

Project		Catalog #		Type	
Prepared by		Notes		Date	



## WaveLinX

### CORE Enterprise

Hardware platform hosting  
WaveLinX CORE Applications

#### Typical Applications

Office • Education • Healthcare • Industrial

#### Interactive Menu

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#### Product Certification



IEC 62443-2

- Ref HPE ProLiant DL360 Gen 10 Server Datasheet1

#### Product Features



Web Based



CORE Admin



CORE Lighting



CORE Locate



CORE Insights



CORE Exchange

#### Compatibility



## Overview

The WaveLinX CORE Enterprise is an on-premises hardware platform that hosts the WaveLinX Smart Spaces Platform software applications. The CORE Applications provide enterprise-level functionality for the Wavelinx system users. It captures critical system data such as devices status, devices present value, areas power consumption from networked of up to 300 WaveLinX Area Controllers for improved maintenance and operational savings. The collected data can be shared with third party systems via BACnet IP and Public API (REST). The application also offers user management, security management, alarms and events management and system backup functions.

## Product Features & Benefits

- Quickly establish and future-ready user's IoT strategy by enabling secure data flow between their connected lighting control system and the other building's sub-systems.
- Designed for WaveLinX PRO systems composed of up to 300 networked WaveLinX Area Controllers / gateways.
- Hosts the CORE Applications that provide enterprise-level functionality for the WaveLinX PRO system users to improve operational savings and maintenance. The applications include CORE Admin, Lighting, Locate and Insights. Please refer to the applications datasheets to learn more about each application.
- Simplified IT network installations with multiple network interfaces that offer separate connections to the Corporate network.

## Order Information

The WaveLinx CORE (Pro, Enterprise, Virtual) platforms are preloaded with CORE Admin and Lighting Apps. 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 WaveLinx CORE Lighting App license adders.

WaveLinx CORE Insights Apps, BACnet/IP, API and OpenADR require a dedicated software license. Customers should purchase the appropriate WaveLinx CORE optional software licenses for any additional features.

### Catalog Number

Catalog Number	Description
TRX-TCENT2	WaveLinx CORE Enterprise (shipped with WaveLinx Lighting and Admin Apps)

## Optional WaveLinx CORE Software Licenses

### Catalog Number

### Catalog Number

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### Catalog Number

Catalog Number	Description
TRX-LGT250	WaveLinx CORE Lighting license adder for additional 250 devices
TRX-API	API license for unlimited devices
TRX-BACNET	BACnet License for unlimited devices
TRX-OPNADR	OpenADR Interface license for unlimited devices per site

### Notes

1. Please refer to the respective datasheets to learn about the other features.

## 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

1. Devices placement only available for wireless devices.

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

### Wireless

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

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 9.0 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

### Key Features

- **Compact form factor server with high performance** - Powered by HPE 1P 1U rack server, the WaveLinx CORE Enterprise provides the right balance of performance, expandability, reliability and manageability for a distributed lighting control system.
- **Redundant power supply capability** - Keeps your business running and provides data protection and accessibility even in the event of a power supply failure.
- **Smart Array technology by HPE** - Provides businesses with protection for critical data through RAID mirroring and striping capability and captures and holds data indefinitely in the event of a power loss, equipment failure, or human error.
- **Multiple network interface cards** - Simplify IT network installations and separate corporate network from lighting/BAS operations. Compatible with BACnet integration and avoids the need for a BBMD.

### System Performance

**Maximum number of area controllers:** 300

**Maximum number of nodes supported:** 32,500 devices

**Maximum number of BACnet objects:** 30,000

Note: Recommend designing the system at 70-80% of maximum performance

### Mechanical

**Size:** 1.69" H x 17.11" W x 27.83" L (4.29cm x 43.46cm x 70.69cm)

**Weight:** 28.75 lbs (13 Kg)

#### Environment:

- **Operating temperature:** 50°F to 95°F (10°C to 35°C)
- **Non-operating temperature:** 50°F to 95°F (-30°C to 65°C)
- **Relative humidity operating:** 8% to 90%
- **Relative humidity non-operating:** 5% to 95%
- **Storage temperature:** -4°F to 140°F (-20°C to 60°C)
- For indoor use only

**Mounting:** Mounting plate provided with the unit

### Electrical

#### Input Requirements:

- Range input voltage: 100 to 240 VAC
- Rated input current: 5.5A max (at 100 VAC)
- Rated input frequency: 50 to 60 Hz

**Power supply type:** (1) 290W non-hot plug power supply

**Power supply output:** Ref HPE ProLiant DL360 Gen 10 Server

### Hardware Specifications

**Processor:** Intel® Xeon® Silver 4110 Processor, 8 core, 2.1GHz, 11MB,

**Number of processors:** 1

**Processor core:** 8

**Processor cache:** 11 MB L3 Cache

**Processor speed:**

- 2.1 GHz
- Storage Controller
- (1) HPE Smart Array P408i-a
- Expansion Slots
- (1) PCIe

