NOZOMI NETWORKS

Vantage for Government

User Guide

2026-02-03

Legal notices

Information about the Nozomi Networks copyright and use of third-party software in the Nozomi Networks product suite.

Copyright

Copyright © 2013-2026, Nozomi Networks. All rights reserved. Nozomi Networks believes the information it furnishes to be accurate and reliable. However, Nozomi Networks assumes no responsibility for the use of this information, nor any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent, copyright, or other intellectual property right of Nozomi Networks except as specifically described by applicable user licenses. Nozomi Networks reserves the right to change specifications at any time without notice.

Third Party Software

Nozomi Networks uses third-party software, the usage of which is governed by the applicable license agreements from each of the software vendors. Additional details about used third-party software can be found at https://security.nozominetworks.com/licenses.

Contents

Chapter 1. Introduction........ 9

Vantage for Government overview........ 11
Vantage and Vantage for Government comparison........ 13
Architecture........ 15
Data security in Vantage........ 16
Compliance and certifications........ 17
Graphical User Interface (GUI)........ 20
    Homepage........ 20
    Top navigation bar........ 22
Get more from Vantage........ 24
    Respond to the Get more from Vantage prompt........ 25

Chapter 2. Sensors........ 29

Details page........ 33
    Summary tab........ 34
    Synchronization tab........ 35
    Settings tab........ 36
    Health logs tab........ 36
    Tags tab........ 38
    Security control panel tab........ 41
    Network interfaces tab........ 42
Summary drawer........ 43
Table interactions........ 44
    Actions menu........ 44
    Open the details page........ 52
    Open the summary drawer........ 52
Connect a sensor........ 53
    Identify and copy the sensor ID........ 53
    Add a sensor........ 54
    Configure a sensor........ 59
    Arc sensor configuration........ 60
    Complete the connection of a sensor........ 69
    Verify the connection of a sensor........ 70
    Reset a sensor token........ 71
Troubleshooting........ 72
    Sensor will not connect........ 72

Chapter 3. Alerts........ 73

Overview........ 76
Detailed list........ 78

        - Details page 80
        - Summary drawer 82
        - Table interactions 83

Chapter 4. Assets 95

    - Overview 98
    - Detailed list 100
    - Details page 102
        - Summary tab 104
        - Risk tab 106
        - Processes tab 108
        - Users tab 109
        - Hardware Components tab 110
        - Nodes tab 113
        - Links tab 114
        - Sessions tab 115
        - Variables tab 116
        - Vulnerabilities tab 117
        - CPEs tab 118
        - Software tab 119
        - Alerts tab 120
        - Tags tab 121
        - Sensors tab 124
    - Summary drawer 125
    - Table interactions 126
        - Actions menu 126
        - Open the details page 130
        - Open the summary drawer 130

Chapter 5. Wireless 131

    - Networks 135
    - Channels 136
    - Spectrum 137
    - Details page 138
        - Actions menu 139

Chapter 6. Queries 145

    - Editor 148
    - Saved Queries 150
    - Saved Assertions 151
    - Customize assertion name and description 152
    - Execute a query 154
    - Commands 155
    - Functions 162

Chapter 7. Vulnerabilities 167

- Overview.....170
- Detailed list.....172
  - Details page.....174
  - Summary drawer.....176
  - Table interactions.....177
- Workbooks.....181

Chapter 8. Vantage IQ.....183

- Assistant.....186
- Insights.....187
  - Open insight details.....190
- Time Series.....191
- Queries.....192
  - Cluster.....193
  - Compare.....195
  - Correlation.....196
  - Describe.....197
  - Forecast.....198
  - Pivot.....199
  - Popular.....200
  - Simplify.....201
  - Timeline.....202
  - Versus.....203
  - Visualize.....204

Chapter 9. Network.....205

- Nodes.....208
- Links.....209
- Sessions.....210

Chapter 10. Graph.....211

- Network graph.....214
- Physical graph.....217
- Graph customization.....220

Chapter 11. Process.....227

- Table interactions.....230
  - Actions menu.....230

Chapter 12. Dashboards.....231

- Create a dashboard.....234
- Import a dashboard.....235
- Export a dashboard.....236
- Add a widget.....237
- Print a dashboard.....238

Chapter 13. Reports.....239

Vantage....242
  Create a report....243
  Import a report....246
  Print a report....247
From Sensors....248
Table interactions....249
  Actions menu....249

Chapter 14. Sites....251

Table interactions....254
  Actions menu....254

Chapter 15. Workbooks....257

Use a workbook to improve your network security....260

Chapter 16. Threat Intelligence....261

Malware....265
Actors....267
Vulnerability....269

Chapter 17. Asset Risk....271

Overview....274
Remediations....276
Details....277
Benchmarks....279

Chapter 18. Smart Polling....281

Smart Polling plans....285
  Plan creation....287
  Automatically add a plan....291
  Manually add a plan....295
  Actions menu....301
Smart Polling results....306
Smart Polling history....308

Chapter 19. Async operations....311

Chapter 20. What's new drawer....315

Chapter 21. Administration....319

Administration page....321

Chapter 22. Profile settings....323

Authentication....326
API Keys....327
Theme....329

Chapter 23. Organizations menu....331

Glossary..335

Chapter 1. Introduction

Vantage for Government overview

Vantage for Government is a Software as a Service (SaaS) product that lets you monitor and protect your networks. Vantage for Government lets you respond faster and more effectively to cyber threats, to ensure your operational resilience.

General

Vantage for Government (**Vantage™**) uses the power and simplicity of *Software as a Service (SaaS)* to deliver unmatched security and visibility across your *operational technology (OT)*, *Internet of Things (IoT)*, and *information technology (IT)* networks.

Vantage lets you:

- Centrally manage all sensor deployments from a single application
- Monitor an unlimited number of devices
- Protect an unlimited number of locations

Identify

Vantage lets you discover and identify your assets and visualize your networks. Its ability to automate processes to create asset inventories eliminates blind spots and increases awareness of your networks.

Dashboards let you generate macro views, as well as see detailed information on assets and connections in your networks. Vantage also shows extensive node information such as names, types, and firmware versions as well as asset behavior, roles, protocols, and data flows.

Assess

Vantage shows security alerts, missing patches and vulnerabilities to let you automatically assess vulnerabilities and monitor risks. It also correlates known vulnerabilities to *Common Vulnerabilities and Exposures (CVE)* reports to quickly research the root cause and potential impact. Vulnerability dashboards let you prioritize your efforts to focus on high-impact risk reductions first.

Vantage continuously monitors all supported protocols for the *OT*, *IoT*, and *IT* industries. It summarizes *OT* and *IT* risk information and highlights indicators of reliability issues, such as unusual process values.

Detect

Vantage gives you constantly updated threat detection to identify cybersecurity and process-reliability threats. It detects early and late stage advanced threats and cyber risks.

Vantage combines behavior-based anomaly detection with signature-based threat detection for comprehensive risk monitoring.

An optional subscription to **Threat Intelligence™** gives you up-to-date threat detection and vulnerability identification, which uses indicators that have been created and curated by Nozomi Networks Labs.

In addition, an optional subscription to **Asset Intelligence™** gives you breakthrough anomaly-detection accuracy for *OT* and *IoT* devices, which accelerates incident response times.

Act

Vantage accelerates your global incident response capabilities. It does this by focusing your attention on critical vulnerabilities, and letting you prioritize activities that maximize risk reduction.

Pre-defined playbooks guide users, and specific teams, in their efforts to counter the different types of threats. A centralized dashboard consolidates data to create high-priority alerts across a global network.

Clear explanations describe what has happened, the possible cause, and suggested solutions for every alert, which reduces the need for additional investigation.

Vantage lets you group alerts into incidents. This gives security and operations staff a simple, clear, and consolidated view of what's happening in your networks.

Scale

Vantage aggregates data from an unlimited number of globally-deployed sensors. It delivers customizable summaries of essential information which lets you drill down to individual sites or assets.

It streamlines security processes across *IT* and *OT* for a cohesive response.

Vantage lets you manage security risks centrally for all your global sites.

Related information

Architecture (on page 15)

Data security in Vantage (on page 16)

Vantage and Vantage for Government comparison

Vantage for Government is specifically designed to meet the unique requirements of U.S. government agencies and organizations that must comply with federal security and operational standards.

Overview

Vantage for Government provides the same core functionality as Vantage, with additional configurations and operational practices to support U.S. government deployment requirements. Both products deliver comprehensive security and visibility across *OT*, *IoT*, and *IT* networks.

Key differences

The following table summarizes the key differences between Vantage and Vantage for Government:

Table 1. Vantage and Vantage for Government comparison

Feature	Vantage	Vantage for Government
Target audience	Commercial enterprises	U.S. Government agencies and organizations with FedRAMP compliance requirements
Compliance framework	Industry standard security practices	*National Institute of Standards and Technology (NIST)* FedRAMP Moderate compliance standards
Data residency	Standard cloud infrastructure	FedRAMP-compliant data centers
Core features	Full feature set	No third-party integrations (they will be introduced in a future release)
User experience	Standard interface	Identical interface

Shared capabilities

Both Vantage and Vantage for Government include:

- Complete asset discovery and inventory management
- Real-time threat detection and alerting
- Vulnerability assessment and monitoring
- Network visualization and analysis
- Customizable dashboards and reports
- Integration with third-party security tools
- Centralized management of distributed sensors

- *Asset Intelligence (AI)*-driven security insights (when licensed)
- **Threat Intelligence™** integration (when licensed)

Choosing the right product

Select Vantage for Government if your organization:

- Is a U.S. government agency or contractor
- Must comply with federal security requirements
- Requires data residency in government-compliant facilities
- Needs audit trails that meet federal standards

Select standard Vantage for commercial deployments that do not require government-specific compliance frameworks.

Related information

Vantage overview (on page)

Vantage for Government overview (on page 11)

Architecture

You can use Vantage, and the flexible architecture, to create a customized solution.

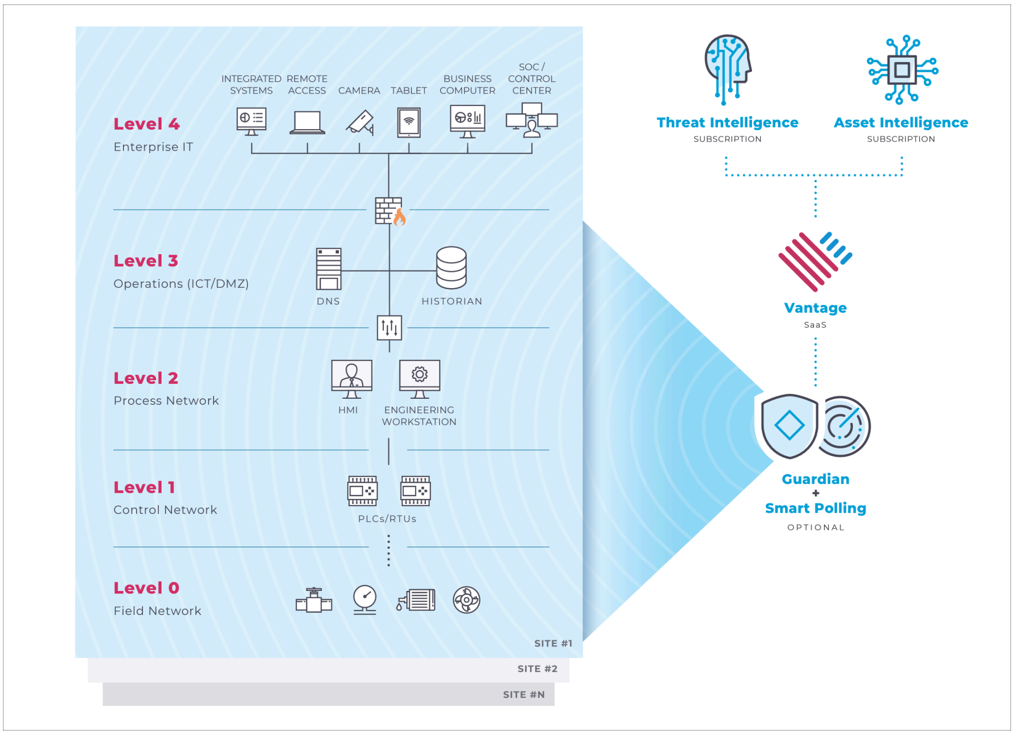


Figure 1. Vantage architecture

Data security in Vantage

It is important to understand how Vantage keeps your data secure.

Data privacy

For more details, see Nozomi Networks Vantage Data Privacy.

Data segregation and encryption

Data segregation is a key element of data security in Vantage. Every Vantage implementation has its own database. Access to an instance's database requires an encryption key that is only used for this instance.

FIPS support

The *NIST* develops *Federal Information Processing Standards (FIPS)*, which are publicly-announced standards for use in computer systems in-use with non-military United States government agencies and government contractors. The *FIPS* 140 series specifies requirements for cryptography modules within a security system protecting sensitive, but unclassified, data.

For implementations that adhere to *FIPS*, Nozomi Networks provides *FIPS*-compliant Vantage instances that use the FIPS-140-2 approved cryptography module.

While a *FIPS*-compliant sensor cannot connect to a standard, non-*FIPS* Vantage instance, an unlicensed sensor can connect to a *FIPS*-compliant Vantage instance. This allows Vantage to assign a license and enable *FIPS* mode on the sensor. Vantage now manages the sensor's license, and it can only connect to a *FIPS*-compliant Vantage instance.

To learn more about *FIPS*, contact Nozomi Networks.

FIPS-compliant Vantage and SAML configuration

When you use *security assertion markup language (SAML)* to configure Vantage for SSO, you must specify its *assertion consumer service (ACS) uniform resource locator (URL)*.

If your Vantage instance is *FIPS*-compliant, its *ACS URL* differs from the *ACS URL* of non-*FIPS* instances. For example:

- The *ACS URL* of a standard, non-*FIPS* Vantage instance is similar to:
  `https://customer1.customers.us1.vantage.nozominetworks.io`
- The *ACS URL* of a *FIPS*-compliant Vantage instance is similar to:
  `https://nozominetworkscom.customers.us1.vantage-govcloud.nozominetworks.io`

For more details about *ACS URL*s, see **IdP configuration for SAML integration**, in the **Administrator Guide**.

Compliance and certifications

Vantage for Government maintains compliance with U.S. federal security standards and requirements to ensure secure operations for government agencies and contractors.

Overview

Vantage for Government is designed and operated to meet the stringent security and compliance requirements of U.S. federal agencies. The platform undergoes regular assessments and maintains certifications that demonstrate adherence to federal standards.

FedRAMP authorization

This service is authorized under the *Federal Risk and Authorization Management Program (FedRAMP)* at the **Moderate** impact level. The authorization was issued by a U.S. federal authorizing agency following a comprehensive security assessment in accordance with *FedRAMP* requirements.

The *FedRAMP* Moderate *Authorization to Operate (ATO)* confirms that the service meets the security controls defined in *NIST* SP 800-53 for systems processing *Controlled Unclassified Information (CUI)*, where the potential impact of a security compromise could be serious to agency operations, assets, or individuals.

Any authorization conditions, limitations, or constraints applicable to this service are documented as part of the *FedRAMP* authorization package and are maintained in accordance with *FedRAMP* continuous monitoring requirements.

FedRAMP provides a standardized approach to security assessment, authorization, and continuous monitoring for cloud services used by U.S. federal agencies.

Vantage for Government

Vantage for Government Is authorized under *FedRAMP* at the Moderate impact level.

This authorization demonstrates compliance with federal security requirements defined in *NIST* Special Publication 800-53.

For more details, see FedRAMP authorization.

Compliance frameworks

Vantage for Government adheres to the following federal compliance frameworks:

FISMA compliance

> The *Federal Information Security Management Act (FISMA)* establishes requirements for federal information security programs. Vantage for Government implements security controls that support FISMA compliance.

NIST 800-53 security controls

> The platform implements security controls from *NIST* Special Publication 800-53, which provides a catalog of security and privacy controls for federal information systems and organizations.

FIPS 140-2 cryptography

> All cryptographic operations use *FIPS* 140-2 validated modules to ensure data protection meets federal standards. For details, see Data security in Vantage (on page 16).

Department of Defense compliance

Vantage for Government aligns with applicable *Department of Defense (DoD)* cloud security requirements where required by customer deployment, including impact level considerations consistent with the *DoD* Cloud Computing *Security Requirements Guide (SRG)*.

Data residency and infrastructure

Vantage for Government operates within infrastructure that meets U.S. federal data residency and sovereignty requirements.

All customer data is stored and processed within **AWS GovCloud (US-East)** regions.

Data centers are located within **authorized U.S. government cloud regions**, with specific locations not publicly disclosed for security reasons.

No customer data is transmitted to or stored outside of authorized federal cloud infrastructure.

Personnel with access to customer data undergo background checks appropriate for government systems.

Audit and continuous monitoring

Vantage for Government maintains audit logs in accordance with *FedRAMP* Moderate requirements to support security monitoring, incident response, and compliance reporting.

Audit logs are retained for periods consistent with federal security control requirements and are protected against unauthorized access or modification. Authorized customers can export audit logs to approved government *security information and event management (SIEM)* or log aggregation systems using supported, secure mechanisms.

Compliance documentation

Organizations using Vantage for Government can access compliance documentation to support their own authorization and risk management processes.

The *FedRAMP* compliance artifacts below are made available to authorized government customers and partners upon request and are subject to applicable access controls and non-disclosure requirements:

- *System Security Plan (SSP)*
- *Security Assessment Report (SAR)*
- *Plan of Action and Milestones (POA&M)*
- Other related materials

Compliance updates

Federal security requirements and certifications are subject to change. Vantage for Government maintains current compliance through regular assessments and updates to security controls as requirements evolve.

Customers are notified of significant changes to compliance status or certifications through **direct communication from Nozomi Networks**, including email notifications and system announcements, as appropriate.

Related information

Vantage for Government overview (on page 11)

Vantage and Vantage for Government comparison (on page 13)

Graphical User Interface (GUI)

Homepage

This is the default view in Vantage, it offers the highest level view of the health of your network.

When you sign into Vantage, the **Overview** page highlights the health of the assets and sites that you monitor, and shows alerts and incidents.

Top navigation bar

For more details, see Top navigation bar (on page 22).

Dropdown menu

The dropdown gives you access to these different pages:

- **Overview**: The default view in Vantage, it offers the highest level view of your network's health.
- **Alerts**: Displays the total number of alerts across your entire network. The map shows the locations of the top alert types and protocols shown in the charts at the bottom of the page.
- **Assets**: Displays the total number of assets across your entire network. The map visualizes the locations of the top asset types, vendors, and operating systems shown in the charts at the bottom of the page.
- **Sensors**: Displays the total number of sensors connected to Vantage. The map visualizes the locations of the top sensor models shown in the chart at the bottom of the page.
- **Traffic**: Displays the total throughout in Mbps (megabits per second) and number of links across your entire network. The map visualizes the origin locations of links, while the list at the bottom of the page shows the top destination country.
- **Vulnerabilities**: Displays the total number of vulnerabilities detected in your network. The map visualizes the locations of the sites with the highest number of vulnerabilities, while the list at the bottom of the page shows the most common categories.

Note:

The totals displayed here are system-wide values. If you are only granted access to a subset of Vantage data, these values may not match results in the table or in query results.

Assets monitored

This panel shows a count of all of the organization's assets and classifies them into one of three categories:

- *IT*
- *IoT*
- *OT*

This value is based on the discovered details for the asset, such as:

- Mac address
- Vendor
- Protocol
- Type

Carousel

The carousel shows a quick view of your sites.

Map

The map helps you visualize your network and its health, and let you quickly understand where to focus your attention. Vantage draws lines across the map to depict the location of threat actors and the sites that their attacks target. You can select a site on the map to view it on the carousel. Use the **2D** and **3D** buttons to switch between flattened and spherical views of the Earth.

Elements

Common *user interface (UI)* elements are used in the different pages and sections.

Time groups

The **Time groups** button displays a throughput view of the data over a given time period.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

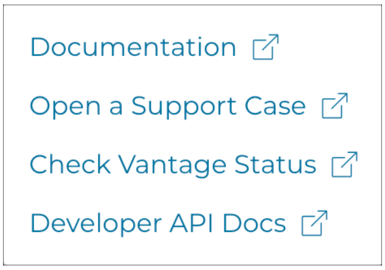
The **Refresh** ↻ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Support

The support ? icon opens a popup that gives you access to more items.



Documentation ↗
Open a Support Case ↗
Check Vantage Status ↗
Developer API Docs ↗

Top navigation bar

The top navigation bar lets you navigate to the different areas of the software.

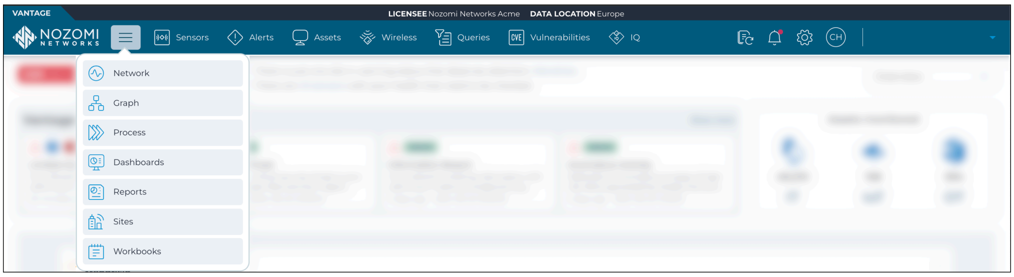


Figure 2. Top navigation bar

Hamburger menu

The ☰ icon opens a dropdown menu, which gives you access to buttons for these items:

- Network (on page 22)
- Graph (on page 22)
- Process (on page 22)
- Dashboards (on page 22)
- Reports (on page 22)
- Sites (on page 22)
- Workbooks (on page 22)

Network

This button opens the **Network** page. For more details, see Network (on page 205).

Graph

This button opens the **Graph** page. For more details, see Graph (on page 211)

Process

This button opens the **Process** page. For more details, see Process (on page 227)

Dashboards

This button opens the **Dashboards** page. For more details, see Dashboards (on page 231).

Reports

This button opens the **Reports** page. For more details, see Reports (on page 239).

Sites

This button opens the **Sites** page. For more details, see Sites (on page 251).

Workbooks

This button opens the **Workbooks** page. For more details, see Workbooks (on page 181).

Sensors

This button opens the **Sensors** page. For more details, see Sensors (on page 29).

Alerts

This button opens the **Alerts** page. For more details, see Alerts (on page 73).

Assets

This button opens the **Assets** page. For more details, see Assets (on page 95).

Wireless

This button opens the **Wireless** page. For more details, see Wireless (on page 131).

Queries

This button opens the **Queries** page. For more details, see Queries (on page 145).

Vulnerabilities

This button opens the **Vulnerabilities** page. For more details, see Vulnerabilities (on page 167).

(Vantage) IQ

This button opens the **Vantage IQ** page. For more details, see Vantage IQ (on page 183).

Async operations

This button opens the **Asynchronous operations** page. For more details, see Async operations (on page 311).

What's new

This button opens the **What's new** sidebar. For more details, see What's new drawer (on page 315).

Administration

This button opens the **Administration** page. For more details, see the Vantage **Administrator Manual**.

Profile settings

This button opens the profile settings menu. For more details, see Profile settings (on page 323).

Organization

This button opens the profile **Organization** page. For more details, see Organizations menu (on page 331).

