

Multi-Product Fact Sheet



LynxSpring Technology Solutions

The technology behind LynxSpring's solutions combines common network management services for both open standards devices and legacy products with a full-featured environment that blends the control system seamlessly with the enterprise information system. The result is a multi-vendor supported automation system with real-time enterprise integration into one single, scalable, extensible platform solution.

JENEsys® PC9000



niagara⁴

The JENEsys PC9000 is a compact, embedded IoT controller and server platform for connecting multiple devices/sub-systems.

With a Quad Core processor and double storage and RAM, the JENE PC9000 offers increased performance and capacity with faster bootup and station load time. The JENE PC9000 is fully compatible with existing expansion models and the same footprint as past models allows for seamless replacement for future updates.

The licensing model for the JENE PC9000 controller is simple and features standard drivers along with optional I/O and field bus expansion modules for flexibility. This controller runs Niagara 4 for optimal performance.

JENEsys Edge® 534 IP Controller



niagara⁴

Delivering the Reliability of Niagara to the Edge

A first-of-its-kind, the JENEsys Edge 534-N4 combines a fully programmable controller that leverages Niagara, provides 34 points of IO on-board, and web server duties into a single device. Taking Niagara to the edge with real-time control; JENE-EG534-N4 utilizes ProBuilder/Workbench software, Niagara programming tools and Fox protocol.

Reducing Engineering Time & Installation Costs

Purpose-built, LynxSpring's JENEsys Edge 534 delivers edge connectivity, data access and control for small to mid-sized facilities, plant control, and machine-to-machine and IoT applications that require smart edge technology.

Add to a JENE-EG534-N4, up to 8 additional Onyx XM 34IO Extender Modules (at 34 points of IO each) for a maximum of 306 points.

JENEsys Edge 534-N4 licensing is well suited to take Niagara into smaller, mid-sized and price-sensitive applications.

JENEsys Edge® 534 – 4G LTE with Modem & Wireless Communication



All the power and benefits of the JENEsys Edge 534 with the added benefits of 4G LTE wireless capability and the availability of the Lynxspring's Easy Data Service Plan over a private wireless VPN.

Fully Programmable Niagara 4 Controller (Full Stack)

High-Speed 4G LTE Connection; Fast Data Exchange Speeds
Nimbelink's Skywire® LTE CAT 1 Embedded Cellular Modem

Simplified Configuration And Deployment – Includes a User Interface Widespread Service Coverage

Secured Cellular Connection Via VPN

Leading Cellular Modem Manufacturer and Service Provider

JENEsys Edge® 534 with Monnit®



Data collected from the sensors stays local to the JENEsys Edge 534.

Easy Set-Up

Long Battery Life

Low Cost, Low Power

No Additional Monnit Gateway or Cloud Services Required

Available Global RF Frequencies: 900, 868 & 433 MHz

Supports Nine Monnit® Wireless Sensor Types:

Button Press	Pulse Counter	Motion Detection
Dry Contact	Temperature	Water Detection
Humidity	Ultrasonic Vibration	Tilt/Accelerometer

JENEsys Edge® 514 IP Controller



The JENEsys Edge 514 is a fully programmable Niagara controller with 14-IO already built-in and has expandable IO available. Taking Niagara to the edge with real-time control—it utilizes the same familiar ProBuilder/Workbench software, Niagara programming tools and Fox protocol.

Real-Time Linux OS

Open NiCS

Existing Niagara 4 Stations can be Added

6 Universal Inputs, 4 Analog Outputs, 4 Digital Outputs

Add Additional Extender Modules (at 34 Points of IO Each)

JENEsys Edge® 414 IP Controller



Fully Programmable Niagara 4 Controller with 14 IO Points (Inputs and Outputs)

Ideal for Terminal Equipment Control that Requires Minimal Integration with Third-Party Products (Max 3) and Minimal Points of Control (Max 50).

4 Digital Output (DO) Relays, 6 Universal Inputs (UI) and 4 Analog Outputs (AO)

N4 Embedded Software

Flexible Point Licensing Options to Suit Application

N4 Software Maintenance for Life Included with the License

Supports Spanning Tree Protocol (Supports up to 25 Controllers on a Single Spanning Tree IP Protocol Network)

JENEsys Edge® VAV IP Controller



The JENEsys Edge VAV is a fully programmable, IP, Niagara Framework VAV controller with 14-IO already built-in and one differential pressure transducer. Using Niagara Fox protocol at the IP level provides an additional level of security and enables facility managers/system integrators to use (ProBuilder/Workbench) to achieve operational efficiencies between multiple systems and/or devices.

Integrated Pressure Transducer

No Protocol Conversions Necessary

6 UIs, 4 AOs, 4 DOs, and 1 Differential Pressure Input

Flexible Point Licensing Options to Suit Application

Factory Applications are Compliant With ASHRAE® G36 Standardized Sequences

Distributed Fox IP Network, Up to 25 VAVs can be Daisy-Chained

JENEsys Edge® 434 IP Controller



The JENEsys Edge 434 is the ultimate equipment controller that enables you to create standard or unique applications while being interoperable with other FOX, BACnet or Modbus networks. It offers direct and remote accessibility, data acquisition and data sharing with more capacity than typical controllers, while offering higher levels of data processing and increased storage capabilities.

