CONNECTING
THE WORLD

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CONNECTING
THE WORLD
NIAGARA FORUM APAC | 9-10 SEPTEMBER 2025

IOANE ANDERSEN

Business Consultant – Justice, Corrections & Critical Government Infrastructure

Honeywell HBS NZ

NF 25

India
Bangladesh
Myanmar (Burma)
Taiwan
Hanoi
Laos
Thailand
Vietnam
Cambodia
Bangkok
Manila
Philippines
Philippine Sea
South China Sea
Mumbai
Hyderabad
Bengaluru
Bay of Bengal
Andaman Sea
Gulf of Thailand
Sri Lanka
Laccadive Sea
Malaysia
Kuala Lumpur
Singapore
Celebes Sea
Palawan
Negros
Mindanao
Honolulu
HAWAII
Hilo
Kolonia
Jayapura
Bismarck Sea
Papua New Guinea
Port Moresby
Arafura Sea
Timor Sea
Indonesia
Java Sea
Jakarta
Solomon Islands
Samoa
Fiji
Tonga
Cook Islands
New Caledonia
Coral Sea
Indian Ocean
NORTHERN TERRITORY
QUEENSLAND
Australia
WESTERN AUSTRALIA
SOUTH AUSTRALIA
NEW SOUTH WALES
VICTORIA
ACT
Brisbane
Perth
Adelaide
Sydney
Norfolk Island
Great Australian Bight
Tasman Sea
TASMANIA
Hobart
Auckland
Wellington
New Zealand

Agenda

- Connected Courts Approach: Multi-site configuration with Niagara Framework
- Niagara Cloud Applied including Video Demo
- Broader Niagara Strategy with the Ministry of Justice NZ

hello

Connected Courts Approach: Multi-site configuration with Niagara Framework

01

Large Size

Christchurch Justice & Emergency Services Precinct

02

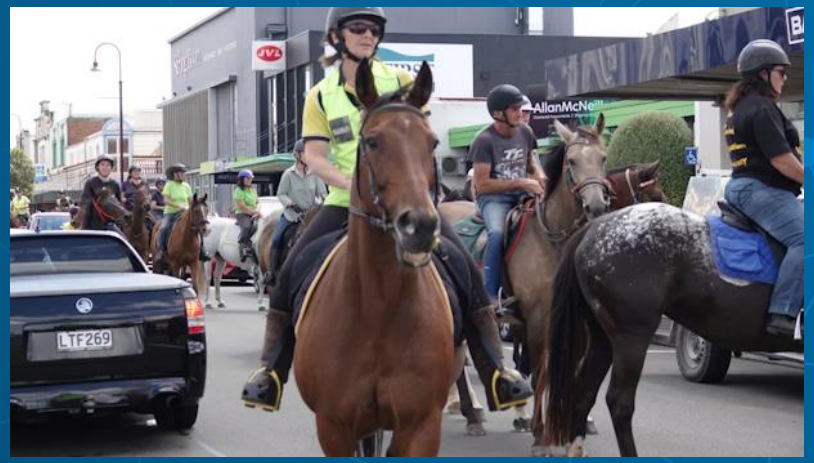
Medium Size

Whangarei Dual Courts

03

Small Size

Morrinsville District Court

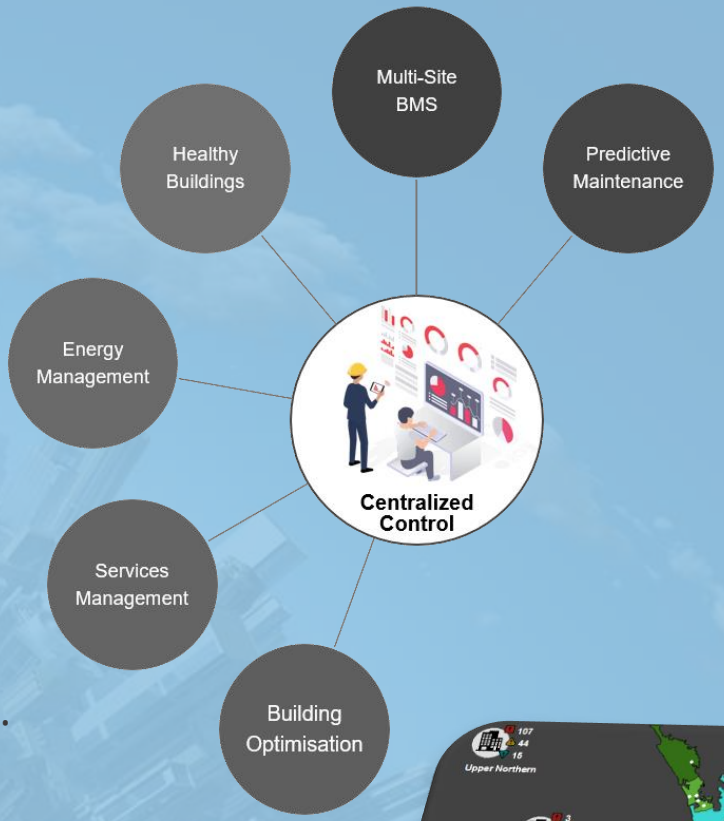


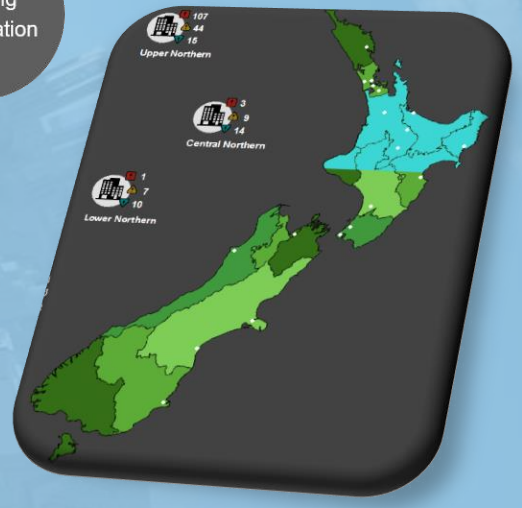
NIAGARA FORUM

CONNECTING THE WORLD

Solution Brief

- Securely connect the various BMS's back to a centralized platform for monitoring and control by National Ministry of Justice (MoJ) users.
- Manage BMS users nationally across disparate networks and domains.
- Remote access for site based approved Staff/Contractors without central system access.
- Sanitise and standard data across the portfolio.
- Promote enhancements with tangible benefits:
  - Understand the state and availability of Courts throughout the portfolio.
  - Ease of extracting and/or receiving data (automated reports).
  - Drive energy efficiency and sustainability.





