



# INTEGRA-Supervisor

Niagara Framework N4 Enterprise Management Software

## DESCRIPTION

BTL-listed as an BACnet® Advanced Operator Workstation (B-AWS) and BACnet Operator Workstation (B-OWS), the **INTEGRA-Supervisor** is an enterprise management server class software solution that connects multiple INTEGRA™-based **IT-8000** controllers, along with other IP-based controllers and field devices, to be networked together. It serves real-time graphical information to standard web-browser clients and provides server-level functions.

These functions include 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). Additionally, the **INTEGRA-Supervisor** includes a comprehensive graphical engineering toolset for application development.

## APPLICATION

The **INTEGRA-Supervisor** can be used in conjunction with the **IT-8000** controllers to aggregate information, including real-time data, history, and alarms, to create a single, unified application.

### Enterprise Management Software

- Quickly navigate to individual buildings using tags to diagnose problems
- Compare data between buildings
- Export system data to external databases
- Remotely back up INTEGRA™ applications to INTEGRA-Supervisor
- Robust built-in analytic capabilities supported by standard INTEGRA components and visualizations
- Enterprise level history, trends and alarms
- Audit Trail provides chronological history of user transactions

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**Single tool used to program the INTEGRA-Supervisor and IT-8000 network controllers**

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**Eligible for accreditation under the Federal Risk Management Framework (RMF)**

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**FIPS 140-2 Level 1 Conformance Available**

## SPECIFICATIONS

### INTERFACE

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)

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

HTML-based help system that includes comprehensive online system documentation

### SECURITY

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

INTEGRA 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

### COMPATIBILITY

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

When connecting to an INTEGRA™ that are running older versions of INTEGRA™, these compatibility guidelines apply:

INTEGRA <sup>AX</sup>	INTEGRA-Supervisors can connect to IT-8000s running INTEGRA versions 3.6u4, 3.7u1, 3.8R and higher.
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### SUPPORTED DRIVERS

Many open IP protocol drivers are included with INTEGRA-Supervisor.

### CONNECTIVITY

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

Provides online/offline use of the INTEGRA 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)

