

## Features

The Connected Services Gateway (CSG) is an all-in-one interface card that supports central station communication and enables SafeLINC Cloud Services. The CSG has the following features:

- Provides wired or wireless central station communication through LAN Ethernet, cellular, and plain old telephone service (POTS)
- Enables authorized users to access their managed fire alarm control units (FACUs) remotely through the SafeLINC web or mobile app
- Preserves front panel service port

## Compatibility

- For use with Simplex 4100ES, 4010ES, 4007ES, 2050FS, and 2250FS FACUs
- Backwards compatibility. A migration path for existing SDACT is only installed in ES panels
- Connects to ES Network Card with Ethernet cable

## Installation flexibility

- The internally mounted option reduces installation complexity and cost
- The externally mounted option is available to provide flexibility when space or cellular signal strength is inadequate

## Connectivity flexibility

- You can configure central station reporting with one, or dual paths with a primary and secondary path
- Configure paths to use any of the external connections, telephone line, cellular or LAN Ethernet connections
- Antenna extension kits are available for installations with inadequate cellular signal

## Standards and codes

- UL 864 10th edition, Control Units and Accessories for Fire Alarm Systems
- UL 1076, Proprietary Burglar Alarm Units and Systems
- ULC/ORD C1076, Proprietary Burglar Alarm Units and Systems
- CAN/ULC-S559 -13, Equipment for Fire Signal Receiving Centers and Systems
- CAN/ULC-S527 -11, Control Units for Fire Alarm Systems
- ISA/IEC 62443-4-1, Cybersecurity Compliance
- FCC ID: F5318LE9080
- IC: 160A-LE9080

**Note:** For UL 864 applications the CSG serves as an interface between the FACU and the Internet for off-premises central station reporting.

## Central station communication

### Central station supported interfaces

- Dual Line Phone DACT (ADEMCO Contact ID)
- 10/100 Base-T Ethernet (Fibro protocol)
- Cellular (Fibro protocol)

### Building event information

The CSG communicates the following specific building event information:

- Point status changes, phone line status, and other off normal information to the central station and enterprise server
- Reports up to ten events through a call

### Central station reporting configuration

- The ES Programmer installation includes a new PC application: the Central Station Configuration Tool (CSCT)
- The ES Programmer invokes the CSCT when editing central station settings

## Path configuration

The CSG receives system status messages from the host FACU and communicates the information to a DACR at the central station using single or dual communication paths. The path configuration options are listed in Table 1.

Table 1: Path configuration

Primary path	Secondary path
IP*	-
IP*	IP*
Telephone	IP*
Telephone**	Telephone**

\* IP can be cellular GSM 4G/LTE or Ethernet LAN/WAN.  
 \*\* For UL applications the secondary path cannot be another telephone line. For ULC-S559, the CSGs are evaluated as active communication systems. You can only use an IP path. For the UL 1076 application, you cannot install the CSG remotely in its own enclosure.

## SafeLINC Cloud Services

SafeLINC Cloud Services is a service facilitated by the CSG that creates a digital twin of the fire alarm system and provides remote access to fire alarm system activity to authorized users. SafeLINC Cloud Services has the following features:

- An encrypted and secure connection to the FACU through iOS®, Android®, and web applications
- Developed in accordance with internationally recognized cyber security standards
- Provides real-time FACU events notification, including Fire, Pri2, Supv, and Troubles
- A single portal to view all connected FACUs
- Download and view the latest FACU status reports
- Advanced analytics facilitates preventative maintenance of the system

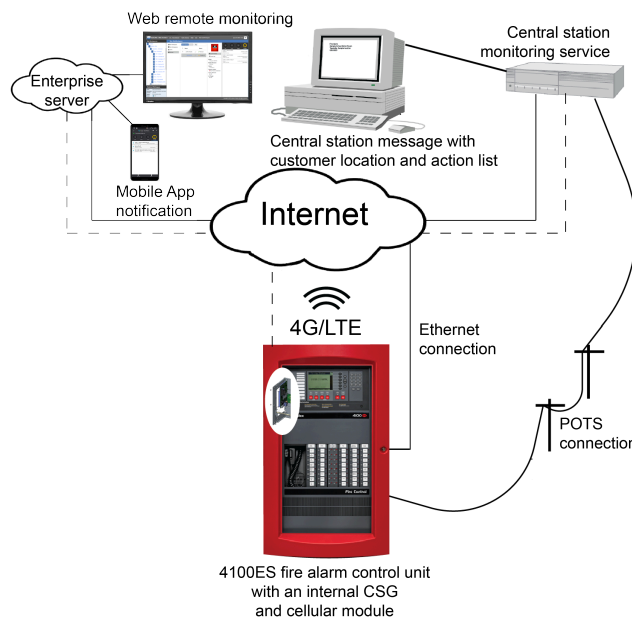


Figure 1: SafeLINC Cloud with central station reporting

## SafeLINC Cloud Services

The following sections detail the IP and cellular capabilities of enterprise server reporting.

