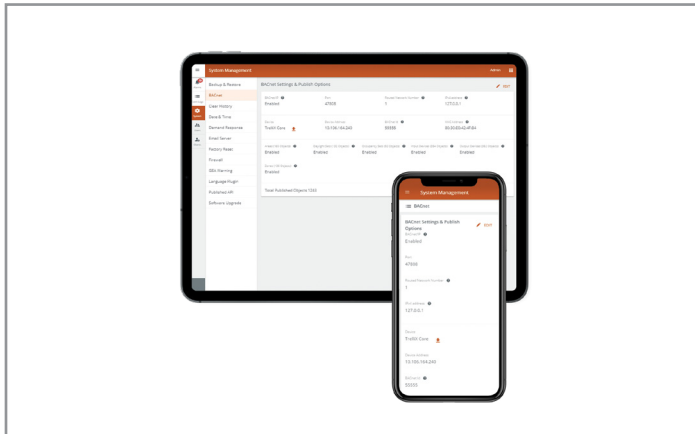


Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinX

CORE - BACnet Interface

Integrate and share lighting data with 3rd party systems and BAS using open protocol standard

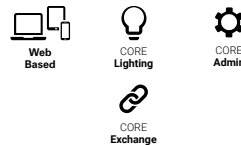
Typical Applications

Office • Education • Healthcare • Industrial

Interactive Menu

- Order Information page 2
- Connected Systems page 3
- Product Warranty

Product Features



Compatibility



Overview

The CORE BACnet Interface enables the integration between the WaveLinX PRO systems with any BACnet compatible Building Automation System (BAS). BACnet is a data communication protocol for Building Automation and Control Networks developed by the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE).

Product Features & Benefits

- **No additional hardware** – Hosted on the WaveLinX CORE the CORE BACnet interface does not require any additional hardware.
- **IP enabled** – The CORE BACnet IP interface simplifies the integration with other BACnet IP enabled Building Automation Systems by leveraging the existing building IT infrastructure.
- **Eliminates the need for BACnet Routers** – The CORE BACnet interface is hosted on the WaveLinX CORE which is an IP device. BACnet routers are typically required when the BACnet IP systems are on two different subnets. To avoid dealing with BACnet Router configuration, you can install the WaveLinX CORE on the same subnet as the BAS system and use your existing router to route the data between the wireless area controllers and the Insight Manager.
- **Control the lighting system** – Allows other sub-systems to change the light levels for their buildings, floor areas, zones and individual devices.
- **More Insights using lighting data** – Allows facility managers to read the value of the individual devices (occupancy sensors and daylight sensors) and individual space outputs (zone light levels, area scenes) from their BAS console.

Order Information

The WaveLinx CORE (Pro, Enterprise, Virtual) platforms are preloaded with CORE Admin and Lighting. The WaveLinx CORE is shipped with a base software license which enables the Lighting application for up to 250 devices. After 250 devices, the customer should purchase CORE Lighting license adders. WaveLinx CORE BACnet/IP requires a dedicated software license. Customers should purchase the appropriate software license adders for any additional features.

WaveLinx CORE BACnet Licenses

Catalog Number

Catalog Number	Description
TRX-BACNET	WaveLinx CORE BACnet license for unlimited devices

Notes

- All WaveLinx CORE platforms are shipped with a base software license which enables all the Lighting features for 250 devices except for Occupancy dashboard, API, BACnet and OpenADR.
- WaveLinx CORE Locate application is not available with the base software license.
- For a system with more than 250 devices, the users must order software license adders for the applications and interfaces that they are planning to use. Please refer to CORE Lighting, CORE Locate, CORE BACnet, CORE Public API, CORE OpenADR datasheets to learn more about the software license catalog numbers.
- Please refer to the WaveLinx CORE datasheet to learn more about the capability of each platform, i.e. WaveLinx CORE Pro (TRX-TCPR02), WaveLinx CORE Enterprise (TRX-TCENT2) and WaveLinx CORE Virtual Enterprise (TRX-TCVRT2).

