

SeT Series

PrismaSeT Active - Wireless Panel Server

User Guide

SeT Series offers comprehensive, robust portfolio of power distribution and motor control centers.

03/2023

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As part of responsible, inclusive companies, we are updating our communications that contain non-inclusive terminology. Until we complete this process, however, our content may still contain standardized industry terms that may be deemed inappropriate by our customers.

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Safety Information

Important Information

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

Cybersecurity Safety Notice

<i>NOTICE</i>
<p>POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY</p> <ul style="list-style-type: none">• Change default passwords at first use to help prevent unauthorized access to device settings, controls, and information.• Use cybersecurity best practices to help prevent unauthorized exposure, loss, modification of data and logs, or interruption of services. <p>Failure to follow these instructions can result in non-operational system where the Wireless Panel Server is installed.</p>

About the Book

Document Scope

The aim of this guide is to provide users, installers, and maintenance personnel with the technical information and procedures needed to use and maintain the PrismaSet™ Active Wireless Panel Server.

This guide applies to the Wireless Panel Server embedded in the roof of the following low voltage switchboards:

- PrismaSeT P Active
- PrismaSeT G Active floor-standing

NOTE: Wireless Panel Server can be mounted as an option in the roof of PrismaSeT G Active wall-mounted switchboards.

Validity Note

This guide applies to Wireless Panel Server with firmware version 001.000.000 or greater.

Online Information

The information contained in this guide is likely to be updated at any time. Schneider Electric strongly recommends that you have the most recent and up-to-date version available on www.se.com/ww/en/download.

The technical characteristics of the devices described in this guide also appear online. To access the information online, go to the Schneider Electric home page at www.se.com.

Related Documents

Title of documentation	Reference number
<i>PrismaSeT Wireless Panel Server (SMT10015 / SMT10016 / SMT10019) - Instruction Sheet</i>	NNZ50846
<i>PrismaSeT Active - Installation and Maintenance Guide</i>	DOCA0203EN
<i>EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active</i>	ESXP1G005EN
<i>EcoStruxure Facility Expert Starter Guide for Operations</i>	ESXUG001EN
<i>PrismaSeT P Active - Catalogue</i>	DESW026EN
<i>PrismaSeT G Active - Catalogue</i>	DESW027EN
<i>How Can I Reduce Vulnerability to Cyber Attacks?</i>	Cybersecurity System Technical Note

You can download these technical publications and other technical information from our website at www.se.com/ww/en/download.

Trademarks

QR Code is a registered trademark of DENSO WAVE INCORPORATED in Japan and other countries.

Wireless Panel Server Presentation

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Introduction

SeT Series Master Range

Featuring outstanding medium-voltage (MV) and low-voltage (LV) switchboards, motor control centers and power distribution solutions for high-performance power applications, Schneider Electric's SeT Series is best-in-class solutions based on high levels of safety and an optimized footprint. Built on a modular architecture and incorporating smart connected devices for maximum safety, reliability, performance and energy efficiency, the SeT Series is delivered to customers directly from our Schneider Electric plants or via a global network of licensed partner panel builders, who are trained and audited to provide quality equipment and support.

Overview

The Wireless Panel Server is a gateway embedded in the roof of PrismaSeT P Active or PrismaSeT G Active switchboards, enabling wireless connectivity to Schneider Electric cloud.

The Wireless Panel Server offers the following advantages and services:

- Switchboard voltage loss monitoring
- Fire prevention in electrical distribution switchboards
- Power availability alarming
- Energy consumption management

The Wireless Panel Server provides monitoring of the switchboard via EcoStruxure Facility Expert software.

Features

The Wireless Panel Server provides the following features:

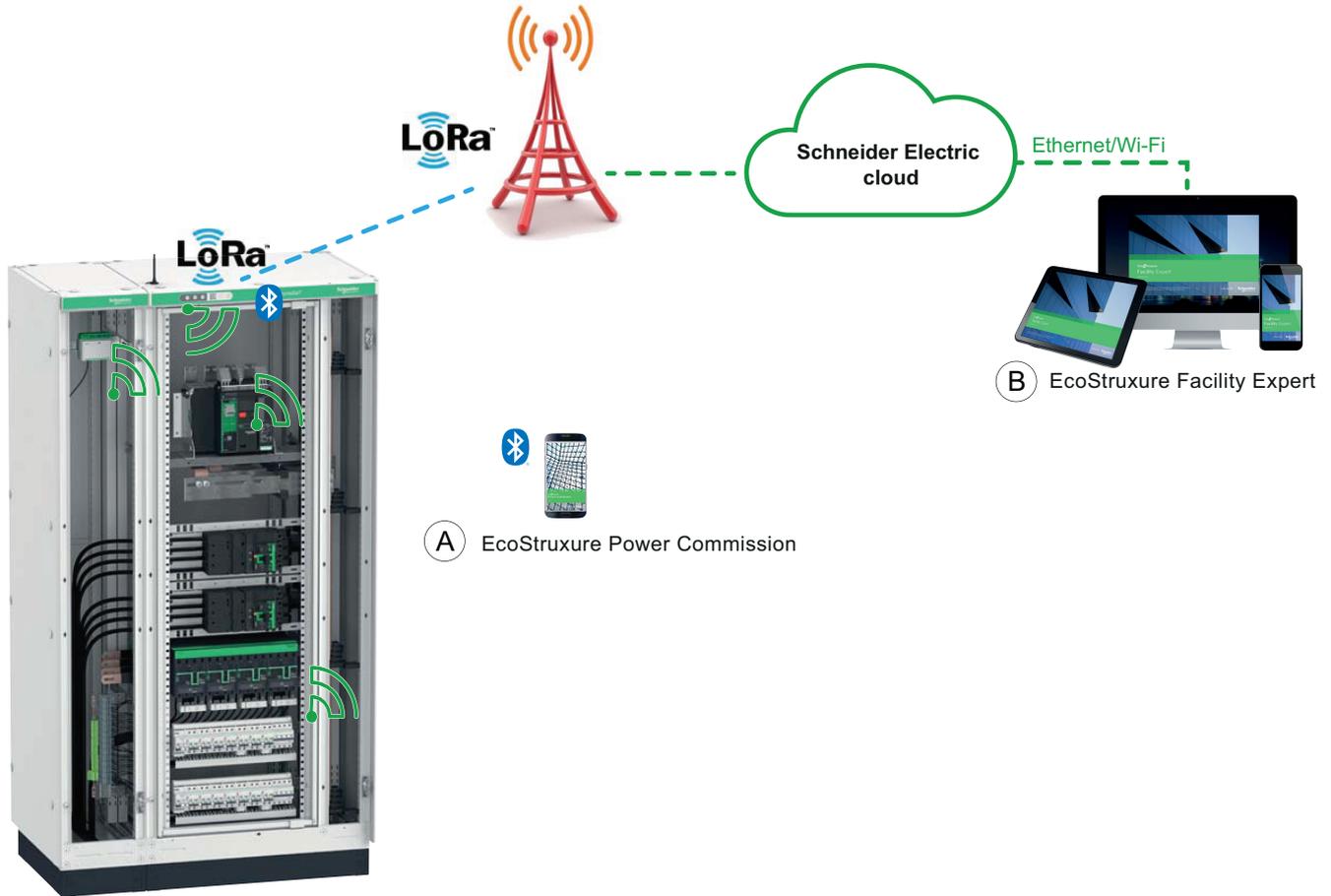
- Voltage presence indicator, page 29: indicates voltage presence for each of the 3 phases, locally with the Wireless Panel Server LEDs.
- Voltage loss function, page 31: indicates voltage loss detected in the switchboard:
 - Locally with the Wireless Panel Server LEDs.
 - Remotely by notifications on mobile devices (smartphone or tablet).
- LoRa communication, page 36: enables voltage loss monitoring through long range communication.
- IEEE 802.15.4 wireless communication, page 35: enables communication with the wireless devices installed in the switchboard:
 - HeatTag sensors
 - PowerTag Energy sensors
 - Wireless indication auxiliaries for ComPacT NSX and ComPacT NSXm
 - Acti9 Active
- Remote communication with a smartphone or tablet through Bluetooth® wireless technology, page 33
- Remote alerts with actionable details through EcoStruxure Facility Expert App - Operations subscription, page 20
- Continuous monitoring and trends through EcoStruxure Facility Expert App - Energy subscription, page 20
- Firmware update, page 22

The features depend on the PrismaSeT Active switchboard in which the Wireless Panel Server is embedded.

Wireless Panel Server System

Architecture

The following illustration shows a possible architecture of the Wireless Panel Server.



LoRa™ LoRa™ communication

Bluetooth® Bluetooth® communication

IEEE 802.15.4™ IEEE 802.15.4™ wireless communication

A. EcoStruxure Power Commission App for wireless devices configuration

B. EcoStruxure Facility Expert cloud-based software:

- Voltage loss notification
- Alert system (Operations subscription)
- Energy management through webpages (Energy subscription)

Supported Wireless Devices

The following table presents the IEEE 802.15.4 wireless devices in a PrismaSeT switchboard which can communicate with the embedded Wireless Panel Server.

