

| | | | | | |
|-------------|--|-----------|--|------|--|
| Project | | Catalog # | | Type | |
| Prepared by | | Notes | | Date | |



WaveLinx

CORE Enterprise

Hardware platform hosting
WaveLinx CORE Applications

Typical Applications

Office • Education • Healthcare • Industrial

Interactive Menu

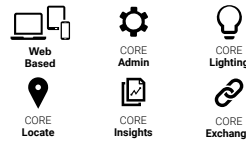
- Order Information page 2
- Additional Resources page 3
- Connected Systems page 3
- Product Warranty



IEC 62443-2

• Ref HPE ProLiant DL360 Gen 10 Server Datasheet1

Product Features



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.
- Multi-Area Switches and occupancy sharing - Configured in CORE to allow wallstations, CCIs and Occupancy to share data across and between WACs. Simple and powerful CORE UI enables seamless cross-WAC configurations.

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) |
| TRX-TCENT2-V9 | WaveLinx CORE Enterprise, version 9 (For use in maintenance applications where WAC Gen1 support is required. Shipped with WaveLinx Lighting and Admin Apps) |

Optional WaveLinx CORE Software Licenses



Catalog Number

Catalog Number

Catalog Number

Catalog Number

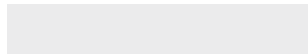
| Catalog Number | Description |
|----------------|---|
| TRX-LGT250 | WaveLinx CORE Lighting license adder for additional 250 devices |
| TRX-API | API license for unlimited devices |
| TRX-BACNET | BACnet License for unlimited devices |
| TRX-OPNADR | OpenADR Interface license for unlimited devices 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 | Configuration Services - for WaveLinx CORE Energy and Graphical Floorplan, for 250 devices ¹ |

Notes

1. Device placement only available for PRO (wireless), CAT (wired) and WaveLinx Panel devices.

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

PRO Wireless, CAT wired and Panel Devices

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

Note: WaveLinx PRO Touchscreen and WaveLinx Area Hub are not counted as a device.

WaveLinx 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)

Note: As WaveLinx Wired 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. SCMR does not contribute to 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.
- **Multi-Area Switches and occupancy sharing** - Configured in CORE, allows data sharing and control between WACs via cross-WAC communications.

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: Two-post rack-mount rails, included with 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, 2-post rails included

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, 2 Network Interfaces Supported

Manufacturer: HPE

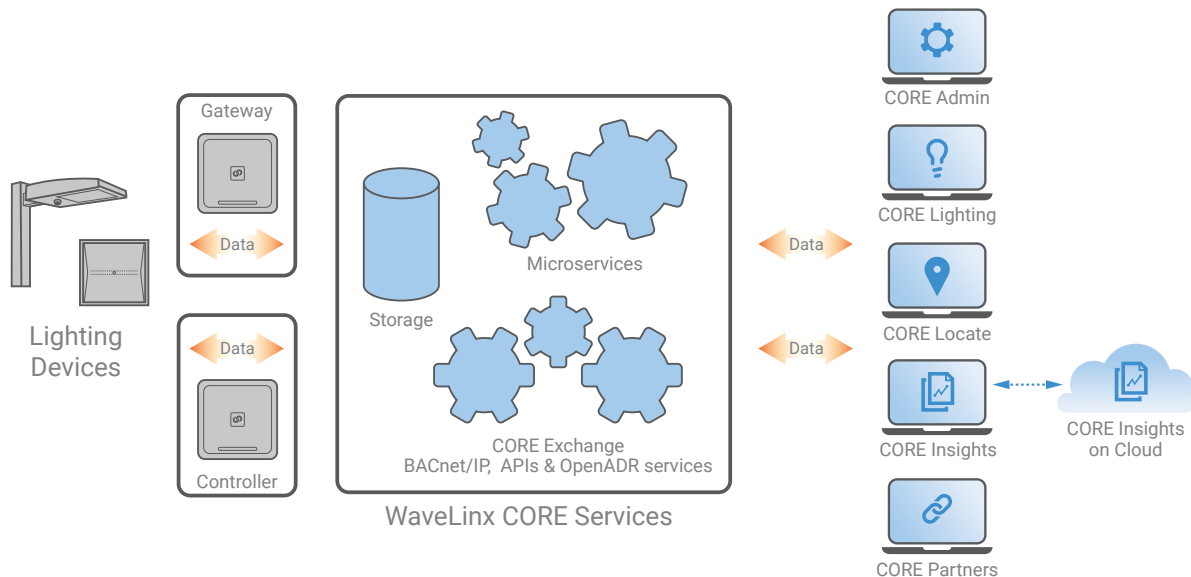
Model: HPE ProLiant DL360 Gen 10 Server

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.

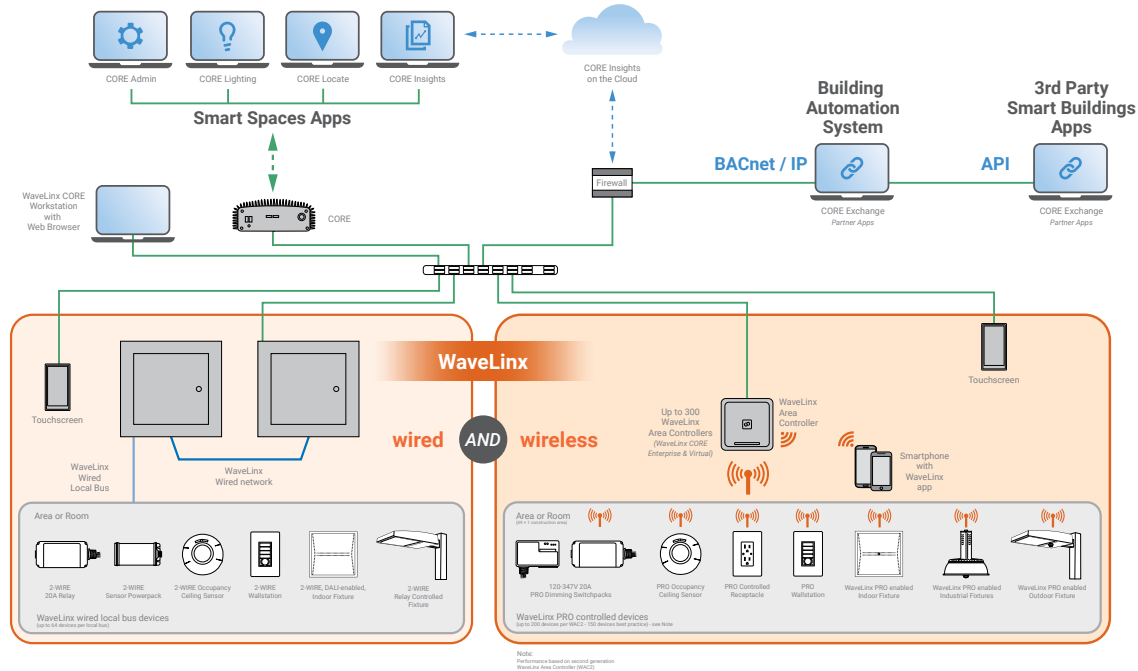
A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network.

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](#)



| | 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