

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, Niagara Edge 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.

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

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

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 purchased 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.

If a Software Maintenance Agreement is not in effect for any period, the price of maintenance for the next period for which it is purchased will be priced at a cost equal to the maintenance fee for the period(s) for which maintenance was not purchased, up to a maximum of 5 years, plus the maintenance fee for the next year.

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-STATION-5UP	Allows running multiple stations with 1 Niagara license Each instance of the part purchased increases the limit by 5 stations
SUP-UP-100	Upgrades small Supervisor to 100 Niagara connections
SUP-UP-UNL	Upgrades Supervisor 100 to unlimited Niagara connections
SUP-DEVICE-10	10 device upgrade (standard drivers included)
SUP-DEVICE-25	25 device upgrade (standard drivers included)
SUP-DEVICE-50	50 device upgrade (standard drivers included)
SUP-DEVICE-100	100 device upgrade (standard drivers included)
SUP-DEVICE-200	200 device upgrade (standard drivers included)
SUP-DEVICE-500	500 device upgrade (standard drivers included)
SUP-DEVICE-1000	1000 device upgrade (standard drivers included)
SP-S-FIPS	Provides FIPS 140-2 Level 1 conformance for 4.6 and later
SUP-AX	Enables Supervisor to run Niagara AX (v3.8)
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

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, number of concurrent users, performance expectations, etc.

- **Processor:** Intel® Xeon® CPU E5-2640 x64 (or better), compatible with dual- and quad-core processors
- **Operating System:** Windows 10 (64 bit), Windows Server 2016, Windows Server 2019 (64 bit), Red Hat Enterprise Linux 7.7, 8.1 (64bit)
- **Mobile operating system:** iOS 12, iOS13, Android 8 Oreo, Android 9 Pie, Android 10.0
- **Browser:** Chrome, Firefox, Microsoft Edge
- **Mobile Browser:** Safari on iOS, Chrome on Android
- **Database:** MySQL 5.7, 8.0, 9.0; Oracle Express 11g; Oracle 12, 18, 19c; MSSQL 2012, 2016, 2017, 2019
- **Memory:** 6 GB minimum, 8 GB or more recommended for larger systems
- **Hard Drive:** 4 GB minimum, more recommended depending on archiving requirements
- **Display:** Video card and monitor capable of displaying 1024 x 768 pixel resolution, 1080p (1920 x 1080) minimum resolution recommended
- **Network Support:** Ethernet adapter (10/100 Mb with RJ-45 connector)
- **Connectivity:** Full-time high-speed ISP connection recommended for remote site access (i.e., T1, ADSL, cable modem) and IPv6 compliant

Platform requirements for older versions of Niagara Supervisors are included in the release notes for each particular version.

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.



vykon.com

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