WaveLinx CORE Commissioning Services

The CORE Lighting application includes graphical floor plan and energy dashboard software features. Services to configure these items MUST BE INCLUDED in WaveLinx CORE in lots of 250.

Catalog Number

Catalog Number	Description
TRX-CONFIG	WaveLinx CORE Energy and Graphical Floorplan Setup Services for 250 devices*

Notes

- Devices placement only available for wireless devices

A device is an input/output wireless/wired device that is connected to the controller.

Wireless

All Wireless Devices (integrated sensors, ceiling sensors, outdoor sensors, wall stations, switch packs, receptacles, wireless drivers). Each device counts as one.

Notes: WaveLinx PRO Touchscreen is not counted as a device

Wired

DAC & Field Relay Devices: Each device counts as one.

SCMH : 12 devices (A single SCMH counts as 12 devices)

SCMR : 0 devices (see below)

Notes: As WaveLinx CORE does not support device level monitoring, the device count is limited to output devices only listed above, i.e. wallstations and sensors are not included in the device count. We are not counting the SCMR in the device count.

Product Specifications

Network Requirements

- If managed switch is used then the IT system administrator shall ensure data exchange between the WaveLinx CORE and WaveLinx Area Controllers through the router. Please refer to the WaveLinx PRO Installation and Planning guide for more information with regards to the IT network requirements.

Performance Specifications

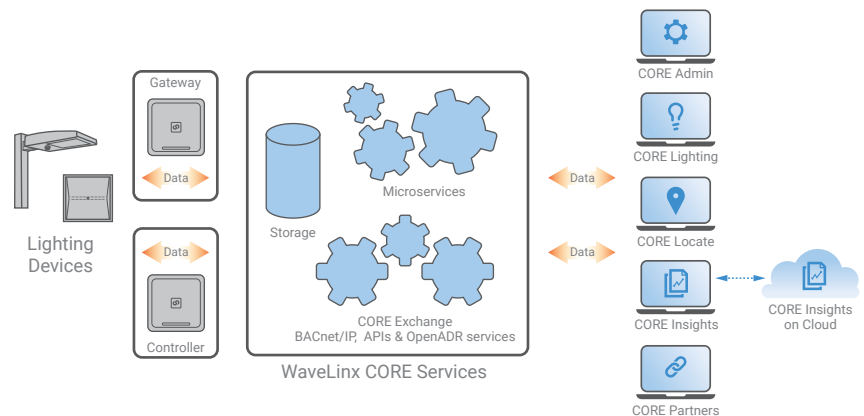
- WaveLinx CORE Pro: 10,000 BACnet objects
- WaveLinx CORE Enterprise: 30,000 BACnet objects
- WaveLinx CORE Virtual Enterprise: 30,000 BACnet objects

Supported BACnet Objects

Please refer to the CORE BACnet Protocol Implementation Conformance Statement (PICS) for more information.

Warranty

Five-year warranty standard



Sample System Topology:

This diagram shows the main components of the WaveLinx wired and PRO wireless connected lighting system.