Get more from Vantage

*The **Get more from Vantage** prompt helps root administrators optimize their environment by enabling Discovery and Smart Polling features. These capabilities improve asset visibility and support integration planning based on real usage data.*

Root administrators see the **Get more from Vantage** prompt after logging in. It collects details about software in the environment and offers the option to enable automatic Discovery and Smart Polling plans.

Completing the prompt is optional but recommended. Root administrators can choose to select:

- **Next** to continue with the setup
- **Assign to another user** to delegate the setup
- **Remind me later** to postpone the prompt

This proactive configuration helps Vantage deliver more relevant insights and accelerates time-to-value through intelligent automation.

Respond to the Get more from Vantage prompt

To help Vantage better understand their environment, root administrators see a guided setup dialog after logging in. This process collects preferences and offers the option to enable Discovery and Smart Polling. It improves asset visibility and supports tailored configuration recommendations.

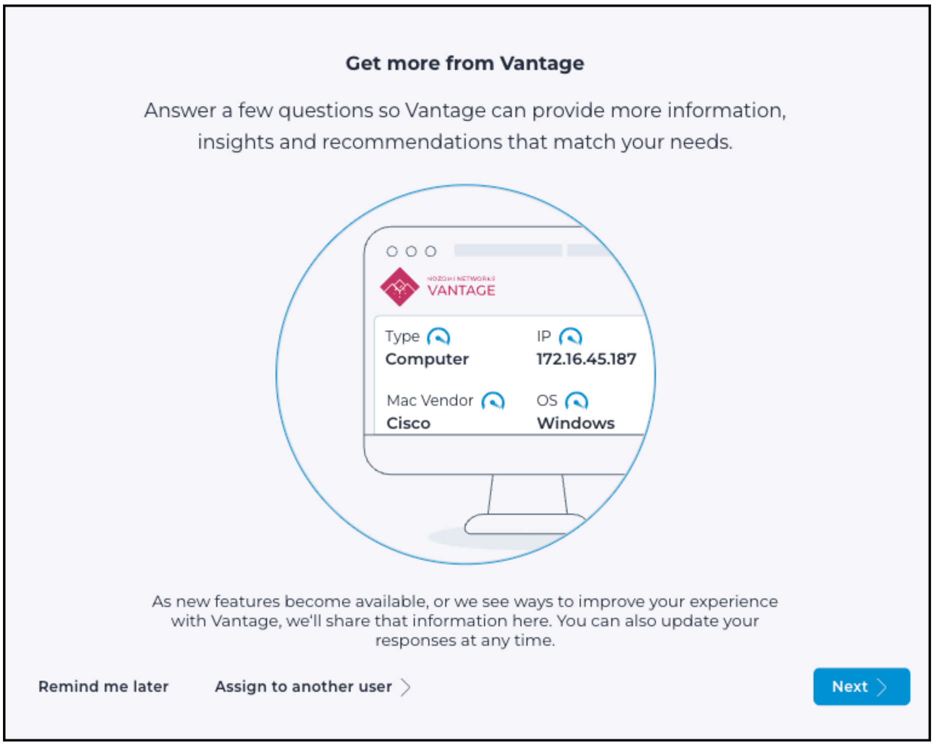
About this task

After login, root administrators are prompted with a short setup dialog that helps identify the software in use and enables Discovery and Smart Polling features. Completing the prompt allows Vantage to automate data collection plans to enhance visibility and insights.

Procedure

1. Log in to Vantage as a root administrator.

   Result: A `Get more from Vantage` dialog shows.



Get more from Vantage

Answer a few questions so Vantage can provide more information, insights and recommendations that match your needs.

As new features become available, or we see ways to improve your experience with Vantage, we'll share that information here. You can also update your responses at any time.

Figure 3. Get more from Vantage dialog

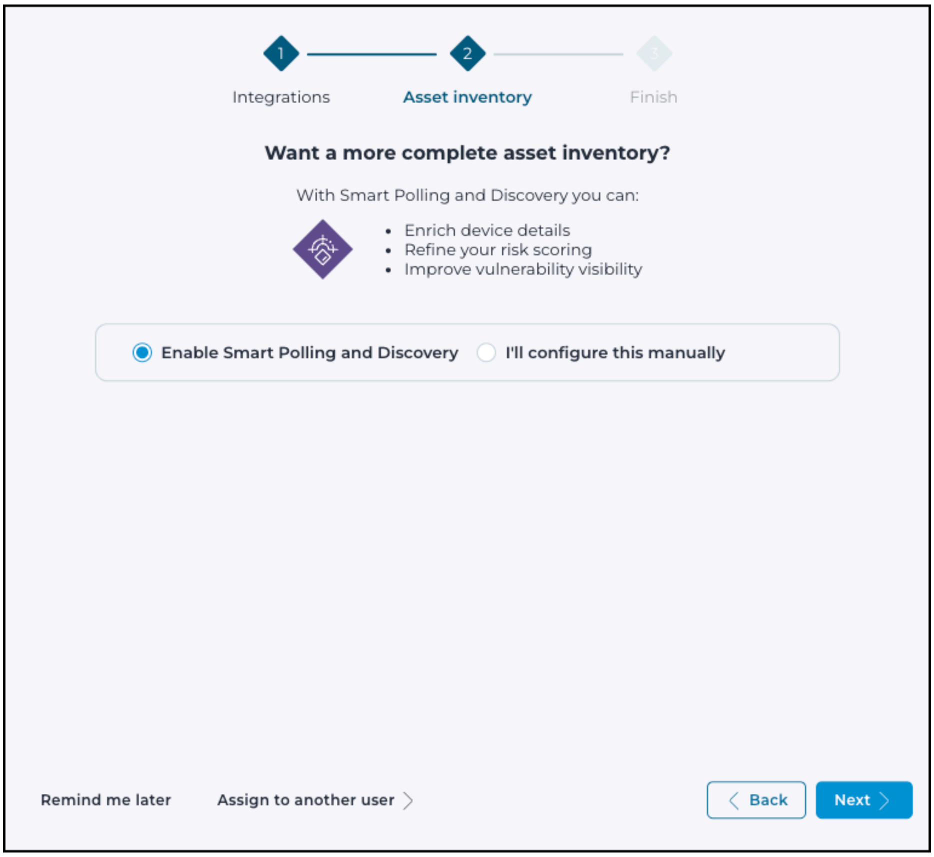
2. Select one of these options:

   Choose from:

   - **Remind me later**: The prompt will appear again the next time that you log in
   - **Assign to another user**: Transfer the task to a different user
   - **Next**: Complete the setup now

3. Select **Next**.

   Result: The **Asset Inventory** page opens.



Want a more complete asset inventory?

With Smart Polling and Discovery you can:

- Enrich device details
- Refine your risk scoring
- Improve vulnerability visibility

● Enable Smart Polling and Discovery ○ I'll configure this manually

Figure 4. Asset Inventory page

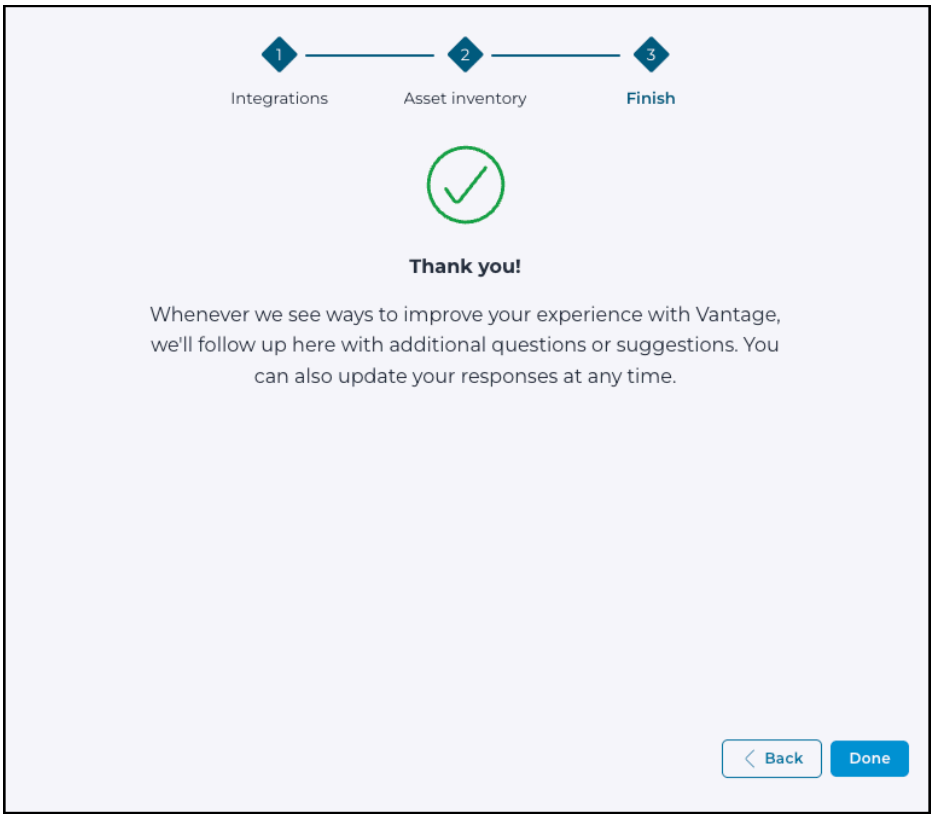
4. On the **Asset Inventory** page:

   Choose from:

   - **Enable Smart Polling and Discovery** – Starts Discovery immediately and schedules Smart Polling plans automatically
   - **No, I'll configure this manually** – Skips automated configuration for now

5. Select **Next**.

   Result: The **Finish** page shows.



Thank you!

Whenever we see ways to improve your experience with Vantage, we'll follow up here with additional questions or suggestions. You can also update your responses at any time.

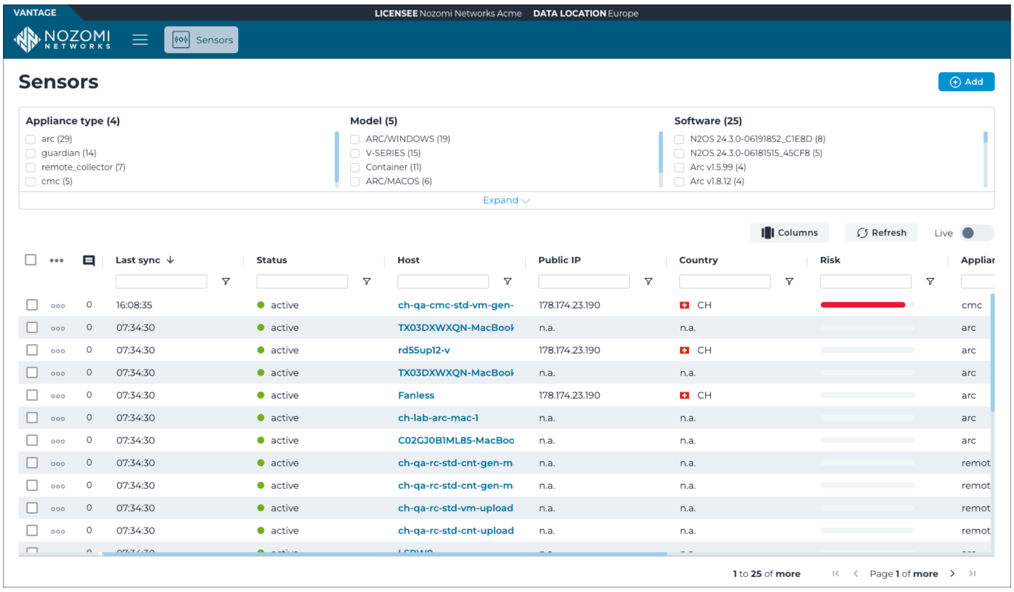
Figure 5. Finish page

Results

The setup is complete. Vantage uses this information to tailor support and improve asset visibility for your environment.

Chapter 2. Sensors

*The **Sensors** page lets you view all of the sensors that you have in your system.*



Appliance type (4)
- ☐ arc (29)
- ☐ guardian (14)
- ☐ remote_collector (7)
- ☐ cmc (5)

Model (5)
- ☐ ARC/WINDOWS (19)
- ☐ V-SERIES (15)
- ☐ Container (11)
- ☐ ARC/MACOS (6)

Software (25)
- ☐ N2OS 24.3.0-06191852_C1E8D (8)
- ☐ N2OS 24.3.0-06181515_45CF8 (5)
- ☐ Arc v1.5.99 (4)
- ☐ Arc v1.8.12 (4)

☐	•••		Last sync ↓	Status	Host	Public IP	Country	Risk	Appliar
☐	○○○	0	16:08:35	● active	ch-qa-cmc-std-vm-gen-	178.174.23.190	CH		cmc
☐	○○○	0	07:34:30	● active	TX03DXWXQN-MacBook	n.a.	n.a.		arc
☐	○○○	0	07:34:30	● active	rd55up12-v	178.174.23.190	CH		arc
☐	○○○	0	07:34:30	● active	TX03DXWXQN-MacBook	n.a.	n.a.		arc
☐	○○○	0	07:34:30	● active	Fanless	178.174.23.190	CH		arc
☐	○○○	0	07:34:30	● active	ch-lab-arc-mac-1	n.a.	n.a.		arc
☐	○○○	0	07:34:30	● active	C02GJ0B1ML85-MacBoo	n.a.	n.a.		arc
☐	○○○	0	07:34:30	● active	ch-qa-rc-std-cnt-gen-m	n.a.	n.a.		remot
☐	○○○	0	07:34:30	● active	ch-qa-rc-std-cnt-gen-m	n.a.	n.a.		remot
☐	○○○	0	07:34:30	● active	ch-qa-rc-std-vm-upload	n.a.	n.a.		remot
☐	○○○	0	07:34:30	● active	ch-qa-rc-std-cnt-upload	n.a.	n.a.		remot

Figure 6. Sensors page

Add

This button lets you connect a new sensor.

Appliance type

This shows a list of all the appliance types in the current table view.

Model

This shows a list of all the model types in the current table view.

Software

This shows a list of all the software types in the current table view.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** ⟳ icon lets you immediately refresh the current view.

Live

The **Live** ◉ toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Related information

Add a sensor (on page 54)

Configure a sensor (on page 59)

Verify the connection of a sensor (on page 70)

Reset a sensor token (on page 71)

Details page

The details page shows a set of fields which are applicable to the related type of sensor.

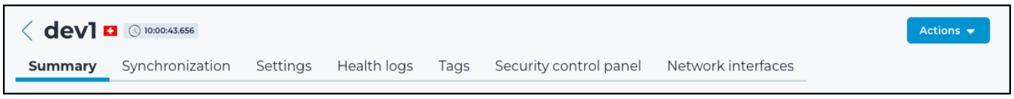


Figure 7. Details page

Actions dropdown

This dropdown gives you access to these actions:

- Delete (on page 44)
- Reset Token (on page 45)
- Renew Licenses (on page 46)
- Migrate Site (on page 47)

Summary

For more details, see Summary tab (on page 34).

Synchronization

For more details, see Synchronization tab (on page 35).

Settings

For more details, see Settings tab (on page 36).

Health logs

For more details, see Health logs tab (on page 36).

Tags

For more details, see Tags tab (on page 38).

Security control panel

For more details, see Security control panel tab (on page 41).

Network interfaces

For more details, see Network interfaces tab (on page 42).

Related information

Open the details page (on page 52)

Summary tab

*The **Summary** tab shows an overview of information for the related sensor.*

Figure 8. Summary tab

Sensor information

This section shows the asset information for the related sensor. shows information for:

- Appliance type
- Model
- Serial number
- Software
- Status
- IP
- Public IP
- GeoIP country
- GeoIP latitude
- GeoIP longitude

Throughput

This section shows the traffic throughput for the related sensor.

Summary

This section shows information for:

- Last sync
- Risk
- GeoIP - IP address

Health

This section shows metrics about the sensor. The section shows information for:

- CPU percentage
- Memory free
- Memory used
- Disk usage percentage

Comments

This section lets you write a comment for the sensor. It also shows comments that have been previously written.

Related information

Details page (on page 33)

Synchronization tab

*The **Synchronization** tab shows the settings that the related sensor inherits from its organization.*

Figure 9. Synchronization tab

You can select the **Click the Use organization settings** checkbox to make the settings editable and override the current values.

Changes made on this page affect the related sensor, but not the default settings for the organization it belongs to.

Settings tab

*The **Settings** tab shows sensor-specific settings that can be controlled in Vantage.*

Figure 10. Settings tab

An example of the settings that are shown in this tab are updates for:

- *AI*
- *Threat Intelligence (TI)*

Health logs tab

*The **Health logs** tab shows the health logs that the related sensor has generated.*

Figure 11. Health logs tab

Delete a health log

The actions menu lets you delete a health log.

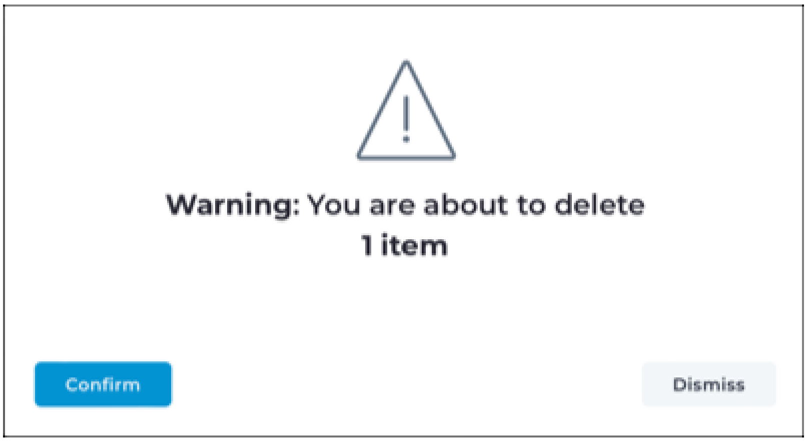
Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. Open the details page (on page 52) for the applicable sensor.
3. Select **Health logs**.
4. Choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
5. Select **Delete**.

   Warning: You are about to delete 1 item

   Result: A confirmation dialog shows.
6. Select **Confirm**.

Results

The health log(s) has (have) been deleted.

Tags tab

The Tags tab lets you add tags to the related sensor.

Figure 12. Tags tab

The Tags tab shows a table of all the sensors that have had tags added to them.

Add

This button lets you add a new tag (on page 39) to the related sensor.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** ⟳ icon lets you immediately refresh the current view.

Live

The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Related information

Add a tag to a sensor (on page 39)

Delete a tag from a sensor (on page 40)

Add a tag to a sensor

You can add tags to sensors. This lets you refine the permissions that you grant to users.

About this task

You can add one or more tags to the selected sensor.

Procedure

1. Open the details page (on page 52) for the applicable sensor.
2. Select the **Tags** tab.
3. Select **Add new**.

   Result: The **Tag** dropdown shows.
4. Open the dropdown and select the correct tag.

   > **Note:**
   > Only the tags that have been assigned for your organization show.
5. Select **Create**.

   Result: The tag has been added to the related sensor.

Related information

Tags tab (on page 38)

Delete a tag from a sensor (on page 40)

Delete a tag from a sensor

If a tag has been added to a sensor, you can delete it.

Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. Open the details page (on page 52) for the applicable sensor.
3. Select **Tags**.
4. Double-click the applicable tag.

   Result: The summary drawer shows.

5. Select **Details**.

   Result: The details page for the related tag shows.

6. Select **Actions > Delete**.

Results

The tag has been deleted.

Related information

Tags tab (on page 38)

Add a tag to a sensor (on page 39)

Security control panel tab

*The **Security control panel** tab lets you add tags to the related sensor.*

Figure 13. Security control panel tab

The Security control panel tab lets you control which alerts are created on sensors. The dropdown lets you select from these options:

- Low
- Medium
- High
- Paranoid
- Organization default

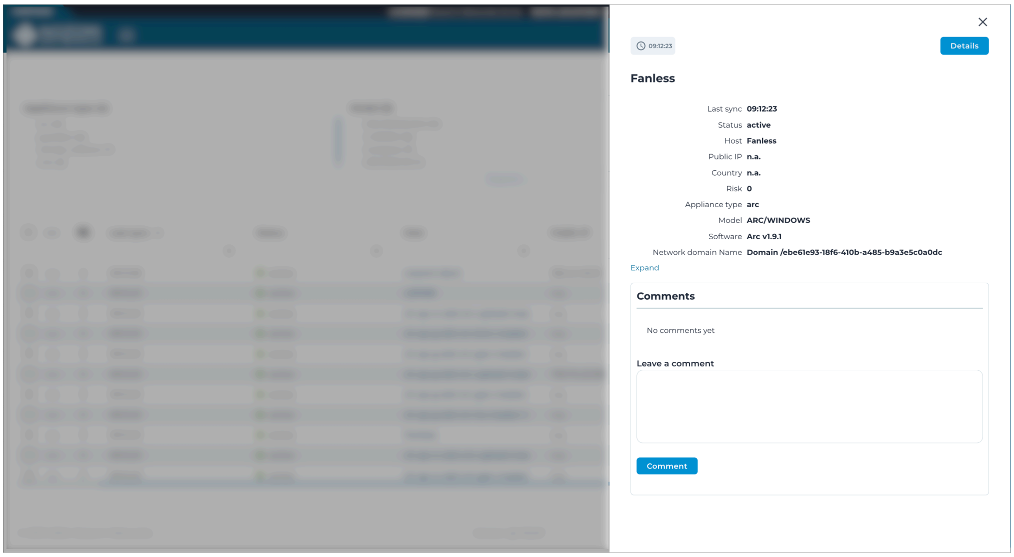
Network interfaces tab

*The **Network interfaces** tab shows the network ports available on a Guardian sensor. Use this tab in Vantage to review interface details and filtering settings. Configuration changes can only be made on the Guardian sensor itself.*

Figure 14. Network interfaces tab

Summary drawer

When you double-click a sensor in the table, the summary drawer shows. This lets you post a comment, or open the related details page.



Fanless

Last sync 09:12:23
Status active
Host Fanless
Public IP n.a.
Country n.a.
Risk 0
Appliance type arc
Model ARC/WINDOWS
Software Arc v1.9.1
Network domain Name Domain /ebe61e93-18f6-410b-a485-b9a3e5c0a0dc

Comments

No comments yet

Leave a comment

Figure 15. Summary drawer

Details button

You can select the **Details** button to open the details page for the related item.

Summary

The summary section shows a summary of applicable information for the related item.

Comments

This section lets you leave a comment, or read a comment that has been written, for the related item.

Table interactions

Actions menu

Delete a sensor

You can use the actions menu to delete a sensor.

Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. Choose a method to open the actions menu.

   Choose from:

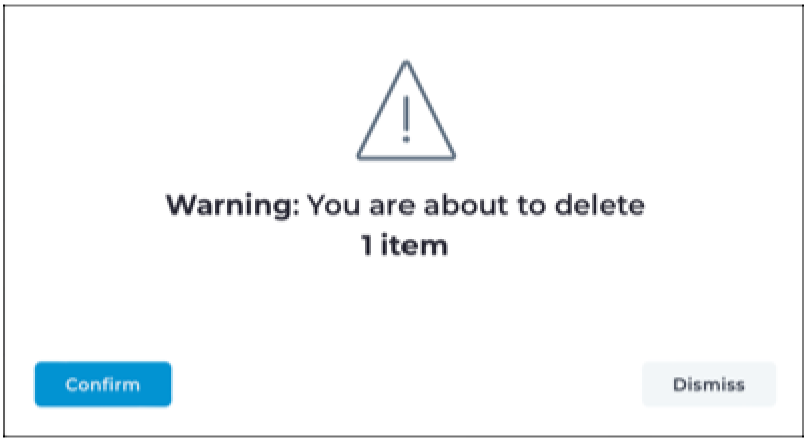
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon

3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose

4. Select **Delete**.



Warning: You are about to delete
1 item

Result: A confirmation dialog shows.

