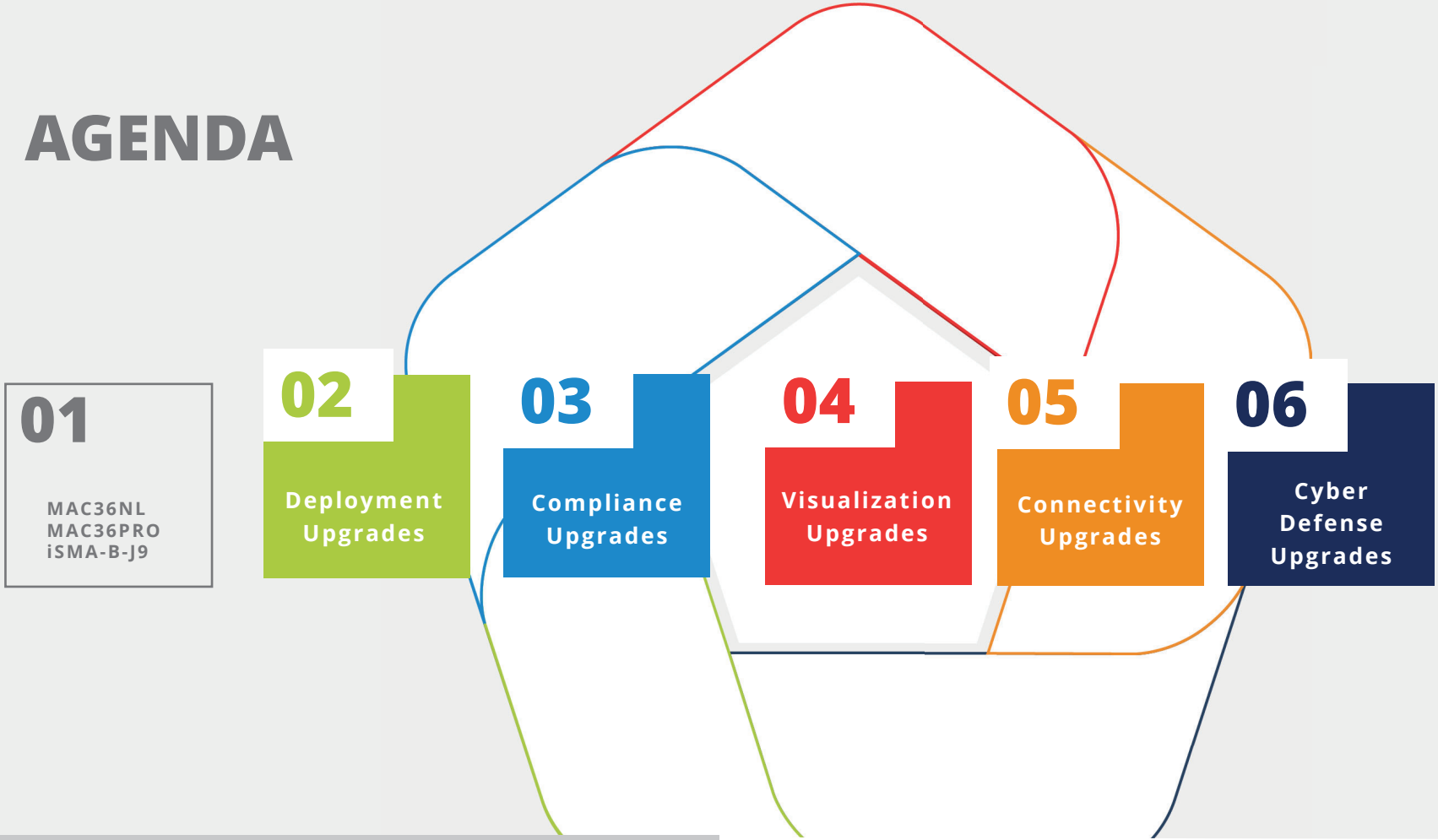
iSMACONTROLLI

Niagara 4.13

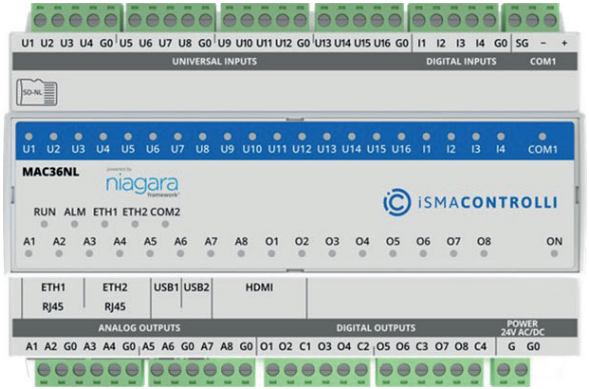
Paweł Szarmański
Solution Product Manager

AGENDA


01
MAC36NL
MAC36PRO
iSMA-B-J9
02
Deployment Upgrades
03
Compliance Upgrades
04
Visualization Upgrades
05
Connectivity Upgrades
06
Cyber Defense Upgrades

niagara4

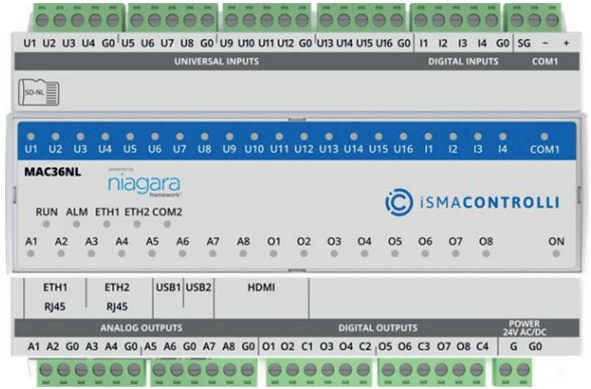
- Powered by Niagara N4 Framework
- Supported versions of Niagara N4.4 N4.6, N4.7, 4.8, 4.9, 4.10(**LTS**), **4.11, 4.12, 4.13**
- **Now supports N4.13U2**



powered by niagara framework®

MAC36NL

BACnet Revision 15 compliance



powered by niagara framework®

Based on Niagara 4.12U2

MAC36PRO

Performance. Redefined.

