

Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinx

Virtual CORE Enterprise

Hardware platform hosting
WaveLinx CORE Applications

Typical Applications

Office • Education • Healthcare • Industrial

Interactive Menu

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IEC 62443-2

- Supports Virtual Platform: VMWare vSphere
- Supports VMWare Software Release: ESXi 5.5 and higher

Product Features



Web Based



CORE Admin



CORE Lighting



CORE Insights



CORE Exchange

Compatibility



Overview

The WaveLinx CORE Virtual Enterprise provides is a virtualized version of the WaveLinx CORE Enterprise that hosts the WaveLinx Smart Spaces Platform software applications. The CORE Applications provide enterprise-level functionality for the Wavelinx PRO 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

- **Reducing Hardware Cost** – Maximize your investment in virtual infrastructure by running the Virtual WaveLinx CORE on it. With the Virtual WaveLinx CORE Enterprise, there is no need for dedicated hardware to run the CORE applications.
- **Reducing your facility and utility Cost** – In addition to removing the need for dedicated computer hardware, the Virtual WaveLinx CORE Enterprise also reduces the space, power, cooling and maintenance costs associated with a physical server.
- **Higher System Availability** – Take advantage of virtualization technologies to increase the system's availability:
 - Transparently moving virtual machines between hardware platforms to support planned maintenance activities.
 - Replicate the virtual machine to update OS, applications in an testing environment before bring the updated machine to the online environment hence minimizing the disruption of daily buildings' operations.
- **Multi-Area Switches and occupancy sharing** - Configured in CORE to allow wallstations, CCIs and Occupancy to share data across and between WACs.

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.

The CORE Insights application, 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-TCVRT2	WaveLinx CORE Virtual Enterprise (shipped with WaveLinx Lighting and Admin Apps)

Optional WaveLinx CORE Software Licenses

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

- 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

- 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

Refer to WaveLinx CORE spec sheet to learn about CORE applications

System Performance

Maximum number of area controllers: 300

Maximum number of nodes supported: 32,500

Maximum number of BACnet objects: 30,000

Software Specifications

Supported Virtual Platform: VMWare vSphere

Supported VMWare Software Release: ESXi 6.5 or higher

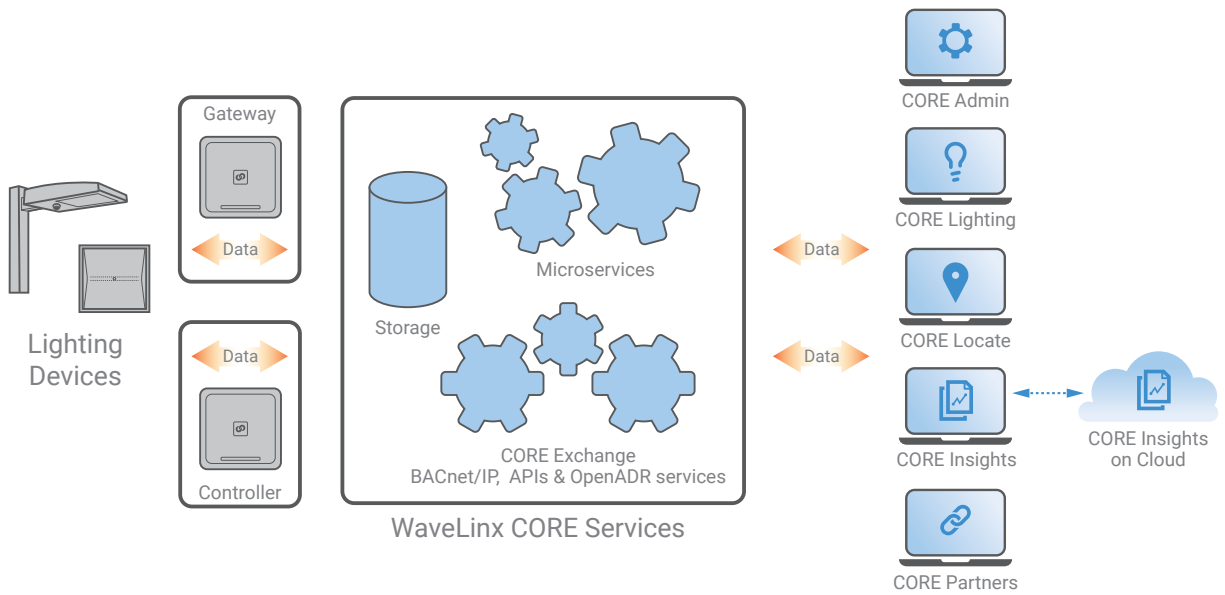
Virtual Platform Disk Space Recommended Requirement: 130 GB

Virtual RAM Recommended Allocation: 48 GB

Virtual CPU Recommended Quantity: 8

Warranty

One year warranty




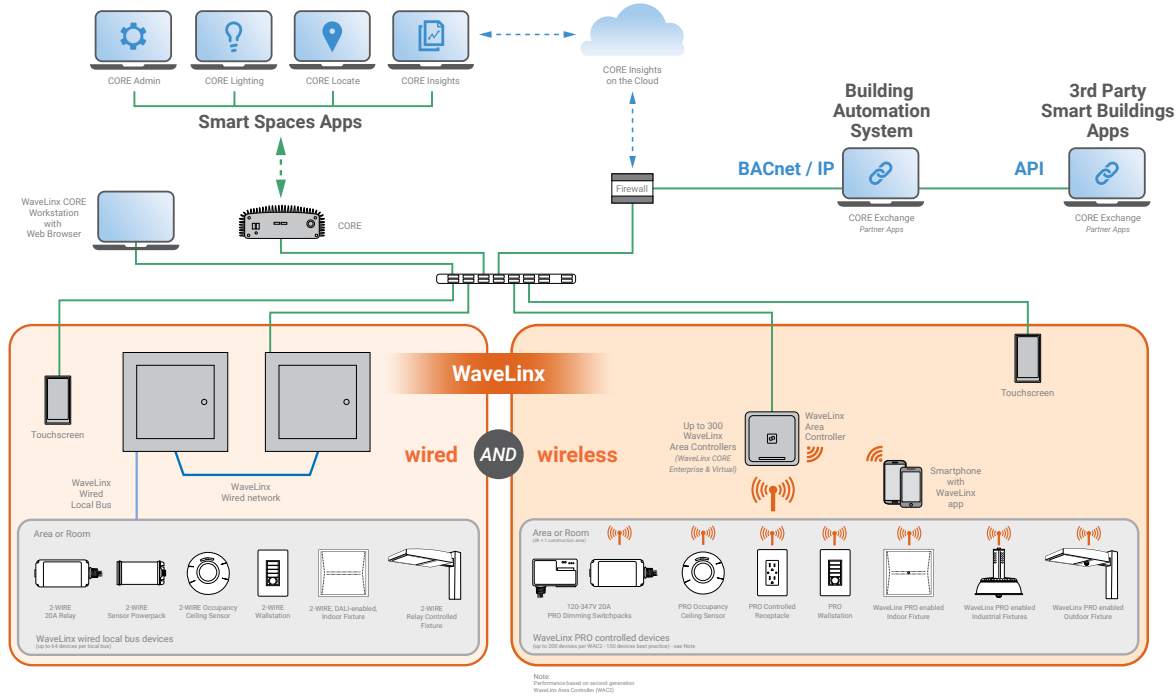
Sample System Topology:

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