Results

The sensor(s) has (have) been deleted.

Reset a sensor token

The Actions menu lets you reset a sensor token.

Procedure

1. In the table, select the applicable sensor.
2. Select **Actions > Reset Token**.

   Result: The message `When you confirm to Reset Token, you need to update the settings on your sensors or you will lose connectivity` shows.

3. Select **Confirm Reset Token**.

   Result: Vantage resets the token and displays its new value. Use this value to configure the connection (on page 59) again.

> **Note:**
> If Vantage loses contact with a sensor, resetting its token and reconnecting the sensor can sometimes restore communication.

> **Note:**
> If a sensor is correctly communicating with Vantage, resetting the token severs the connection. To reconnect the sensor, generate a new token and configure the sensor the sensor (on page 59) again.

Renew a sensor license

You can use the actions menu to renew the license for one or more sensors.

Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

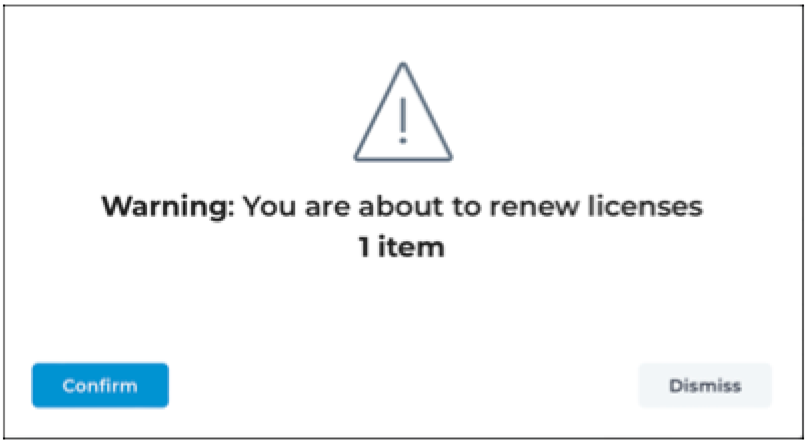
2. Choose a method to open the actions menu.

   Choose from:
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon

3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose

4. Select **Renew Licenses**.

   Warning: You are about to renew licenses
   1 item

   Result: A confirmation dialog shows.

5. Select **Confirm**.

Results

The license(s) has (have) been renewed.

Migrate a sensor to a different site

It is possible to migrate a sensor from one site to a different, or new, site.

Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. Choose a method to open the actions menu.

   Choose from:

   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon

3. If you use the ••• icon in the table, choose a method to select one, or more, items.

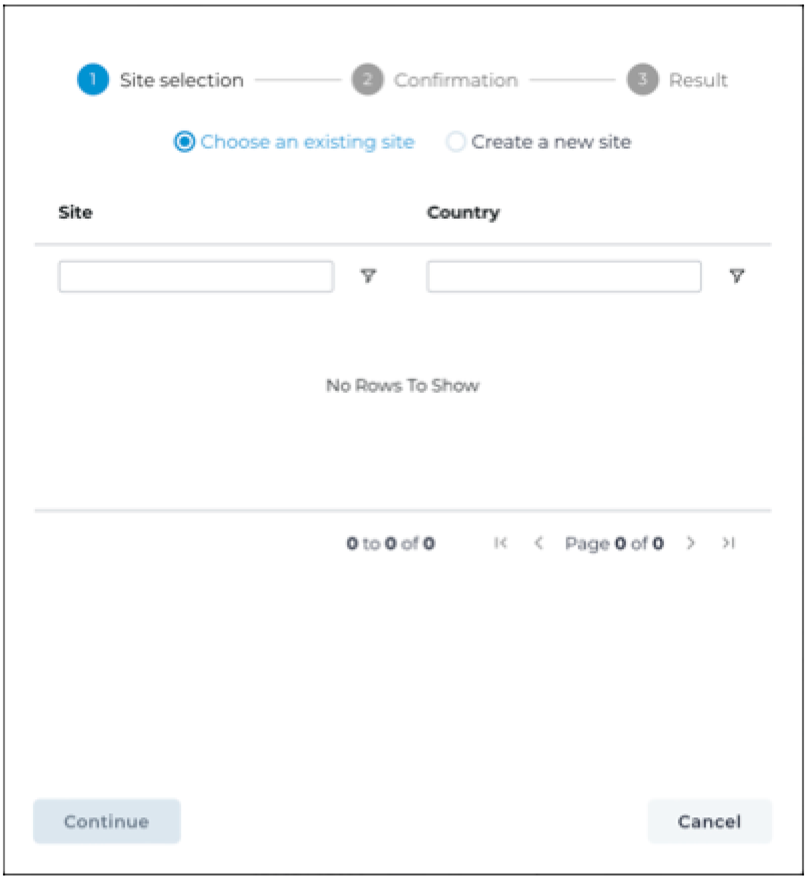
   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose

4. Select **Migrate Site.**

   Result: A dialog shows.

5. Choose an option:



Choose from:

- **Choose an existing site**
- **Create a new site**

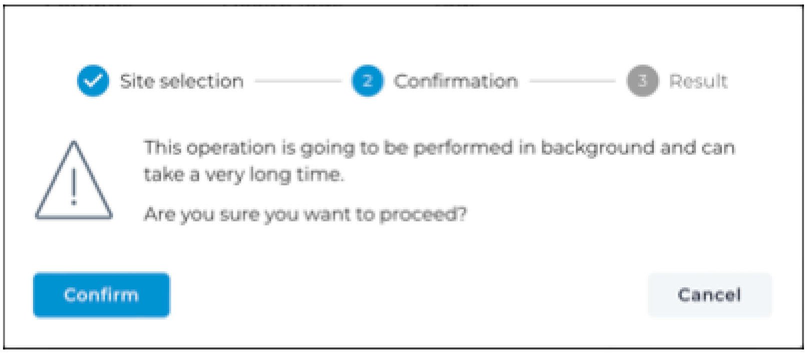
6. If you chose **Choose an existing site**, do the steps below:
   a. In the **Site** field, use the filter to select the site.

   b. In the **Country** field, use the filter to select the country.

   c. Select **Continue**.
   Result: A dialog shows.

   d. Go to step 8 (on page 49).

7. If you chose **Create a new site**, do the steps below:
    a. In the **City** field, enter the name of the city.
    b. In the **Country** dropdown, select a country.
    c. Select **Create and select new Site**.
    Result: A dialog shows.
8. Select **Confirm**.



This operation is going to be performed in background and can take a very long time.

Are you sure you want to proceed?

Results

The site migration starts.

Change the context of a CMC

Change the context of a Central Management Console (CMC) from Multicontext to All-In-One or from All-In-One to Multicontext. This change affects how the CMC and its connected sensors operate within your network. Use the actions menu to initiate the change.

Procedure

1. In the top navigation bar, select **Sensors**.

   Note:
   If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

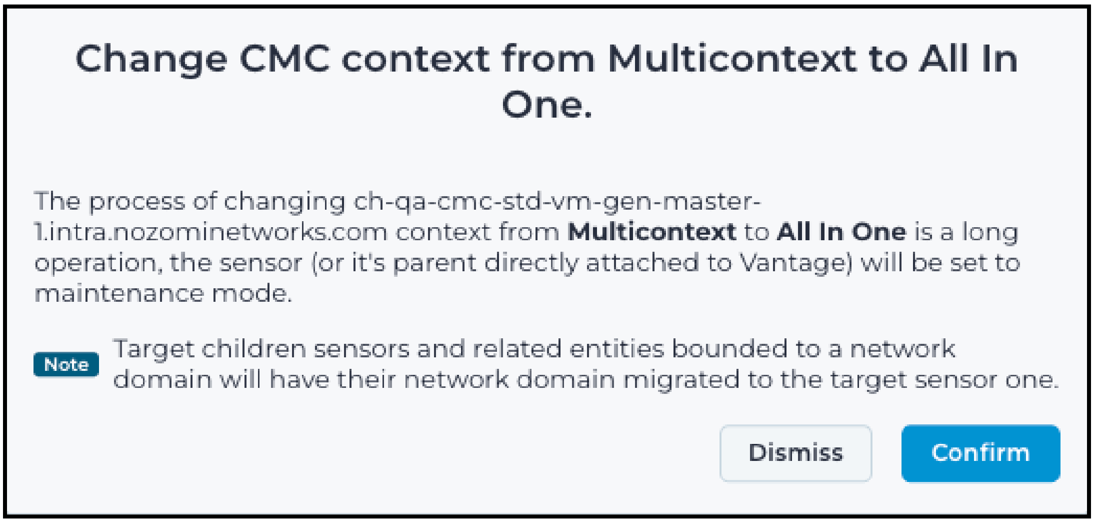
2. Choose a method to open the actions menu.

   Choose from:
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon

3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose

4. Select **Change CMC Context**.



Change CMC context from Multicontext to All In One.

The process of changing ch-qa-cmc-std-vm-gen-master-1.intra.nozominetworks.com context from **Multicontext** to **All In One** is a long operation, the sensor (or it's parent directly attached to Vantage) will be set to maintenance mode.

Note Target children sensors and related entities bounded to a network domain will have their network domain migrated to the target sensor one.

Result: A confirmation dialog shows. (Multicontext to All-In-One version shown.)

Results

The context of the *Central Management Console (CMC)* has been changed.

Open the details page

You can open a details page for individual sensors that are shown in the sensor page table. You can open the details page with two different methods.

Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. Choose a method with which to open the details page. In the row for the applicable sensor:

   Choose from:

   - In the **Host** column of the table, select the hyperlink.
   - Double-click the row to open the summary drawer. In the top right section, select **Details**.

   Result: The details page (on page 33) opens.

Related information

Details page (on page 33)

Open the summary drawer

You can open a summary drawer for individual items that are shown in the related table.

Procedure

In the table, double-click the row for the applicable item.

Result: The summary drawer (on page 43) opens.

Related information

Summary drawer (on page 43)

Connect a sensor

Identify and copy the sensor ID

Before you can add a sensor to Vantage, you must first identify the sensor, and copy the ID for use in other the procedures that follow.

About this task

Note:
The *identifier (ID)* of a sensor is different from the machine *universally unique identifier (UUID)*. The machine *UUID* applies to the physical, or virtual, hardware running the system. The sensor *ID* applies to the sensor's software.

Note:
In N2OS versions before 23.x, the sensor *ID* was called Appliance *ID*.

Note:
If your N2OS version is earlier than 21.0.0, please update your N2OS installation. For more information, see the N2OS Release notes.

The sensor type and version will affect the steps that you need to do below.

Procedure

1. Determine the type of sensor that you want to connect:

   Choose from:

   - If your sensor uses N2OS, open the web UI and navigate to **Administration > Synchronization settings**.
   - If your sensor is Nozomi Arc, open the local configuration UI and go to the **Status** page.
2. Copy the applicable *ID*:

   Choose from:

   - If your sensor uses N2OS version 23.x, select Copy next to the **Sensor ID** field. Save the information to use in later steps.
   - If your sensor uses N2OS version 22.x, select Copy next to the **Appliance ID** field. Save the information to use in later steps.
   - If your sensor is Nozomi Arc, copy the value in the **Sensor ID** field. Save the information to use in later steps.
3. Add the sensor in Vantage. (on page 54)

Add a sensor

Before you can use a sensor in Vantage, you must add it.

Before you begin

Before you can add a sensor, you must first Identify and copy the sensor ID (on page 53).

About this task

Note:

You can only connect a sensor to one:

- Organization
- Site
- Network domain

Procedure

1. Log in to Vantage.
2. In the top navigation bar, select **Sensors**.

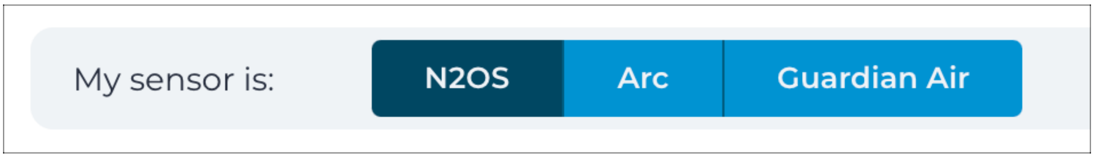
   Note:

   If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

3. Select the **Add new** button.

   Result: The **Make connections** page opens.

4. Select the product, and version, of the sensor that you want to connect to.



5. The options that show will depend on the sensor that you chose in the previous step.
6. Select an option:

   Choose from:

   - Select **N2OS** and do the Add an N2OS sensor (on page 55) procedure
   - Select **Arc** and do the Add an Arc sensor (on page 56) procedure
   - Select **Guardian Air** and do the Add a Guardian Air sensor (on page 58) procedure

Add an N2OS sensor

Before you can use an N2OS sensor in Vantage, you must add it.

Before you begin

Do the Add a sensor (on page 54) procedure and choose the **N2OS** option.

Procedure

1. Paste the *ID* that you previously retrieved into the **Sensor ID** field.

   Note:
   Vantage does not support N2OS versions before 23.0.0.

2. Select **Next**.

   Note:
   The sensor *ID* must be valid, and not be the same as one that was previously added in this Vantage console.

   Result: Vantage validates the *ID*.

3. Select the correct site:

   Choose from:

   - Select the correct site and network domain from the list.
   - To create a new site, enter the correct city and country for the sensor. Select **Continue**.

   Result: The host *ID* and sync token that Vantage will use to synchronize with the sensor show.

4. **Important:**
   Do not lose the *URL* or sync token. If you do, you will need to reset the token (on page 71).

   Copy the connection host *URL* and sync token, and paste them in a safe location.

5. Before you continue, you must configure the sensor (on page 59).

Add an Arc sensor

Before you can use an Arc sensor in Vantage, you must add it.

Before you begin

Do the Add a sensor (on page 54) procedure and choose the **Arc** option.

Procedure

1. Select **Configure Arc bundle**.

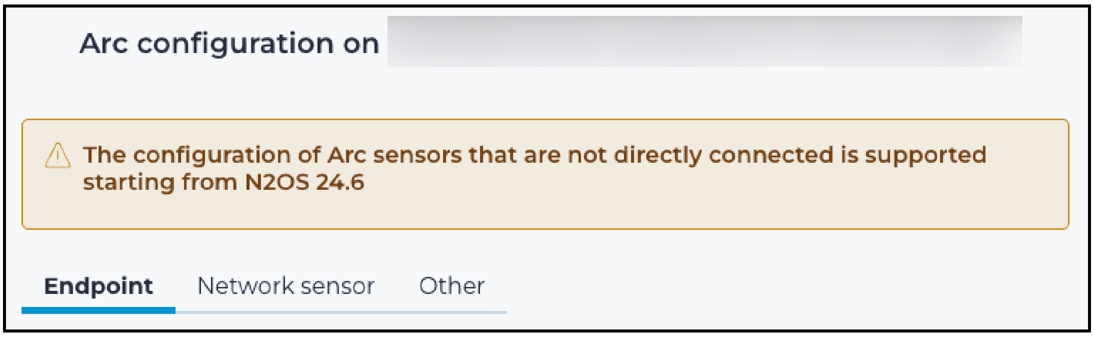
   Result: A dialog shows.

2. Do a check of the defaults settings.
3. Select an option:

   Choose from:

   - To accept the default settings, close the dialog and go to step 9 (on page 57)
   - Alternatively, to modify the settings, go to step 4 (on page 56)

4. In the **Execution time** section, enter a value in seconds.



Arc configuration on

The configuration of Arc sensors that are not directly connected is supported starting from N2OS 24.6

> **Note:**
>
> When this is set to 0, the execution time is interpreted as infinite.

5. Enable/disable from these options:

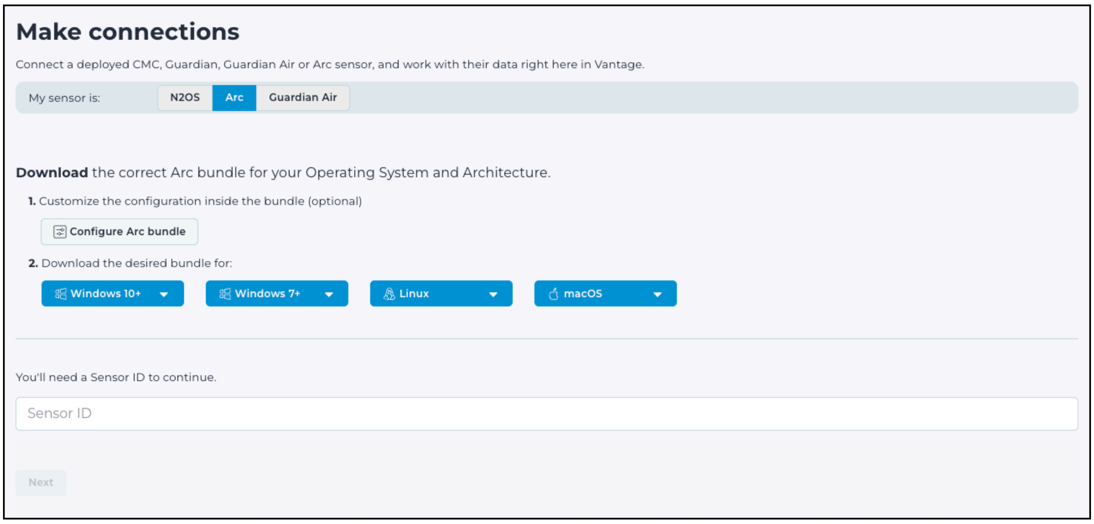
   - **Sigma rules** (Windows only)
   - **YARA rules** (Windows only)
   - **USB detections** (Windows only)
   - **Node points**
   - **Discovery**
   - **Smart Polling**
   - **Local ARP table**

6. From the **Log level** dropdown, select the verbosity level for the log files. Select from:
   - Debug
   - Info
   - Warning
   - Error

7. If necessary, in the **Traffic monitoring** section, select from:
   - **Enable**
   - **Enable continuous mode**

   a. In the **Monitoring time [s] per notification** field, enter a value in seconds.
   b. In the **Max packets per notification** field, enter a value.
   c. In the **Max used Memory [MB]** field, enter a value.
8. Select **Save**.

9. Download the applicable bundle.



Make connections

Connect a deployed CMC, Guardian, Guardian Air or Arc sensor, and work with their data right here in Vantage.

My sensor is: N2OS Arc Guardian Air

Download the correct Arc bundle for your Operating System and Architecture.

1. Customize the configuration inside the bundle (optional)

2. Download the desired bundle for:

You'll need a Sensor ID to continue.

10. Before you continue, you must configure the sensor (on page 59).

Add a Guardian Air sensor

Before you can use a Guardian Air sensor in Vantage, you must add it.

Before you begin

Make sure that:

- The LED status indicator on the Guardian Air sensor is flashing green
- You have completed the Add a sensor (on page 54) procedure and you chose the **Guardian Air** option

Procedure

1. After you select **Guardian Air**, a **Use camera?** dialog shows.
2. Choose a method to connect the Guardian Air sensor (sensor).

   Choose from:

   - To scan the QR code, select **Allow** and go to step 3 (on page 58)
   - To enter the code manually, Select **Deny**, and go to step 4 (on page 58)

   > **Note:**
   >
   > The exact labels can change depending on which browser you use.

3. Scan the QR code of the sensor.
4. In the **Serial Number** field, enter the serial number of the sensor.

   You will find the serial number in the Quick Start Guide, and on the bottom of the sensor.
5. Select **Next**.
6. Select **Site**.
7. Select **Next**.
8. Select **Network Domain**.
9. Select **Next**.
10. Wait for the sensor to be added.

    Once the sensor has been added, it will show on the **Sensors** page.
11. Before you continue, you must configure the sensor (on page 59).

Configure a sensor

After you have added a sensor, you must configure it before you can complete the connection of the sensor.

Before you begin

Before you configure the sensor, add the sensor in Vantage (on page 54).

About this task

Once you have added the sensor in Vantage (on page 54), you must configure it.

Procedure

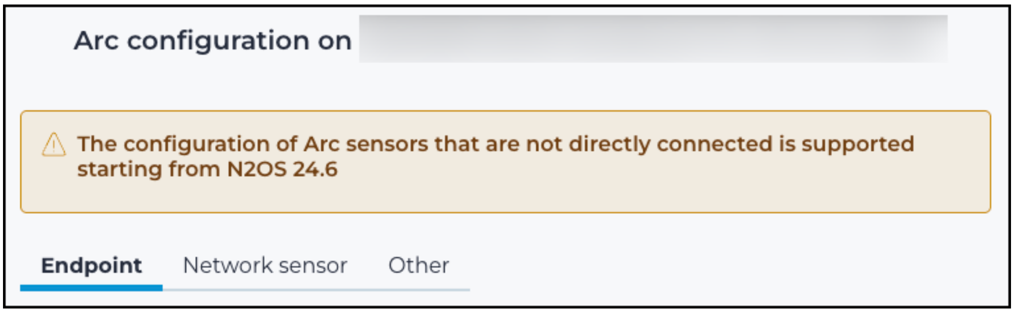
1. Log in to the sensor that you want to connect to Vantage.
2. In the *UI* of the sensor, go to the configuration page. If you want to connect a *CMC*, or Guardian, go to ⚙ **> Synchronization settings**.
3. In **Upstream Connection**, select **On** to activate the connection.
4. In the **Host** field, paste the URL that you copied in Vantage.
5. In the **Sync token** field, paste the sync token that you copied in Vantage.
6. Optionally, enter a description of the Vantage connection and site.
7. If the sensor, is already connected in another system, replace the **Host** and **Sync token** values with those you copied from Vantage.
8. Select **Check connection**.
9. When a successful connection is confirmed, select **Save** in the top right corner of the page.

   > **Note:**
   > Consider the flow of data when you connect a *CMC* to Vantage. Depending on your implementation, there might be no advantage in doing this. It might be preferable to connect your Guardians directly to Vantage.

10. Complete the connection of the sensor (on page 69).

Arc sensor configuration

A description of the configuration settings for an Arc sensor.