Application	Wireless device	Description
 Fire prevention	HeatTag sensors 	Innovative smart sensor, able to analyze gas and particles in the switchboard and alert before any smoke or insulator browning occurs.
	Acti9 Active 	Arc Fault Detection Device that helps protect circuits against short-circuits and overcurrent, persons against earth-leakage, and assets thanks to inbuilt arc flash detection device.
 Power availability	Wireless indication auxiliary for ComPacT NSX and ComPacT NSXm 	Wireless indication auxiliary that provides remote and local information about the circuit breaker status (open, close, trip, trip on electrical default).
 Energy management	PowerTag Energy sensors 	Compact and easy-to-install Class 1 wireless communication energy sensor that monitors and measures energy and power in real-time. PowerTag Energy sensor sends alerts in the event of an electrical anomaly.

Maximum Configuration

The maximum number of supported wireless devices which can be connected to a Wireless Panel Server is as follows:

- Up to 3 HeatTag sensors
- Up to 15 PowerTag Energy sensors if no HeatTag sensors connected
- Up to 10 PowerTag Energy sensors if one or several HeatTag sensors are connected

Commercial References

The following table indicates the commercial references and designation of Wireless Panel Server parts and spare parts:

Commercial reference	Designation
SMT10011	Cable extender for LoRa antenna (5 m)
SMT10013	LoRa tester
SMT10014	LoRa/4G gateway
SMT10015	Spare LoRa antenna for Wireless Panel Server

Commercial reference	Designation
SMT10016	Spare wiring harness for Wireless Panel Server
SMT10019	Spare Wireless Panel Server

For more information, see [DESW026EN PrismaSeT P Active - Catalogue](#) or [DESW027EN PrismaSeT G Active - Catalogue](#).

PrismaSeT Active Reference Documents

Reference Documents

The following documents can support you to design, construct and operate PrismaSeT Active switchboards with Wireless Panel Server.

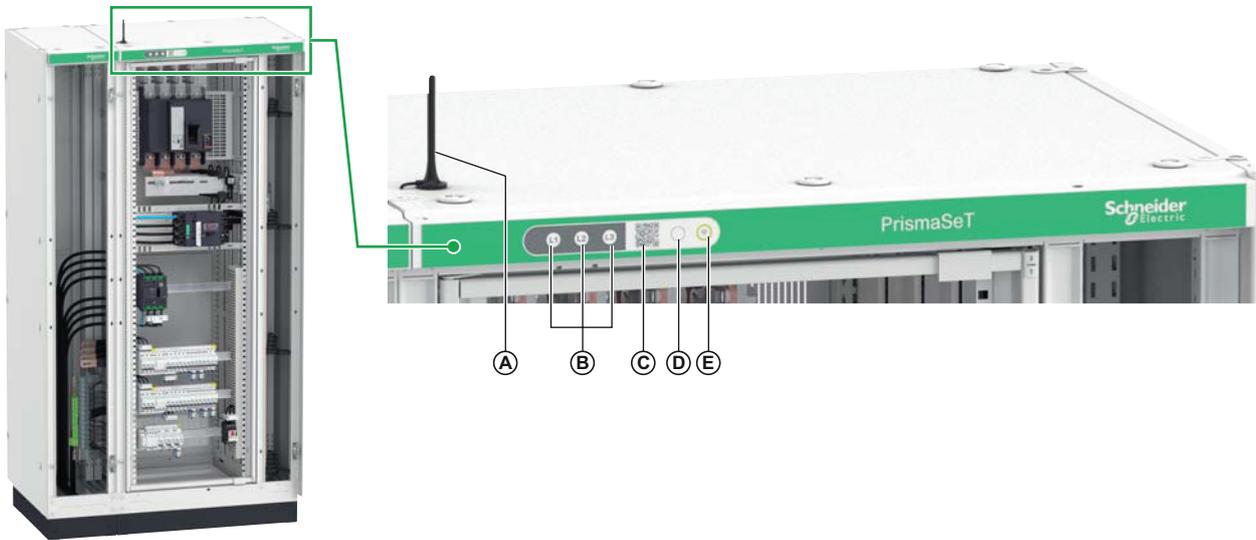
Project phase	Document	Description	Document reference
<ul style="list-style-type: none"> Design 	<p><i>EcoStruxure™ Power - Design & Selection Guide for Energy & Operations Management Solutions</i></p> 	Design a reliable and efficient electrical distribution based on the EcoStruxure Power solution	ESXP1G001EN
<ul style="list-style-type: none"> Design Build 	<p><i>EcoStruxure Power Connected Products Catalogue</i></p> 	Design and understand connected products to build a connected architecture	LVCATENLX_EN
<ul style="list-style-type: none"> Build 	<p><i>EcoStruxure Power - Smart Panels Assembly Guide</i></p> 	Optimize space and electromagnetic compatibility and take advantage of Prisma system features	ESXP1G003EN
<ul style="list-style-type: none"> Install Commission Operate 	<p><i>PrismaSeT Active - Installation and Maintenance Guide</i></p> 	Install and maintain PrismaSeT Active switchboards including Wireless Panel Server antenna	DOCA0203EN
<ul style="list-style-type: none"> Commission Operate 	<p><i>EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active</i></p> 	Configure and test Smart Panels functionalities with EcoStruxure Facility Expert software, including description of component parameters.	ESXP1G005EN
<ul style="list-style-type: none"> Commission Operate 	<p><i>PrismaSeT Active - Wireless Panel Server - User Guide</i></p> 	Operate and commission a Wireless Panel Server embedded in a PrismaSeT Active switchboard	It is the present guide.

Project phase	Document	Description	Document reference
<ul style="list-style-type: none"> Operate 	<p><i>EcoStruxure Facility Expert Starter Guide for Operations</i></p> 	<p>Use the EcoStruxure Facility Expert app to monitor a PrismaSeT Active switchboard remotely and get alerts on your mobile devices</p>	<p>ESXUG001EN</p>
<ul style="list-style-type: none"> Maintain 	<p><i>PrismaSeT Wireless Panel Server (SMT10015 / SMT10016 / SMT10019) - Instruction Sheet</i></p> 	<p>Replace a Wireless Panel Server in a PrismaSeT Active switchboard</p>	<p>NNZ50846</p>

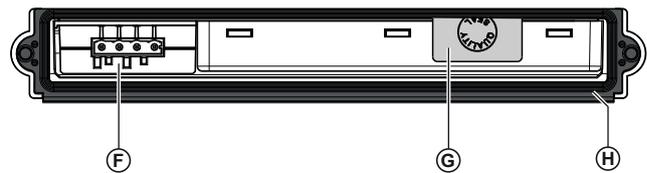
Hardware Description

Description

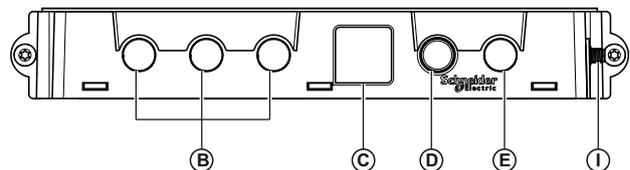
Wireless Panel Server embedded in a PrismaSeT P Active switchboard



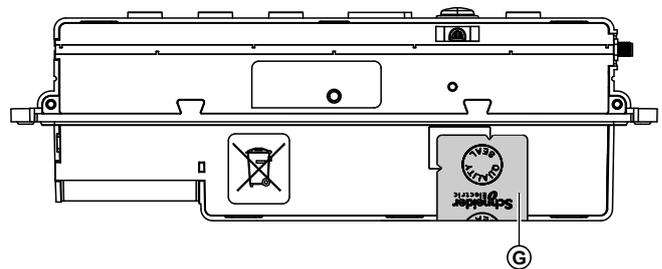
Wireless Panel Server - Rear view



Wireless Panel Server - Front view



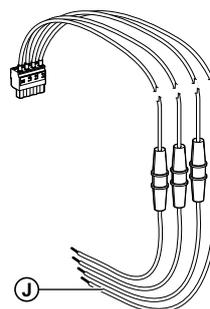
Wireless Panel Server - Bottom view



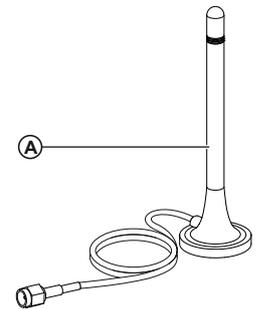
- A. LoRa antenna
- B. Voltage presence indicator LEDs
- C. QR code to product information and cloud service activation
- D. Pushbutton:
 - Activate/Deactivate connection to Bluetooth wireless technology
 - Reboot Wireless Panel Server
 - Reset Wireless Panel Server to factory settings
- E. Wireless Panel Server status LED
- F. Power supply and voltage inputs connector
- G. Tamper-indicating label affixed folded on rear and bottom sides
- H. Gasket
- I. SMA connector for LoRa antenna
- J. Wiring harness

For information on installation, consult the instruction sheet available on the Schneider Electric website: NNZ50846.