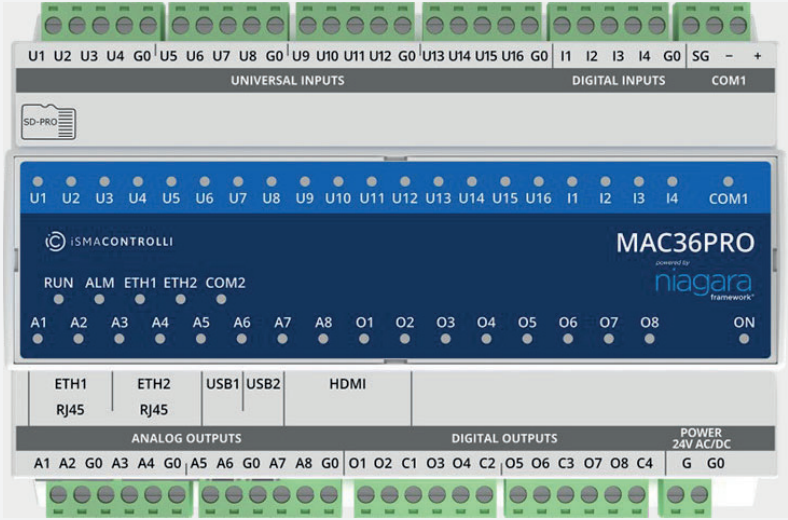
MAC36PRO
Licensing

MAC36NL	Point limit
iSMA-B-MAC-L-50	50
iSMA-B-MAC-L-100	100
iSMA-B-MAC-L-250	250
iSMA-B-MAC-L-500	500
iSMA-B-MAC-L-1250	1250

MAC36PRO	Point limit
iC-MAC-L-100	100
iC-MAC-L-250	250
iC-MAC-L-500	500
iC-MAC-L-1250	1250
iC-MAC-L-2500	2500
iC-MAC-L-5000	5000

MAC36PRO

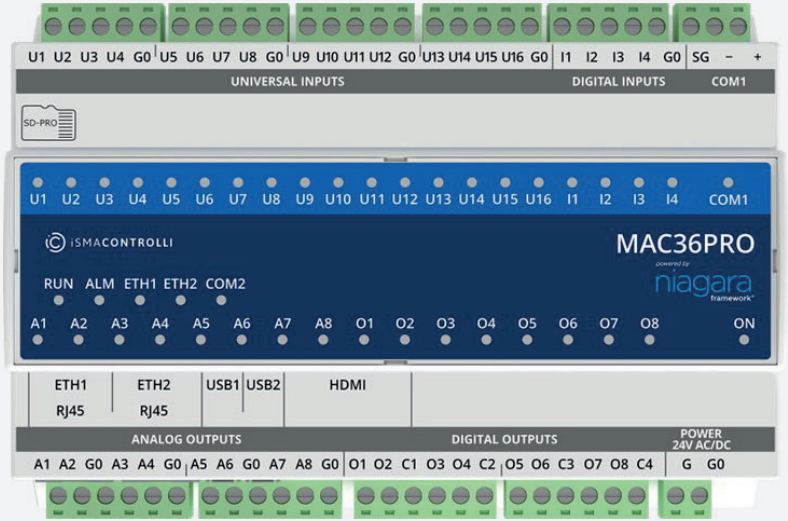
Currently supported Niagara version



+ **Niagara 4.10U6**

MAC36PRO

Niagara Support



+ **Niagara 4.13U2**

Q2 2024

iSMA-B-J9

KEY FEATURES

- Quad core iMX8M+ CPU
- Double the amount of RAM
- 4X the amount of storage
- Ubuntu Core 20 operating system
- Wireless and Non-Wireless model
- Refreshed branding clip
- Easy drop-in replacement/upgrade to iSMA-B-J8
- Supports all existing expansion modules (+remote IO)
- All connectors in same location and same orientation