Arc configuration on

⚠ The configuration of Arc sensors that are not directly connected is supported starting from N2OS 24.6

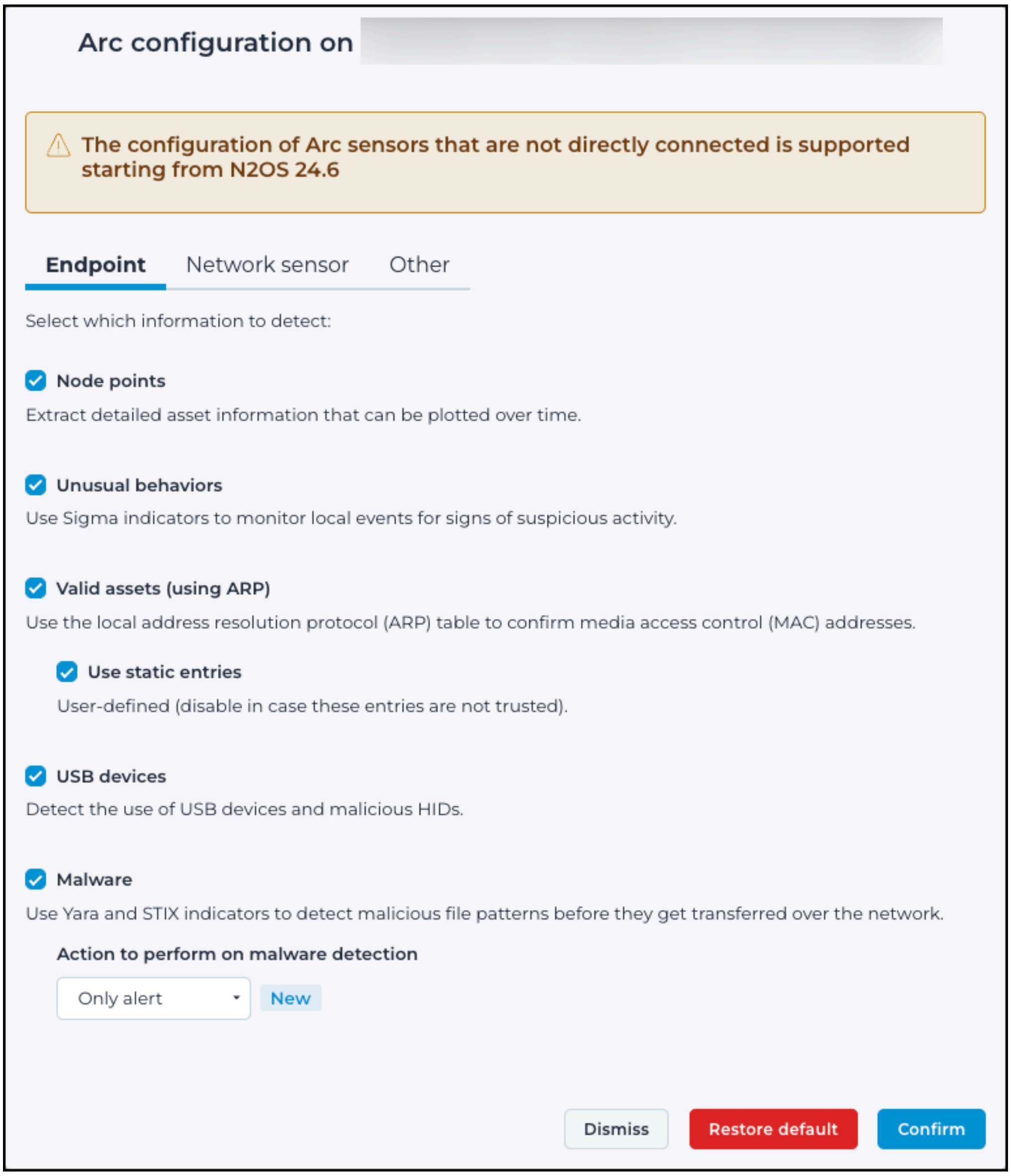
Figure 16. Configuration settings

The Configuration page has these tabs:

- Endpoint (on page 61)
- Network sensor (on page 63)
- Other (on page 66)

Endpoint

Configure detection options for endpoint monitoring in Arc. Features include node point extraction, asset validation using ARP, and malware detection with customizable actions.



Arc configuration on [redacted]

⚠ The configuration of Arc sensors that are not directly connected is supported starting from N2OS 24.6

Select which information to detect:

☑ **Node points**
Extract detailed asset information that can be plotted over time.

☑ **Unusual behaviors**
Use Sigma indicators to monitor local events for signs of suspicious activity.

☑ **Valid assets (using ARP)**
Use the local address resolution protocol (ARP) table to confirm media access control (MAC) addresses.

  ☑ **Use static entries**
  User-defined (disable in case these entries are not trusted).

☑ **USB devices**
Detect the use of USB devices and malicious HIDs.

☑ **Malware**
Use Yara and STIX indicators to detect malicious file patterns before they get transferred over the network.

  Action to perform on malware detection
  Only alert

Figure 17. Configuration settings

Node points

Enable this option to extract detailed asset information as node points. These can be plotted over time to visualize endpoint activity.

Unusual behaviors (Windows only)

This lets you enable/disable Sigma rules for local behavior analysis.

Valid assets (using ARP)

Enable this option to use the local table to confirm *media access control (MAC)* addresses for connected assets.

Enable **Use static entries** to include user-defined static table entries in the validation. Only enable this if the static entries are trusted.

USB devices (Windows only)

This lets you enable/disable detections.

Malware

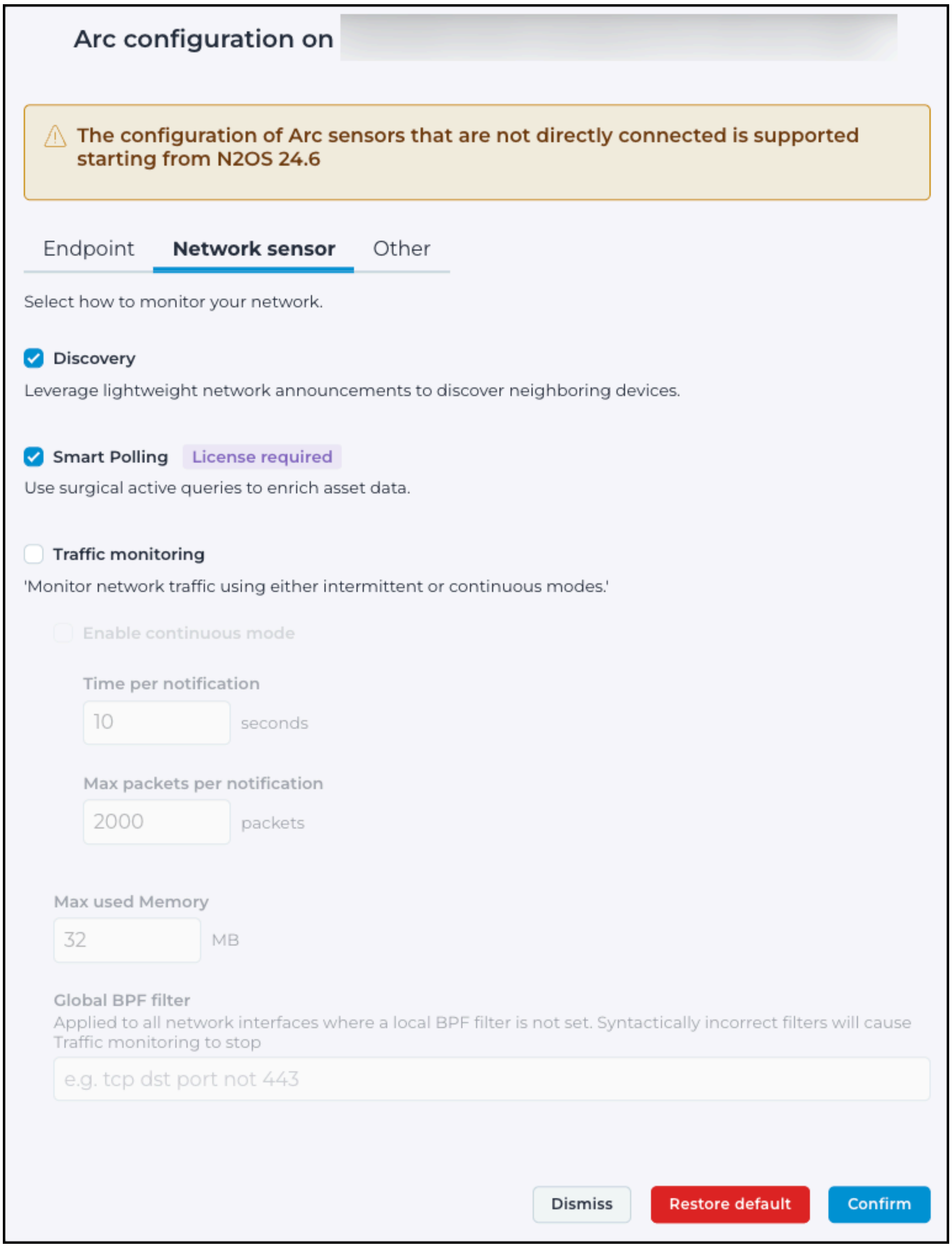
The **Malware** checkbox lets you enable protection mode and select from the **Action to perform on malware detection** dropdown. This lets you set the action that Arc will take when it finds a malicious file.

You can choose from these options:

- **Only alert**: Receive an alert with no further action
- **Quarantine**: Move the malicious file to the `quarantine` folder, which is located in the Arc installation folder
- **Delete**: Immediately delete the malicious file. Once deleted, the files cannot be recovered

Network sensor

Configure Arc network sensor features such as Discovery, Smart Polling, and traffic monitoring. These options help identify neighboring devices, enrich asset data, and analyze network traffic patterns.



Arc configuration on [redacted]

⚠ The configuration of Arc sensors that are not directly connected is supported starting from N2OS 24.6

Select how to monitor your network.

☑ **Discovery**

Leverage lightweight network announcements to discover neighboring devices.

☑ **Smart Polling** License required

Use surgical active queries to enrich asset data.

☐ **Traffic monitoring**

'Monitor network traffic using either intermittent or continuous modes.'

☐ Enable continuous mode

Time per notification: 10 seconds

Max packets per notification: 2000 packets

Max used Memory: 32 MB

Global BPF filter

Applied to all network interfaces where a local BPF filter is not set. Syntactically incorrect filters will cause Traffic monitoring to stop

e.g. tcp dst port not 443

Figure 18. Configuration settings

Discovery

When enabled, this sends out unsolicited lightweight network announcements to discover neighboring nodes.

Discovery uses lightweight protocol-specific broadcast messages to identify network devices. These messages trigger a response from the devices, which includes identity information. The process is repeated at predefined intervals. At each interval, the sensor will identify the suitable network interfaces and send broadcast messages through them to discover devices on each subnetwork connected to the sensor.

Smart Polling

This lets you enable/disable the execution of Smart Polling strategies from Arc. When enabled, this sends out Smart Polling queries following remote requests coming from Guardian to poll assets that Arc can reach, or assets that have been identified with Discovery.

> **Note:**
> **Smart Polling** requires that a Smart Polling license is enabled upstream.

To force Smart Polling from a specific Arc sensor, even when Guardian was the first to monitor a node, you can use a *command-line interface (CLI)* command such as: `vi node 192.168.1.1 capture_device arc[1e6a174c]` In this example, `192.168.1.1` is an *internet protocol (IP)* address of a node you want to poll from a specific Arc sensor. `1e6a174c` are the first eight characters of the Arc sensor *ID* that you want to poll the node with. To find that sensor *ID*, you can select the Arc sensor from the **Sensors** page of your Guardian and read the **ID** field in the right pane. To reset the behavior, you can set the `capture_device` back to the value of the Guardian interface.

Traffic monitoring

When enabled, this checkbox lets you enable/disable traffic monitoring.

Enable continuous mode

This checkbox lets you enable/disable continuous mode. For more details, see **Continuous mode**.

Arc uses two different methods for traffic monitoring:

- Intermittent mode
- Continuous mode

Intermittent mode: This is the default mode, the traffic is monitored, or sniffed, for a duration of 10 seconds at each notify. The purpose of this limitation is to preserve the resources of the host machine, which prevents excessive memory, or , spikes. You can configure these options:

Continuous mode: This mode sniffs traffic continuously from the host's network interface controllers. Depending on the amount of sniffed traffic, continuous mode might utilize more and memory on the host. As the traffic is processed upstream, the performance of the remote endpoint is also affected. You can configure:

- **Time [s] per notification**
- **Max packets per notification**
- **Max used Memory (MB)**: this value can be tuned to allow more or less traffic buffering in case the traffic to process exceeds the Arc and network capacity to send it out

Global BPF filter

This field lets you set a Global BPF filter to apply to all the network interfaces. Filters that are applied to single interfaces will take precedence over the global one.

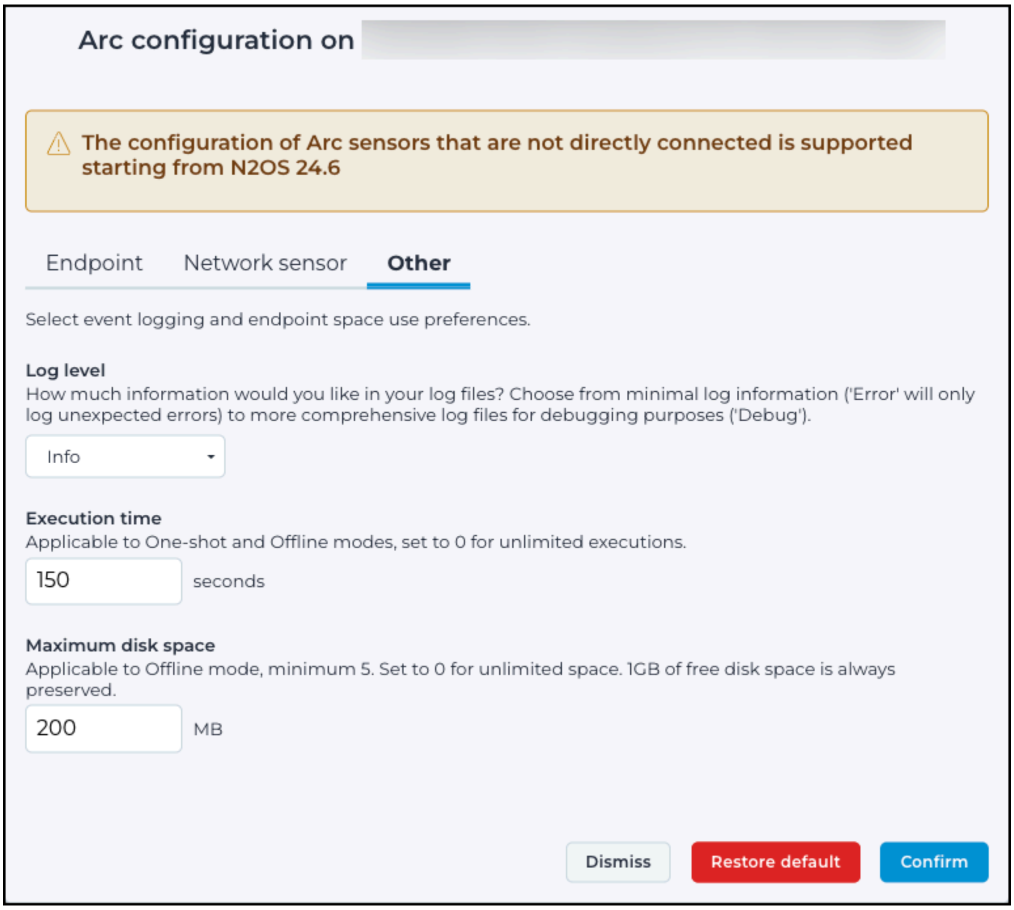
Network interface

This dropdown lets you select a network interface to configure. Each network interface can then be enabled, and be tuned with a monitoring filter.

If you add, remove, or edit the network interfaces on the host, Arc does not automatically add it to the list of sniffing interfaces. For example, if you add a new network card, to enable Arc to use it, you should stop Arc, and then start it again.

Other

Set Arc log verbosity, data collection duration, and disk space usage limits for One-shot and Offline modes. These options help manage local resource usage and troubleshoot performance.



Arc configuration on [redacted]

⚠ The configuration of Arc sensors that are not directly connected is supported starting from N2OS 24.6

Select event logging and endpoint space use preferences.

Log level
How much information would you like in your log files? Choose from minimal log information ('Error' will only log unexpected errors) to more comprehensive log files for debugging purposes ('Debug').

Info

Execution time
Applicable to One-shot and Offline modes, set to 0 for unlimited executions.

150 seconds

Maximum disk space
Applicable to Offline mode, minimum 5. Set to 0 for unlimited space. 1GB of free disk space is always preserved.

200 MB

Figure 19. Configuration settings

Log level

This dropdown lets you select the verbosity level for the log files. The options are:

- Debug
- Info
- Warning
- Error

The logging system options have an increasing level of verbosity, from the least verbose to the most verbose. Error < Warning < Info < Debug.

- Error: Creates a minimalistic log, only unexpected errors are logged
- Warning: Creates extra errors that might show on some *operating system (OS)*s, but that are generally considered as acceptable
- Info: Logs relevant successful events, it shows the program's progress (recommended)
- Debug: Logs extra events that are normally useful for debugging purposes. Given its verbosity it is best to activate it only when debugging activities are involved

Execution time

This field lets you set the time that Arc will run to collect data. This is applicable for One-shot and Offline modes.

> **Note:**
> When this is set to 0, the execution time is interpreted as infinite.

Maximum disk space

This field lets you control the maximum amount of disk space in that will be used for Offline mode.

Configure an Arc sensor

It is possible to configure an individual Arc sensor directly from the ***Sensors*** *details page for the related sensor.*

Before you begin

Do the Add a sensor (on page 54) procedure and choose the **Arc** option.

About this task

This procedure shows you how to configure an individual Arc sensor. If you want to configure multiple Arc sensors at the same time, you can select multiple sensors in the table, and select the actions menu and **Configure Arc Sensor**.

Procedure

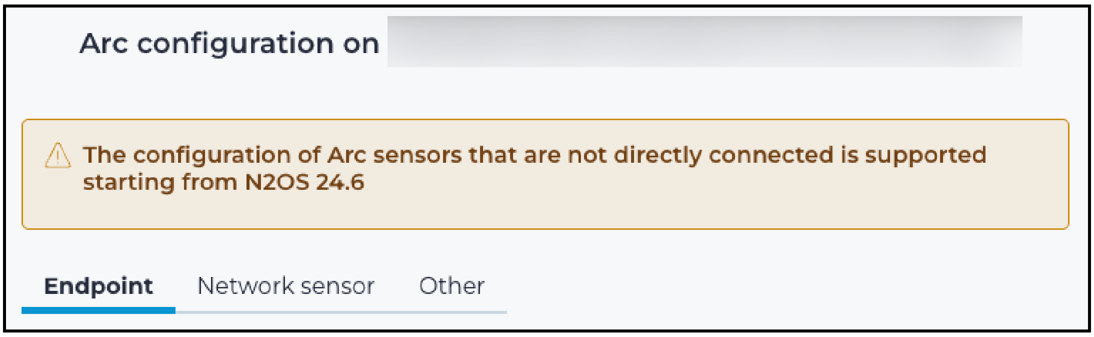
1. In the top navigation bar, select **Sensors**.

   Note:
   If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. Open the details page (on page 52).
3. In the top right section, select **Actions > Configure Arc Sensor**.

   Result: A dialog shows.

4. Choose the applicable options.



Arc configuration on

The configuration of Arc sensors that are not directly connected is supported starting from N2OS 24.6

5. Select **Save**.

Results

The Arc sensor has been configured.

Complete the connection of a sensor

After you have configured a sensor, you must complete the connection of the sensor.

Before you begin

Before you complete the connection procedure to add a sensor (on page 54), make sure that you have configured the sensor (on page 59).

Procedure

1. In Vantage, go back to the **Make connections** page.
2. Select **Continue**.

   Result: Vantage shows a message with the *ID* of the sensor that you are connecting, and a timer shows as Vantage waits for traffic from the sensor.

   > **Note:**
   > When the message `Sensor attached successfully` shows, communication between the sensor and Vantage has been established.

3. If the **Continue** button does not show, the sensor might not be sending traffic. Reboot the sensor. If the **Continue** button still does not show, go to Sensor will not connect (on page 72).
4. Verify the connection of a sensor (on page 70).

Verify the connection of a sensor

After you have completed the connection of a sensor, you must verify the connection of the sensor.

Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. In the table, find and select the applicable sensor.
3. Double-click the sensor to view its details.

   > **Note:**
   > Details such as the current risk score and the time of the last sync with Vantage will show. You can also leave a comment for other users.

   > **Note:**
   > If the applicable sensor does not show in the table, it might not have been successfully added. You can try to connect the sensor again. If Vantage shows an error message, it might be a display problem. Refreshing the browser might solve the problem.

   > **Note:**
   > When the connection to a sensor is incomplete, Vantage will show `n.a.` instead of the correct values.

4. If you continue to have problems, go to Sensor will not connect (on page 72).

Reset a sensor token

If you lose a sensor's token, it is possible to reset it.

About this task

Resetting a sensor's token lets you create a new token in cases where the sensor isn't sending traffic to Vantage. For example, if you are trying to complete a connection to a new sensor, and misplaced its token, you can reset the token and use the new value.

Procedure

1. In the top navigation bar, select **Sensors**.

   > **Note:**
   > If you haven't added a sensor yet, Vantage opens the **Make connections** page where you can add one. If you have previously added a sensor, all the sensors that Vantage recognizes show.

2. In the table, find the applicable sensor.
3. Select the sensor to view its details.
4. Select **Actions > Reset Token**.

   Result: The message `When you confirm to Reset Token, you need to update the settings on your sensors or you will lose connectivity` shows.

5. Select **Confirm Reset Token**.

   Result: Vantage resets the token and displays its new value. Use this value to configure the connection (on page 59) again.

   > **Note:**
   > If Vantage loses contact with a sensor, resetting its token and reconnecting the sensor can sometimes restore communication.

   > **Note:**
   > If a sensor is correctly communicating with Vantage, resetting the token severs the connection. To reconnect the sensor, generate a new token and configure the sensor the sensor (on page 59) again.

Troubleshooting

Sensor will not connect

Condition

Vantage does not receive traffic from a sensor.

Procedure

1. Log in to the sensor.
2. Reboot the sensor.

Procedure

1. Reset the token (on page 71).
2. Connect the sensor to Vantage.

> **Note:**
> When you reset the token, the connection between Vantage and the sensor is broken. You will need to connect the sensor again before it can send traffic to Vantage.

Procedure

1. Delete the sensor from Vantage (on page 44).
2. Add the sensor to Vantage again. (on page 54)

Chapter 3. Alerts

*The **Alerts** page shows all the alerts notifications that your sensors pass to Vantage related to security incidents in your network. This page lets you learn about the alerts, edit their values and post comments.*

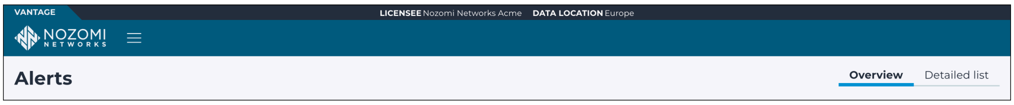


Figure 20. Alerts page

The Alerts page has these tabs:

- Overview (on page 76)
- Detailed list (on page 78)

Related information

Acknowledge an alert (on page 83)

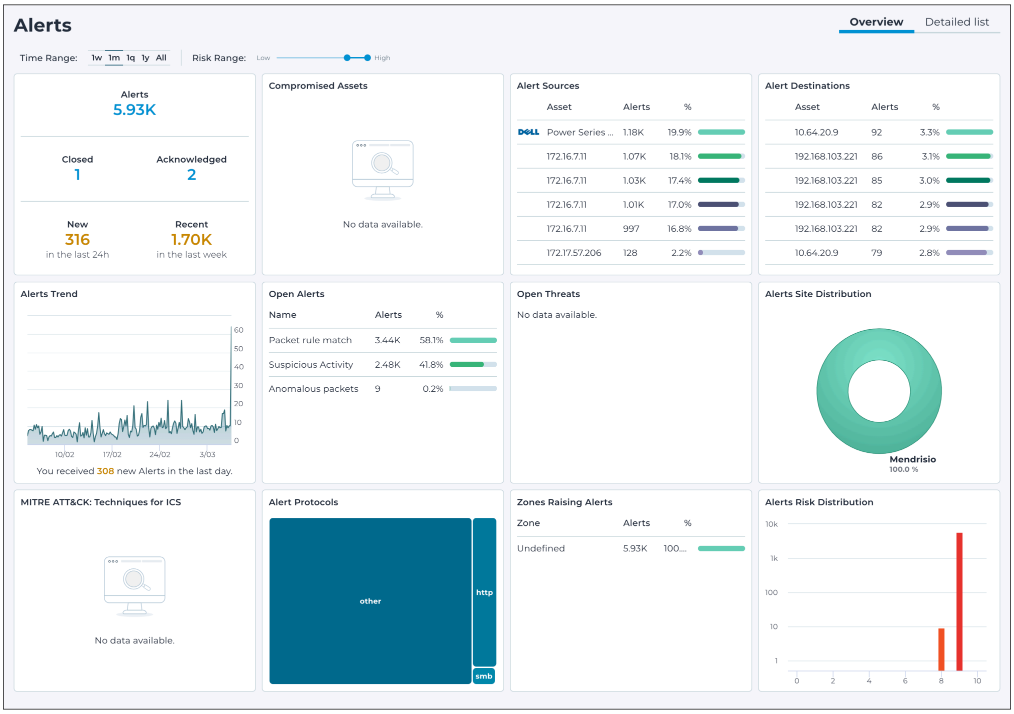
Close an alert (on page 87)

Create an alert rule (on page 90)

Trace an alert (on page 92)

Overview

*The **Overview** page provides insights into security alerts, risk levels, and alert trends.*



Alerts
5.93K

Closed
1

Acknowledged
2

New
316
in the last 24h

Recent
1.70K
in the last week

Compromised Assets: No data available.