Wiring harness



LoRa antenna



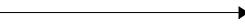
Voltage Presence Indicator LEDs

The LEDs **L1**, **L2**, and **L3** indicate the phase status (presence or absence of voltage).

LED indication	Description
LED ON (white)	Voltage detected
LED OFF	Absence of voltage
3 LEDs blinking	Firmware update in progress

Wireless Panel Server Status LED

The status LED indicates the operation mode and Bluetooth communication status of the Wireless Panel Server.

LED indication	Description
	Wireless Panel Server power supply not connected or inoperative.
	Power supply connected and connection to LoRa network is established.
	Attempt to connect to LoRa network.
	Wireless Panel Server is booting.
	During commissioning, Wireless Panel Server power supply is connected but LoRa communication has not been activated for more than 15 minutes. NOTE: During operation, malfunction is detected. Connect Wireless Panel Server to EcoStruxure Power Commission App to diagnose the issue.
	Major malfunction detected. Wireless Panel Server communication with EcoStruxure Power Commission App not possible for diagnosis. The Wireless Panel Server must be replaced.
	Firmware discrepancy or major malfunction detected. Connect Wireless Panel Server to EcoStruxure Power Commission App to diagnose the issue. Depending on issue, the Wireless Panel Server may need to be replaced.
	Bluetooth wireless technology activated and Wireless Panel Server connected to EcoStruxure Power Commission App.
	Bluetooth wireless technology activated and Wireless Panel Server ready to connect to EcoStruxure Power Commission App.

Pushbutton

The pushbutton is used to perform the following operations:

- Activate Bluetooth communication, page 33
- Reboot Wireless Panel Server, page 17
- Resetting Wireless Panel Server to Factory Settings, page 17

Rebooting Wireless Panel Server

To reboot the Wireless Panel Server:

1. Press and hold the pushbutton for more than 5 seconds.
2. Release the pushbutton.
3. The status LED turns steady orange while the Wireless Panel Server is rebooting.
4. The status LED turns blinking green while the Wireless Panel Server is attempting to connect to LoRa network.
5. Finally, the status LED turns steady green indicating that the Wireless Panel Server is connected to a LoRa network.

NOTE: The status LED blinks orange if connection to a LoRa network is not possible.

Resetting Wireless Panel Server to Factory Settings

To reset the Wireless Panel Server to factory settings:

1. Power off the Wireless Panel Server (Unplug the power supply connector).
2. Power on the Wireless Panel Server (Plug the power supply connector).
3. Press and hold the pushbutton until the status LED is fast blinking orange.

NOTE: A continuously pressed pushbutton from the boot results to a factory reset.

4. Within 5 seconds of seeing the status LED fast blinking orange, release the pushbutton and press it back again.

5. If the pushbutton is pressed as mentioned in step 4:

- The status LED is fast blinking green.
- Then, the status LED turns steady orange while the Wireless Panel Server is rebooting.
- Then, the status LED turns blinking green while the Wireless Panel Server is attempting to connect to LoRa.
- Finally, the status LED turns steady green indicating that the Wireless Panel Server is connected to a LoRa network.

NOTE: The status LED blinks orange if connection to a LoRa network is not possible.

6. If the pushbutton is not pressed as mentioned in step 4:

- If the status LED turns steady red, the factory reset is cancelled.
- If the status LED starts blinking red, reboot the Wireless Panel Server. It is not reset to factory settings.

QR Code

You can scan the QR code on the front face of a PrismaSeT Active switchboard with a smartphone running a QR code reader and connected to the Internet. It redirects to download EcoStruxure Facility Expert App or open it if you already have it installed on your mobile device.

If...	Then...
the Wireless Panel Server is not yet connected to Schneider Electric cloud	it opens the activation wizard to connect the Wireless Panel Server.
the Wireless Panel Server is connected to Schneider Electric cloud	you can access your connected PrismaSeT Active switchboard or request access to it.

When accessing the Go2SE landing page, the following information is displayed:

- Wireless Panel Server commercial reference and serial number

- Wireless Panel Server technical characteristics
- Wireless Panel Server technical publications

Tamper Detection

A tamper-indicating label helps detect unauthorized physical access into the Wireless Panel Server. One tamper-indicating label is affixed folded on rear and bottom of the Wireless Panel Server.

External LoRa Antenna

An external LoRa antenna (SMT10015) must be connected to the Wireless Panel Server and installed outside the switchboard. The antenna is required for LoRaWAN communication, page 36.

For information about antenna installation including antenna location:

- See DOCA0203EN *PrismaSeT Active - Installation and Maintenance Guide*.
- Access the demonstration video by clicking [here](#).

High Service Level

To help ensure a high communication service level, Schneider Electric recommends that the Wireless Panel Server is replaced every 10 years.

EcoStruxure Power Commission App

Overview

EcoStruxure Power Commission App helps you to manage commissioning, testing, and maintenance of the Wireless Panel Server. The embedded, innovative features provide simple ways to configure, test, and commission the smart electrical devices.

EcoStruxure Power Commission App automatically discovers smart devices and allows you to add the devices for an easy configuration. You can generate a comprehensive report to have a complete view of all devices installed in the Wireless Panel Server.

The EcoStruxure Power Commission App enables the configuration of the Wireless Panel Server.

Key Features

EcoStruxure Power Commission App performs the following actions for the supported devices :

- Configure the Wireless Panel Server
- Add wireless devices to the Wireless Panel Server
- Configure the wireless devices:
 - Device identification
 - Electrical information
 - Contextualization data
- Generate Wireless Panel Server report
- Download Wireless Panel Server logs (audit and event logs)

Downloading the Application

To download the EcoStruxure Power Commission App:

- Scan the QR code on the front face of the Wireless Panel Server to access the Go2SE landing page and the EcoStruxure Power Commission App section.
- Or scan the following QR code:



For More Information

For more information about commissioning PrismaSeT Active switchboards through EcoStruxure Power Commission App:

- See *ESXP1G005EN EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active*.
- Access the demonstration video by clicking [here](#).

EcoStruxure Facility Expert App

Overview

Based on latest technology merging, mobile App, web platform and IoT, EcoStruxure Facility Expert helps you to optimize field operations, reduce energy consumption and help ensure business continuity. EcoStruxure Facility Expert is also used to establish connection of a PrismaSeT Active switchboard with an embedded Wireless Panel Server to the Schneider Electric cloud.

EcoStruxure Facility Expert provides the following features for free:

- QR code creation
- Asset status and map localization
- Asset log history and reference document library
- Maintenance plan and task reminders
- Task manager features (for example, task assignment, notifications)
- One-click intervention reports
- Collaborative features (for example, chat, information sharing)
- Voltage loss alert function with notifications on mobile devices (tablet or smartphone)
- Load energy index on mobile devices

To enable advanced functionalities and access more values, subscribe to:

- EcoStruxure Facility Expert - Operations to monitor the Wireless Panel Server and loads condition
- EcoStruxure Facility Expert - Energy to monitor energy consumption per site, zone, and usage

EcoStruxure Facility Expert - Operations Subscription

Providing relevant information on key assets and sending remote alarms EcoStruxure Facility Expert - Operations allows to diagnose remotely in case of issue and to manage maintenance more efficiently.

In addition to the free EcoStruxure Facility Expert features, Operations subscription provides the following:

- Alerts on power outage with causes identification and recommendations
- Notification on mobile devices
- Task manager and collaboration features
- Data storage, asset history and reports
- Load energy metering

EcoStruxure Facility Expert - Energy Subscription

EcoStruxure Facility Expert - Energy allows continuous monitoring and trends.

EcoStruxure Facility Expert - Energy provides the following features:

- Energy consumption per site, per usage and per zone
- Alerts for over-target energy consumption
- Cost allocation
- Power demand monitoring
- Aggregated or multi-site comparison view
- Monthly scorecards

Downloading the Application

To download the EcoStruxure Facility Expert App:

- Scan the QR code on the front face of the Wireless Panel Server to access the Go2SE landing page and the EcoStruxure Facility Expert App section
- or scan the following QR code:



For More Information

- For more information about how to handle EcoStruxure Facility Expert App from account creation to connected features, see *ESXUG001EN EcoStruxure Facility Expert Starter Guide for Operations*. This guide contains detailed information about:
 - EcoStruxure Facility Expert App subscriptions
 - Creating and managing EcoStruxure Facility Expert account
 - Creating asset library:
 - Register assets manually
 - Create maintenance tasks
 - Download assets from Schneider Electric resource repository by scanning product QR code
 - Operating with EcoStruxure Facility Expert App and manage your asset library:
 - Share information and collaborate
 - Operate assets and manage tasks
 - Access history and asset trending
 - Receive alerts from the equipment
- For quick start with EcoStruxure Facility Expert, see demonstration videos: <https://www.productinfo.schneider-electric.com/ecofacilityexpert/>
- For more information about how to establish the connection of the Wireless Panel Server to Schneider Electric cloud and about commissioning your connected PrismaSeT Active switchboard, see *ESXP1G005EN EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active*.

