

The slide features a blue background with a complex, geometric pattern of interconnected lines and nodes, resembling a molecular or crystalline structure. The text is centered and rendered in white, with the word 'TRIDIUM' in a large, bold, sans-serif font. A small red triangle is positioned above the final 'M' in 'TRIDIUM'. Below it, 'niagara4.15' is written in a lowercase, sans-serif font. At the bottom, 'FEATURES OVERVIEW' is displayed in a bold, uppercase, sans-serif font.

TRIDIUM

niagara4.15

FEATURES OVERVIEW

AGENDA

01

Niagara 4.15
Overview

02

Deployment

03

Interoperability

04

Connectivity

05

Cyber
Defense

06

Compliance

niagara 4.15

ALWAYS EVOLVING ACROSS FIVE DIMENSIONS

DEPLOYMENT



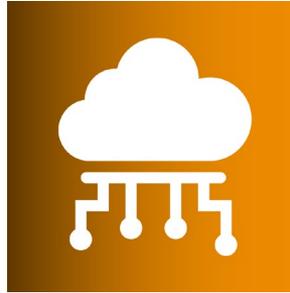
- HTML5 Px Editor
- HTML5 Relation Manager
- JACE-9000 WiFi Support
- Access Control Badge Printing

INTEROPERABILITY



- Driver Updates | Modbus, Mbus, OPC-UA, SNMP, BACnet

CONNECTIVITY



- Fox over WebSocket
- kitControl Refresh
- Niagara Access

CYBER DEFENSE



- CAC Authenticator Support (Browser)
- User Login History
- Encrypted Hashed Passwords

COMPLIANCE



- BACnet Protocol Revision 18
- QNX 7.1 Upgrade for JACE-8000 + Edge-10

NEW HTML5 WEB VIEWS



+



=



A Significant Step-Up in



**DEPLOYMENT
EASE**



**DATA MANAGEMENT
& VISUALIZATION**



**INTEROPERABILITY
& CONNECTIVITY**



DO MORE REMOTELY!

4.15's new HTML5 Web Views expand what can be done remotely through a browser, strengthening the value proposition of a Niagara Remote subscription.

- Troubleshoot a Niagara deployment
- Do regular engineering and maintenance work
- Check the status of Niagara stations across a Niagara-based network
- Design/edit Graphics and UI
- Do regular engineering and maintenance work

No additional hardware, gateways or VPNs needed!

Payback measured in fewer truck rolls!

Any Tech, Any Station, Anywhere...

niagara
remote™





DEPLOYMENT EASE/ FLEXIBILITY

MORE HTML5 WEB VIEWS

Engineer Niagara Stations through a web browser client.
Save Time!



Brand
Agnostic

Client
Version
Agnostic

Connect via
IT-Friendly
HTTPS

HTML5 PX EDITOR

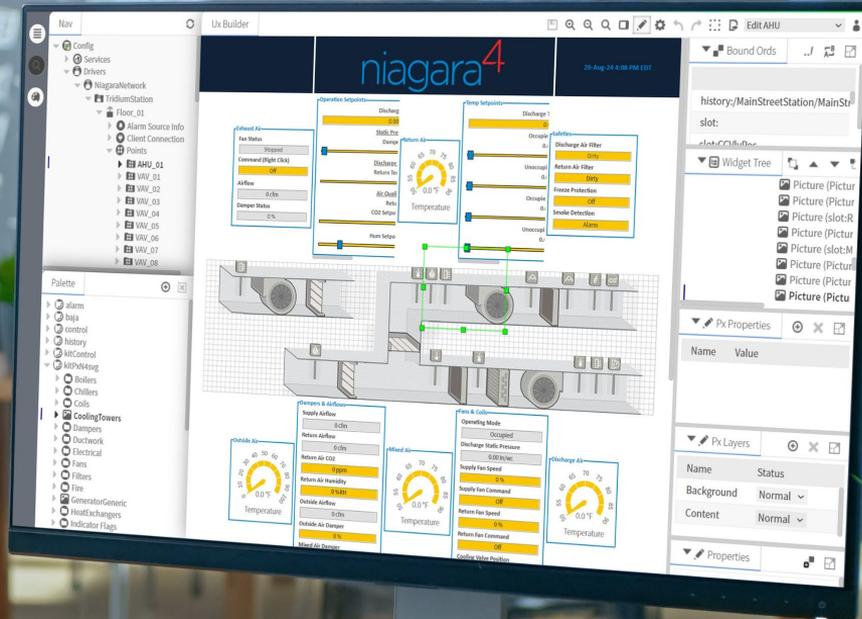
Create and edit graphics through the browser. UI Design no longer requires Workbench.
NextGen UI/UX Builder



HTML5
Graphics Editor

Create and Edit
Graphic Pages

HTML5 PX EDITOR



Enables editing graphics and designing custom GUIs remotely.