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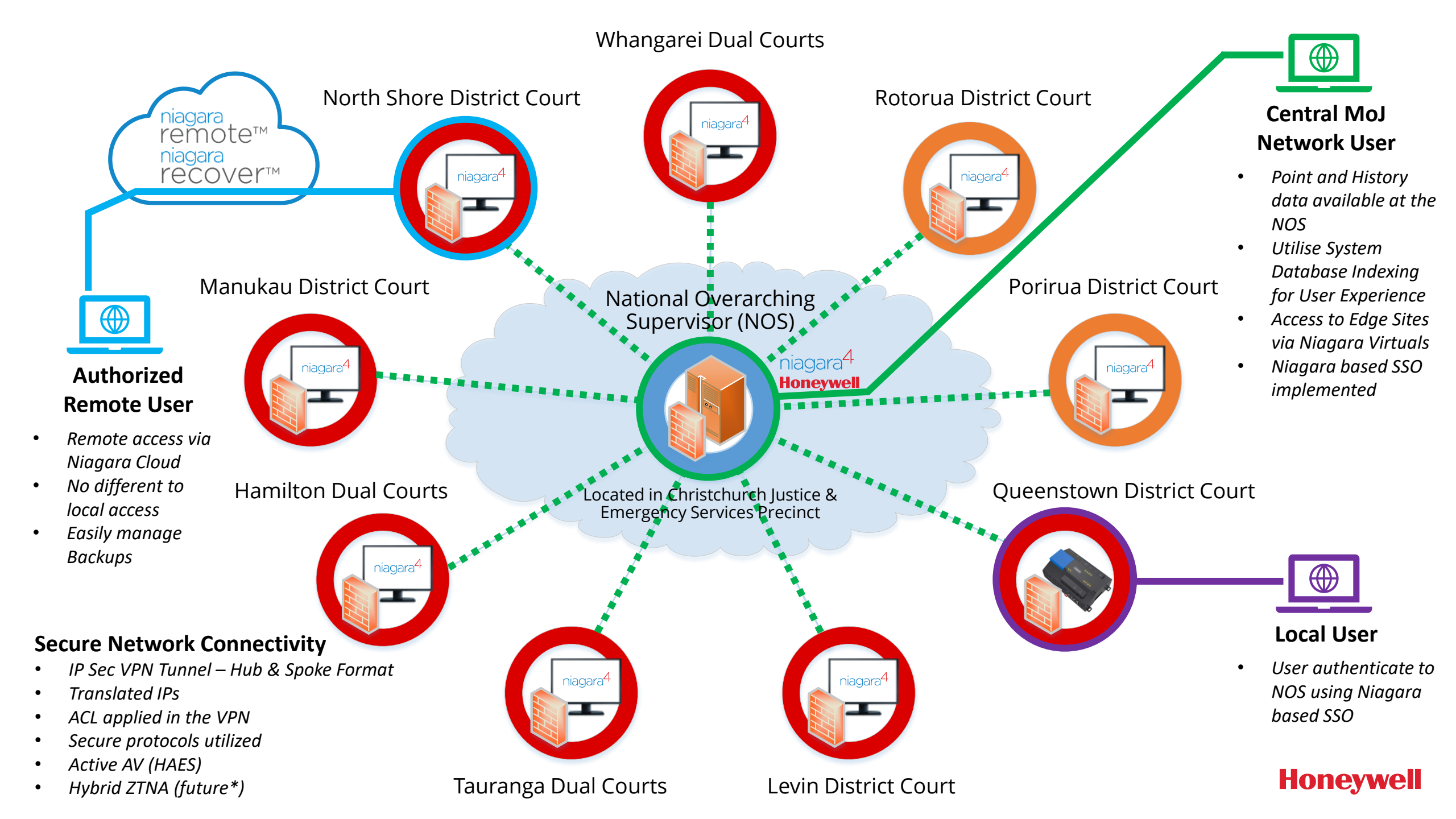

Authorized Remote User

- *Remote access via Niagara Cloud*
- *No different to local access*
- *Easily manage Backups*

Central MoJ Network User

- *Point and History data available at the NOS*
- *Utilise System Database Indexing for User Experience*
- *Access to Edge Sites via Niagara Virtuals*
- *Niagara based SSO implemented*

Secure Network Connectivity

- *IP Sec VPN Tunnel – Hub & Spoke Format*
- *Translated IPs*
- *ACL applied in the VPN*
- *Secure protocols utilized*
- *Active AV (HAES)*
- *Hybrid ZTNA (future*)*