Firmware Update

Presentation

Use the latest version of EcoStruxure Power Commission App for all firmware updates.

All firmware designed for the Wireless Panel Server is signed using the Schneider Electric public key infrastructure (PKI).

Checking the Firmware Version

The current Wireless Panel Server firmware version can be checked with EcoStruxure Power Commission App.

Updating Firmware With EcoStruxure Power Commission App

If the Wireless Panel Server is not updated to the latest firmware version, firmware update can be done using EcoStruxure Power Commission App.

The prerequisites for updating the firmware with EcoStruxure Power Commission App are the following:

- The latest version of EcoStruxure Power Commission App must be downloaded and installed on the smartphone.
- The smartphone must be connected to the Wireless Panel Server through Bluetooth connection.

At the end of the firmware update process, the Wireless Panel Server needs to reboot (see [Rebooting Wireless Panel Server](#), page 17).

Technical Characteristics

Environmental Characteristics

Characteristic	Value
Conforming to standards	Safety: IEC/EN 61010-2-201 in conjunction with IEC/EN 61010-1
	Electromagnetic compatibility (EMC): <ul style="list-style-type: none"> IEC/EN 61326-2-1 in conjunction with IEC/EN 61326-1 IEC/EN 61000-3-2 IEC/EN 61000-3-3 ETSI 301489-17 V3.2.2 ETSI 301489-3 V2.1.1 in conjunction with ETSI 301489-1 V2.2.3
	Radio frequency (RF): <ul style="list-style-type: none"> ETSI EN 300328 V2.2.2 ETSI EN 300220-2 V3.2.1 in conjunction with EN 300220-1 v3.1.1
	EU RoHS IEC/EN 63000
Certification	<ul style="list-style-type: none"> CE marking self-declaration CB certification
Ambient temperature during storage	-25 °C to +85 °C
Ambient temperature in operation	-10 °C to +70 °C
Pollution degree	PD3 including wiring harness
Altitude	0–2000 m
Relative humidity	5–95% relative humidity
Environment	Industrial environment in compliance with European Union (EU) RoHS Directive and EU REACH Regulation
Immunity	10 V/m

Communication Characteristics

Characteristic	Value
Radio-frequency of communication interfaces	<ul style="list-style-type: none"> LoRA: 863–870 MHz IEEE 802.15.4: 2.4–2.4835 GHz Bluetooth Low Energy: 2.4–2.4835 GHz
Maximum radio-frequency power transmitted	<ul style="list-style-type: none"> LoRa: ≤ 25 mW EIRP IEEE 802.15.4: ≤ 10 mW EIRP (Effective Isotropic Radiated Power) Bluetooth Low Energy: ≤ 10 mW EIRP
IEEE 802.15.4 channels	11–26
EU Declaration of conformity	Hereby, Schneider Electric Industries SAS, declares that the Wireless Panel Server SMT10019 is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/53/EU. The EU BE20100601 declaration of conformity can be downloaded on www.se.com/docs .

Electrical Characteristics

Characteristic	Value
Power supply	3P+N, 400 Vac, 50/60 Hz
Rated impulse voltage (Uimp)	6 kV
Overvoltage category	IV

Physical Characteristics

Characteristic	Value
Dimensions (length x width x height)	275 x 90 x 40.5 mm
Weight	240 g
Mounting	Embedded in PrismaSeT Active switchboard roof
Connections	Screw-type terminal blocks
Degree of protection	<ul style="list-style-type: none"> • IP55 with gasket and green cover • IK08 on front face

Antenna Characteristics

Characteristic	Value
Frequency band	698–960 MHz
Antenna gain	1.8 dBi
Impedance	50 Ohm
Dimensions	<ul style="list-style-type: none"> • Height: 112 mm • Base diameter: 29 mm
Mounting	Magnetic
Connector	SMA
Cable length	1.5 m
Environment	Industrial environment in compliance with EU RoHS Directive and EU REACH Regulation

Wiring Harness Characteristics

Characteristic	Value
Conforming to standards	Safety: IEC/EN 61010-2-201 in conjunction with IEC/EN 61010-1
	Electromagnetic compatibility (EMC) with Wireless Panel Server SMT10019, for measuring functions: <ul style="list-style-type: none"> • IEC/EN 61326-2-1 in conjunction with IEC/EN 61326-1 • IEC/EN 61000-3-2 • IEC/EN 61000-3-3 • ETSI 301489-17 V3.2.2 • ETSI 301489-3 V2.1.1 in conjunction with ETSI 301489-1 V2.2.3
	EU RoHS
	IEC/EN 63000
Certification	<ul style="list-style-type: none"> • CE marking self-declaration with Wireless Panel Server SMT10019

Characteristic	Value
	<ul style="list-style-type: none">• CB certification
Environment	Industrial environment in compliance with EU RoHS Directive and EU REACh Regulation
Wiring harness composition	<ul style="list-style-type: none">• 4 cables 1000 V rated (3P+N)• 3 overmolded fuses• 1 connector (female, 4-pin)
Cable length	2.6 m
Overmolded fuse rating	1 A, Icc = 120 kA
Pollution degree	3
Ambient temperature during storage	-40 °C to +85 °C
Ambient temperature in operation	-10 °C to +70 °C
Operating altitude	0–2000 m
Relative humidity	5–95% relative humidity
Rated supply voltage (US)	3P+N, 400 Vac, 50/60 Hz
Rated impulse voltage (Uimp)	6 kV
Overvoltage category	IV

Schneider Electric Green Premium™ Ecolabel

Description

Green Premium by Schneider Electric is a label that allows you to develop and promote an environmental policy while preserving your business efficiency. This ecolabel is compliant with up-to-date environmental regulations.



Accessing Green Premium

Green Premium data on labeled products can be accessed online through any of the following ways:

- By navigating to the Green Premium page on the Schneider Electric website.
- By flashing the QR code displayed in the following image:



Checking Products Through the Schneider Electric Website

To check the environmental criteria of a product using a PC or smartphone, follow these steps:

1. From www.se.com, select **Support > Green Premium: RoHS, REACH**.
2. Find **Check a Product** and click **Launch now** to open the search tool webpage.
3. Enter the commercial reference or product range of the product to search for.
4. To search for several products simultaneously, click the **Add** button, and then fill in the field.
5. Click **Check product(s)** to generate a report of the environmental criteria available for the products with the entered commercial references.

Environmental Criteria

The Green Premium ecolabel provides documentation on the following criteria about the environmental impact of the products:

- RoHs: European Union Restriction of Hazardous Substances (RoHS) directive.
- REACH: European Union Registration, Evaluation, Authorization, and Restriction of Chemicals regulation.
- PEP: Product Environmental Profile.
- EoLI: End of Life Instructions.

RoHs

Schneider Electric products are subject to RoHS requirements at a worldwide level, even for the many products that are not required to comply with the terms of the regulation. Compliance certificates are available for products that fulfill the criteria of this European initiative, which aims to eliminate hazardous substances.

REACH

Schneider Electric applies the strict REACH regulation on its products at a worldwide level, and discloses extensive information concerning the presence of SVHC (Substances of Very High Concern) in all of these products.

PEP

Schneider Electric publishes complete set of environmental data, including carbon footprint and energy consumption data for each of the life cycle phases on all of its products, in compliance with the ISO 14025 PEP ecopassport program. PEP is especially useful for monitoring, controlling, saving energy, and/or reducing carbon emissions.

EoLI

These instructions provide:

- Recyclability rates for Schneider Electric products.
- Guidance to mitigate personnel hazards during the dismantling of products and before recycling operations.
- Part identification for recycling or for selective treatment, to mitigate environmental hazards/incompatibility with standard recycling processes.

Wireless Panel Server Functions

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Voltage Presence Indicators

Presentation

⚠ WARNING
<p>HAZARD OF NON-DETECTION OF VOLTAGE</p> <ul style="list-style-type: none"> • The Wireless Panel Server only gives an indication of voltage, it does not replace any appropriate rated voltages sensing devices to confirm that power is off on one or all phases. • Before intervention on the Wireless Panel Server make sure that you follow safety regulations. • Always use a properly rated voltage sensing device to confirm that power is off. <p>Failure to follow these instructions can result in death, serious injury, or equipment damage.</p>

L1, L2, and L3 LEDs on the Wireless Panel Server front face provide voltage presence indication. For information about the location and description of the voltage presence indicator LEDs, see [hardware presentation](#), page 15.

Wiring Harness Connection

⚡⚠ DANGER
<p>HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH</p> <p>Always connect the Wireless Panel Server terminal block to incoming cables or busbars by using the wiring harness SMT10016 provided with the Wireless Panel Server. If using own cables, make sure appropriate short-circuit protection is added.</p> <p>Failure to follow these instructions will result in death or serious injury.</p>

Voltage Presence Indicators

For each phase, the voltage presence indicator LED is on if voltage is present on phase.

NOTE: If the Wireless Panel Server is wired with 3 phases without neutral:

- If one phase loss occurs, the voltage presence indicator LED is on with no alert sent. It is due to a probability of residual voltage coming back on the phase from the loads.
- If two or three phase loss occurs, the voltage presence indicator LEDs switch off and a voltage loss alert is triggered.