### Connected Services Gateway

The CSG connects an FACU to the SafeLINC Cloud Platform. The CSG maintains a secure connection to the Cloud Platform using any of the available communication methods and transfers the FACU's configuration, status, and events.

The CSG natively implements a generic FACU protocol that you can use with any FACU, and that you can adapt to support other legacy FACU protocols.

### SafeLINC Cloud Platform

The Cloud Platform connects FACUs to the cloud and sends its status and events. The Cloud Platform is responsible for managing the link between the equipment and a user's account. It generates notifications in the form of emails or mobile application Push Notifications when an FACU event is reported.

### SafeLINC Web Architect user interface (UI)

You can access the Web UI with most modern web browsers. The Web UI shows connected devices and their current state. You can also add new connected equipment to your workspace, invite other users, and configure notifications for equipment events.

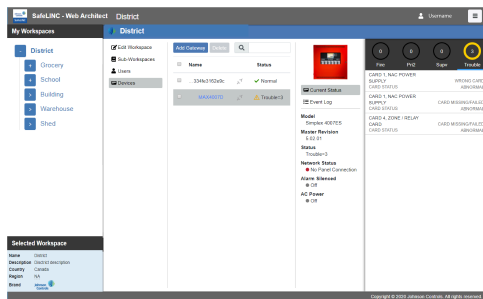


Figure 2: SafeLINC Web Architect UI

Figure 2 shows an example SafeLINC Web Architect UI, which can include the following information:

#### Workspaces

The SafeLINC Cloud Platform is composed of a collection of hierarchical containers called workspaces that enables authorized users to manage sub-workspaces, connected devices and authorized users. The workspace architecture provides flexibility for all users, from large commercial users managing multiple connected FACUs to single FACU users at a local level.

#### Selected Workspace

A detailed view of a specific workspace with the following information:

- Name and description
- Associated country and region

#### Sub-Workspace

View a non-aggregated list of CSGs and FACUs associated with a workspace.

A detailed view of a specific Gateway with the following information:

- Name or Unique Identifier (UID)
- Connectivity status to Cloud
- Operational status
- Cellular IMEI and ICCID, if available
- Current firmware version
- Associated FACU

A detailed view of a specific FACU with the following information:

- Brand and model
- Name
- Revision
- Connectivity status to Gateway
- Alarm Silenced Status
- AC Power status
- Current or last known active status by type (Fire, Pri2, Supv, or Trouble)
  - Active events count with acknowledge status
  - List of active events with acknowledge status
  - Details of the event
- FACU event log with filtering, search, and export capabilities

### Notification settings

Notification settings include the following actions:

- Enable or disable all notifications by type
- Enable or disable specific notifications by Push or Email
- Configure notifications from individual FACUs

### SafeLINC mobile app

Use the SafeLINC mobile app to supervise your managed FACUs and receive push notifications about FACU events on-the-go.

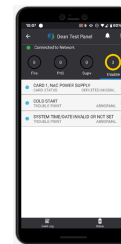


Figure 3: SafeLINC mobile app

### Mobile app features

- Log on with Microsoft account credentials
- View assigned root workspace and all associated sub-workspace hierarchy
- View details of a specific workspace
- View non-aggregated list of FACUs associated with a workspace

View the following details of a specific FACU on the mobile app:

- Name
- Connectivity status
- Alarm Silenced status
- AC power status
- Current or last known active status by type (Fire, Pri2, Supv or Trouble)
  - Active events count with acknowledge status
  - List of active events with acknowledge status
  - Details of the event
- Event log with filtering and search capabilities
- Push notifications from selected FACUs and event types. Configure notifications in the Web UI.
- View list of push notifications received

### Email

You can receive email notifications from selected FACUs and event types. Configure notifications in the Web UI.

