JACE® 8000: An in-depth look
Agenda

• JACE 8000 overview
• Niagara 4 licensing
• Distribution
• Selection process
• Beta success stories
• Q&A
JACE 8000 platform at-a-glance

- Premier Niagara 4 engine optimizing the power of the Niagara Framework®
- Modular hardware design for faster, easier installation
- Global design with enhanced enclosure compatibility
- Enhanced wireless capability, reducing installation labor and materials
- Prominent brand ID, allowing for OEM differentiation
- Address hardware obsolescence for enhanced availability and cost
**Tool-less installation**

**Existing JACE**
- Requires tools to install an option card
- Error prone if pins misaligned
- Limited to two option modules

**JACE 8000**
- Tool-less installation
- Hot pluggable expansion
- Allows up to 4 modules
- Improved DIN rail clip
Faster, easier installation

Existing JACE
- Limited support for wireless protocols
- Limited resources for emerging standards

JACE 8000
- Lower installation costs
- Enable use of wireless devices
- Reduce installation labor
- Reduce material costs
JACE 8000: WAP
JACE 8000: Client
WiFi configuration
High-performance core

Hardware specifications
- TI AM3352 @ 1GHz
- 1GB RAM
- 4GB flash total storage / 2GB user storage
- WiFi (Client or WAP)
- USB flash drive
- High-speed field bus expansion
- (2) Isolated RS 485
- (2) 10/100MB Ethernet ports
- -20-60°C Ambient operating temp

Agency certifications
- UL 916
- CE 61326
- FCC Part 15 Subpart B, Class B
- FCC Part 15 Subpart C
- C-UL

Accessories
- NPB-8000-2X-485 – Dual RS 485 Expansion (2)
- NPB-8000-LON – LON FTT10A Expansion (4)
- NPB-8000-232 – RS 232 Expansion (4)
- IO-16-485 – RS485 16 point IO module (16)
Simplified licensing model

Niagara AX
Multiple hardware platforms

- JACE 7 (~200 devices)
- JACE 6E+ (~80 devices)
- JACE 6E (~40 devices)
- JACE 3E+ (~20 devices)
- JACE 3E (~10 devices)

Drivers:
Standard included, special/custom – add on

Niagara 4
One hardware platform: JACE 8000

- 8200 (200 devices)
- 8100 (100 devices)
- 8025 (25 devices)
- 8010 (10 devices)
- 8005 (5 devices)

50Pts/dev

Software license

Drivers:
Standard included, special/custom – add on

- FLEX
- AAM-PUP
- AAM-PHP
- CCN
# Buying Niagara 4: JACE 8000

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JACE 8000</td>
<td>Single JACE 8000, includes branding &amp; USD card</td>
</tr>
<tr>
<td>NC-8005</td>
<td>5 Device Core</td>
</tr>
<tr>
<td>NC-8010</td>
<td>10 Device Core</td>
</tr>
<tr>
<td>NC-8025</td>
<td>25 Device Core</td>
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<tr>
<td>NC-8100</td>
<td>100 Device Core</td>
</tr>
<tr>
<td>NC-8200</td>
<td>200 Device Core</td>
</tr>
<tr>
<td>SMA-8005-1YR</td>
<td>1 Year Maintenance (Included)</td>
</tr>
<tr>
<td>SMA-8005-3YR</td>
<td>3 Year Maintenance</td>
</tr>
<tr>
<td>SMA-8005-5YR</td>
<td>5 Year Maintenance</td>
</tr>
<tr>
<td>DEVICE-UP-10</td>
<td>10 Device Upgrade</td>
</tr>
<tr>
<td>DEVICE-UP-25</td>
<td>25 Device Upgrade</td>
</tr>
<tr>
<td>DEVICE-UP-50</td>
<td>50 Device Upgrade</td>
</tr>
</tbody>
</table>

- **Add Niagara** Includes standard drivers
- **Add maintenance**
- **Upgrades**
Simplifying the distribution

OEMs and distributors only need to stock hardware

Single hardware platform
- Less inventory (fewer parts on the shelf)
- Less inventory (no SW to stock)
- Easier upgrades
- Added rebrand flexibility
# Comparing Niagara AX and Niagara 4

<table>
<thead>
<tr>
<th>Small job comp</th>
<th>JACE-3E</th>
<th>JACE 8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>Heap/kRU</td>
<td>Devices/points</td>
</tr>
<tr>
<td>Power Supply</td>
<td>NPB-PWR</td>
<td>Included</td>
</tr>
<tr>
<td>Drivers</td>
<td>Add-on</td>
<td>Standard included</td>
</tr>
<tr>
<td>Additional Options</td>
<td>Embedded workbench</td>
<td>Included</td>
</tr>
<tr>
<td>Maintenance</td>
<td>JACE-MA-AX</td>
<td>Included</td>
</tr>
</tbody>
</table>

## Additional enhancements

<table>
<thead>
<tr>
<th>Niagara 4</th>
<th>Visualization improvements</th>
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<tbody>
<tr>
<td></td>
<td>Tagging/templating</td>
</tr>
<tr>
<td></td>
<td>Advanced security features</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>JACE 8000</th>
<th>Faster UI (stronger CPU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WiFi</td>
</tr>
<tr>
<td></td>
<td>Upgradeable!</td>
</tr>
</tbody>
</table>
## JACE 8000: Beta success stories

<table>
<thead>
<tr>
<th>Goals</th>
<th>Solution: JACE 8000</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Upgrade Niagara software and hardware for several K-12 schools</td>
<td>• Six JACE 8000 controllers connecting 63,291 points and 1,147 devices</td>
<td>• Increased capacity, flexibility and ease of use</td>
</tr>
<tr>
<td>• Manage energy usage, optimize efficiency and reduce costs</td>
<td>• Initial JACE connected 261 BACnet devices to monitor and manage chillers, air handlers, VAVs, FCUs, Modbus power meters, and lighting</td>
<td>• Overall CPU usage 30 percent less compared to NXS</td>
</tr>
<tr>
<td>• Provide fast, reliable performance; large capacity for history and alarming; suitability for HTML5</td>
<td>• 150-200 edge devices managed per site</td>
<td>• History and alarming capacity more than met the requirements</td>
</tr>
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*Optimizing greater connectivity and the Internet of Things*
JACE 8000: Beta success stories

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<tbody>
<tr>
<td>• Upgrade Niagara software and hardware for several longtime government client</td>
<td>• Installation of one Niagara Supervisor and numerous controllers, including seven JACE 8000s</td>
<td>• Enhanced flexibility, capacity and horsepower</td>
</tr>
<tr>
<td>• Move data on a large network across nine buildings</td>
<td>• Connection of 2,500 points system-wide to manage ventilation systems and various equipment (boilers, air handlers, etc.)</td>
<td>• Overall CPU usage reduced 15-30 percent</td>
</tr>
<tr>
<td>• Maintain high level of security, reliable connectivity, speed and performance</td>
<td>• Fast migration from Niagara AX to Niagara 4 using station migration tool</td>
<td>• Significant increase in memory and speed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strong “secure by default” approach</td>
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</table>

An open platform that is robust and easy to use
Thank You!

Michael Westerfield
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www.tridium.com/en/resources/events