Alert Sources

Asset	Alerts	%
Power Series ...	1.18K	19.9%
172.16.7.11	1.07K	18.1%
172.16.7.11	1.03K	17.4%
172.16.7.11	1.01K	17.0%
172.16.7.11	997	16.8%
172.17.57.206	128	2.2%

Alert Destinations

Asset	Alerts	%
10.64.20.9	92	3.3%
192.168.103.221	86	3.1%
192.168.103.221	85	3.0%
192.168.103.221	82	2.9%
192.168.103.221	82	2.9%
10.64.20.9	79	2.8%

You received 308 new Alerts in the last day.

Open Alerts

Name	Alerts	%
Packet rule match	3.44K	58.1%
Suspicious Activity	2.48K	41.8%
Anomalous packets	9	0.2%

Open Threats: No data available.

MITRE ATT&CK: Techniques for ICS: No data available.

Zones Raising Alerts

Zone	Alerts	%
Undefined	5.93K	100....

Figure 21. Overview page

Time Range

Allows users to filter alerts based on different time periods, such as:

- 1w (week)
- 1m (month)
- 1q (quarter)
- 1y (year)
- All

Risk Range

You can adjust the slider to filter alerts based on severity, from low to high.

Alerts

Shows the total number of security alerts, in these categories:

- Closed
- Acknowledged
- New
- Recent

Compromised Assets

Lists assets that have been flagged as compromised based on detected threats.

Alert Sources

Lists the origin of alerts, including affected devices and IP addresses.

Alert Protocols

Lists the types of network protocols associated with the detected alerts.

Alerts Trend

Shows a graphical representation of alerts over time, helping users analyze security trends.

Open Alerts

Lists a breakdown of open alerts by category.

Open Threats

Lists active security threats detected within the system.

Alerts Site Distribution

Shows the distribution of alerts by site or geographical region.

MITRE ATT&CK: Techniques for ICS

Provides security threat analysis using the MITRE ATT&CK framework, specifically for *industrial control systems (ICS)*.

Alert Protocols

Shows the network protocols associated with detected alerts.

Zones Raising Alerts

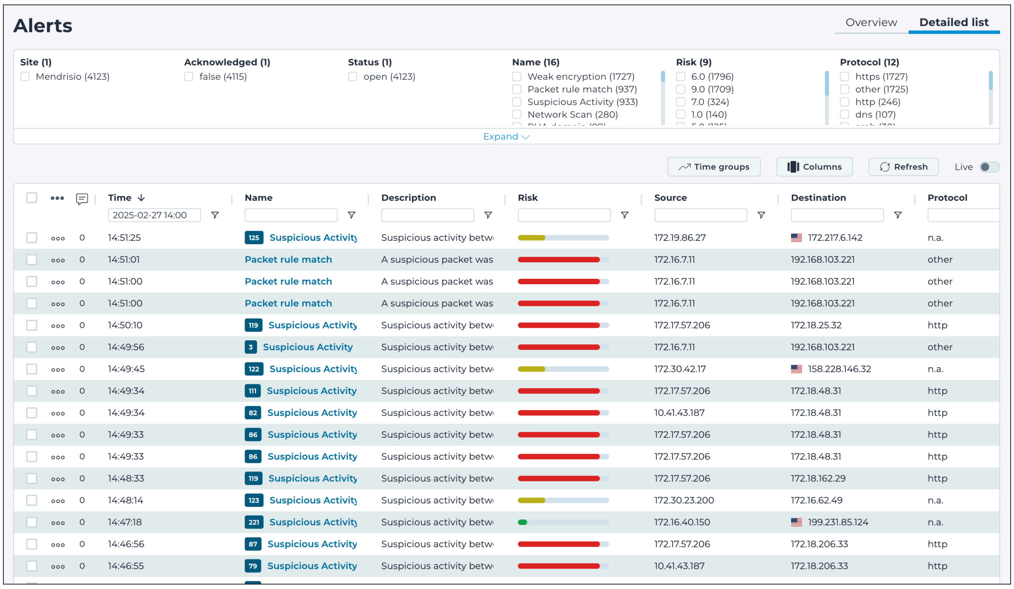
Shows which network zones are generating security alerts and their respective alert counts.

Alerts Risk Distribution

Shows the severity of alerts using a risk distribution graph.

Detailed list

*The **Detailed list** page shows all the alerts notifications that your sensors pass to Vantage related to security incidents in your network. This page lets you learn about the alerts, edit their values and post comments.*



Site (1)
☐ Mendrisio (4123)

Acknowledged (1)
☐ false (4115)

Status (1)
☐ open (4123)

Name (16)
☐ Weak encryption (1727)
☐ Packet rule match (937)
☐ Suspicious Activity (933)
☐ Network Scan (280)

Risk (9)
☐ 6.0 (1796)
☐ 9.0 (1709)
☐ 7.0 (324)
☐ 1.0 (140)

Protocol (12)
☐ https (1727)
☐ other (1725)
☐ http (246)
☐ dns (107)

☐	•••		Time ↓	Name	Description	Risk	Source	Destination	Protocol
			2025-02-27 14:00						
☐	∘∘∘	0	14:51:25	125 Suspicious Activity	Suspicious activity betw		172.19.86.27	172.217.6.142	n.a.
☐	∘∘∘	0	14:51:01	Packet rule match	A suspicious packet was		172.16.7.11	192.168.103.221	other
☐	∘∘∘	0	14:51:00	Packet rule match	A suspicious packet was		172.16.7.11	192.168.103.221	other
☐	∘∘∘	0	14:51:00	Packet rule match	A suspicious packet was		172.16.7.11	192.168.103.221	other
☐	∘∘∘	0	14:50:10	119 Suspicious Activity	Suspicious activity betw		172.17.57.206	172.18.25.32	http
☐	∘∘∘	0	14:49:56	3 Suspicious Activity	Suspicious activity betw		172.16.7.11	192.168.103.221	other
☐	∘∘∘	0	14:49:45	122 Suspicious Activity	Suspicious activity betw		172.30.42.17	158.228.146.32	n.a.
☐	∘∘∘	0	14:49:34	111 Suspicious Activity	Suspicious activity betw		172.17.57.206	172.18.48.31	http
☐	∘∘∘	0	14:49:34	82 Suspicious Activity	Suspicious activity betw		10.41.43.187	172.18.48.31	http
☐	∘∘∘	0	14:49:33	86 Suspicious Activity	Suspicious activity betw		172.17.57.206	172.18.48.31	http
☐	∘∘∘	0	14:49:33	86 Suspicious Activity	Suspicious activity betw		172.17.57.206	172.18.48.31	http
☐	∘∘∘	0	14:48:33	119 Suspicious Activity	Suspicious activity betw		172.17.57.206	172.18.162.29	http
☐	∘∘∘	0	14:48:14	123 Suspicious Activity	Suspicious activity betw		172.30.23.200	172.16.62.49	n.a.
☐	∘∘∘	0	14:47:18	221 Suspicious Activity	Suspicious activity betw		172.16.40.150	199.231.85.124	n.a.
☐	∘∘∘	0	14:46:56	87 Suspicious Activity	Suspicious activity betw		172.17.57.206	172.18.206.33	http
☐	∘∘∘	0	14:46:55	79 Suspicious Activity	Suspicious activity betw		10.41.43.187	172.18.206.33	http

Figure 22. Detailed list page

Site

This shows a list of all the sites in the current table view.

Acknowledged

This shows a list of all the appliance types in the current table view.

Status

This shows a list of the different statuses that are applicable for the alerts in the current table view.

Name

This shows a list of the different names that are applicable for the alerts in the current table view.

Risk

This shows a list of the different risk levels that are applicable for the alerts in the current table view.

Protocol

This shows a list of the different protocols that are applicable for the alerts in the current table view.

Time groups

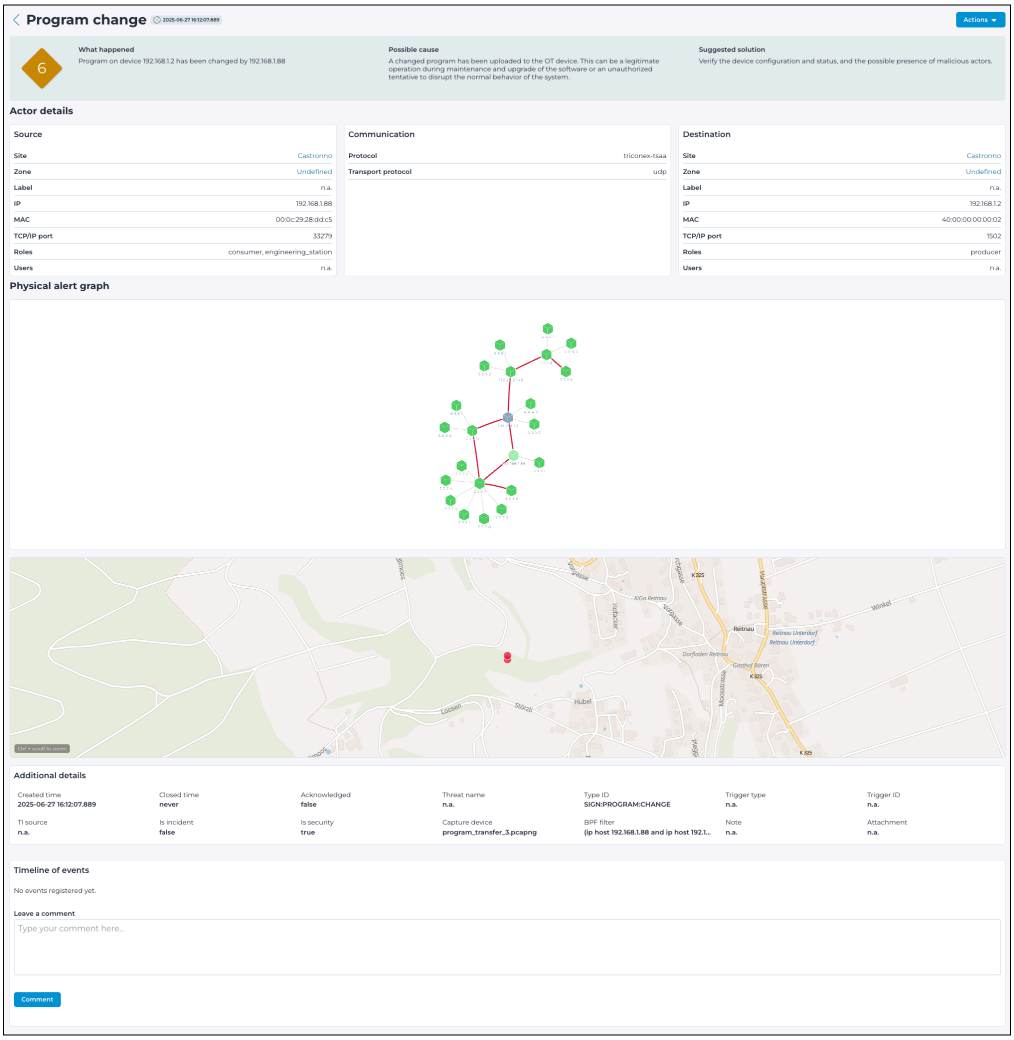
The **Time groups** button displays a throughput view of the data over a given time period.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Details page

The details page shows a set of fields which are applicable to the related type of alerts.



What happened

Program on device 192.168.1.2 has been changed by 192.168.1.88

Possible cause

A changed program has been uploaded to the OT device. This can be a legitimate operation during maintenance and upgrade of the software or an unauthorized tentative to disrupt the normal behavior of the system.

Suggested solution

Verify the device configuration and status, and the possible presence of malicious actors.

Actor details

Source

Site	Castronno
Zone	Undefined
Label	n.a.
IP	192.168.1.88
MAC	00:0c:29:28:dd:c5
TCP/IP port	33279
Roles	consumer, engineering_station
Users	n.a.

Communication

Protocol	triconex-tsaa
Transport protocol	udp

Destination

Site	Castronno
Zone	Undefined
Label	n.a.
IP	192.168.1.2
MAC	40:00:00:00:00:02
TCP/IP port	1502
Roles	producer
Users	n.a.

Physical alert graph

Additional details

Created time	Closed time	Acknowledged	Threat name	Type ID	Trigger type	Trigger ID
2025-06-27 16:12:07.889	never	false	n.a.	SIGN:PROGRAM:CHANGE	n.a.	n.a.

TI source	Is incident	Is security	Capture device	BPF filter	Note	Attachment
n.a.	false	true	program_transfer_3.pcapng	(ip host 192.168.1.88 and ip host 192.1...	n.a.	n.a.

Timeline of events

No events registered yet.

Leave a comment

Type your comment here...

Figure 23. Details page

Actions dropdown

This dropdown gives you access to these actions:

- **Acknowledge**
- **Unacknowledge**
- **Close**
- **Create Alert Rule for this Alert**
- **Alert trace**

Summary

The summary section shows:

- What happened
- The possible cause of the alert
- The suggested solution for the alert

Actor details

The **Actor details** section shows information about the:

- **Source**: Details about where the activity was initiated
- **Communication**: The communication protocols detected
- **Destination**: Details about the targeted asset

Physical alert graph

The **Physical alert graph** view displays the physical connection path between source and destination devices involved in a triggered alert. Vantage shows this path at the cable level, including intermediate switches and any other devices connected along the route.

This view helps users assess the potential impact of response actions, such as disabling a specific switch port to isolate a device. By identifying additional assets that share the same physical infrastructure, operators can evaluate containment strategies and take targeted action directly from the alert interface.

Map

A map view that shows both the source and the destination of the alert to show it in a real-world context.

Playbook

If applicable, a playbook will be created from a template that has been defined by an administrator. The template guides you on how to best respond to the alert. You can edit an alert's playbook to collaborate with your colleagues and record the progress in resolving the alert.

Additional details

This section gives more context about the reported activity. Vantage displays the relevant details for this specific type of alert, and other fields are marked `n.a.`

MITRE ATT&CK for ICS Techniques Detection

This section shows when Vantage is able to provide information about the technique and attack tactics as defined in the MITRE ATT&CK Framework.

Timeline of events

This section shows all events that are related to this alert.

Comments

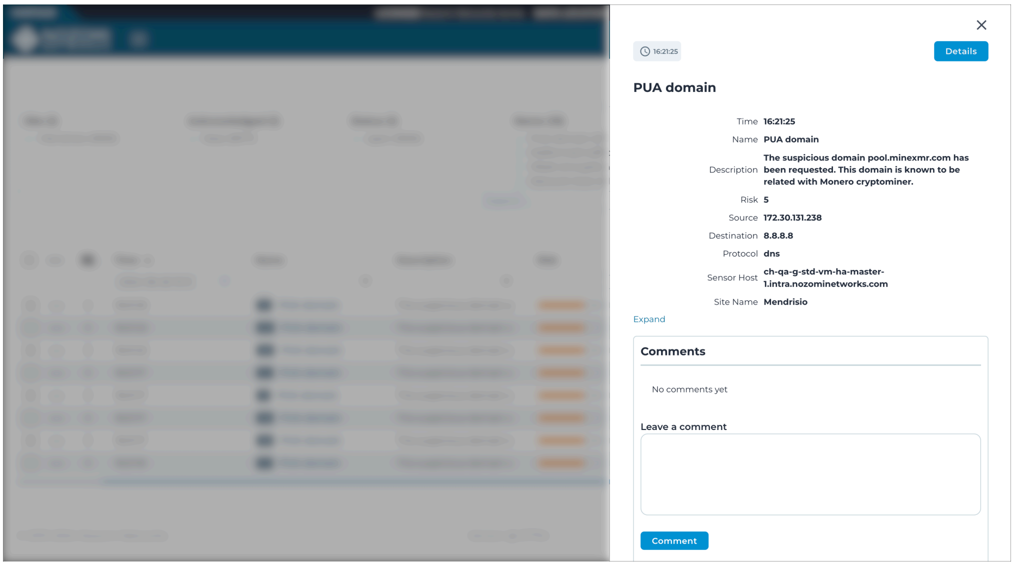
This section lets you add, or read, comments about this alert.

Related information

Open the details page (on page 94)

Summary drawer

When you double-click an alert in the table, the summary drawer shows. This lets you post a comment, or open the related details page.



PUA domain

Time 16:21:25
Name PUA domain
Description The suspicious domain pool.minexmr.com has been requested. This domain is known to be related with Monero cryptominer.
Risk 5
Source 172.30.131.238
Destination 8.8.8.8
Protocol dns
Sensor Host ch-qa-g-std-vm-ha-master-1.intra.nozominetworks.com
Site Name Mendrisio

No comments yet

Figure 24. Summary drawer

Details button

You can select the **Details** button to open the details page for the related item.

Summary

The summary section shows a summary of applicable information for the related item.

Comments

This section lets you leave a comment, or read a comment that has been written, for the related item.

Related information

Open the summary drawer (on page 94)

Table interactions

Actions menu

Acknowledge an alert

The actions menu lets you acknowledge one or more alerts.

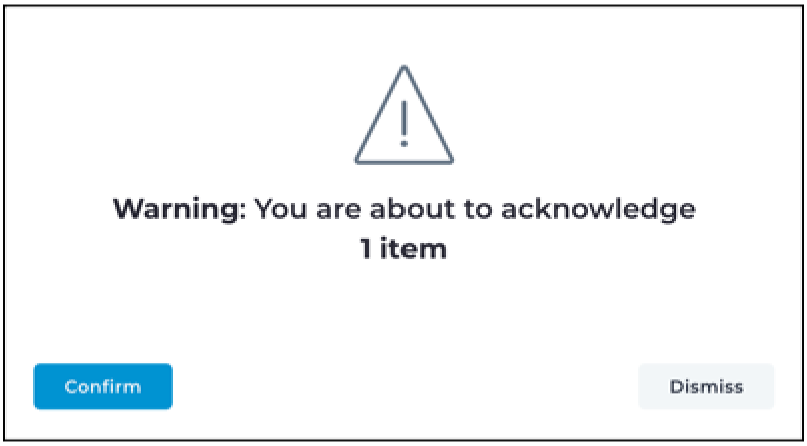
Procedure

1. In the top navigation bar, select **Alerts**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Acknowledge**.

   Result: A dialog shows.

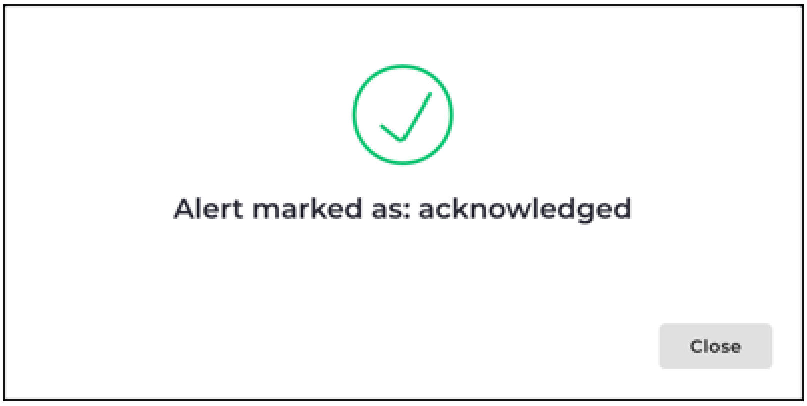
5. Select **Confirm** to acknowledge the alert(s).



Warning: You are about to acknowledge 1 item

Result: A dialog shows.

6. Select **Close**.



Alert marked as: acknowledged

Results

The alert has been acknowledged.

Unacknowledge an alert

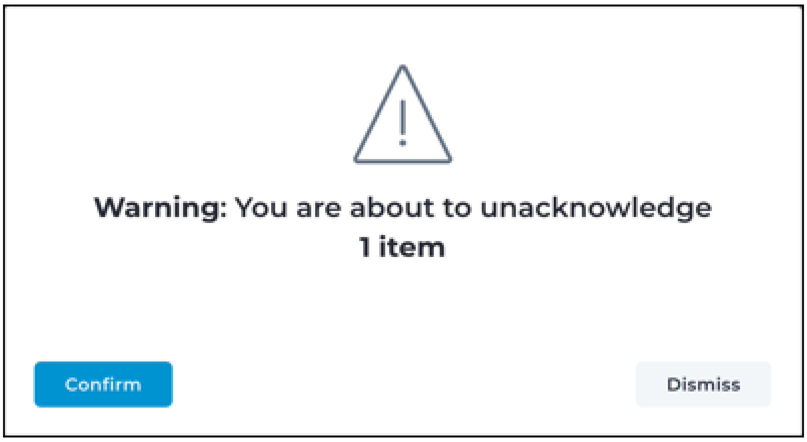
The actions menu lets you unacknowledge an alert that has previously been acknowledged.

Procedure

1. In the top navigation bar, select **Alerts**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

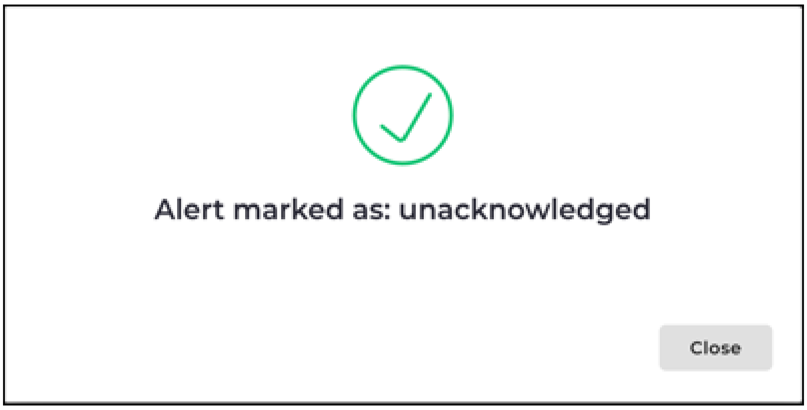
   Choose from:
    - Select the top checkbox to select all the items in the current table view
    - Select multiple checkboxes for the items that you want to choose
    - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Uncknowledge**.

   Result: A dialog shows.
5. Select **Confirm** to unacknowledge the alert(s).



Warning: You are about to unacknowledge 1 item

   Result: A dialog shows.
6. Select **Close**.



Alert marked as: unacknowledged

Results

The alert has been unacknowledged.

Close an alert

The actions menu lets you close an alert.