HTML5 RELATION MANAGER

Define relationships through the browser. Relationship tagging no longer requires Workbench.

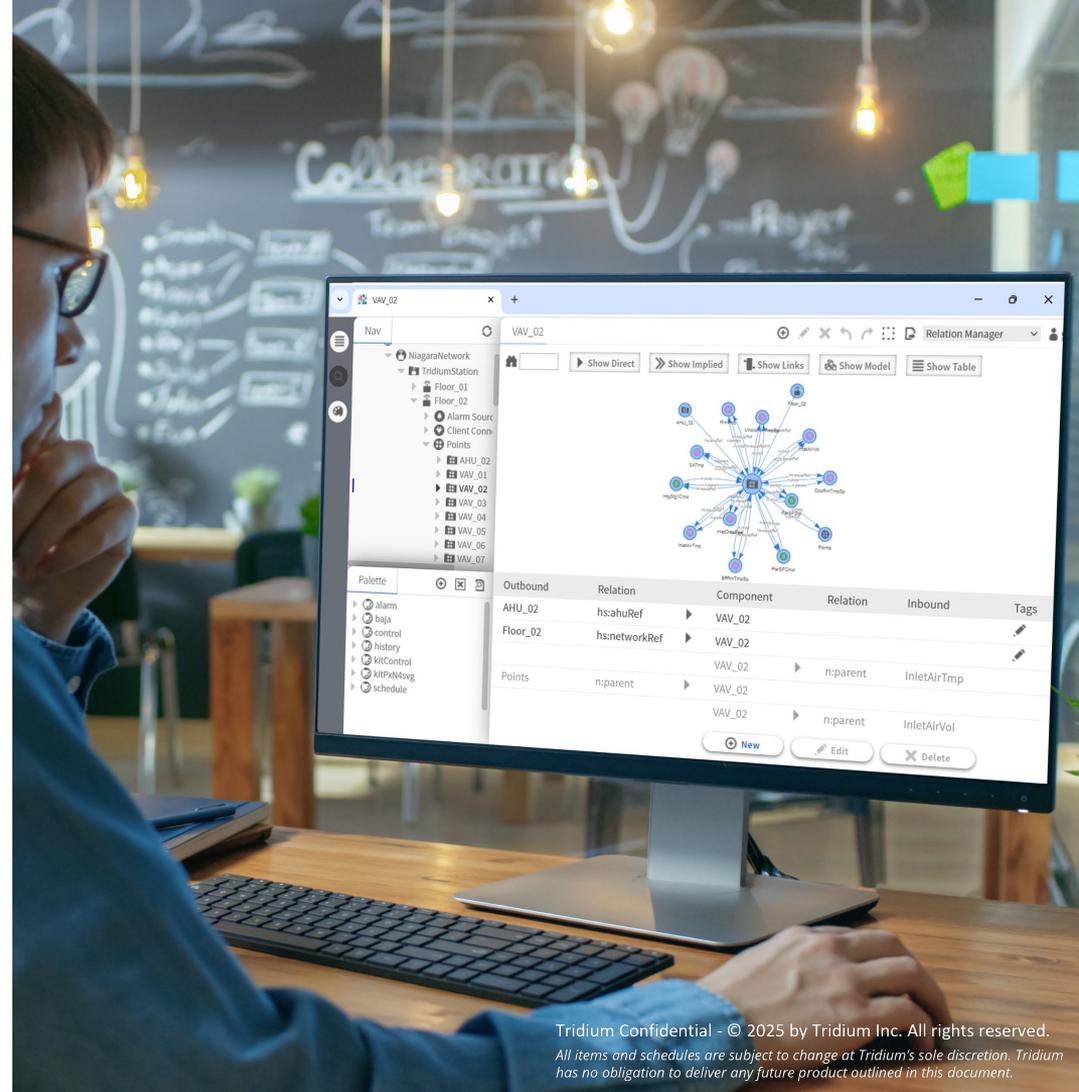
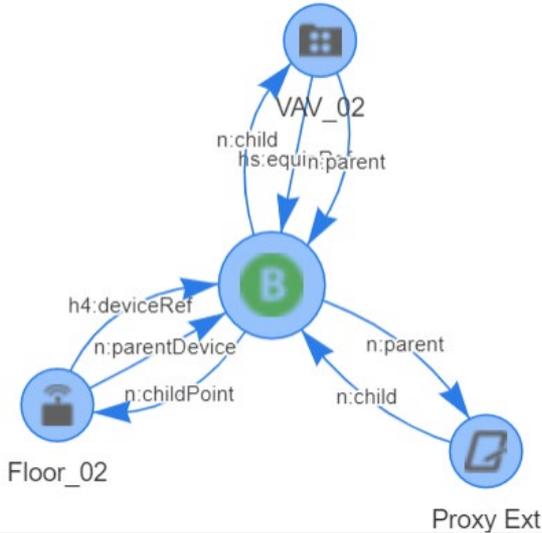