NOTE: In a single-phase network, the voltage presence indicator LED operates as follows:

If...	Then...
Phase is disconnected	The voltage presence indicator LED is off and the Wireless Panel Server communication through LoRa is operational.
Neutral is disconnected	The voltage presence indicator LED is off and the Wireless Panel Server communication through LoRa is not operational.

Troubleshooting Voltage Presence Indicator LED Issues

Problem	Diagnostics	Action
None of the voltage presence indicator LEDs are lit.	Source power is not applied or is not stable.	Apply power or check power source.
Only one voltage presence indicator LED is lit.	Check your installation: single phase or 3-phase.	<ul style="list-style-type: none"> In a single-phase, the installation is correct. No action required. In a 3-phase installation, correct cable connection of both other phases.
During commissioning, before connection to EcoStruxure Facility Expert App, one of the voltage presence indicator LEDs is not lit.	The phase is lost.	Check cable connection on phase.
	The phase is not correctly connected.	

Voltage Loss Function

Presentation

⚠ WARNING
<p>HAZARD OF NON-DETECTION OF VOLTAGE</p> <ul style="list-style-type: none"> • The Wireless Panel Server only gives an indication of voltage, it does not replace any appropriate rated voltages sensing devices to confirm that power is off on one or all phases. • Before intervention on the Wireless Panel Server make sure that you follow safety regulations. • Always use a properly rated voltage sensing device to confirm that power is off. <p>Failure to follow these instructions can result in death, serious injury, or equipment damage.</p>

The voltage loss alert function provides local and remote visibility if an electrical outage or abnormal voltage phase conditions have occurred. It makes voltage status inspection faster and diagnosis more efficient, helping to prevent equipment damage, and helping the operation team to respond without delay.

Remote Voltage Loss Alert

When voltage loss is detected by a Wireless Panel Server communicating through LoRa and that service for EcoStruxure Facility Expert App is activated, a notification is sent on mobile devices (smartphone or tablet) for the following alerts:

- Phase loss alert.
- Power outage alert of the switchboard if the voltage presence indicator is cabled from downstream the main incomer.
- Power outage alert upstream of the switchboard if the voltage presence indicator is cabled upstream from the main incomer (with an additional protection).

NOTE: If the Wireless Panel Server is wired with 3 phases without neutral:

- If one phase loss occurs, the voltage presence indicator LED is on with no alert sent. It is due to a probability of residual voltage coming back on the phase from the loads.
- If two or three phase loss occurs, the voltage presence indicator LEDs switch off and a voltage loss alert is triggered.

Voltage Presence Indicator in Single-Phase Network

In a single-phase network, the voltage presence indicator LED operates as follows:

If...	Then...
Phase is disconnected	The voltage presence indicator LED is off and the Wireless Panel Server communication through LoRa is operational.
Neutral is disconnected	The voltage presence indicator LED is off and the Wireless Panel Server communication through LoRa is not operational.

Setting the Parameters

Alerts provided by the voltage loss function are set with EcoStruxure Facility Expert App and require LoRa communication.

Bluetooth® Low Energy Communication

Presentation

Using Bluetooth® Low Energy functionality, you can access the Wireless Panel Server from a smartphone running EcoStruxure Power Commission App, page 19.

You can establish a Bluetooth Low Energy connection with only one Wireless Panel Server at a time. Only one smartphone at a time can connect to a Wireless Panel Server.

Prerequisites for Using Bluetooth Low Energy

The prerequisites for establishing a Bluetooth Low Energy connection are:

- The Wireless Panel Server must be powered.
- Bluetooth Low Energy communication must be activated on the Wireless Panel Server. See *Activating/Deactivating Bluetooth Low Energy Communication*, page 33.
- You must have a smartphone running EcoStruxure Power Commission App, page 19.
- The smartphone must support Android 8.0 or iOS 13 or above, and be compatible with Bluetooth Low Energy (a Bluetooth feature supported since Bluetooth version 4.0).
- You must have access to the Wireless Panel Server, and be physically within an open field range of up to 10 meters in front of the switchboard for optimized connection for the duration of the connection.

Activating/Deactivating Bluetooth Low Energy Communication

By default, Bluetooth Low Energy communication is deactivated.

To activate Bluetooth communication on the Wireless Panel Server:

1. Check that the Wireless Panel Server is in normal operation (status LED steady green).
2. Briefly press the Wireless Panel Server pushbutton (less than 5 s).

Result:

- The status LED blinks blue when Bluetooth communication is activated and Wireless Panel Server is ready to connect to EcoStruxure Power Commission App.
 - The LED turns steady blue when the Wireless Panel Server is connected to EcoStruxure Power Commission App.
3. To deactivate Bluetooth Low Energy communication, press the pushbutton again.

Establishing a Bluetooth Low Energy Connection

Proceed as follow to establish a Bluetooth Low Energy connection from your smartphone to the Wireless Panel Server:

1. Start EcoStruxure Power Commission App on your smartphone.
2. Select the Wireless Panel Server to which you want to connect.
3. Scan the QR code on the front face of the Wireless Panel Server.
4. On the Wireless Panel Server, briefly press the pushbutton (less than 5 s).
Result: The status LED lights up and starts blinking blue.
5. When the connection is established, the status LED turns steady blue.

- To end the connection, you can disconnect from EcoStruxure Power Commission App.

Troubleshooting Bluetooth Low Energy Communication Issues

The following table lists common problems when establishing a Bluetooth connection to the Wireless Panel Server.

Problem description	Probable causes	Solutions
The Bluetooth connection was established but the signal is lost.	The smartphone has been moved out of range.	Place the smartphone within the range for Bluetooth and establish a new connection.
The status LED is steady blue on the Wireless Panel Server but your smartphone is not connected to the Wireless Panel Server.	A smartphone is already connected to the Wireless Panel Server.	Check whether another smartphone within range is also connected to the Wireless Panel Server.

Security Feature

Bluetooth Low Energy communications are encrypted using Advanced Encryption Standard (AES) 128-bit encryption. The LE Secure Connections pairing model helps ensure protection against passive eavesdropping.

IEEE 802.15.4 Communication

Presentation

IEEE 802.15.4 is a wireless networking standard for remote control and sensor applications.

The maximum number of supported wireless devices which can be connected to a Wireless Panel Server is as follows:

- Up to 3 HeatTag sensors
- Up to 15 PowerTag Energy sensors if no HeatTag sensors connected
- Up to 10 PowerTag Energy sensors if one or several HeatTag sensors are connected
- Up to 15 wireless indication auxiliaries for ComPacT NSX and ComPacT NSXm
- Up to 15 Acti9 Active

For information about the supported devices, see the [detailed topic](#), page 11.

The wireless communication devices provide compact and high-density metering solution with numerous and accurate data for building systems. These wireless devices can send temperature, humidity, energy, power to the Wireless Panel Server.

Wireless Devices Installation

To help ensure reliable communication, the wireless devices should not be installed further than three columns away from the column where the Wireless Panel Server is installed.

Security Feature

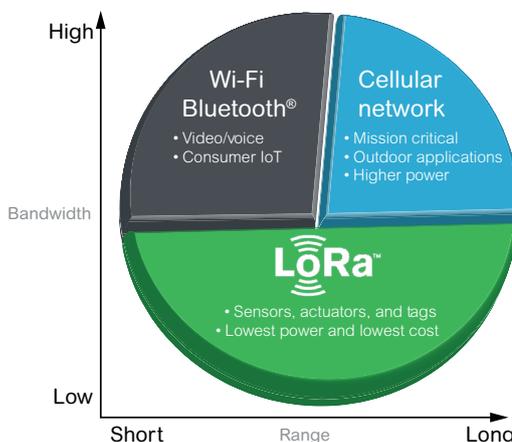
The IEEE 802.15.4 wireless communications are encrypted using AES (Advanced Encryption Standard) CCM (Counter with CBC-MAC) 128-bit encryption that helps ensure integrity and confidentiality of data exchanged through the wireless network.

LoRaWAN Communication

Presentation

LoRaWAN (Long-Range Wide-Area Network) is a network protocol designed to connect devices within the IoT-enabled architecture.

The following diagram illustrates the usage perimeter of LoRa network regarding bandwidth and range compared to Wi-Fi, Bluetooth, and cellular networks.



The LoRaWAN communication provides the following features:

- Long range coverage (about 10 km Line of Sight (LoS))
- Low energy consumption
- Good penetration in buildings
- Independence from local IT infrastructure
- No SIM card needed
- No additional fees to pay (included in EcoStruxure Facility Expert App)

Disabling/Enabling LoRaWAN Communication

By default, LoRaWAN Communication is enabled.

It is possible to disable and re-enable LoRaWAN Communication as per end-user preference by using EcoStruxure Power Commission App.

When LoRaWAN Communication is disabled, the associated LED patterns are disabled. For more information, see [EcoStruxure Power Commission App](#), page 19.

