

What's new in PowerLogic ION8650 version 4.20 (v4.20)

Firmware version 4.20 (v4.20) for the PowerLogic™ ION8650 meter models ION8650A, ION8650B and ION8650C offers many new features, including updates to security, IEC 61850 Edition 2 compliance, and EN50160:2010 compliance. This document also contains information regarding the new cell modem option.

Visit www.schneider-electric.com to download:

- the firmware upgrade files.
- the latest version of ION Setup to support the new features.
- the latest user manual, installation sheets and datasheets.

Enhanced security features

The North American Electric Reliability Corporation (NERC) has created Critical Infrastructure Protection (CIP), a set of standards that can assist in monitoring and protecting the assets that make up the power transmission system in North America. This firmware version adds a number of security enhancements added based on these standards that can assist in making your facility NERC CIP compliant. See “New security features and changes” on page 2 for more information.

IEC 61850 Edition 2 compliance

Firmware v4.20 adds compliance with Edition 2 of the IEC 61850 protocol.

EN50160:2010 (Edition 4) compliance

Firmware v4.20 adds compliance with EN50160:2010 (Edition 4) protocol.

Cell modem

PowerLogic ION8650 socket meters now have a cell modem option. This communication option is an alternative to the internal 56k modem.

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Additional information

The following documents provide detailed information and are available from www.schneider-electric.com:

- *ION8650 user manual* provides information on the enhanced security features, IEC 61850 and EN50160.
- *IEC 61850 and ION technology* protocol document describes the IEC 61850 protocol as implemented on your meter.
- *Power Quality: ION Meters and EN50160* technical note describes the EN50160 protocol as implemented on your meter.
- *ION reference* provides detailed information about the new modules added to the ION8650.
- *PowerLogic ION8650 cell modem option* document describes the new cellular modem added to the ION8650, including modem activation procedures.

New security features and changes

Enable/disable network ports

You can now disable protocols such as HTTP, FTP, DNP over TCP, ION over TCP and Modbus over TCP when they are not in use. These can be disabled through the front panel or ION Setup.

Enable/disable communication ports

You can now disable physical communication ports including RS-485, modem and IR ports when they are not in use. These can be disabled through the front panel or ION Setup.

Advanced security login through the meter front panel

Advanced security is available through the front panel. User privileges created through ION Setup are enforced through front panel. The password in advanced security uses an expanded character set, allowing for a more robust password.

Increased number of users in Advanced Security

The number of users in Advanced Security has been increased from 16 to 50.

Change port number assignment on Ethernet protocols

You can now configure port number assignment on Ethernet protocols. This feature can also assist in preventing port service overlap.

Display user information in the event log

When an event triggered by a user appears in the event log, the username associated with the event is displayed as part of the entry.

Security Events logged

When a user produces an event such as a reset, a successful or unsuccessful login attempt, user lockout or setup change, the event log displays the username associated with the event.

Communication configure access

A new comm configure user permission has been added to advanced security. When selected as part of setting up user permissions, it allows the user to configure the communication settings for the meter.

Event log loss prevention

Several strategies have been implemented on this meter to help ensure that entries stored in the event log are reviewed on a regular basis and easily accessible when needed.

Event log notification

A user can now be assigned as the designated reader for the event log. An entry in the event log is considered unread until it has been reviewed by the designated reader. This information can assist in creating an event log review or backup strategy.

Syslog

When enabled, the syslog feature allows you to push event log information to a centralized syslog server in addition to the meter's event log. The server can receive logs from many meters which can then be filtered.

Additional features

IEC 61850 Edition 2

IEC 61850 is an Ethernet-based protocol designed for electrical substations. The PowerLogic ION8650 meter now supports both IEC61850 Edition 1 and Edition 2 of the protocol, depending on the CID file that has been uploaded to the meter.

EN50160:2010 (Edition 4)

EN50160 is a European standard that defines the voltage characteristics of the electricity supplied by public distribution systems. The PowerLogic ION8650 meter now complies with the EN50160:2010 (Edition 4) standard.

Cell modem option

You can configure the cell modem through the front panel and software such as ION Setup. The cell modem supports the EV-DO Rev. A and CDMA2000 1xRTT standards and allows for up to six simultaneous connections.