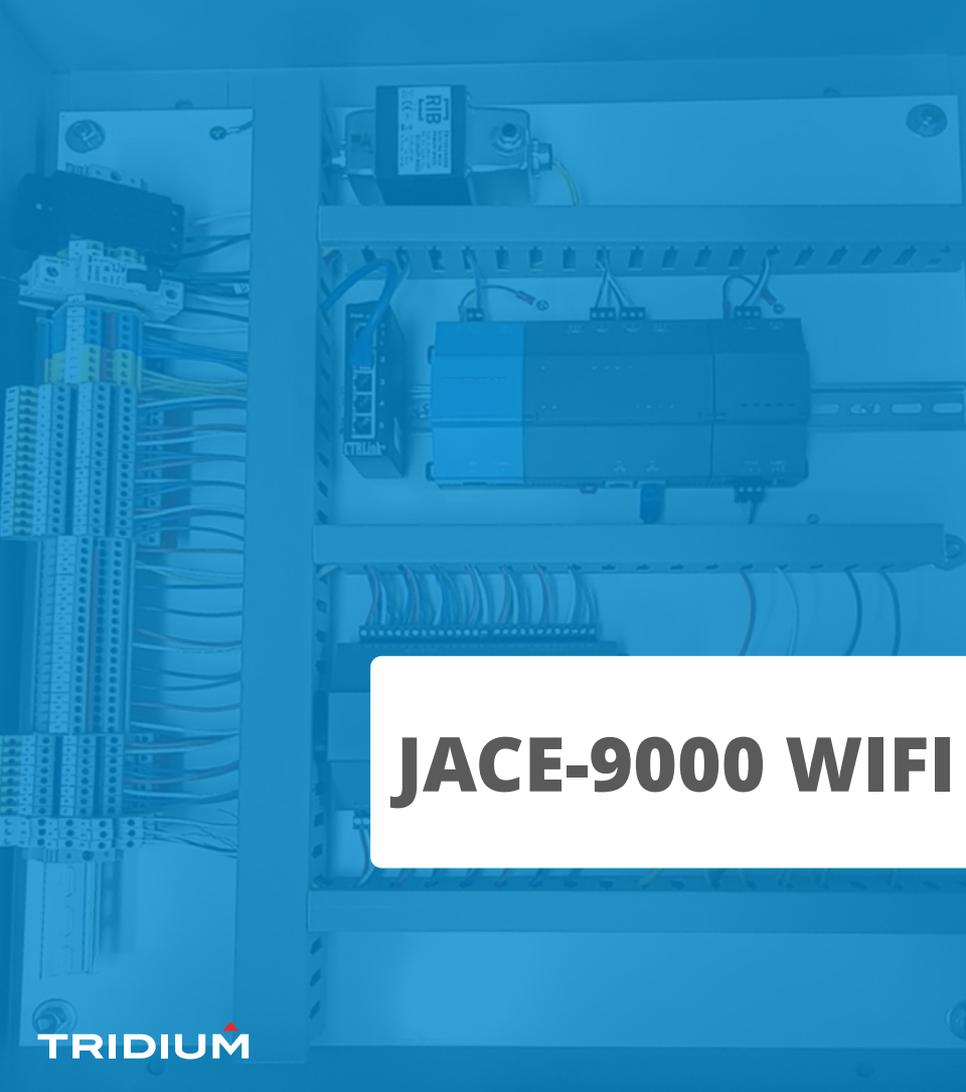
HTML Relation Sheet

View, create, edit, and delete relations

HTML5 RELATION MANAGER

Relation Manager Web View enables defining relationships remotely.