Local User

- *User authenticate to NOS using Niagara based SSO*

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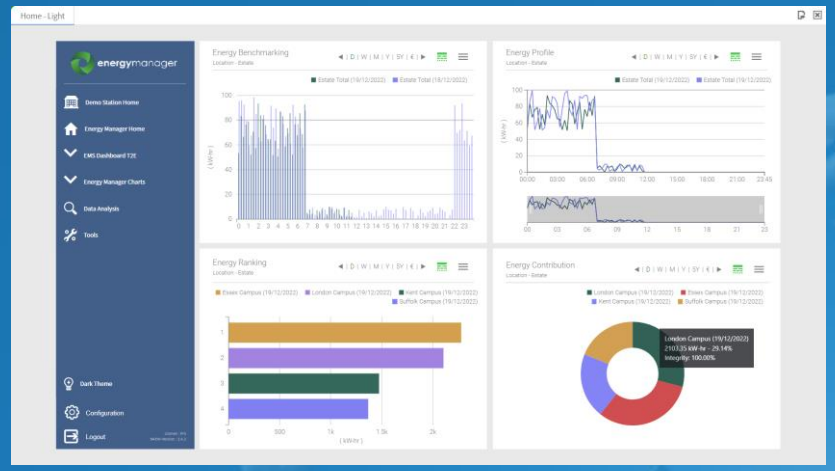
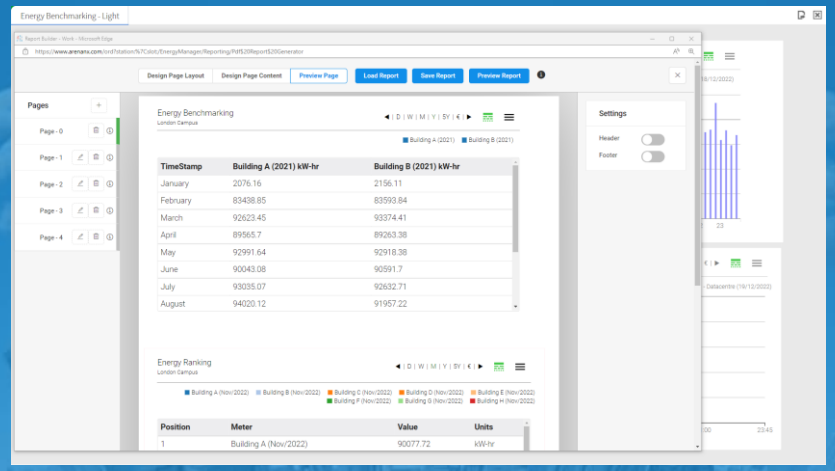
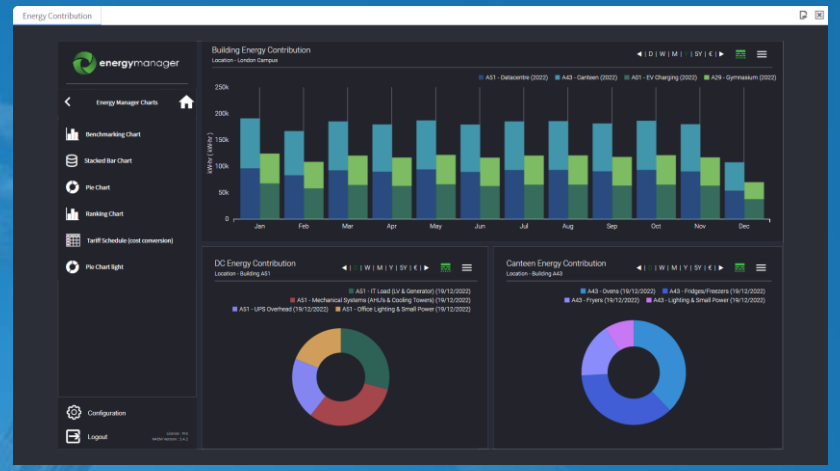
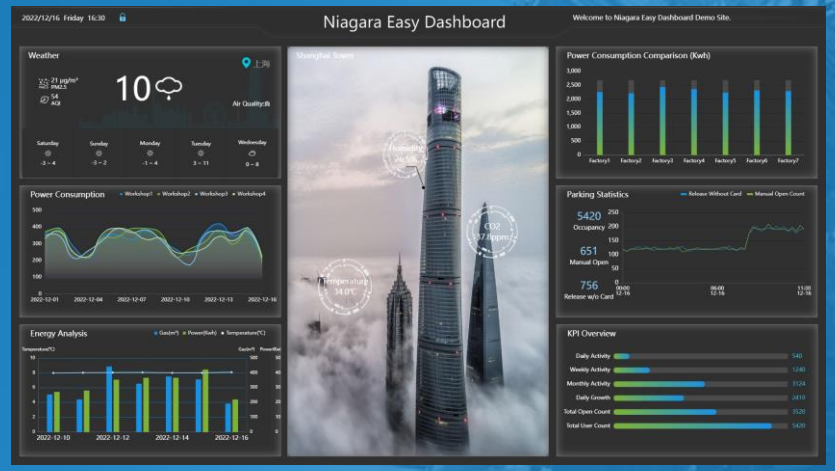
Niagara 4 Energy Manager

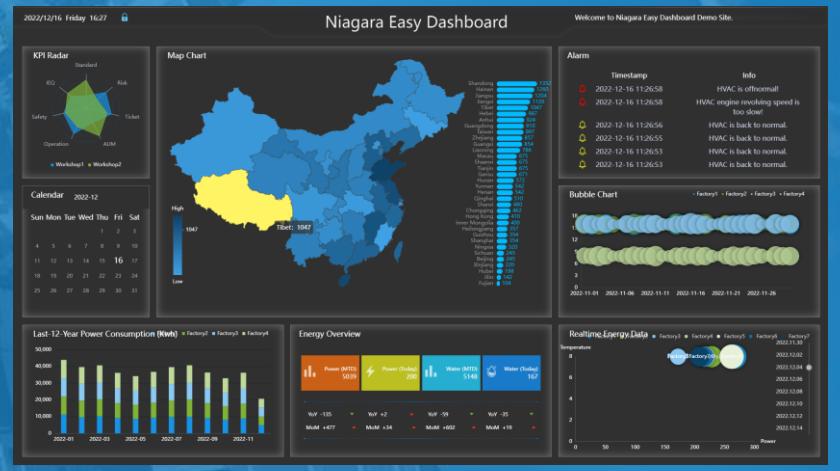






Niagara Easy Dashboards





Niagara Cloud Remote & Recovery Applied

Including Live Demo for Niagara Cloud Remote Access

NIAGARA CLOUD APPLICATIONS

Cloud Backups
(Baseline & Scheduled)

niagara recover™

Remote Engineering & Monitoring

niagara remote™

niagara data service™

- Contextualised Data
- Cloud Histories
- 3rd-Party App Access

next service...

More to Come

Designed to simplify your journey to the cloud

Designed for cyber security and protection of your data

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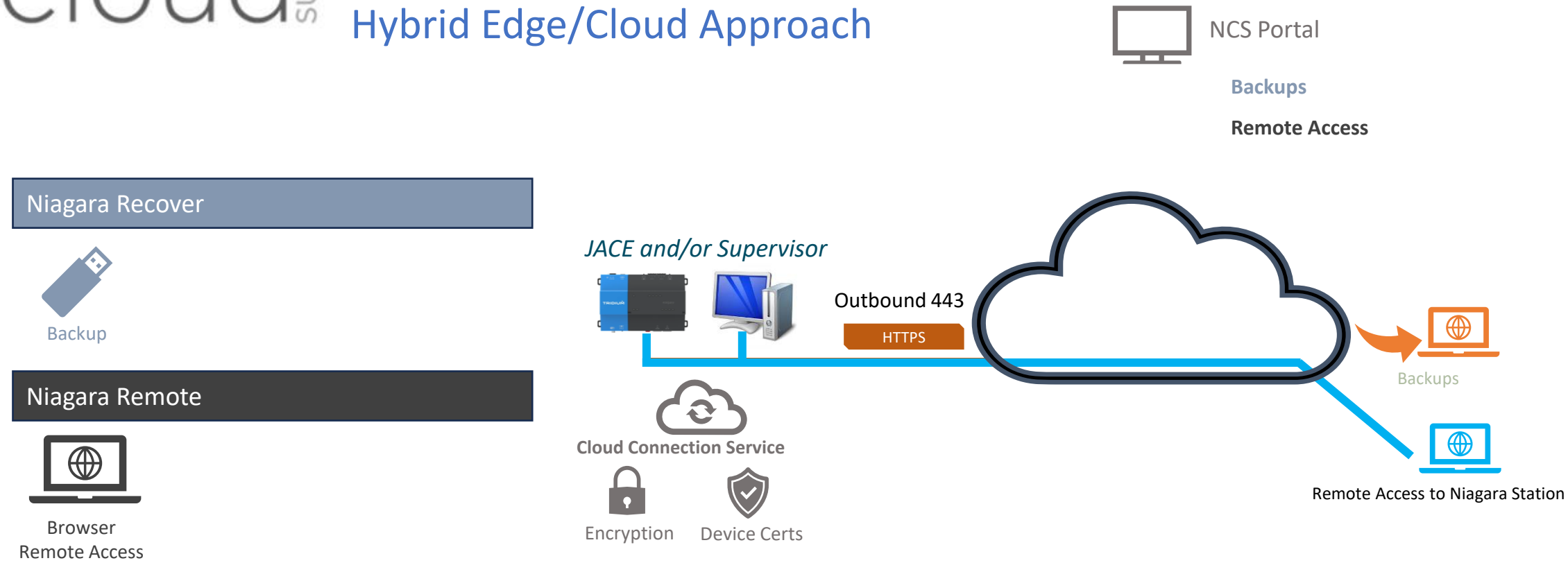
Architecture

