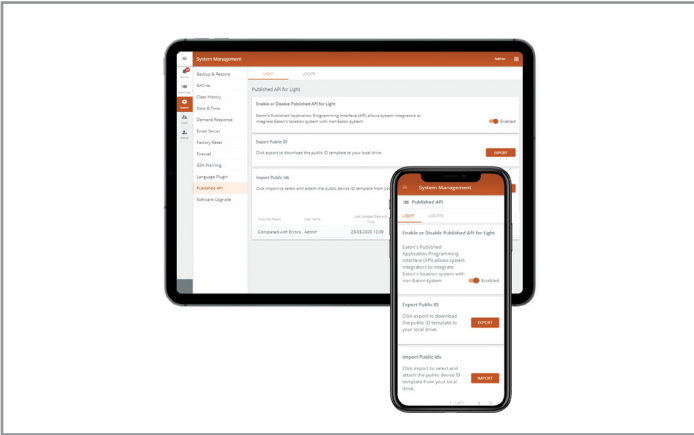


Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinX

Public (REST) API

APIs for Enterprise Lighting Management Application

Typical Applications
Office • Education • Healthcare • Industrial

Interactive Menu

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Product Features

- Web Based
- CORE Lighting
- CORE Admin
- CORE version 16
- CORE Locate
- CORE Exchange

Compatibility

Overview

The CORE Public API provides a secure programming interface that enables third-party partners to obtain real-time data from WaveLinX controlled spaces as well as Cooper Lighting Solutions BLE tags. Partners can then use the data to offer value-added solutions that improve business processes and tenant experiences. The WaveLinX CORE Public API interface is hosted on the WaveLinX CORE appliances.

Product Features & Benefits

- **APIs for space management applications** – Allows third party partners to securely exchange data with CORE Lighting and obtain data such as a space occupancy status, energy usage and light level. Third party partners can use these insights to offer solutions that would optimize operation efficiency and tenant experience including solutions that would reduce a facility’s energy usage, improve floor layout, and optimizes conference rooms usage.
- **APIs for asset management and workflow optimization application** – Allows third party partners to securely exchange data with CORE Locate and obtain data gathered from assets and geo-fence notifications. Third party partners can use these insights to optimize business operations and tenant experience including solutions that automatically identify workflow deficiencies, efficiently locate specific assets within the facility and improve equipment utilization rates.
- **REST (Representational State Transfer)** – Simplifies the exchange of data and operations interface between third party applications and Cooper Lighting Solutions connected lighting system using HTTPS and JSON data format with simple POST, GET actions to exchange data between the applications.
- **Secured Authentication and authorization** – Using the OAuth 2 authorization framework, the interface enables a third-party application to obtain limited access to an HTTPS service by orchestrating an approval interaction between WaveLinX CORE and the HTTPS service or by allowing the third party application to obtain access on its own behalf.

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 API requires a dedicated software license. Customers should purchase the appropriate software license adders for any additional features.

Catalog Number

Catalog Number	Description
TRX-API	API software 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.
- 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 CORE datasheet to learn more about the capability of each platform, i.e. CORE Pro (TRX-TCPRO2), CORE Enterprise (TRX-TCENT2) and Virtual CORE Enterprise (TRX-TCVRT2).

WaveLinx CORE Commissioning Services

The CORE Lighting application includes graphical floor plan and energy dashboard. Services to configure these items MUST BE INCLUDED in WaveLinx CORE and CORE Basic License Addition 250 options for the number of nodes indicated with those products.

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

- The IP network shall allow HTTP data exchange between the WaveLinx CORE and the third party applications. Please refer to the WaveLinx PRO Installation and Planning guide for more information with regards to the IT network requirements.

