



## SBS EDGE XN4

### OPEN ROOM AUTOMATION

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## NIAGARA I/O CONTROLLER

powered by  
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framework®

Use the possibilities of a high-performance and globally standardized platform for room and building automation of heating, ventilation and air conditioning systems, energy management systems and room automation solutions.

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# Enabling a single-tool infrastructure from edge to cloud

We are excited to introduce SBS EDGE XN4 — our first IP-based IO controller that harnesses the full power of the Niagara Framework® at the edge. By running Niagara at the edge, systems integrators can reduce training costs, learning curves and proprietary tools with an industry standard framework. In addition, they can take advantage of new and improved workflows that will save on installation time and maintenance costs.

Building owners can take advantage of high-value apps from the Niagara Community and connect directly to apps hosted in the cloud. Built-in analytics create smarter, more efficient buildings, and improve decision-making. Additionally, Niagara's world-class security features protect all levels of the building infrastructure — giving owners greater peace of mind.

## A flexible solution for the Niagara Community.

Our goal with SBS EDGE XN4 is to bring the power of the Niagara Framework to the edge and make it easier to connect and control systems and optimize performance within the IoT. That's why we are evolving our software to include tools to assist in the configuration and management of edge devices. These tools are open and available for everyone running Niagara, regardless of hardware platform.

# SBS EDGE XN4

## Network

SBS EDGE XN4 controllers can be daisy chained to continue network connectivity and eliminate the need for separate wiring back to a switch.

Connect SBS EDGE XN4 controllers to your main building or IT network and manage them directly with a Supervisor alongside of a SBS JACE 8N4.

Use the secondary Ethernet port of the SBS JACE 8N4 to create a private network of SBS EDGE XN4 controllers.

## Quickly build your network

Based on the volume of edge devices at a site, adding devices to your Supervisor may be a challenge. Join edge devices to your network more quickly with tools that ease the process of adding and managing a field of edge devices, which reduces overall installation and configuration time.

## Easily manage and deploy updates

SBS EDGE XN4 devices typically have a single purpose, with multiple devices serving the same function. Use Niagara to create application templates and deploy to multiple devices with specific properties unique to each device.

## Connectivity

When data from external sources — i.e. thermostats, variable speed drives, or smart sensors — is required to drive an application, the SBS EDGE XN4 allows for connections to those types of external sources using BACNet/ IP, Modbus, and SNMP over an IP network and/or BACnet and Modbus over a 485 network.

## Keep your network secure

Security is always critical but implementing it across numerous devices on a network can be tedious. Tridium has built tools that assist systems integrators in provisioning and managing security settings across devices.





# Specifications

## Technical Data

- Powered by the Niagara Framework®
- 5 universal inputs
- 3 digital outputs
- 2 analog outputs
- 1 485 serial port
- 2 ethernet ports that support daisy-chain topology
- Expandable via two SBS IOMR X 34 modules
- ACE Deterministic runtime engine\*
- 24VAC/DC source

## Hardware

- NXP iMX6 SoloX2: 800 MHz ARM Cortex-A9/M4
- 512 MB DDR SDRAM
- 2GB total eMMC flash storage with user space set at 1GB
- Powered from 24VAC/DC source
- 5 Universal inputs: Type 3 (10K) thermistors, 0-100K ohm, 0-10VDC, 0-20mA with external resistor, Dry Contact
- 2 Analog outputs: 0-10VDC, 4mA max output current
- 3 Digital outputs: Triac, 24VAC @.5 amp
- 2 10/100MB Ethernet ports capable of daisy chaining
- 1 RS-485 serial port
- Real-time clock
- Secure boot

## Expandability

Two (2) SBS IOMR X 34 modules connected over a shielded 485 bus

## Connectivity

When data from external sources — i.e. thermostats, variable speed drives, or smart sensors — is required to drive an application, the Niagara Edge 10 allows for connections to those types of external sources using BACNet/ IP, Modbus, and SNMP over an IP network and/or BACnet and Modbus over a 485 network.

