

niagara⁴ supervisor

PRODUCT DEFINITION

The Niagara Supervisor is part of the portfolio of Java-based controller/server products, software applications and tools powered by the Niagara Framework®. It provides server-level functions for a network of JACE®, VYKON Edge Controller 10 and other field devices. The Niagara Supervisor serves real-time graphical information to standard web-browser clients and performs essential functions such as analytics, centralized data logging/trending, archiving to external databases, alarming, dashboarding, system navigation, master scheduling, database management and integration with other enterprise software applications. Additionally, the Niagara Supervisor provides a comprehensive graphical engineering toolset for application development and configuration.

key features

- Centralized system management
- Utilize tags to quickly navigate to buildings, systems and equipment when diagnosing operational problems or emergencies
- Compare data between buildings
- Export system data to external databases
- Integrate a Building Automation System (BAS) with other enterprise applications
- Integrate with other applications, such as work order management, analytics, etc.
- Single tool used to program JACE, Niagara Edge controllers and Supervisor
- Remotely back up JACE and Edge applications to Supervisor
- Batch provisioning of JACE and Edge firmware upgrades, security credentials, applications and commissioning options from Supervisor
- Robust built-in analytic capabilities supported by standard Niagara components and visualizations
- Includes Niagara Analytics, which features data source, functional and mathematical programming blocks that enable sophisticated analytic algorithms
- Compatibility with Niagara Enterprise Security access control and security application. Allows integration of BAS and access control to save energy and optimize operations
- Eligible for accreditation under the Federal Risk Management Framework (RMF)
- FIPS 140-2 Level 1 conformance available

The Niagara Supervisor allows the networking of multiple Niagara-based JACE® and VYKON Edge Controller 10, along with other IP-based controllers and field devices. It enables the design, configuration and maintenance of a unified, real-time controls network.

powered by

niagara
framework®

SPECIFICATIONS

Features a HTML5 and Java-enabled user interface (UI), and includes a JavaScript data interface library (BajaScript)

Supports an unlimited number of users over the internet/intranet with a standard web browser (depending on the host PC resources)

Optional enterprise-level data archival using SQL, MySQL or Oracle databases, and HTTP/HTML/XML, CSV or text formats

“Audit Trail” of database changes, database storage and backup, global time functions, calendar, central scheduling, control and energy management routines

Sophisticated alarm processing and routing, including email alarm acknowledging

Access to alarms, logs, graphics, schedules and configuration data with a standard web browser

Niagara follows industry best practices for cyber security, with support for features such as strong, hashed passwords, TLS for secure communications and certificate management tools for authentication. A built-in Security Dashboard provides a comprehensive and actionable view of the security posture of your Niagara deployment

HTML-based help system that includes comprehensive online system documentation

Supports multiple Niagara-based stations connected to a local Ethernet network or the internet

Provides online/offline use of the Niagara Framework® Workbench graphical configuration tool and a comprehensive Java Object Library

Optional direct Ethernet-based driver support for most Open IP field bus protocols (see supported drivers document)

SOFTWARE & DRIVERS

Every Niagara Supervisor comes with a Niagara 4 software license, along with multiple open-protocol IP drivers that are compatible with standard control networks. If required, other drivers can be purchase separately. For an up-to-date list of supported drivers, visit the resource library on tridium.com.

SOFTWARE MAINTENANCE

Purchase of a software maintenance agreement (SMA) is required with initial Niagara Supervisor licensing. The initial SMA is for 18 months, with extended agreements of 3 years and 5 years available for discounted rates.

An active Software Maintenance Agreement (SMA) is required for a Niagara instance to run the latest version of Niagara. When SMA expires, the licensed version will remain at the version that’s in effect at time of the expiration. To upgrade, the requisite maintenance terms (1-year, 3-year, 5-year) are required to bring the SMA expiration date to current or future date.

For an up-to-date list of supported drivers, visit vykon.com.

