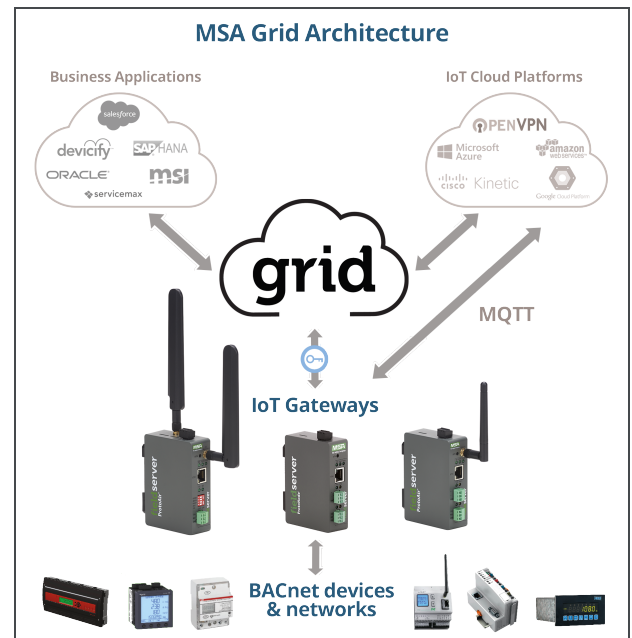


Overview

The secure BACnet IoT Gateways are fully integrated with the MSA Grid cloud platform. The gateways enable users to easily connect new and legacy BACnet devices to the cloud. These gateways connect BACnet devices and networks to the cloud via wired (Ethernet) or wireless (Wi-Fi or cellular) installations. BACnet devices can instantly be cloud enabled to support secure remote device monitoring, control, data collection and alarming. BACnet IoT Gateways have an embedded OpenVPN server, enabling secure remote connectivity to Ethernet BACnet devices.

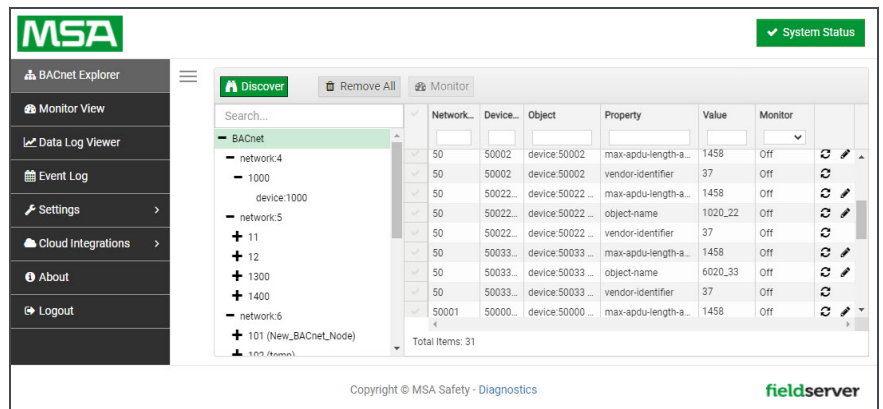
The gateways provide powerful device discovery and management across both serial and Ethernet BACnet networks. User tools enable easy gateway configuration to deliver BACnet objects to the cloud, either as individual devices or as filtered object groups.

The BACnet IoT Gateways are the fastest and easiest way to cloud-enable BACnet products in the field, providing secure remote access to installed fleets of BACnet devices. These gateways are delivered ready to discover, cloud connect and manage any BACnet devices without any programming or mapping (plug and play).