Hybrid Edge/Cloud Approach



Current Long Term Support Release | Current Feature Release | and Active SMA

Username

ioane.andersen@honeywell.com

Password

Sign In

Forgot Your Password? Sign Up

niagara community

niagara marketplace

niagara licensing

tridium university

Broader Niagara Strategy with the Ministry of Justice NZ

Expanded Connectivity – 50+ Sites

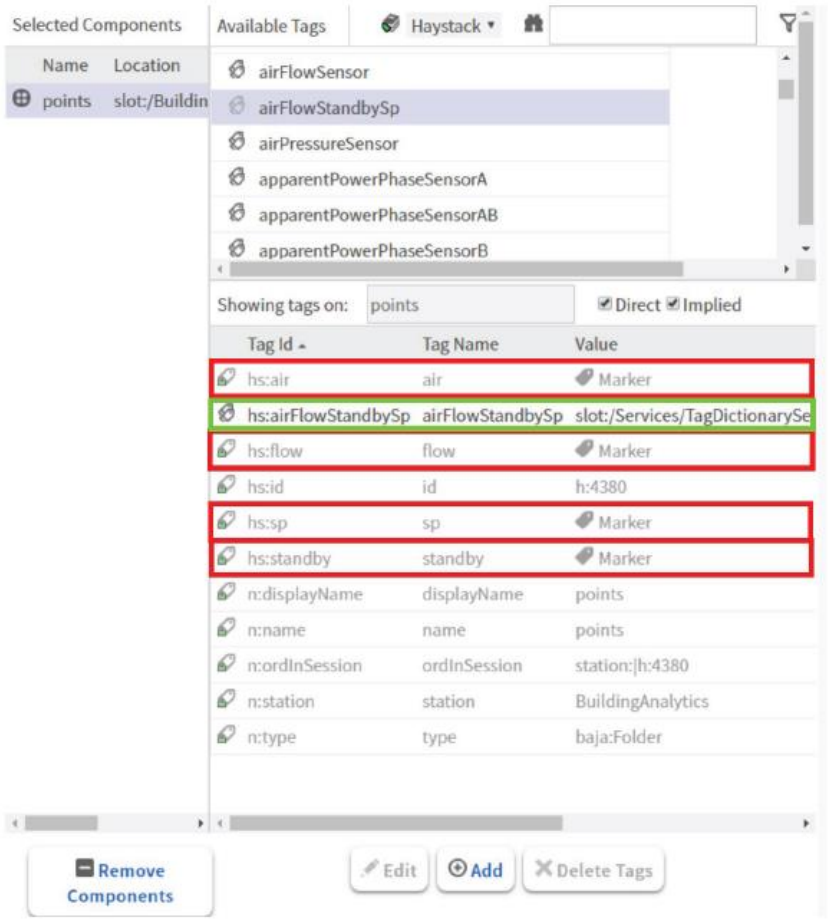
Data Ontology Model*

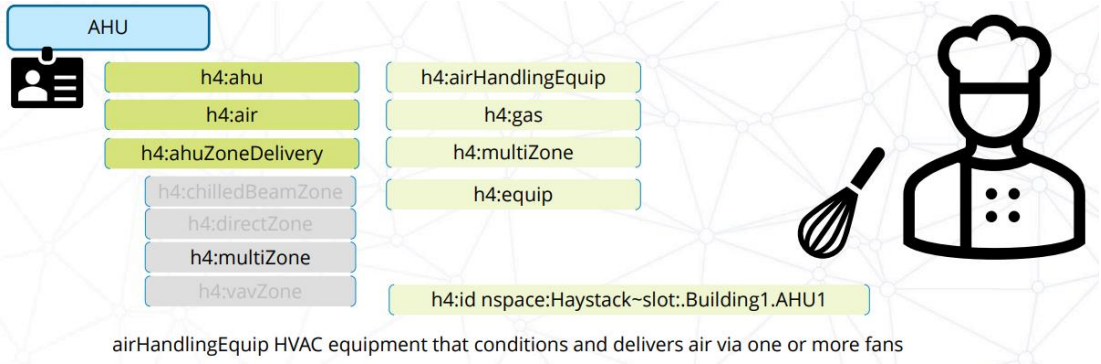
Cyber Hardening

IBMS Transition

Niagara Data Services/API*

Haystack4





airHandlingEquip HVAC equipment that conditions and delivers air via one or more fans

Project Haystack

Index » proto

- air co2 concentration sensor point
- air co2 concentration sp point
- air dewPoint sensor point
- air dewPoint sp point
- air enthalpy sensor point
- air enthalpy sp point
- air flow sensor point
- air flow sp point
- air humidity sensor point
- air humidity sp point
- air pressure sensor point
- air pressure sp point
- air temp sensor point
- air temp sp point
- air velocity sensor point

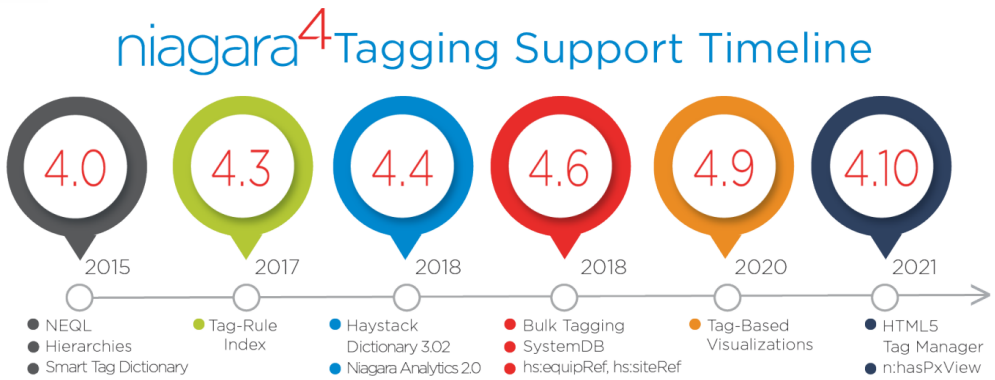


Figure 1. Introduced in Niagara4.0, Niagara entity query language (NEQL) made it possible to search for tags within Niagara stations . With every subsequent release, the Niagara development team has made tagging easier to comprehend, deploy and use.