JACE-9000 WIFI SUPPORT

Now You Can Order
WiFi-Enabled
JACE 9000!



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JACE 9000 WiFi

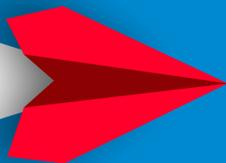
niagara4.15

- Supports WiFi 5 (802.11 ac)
- Supports IEEE 802.11 a/b/g/n/ac networks



ACCESS CONTROL TRANSFORMS WITH NIAGARA 4.15

niagara
Enterprise Security



niagara
access™



ACCESS CONTROL UPDATE

niagara

aCCeSS™ is now in beta!

- Niagara Access™ is a powerful access control solution supporting the latest innovations in physical security and access control.
 - *New access control solution for Niagara*
- 4.15 Adds Native Badge Design
 - Users can now create card templates in Workbench, take or import photos, and print customized badges from Niagara Access™ Supervisor with browser access.

Your unified platform to integrate access control with BMS!

NIAGARA ACCESS™

- Built on an open framework
- Supports **integration** with multiple 3rd party Open Supervised Device Protocol (**OSDP-verified**) access control hardware
- **TCP/IP smart controllers** with multiple options (1 door, 2 doors, 4 doors)
- 12 VDC
- POE
- Connectivity
 - Ethernet
 - Wi-Fi
- Support **OSDP & Weigand Protocols**
- Support Multi-class readers
- **Native badge design**



Armatura
Global Solutions



AZURE
Access Technology™



...and many more
Hardware Options.
Learn more in the
Connectivity Section
of this presentation.





INTEROPERABILITY ENHANCEMENTS

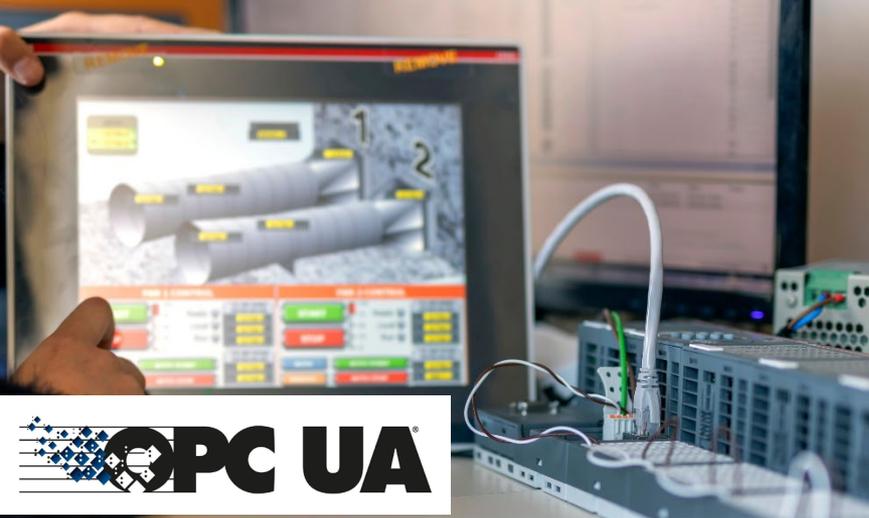


MODBUS UPDATE



Ping more than 2 registers at a time when addressing Modbus devices

- Latest Modbus meters have data types that call for addressing 4 registers at a time
- Support for a 48-bit unsigned long data type was added and factored



OPC-UA UPDATE

- Added bi-Direction point types for OPC UA Server enabling actions on server points
 - One point manages both incoming and outgoing data values (i.e. bi-directional)
- Enhancements to support OPC UA Client Arrays in a nested structure when discovering OPC points

Integrate more easily with one of the most basic and familiar protocols used in industrial automation.

Integrate more easily with one of the most basic and familiar protocols used in data centers.