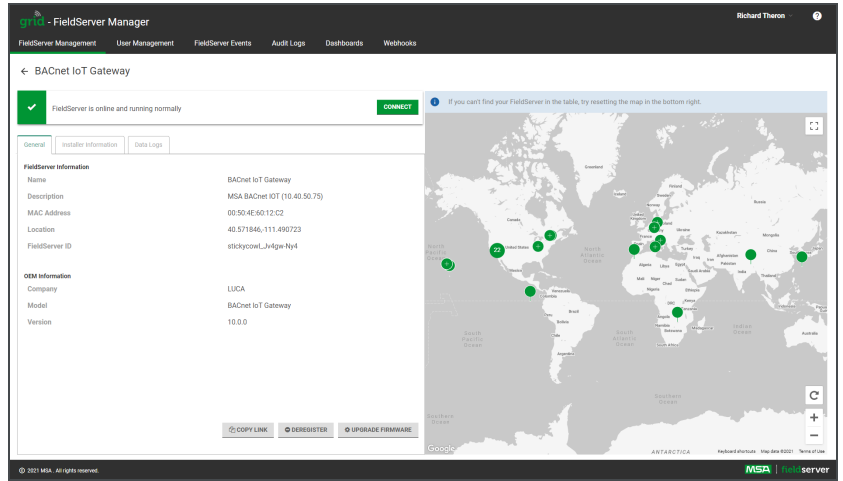
Benefits of the BACnet IoT Gateway

- Deploy in an hour, not years.
- Eliminate all custom engineering development time and expense.
- Register gateways seamlessly through MSA Safety's tenant based IoT Cloud Platform.
- Utilize cloud data by viewing on the dashboard or download as CSV, JSON, Webhooks or RESTful API.
- Enabling OpenVPN allows remote connection to Ethernet devices in the field with management/configuration programs to perform diagnostics, download new firmware and reprogram the device without going to the site. Connection to webservers located on remote segmented Ethernet devices is also available.
- Generate cloud-based notifications/alarms via SMS and/or emails, keeping users informed as events occur.
- Includes a fully functional BACnet Explorer that allows user support teams to locally or remotely browse and command any of the devices on the BACnet network.
- On-board diagnostics allow easy troubleshooting for both serial and Ethernet communications.
- Can push up to 1,000 BACnet Objects to the MSA Grid.
- **FieldSafe** adds a wealth of security options, including: web configuration page authentication (self-signed certificates), robust user and password management features.
- MQTT connection to 3rd party clouds available.
- Configurable routing and firewall options included.



MSA Grid - FieldServer Manager

- The FieldServer Manager can use Webhooks or RESTful API make device data to be available to 3rd party cloud platforms. The cloud platform has no firewall dependencies through HTTPS by utilizing TLS/SSL (Transport Layer Security/ Secure Sockets Layer) to ensure data security – port 80 & 443.
- No annual subscription to connect FieldServers to the MSA cloud platform for 50 data points per minute up to 2023.
- Firmware upgradable via FieldServer Manager with admin access.



Ordering Information

- FS-IOT-BAC: two serial port model.
- FS-IOT-BACW (Wi-Fi): two serial port model, includes Wi-Fi antenna.
- FS-IOT-BACA (LTE–AT&T): one serial port model, includes Wi-Fi and cellular antennas.
- FS-IOT-BACV (LTE–Verizon): one serial port model, includes Wi-Fi and cellular antennas.
- FS-IOT-BACF (LTE–Vodafone): one serial port model, includes one cellular and one Wi-Fi antenna.
- FS-IOT-BAC2E: two serial port and two Ethernet port model.

Hardware Specifications

Environment

Serial (Galvanic Isolation): RS-485
Baud: 9600, 19200, 38400, 57600, 76800
Ethernet: 10/100BaseT, MDIX, DHCP

Environment

Operating Temperature: -20 to 70°C (-4 to 158°F)
Relative Humidity: 10-95% RH non-condensing

Construction

Dimensions: (HxWxD) 4 x 1.1 x 2.7 in (10.16 x 2.8 x 6.8cm)
Weight: 0.4 lbs (0.2 Kg)

Other

Web Configuration
 Toolbox diagnostic utility
 DIN rail mount included

Power Requirements

BAC/BACW: Current draw @ 12V, 0.25A
 Input Voltage 9-30 VDC or 24 VAC
BAC/WiF: Current draw @ 12V, 0.67A
 Input Voltage 12-24 VDC

Approvals

CE and FCC Part 15/ BTL Marked
 UL 60950-1 and CAN/CSA C22.2
 DNP 3.0 and Modbus conformance tested
 RoHS3, UKCA, and WEEE compliant
 PTCRB and CTIA



Radio Specifications

Wi-Fi 802.11 b/g/n

Frequency: 2.4 GHz
Channels: 1 to 11 (inclusive)

Antenna Type: SMA
Encryption: TKIP, WPA2 & AES

LTE

Features: LTE Cat. 4
Antenna Type: SMA
Carriers: AT&T, Verizon & Vodafone

Downlink: Up to 150 Mbps
Uplink: Up to 50 Mbps

Contact MSA sales for an easy proof of concept evaluation: SMC-insidesales@msasafety.com.

MSA Safety

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