Procedure

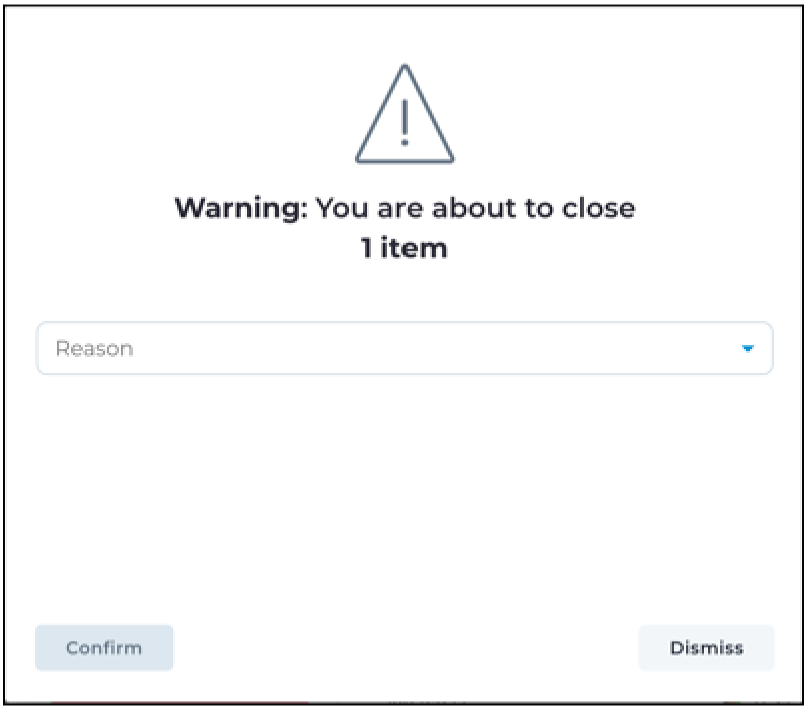
1. In the top navigation bar, select **Alerts**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Close**.

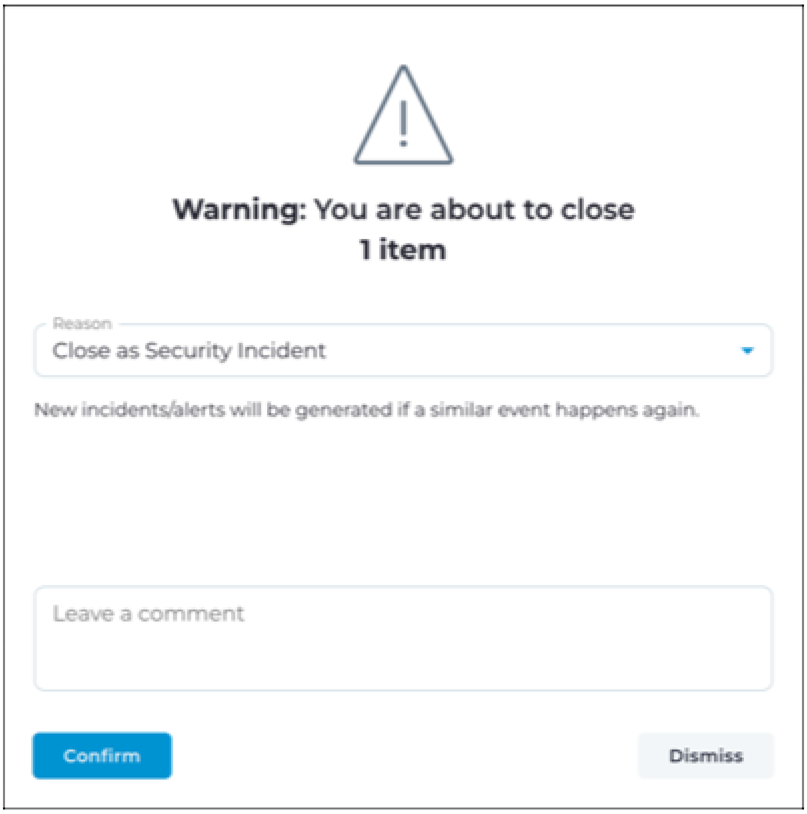
   Result: A dialog shows.

5. Open the **Reason** dropdown, and select a reason.



Warning: You are about to close 1 item

6. Select **Confirm**.



Warning: You are about to close 1 item

Reason: Close as Security Incident

New incidents/alerts will be generated if a similar event happens again.

Results

The alert(s) has (have) been closed.

Create an alert rule

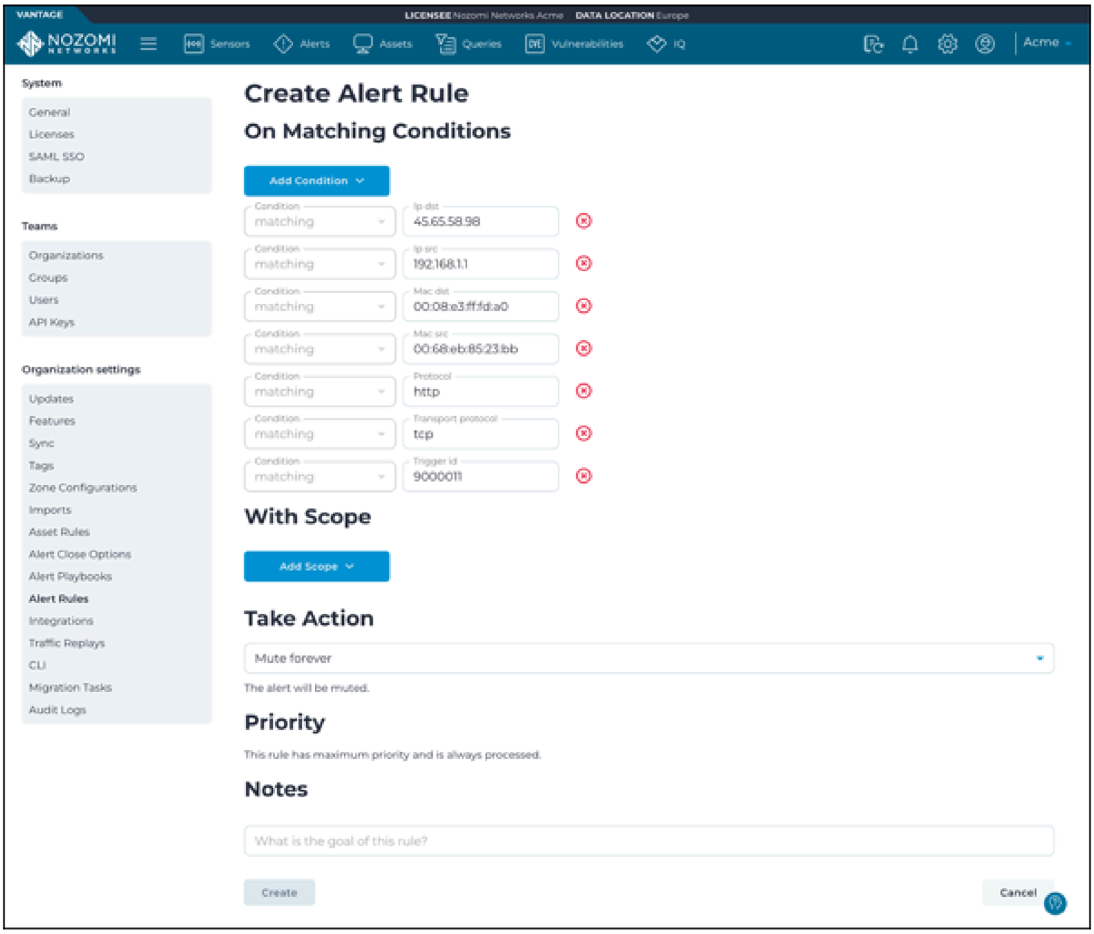
The actions menu lets you create an alert rule from an alert. You can mute alerts permanently, or temporarily until a date that you specify.

Procedure

1. In the top navigation bar, select **Alerts**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Create Alert Rule From This Alert**.

   Result: The **Create Alert Rule** page opens.
5. Configure the alert rule as necessary.



Create Alert Rule

On Matching Conditions

Condition: matching — Ip dst: 45.65.58.98
Condition: matching — Ip src: 192.168.1.1
Condition: matching — Mac dst: 00:08:e3:ff:fd:a0
Condition: matching — Mac src: 00:68:eb:85:23:bb
Condition: matching — Protocol: http
Condition: matching — Transport protocol: tcp
Condition: matching — Trigger id: 9000011

With Scope

Take Action

Mute forever

The alert will be muted.

Priority

This rule has maximum priority and is always processed.

Notes

What is the goal of this rule?

6. Select **Create** to create the alert rule.

Results

The alert rule has been created.

Trace an alert

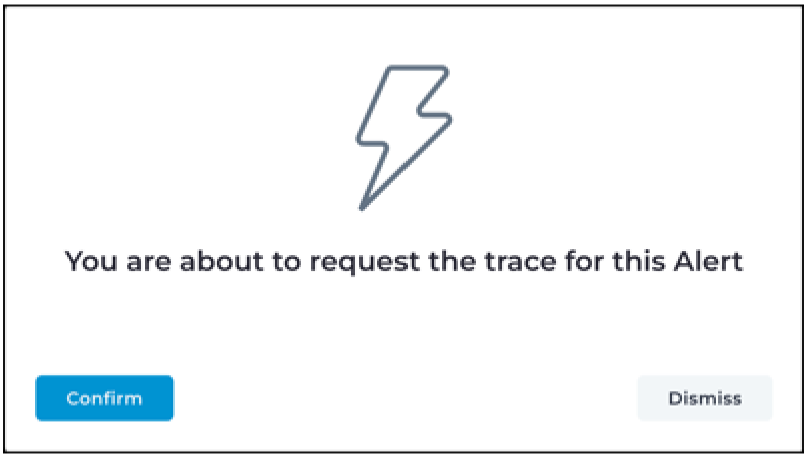
The action menu lets you download a trace file for a specific alert.

Procedure

1. In the top navigation bar, select **Alerts**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

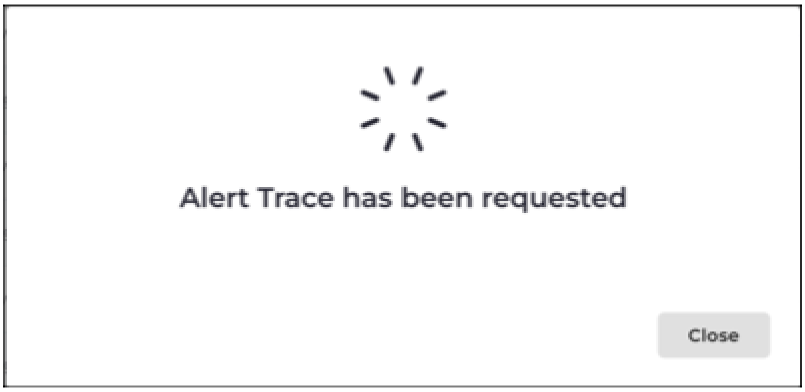
   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Alert Trace**.

   Result: A dialog shows.
5. Select **Confirm** to create the alert rule.



You are about to request the trace for this Alert

   Result: A dialog shows.
6. Select **Close**.



Alert Trace has been requested

Results

The alert trace has been requested.

Open the details page

You can open a details page for individual alerts that are shown in the alert page table. You can open the details page with two different methods.

Procedure

1. In the top navigation bar, select **Alerts**.
2. Choose a method with which to open the details page. In the row for the applicable alert:

   Choose from:

   - In the **Name** column of the table, select the hyperlink.
   - Double-click the row to open the summary drawer. In the top right section, select **Details**.

   Result: The details page (on page 80) opens.

Related information

Details page (on page 80)

Open the summary drawer

You can open a summary drawer for individual alerts that are shown in the alerts page table.

Procedure

1. In the top navigation bar, select **Alerts**.
2. In the table, double-click the row for the applicable alert.

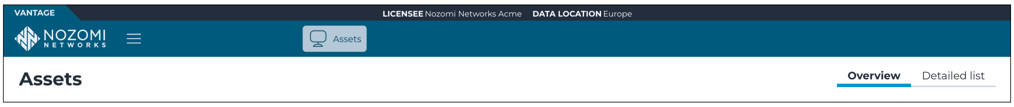
   Result: The summary drawer (on page 82) opens.

Related information

Summary drawer (on page 82)

Chapter 4. Assets

The ***Assets*** *page shows all the physical components and systems that Vantage has detected through your sensors. Composed of one or more nodes, assets are the fundamental resources that Vantage protects.*



LICENSEE Nozomi Networks Acme DATA LOCATION Europe

Figure 25. Assets page

The **Assets** page has these tabs:

- Overview (on page 98)
- Detailed list (on page 100)

Related information

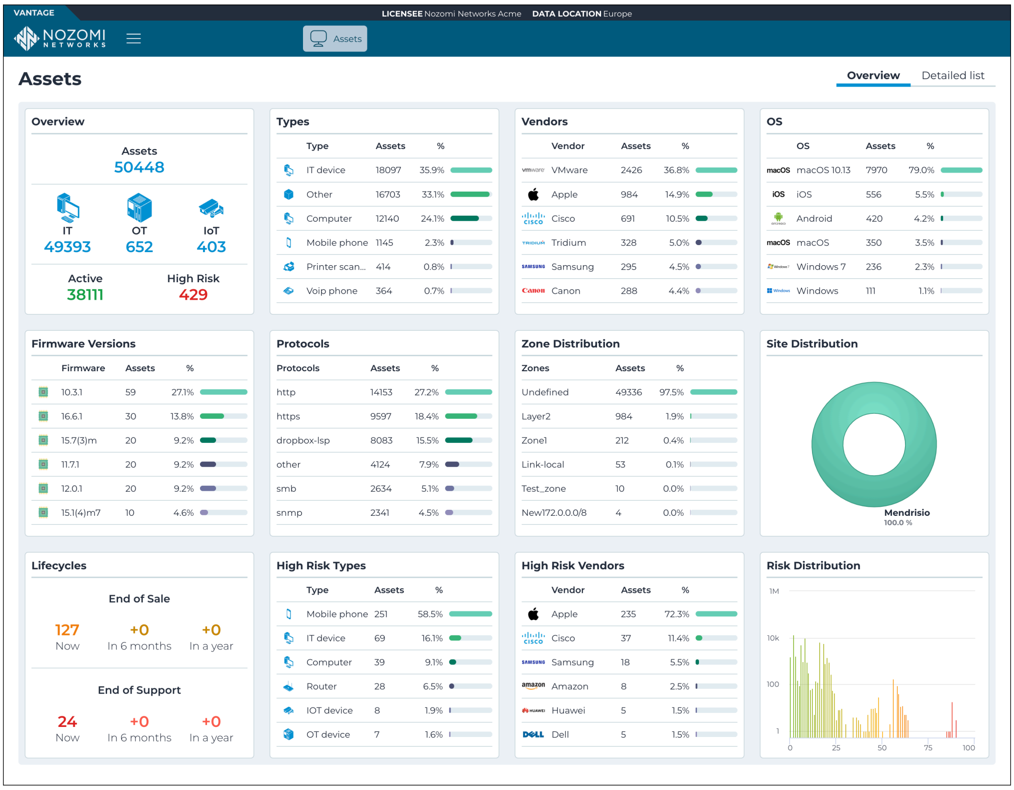
Create an asset rule from an asset (on page 129)

Export an asset (on page 127)

Delete an asset (on page 126)

Overview

*The **Overview** page provides a high-level summary of assets that Vantage has detected. This information includes their types, vendors, operating systems, firmware versions, protocols, and risk levels, along with graphical insights into their distribution across zones, sites, and lifecycles.*



Assets

Overview

Assets 50448

IT 49393 | OT 652 | IoT 403

Active 38111 | High Risk 429

Types

Type	Assets	%
IT device	18097	35.9%
Other	16703	33.1%
Computer	12140	24.1%
Mobile phone	1145	2.3%
Printer scan...	414	0.8%
Voip phone	364	0.7%

Vendors

Vendor	Assets	%
VMware	2426	36.8%
Apple	984	14.9%
Cisco	691	10.5%
Tridium	328	5.0%
Samsung	295	4.5%
Canon	288	4.4%

OS

OS	Assets	%
macOS 10.13	7970	79.0%
iOS	556	5.5%
Android	420	4.2%
macOS	350	3.5%
Windows 7	236	2.3%
Windows	111	1.1%

Firmware Versions

Firmware	Assets	%
10.3.1	59	27.1%
16.6.1	30	13.8%
15.7(3)m	20	9.2%
11.7.1	20	9.2%
12.0.1	20	9.2%
15.1(4)m7	10	4.6%

Protocols

Protocols	Assets	%
http	14153	27.2%
https	9597	18.4%
dropbox-lsp	8083	15.5%
other	4124	7.9%
smb	2634	5.1%
snmp	2341	4.5%

Zone Distribution

Zones	Assets	%
Undefined	49336	97.5%
Layer2	984	1.9%
Zone1	212	0.4%
Link-local	53	0.1%
Test_zone	10	0.0%
New172.0.0.0/8	4	0.0%

Site Distribution

Lifecycles

End of Sale

127 Now | +0 In 6 months | +0 In a year

End of Support

24 Now | +0 In 6 months | +0 In a year

High Risk Types

Type	Assets	%
Mobile phone	251	58.5%
IT device	69	16.1%
Computer	39	9.1%
Router	28	6.5%
IOT device	8	1.9%
OT device	7	1.6%

High Risk Vendors

Vendor	Assets	%
Apple	235	72.3%
Cisco	37	11.4%
Samsung	18	5.5%
Amazon	8	2.5%
Huawei	5	1.5%
Dell	5	1.5%

Risk Distribution

Figure 26. Overview page

The **Overview** page shows tiles that each show a different summarized view of different types of information. The tiles have hyperlinks that let you view the information in more detail. The tiles either show a graphical summary, or they show the:

- Related category
- Assets (the total number of assets that match the applicable category)
- % (this type of asset as a percentage of total assets)

Overview

This shows a high-level overview of all your assets. The tiles shows the:

- Total number of assets
- Type of asset
- Number of assets that are **Active**
- Number of assets that show as **High Risk**

Types

This shows a list of the type of assets, and the related information.

Vendors

This shows a list of the vendors of the assets, and the related information.

OS

This shows a list of the different *OS*s of the assets, and the related information.

Firmware Versions

This shows a list of the firmware versions for the assets, and the related information.

Protocols

This shows a list of the protocols that the assets use, and the related information.

Zone Distribution

This shows how the assets are distributed within zones, and the related information.

Site Distribution

This shows a donut chart that shows where the assets are distributed across sites.

Lifecycles

This shows lifecycle information about the assets.

High Risk Types

This shows a list of assets that are high risk types, in descending order, and the related information.

High Risk Vendors

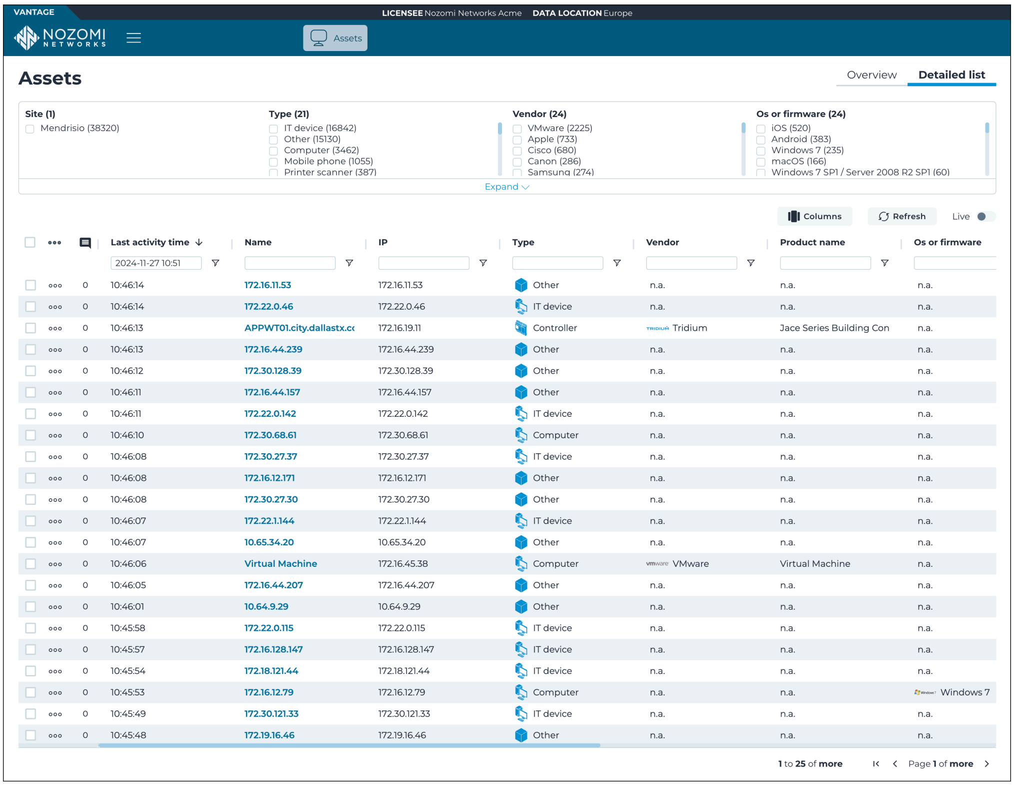
This shows a list of assets that are from high risk vendors, in descending order, and the related information.

Risk Distribution

This shows a bar chart view of the risk as distributed across the different assets.

Detailed list

*The **Detailed list** page shows a comprehensive table view of all assets that Vantage has detected. This information includes details about their sites, types, vendors, operating systems, and firmware versions.*



LICENSEE Nozomi Networks Acme **DATA LOCATION** Europe

Assets

Site (1)
☐ Mendrisio (38320)

Type (21)
☐ IT device (16842)
☐ Other (15130)
☐ Computer (3462)
☐ Mobile phone (1055)
☐ Printer scanner (387)

Vendor (24)
☐ VMware (2225)
☐ Apple (733)
☐ Cisco (680)
☐ Canon (286)
☐ Samsung (274)

Os or firmware (24)
☐ iOS (520)
☐ Android (383)
☐ Windows 7 (235)
☐ macOS (166)
☐ Windows 7 SP1 / Server 2008 R2 SP1 (60)

☐	•••		Last activity time ↓	Name	IP	Type	Vendor	Product name	Os or firmware
			2024-11-27 10:51						
☐	•••	0	10:46:14	172.16.11.53	172.16.11.53	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:14	172.22.0.46	172.22.0.46	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:46:13	APPWT01.city.dallastx.cc	172.16.19.11	Controller	Tridium	Jace Series Building Con	n.a.
☐	•••	0	10:46:13	172.16.44.239	172.16.44.239	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:12	172.30.128.39	172.30.128.39	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:11	172.16.44.157	172.16.44.157	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:11	172.22.0.142	172.22.0.142	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:46:10	172.30.68.61	172.30.68.61	Computer	n.a.	n.a.	n.a.
☐	•••	0	10:46:08	172.30.27.37	172.30.27.37	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:46:08	172.16.12.171	172.16.12.171	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:08	172.30.27.30	172.30.27.30	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:07	172.22.1.144	172.22.1.144	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:46:07	10.65.34.20	10.65.34.20	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:06	Virtual Machine	172.16.45.38	Computer	VMware	Virtual Machine	n.a.
☐	•••	0	10:46:05	172.16.44.207	172.16.44.207	Other	n.a.	n.a.	n.a.
☐	•••	0	10:46:01	10.64.9.29	10.64.9.29	Other	n.a.	n.a.	n.a.
☐	•••	0	10:45:58	172.22.0.115	172.22.0.115	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:45:57	172.16.128.147	172.16.128.147	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:45:54	172.18.121.44	172.18.121.44	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:45:53	172.16.12.79	172.16.12.79	Computer	n.a.	n.a.	Windows 7
☐	•••	0	10:45:49	172.30.121.33	172.30.121.33	IT device	n.a.	n.a.	n.a.
☐	•••	0	10:45:48	172.19.16.46	172.19.16.46	Other	n.a.	n.a.	n.a.

