipkin Automation develops protocol drivers. Some are sold and supported by MSA. Some are sold and supported by Chipkin. Chipkin are data communication specialists with 20+ years of experience. The OPC UA driver will be sold and supported by both MSA and Chipkin.

## **Keywords**

- BACnet Router
- BACnet subnets
- BACnet SC