You may connect a JENE-EG434-N4 to up to 2 additional extender modules (Onyx XMs), adding up to 34 points of IO, for a maximum of 68 points. The JENEsys Edge 434 licensing is well-suited to take Niagara 4 into smaller or mid-sized, and price-sensitive, equipment & system applications.

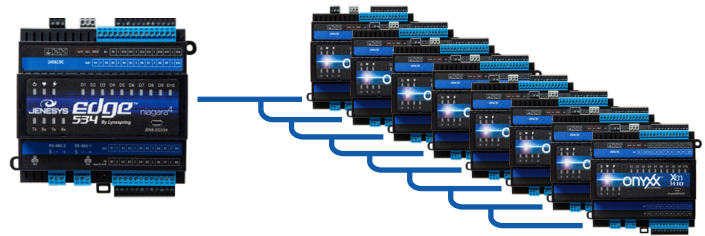
Onyxx® XM 34IO Extender Module



Add to a JENE-EG534-N4, up to 8 additional Onyxx XM 34IO Extender Modules (at 34 points of IO each) for a maximum of 306 points.

Completely configurable, the Onyxx XM 34IO is used to add additional IOs to the JENEsys Edge Line of Controllers, as well as Lynxspring's JENEsys PC 9000 or any branded JACE.

The Onyxx XM 34IO has 34 points and native Onyxx and extends the IO for any device that has an Onyxx network.



Onyxx® XM 14IO Extender Module

Same as the above extender except with 14 Points of additional IO. Use in smaller systems for project efficiency.

The Onyxx XM 14IO has 14 points and native Onyxx and extends the IO for any device that has an Onyxx network.



Onyxx® XM 34IO-B (BACnet MS/TP) Extender Module



BACnet MS/TP

The Onyxx XM 34IO-B, part of Lynxspring's Edge Enabled® portfolio of embedded controllers and extender modules, is a modular, IO extender module that extends the control functionality and capabilities of Niagara 4-based controllers by extending 34 inputs and outputs (IO).

It is designed to work with any Niagara 4 JENEsys PC 9000 controller, Niagara 4 JACE® brand controller, Niagara 4 JENEsys Edge 534, JENEsys Edge 534 Monnit®, JENEsys Edge 534 4G LTE, and JENEsys Edge 514 controller. Additional Onyxx XM34IO-B extender modules can be daisy chained in sequence to provide even more IO.

Features

Extends 34 Points of Inputs/Outputs to BACnet Controllers

Slave BACnet MS/TP device can be integrated by a BACnet client controller.



Note: The JENEsys Edge line of controllers do not support Power-Over-Ethernet networks



7" Android™ Touch Screen Display

Lynxspring's TSD 7 is a high-definition touch screen color display with kiosk mode for local feedback and control for a wide range of HVAC, lighting, energy, commissioning, trouble shooting, servicing and IoT user experiences.

It is compatible with all JENEsys controllers, Onyx devices and most web-serving controllers and IoT devices, regardless of manufacturer or protocol.

Designed for optimal performance, the Lynxspring TSD 7 utilizes an advanced processor to integrate a powerful graphics engine that displays most any webpage, including advanced HTML5 visualization pages. It is ideal for managing operating parameters of systems, such as monitoring, obtaining values, equipment, and system status, and viewing alarms.



10" Android™ Touch Screen Display

Lynxspring's TSD 10 is a high-quality touch screen display that may be panel or wall-mounted and is compatible with modern web- serving BMS controllers.

Its 10-inch screen is the ideal size for displaying detailed content, with easy user interaction, but still a convenient size to mount on a BMS panel or walls.

This cost-effective display and touch panel is ideal for: status feedback and maintenance control on the front of your BMS panel, occupant feedback and controls on property, visual output status of web-based CCTV and IoT systems. Web-browser based for universal compatibility with modern BMS controllers, and potentially any web serving content controller/platform.

Onyx® 4G LTE™ Cellular Router

Designed for simple set-up, installation, commissioning, and includes a wireless modem interface allowing instant communication upon startup.



The Onyx 4G LTE Cellular Router is designed to support bi-directional communication, secure, remote access, and the exchange of data for today's intelligent buildings, energy management systems, machine-to-machine applications, edge devices and Cloud services.

The Onyx 4G LTE Cellular Router allows you to remotely monitor and control equipment, meters, pumps, and valves in any energy, utility, commercial or industrial applications. You may instantly connect equipment at remote point-of-sale locations, temporary installations, or retail operations. You may also have access to building and energy assets via a secure VPN.

