JACE® 8000 Gets Results

THE CHALLENGE

Ensuring speed and performance were among the chief objectives for ESSI Controls in upgrading Niagara hardware and software for several K-12 schools in Collier County, FL. The Niagara Framework® provides critical data and alarming to help the schools manage energy usage, optimize efficiency and reduce costs.

As part of the Niagara 4 Beta Program, ESSI replaced existing JACE NXS/NXT hardware with Tridium's new high performance JACE 8000 platform.

The overall project encompassed a mix of BACnet IP and MSTP, with a total of six JACE controllers connecting more than 63,000 points and managing various equipment such as VAV systems, chilled water systems, a DX system and ice farms. Key determinants of success include:
1. Fast, reliable performance
2. Large capacity for history and alarming
3. Suitability for HTML5 environment

THE SOLUTION

The project included installation of a LON option; module, BACnet MSTP, BACnet IP, LonWorks and Modbus integration. Several features of Niagara 4 were also implemented and tested, including HTML5 technology that provides common end user views with no browser plug-in required; tagging and search; and a new, optimized workbench for fast integration.

THE RESULTS

After installing only one controller, ESSI found that JACE 8000 hardware and Niagara 4 software provided capacity, flexibility and ease of use.

Overall CPU usage was 30 percent less compared to NXS, a result of Niagara 4 optimization and increased power of JACE 8000. History and alarming capacity more than met the requirements of the project.

ESSI Controls was among nearly 300 applicants for the Niagara 4 Beta Program. As the first participant to install the JACE 8000 in a Beta project, ESSI saw immediate results.

> "Everything went smoothly both from a performance and migration point of view. The speed and capacity of the hardware platform was noticeable right away. It was truly 'plug and play.' Within 15 minutes I had it up and performing as expected."
>
> **JOHN POTPOLAK**
> **APPLICATIONS ENGINEER**
> **ESSI CONTROLS**

CASE STUDY FAST FACTS

- Beta installation of six JACE 8000 controllers connecting 63,291 points and 1,147 devices.
- Once installed, the initial JACE controller connected 261 BACnet devices to monitor and manage chillers, air handlers, VAVs, FCUs, Modbus power meters, and lighting.
- 150-200 edge devices managed per site
- Key takeaways: Overall CPU usage reduced by 30 percent; history and alarming capacity exceeded project requirements.

ESSI Electronic System Services, Inc.

TRIDIUM