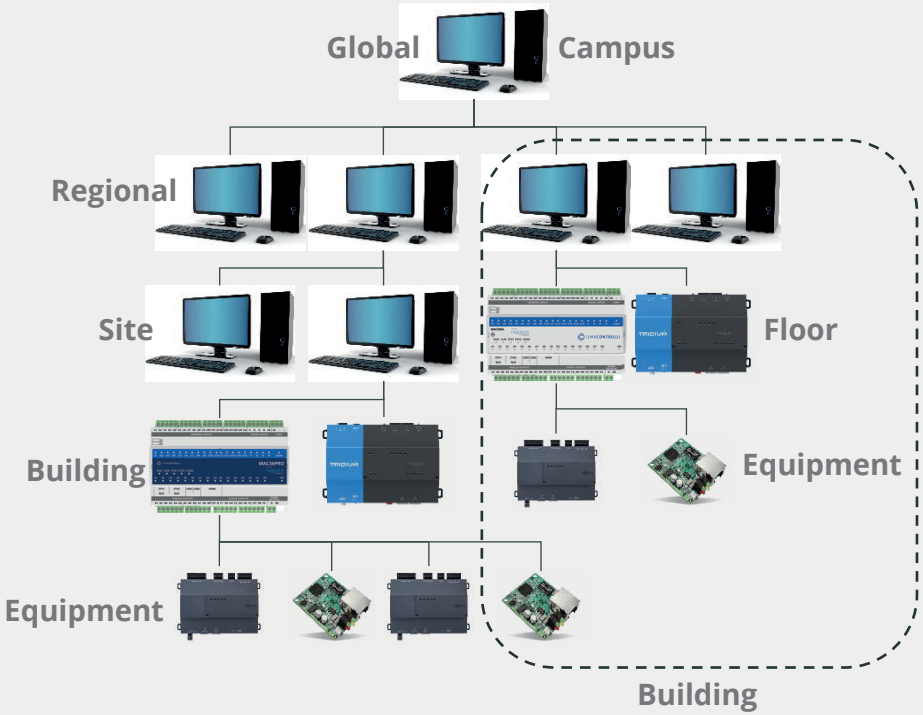
ROADMAP OBJECTIVES

- Remote device management
- Edge computing platform
- Mobile management UI
- Machine learning capabilities (NPU)

NEW NIAGARA 4.13 DEPLOYMENT FEATURES

MULTI-TIERED SYSTEM DB

- Niagara System Architecture Flexes to Any Layout
- Query Entire Niagara System From A Single Database Location
- Expedite UI Configuration Through Hierarchies and Virtual Px Views



MULTI-TIERED SYSTEM DB

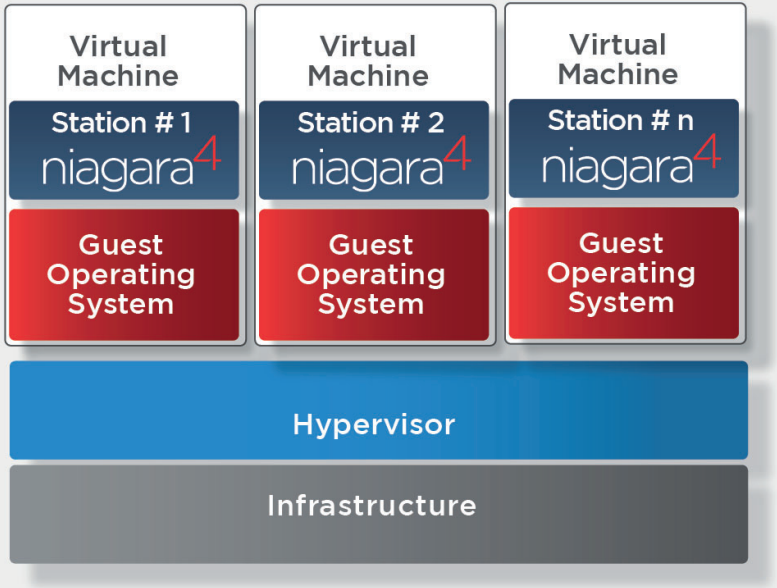
Expanded the functionality and benefits of Niagara's System Database and Indexing to support vast architecture layouts with:

Niagara's System Database and Indexing establishes an entity data model to enable querying of the entire Niagara system from a single location

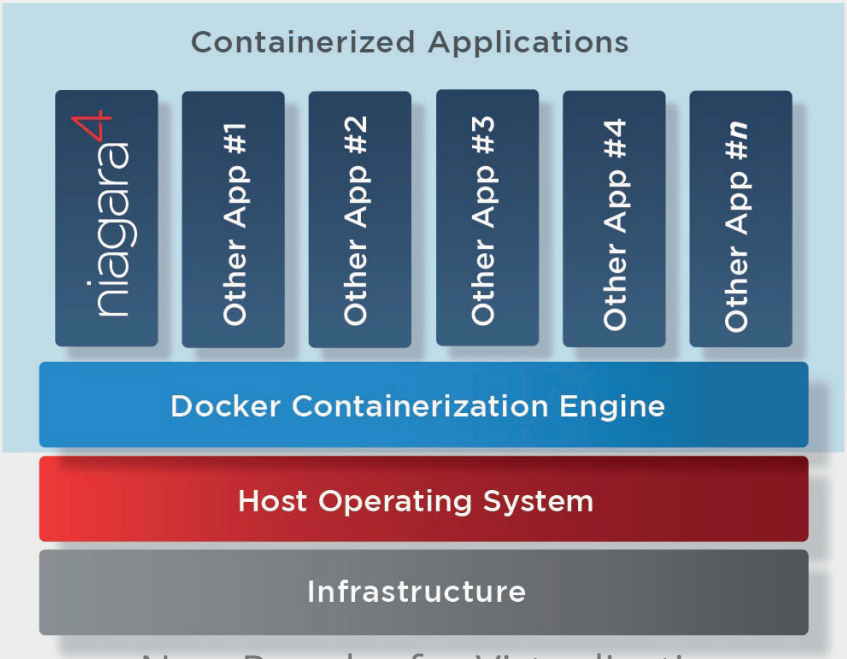
Design more intuitively. Design more efficiently!

CONTAINERIZED NIAGARA

Containers are less resource intensive and more portable than Virtual Machines.
Can ease development, deployment and upgrades.



