data sheet

niagara 4 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 and other field device clients. The Niagara Supervisor serves real-time graphical information to standard web-browser clients and performs other functions like centralized data logging/trending, archiving to external databases, alarming, dashboarding, system navigation, master scheduling, database management and integration with other enterprise software applications through an XML interface (oBIX standard). Also, it provides a comprehensive graphical engineering toolset for application development.

The Niagara Supervisor allows the networking of multiple Niagara-based JACE® 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
- Quickly navigate to individual buildings using tags to diagnose problems
- Compare data between buildings
- Export system data to external databases
- Integrate BAS to other enterprise applications
- Integrate to other applications, such as work order management, analytics, etc.
- Single tool used to program JACE controllers and Supervisor
- Remotely back up JACE applications to Supervisor
- Batch provisioning of JACE firmware upgrades from Supervisor
- Robust built-in analytic capabilities supported by standard Niagara components and visualizations
- Compatibility with Niagara Analytics, adding data source, functional and mathematical programming blocks to 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

HTML5 and Java-enabled user interface (UI); JavaScript data interface library included (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, TLSv1.2 for secure communications and certificate management tools for authentication

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 AX 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 JACE comes with a Niagara 4 software license and many open-protocol IP drivers that cover standard control situations. Other drivers can be purchased separately à la carte. 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 the resource library on tridium.com.

ORDERING INFORMATION

Part number	Description
SUP-0	No Niagara network – Devices only. 18mo SMA required
SUP-0-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-1	1 Niagara network connection (18mo SMA req)
SUP-1-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-2	2 Niagara network connections (18mo SMA req)
SUP-2-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-3	3 Niagara network connections (18mo SMA req)
SUP-3-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-10	10 Niagara network connections (18mo SMA req)
SUP-10-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-100	100 Niagara network connections (18mo SMA req)
SUP-100-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-UNL	Unlimited Niagara network connections (18mo SMA req)
SUP-UNL-SMA-INIT	18mo initial SMA required (3YR or 5YR can be substituted)
SUP-DEMO	Niagara 4 Supervisor demo
SUP-UP-1	Adds one 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	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

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 3.6u4, 3.7u1, 3.8R and higher.
- **R2:** Niagara AX and Niagara 4 Supervisors can connect to JACEs running R2 through the oBIX XML interface only. oBIX is included in all Niagara AX and Niagara 4 Supervisors as a means of integrating Niagara-based Release 2 (R2) JACEs. With Niagara Release 2.3.522 or higher, the oBIX driver can be added to expose all data points, schedules, trends and alarms to a Niagara AX or Niagara 4 system. This oBIX driver is both a client and a server.

PLATFORM REQUIREMENTS FOR NIAGARA 4.6

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 7 Professional/Enterprise/Ultimate (32 and 64 bit), Windows 8.1 Professional/Enterprise/Ultimate (32 and 64 bit)Windows 10 (32 and 64 bit), Windows Server 2012 R2 (SP2) Standard/Enterprise, Windows Server 2016, Red Hat Enterprise Linux 7.4
- **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 or greater
- **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.

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