**Form factor:** 1U

**Form factor chassis:** Rack

**Memory:** 48GB DRAM

**Memory slots:** 4 DIMM slots

**Drive:** 2x300GB SAS 10K rpm HDD

**System fan features:** Non-hot plug non redundant

**Network controller:** 1 GB 331i Ethernet Adapter 1 port per controller

**Manufacturer:** HPE

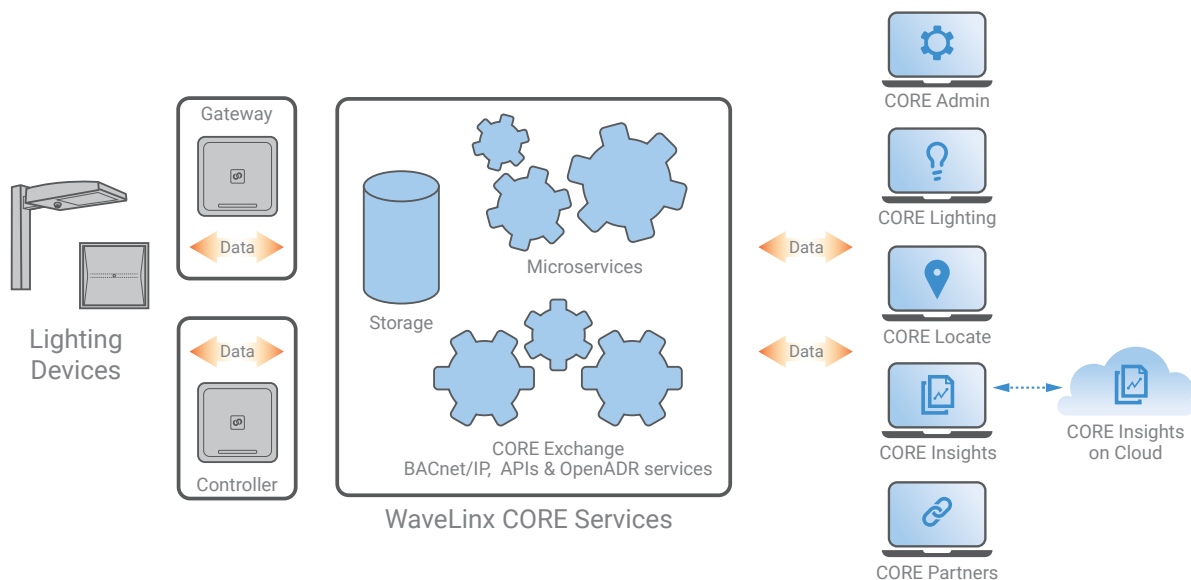
**Model:** HPE ProLiant DL360 Gen 10 Server

### Software Specifications

Refer to WaveLinx CORE spec sheet to learn about CORE applications

### Warranty

One year warranty



## 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.

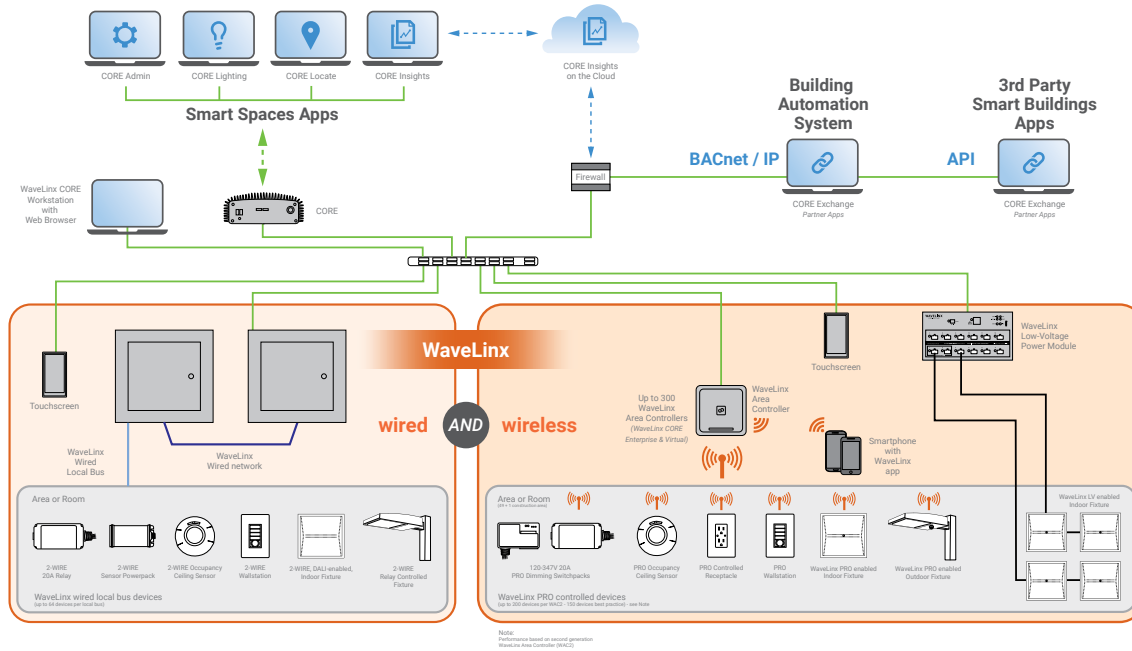
A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network.

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 second generation  
WaveLinx Area Controller (WAC2).

		WaveLinx wired	WaveLinx PRO wireless
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*
CORE Lighting	Connecting device	EG2-S-NA	WAC2-POE
	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	●	●
CORE Insights	System settings (backup/restore, network etc)	●	●
	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