Formerly Popular for Virtualization



Now Popular for Virtualization

CONTAINERIZED NIAGARA

Subscription can be purchased for:

ON PREM

Supervisor deployment on a server device housed locally

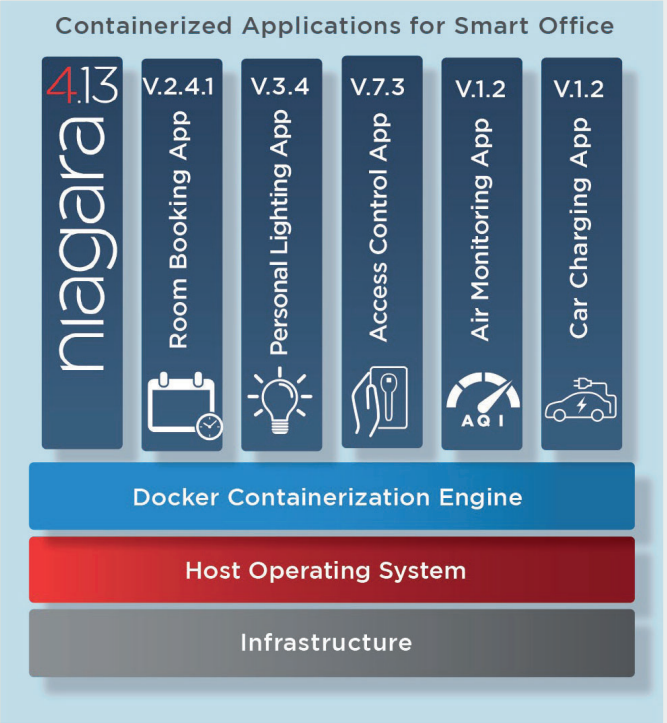
CLOUD

Supervisor deployment in a cloud service

PORTABLE

Embedded deployment whereby a Niagara development partner deploys Niagara containers on its own proprietary or a third-party commercial device or server – 'Containerized Portable Niagara' or CPN

NOTE: A subscription Niagara instance will perform a system exit — that is, it will stop working — if subscription renewal is not paid.

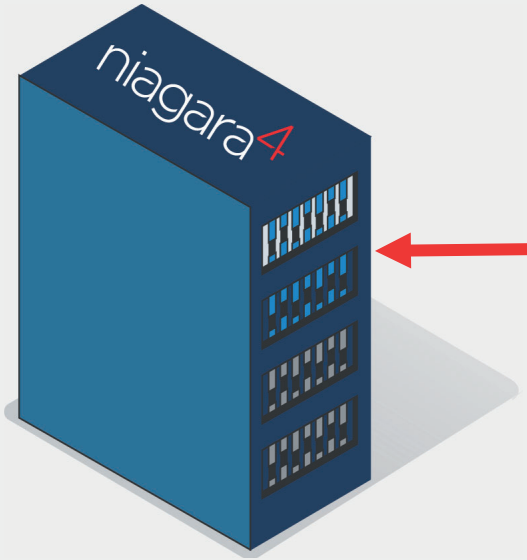


Example deployment of Containerized Niagara on a partner-built mobile hub.

SUBSCRIPTION LICENSING

SaaS Subscriptions: Purchased using OPex rather than CAPex

More purchasing flexibility!



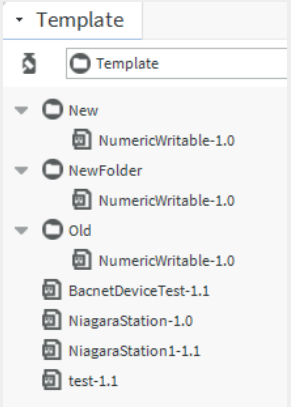
NOTE: A subscription Niagara instance will perform a system exit—that is, it will stop working—if subscription renewal is not paid.

EDGE TEMPLATE AND DEPLOYMENT TOOLS UPGRADES

Reducing time spent installing, commissioning and configuring multiple Niagara devices using Niagara Provisioning

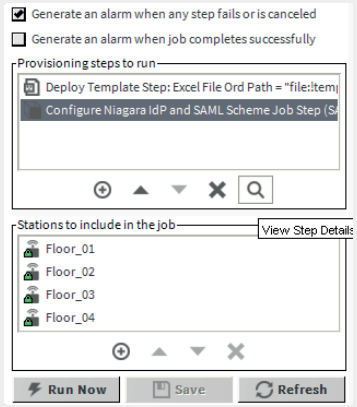
ORGANIZE

Allow users to keep a template library organized with the addition of sub-folders



BULK-DEPLOY

Template Enhancements for easier search and visualization



PROVISION

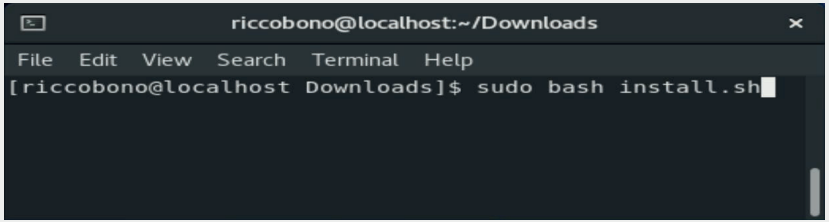
Edit and modify Job Steps before running a Provisioning Job

Key enhancements for NIAGARA-at-the-EDGE deployments!

SILENT INSTALL

UNATTENDED INSTALLER

Enabling *Silent Install* allows for automated installation of Niagara Framework via programming. This streamlines PC maintenance, automated testing, and bundling installations with additional applications.