1 to **25** of **more** Page **1** of **more**

Figure 27. Detailed list page

Site

This shows a list of all the sites for the applicable assets in the current table view.

Type

This shows a list of all the types for all the assets in the current in the current table view.

Vendor

This shows a list of the different vendors that are applicable for the alerts in the current table view.

OS or firmware

This shows a list of the different *OS* or firmware that are applicable for the alerts in the current table view.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

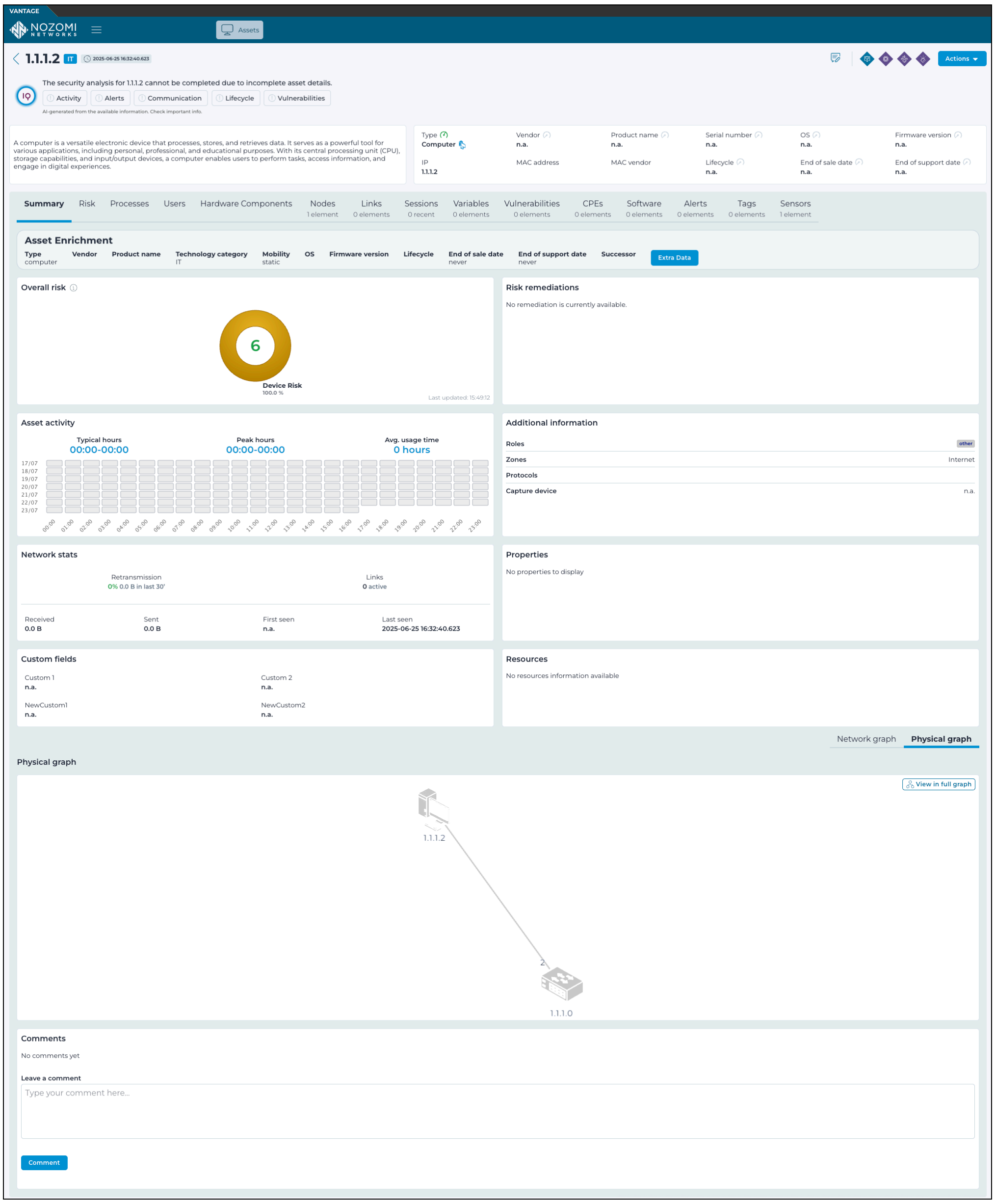
The **Refresh** ⟳ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Details page

The details page shows a set of fields which are applicable to the related type of asset.



2025-06-25 16:32:40.623

The security analysis for 1.1.1.2 cannot be completed due to incomplete asset details.

AI-generated from the available information. Check important info.

A computer is a versatile electronic device that processes, stores, and retrieves data. It serves as a powerful tool for various applications, including personal, professional, and educational purposes. With its central processing unit (CPU), storage capabilities, and input/output devices, a computer enables users to perform tasks, access information, and engage in digital experiences.

Type: Computer
Vendor: n.a.
Product name: n.a.
Serial number: n.a.
OS: n.a.
Firmware version: n.a.
IP: 1.1.1.2
MAC address
MAC vendor
Lifecycle: n.a.
End of sale date: n.a.
End of support date: n.a.

Nodes 1 element · Links 0 elements · Sessions 0 recent · Variables 0 elements · Vulnerabilities 0 elements · CPEs 0 elements · Software 0 elements · Alerts 0 elements · Tags 0 elements · Sensors 1 element

Asset Enrichment

Type	Vendor	Product name	Technology category	Mobility	OS	Firmware version	Lifecycle	End of sale date	End of support date	Successor
computer			IT	static				never	never	

Overall risk: 6 Device Risk 100.0 %
Last updated: 15:49:12

Risk remediations: No remediation is currently available.

Asset activity
Typical hours: 00:00-00:00
Peak hours: 00:00-00:00
Avg. usage time: 0 hours

Additional information
Roles: other
Zones: Internet
Protocols
Capture device: n.a.

Network stats
Retransmission: 0% 0.0 B in last 30'
Links: 0 active
Received: 0.0 B
Sent: 0.0 B
First seen: n.a.
Last seen: 2025-06-25 16:32:40.623

Properties: No properties to display

Custom fields
Custom 1: n.a.
Custom 2: n.a.
NewCustom1: n.a.
NewCustom2: n.a.

Resources: No resources information available

Physical graph

Comments
No comments yet
Leave a comment
Type your comment here...

Figure 28. Details page

Actions dropdown

This dropdown gives you access to these actions:

- Delete (on page 126)
- Export (on page 127) (bulk option only)
- Create Asset Rule From This Asset (on page 129)

Tabs

The details page has these tabs:

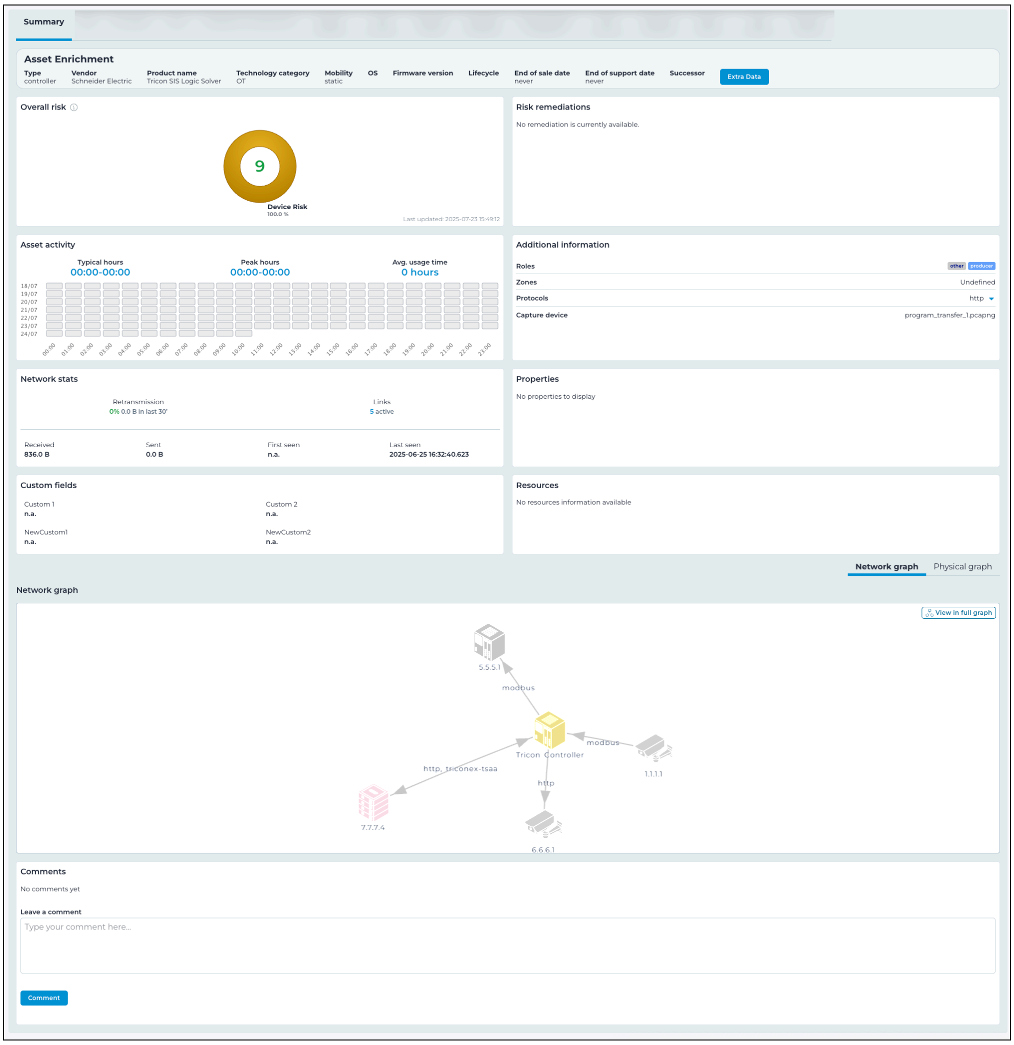
- Summary tab (on page 104)
- Risk tab (on page 106)
- Processes tab (on page 108)
- Users tab (on page 109)
- Hardware Components tab (on page 110)
- Nodes tab (on page 113)
- Links tab (on page 114)
- Sessions tab (on page 115)
- Variables tab (on page 116)
- Vulnerabilities tab (on page 117)
- CPEs tab (on page 118)
- Software tab (on page 119)
- Alerts tab (on page 120)
- Tags tab (on page 121)
- Sensors tab (on page 124)

Related information

Open the details page (on page 130)

Summary tab

*The **Summary** tab shows an overview of the details for the asset.*



Summary

Asset Enrichment

Type	Vendor	Product name	Technology category	Mobility	OS	Firmware version	Lifecycle	End of sale date	End of support date	Successor
controller	Schneider Electric	Tricon SIS Logic Solver	OT	static				never	never	

Extra Data

Overall risk

9

Device Risk
100.0 %

Last updated: 2025-07-23 15:49:12

Risk remediations

No remediation is currently available.

Asset activity

Typical hours 00:00-00:00

Peak hours 00:00-00:00

Avg. usage time 0 hours

Additional information

Roles	other producer
Zones	Undefined
Protocols	http
Capture device	program_transfer_1.pcapng

Network stats

Retransmission
0% 0.0 B in last 30'

Links
5 active

Received	Sent	First seen	Last seen
836.0 B	0.0 B	n.a.	2025-06-25 16:32:40.623

Properties

No properties to display

Custom fields

Custom 1
n.a.

Custom 2
n.a.

NewCustom1
n.a.

NewCustom2
n.a.

Resources

No resources information available

Network graph Physical graph

Network graph

View in full graph

Comments

No comments yet

Leave a comment

Type your comment here...

Comment

Figure 29. Summary tab

Network stats

This section shows different network statistics for the asset.

Properties

This section shows properties for the asset.

Hardware components

If applicable, Vantage shows a list of the asset's hardware components.

Network graph

This section shows these different views:

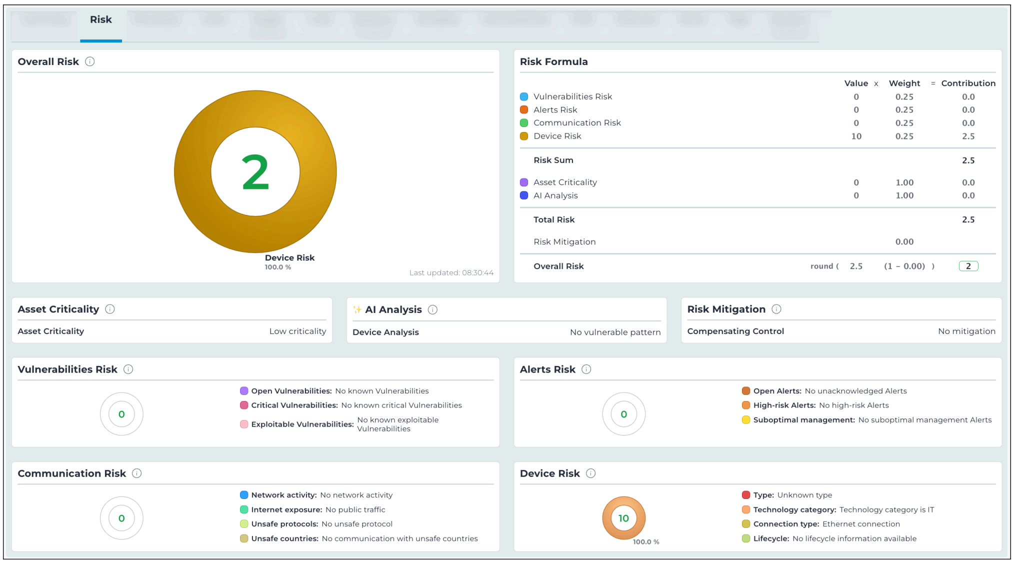
- Network graph (on page 214)
- Physical graph (on page 217)

Comments

This section lets you write a comment for the asset. It also shows comments that have been previously written.

Risk tab

*The **Risk** tab shows an overview of the risk assessment for the asset.*



Risk Formula

	Value	x	Weight	=	Contribution
Vulnerabilities Risk	0		0.25		0.0
Alerts Risk	0		0.25		0.0
Communication Risk	0		0.25		0.0
Device Risk	10		0.25		2.5
Risk Sum					2.5
Asset Criticality	0		1.00		0.0
AI Analysis	0		1.00		0.0
Total Risk					2.5
Risk Mitigation			0.00		
Overall Risk	round (2.5		(1 – 0.00))		2

Asset Criticality
Asset Criticality: Low criticality

AI Analysis
Device Analysis: No vulnerable pattern

Risk Mitigation
Compensating Control: No mitigation

Vulnerabilities Risk
0
Open Vulnerabilities: No known Vulnerabilities
Critical Vulnerabilities: No known critical Vulnerabilities
Exploitable Vulnerabilities: No known exploitable Vulnerabilities

Alerts Risk
0
Open Alerts: No unacknowledged Alerts
High-risk Alerts: No high-risk Alerts
Suboptimal management: No suboptimal management Alerts

Communication Risk
0
Network activity: No network activity
Internet exposure: No public traffic
Unsafe protocols: No unsafe protocol
Unsafe countries: No communication with unsafe countries

Device Risk
10
100.0 %
Type: Unknown type
Technology category: Technology category is IT
Connection type: Ethernet connection
Lifecycle: No lifecycle information available

Figure 30. Risk tab

Overall Risk

This section displays the calculated overall risk score for the asset. It is visually represented with a risk level indicator.

Risk Formula

This section details the formula used to compute the overall risk score. It includes components such as:

- **Vulnerabilities Risk**: Risk derived from identified vulnerabilities.
- **Alerts Risk**: Risk due to unacknowledged or high-risk alerts.
- **Communication Risk**: Risk based on network activity and exposure.
- **Device Risk**: Risk based on the device's characteristics and lifecycle.

Asset Criticality

Indicates the criticality level of the asset in the network.

AI Analysis

Shows AI-driven insights into the risk posture of the asset.

Risk Mitigation

Displays all compensating controls applied to mitigate risk.

Vulnerabilities Risk

Summarizes detected vulnerabilities, categorized as:

- Open Vulnerabilities
- Critical Vulnerabilities
- Exploitable Vulnerabilities

Alerts Risk

Lists active security alerts impacting the asset.

Communication Risk

Analyzes network activity, including:

- Internet exposure
- Use of unsafe protocols
- Communication with unsafe countries

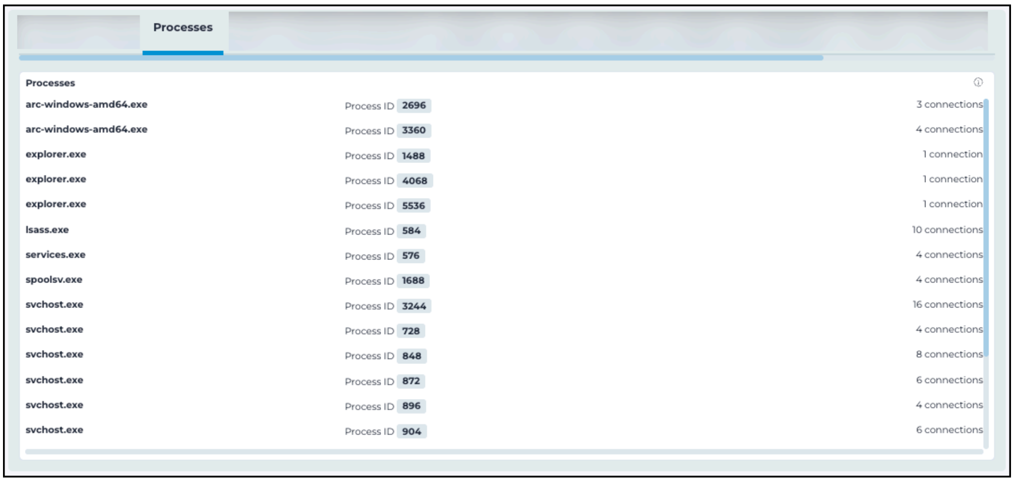
Device Risk

Assesses risk based on device attributes, such as:

- Technology category
- Connection type
- Lifecycle status

Processes tab

*The **Processes** tab shows all running processes detected on the asset with details like name, ID, and connection counts. It enables security teams to monitor activity and investigate potential threats and supports proactive management of asset performance and risk.*



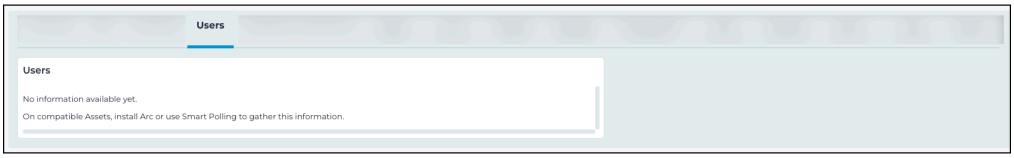
Processes

arc-windows-amd64.exe	Process ID **2696**	3 connections
arc-windows-amd64.exe	Process ID **3360**	4 connections
explorer.exe	Process ID **1488**	1 connection
explorer.exe	Process ID **4068**	1 connection
explorer.exe	Process ID **5536**	1 connection
lsass.exe	Process ID **584**	10 connections
services.exe	Process ID **576**	4 connections
spoolsv.exe	Process ID **1688**	4 connections
svchost.exe	Process ID **3244**	16 connections
svchost.exe	Process ID **728**	4 connections
svchost.exe	Process ID **848**	8 connections
svchost.exe	Process ID **872**	6 connections
svchost.exe	Process ID **896**	4 connections
svchost.exe	Process ID **904**	6 connections

Figure 31. Processes tab

Users tab

*The **Users** tab shows all the users that Vantage has detected for this asset.*



Users

No information available yet.

On compatible Assets, install Arc or use Smart Polling to gather this information.

Figure 32. Users tab

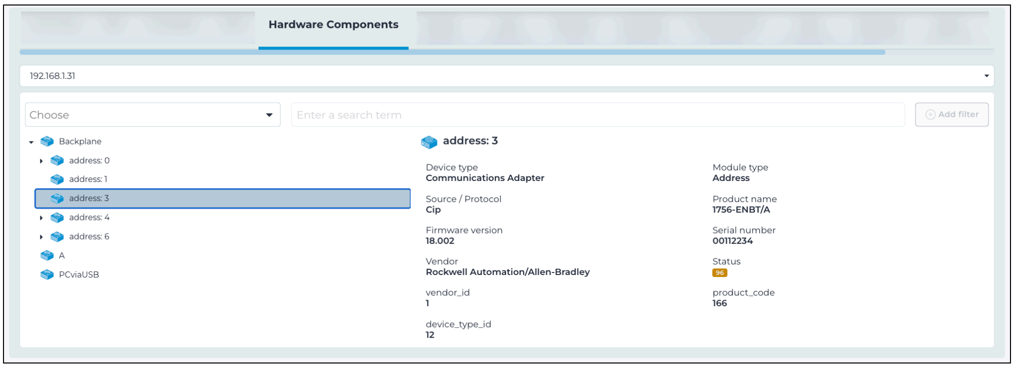
Lists all user accounts discovered on the asset, showing details such as username or the account type, such as:

- Username
- Account type
  - Guest
  - Administrator
- Status
- Domain membership

This helps security teams review local and domain accounts for risk assessment and user access auditing. It also supports the identification of inactive or misconfigured accounts that might present vulnerabilities.

Hardware Components tab

*The **Hardware Components** page shows a list of hardware modules installed on the same chassis as the selected controller, providing details on each component for better visibility and management of the device's physical configuration.*



address: 3

Device type
Communications Adapter

Module type
Address

Source / Protocol
Cip

Product name
1756-ENBT/A

Firmware version
18.002

Serial number
00112234

Vendor
Rockwell Automation/Allen-Bradley

Status
96

vendor_id
1

product_code
166

device_type_id
12

Figure 33. Hardware Components tab

Focus-on selector

This shows the *IP* address of the controller whose chassis information is shown below. When available, it lets you select other nodes related to the same controller.

Figure 34. Focus-on selector

Choose

This dropdown lets you select from a list of attributes.