SNMP UPDATE

- Ability to configure an export type for SNMP export folders.
 - For example, if the user exports as the integer type, the backing SNMP type will also be an integer.
- An "Index Value" column has been added to the SNMP table view. This includes displaying both the OID representation of a row as well as the index of the row in the order of other rows in the table.



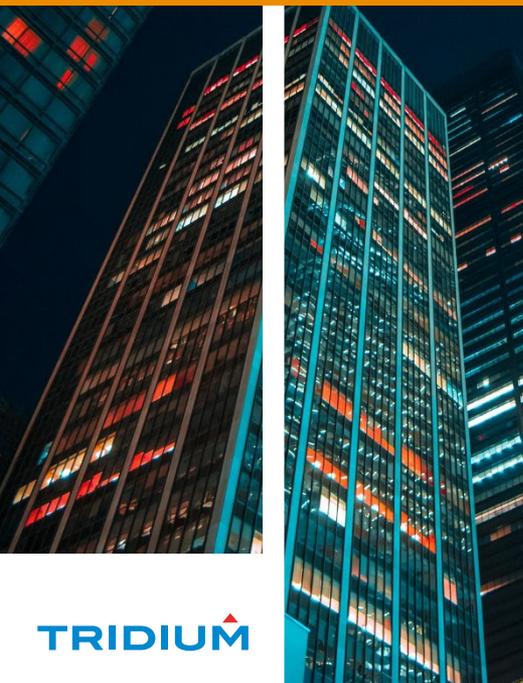
ASHRAE Standard 135
open communication
protocol of choice for
field devices

BACNET REVISION 18



Implementing the Revision 18 continues the progress towards the most recent revision and adds additional features requested from BACnet focused markets:

- **Value Source** – view the source device or process of a write or command on BACnet writable points
- **Network Port Object** – allows users to view and configure the BACnet device's network settings through Niagara





CONNECTIVITY ENHANCEMENTS AND UPDATES



Niagara Access™ is built on an open framework by Z9 Security. Integrates with multiple OSDP-verified access control vendors.



niagara
access™ will support:

- OSDP & Wiegand Protocols
- Multi-class card readers
- Multiple TCP/IP smart controllers with PoE, Onboard-IO, Wi-Fi and Ethernet connectivity

niagara
access™



The **Open Supervised Device Protocol (OSDP)** is an access control communication standard further developed by the **Security Industry Association (SIA)** to facilitate secure communication between access control systems.