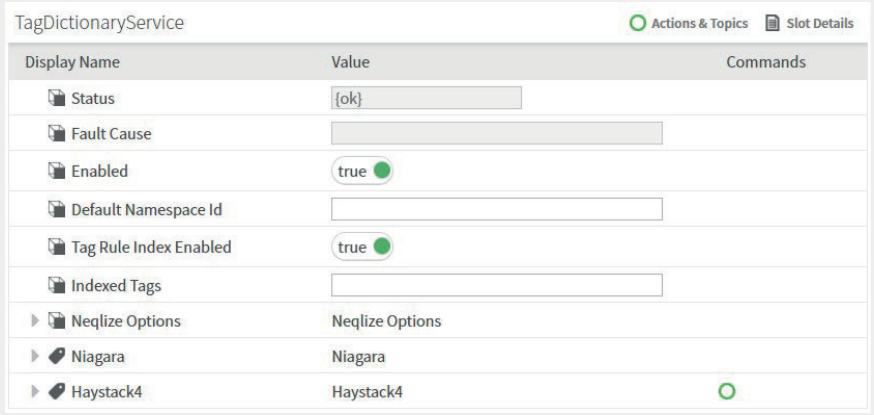
Run a Niagara installer for Windows or Linux without the need for user input

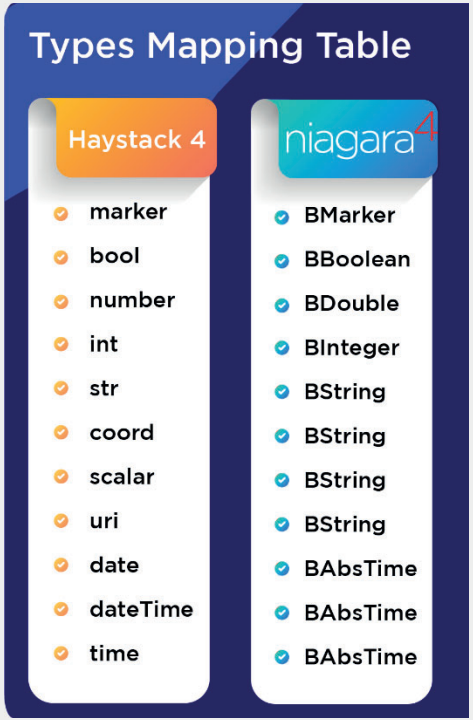
New properties file constructs installation choices prior to execution via the command line

NIAGARA 4.13 INDUSTRY COMPLIANCE

HAYSTACK 4 SUPPORT

Haystack 4 encompasses a taxonomy and an ontology. Evolved to capture machine-readable relationships of things along with their contextual data





HAYSTACK DICTIONARY

Aligns Niagara Tagging with the latest Haystack Tag Dictionary. Updatable in-place and without a module update from Tridium.

EASY MIGRATION

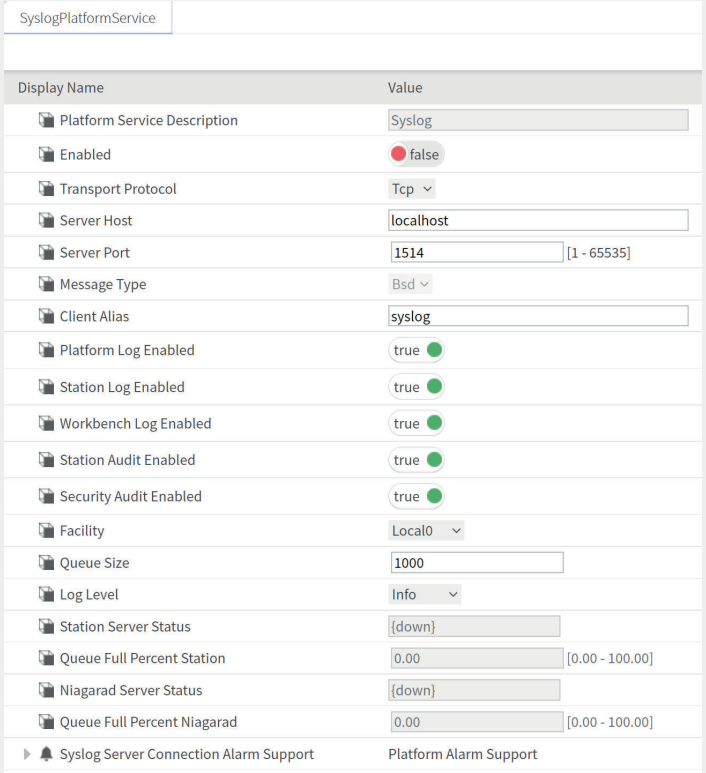
Haystack 4 items equivalent to the Haystack 3 versions are added during migration action.

