JACE®-300E

OVERVIEW

Tridium's JACE-300E is a compact, embedded controller/server platform. It combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and Web-serving capabilities in a small, compact platform. The JACE-3E makes it possible to control and manage external devices over the Internet and present real-time information to users in Web-based graphical views.

The JACE-3E is a member of Tridium's suite of Java-based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. Building upon the JACE-2's success, the JACE-3E offers faster performance to utilize new Niagara AX features. The JACE-3E device capacity has been increased by up to 20%, compared with the JACE-2.

Tridium products are powered by the Niagara Framework®, an open platform that connects and translates data from nearly any device or system. With nearly half a million instances worldwide, Niagara is quickly becoming the operating system of the Internet of Things. Its open API, open distribution business model and open protocol support give you the freedom to choose how you work, what you build and with whom you partner. Niagara enables you to connect and control devices, while normalizing, visualizing and analyzing data from nearly anywhere or anything.

APPLICATIONS

The JACE-3E is ideal for smaller facilities, remote sites, and distributing control and monitoring throughout large facilities. Optional input/output modules can be plugged in for applications where local control is required. The JACE-3E also supports a wide range of field busses for connection to remote I/O and stand-alone controllers. In small facility applications, the JACE-3E is all you need for a complete system.

The JACE-3E serves data and rich graphical displays to a standard Web browser via an Ethernet LAN or remotely over the Internet. In larger facilities, multi-building applications and large-scale control system integrations, Niagara AX Supervisor software can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of JACEs into a single unified application.

FEATURES

- Embedded power PC platform @ 400 MHz
- Supports open and legacy protocols
- QNX® Real-Time Operating System
- Web user interface (standard) serves rich graphical browser presentations
- Run stand-alone control, energy management and integration applications within the JACE-3E series controllers
- Supports two optional communications boards
- Optional 16 and 34 point I/O modules
- dataRecovery prevents data loss during power interruptions

ORDERING INFORMATION — JACE® AND MEMORY UPGRADE OPTIONS

Part number	Description
T-300E	JACE 3E Niagara controller with an unrestricted device/point license. Includes two Ethernet ports, one RS-232 port and one RS-485 port. Web user interface and Niagara connectivity included. oBIX client/server driver included. Battery not included. Requires Niagara AX 3.7.106 or later.
T-3E-MC	JACE 3E Niagara controller with 34 point I/O module. Features include Niagara station and Web user interface. Includes Niagara Network (Fox) client/server. Includes oBIX client/server, Modbus®, BACnet® and LON® drivers limited to a total of 5 devices* per controller or 150 total points. Requires 24 VAC or 24 VDC power source. Option cards required for communication to remote devices are not included. Battery not included. Requires Niagara AX 3.8.037 or later.
T-3E-MC-UP	License upgrade for T-3E-MC. Removes device and point restriction.
T-3E-LITE	JACE 3E Niagara controller for light integration applications. Features include Niagara station and Web user interface. Includes Niagara network (Fox) client/server. Includes oBIX client/server, Modbus, BACnet, LON and RedLINK™ drivers limited to a total of 100 points*. Battery not included. Requires Niagara AX 3.8.037 or later. **Must be purchased in quantities of 15.**
T-3E-LITE-UP	License upgrade for T-3E-LITE. Removes point restriction.
NPM-256	NPM-256 — Memory upgrade option. Upgrades JACE-3E Java Heap from 24 MB maximum up to 96 MB maximum. Note: Some stations may limit heap allocation to less than maximum values.
SMA-3E-1YR	JACE-3E — 1-year maintenance
SMA-3E-3YR	JACE-3E — 3-year maintenance
SMA-3E-5YR	JACE-3E — 5-year maintenance

*NDIO, NRIO and Niagara drivers are excluded from device/point license limits.