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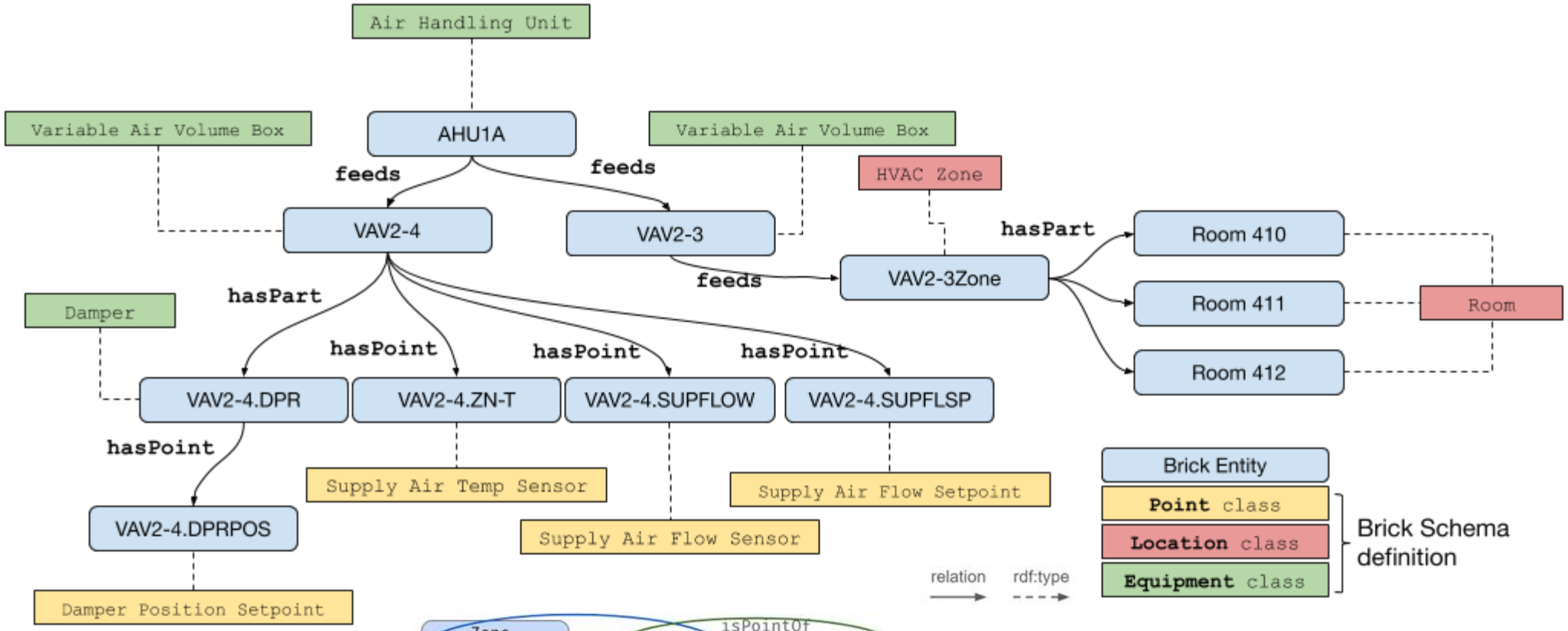
Brick Schema




```
SELECT ?zntsp ?zone WHERE {
  ?zntsp  rdf:type          brick:Zone_Temperature_Setpoint.#1
  ?zntsp  brick:isPointOf   ?ac.                             #2
  ?ac     rdf:type          brick:Terminal_Unit.
  ?ac     brick:feeds       ?zone.
  ?zone   rdf:type          brick:Zone.
```