## Accessing the SafeLINC app

To access the SafeLINC web app, visit the following address:

<https://safelinc.johnsoncontrols.com/>

To download the SafeLINC mobile app visit the Google Play Store or Apple App Store by pointing your device's camera at the appropriate QR code, see Figure 4 and Figure 5, or type one of the following addresses:

<https://apps.apple.com/us/app/safelinc/id1494023367>

<https://play.google.com/store/apps/details?id=com.jci.safelinc>



Figure 4: QR code for SafeLINC mobile app on Google Play Store



Figure 5: QR code for SafeLINC mobile app on Apple App Store

## Product selection

Table 2: Connected Services Gateway PIDs

Model	FACU type	Description	Ordering information
4100-2504	4100ES	Connected Services Gateway with IP Communicator: side mounted	Optional: either 4100-2504 or 4100-2506 is required
4100-2506	4100ES	Connected Services Gateway with IP Communicator: vertically mounted	Optional: either 4100-2504 or 4100-2506 is required
4010-2504	4010ES	Connected Services Gateway with IP Communicator	Required
4007-2504	4007ES	Connected Services Gateway with IP Communicator	Required
2250-9800	2050FS and 2250FS	Connected Services Gateway with IP Communicator	Required

Table 3: External boxes

Model	FACU type	Description	Ordering information
2975-9234	4007ES, 4010ES, 4100ES, 2050FS, and 2250FS	External box, red	Required when ordering 4007-6417 for 2050FS or 2250FS FACU.
2975-9235		External box, platinum	
2975-9236		External box, beige	
4100-6900	4100ES	20 ft (6.1 m) Power harness for CSG external enclosure	Optional
4010-6900	4010ES		
4007-6900	4007ES		
0734-383	2050FS and 2250FS	6 ft (1.8 m) Communication cable for external FS gateway module	Required when ordering 4007-6417 for 2050FS or 2250FS FACU.

Table 4: Cellular modules and antennae

Model	FACU type	Description	Market	Ordering information
4007-6416	4007ES, 4010ES, 4100ES	GSM 4G/LTE Cellular Module kit for internal installations	North America (AT&T and Rogers)	Optional: SIM card not included
4007-6417	4007ES, 4010ES, 4100ES, 2050FS, 2250FS	GSM 4G/LTE Cellular Module kit for external box installations		
4007-6405	4007ES, 4010ES, 4100ES, 2050FS, 2250FS	15 ft (4.57 m) antenna extension kit	Global	Optional
4007-6406	4007ES, 4010ES, 4100ES, 2050FS, 2250FS	25 ft (7.62 m) antenna extension kit		Optional
4007-6407	4007ES, 4010ES, 4100ES, 2050FS, 2250FS	50 ft (15.24 m) antenna extension kit		Optional

## Specifications

**Table 5: CSG electrical specifications**

Specification	Rating	
Voltage DC	Nominal 24 V	Battery
Current DC	125 mA	125 mA

**Table 6: Cellular module electrical specifications**

Specification	Rating
Voltage DC	Nominal 24 V draw through the CSG
Current DC	20 mA

**Table 7: CSG and cellular module environmental specifications**

Specification	Rating
Temperature	Normal operation with ambient temperature outside the cabinet at 32°F to 120.2°F (0°C to 49°C)
Humidity	Normal operation under non-condensing humidity conditions up to 93% relative humidity at 100.4°F (38°C)

**Table 8: External box**

PIDs	Width	Depth	Height
2975-9234 red	9.4 in. (23.9 cm)	2.3 in. (5.8 cm)	6.1 in. (15.5 cm)
2975-9235 platinum			
2975-9236 beige			

**Table 9: Antenna specifications**

	4007-6405	4007-6406	4007-6407
Specification	Rating		
Antenna type	1/4 wave helical	1/4 wave helical	1/4 wave helical
Gain	3.0 dBi	3.0 dBi	3.0 dBi
Polarization	Linear vertical	Linear vertical	Linear vertical
Frequency range	698-2700 MHz	698-2700 MHz	698-2700 MHz
Azimuth beam width	Omnidirectional	Omnidirectional	Omnidirectional
Total weight including cable	1.68 pounds (0.76 kg)	2.16 pounds (0.98 kg)	3.44 pounds (1.56 kg)
Antenna length/diameter	13.1 in. (333 mm)	13.1 in. (333 mm)	13.1 in. (333 mm)
Coaxial cable length	15.1 ft (4.6 m)	24.6 ft (7.5 m)	49.2 ft (15 m)
Connector type	RP-SMA Male	RP-SMA Male	RP-SMA Male