SYSLOG INTEGRATION

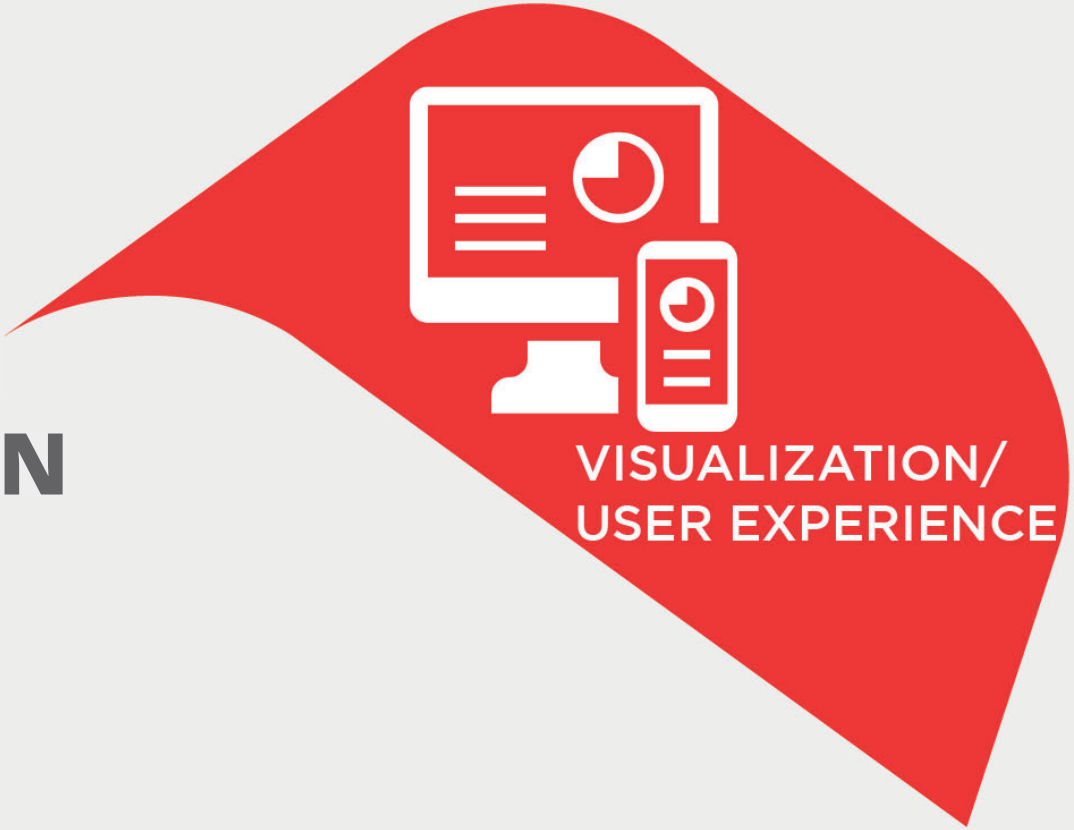
Meet IT System Administrator requirements for proper audit logging, monitoring, and detection

Aligns to the IT standard in message logging

Enables consolidation to a central repository for system management

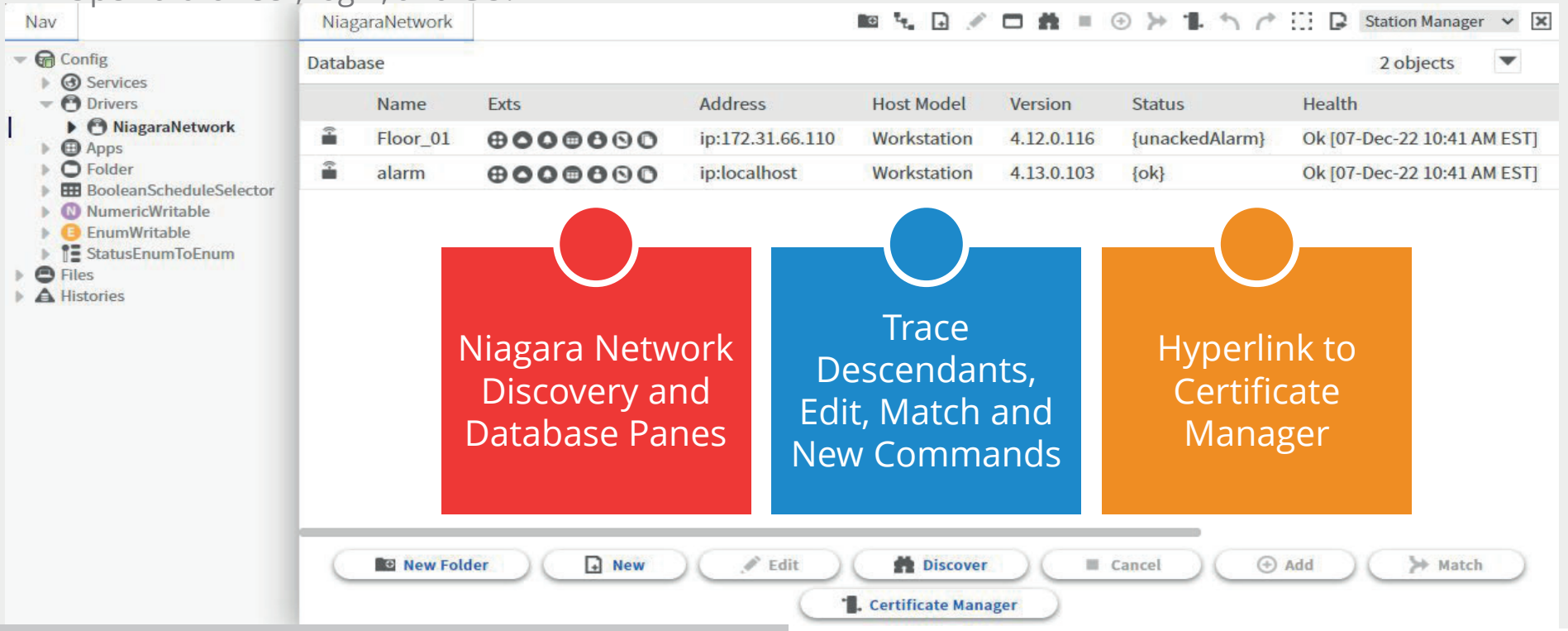


NIAGARA 4.13
VISUALIZATION



HTML5 NIAGARA NETWORK STATION MANAGER VIEW

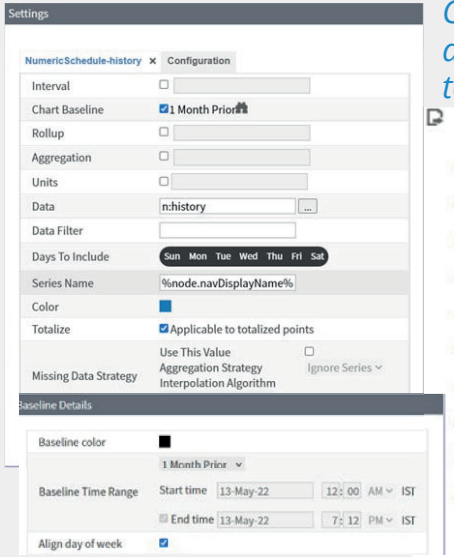
Eliminating a dependency on workbench removes logistical burdens and eliminates the 'module-and-version-dependency' guessing game.
Open a browser, login, and GO!