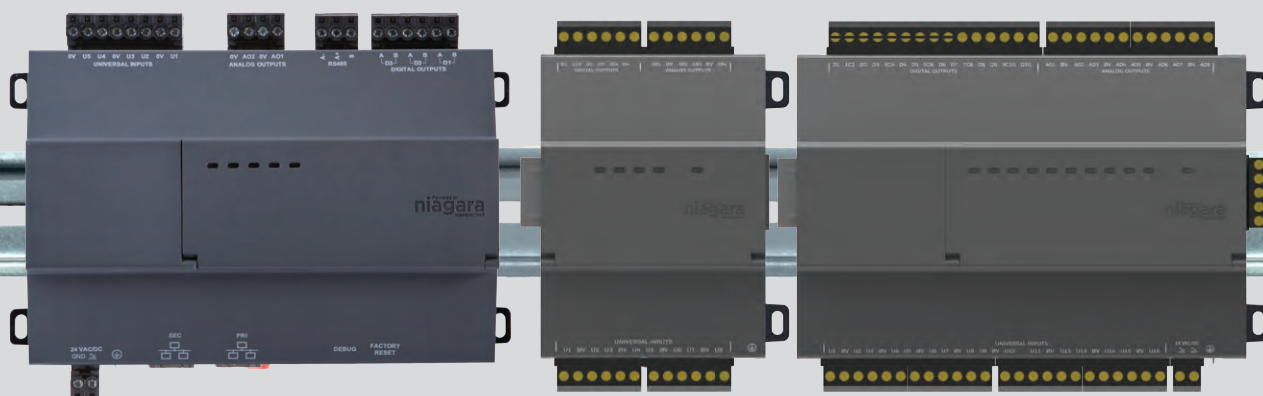
## Environmental specifications

- Operating temperature: -20 to 60°C
- Storage temperature: -40 to 85°C
- Humidity: 5-95% non-condensing
- Shipping & vibration: ASTM D4169, Assurance Level II
- MTBF: 10 years

## Agency certifications

- FCC Part 15, class b
- C-UL
- CE
- UL916, Open Energy Management Class 2
- RoHS2
- REACH
- WEEE
- CAN/CSA-C22.2 No. 205-12

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# Niagara 4

Niagara 4 builds on the legacy of the Niagara Framework® in new and exciting ways. It's less reliant on browser plug-ins, faster and easier to use. Now end users can directly access, analyze and act on a wide range of operational data. A truly open framework, Niagara 4 delivers a variety of notable improvements to help businesses take full advantage of the Internet of Things, including advanced visualization and new search, security and navigation tools.

## New functions and improvements

- An advanced, modern user interface - intuitive and customizable
- More data at your fingertips to find, visualize and take control of your operations
- Powerful security
- Faster, more powerful development and support
- Easier integration and device management
- Distribute more control and management tasks to intelligent edge devices

## An all-new user interface

Niagara 4 features a bold and intuitive new interface. Modern and easy to use, the platform utilizes HTML5 to provide an array of rich features. Our powerful new UI framework makes the user experience simpler and more robust, giving users maximum control of their data and decisions.

## More data at your fingertips

Users can easily conduct a station-wide search of the most important elements in their operation. With a simple point-and-click or drag-and-drop, users can create customized charts, allowing them to instantly find and display critical information from their desktop, tablet or mobile device. Systems integrators no longer necessarily need to re-engineer new dashboards each time a customer requirement changes.

## Powerful security

Niagara 4 takes a "defense-in-depth" approach to Internet of Things security. Building on the security of previous Niagara versions, Niagara 4 is secure by default. Authentication requires users to choose strong credentials, and both data in motion and sensitive data at rest are encrypted. Niagara 4 also uses Role-Based Access Control (RBAC), making user permissions easy to configure and less error-prone. All user actions and security-related events are recorded in Niagara's audit log for traceability.

## Ordering information

Part Number	Description
OAS-SBS-EDGE-XN4	SBS EDGE XN4 field controller with 10-point onboard IO, 1 RS-485 serial interface and 2 10/100 Ethernet ports. Supports 1 IO-R-34. Includes Niagara N4 and drivers for BACnet, Modbus and SNMP. Supports up to 3 devices or 50 points.

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**The OAS-SBS-EDGE-XN4 is powered by Niagara Framework®.**  
**Niagara Framework is a registered trademark of Tridium Inc.**

niagara  
edge

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