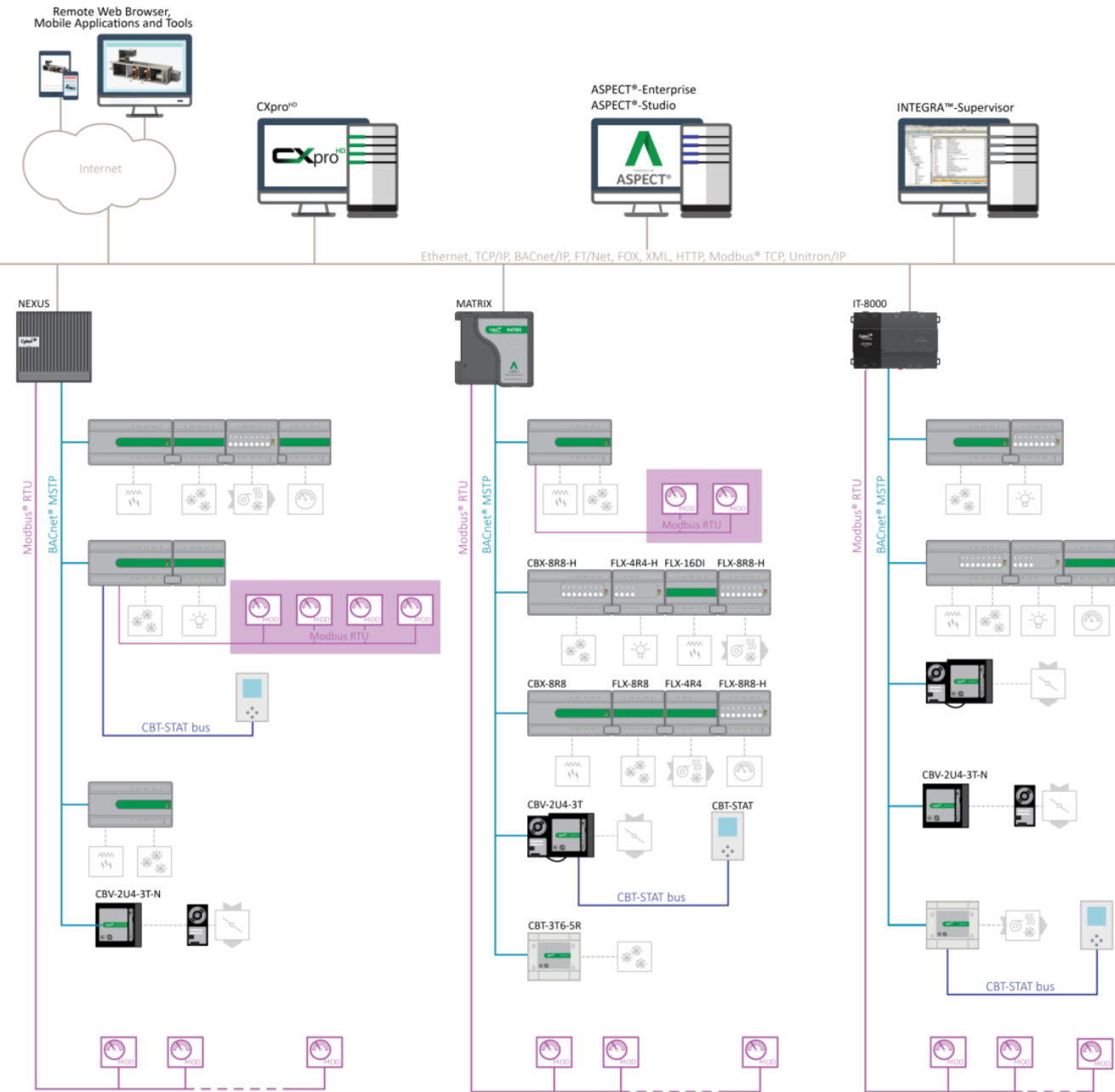
### PLATFORM REQUIREMENTS

INTEGRA-Supervisor 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 ES-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
VDU	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 INTEGRA-Supervisors are included in the release notes for each version.

# SYSTEM ARCHITECTURE



## ORDERING INFORMATION

### INTEGRA-Supervisor SOFTWARE

ITS-000-SUP	INTEGRA-Supervisor software core with support for 0 Niagara network connections. Includes standard drivers. Requires ITS-000-SM0. Typically used to manage TCP/IP field devices (requires ITS-XXX-DIP)
ITS-001-SUP	Support for 1 Niagara network connection. Includes standard drivers. Requires ITS-001-SM0.
ITS-002-SUP	Support for 2 Niagara network connections. Includes standard drivers. Requires ITS-002-SM0.
ITS-003-SUP	Support for 3 Niagara network connections. Includes standard drivers. Requires ITS-003-SM0.
ITS-010-SUP	Support for 10 Niagara network connections. Includes standard drivers. Requires ITS-010-SM0.
ITS-100-SUP	Support for 100 Niagara network connections. Includes standard drivers. Requires ITS-100-SM0.
ITS-UNL-SUP	Support for unlimited Niagara network connections. Includes standard drivers. Requires ITS-UNL-SM0.

### SOFTWARE ADDITIONS AND UPGRADES

ITS-001-ADD	Adds one additional Niagara connection to INTEGRA-Supervisor core ITS-000-SUP to ITS-100-SUP
ITS-100-UPG	INTEGRA-Supervisor upgrade to ITS-100-SUP from ITS-000-SUP to ITS-010-SUP. Will maintain any ITS-001-ADD that were added to original core (ITS-XXX-N4)
ITS-UNL-UPG	INTEGRA-Supervisor upgrade from ITS-100-SUP to ITS-UNL-SUP
ITS-005-STN	Adds the ability for a ITS-000-SUP, ITS-001-SUP, ITS-002-SUP or ITS-003-SUP to run 5 additional stations. Typically used for small site multi-tenant options.