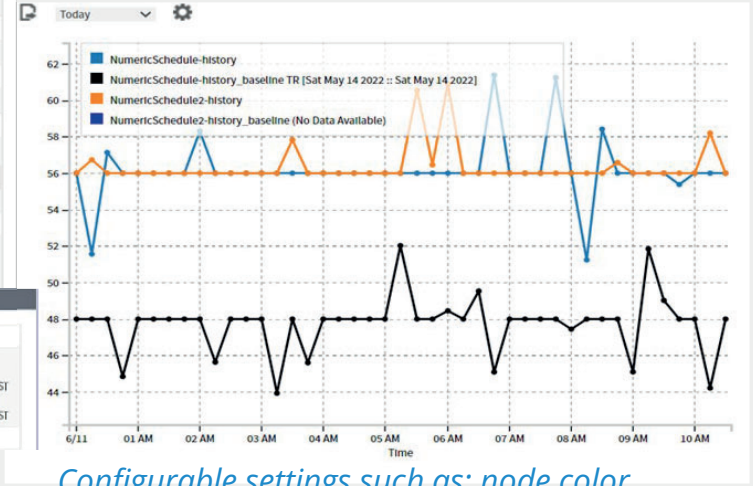
NIAGARA ANALYTICS

Make data-driven decisions by visualizing collected data on an Analytics Web Chart with an established baseline

- Custom **BASELINING**
- **EASE-OF-USE** Upgrades
- **HARDENING** Measures



Customize a web chart or dashboard by adding an additional time series to represent a baseline to a dataset



Configurable settings such as: node color, time-period, baseline time range, and align day of the week

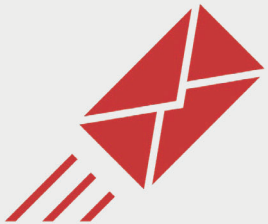
Updated documentation across the product to enable easier application design

Large collection of general hardening improvements & defect clean-up

NIAGARA 4.13 CONNECTIVITY & CLOUD

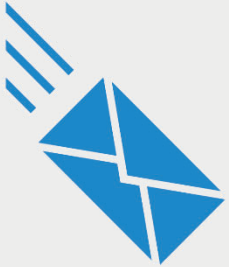
AUTHENTICATION VIA EMAIL

Maintain security posture using preferred authentication by major email providers: Microsoft (365/Exchange) and Gmail



OUTGOING ACCOUNTS

Used to send out reports, charts and alarms from a station through the smtp transport



INCOMING ACCOUNTS

Used to receive alarm acknowledgements to a station through the pop3 or imap transport

OAuth2, Client Credential Flow authentication for unattended email integration

Security Dashboard Card to monitor email service security best practices

Office 365

Gmail

VIDEO DRIVER FRAMEWORK

Improved how video live streams from industry standard cameras are integrated into Niagara.

- **HTML5 browser viewing enabled**
- **Video can now display via Real Time Streaming Protocol (RTSP)**
- **Added New Px Widgets to natively support Pan, Tilt, Zoom (PTZ) camera functions**

ENTERPRISE SECURITY UPDATES

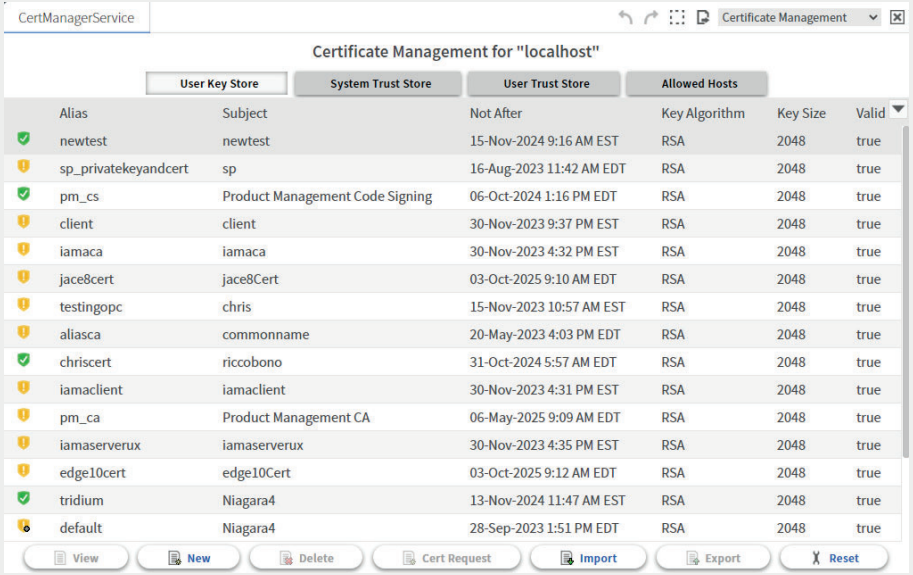
Optimized and streamlined the process of adding a new user to this Niagara-native physical security application