ORDERING INFORMATION — OPTIONAL COMMUNICATIONS CARDS

Part number	Description
NPB-LON	Optional 78 Kbps FTT10A LON adapter
NPB-232	NPB-232 — Optional RS-232 port adapter with 9 pin D-shell connector
NPB-2X-485	Optional dual port RS-485 adapter; electrically isolated
NPB-GPRS-W	GPRS Modem option card
NPB-ZWAVE-US	ZWAVE option card for North America (available on T-300E only)
NPB-ZWAVE-UK	ZWAVE option card for Europe (available on T-300E only)

ORDERING INFORMATION — POWER SUPPLY & OPTIONAL POWER MODULES

Part number	Description
NPB-PWR	Optional: 24 volt AC/DC power supply module, DIN Rail mounted
WPM-US	120 VAC 50–60 Hz. US
WPM-EUR	230 VAC 50–60 Hz. Europe/Asia
WPM-UK	WPM-UK — 230 VAC 50–60 Hz. UK
WPM-JP	100 VAC 50–60 Hz. Japan
NPB-PWR-UN	Optional universal voltage input power supply module, DIN rail mounted. Input voltage is 90–263 volts AC, 50/60 Hz auto adjusting. Acceptable for ambient temperatures between 0–50°C
NPB-BATT	Optional battery kit. Provides up to 10 minutes of runtime during power outages and disturbances

SPECIFICATIONS

Platform

- Power PC 405EX 400MHz processor
- 256 MB SDRAM & 128 MB flash memory
- dataRecovery with SRAM
- Real-time clock

Operating System

- QNX® RTOS
- Oracle HotSpot Java VM
- Niagara AX 3.7.106 or later (T-300E)
- Niagara AX 3.8.037 or later (T-3E-MC or T-3E-LITE)
- Niagara 4.0 ready

Communications

- 2 Ethernet ports — 10/100 Mbps (RJ-45 connectors)
- 1 RS 232 port (9 pin D-shell connector)
- 1 RS 485 non-isolated port (3 screw connector on base board)

Chassis

- Construction: Plastic, DIN rail or screw mount chassis, plastic cover
- Cooling: Internal air convection
- Dimensions: 6.313" (16.04 cm) W x 4.820" (12.24 cm) H (including connectors) x 2.438" (6.19 cm) D

Environment

- Operating temperature range: 0–60°C (32–140°F)
- Operating temperature range: 0–50°C (32–122°F) w/ optional battery kit
- Storage temperature range: 0–70°C (32–158°F)
- Relative humidity range: 5–95%, non-condensing

Agency Listings

- RoHS compliant
- UL 916
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 “Signal Equipment”
- CE
- FCC part 15 Class B
- C-tick (Australia)
- BTL

Optional I/O Modules

IO-34 — 34 Point I/O Module

- Max of 1 per JACE®-3E; includes integral 24 volt AC/DC input power supply for JACE-3E and IO; no other power required
- 16 universal inputs: type 3 (10k) thermistors, 0–1000 ohm, 0–10 volts, 0–20 mA with external resistor
- 10 relay outputs (Form A contacts, 24 VAC @ .5 amp-rated)
- 8 analog outputs (0–10 volt DC)