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VBIS®
VIRTUAL BUILDINGS INFORMATION SYSTEM

Honeywell
VBIS ENABLED

BUILDING CONTROL SYSTEMS — DOWNLOAD TAGS→

CIVIL

HYDRAULICS — DOWNLOAD TAGS→

COMMUNIC

INFORMATION TECHNOLOGY — DOWNLOAD TAGS→

ELECTRICAL

IRRIGATION — DOWNLOAD TAGS→

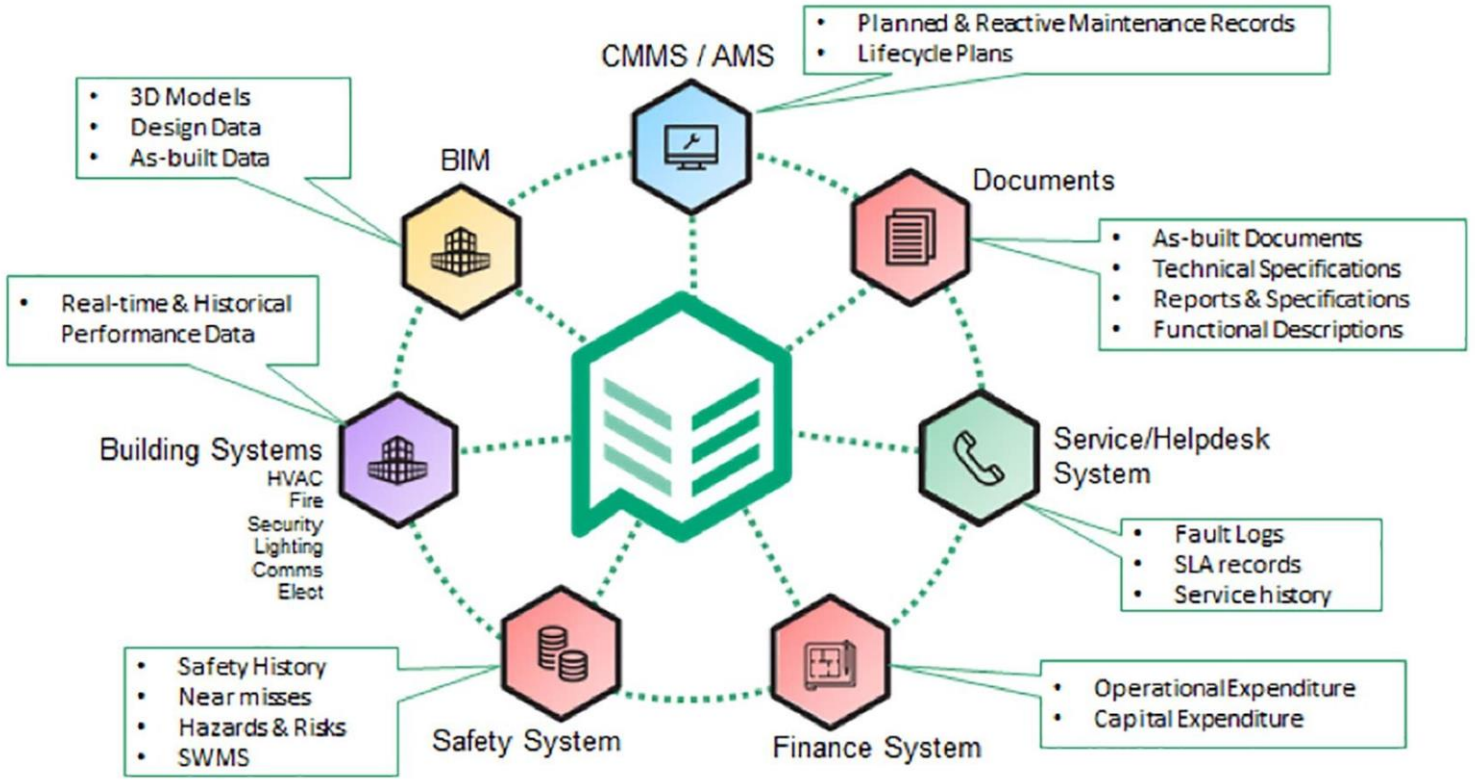
KITCHEN EQUIPMENT — DOWNLOAD TAGS→

ELECTRICAL

LANDSCAPE — DOWNLOAD TAGS→

FIRE DETECT

MECHANICAL — DOWNLOAD TAGS→



Product	Product Type Classification Sub-Type	Sub-Sub-Type	VBIS Tag	REV Date
Air Conditioner Fan Coil Unit			ME-ACFCU	Apr-2020
	DX		ME-ACFCU-DX	Apr-2020
		Cassette	ME-ACFCU-DX-Ca	Apr-2020
		Ceiling Concealed	ME-ACFCU-DX-CC	Apr-2020
		Ceiling Suspended	ME-ACFCU-DX-CS	Apr-2020
		Console	ME-ACFCU-DX-Co	Apr-2020
		Ducted In- Ceiling	ME-ACFCU-DX-DIC	Apr-2020
		Hi- Wall	ME-ACFCU-DX-HW	Apr-2020
		Air Cooled Heat Recovery	ME-ACC-VRF-ACHR	Jun-2022
		Water Cooled	ME-ACC-VRF-WC	Apr-2020
		Water Cooled Heat Recovery	ME-ACC-VRF-WCHR	Jun-2022

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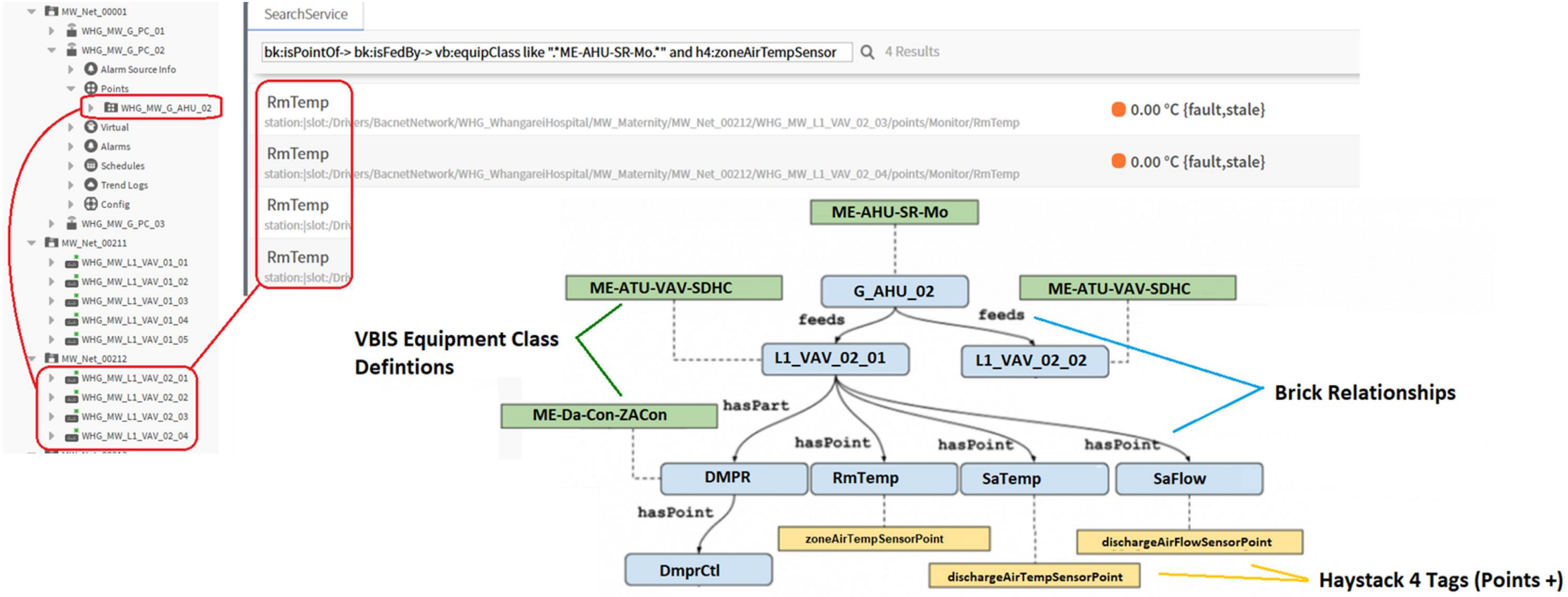
Haystack4

Brick Schema

VBIS®
VIRTUAL BUILDINGS INFORMATION SYSTEM



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Consolidated Tagging Benefit Examples…

- We need to perform maintenance on B02-MSSB-L13-01
- What is going to be affected?
- What areas are going to be affected?