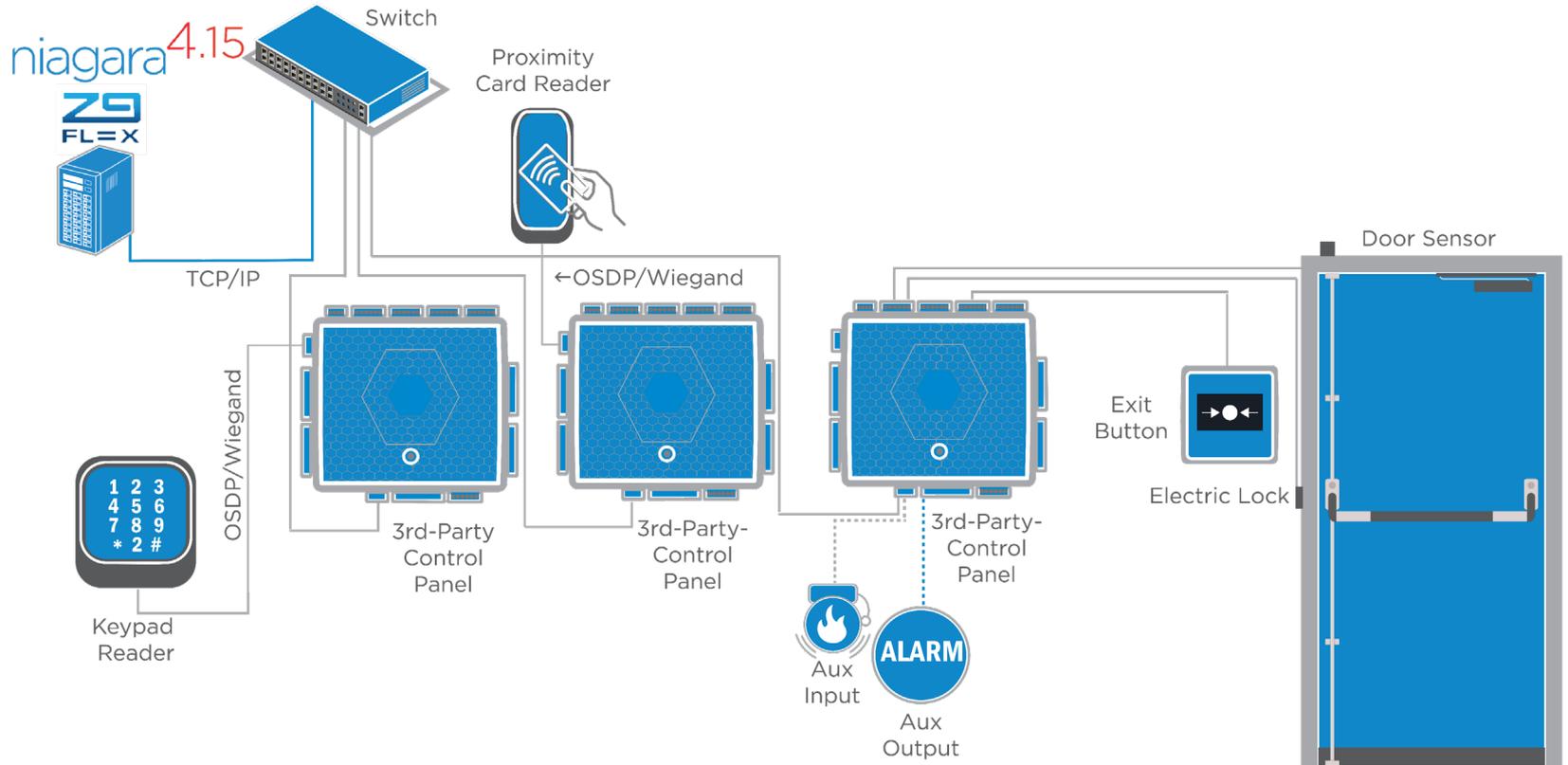
In 2008, the **Open Supervised Device Protocol (OSDP)** access control communications standard was created to improve interoperability among access control and security products and donated to the **Security Industry Association (SIA)**, a not-for-profit trade organization.

In May 2020, OSDP was approved as an international standard by the **International Electrotechnical Commission (IEC 60839-11-5)**. In December of the same year, SIA OSDP v2.2 was released based on the IEC 60839-11-5 standard. SIA continues to refine and update the standard to maintain maximum flexibility and to keep ahead of evolving security threats.

OSDP MANUFACTURERS



EXAMPLE NETWORK ARCHITECTURE

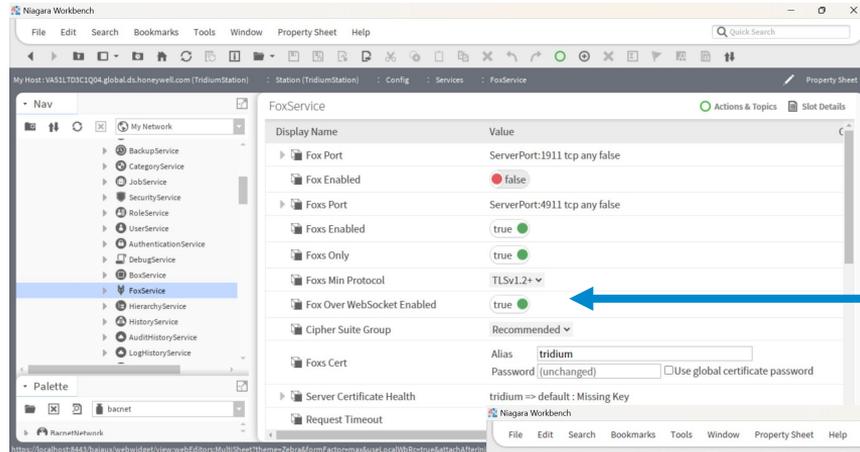




Fox over WebSocket
is a new option for
Station-to-Station
connections when
Foxs is not
available.