Performance Specifications

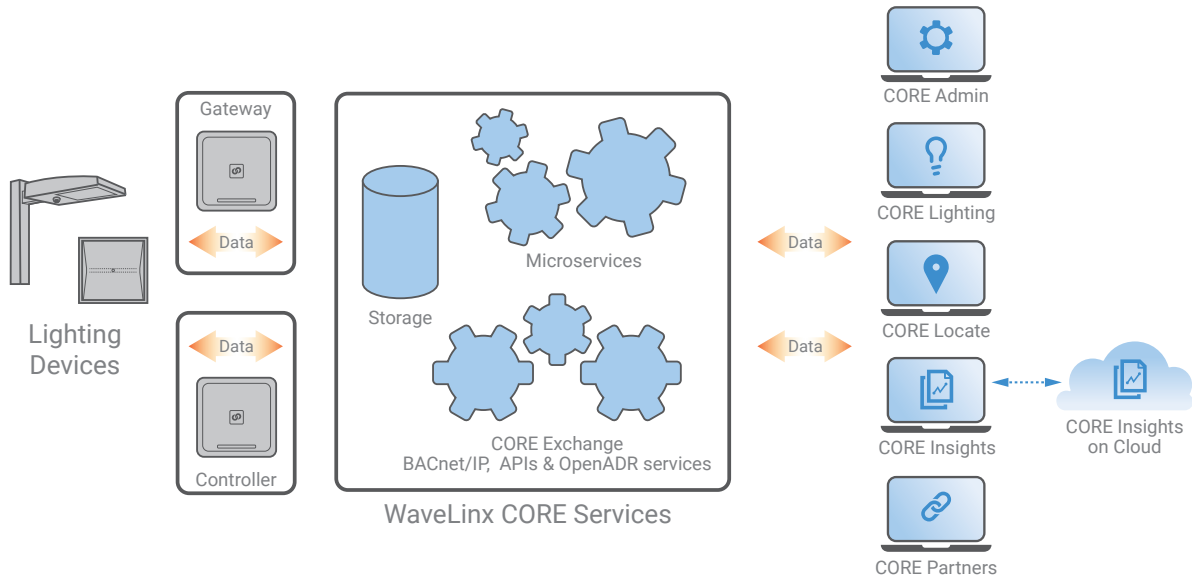
- WaveLinx CORE Pro: Maximum of 3,000 connected devices
- WaveLinx CORE Enterprise: Maximum of 32,5000 connected devices
- WaveLinx CORE Virtual Enterprise: Maximum of 32,500 connected devices

Supported Commands

- A subset of the HTTP methods is supported by the REST API.
- The supported methods are GET, POST
(Notes: PUT and DELETE actions not currently supported).
Please refer to the WaveLinx CORE Reference Manual or more details.

Warranty

Consult website for warranty information.




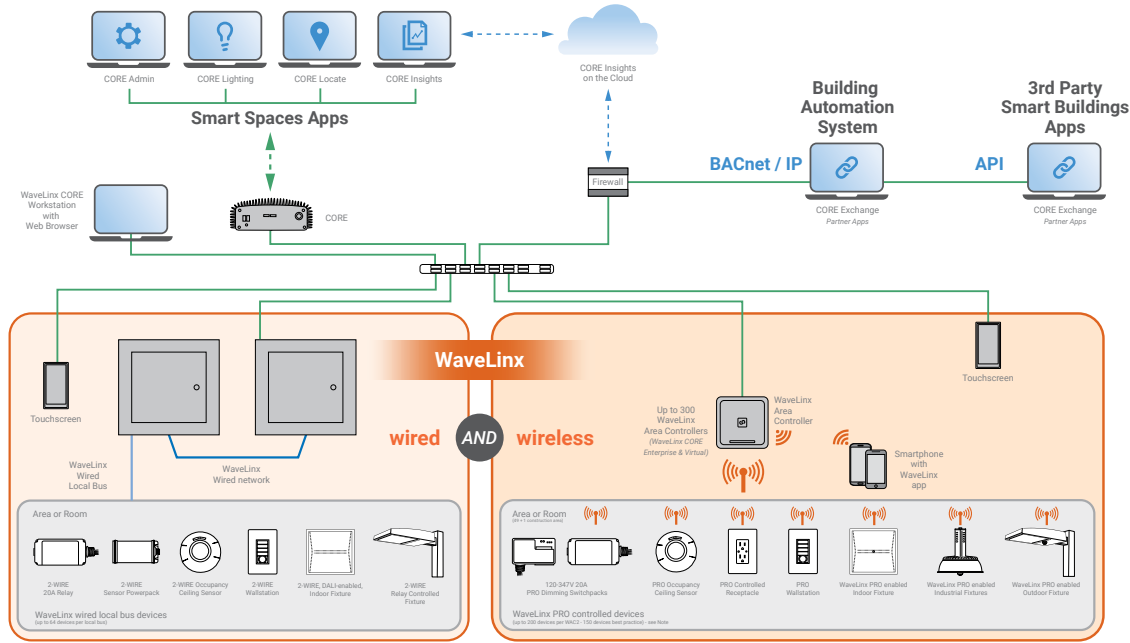
Sample System Topology:

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 PRO Network and IT Guidance Technical Guide](#)



Note: Performance based on current generation WaveLinx Area Controller (WAC2)

	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	○	●
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