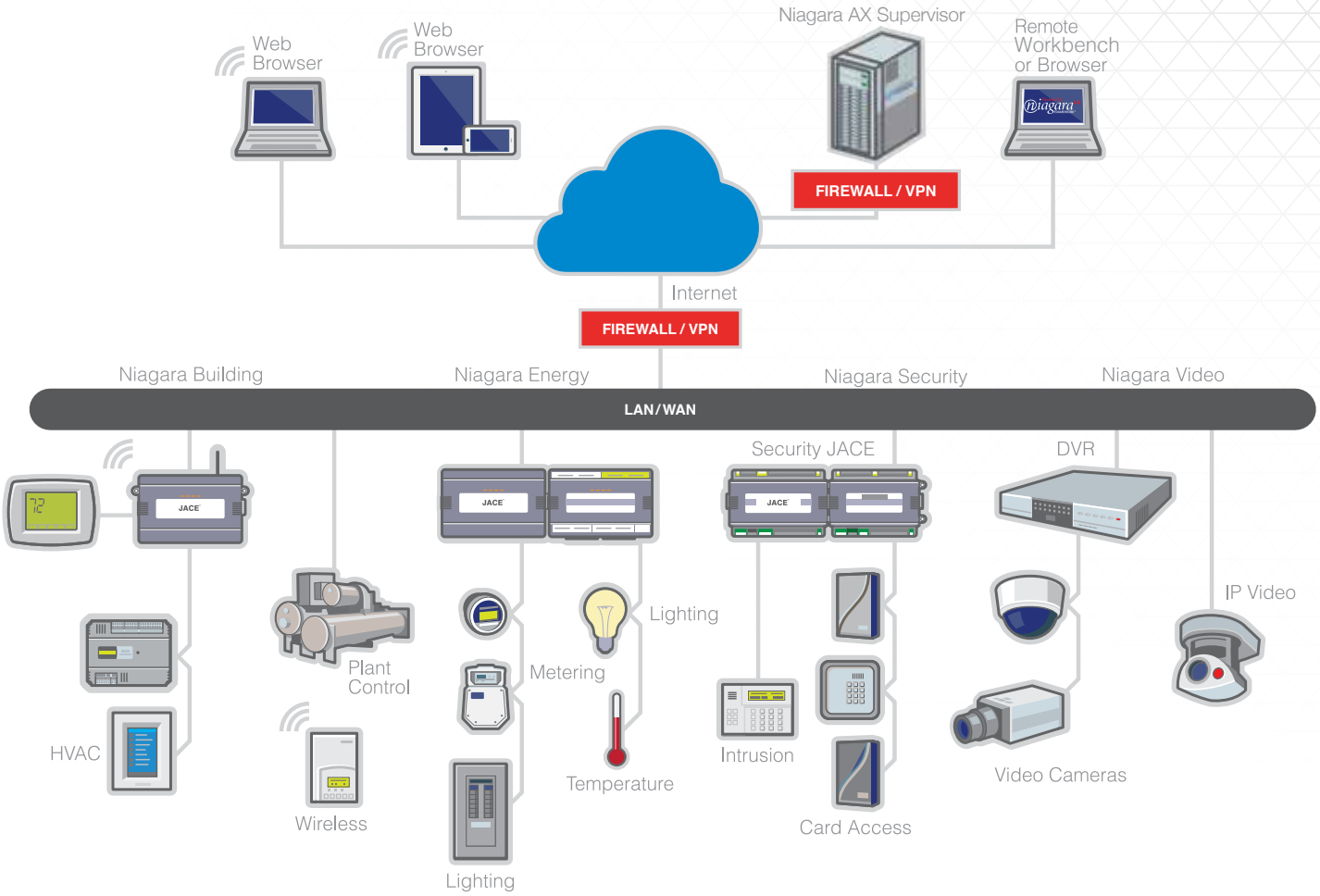
IO-16 — 16 point I/O Module

- Up to 4 per JACE-3E, 2 per JACE-3E if combined with a 34 point I/O module
- 8 universal inputs: type 3 (10k) thermistors, 0–1000 ohm, 0–10 volts, 0–20 mA with external resistor
- 4 relay outputs (Form A contacts, 24 VAC @ .5 amp-rated)
- 4 analog outputs (0–10 volt DC)

IO-16-485 Remote I/O Module

- 16 IO points per device
- 8 universal inputs: type 3 (10k) thermistors, 0–100K ohm, 0–10 vdc, 0–20 mA with external resistor
- 4 relay outputs (Form A contacts, 24 VAC @ .5 amp-rated)
- 4 analog outputs (0–10 vdc)
- Up to 4 remote IO-16-485 modules max per JACE-3E

ARCHITECTURE



The JACE®-3E is available through a wide variety of original equipment manufacturers. Our open distribution business model and open protocol support allow a vendor-neutral application compatible with devices and systems throughout the world.

To learn more about how to purchase, install and start using the JACE-3E, or if you are an original equipment manufacturer and would like to add the JACE-3E to your suite of offerings, please contact us.

TRIDIUM **804.747.4771** Corporate HQ / **877.305.1745** Customer Support **tridium.com**

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