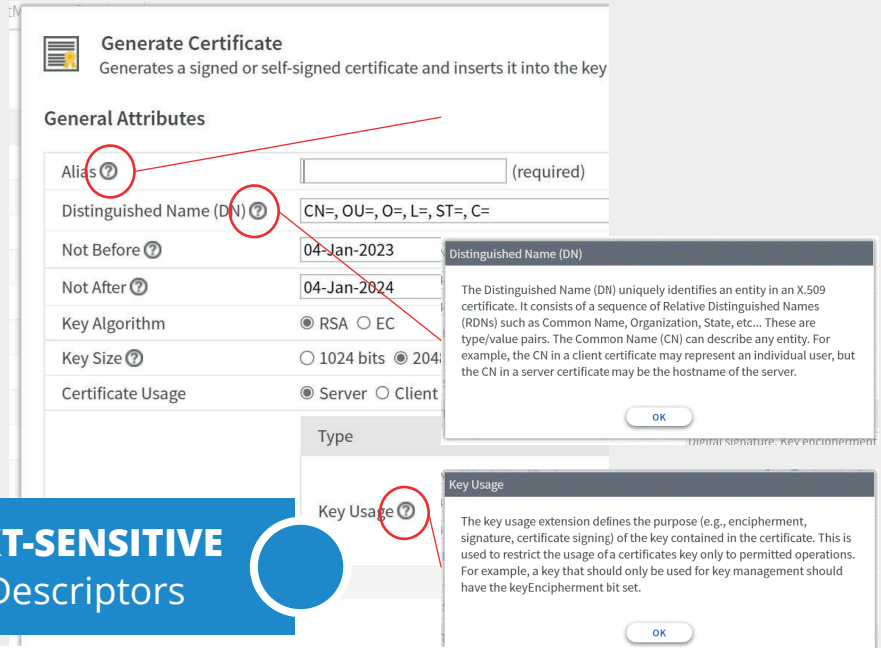
- **JOIN Process: Auto-Grouping; Auto-filling of Parameters; Optimized User Sync Manager**
- **REPLICATION Process: Enhanced logging; job summary now displays**
- **More feedback to the user when checking status of workflow and debugging**

NIAGARA 4.13 CYBERSECURITY

CERTIFICATE MANAGEMENT SIMPLIFIED

Browser (HTML5 View) access without need for Workbench; useful to IT network admin persona





CONTEXT-SENSITIVE
Subject Descriptors

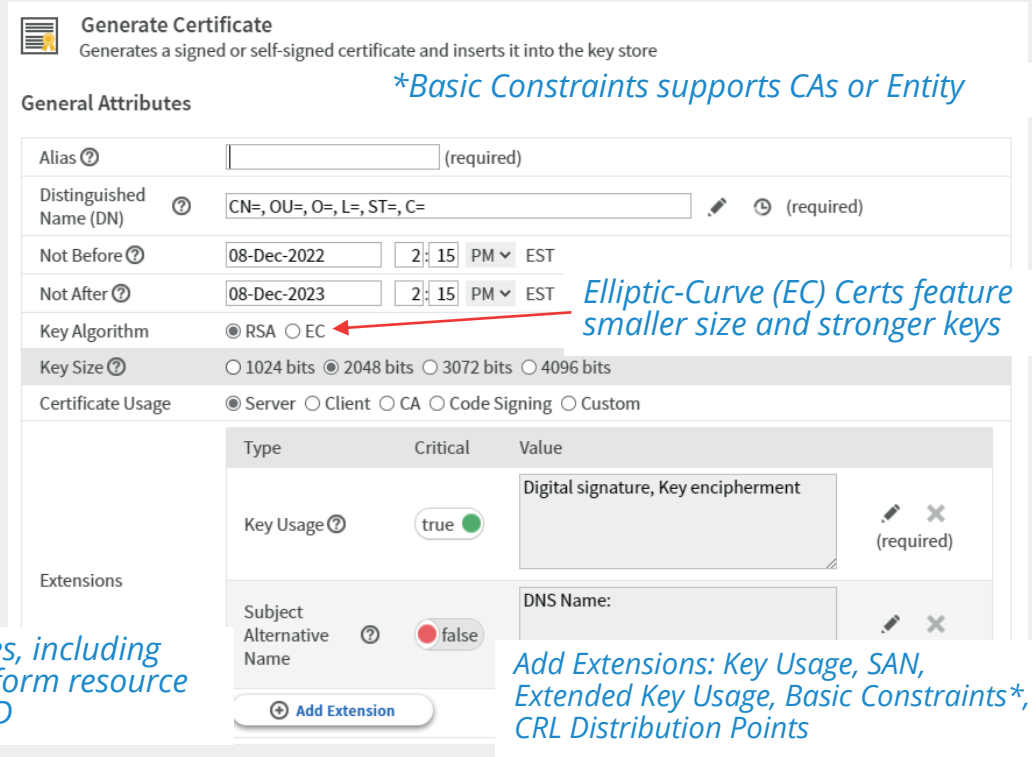
CERTIFICATE MANAGEMENT & HTML5 VIEW

Enhanced UI aids in the setup & configuration of certificates; similar to Security Dashboard

HTML5 INTERFACE

ELLIPTICAL-CURVE: New Certificate Type

MORE EXTENSIONS: Add *'A La Carte'*



SAN: Supports a variety of identity types, including email, DNS name, directory name, uniform resource identifier (URI), IP address, registered ID

Add Extensions: Key Usage, SAN, Extended Key Usage, Basic Constraints, CRL Distribution Points*

UPDATED OS & ENTERPRISE APPLICATIONS

Support Added for:

- RHEL v9
- Ubuntu 22.04
- Windows Server 2022
- VMWare ESXI v7

Thank you!