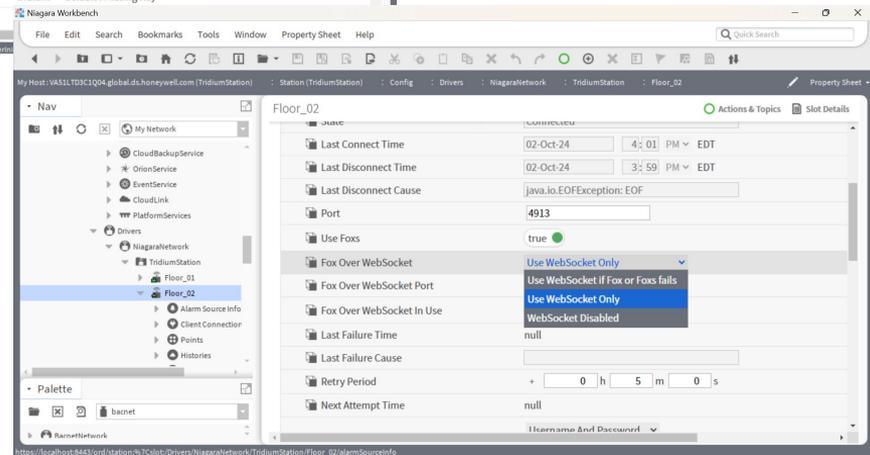


FOX OVER WEBSOCKET

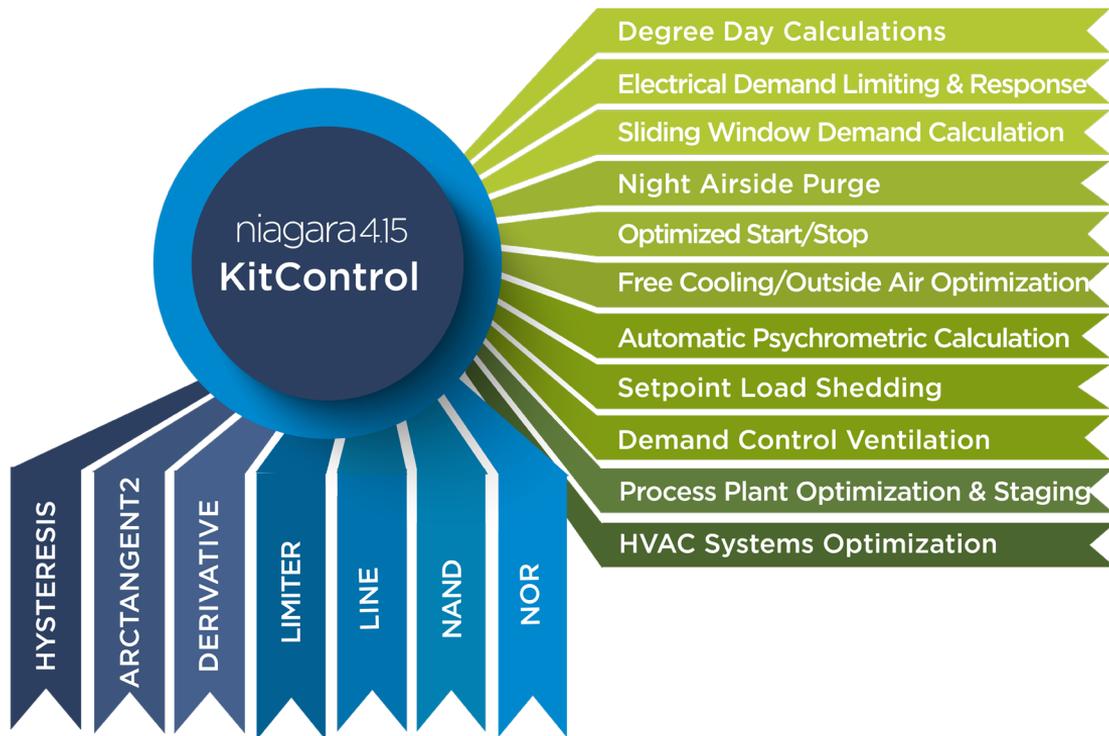


New Client
Connection
Property
in the Fox
Service

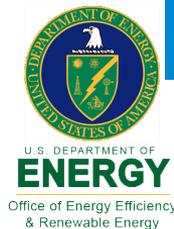
For use when IT
restricts ports
1911 and 4911.