Feeds(Electrically)

Feeds
(Mech. Air)

Feeds
(Mech. Air)

Zone 6
Zone 7
Zone 9
Zone 10

Feeds (Location)

Feeds
(Mech. Chw)

Zone 10
Zone 11
Zone 12

Feeds
(Mech. Air)

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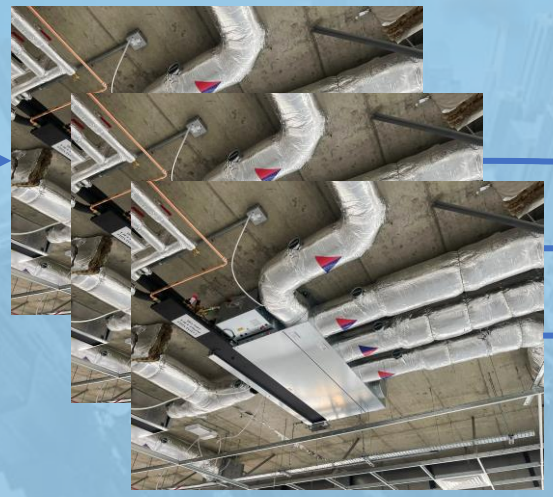
Consolidated Tagging Benefit Examples…

- The electrical supply to B02-SCHWP-L13-01 & 02 (Building 2 Secondary Pumps) have failed
- Query what equipment have Cooling Coils in Building 2 - VBIS tag “ME-Co-Co-Ch”
- Query what rooms are fed by zones fed by that equipment

bk:hasPart where
vb:equipClass = ‘ME-Co-Co-Ch’



bk:feeds Zones (Location)

Zone 10 → Rooms XXX
Zone 11 → Rooms XXX
Zone 12 → Rooms XXX

bk:feeds Rooms (Location)

Zone 1 → Rooms XXX

niagara data service™

- API Architecture: Enables easy connection to 3rd-party applications
- Contextualised Data for Trend Analysis — Supports Data Interoperability
- niagara cloud SUITE™ Historian — Enables charting, shareable with customers

Architecture

Hybrid Edge/Cloud Approach

NCS Portal

- User Management
- **Point History Graphs / API Keys**
- Backups
- **Remote Access**