When a reset to factory settings is executed, the LoRaWAN Communication configuration is restored to Enabled. A change of LoRaWAN Communication configuration will be logged in security events.

LoRa Signal Quality

The Wireless Panel Server antenna delivered with the switchboard must be installed where the LoRa signal quality is sufficient.

A correct to excellent LoRa signal level is required to have proper operation of the Wireless Panel Server through LoRa communication.

For information about the LoRa antenna installation, see [DOCA0203EN PrismaSeT Active - Installation and Maintenance Guide](#). This guide contains detailed information about:

- Testing LoRa signal quality



- Setting antenna location
- Antenna installation
- Antenna connection

LoRa/4G router (SMT10014) can be installed to take advantage of the LoRa signal via a 4G link in the following cases:

- When there is no LoRa network from local telecom service provider (in France, Belgium, Netherlands, Switzerland).
- When there is insufficient reception of LoRa signal within a radius of 10 meters of your switchboard. Insufficient reception can be identified as Low signal either on EcoStruxure Facility Expert App or on LoRa tester (SMT10013).

For information on the LoRa/4G router, consult the instruction sheet available on the Schneider Electric website: [NNZ78333](#) it contains detailed information about:

- Description of the router and dimensions
- Installation and troubleshooting guidelines

Network Connection

The connection to LoRa network is made with EcoStruxure Facility Expert App.

Security Device Characteristics

Security characteristics on the LoRaWAN interface are as follows:

- The Wireless Panel Server does not support incoming communication from the cloud.
- Remote control from the cloud to the Wireless Panel Server is not possible.

Security Feature

The Wireless Panel Server connects to the Schneider Electric cloud through a Low Power Wide Area Network (LPWAN) based on LoRaWAN protocol.

LoRaWAN communications are encrypted using AES (Advanced Encryption Standard)-CCM (Counter with CBC-MAC) 128-bit encryption that helps ensure authentication, integrity, and confidentiality of communication.

The Wireless Panel Server encrypts messages that are transferred to the Schneider Electric cloud through the LPWAN network.

A mutual authentication is established between the Wireless Panel Server and LoRaWAN. This helps ensure that only a genuine and authorized Wireless Panel Server can join a genuine and authentic LoRaWAN network.

The LoRa connection is active only if the Wireless Panel Server has been activated by using the EcoStruxure Facility Expert App. For more information about the service activation, see [Commissioning](#), page 54.

Security Events

Presentation

When the Wireless Panel Server is connected to the Schneider Electric cloud (see *Cloud Service Activation*, page 55), it sends a security notification through EcoStruxure Facility Expert App if one of the following security events occurs:

- A temporarily-locked user access
- A denied user access
- A rejected invalid firmware
- A password recovery process started

Security notifications are sent to authorized personnel designated when activating cloud service.

Temporarily-Locked User Access

Notification description	Cause	Recommended action
User access to the PrismaSeT Active switchboard located in site indicated in the notification is temporarily locked .	A person has attempted to access the Wireless Panel Server embedded in the switchboard by using EcoStruxure Power Commission App but several consecutive invalid authentication entries locked the user access.	Make sure that the personnel trying to access the switchboard located in site indicated in the notification is authorized.

Denied User Access

Notification description	Cause	Recommended action
User access to the PrismaSeT Active switchboard located in site indicated in the notification is denied.	A person has attempted to access the Wireless Panel Server embedded in the switchboard by using EcoStruxure Power Commission App but the user access was already locked.	Make sure that the personnel trying to access the switchboard located in site indicated in the notification is authorized.

Rejected Invalid Firmware

Notification description	Cause	Recommended action
Wireless Panel Server firmware update in the PrismaSeT Active switchboard located in site indicated in the notification has been rejected.	A person has attempted to upload an invalid firmware.	Make sure that the personnel trying to access the switchboard located in site indicated in the notification is authorized.

Password Recovery

Notification description	Cause	Recommended action
The Wireless Panel Server forgotten password recovery process of the PrismaSeT Active switchboard located in site indicated in the notification has started.	A person with physical access to the Wireless Panel Server has started the forgotten password recovery process.	Make sure that the personnel trying to access the switchboard located in site indicated in the notification is authorized. Re-do the PrismaSeT Active switchboard configuration by using EcoStruxure Power Commission App.

Cybersecurity Recommendations

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An Introduction to Cybersecurity

Introduction

Cybersecurity is intended to help protect your communication network and all equipment connected to it from attacks that could disrupt operations (availability), modify information (integrity), or give away confidential information (confidentiality). The objective of cybersecurity is to provide increased levels of protection for information and physical assets from theft, corruption, misuse, or accidents while maintaining access for their intended users. There are many aspects to cybersecurity including designing secure systems, restricting access using physical and digital methods, identifying users, as well as implementing security procedures and best practice policies.

Schneider Electric Guidelines

In addition to the recommendations provided in this guide that are specific to Panel Server, you should follow the Schneider Electric defense-in-depth approach to cybersecurity.

This approach is described in the system technical note *How Can I Reduce Vulnerability to Cyber Attacks?*.

In addition, you will find many useful resources and up-to-date information on the Cybersecurity Support Portal on the Schneider Electric global website, page 53.

Schneider Electric Cybersecurity Policies and Rules

Schneider Electric use a Secure Development Lifecycle (SDL) process, a key product development-based framework that helps ensure products follow secure design processes across all lifecycle stages. The Schneider Electric SDL process complies with IEC 62443-4.1.

The SDL process includes the following:

- SDL practices applied to internal development actions, throughout the supply chain.
- Final security review required for project release.
- Security training for personnel involved in the product development.

Security Capabilities

General Cybersecurity Recommendations

NOTICE

POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY

- Change default passwords at first use to help prevent unauthorized access to device settings, controls, and information.
- Use cybersecurity best practices to help prevent unauthorized exposure, loss, modification of data and logs, or interruption of services.

Failure to follow these instructions can result in non-operational system where the Wireless Panel Server is installed.

Potential Risks and Compensation Controls

Area	Issue	Risk	Compensating controls
Bluetooth Low Energy wireless radio communication	If the mobile device (smartphone or tablet) where EcoStruxure Power Commission App is installed has a malicious mobile application installed and unknown to the user, this malicious application can eavesdrop on the communication between the Wireless Panel Server and EcoStruxure Power Commission App during connection to Bluetooth Low Energy wireless technology and login to the App.	If a malicious mobile application eavesdrops on the communication, the malicious mobile application can steal the credentials and gain access to the Wireless Panel Server.	Install antivirus program on your mobile device (smartphone or tablet) to help prevent installation from malicious mobile application.
	During the pairing window, unauthorized mobile device may try to connect to the Bluetooth Low Energy interface.	If a rogue mobile device gained access to the Wireless Panel Server, it can create a Denial of Service (DoS) and you would not be able to access the Wireless Panel Server.	Reduce pairing window to limit exposure. In addition, always ensure that the Wireless Panel Server LED is blinking blue when EcoStruxure Power Commission App is attempting to connect to Wireless Panel Server. If the LED is steady blue, it means that another mobile device (smartphone or tablet) is already connected to the Wireless Panel Server: <ol style="list-style-type: none"> 1. Press the Wireless Panel Server button to terminate the unwished connection to Wireless Panel Server. 2. Press the button again to open a new pairing session.
IEEE 802.15.4 wireless radio communication	During the pairing window, unauthorized radio devices may try to join the network.	If a rogue device gained access to your network, they could eavesdrop on the communication of your wireless network, create an integrity data breach (for example, by sending fake data), or create a Denial of Service.	Reduce commissioning window to limit exposure. Once the pairing is performed, verify the list of paired devices configured in the Wireless Panel Server using EcoStruxure Power Commission App and make sure that the list of devices contains no unexpected or rogue devices.
QR code	Someone may tamper with the Schneider Electric QR code of the Wireless Panel Server.	If the QR code has been tampered with, it can redirect to a fake site and the user credential be stolen or robbed.	Check that the QR code has not been tampered with (no rips, tears, punctures, or scratches) and check that the URL redirects you to a Schneider Electric web site (domain).

Device Characteristics

Overview

The Wireless Panel Server is equipped with security-enabling features. These features come in a preset state and can be modified to meet your installation needs. This guide provides recommendations to help secure your Wireless Panel Server.

Wireless Panel Server Interfaces

The Wireless Panel Server communicates through the following wireless communication interfaces:

- LoRaWAN for communication with the cloud.
- Bluetooth Low Energy for communication with a mobile device such as a smartphone or tablet.
- Wireless protocol for communication with wireless devices, using radio frequency communication ISM band 2.4 GHz.

The Wireless Panel Server does not implement IP-based protocols on any of the three interfaces.

NOTE: The Wireless Panel Server does not support any Ethernet-based physical interface and cannot be connected to an Ethernet Local Area Network (LAN).

Supported Protocol

The Wireless Panel Server supports the Constrained Application Protocol (CoAP) over Bluetooth wireless technology for configuration through EcoStruxure Power Commission App.