### SERVICE AND MAINTENANCE AGREEMENTS

ITS-000-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software ITS-000-SUP. Optional 3 or 5-year maintenance may be substituted.
ITS-000-SM1	1-year software maintenance agreement for core software ITS-000-SUP.
ITS-000-SM3	3-year software maintenance agreement for core software ITS-000-SUP.
ITS-000-SM5	5-year software maintenance agreement for core software ITS-000-SUP.
ITS-001-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software ITS-001-SUP. Optional 3 or 5-year maintenance may be substituted.
ITS-001-SM1	1-year software maintenance agreement for core software ITS-001-SUP.
ITS-001-SM3	3-year software maintenance agreement for core software ITS-001-SUP.
ITS-001-SM5	5-year software maintenance agreement for core software ITS-001-SUP.
ITS-002-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software ITS-002-SUP. Optional 3 or 5-year maintenance may be substituted.
ITS-002-SM1	1-year software maintenance agreement for core software ITS-002-SUP.
ITS-002-SM3	3-year software maintenance agreement for core software ITS-002-SUP.
ITS-002-SM5	5-year software maintenance agreement for core software ITS-002-SUP.
ITS-003-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software ITS-003-SUP. Optional 3 or 5-year maintenance may be substituted.
ITS-003-SM1	1-year software maintenance agreement for core software ITS-003-SUP.
ITS-003-SM3	3-year software maintenance agreement for core software ITS-003-SUP.
ITS-003-SM5	5-year software maintenance agreement for core software ITS-003-SUP.
ITS-010-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software ITS-010-SUP. Optional 3 or 5-year maintenance may be substituted.
ITS-010-SM1	1-year software maintenance agreement for core software ITS-010-SUP.
ITS-010-SM3	3-year software maintenance agreement for core software ITS-010-SUP.
ITS-010-SM5	5-year software maintenance agreement for core software ITS-010-SUP.
ITS-100-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software ITS-100-SUP. Optional 3 or 5-year maintenance may be substituted.
ITS-100-SM1	1-year software maintenance agreement for core software ITS-100-SUP.
ITS-100-SM3	3-year software maintenance agreement for core software ITS-100-SUP.
ITS-100-SM5	5-year software maintenance agreement for core software ITS-100-SUP.
ITS-UNL-SM0	18-month software maintenance agreement. Must be purchased in conjunction with initial core software ITS-UNL-SUP. Optional 3 or 5-year maintenance may be substituted.
ITS-UNL-SM1	1-year software maintenance agreement for core software ITS-UNL-SUP.
ITS-UNL-SM3	3-year software maintenance agreement for core software ITS-UNL-SUP.
ITS-UNL-SM5	5-year software maintenance agreement for core software ITS-UNL-SUP.

## DEVICE INTEGRATION PACKS

ITS-010-DIP	Adds support for 10 non-Niagara devices or 500 points to INTEGRA-Supervisor core software (ITS-XXX-SUP). Standard drivers included. Requires ITS-XXX-SUP.
ITS-025-DIP	Adds support for 25 non-Niagara devices or 1,250 points to INTEGRA-Supervisor core software (ITS-XXX-SUP). Standard drivers included. Requires ITS-XXX-SUP.
ITS-050-DIP	Adds support for 50 non-Niagara devices or 2,500 points to INTEGRA-Supervisor core software (ITS-XXX-SUP). Standard drivers included. Requires ITS-XXX-SUP.
ITS-100-DIP	Adds support for 100 non-Niagara devices or 5,000 points to INTEGRA-Supervisor core software (ITS-XXX-SUP). Standard drivers included. Requires ITS-XXX-SUP.
ITS-200-DIP	Adds support for 200 non-Niagara devices or 10,000 points to INTEGRA-Supervisor core software (ITS-XXX-SUP). Standard drivers included. Requires ITS-XXX-SUP.
ITS-500-DIP	Adds support for 500 non-Niagara devices or 25,000 points to INTEGRA-Supervisor core software (ITS-XXX-SUP). Standard drivers included. Requires ITS-XXX-SUP.
ITS-1000-DIP	Adds support for 1,000 non-Niagara devices or 50,000 points to INTEGRA-Supervisor core software (ITS-XXX-SUP). Standard drivers included. Requires ITS-XXX-SUP.

## MISCELLANEOUS

ITS-FIPS	Provides FIPS 140-2 Level 1 conformance using the integrated FIPS certified BouncyCastle module for N4 Supervisor. Requires ITS-XXX-SUP version 4.6 and later.
ITS-OS-AX-SUP	Option to install a Niagara <sup>AX</sup> based application on a N4 Supervisor (ITS-XXX-SUP). Supports Niagara <sup>AX</sup> version 3.8 only.
ITS-ALM-CNSL	INTEGRA-Supervisor Alarm Console client. Support for Niagara alarm monitoring.

## DATABASE CONNECTIVITY DRIVERS

ITS-DR-MYSQL	INTEGRA-Supervisor MYSQL database driver. Requires ITS-XXX-SUP
ITS-DR-SQL	INTEGRA-Supervisor SQL database driver. Requires ITS-XXX-SUP
ITS-DR-ORCL	INTEGRA-Supervisor Oracle 11G database driver. Requires ITS-XXX-SUP
ITS-DR-CSV	INTEGRA-Supervisor CSV database driver. Requires ITS-XXX-SUP
ITS-DR-OPC-CL	INTEGRA-Supervisor OPC Client over Ethernet database driver. Requires ITS-XXX-SUP. Available only for Windows OS.

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