Niagara Data Service

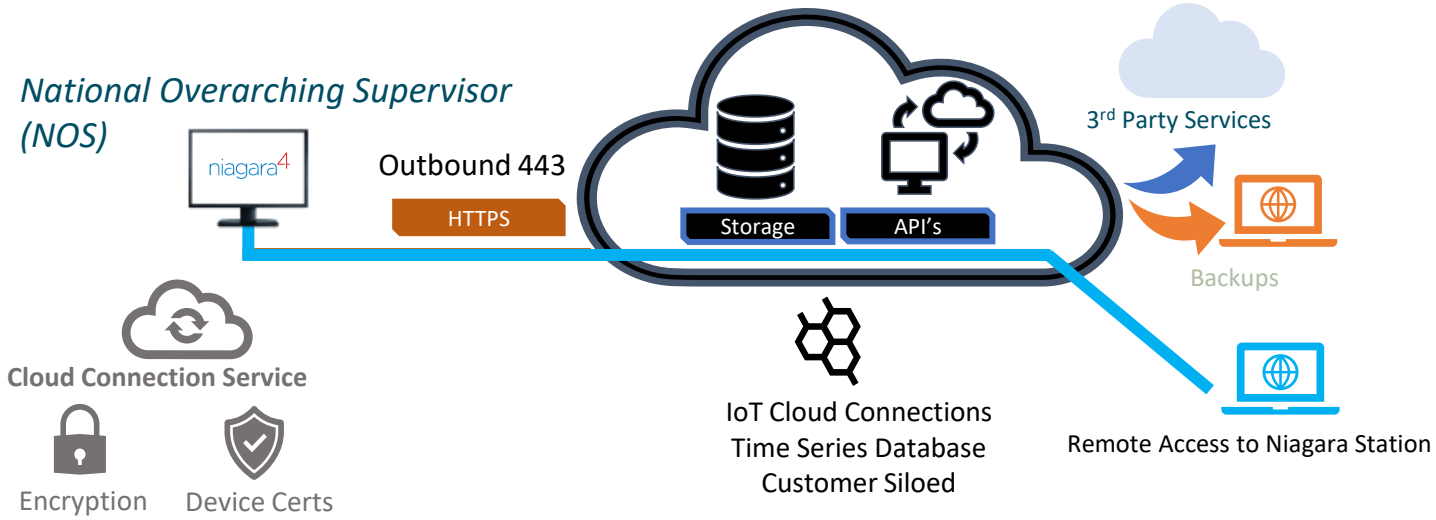
Modeler | Histories | Archive Histories

Niagara Recover

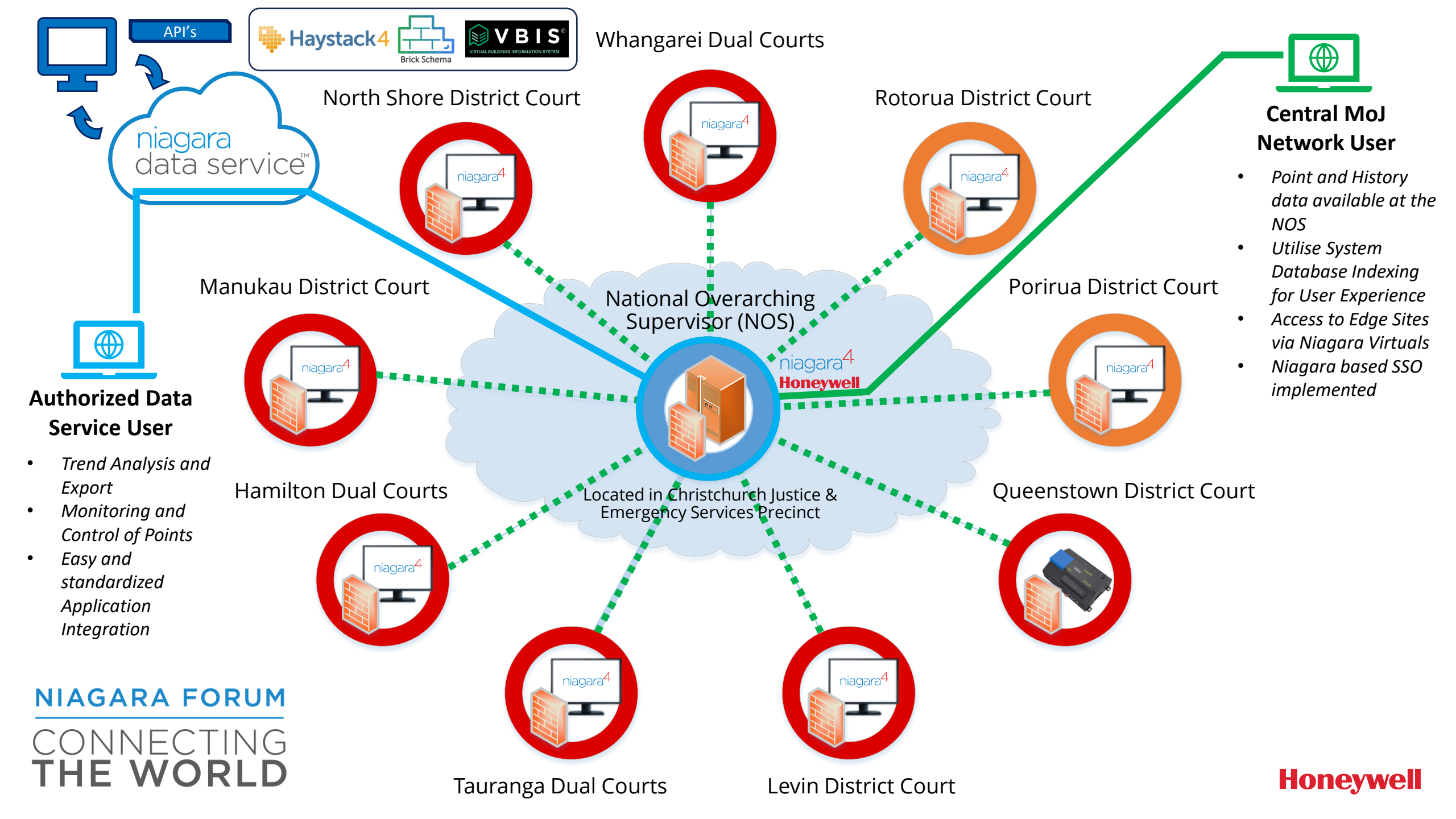
Backup

Niagara Remote

Browser
Remote Access



Current Long Term Support Release | Current Feature Release | and Active SMA


API's
Haystack4
Brick Schema
VBIS
VIRTUAL BUILDINGS INFORMATION SYSTEM
niagara data service™
Whangarei Dual Courts
North Shore District Court
Rotorua District Court
Manukau District Court
Porirua District Court
National Overarching Supervisor (NOS)
niagara4
Honeywell
Located in Christchurch Justice & Emergency Services Precinct
Hamilton Dual Courts
Queenstown District Court
Tauranga Dual Courts
Levin District Court
Authorized Data Service User
Trend Analysis and Export
Monitoring and Control of Points
Easy and standardized Application Integration
Central MoJ Network User
Point and History data available at the NOS
Utilise System Database Indexing for User Experience
Access to Edge Sites via Niagara Virtuals
Niagara based SSO implemented
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CONNECTING THE WORLD
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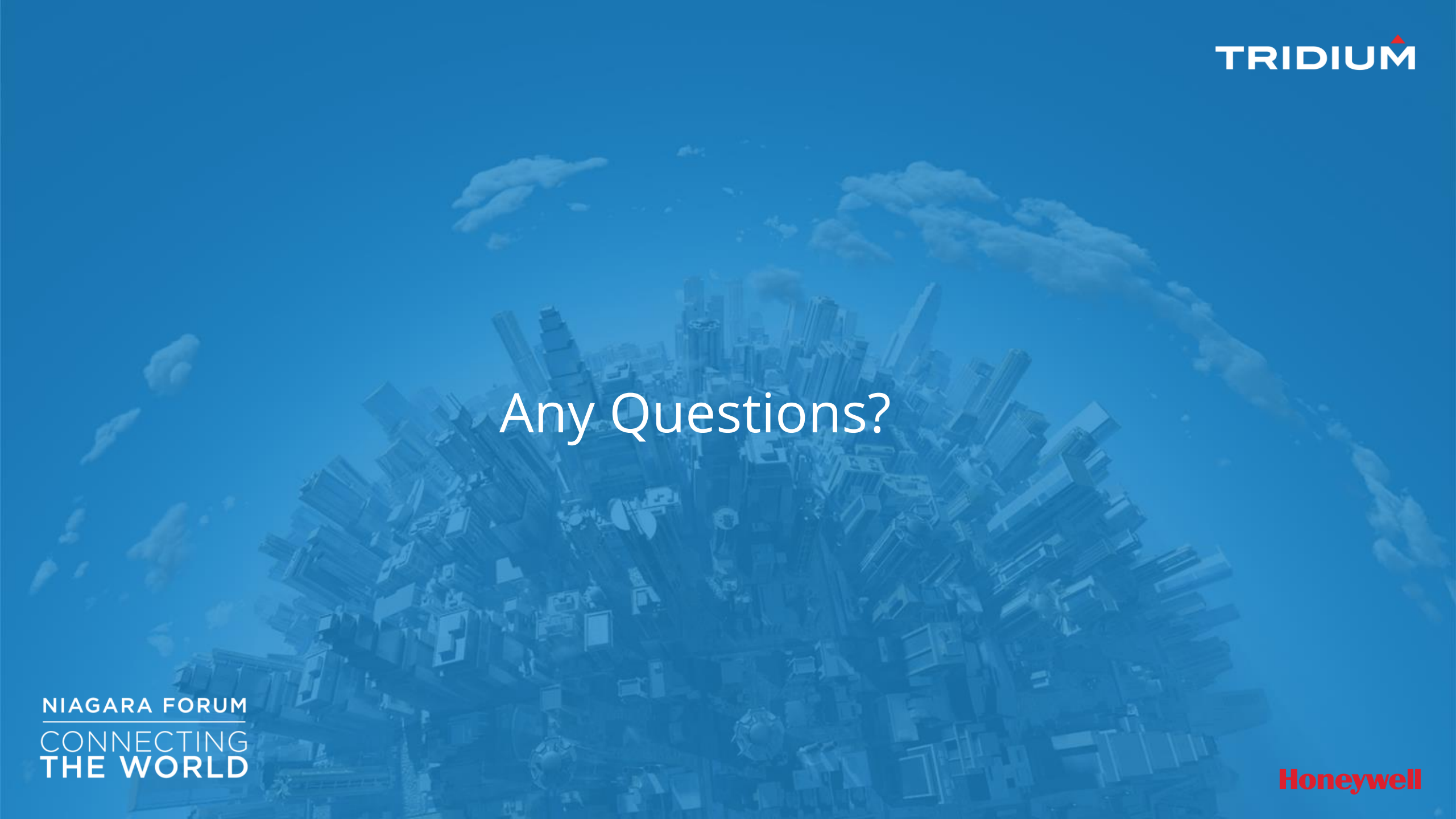
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Any Questions?
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THANK YOU
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