Device Features

Security Features

Security features have been built into the Wireless Panel Server to help the device to operate properly and behave according to its intended purpose. These features provide security capabilities which help protect the product from potential security threats that could disrupt the product operation (availability), modify information (integrity) or disclose confidential information (confidentiality). The security capabilities features are intended to mitigate the inherent threats which are linked with the use of the Wireless Panel Server in its environment.

Credential Protection

Protection of credentials is achieved through several features:

- The LoRa authenticity key of the Wireless Panel Server is stored in a hardware secure element (CC EAL5+ AVA_VAN.5 Common Criteria certified), that helps protect the Wireless Panel Server LoRaWAN unique device identity against physical or electronic intrusion, and damage.
- User passwords are stored as salted and hashed passwords.

Firmware Update

Update the Wireless Panel Server to the latest firmware version using EcoStruxure Power Commission App. It enables you to obtain the latest features and keep up to date with security patches. All firmware designed for the Wireless Panel Server is signed using the Schneider Electric Public Key Infrastructure (PKI) to help to provide integrity and authenticity of the firmware running on the Wireless Panel Server.

At each firmware update, the Wireless Panel Server verifies the digital signature of the new firmware before installation.

To be informed about security updates, register with the Security Notifications service on Schneider Electric Cybersecurity Support Portal.

Secure Boot

The Wireless Panel Server can execute only authentic Schneider Electric firmware.

At each boot, the firmware digital signature is validated before execution, to help ensure that it has not been tampered with.

Disabling of Unused Features

The EcoStruxure Power Commission App allows you to deactivate unused Wireless Panel Server services and interfaces to help minimize pathways for malicious attackers.

- The Bluetooth Low Energy interface for communication with a mobile device, such as a smartphone or tablet, is disabled by default.

The interface must first be activated to enable Bluetooth Low Energy communication. See detailed topic, page 33.

Audit Logs

The Wireless Panel Server generates audit logs that record events such as invalid login attempts and firmware updates.

The logs do not contain any personal information.

To detect unexpected behaviors (for example, frequent rebooting, incorrect firmware update, or invalid login attempts), EcoStruxure Power Commission App is used to retrieve the audit log file (syslog format).

Wireless Panel Server Pairing Control

Control of wireless communications between the Wireless Panel Server and wireless devices is enforced through a pairing mechanism. Only wireless devices that have been paired with the Wireless Panel Server can join the wireless network.

Using EcoStruxure Power Commission App, you can explicitly select IEEE 802.15.4 wireless devices that are authorized to connect to the Wireless Panel Server. In addition, there is a locate feature for checking pairing with the right device.

Once the pairing is performed, it is recommended to periodically verify the list of paired devices configured in the Wireless Panel Server to make sure that the list of devices contains no unexpected or rogue devices.

Security Events Notification

When the Wireless Panel Server is connected to the Schneider Electric cloud, it sends a security notification through EcoStruxure Facility Expert App if one the following security events occurs:

- A temporarily-locked user access
- A denied user access
- A rejected invalid firmware
- A password recovery process started

Data Protection

Data collected by the Wireless Panel Server are sent encrypted up to the Schneider Electric cloud over the LoRaWAN network. In this way data in transit over LPWAN network are protected from disclosure and modification.

User Access Control

Presentation

User access to the Wireless Panel Server through the local Bluetooth Low Energy interface is done by using EcoStruxure Power Commission App and is password-protected. Once the user is successfully logged into the Wireless Panel Server, the user has access to all capabilities and functions of the Wireless Panel Server.

User Login

EcoStruxure Power Commission App is the tool for logging in to and commissioning the Wireless Panel Server. Before login, the smartphone must be paired with the Wireless Panel Server (see [detailed topic, page 33](#)).

Changing Password

At first connection to the EcoStruxure Power Commission App, the user is prompted to set the password.

To change the password, proceed as follows:

1. Activate Bluetooth wireless technology on the Wireless Panel Server.
2. Pair your smartphone to the Wireless Panel Server.
3. Use EcoStruxure Power Commission App to log in to the Wireless Panel Server.
4. Change the password.

Password Requirements

A password must conform to the following rules:

- 6 to 32 characters
- At least one character in uppercase
- At least one character in lowercase

Password Lockout

In case of 10 invalid attempts to log in to the Wireless Panel Server, user access is locked. It remains locked for 10 minutes before the user can attempt to log in again.

Consecutive invalid attempts (up to 14) lock user access for 10 minutes after each invalid attempt.

After the fifteenth consecutive invalid attempts, the user access is locked for 60 minutes after each invalid attempt.

User account lock state remains if the Wireless Panel Server is rebooted, including reboot after power loss.

To unlock user access, the user must log in successfully after a lock period or apply the forgotten password process using EcoStruxure Power Commission App.

Password Forgotten

If the user has forgotten the Wireless Panel Server password, the following requirements must be followed:

- The user must connect the smartphone to the Wireless Panel Server and open the EcoStruxure Power Commission App.
- The user must have physical access to the Wireless Panel Server to press the Wireless Panel Server pushbutton.

Following the forgotten password process will result in losing the Wireless Panel Server configuration:

- The user password is reset.
- Configured devices are decommissioned (IEEE 802.15.4 wireless devices are unpaired and removed from configuration).
- The Wireless Panel Server reboots.
- The user is prompted to set a new password after Wireless Panel Server reboot.

Network Security

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Wireless Network

Radio protocols are vulnerable to physical security breaches. For example, a Denial of Service attack can jam the radio signal with a powerful radio emitter located in the vicinity.

It is therefore recommended to adapt your physical security to the criticality of the information which relies on radio protocols.

It is recommended to perform the commissioning of IEEE 802.15.4 wireless devices in a place secure from rogue radio transmitters, such as an administrator room.

Connected Devices

It is recommended to regularly check the list of devices connected to the IEEE 802.15.4 network of the Panel Server. In the case of an unknown connected device, locate it and remove it. You can also rebuild the network and reconnect only identified devices.

Security Recommendations for Commissioning

Secure Communications with Wireless Devices

The wireless communications are secured by a cryptographic mechanism supporting the integrity and confidentiality of data exchanged through the wireless network.

Once the pairing is performed, it is recommended to periodically verify the list of paired devices configured in the Wireless Panel Server by using EcoStruxure Power Commission App and make sure that the list of devices is up to date and contains no unexpected or rogue devices.

Tamper-Indicating Labels

The Wireless Panel Server has one tamper-indicating label which helps protect the device physical security. It must be clean and shows no sign of tampering (for example, rips, tears, or scratches). Schneider Electric advises against using a device that has visibly been tampered with.

Installation

To help protect the device physical security, the following installation is advised:

- Install the Wireless Panel Server in a PrismaSeT Active switchboard that is secured in a manner appropriate to the risk level of your installation (for example, a PrismaSeT Active switchboard with padlock or a key).
- Install the PrismaSeT Active switchboard with embedded Wireless Panel Server in a secured room (for example, with locked door or camera).

Security Recommendations for Operation

Firmware Update

It is recommended to keep the Wireless Panel Server firmware up to date (see [detailed topic, page 22](#)). Firmware update is managed with EcoStruxure Power Commission App.

Secure Communication with Wireless Devices

It is recommended to periodically verify the list of paired devices configured in the Wireless Panel Server by using EcoStruxure Power Commission App and make sure that the list of devices is up to date and contains no unexpected or rogue devices.

Security Recommendations for Maintenance

Over the lifetime of the Wireless Panel Server, it is recommended to regularly perform the following operations:

- Check physical security of the Wireless Panel Server (see [Hardware Description](#), page 15 for location of the tamper-indicating labels).
- Make sure that you have the latest firmware update. You should have registered to receive security notifications, page 22.
- Check the connected devices, page 48 for the presence of unknown devices.
- Check the audit logs for unexpected behaviors such as invalid login attempts or frequent rebooting.

Security Recommendations for Decommissioning

The Wireless Panel Server is configured with confidential information, such as user account identifiers. When disposing of the Wireless Panel Server, it is required to reset it to make sure that no sensitive or confidential information can be disclosed or reused.

NOTICE

LOSS OF GATEWAY FUNCTION

- Only decommission Wireless Panel Server when it is no longer needed.
- If you decommission Wireless Panel Server, you will not be able to receive voltage loss alarm for PrismaSeT Active Switchboard Resetting gateway removes all the configuration and configured devices are decommissioned.

Failure to follow these instructions can result in non-operational system where the Wireless Panel Server is installed.

Reset Procedure

To reset the Wireless Panel Server, follow the below procedure to set the configuration settings to factory values:

1. Launch EcoStruxure Power Commission App and scan the Wireless Panel Server QR code.
2. Connect to the Wireless Panel Server.
3. Unpair all wireless devices from the Wireless Panel Server.
4. Finalize the commissioning.
5. Disconnect from the Wireless Panel Server.
6. Re-Launch EcoStruxure Power Commission App.
7. Scan the Wireless Panel Server QR code.
8. Click on **Forgotten password**.
9. Follow the instruction on the EcoStruxure Power Commission App:
 - The Wireless Panel Server LED will blink orange fast.
 - You will have 5 seconds to press the pushbutton next to the LED to validate the reset operation.
 - **Result:** The status LED blinks fast green indicating that reset to factory setting is confirmed.
10. Wait for the Wireless Panel Server to restart completely:
 - The status LED turns steady orange while the Wireless Panel Server is booting. After the booting the status LED will blink green for fifteen minutes.
 - The status LED turns steady green when the Wireless Panel Server is in normal operation.