Onyx® Modbus to BACnet Bridge

Supports maximum of 2500 Modbus points, 32 Modbus RTU slave devices without a repeater or up to 246 with repeaters, 246 Modbus TCP slave devices per network segment, or a combo thereof.



Lynxspring's Helix framework embedded on the Onyx Modbus to BACnet Bridge has revolutionized the construction, implementation, and interaction of Modbus to BACnet network communication. Helix translates up to 2500 Modbus points to manageable BACnet points; converting Modbus slave devices into virtual BACnet devices using virtual BACnet routing. Acting as the Master Modbus device, Helix manages all Modbus RTU or TCP slave devices connected to it.

Modbus Serial (RTU) to BACnet IP, Modbus TCP to BACnet IP, or both Modbus Serial (RTU) and Modbus TCP to BACnet IP.

Bridge models available in capacities of 1000 or 2500 Modbus points to BACnet points.

Converts any Modbus device to a virtual BACnet device.

Onyxx® LX B848, BP848 & BP848-DIO



These controllers are designed to facilitate control and management of equipment typically used in the HVAC industry. They allow powerful yet flexible solutions that can be tailored and sized according to any project need.

Supports BACnet MS/TP

Has 8 AI/BIs, 4 AOs, & 8 Bos (with local HOA switches for the outputs on the BP848 and BP848-DIO)

BTL certified as a B-ASC (BACnet Application Specific Controller)

Supports up to 3 TZ100-LX or TZ200-LX room sensor
Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

Onyxx® LX BZ122 & BZ424



BZ424 -Single or dual duct, with or without fan.

These controllers are designed to facilitate control and management of simple VAV equipment typically used in the HVAC industry. They allows powerful yet flexible solutions that can be tailored and sized according to any project need.

Supports BACnet MS/TP

Uses a pre-calibrated, precise digital MEMS Omron flowthrough airflow sensor

BTL certified as a B-ASC (BACnet Application Specific Controller)

Supports up to 3 TZ100-LX or TZ200-LX room sensors

Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

Onyxx® LX DPT-V4



New dust segregation chamber technology eliminates servicing

The DPT-V4-LX is a high precision, maintenance free high pressure/velocity transmitter. This "MEMS" type transmitter offers very high precision and stability at low velocity levels.

Allows pressure reading (0-1 in. water / 0-250 PA) or the velocity

Liquid crystal displays the pressure or the flow in real-time (with the conduit surface)

Configurable output: 0-10 Vdc / 0-20 mA or 2-10 Vdc / 4-20 mA

Multiple units available: Pressure: "H2)_PA, Velocity: ft./min_M/sec, Flow: CFM_L/sec

Easy and intuitive installation and configuration

Removable screw terminals



**Onyxx® BW437-FCU-LX &
Onyxx® BW437-RTU-LX**

These compact, BACnet® MS/TP thermostats include programs for most FCU, RTU, HP, and AHU applications. Configuration is made simple using the menu-driven keypad, or a BACnet monitor, like the freeware Onyxx® LX UI (requires a separate special USB adapter), or even a Niagara host..

Factory-delivered pre-loaded with powerful low voltage FCU, RTU, HP & AHU controller application

Supports BACnet MS/TP

Has 4 AI/BIs, 3 AOs, 6 BOs plus 1 jumper-selectable universal AO/BO

Options include humidity sensor, temperature sensor, motion sensor, & PIR & CO2 sensing Certified as a B-ASC (BACnet Application Specific Controller)

Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI



**Onyxx® TZ100-LX &
Onyxx® TZ200-LX**

These sensors are designed to facilitate simple user interactions typically used in the HVAC industry for terminal equipment control. They allow powerful yet flexible solutions that can be tailored and sized according to any project need.

Room user digital IAQ sensor complementary to the controllers from the Onyxx LX product line

Displays user data and information such as time, temperature, and requests for heating and cooling through a backlit LCD display

Communicates to the controllers using a proprietary RS-485 protocol. Up to 3 TZ100-LX or TZ200-LX room sensors per controller can be wired when used with the Onyxx LX controllers Has a local BACnet MS/TP USB port for network access

Requires Onyxx LX USB to RS-485 adapter to program with Onyxx LX UI

About Lynxspring

With roots in building engineering and operations, Lynxspring understands the importance of connected data and integrated control systems. With our extensive domain knowledge in the built environment and an early adopter of the industry leading Niagara Framework®, Lynxspring develops, manufactures, distributes, and supports edge-to-enterprise building operating solutions and IP technology that create intelligent buildings, equipment, and applications.

We meet the need for open IP-based software and hardware delivering connectivity, integration, interoperability, data access and exchange, and control from the edge-to-the-enterprise.

Lynxspring's technology, products, and services have transformed millions of square feet of commercial building space and have provided owners, operators, facility management, system integrators, and contractors with flexible and scalable solutions to achieve their building operational and workplace outcomes.

We deliver on our promise to connect, communicate and integrate across the built and equipment environments while simplifying the customer experience and the delivery of outcomes that provide measurable results.