ADDITIONAL KITCONTROL OBJECTS



New ASHRAE 231p CDL Standard Elementary Blocks



DOE-led Control Design Language (CDL) Initiative

OpenBuildingControl

Aligns with ASHRAE 231p

Goal = a unified CDL for Building Environmental Control Sequences



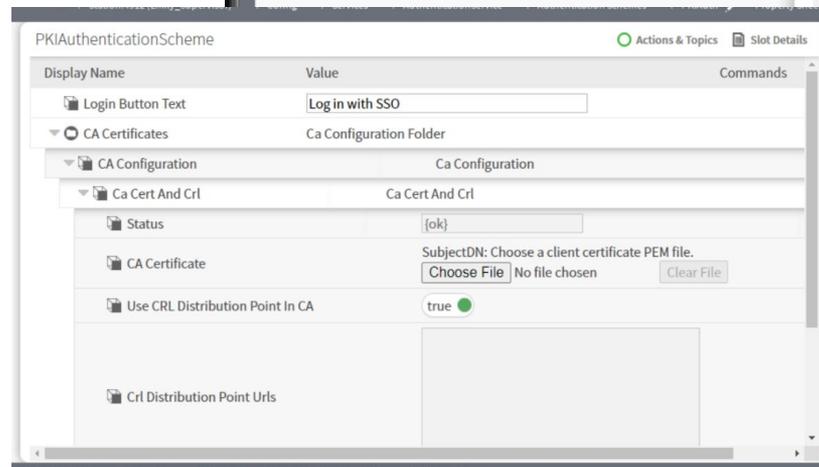
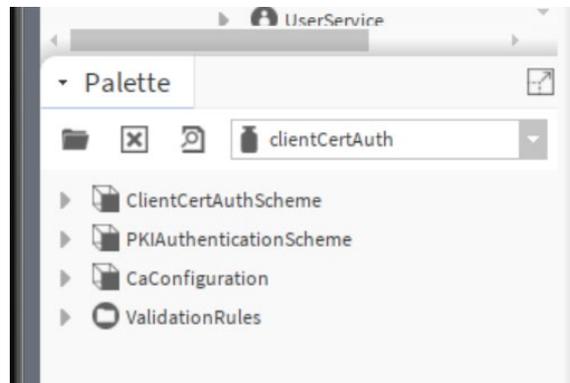
CYBER DEFENCE UPGRADES

Authenticate
With Common
Access Card
when accessing
Niagara through
a browser!

PKI AUTHENTICATION FOR BROWSER

New ClientCertAuth Scheme:

Simplifies authentication process for organizations (such as government org's) who utilize PKI-based authentication





Now users can check their login history for both the platform and the station.

USER LOGIN HISTORY

Session Info for Emily_Supervisor

You are connected as admin.

Hostname is localhost.

The identity of this host has not been verified.
- Server's certificate does not match the address.
- Server's certificate is not trusted.
[Certificate Information](#)

Your connection to Emily_Supervisor is encrypted with 256-bit encryption.

The connection uses TLSv1.3.
The connection is encrypted using AES_256_GCM, with SHA384 for message authentication and NULL as the key exchange mechanism.

Your connection started at 19-Jul-24 3:04 PM EDT.

Previous login was at 19-Jul-24 1:30 PM EDT from 127.0.0.1 as Workbench.
[History](#)

OK

Users can ensure that they recognize all logins to their account, helping detect potential attacks on the system.

User Login History for admin

Previous login was at 19-Jul-24 1:30 PM EDT from 127.0.0.1 as Workbench.
You are connected as admin.

Time	Location	Successful	Secure	Client
19-Jul-24 3:04:24 PM EDT	127.0.0.1	true	true	Workbench
19-Jul-24 1:30:33 PM EDT	127.0.0.1	true	true	Workbench
19-Jul-24 8:48:05 AM EDT	127.0.0.1	true	true	Workbench

OK

Previous login was at 19-Jul-24 1:30 PM EDT from 127.0.0.1 as Workbench.



ENCRYPTING HASHED PASSWORDS

- Passwords in the bog file will be encrypted, salted, and hashed
- Users will need to use the passphrase and station copier to successfully keep user passwords functional

No longer can users gain access to a Niagara station via unprotected offline bog file.



COMPLIANCE UPGRADES

BACNET TEST LABS CERTIFICATION

ASHRAE Standard 135 open communication protocol of choice for field devices



- B-BC Profile for Jace 9000, & Jace 8000
 - with BACnet Secure Connect link layer!
- AWS Profile for Supervisors
- Protocol Revision 18 Certification Testing Coming Soon

4.15 – UPDATE BUILD CADENCE & DATES