ORDERING INFORMATION

Part number	Description
S-N4-0	No Niagara network – Devices only. 18mo SMA required
SUP-0-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
S-N4-1	1 Niagara network connection* (18mo SMA req)
SUP-1-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
S-N4-2	2 Niagara network connections* (18mo SMA req)
SUP-2-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
S-N4-3	3 Niagara network connections* (18mo SMA req)
SUP-3-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
S-N4-10	10 Niagara network connections* (18mo SMA req)
SUP-10-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
S-N4-100	100 Niagara network connections* (18mo SMA req)
SUP-100-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
S-N4-UNL	Unlimited Niagara network connections* (18mo SMA req)
SUP-UNL-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-UP-1	Adds 1 additional Niagara connection to Supervisor
SUP-UP-100	Upgrades small Supervisor to 100 Niagara connections
SUP-UP-UNL	Upgrades Supervisor 100 to unlimited Niagara connections
SUP-DEVICE-[10, 25, 50, 100, 200, 500, 1000]	[10, 25, 50, 100, 200, 500, 1000] device upgrade (standard drivers included)
SP-S-FIPS	Provides FIPS 140-2 Level 1 conformance for 4.6 and later
SUP-[0-UNL]-SMA-[1,3,5]YR	Supervisor [0-UNL] Maintenance – [1,3,5] YR extensions

*VYKON Edge Controller 10 or OEM devices ‘powered by Niagara framework’ with a 150 points or less based capacity license now count as a 1/10 of a standard Niagara Network connection

NIAGARA CONTAINERS

Supervisor models are also available for deployment in containers as subscription licensing (subject to necessary subscription agreement):

Part number	Description
NCC-SUP-[0, 1, 10, 100, 500]	Subscription for 1 Year for N4 Niagara Core Container Supervisor with [0, 1, 10, 100, 500] Niagara connections
NCC-SUP-UP-[1, 10, 100]	Subscription for 1 Year for N4 Niagara Core Container Supervisor upgrade for [1, 10, 100] Niagara connection
NCC-SUP-DEV-10	Subscription for 1 Year for N4 Niagara Core Container Supervisor 10 field device pack (Standard drivers included) up to 500 points
NCC-SUP-DEV-50	Subscription for 1 Year for N4 Niagara Core Container Supervisor 50 field device pack (Standard drivers included) up to 2500 points
NCC-SUP-DEV-100	Subscription for 1 Year for N4 Niagara Core Container Supervisor 100 field device pack (Standard drivers included) up to 5000 points
NCC-SUP-DEV-500	Subscription for 1 Year for N4 Niagara Core Container Supervisor 500 field device pack (Standard drivers included) up to 25000 points
NCC-SUP-DEV-1000	Subscription for 1 Year for N4 Niagara Core Container Supervisor 1000 field device pack (Standard drivers included) up to 50000 points

COMPATIBILITY

In any given Niagara system, the Niagara Supervisor must be running the highest version of any Niagara instance in the architecture.

When connecting to JACEs that are running older versions of Niagara, these compatibility guidelines apply:

- **Niagara AX:** Niagara 4 Supervisors can connect to JACEs running Niagara AX versions 3.8 and higher.
- **R2:** Niagara 4 Supervisors can connect to JACEs running R2 through the oBIX XML interface only.

PLATFORM REQUIREMENTS FOR NIAGARA SUPERVISOR

Niagara 4 Supervisors may run acceptably on lower-rated platforms, or may even require more powerful platforms, depending on the application, number of data points integrated, data poll rate, trend collection rate, number of concurrent users, performance expectations, etc.

- **Processor:** Intel® Xeon® 4th Gen (or better), Intel® Core® i-series 12th Gen (or better), AMD® Ryzen® 5 Gen 3 (or better)
- **Memory:** 16 GB DDR4 minimum, 32 GB or more recommended for larger systems
- **Hard Drive:** SSD 512 GB minimum, more recommended depending on archiving requirements
- **Network Support:** Ethernet adapter (10/100/1000 Mb with RJ-45 connector)
- **Video:** 1080p (1920 x 1080) minimum resolution
- **Operating System:** Windows 11 x64-bit; Windows Server 2022; Linux x64-bit: RedHat Enterprise Linux 8.7, Ubuntu 22.04 LTS 24.04 LTS
- **Browser:** Chrome, Firefox, Microsoft Edge
- **Mobile Browser:** Safari on iOS, Chrome on Android
- **Relational Database (optional):** MS SQL Server 2022; MySQL 8.4 or 9.0
- **Container Engine (for Containerized Supervisors):** Docker, Inc.

To learn more about how to purchase, install and start using the Niagara 4 Supervisor, contact your VYKON partner. The global community of certified Niagara professionals can serve your unique business needs across any industry or geographic region.



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