IMPORTANT: After performing a reset to factory setting on the Wireless Panel Server that has been previously connected to the Schneider Electric cloud, contact the Schneider Electric Customer Care Center to finalize the decommissioning.

Schneider Electric Cybersecurity Support Portal

Overview

The Schneider Electric cybersecurity support portal outlines the Schneider Electric vulnerability management policy.

The aim of the Schneider Electric vulnerability management policy is to address vulnerabilities in cybersecurity affecting Schneider Electric products and systems, in order to protect installed solutions, customers, and the environment.

Schneider Electric works collaboratively with researchers, Cyber Emergency Response Teams (CERTs), and asset owners to ensure that accurate information is provided in a timely fashion to adequately protect their installations.

Schneider Electric's Corporate Product CERT (CPCERT) is responsible for managing and issuing alerts on vulnerabilities and mitigations affecting products and solutions.

The CPCERT coordinates communications between relevant CERTs, independent researchers, product managers, and all affected customers.

Information Available on the Schneider Electric Cybersecurity Support Portal

The support portal provides the following:

- Information about cybersecurity vulnerabilities of products.
- Information about cybersecurity incidents.
- An interface that enables users to declare cybersecurity incidents or vulnerabilities.

Vulnerability Reporting and Management

Cybersecurity incidents and potential vulnerabilities can be reported via the Schneider Electric website: [Report a Vulnerability](#).

Commissioning

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Overview

Commissioning the Wireless Panel Server depends on whether wireless devices are installed in the PrismaSeT Active switchboard that embeds the Wireless Panel Server.

Wireless Panel Server switchboard type	Commissioning procedure
Without wireless devices	Activate cloud service, page 55 with EcoStruxure Facility Expert App.
With wireless devices	<ol style="list-style-type: none"> 1. Configure the switchboard and wireless devices, page 56 with EcoStruxure Power Commission App. 2. Activate cloud service, page 55 with EcoStruxure Facility Expert App.

For more information about commissioning your connected PrismaSeT Active switchboard, see *ESXP1G005EN EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active*.

Cloud Service Activation

Objectives

- Activate the Wireless Panel Server cloud connection (LoRa network).
- Activate the voltage loss function on EcoStruxure Facility Expert App.

Pre-requisites

- Be on site and have access to the QR code on the front face of the Wireless Panel Server from a smartphone.
- A smartphone running a QR code reader.
- EcoStruxure Facility Expert App installed on smartphone. For information about EcoStruxure Facility Expert App, see the [detailed topic](#), page 20.
- The switchboard that embeds the Wireless Panel Server must be energized and the Wireless Panel Server status LED blinking orange.

Activating the Cloud Service

To activate the cloud service through EcoStruxure Facility Expert App, proceed as follows:

1. Scan the QR code on the front face of the Wireless Panel Server using the smartphone camera.
2. In the Go2SE landing page that opens, click the EcoStruxure Facility Expert App section.
3. Follow the instructions to register to EcoStruxure Facility Expert.
4. The PrismaSeT connection wizard opens automatically. Follow the instructions on screen.
5. Wait for the Wireless Panel Server to connect to LoRa network. It can take several minutes (status LED blinking green).
 - When the LoRa connection is established:
 - The status LED turns steady green.
 - The EcoStruxure Facility Expert App displays a message of successful connection to LoRa network.
 - If the LoRa connection is not successful, see [ESXP1G005EN EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active](#).
6. Activate cloud service through EcoStruxure Facility Expert App. For detailed information, see [ESXP1G005EN EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active](#)
NOTE: In case of no internet connection, move to a place with internet connection to finish the activation. As soon as the smartphone detects an internet network, it automatically updates the information.
7. You can monitor the status of the switchboard with EcoStruxure Facility Expert App.

Configuration of PrismaSeT Active Switchboards with Wireless Devices

Objectives

Configure the wireless devices installed in the PrismaSeT Active switchboard.

Pre-requisites

- A smartphone running a QR code reader and compatible with Bluetooth Low Energy wireless technology.
- EcoStruxure Power Commission App installed on smartphone. For information about downloading the App, see the detailed topic, page 19.
- The switchboard that embeds the Wireless Panel Server must be energized and the Wireless Panel Server status LED blinking orange.

Configuring the Switchboard with Wireless Devices

To configure the switchboard with wireless devices through EcoStruxure Power Commission App, proceed as follows:

1. Scan the QR code on the front face of the Wireless Panel Server using the smartphone camera.
2. In the Go2SE landing page that opens, click the EcoStruxure Power Commission App section.
3. Follow the instructions to register to EcoStruxure Power Commission.
4. Activate Bluetooth communication on your smartphone.
5. Briefly press the button (less than 5 s) on the Wireless Panel Server to activate Bluetooth communication.

Result: The status LED blinks blue when the connection procedure is in progress, then turns steady blue when the Bluetooth connection is established from the Wireless Panel Server to the smartphone.

6. Set the Wireless Panel Server password (at first connection).
7. If necessary, update firmware.
8. Follow the instructions to discover the wireless devices installed in the switchboard.
9. Associate the discovered wireless devices to the Wireless Panel Server.
10. Configure each wireless device associated to the Wireless Panel Server.
11. Generate the setup report for Factory Acceptance Tests (FAT).
12. Activate cloud service with EcoStruxure Facility Expert App (see procedure, page 55).

Troubleshooting

Safety Instructions

⚠️⚠️ DANGER	
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH	
<ul style="list-style-type: none"> • Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, CSA Z462, NOM 029-STPS or local equivalent. • This equipment must only be installed and serviced by qualified electrical personnel. • Turn off all power supplying this equipment before working on or inside equipment. • Always use a properly rated voltage sensing device to confirm power is off. • Re-install all devices, doors, and covers before turning on power to this equipment. 	
Failure to follow these instructions will result in death or serious injury.	

Troubleshooting of the Wireless Panel Server

Problem	Diagnostics	Action
Status LED not lit.	Source power is not applied or is not stable.	Apply power or check power source.
Status LED blinking red.	Wireless Panel Server firmware discrepancy. Wireless Panel Server malfunction detected.	Connect Wireless Panel Server to EcoStruxure Power Commission App to diagnose the issue. Depending on issue, the Wireless Panel Server must be replaced.
Status LED steady red.	Wireless Panel Server major malfunction detected.	Call your local service representative for assistance. The Wireless Panel Server must be replaced.
During commissioning, Wireless Panel Server does not connect to LoRa network when activating PrismaSeT Active switchboard in EcoStruxure Facility Expert App and status LED remains blinking green.	Wireless Panel Server pushbutton pressed too briefly.	Press the pushbutton during more than 5 s and do activation procedure again.
During commissioning, Wireless Panel Server does not connect to LoRa network when activating PrismaSeT Active switchboard in EcoStruxure Facility Expert App and status LED does not turn from blinking orange to steady green.	LoRa communication has not been activated for more than 15 minutes.	Try to connect to LoRa network. See <i>ESXP1G005EN EcoStruxure™ Power - Commissioning Guide for Digital Solutions based on PrismaSeT Active</i> .
Wireless Panel Server firmware update is not successful.	The Wireless Panel Server is not connected to the smartphone through Bluetooth communication.	Check Bluetooth communication is activated. See <i>Establishing a Bluetooth Low Energy Connection</i> , page 33.

Troubleshooting of LoRa Connection

Problem	Diagnostics	Action
The Wireless Panel Server does not connect to LoRa network when activating PrismaSeT Active switchboard in EcoStruxure Facility Expert App.	The signal of LoRa antenna is not sufficient.	Move the antenna to a location where the signal quality is sufficient to transfer data. See <i>DOCA0203EN PrismaSeT Active - Installation and Maintenance Guide</i>
Regular connection loss with LoRa network.		
In EcoStruxure Facility Expert App, metering data is regularly missing.		

Troubleshooting of Communication

Problem	Diagnostics	Action
The Wireless Panel Server has lost communication with wireless devices.	Pollution on the radio frequency channel.	Change the radio frequency channel that communicates between wireless devices and Wireless Panel Server..
A wireless device is not detected or discovered by the Wireless Panel Server.	Wireless Panel Server does not recognize this type of wireless device.	Update the firmware of Wireless Panel Server with EcoStruxure Power Commission App. See detailed topic, page 22.
	The limit of 15 wireless devices detected had been reached.	Check the number of wireless devices detected.
Data lost or problem of data display in EcoStruxure Facility Expert App.	Wireless Panel Server malfunction.	Call your Schneider Electric Customer Care Center.
Connection of Wireless Panel Server with the wireless devices is lost.		

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As standards, specifications, and design change from time to time,
please ask for confirmation of the information given in this publication.

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