# TRIDIUM Nagara415 Features overview

### AGENDA



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# NIagara415 Always evolving across five dimensions

#### DEPLOYMENT



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

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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**

# niagara 4.15

niagara remote™

UX BUILDER

RELATIONS

WIRESHEET

### niagara 4.14

DRIVER MGR

NIAGARA

BACNET

RDBMs

NRIO

MODBUS

LONWORK

ON-CAL

WEATHER

CATEGORY

PROVISIONING

TRIDIUM

A Significant

Step-Up in

DATA MANAGEMENT & VISUALIZATION

DEPLOYMENT

EASE

.....

INTEROPERABILITY & CONNECTIVITY

# niagara COUO

### niagara remote™



### **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!

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## Any Tech, Any Station, Anywhere... Nagara remote<sup>TM</sup>





### DEPLOYMENT EASE/ FLEXIBILITY

## **MORE HTML5 WEB VIEWS**

Engineer Niagara Stations through a web browser client.



Brand Agnostic Client Version Agnostic **Connect** via

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**IT-Friendly** 

HTTPS

### **HTML5 PX EDITOR**

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



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### **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.



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#### **HTML5 RELATION MANAGER**

#### Relation Manager Web View enables defining relationships remotely.







Now You Can Orde WiFi-Enabled JACE 9000!

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### JACE 9000 WiFi



# niagara 4.15

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



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### **ACCESS CONTROL TRANSFORMS WITH NIAGARA 4.15**



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Your unified platform to integrate access control with BMS!

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## ACCESS CONTROL UPDATE niagara access<sup>™</sup>is now in beta!

- Niagara Access<sup>™</sup> 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
  - O Users can now create card templates in Workbench, take or import photos, and print customized badges from Niagara Access™ Supervisor with browser access.

### NIAGARA ACCESS™

- Built on an open framework
- Supports integration with multiple 3<sup>rd</sup> 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



SECURITY



Armatura Global Solutions

AZURE

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



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# 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

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

# **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

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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.

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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

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**H** 

Niagara Access<sup>™</sup> is built on an open framework by Z9 Security. Integrates with multiple OSDPverified access control vendors.

niagara access<sup>™</sup> will support:

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

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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.

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### **OSDP MANUFACTURERS**

















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LENEL:S2





SALIENT



dormakaba 🚧

a Motorola Solutions Company











### **EXAMPLE NETWORK ARCHITECTURE**



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

### **FOX OVER WEBSOCKET**



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### **ADDITIONAL KITCONTROL OBJECTS**



DOE-led Control Design Language (CDL) Initiative

> Aligns with ASHRAE 231p

Goal = a unified CDL for Building Environmental Control Sequences

ENERG)

Office of Energy Efficiency

& Renewable Energy

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New AHSRAE 231p CDL Standard Elementary Blocks



# CYBER DEFENCE UPGRADES

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



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### **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**



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

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Time	Locatio	on Successfu	l Secure	Client	Ę
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	

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

## **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

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# COMPLIANCE UPGRADES

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### **BACNET TEST LABS CERTIFICATION**

ASHRAE Standard 135 open communication protocol of choice for field devices



BACnet

- 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

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## 4.15 – UPDATE BUILD CADENCE & DATES



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