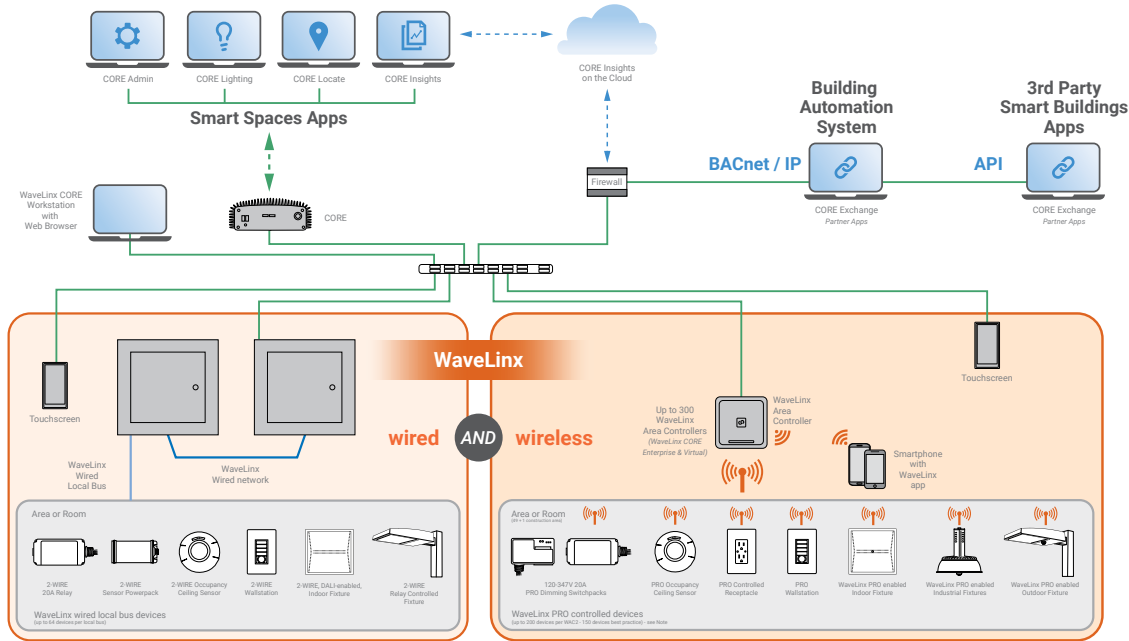
The **WaveLinx PRO wireless system** communicates using wireless mesh technology based on the IEEE 802.15.4 standard. A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network.

The **WaveLinx wired system** controls the devices using relay, 0-10V, DMX and the WaveLinx wired digital local bus. The WaveLinx wired system connects to the building LAN using the EG2 module. Each WaveLinx wired area controller communicates on the WaveLinx wired network.

WaveLinx Area Controllers (WAC) and WaveLinx Ethernet Gateways (EG2) communicate with WaveLinx CORE over the Ethernet network.

Please refer to the WaveLinx PRO Wireless Network and IT Guidance Technical Guide and WaveLinx Wired Network and IT Guidance Technical Guide for more information.

[View WaveLinx Network and IT Guidance Technical Guide](#)



Note: Performance based on current generation WaveLinx Area Controller (WAC).

	WaveLinx wired	WaveLinx PRO/CAT/Panel
WaveLinx CORE		
Connects to WaveLinx CORE (Pro, Enterprise, Virtual)	●	●
# of WAC or EG2-S-NA / # of devices per WaveLinx CORE Pro	2 / 3000	20 / 3000
# of WAC or EG2-S-NA / # of devices per WaveLinx CORE Enterprise	10 / 32,500*	300 / 32,500*
# of WAC or EG2-S-NA / # of devices per WaveLinx CORE Virtual Enterprise	10 / 32,500*	300 / 32,500*
Connecting device	EG2-S-NA	WAC2-POE
CORE Lighting		
Alarms	○	●
Events	●	●
Operate (floorplan control)	●	●
Operate - area control	●	●
Operate - zone control	●	●
Operate - device control	●	●
Scheduling	○	●
Energy Dashboard		●
Occupancy Dashboard		●
CORE Exchange		
BACnet/IP	○	10,000 objects with WaveLinx CORE Pro up to 30,000 with Enterprise/Virtual
Public (REST) API	○	●
OpenADR		●
Demand Response		●
CORE Admin		
Manage Users	●	●
Manage roles	●	●
Manage clients	●	●
Manage licenses	●	●
System settings (backup/restore, network etc)	●	●
CORE Insights		
Occupancy Trends and Comparison		●
Average Occupancy		●
Occupancy on Floor Plan		●
Generate and Export Reports to pdf		●
Hierarchical Navigation		●
Quick Search		●
Department Filter		●
Historical View		●
Popular Spaces		●

* For larger number of gateways and devices, please contact Cooper Lighting Solutions Sales representatives. Recommend designing the system at 70-80% of maximum capacity. Specifications based on WAC2-POE. The number of gateways and devices mentioned above are the total for a single system or the combination (Wired + Wireless) that can be used with a server.

● = All features ○ = Subset of features

Control Systems

- WaveLinx
- Greengate