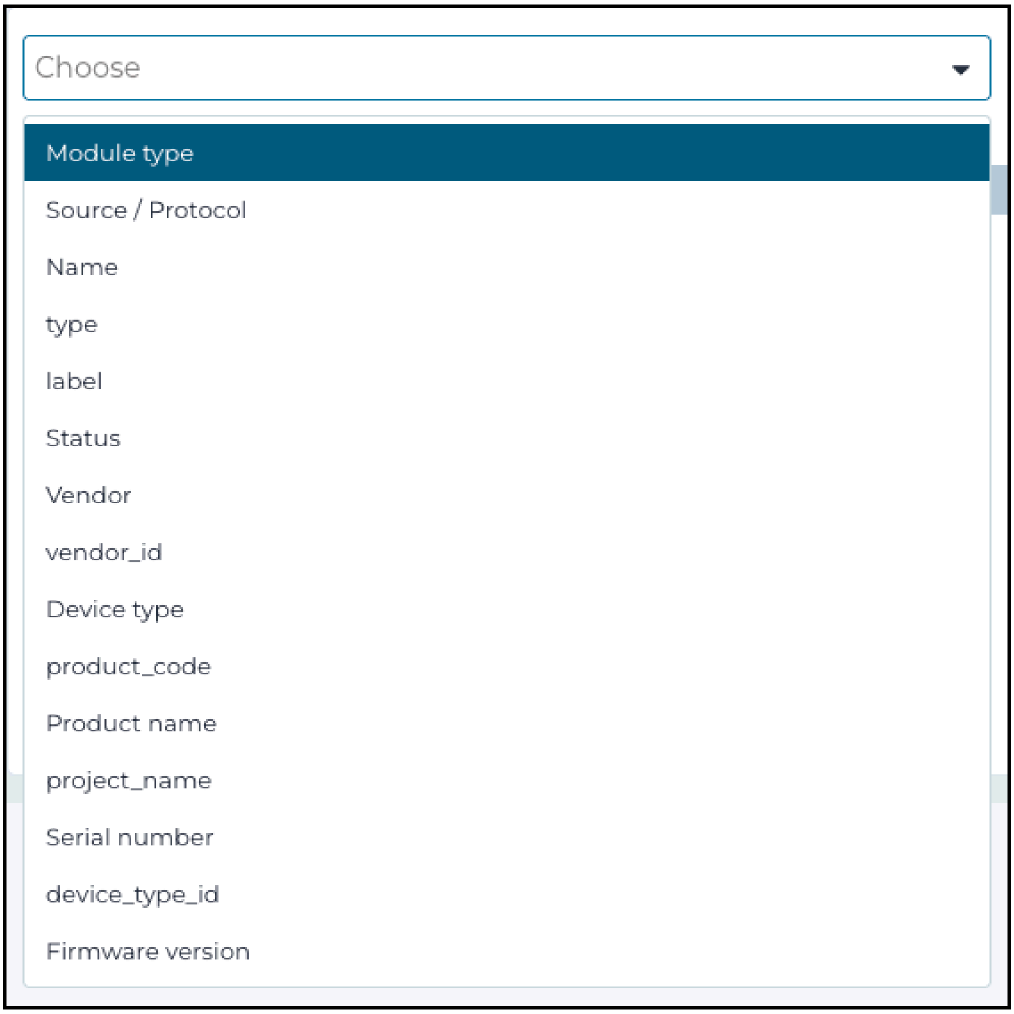


Figure 35. Choose dropdown

Search bar

The search bar lets you enter a term to filter the list.

Figure 36. Search bar

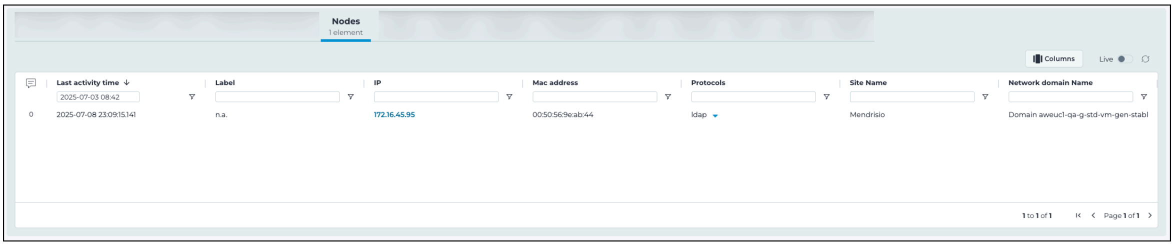
Add filter

Select this button to apply the filter in the search bar.

Figure 37. Add filter button

Nodes tab

*The **Nodes** tab shows all the nodes that Vantage has detected. Nodes are individual actors in the network communication. Assets have of one, or more, nodes. A node could be a device, such as a computer, a remote terminal unit (RTU), or a programmable logic controller (PLC). The protocols that a node uses can provide insights about its asset.*



	Last activity time ↓	Label	IP	Mac address	Protocols	Site Name	Network domain Name
	2025-07-03 08:42						
0	2025-07-08 23:09:15.141	n.a.	172.16.45.95	00:50:56:9e:ab:44	ldap	Mendrisio	Domain aweucl-qa-g-std-vm-gen-stabl

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

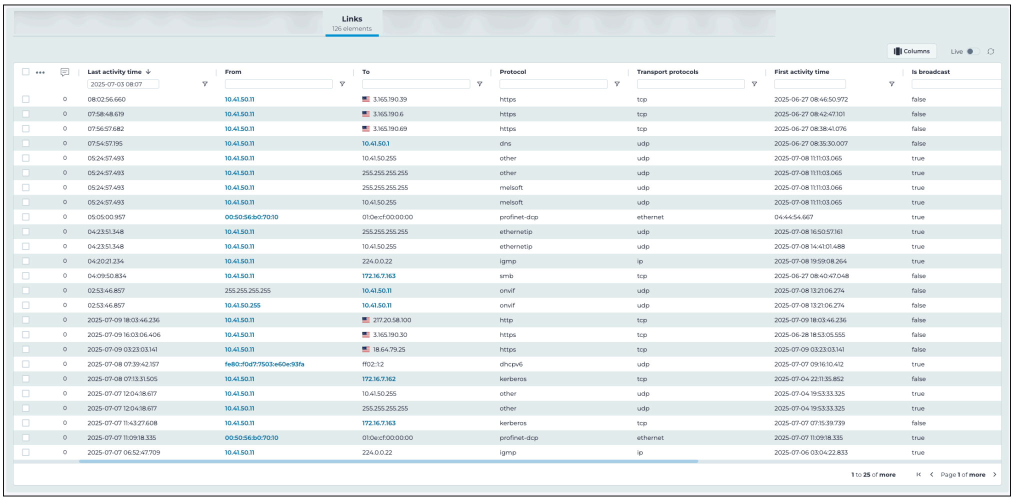
The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh icon lets you immediately refresh the graph.

Links tab

*The **Links** tab shows all the links that Vantage has detected. Links are the connections between the asset and other physical systems.*



☐	•••		Last activity time ↓	From	To	Protocol	Transport protocols	First activity time	Is broadcast
			2025-07-03 08:07						
☐		0	08:02:56.660	10.41.50.11	🇺🇸 3.165.190.39	https	tcp	2025-06-27 08:46:50.972	false
☐		0	07:58:48.619	10.41.50.11	🇺🇸 3.165.190.6	https	tcp	2025-06-27 08:42:47.101	false
☐		0	07:56:57.682	10.41.50.11	🇺🇸 3.165.190.69	https	tcp	2025-06-27 08:38:41.076	false
☐		0	07:54:57.195	10.41.50.11	10.41.50.1	dns	udp	2025-06-27 08:35:30.007	false
☐		0	05:24:57.493	10.41.50.11	10.41.50.255	other	udp	2025-07-08 11:11:03.065	true
☐		0	05:24:57.493	10.41.50.11	255.255.255.255	other	udp	2025-07-08 11:11:03.065	true
☐		0	05:24:57.493	10.41.50.11	255.255.255.255	melsoft	udp	2025-07-08 11:11:03.066	true
☐		0	05:24:57.493	10.41.50.11	10.41.50.255	melsoft	udp	2025-07-08 11:11:03.065	true
☐		0	05:05:00.957	00:50:56:b0:70:10	01:0e:cf:00:00:00	profinet-dcp	ethernet	04:44:54.667	true
☐		0	04:23:51.348	10.41.50.11	255.255.255.255	ethernetip	udp	2025-07-08 16:50:57.161	true
☐		0	04:23:51.348	10.41.50.11	10.41.50.255	ethernetip	udp	2025-07-08 14:41:01.488	true
☐		0	04:20:21.234	10.41.50.11	224.0.0.22	igmp	ip	2025-07-08 19:59:08.264	true
☐		0	04:09:50.834	10.41.50.11	172.16.7.163	smb	tcp	2025-06-27 08:40:47.048	false
☐		0	02:53:46.857	255.255.255.255	10.41.50.11	onvif	udp	2025-07-08 13:21:06.274	false
☐		0	02:53:46.857	10.41.50.255	10.41.50.11	onvif	udp	2025-07-08 13:21:06.274	false
☐		0	2025-07-09 18:03:46.236	10.41.50.11	🇺🇸 217.20.58.100	http	tcp	2025-07-09 18:03:46.236	false
☐		0	2025-07-09 16:03:06.406	10.41.50.11	🇺🇸 3.165.190.30	https	tcp	2025-06-28 18:53:05.555	false
☐		0	2025-07-09 03:23:03.141	10.41.50.11	🇺🇸 18.64.79.25	https	tcp	2025-07-09 03:23:03.141	false
☐		0	2025-07-08 07:39:42.157	fe80::f0d7:7503:e60e:93fa	ff02::1:2	dhcpv6	udp	2025-07-07 09:16:10.412	true
☐		0	2025-07-08 07:13:31.505	10.41.50.11	172.16.7.162	kerberos	tcp	2025-07-04 22:11:35.852	false
☐		0	2025-07-07 12:04:18.617	10.41.50.11	10.41.50.255	other	udp	2025-07-04 19:53:33.325	true
☐		0	2025-07-07 12:04:18.617	10.41.50.11	255.255.255.255	other	udp	2025-07-04 19:53:33.325	true
☐		0	2025-07-07 11:43:27.608	10.41.50.11	172.16.7.163	kerberos	tcp	2025-07-07 07:15:39.739	false
☐		0	2025-07-07 11:09:18.335	00:50:56:b0:70:10	01:0e:cf:00:00:00	profinet-dcp	ethernet	2025-07-07 11:09:18.335	true
☐		0	2025-07-07 06:52:47.709	10.41.50.11	224.0.0.22	igmp	ip	2025-07-06 03:04:22.833	true

Figure 38. Links tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

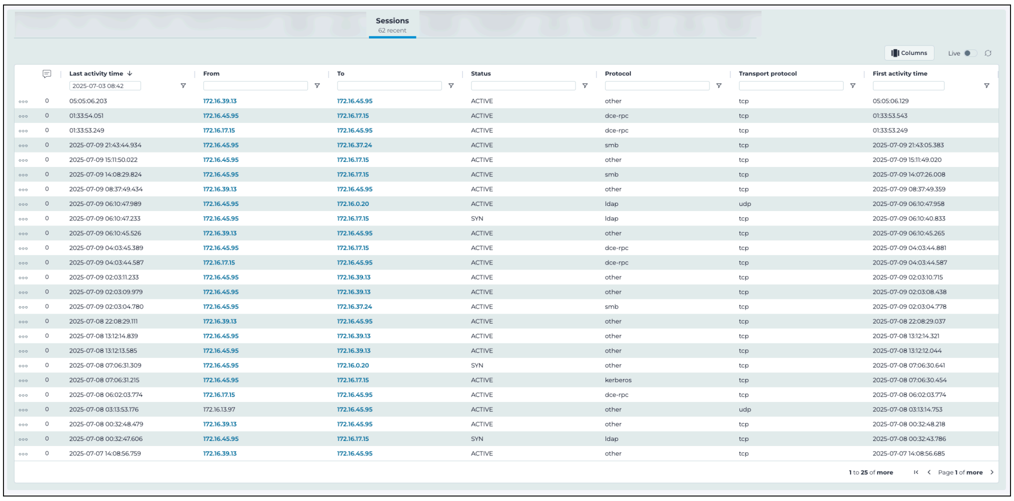
The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh ⟳ icon lets you immediately refresh the graph.

Sessions tab

*The **Sessions** tab shows all the sessions that Vantage has detected for this asset. Sessions are semi-permanent, interactive information exchanges between two or more communicating nodes.*



	Last activity time ↓	From	To	Status	Protocol	Transport protocol	First activity time
	2025-07-03 08:42						
0	05:05:06.203	172.16.39.13	172.16.45.95	ACTIVE	other	tcp	05:05:06.129
0	01:33:54.051	172.16.45.95	172.16.17.15	ACTIVE	dce-rpc	tcp	01:33:53.543
0	01:33:53.249	172.16.17.15	172.16.45.95	ACTIVE	dce-rpc	tcp	01:33:53.249
0	2025-07-09 21:43:44.934	172.16.45.95	172.16.37.24	ACTIVE	smb	tcp	2025-07-09 21:43:05.383
0	2025-07-09 15:11:50.022	172.16.45.95	172.16.17.15	ACTIVE	other	tcp	2025-07-09 15:11:49.020
0	2025-07-09 14:08:29.824	172.16.45.95	172.16.17.15	ACTIVE	smb	tcp	2025-07-09 14:07:26.008
0	2025-07-09 08:37:49.434	172.16.39.13	172.16.45.95	ACTIVE	other	tcp	2025-07-09 08:37:49.359
0	2025-07-09 06:10:47.989	172.16.45.95	172.16.0.20	ACTIVE	ldap	udp	2025-07-09 06:10:47.958
0	2025-07-09 06:10:47.233	172.16.45.95	172.16.17.15	SYN	ldap	tcp	2025-07-09 06:10:40.833
0	2025-07-09 06:10:45.526	172.16.39.13	172.16.45.95	ACTIVE	other	tcp	2025-07-09 06:10:45.265
0	2025-07-09 04:03:45.389	172.16.45.95	172.16.17.15	ACTIVE	dce-rpc	tcp	2025-07-09 04:03:44.881
0	2025-07-09 04:03:44.587	172.16.17.15	172.16.45.95	ACTIVE	dce-rpc	tcp	2025-07-09 04:03:44.587
0	2025-07-09 02:03:11.233	172.16.45.95	172.16.39.13	ACTIVE	other	tcp	2025-07-09 02:03:10.715
0	2025-07-09 02:03:09.979	172.16.45.95	172.16.39.13	ACTIVE	other	tcp	2025-07-09 02:03:08.438
0	2025-07-09 02:03:04.780	172.16.45.95	172.16.37.24	ACTIVE	smb	tcp	2025-07-09 02:03:04.778
0	2025-07-08 22:08:29.111	172.16.39.13	172.16.45.95	ACTIVE	other	tcp	2025-07-08 22:08:29.037
0	2025-07-08 13:12:14.839	172.16.45.95	172.16.39.13	ACTIVE	other	tcp	2025-07-08 13:12:14.321
0	2025-07-08 13:12:13.585	172.16.45.95	172.16.39.13	ACTIVE	other	tcp	2025-07-08 13:12:12.044
0	2025-07-08 07:06:31.309	172.16.45.95	172.16.0.20	SYN	other	tcp	2025-07-08 07:06:30.641
0	2025-07-08 07:06:31.215	172.16.45.95	172.16.17.15	ACTIVE	kerberos	tcp	2025-07-08 07:06:30.454
0	2025-07-08 06:02:03.774	172.16.17.15	172.16.45.95	ACTIVE	dce-rpc	tcp	2025-07-08 06:02:03.774
0	2025-07-08 03:13:53.176	172.16.13.97	172.16.45.95	ACTIVE	other	udp	2025-07-08 03:13:14.753
0	2025-07-08 00:32:48.479	172.16.39.13	172.16.45.95	ACTIVE	other	tcp	2025-07-08 00:32:48.218
0	2025-07-08 00:32:47.606	172.16.45.95	172.16.17.15	SYN	ldap	tcp	2025-07-08 00:32:43.786
0	2025-07-07 14:08:56.759	172.16.39.13	172.16.45.95	ACTIVE	other	tcp	2025-07-07 14:08:56.685

1 to **25** of **more** Page **1** of **more**

Figure 39. Sessions tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

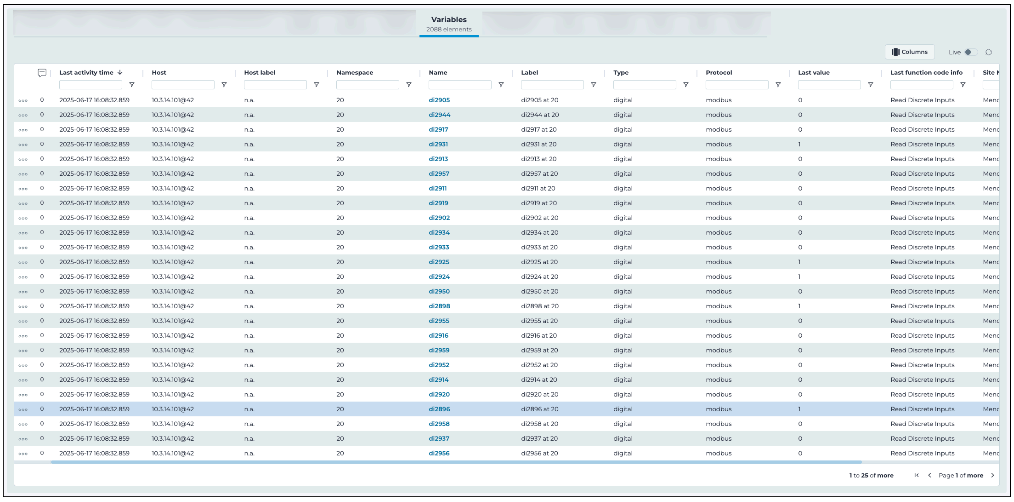
The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh icon lets you immediately refresh the graph.

Variables tab

*The **Variables** tab shows all the variables that Vantage has detected for this asset. Variables are the numerical values that are related to an industrial process that your sensors monitor.*



	Last activity time ↓	Host	Host label	Namespace	Name	Label	Type	Protocol	Last value	Last function code info	Site
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2905	di2905 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2944	di2944 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2917	di2917 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2931	di2931 at 20	digital	modbus	1	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2913	di2913 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2957	di2957 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2911	di2911 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2919	di2919 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2902	di2902 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2934	di2934 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2933	di2933 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2925	di2925 at 20	digital	modbus	1	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2924	di2924 at 20	digital	modbus	1	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2950	di2950 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2898	di2898 at 20	digital	modbus	1	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2955	di2955 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2916	di2916 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2959	di2959 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2952	di2952 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2914	di2914 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2920	di2920 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2896	di2896 at 20	digital	modbus	1	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2958	di2958 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2937	di2937 at 20	digital	modbus	0	Read Discrete Inputs	Menc
0	2025-06-17 16:08:32.859	10.3.14.101@42	n.a.	20	di2956	di2956 at 20	digital	modbus	0	Read Discrete Inputs	Menc

1 to **25** of **more** Page **1** of **more**

Figure 40. Variables tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

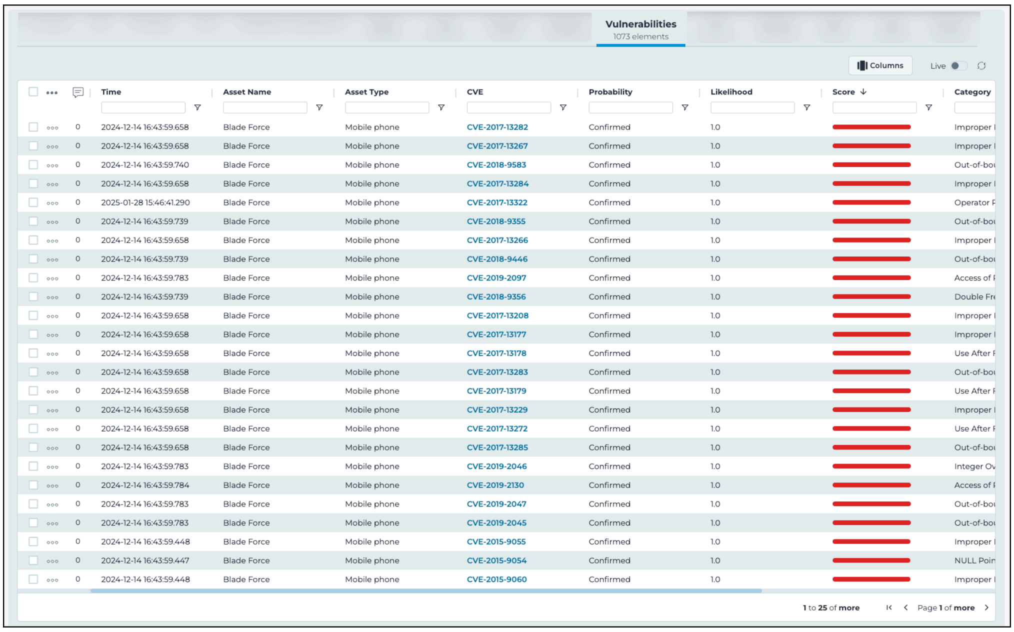
The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh ⟳ icon lets you immediately refresh the graph.

Vulnerabilities tab

*The **Vulnerabilities** tab shows all the vulnerabilities that Vantage has detected for this asset. Vulnerabilities are weaknesses that reduce the security of your system and give threat actors an opportunity to exploit your system.*



☐	•••		Time	Asset Name	Asset Type	CVE	Probability	Likelihood	Score ↓	Category
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13282	Confirmed	1.0	🟥	Improper
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13267	Confirmed	1.0	🟥	Improper
☐	○○○	0	2024-12-14 16:43:59.740	Blade Force	Mobile phone	CVE-2018-9583	Confirmed	1.0	🟥	Out-of-bou
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13284	Confirmed	1.0	🟥	Improper
☐	○○○	0	2025-01-28 15:46:41.290	Blade Force	Mobile phone	CVE-2017-13322	Confirmed	1.0	🟥	Operator
☐	○○○	0	2024-12-14 16:43:59.739	Blade Force	Mobile phone	CVE-2018-9355	Confirmed	1.0	🟥	Out-of-bou
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13266	Confirmed	1.0	🟥	Improper
☐	○○○	0	2024-12-14 16:43:59.739	Blade Force	Mobile phone	CVE-2018-9446	Confirmed	1.0	🟥	Out-of-bou
☐	○○○	0	2024-12-14 16:43:59.783	Blade Force	Mobile phone	CVE-2019-2097	Confirmed	1.0	🟥	Access of
☐	○○○	0	2024-12-14 16:43:59.739	Blade Force	Mobile phone	CVE-2018-9356	Confirmed	1.0	🟥	Double Fre
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13208	Confirmed	1.0	🟥	Improper
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13177	Confirmed	1.0	🟥	Improper
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13178	Confirmed	1.0	🟥	Use After
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13283	Confirmed	1.0	🟥	Out-of-bou
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13179	Confirmed	1.0	🟥	Use After
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13229	Confirmed	1.0	🟥	Improper
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13272	Confirmed	1.0	🟥	Use After
☐	○○○	0	2024-12-14 16:43:59.658	Blade Force	Mobile phone	CVE-2017-13285	Confirmed	1.0	🟥	Out-of-bou
☐	○○○	0	2024-12-14 16:43:59.783	Blade Force	Mobile phone	CVE-2019-2046	Confirmed	1.0	🟥	Integer Ov
☐	○○○	0	2024-12-14 16:43:59.784	Blade Force	Mobile phone	CVE-2019-2130	Confirmed	1.0	🟥	Access of
☐	○○○	0	2024-12-14 16:43:59.783	Blade Force	Mobile phone	CVE-2019-2047	Confirmed	1.0	🟥	Out-of-bou
☐	○○○	0	2024-12-14 16:43:59.783	Blade Force	Mobile phone	CVE-2019-2045	Confirmed	1.0	🟥	Out-of-bou
☐	○○○	0	2024-12-14 16:43:59.448	Blade Force	Mobile phone	CVE-2015-9055	Confirmed	1.0	🟥	Improper
☐	○○○	0	2024-12-14 16:43:59.447	Blade Force	Mobile phone	CVE-2015-9054	Confirmed	1.0	🟥	NULL Poin
☐	○○○	0	2024-12-14 16:43:59.448	Blade Force	Mobile phone	CVE-2015-9060	Confirmed	1.0	🟥	Improper

1 to **25** of **more** Page **1** of **more**

Figure 41. Vulnerabilities tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

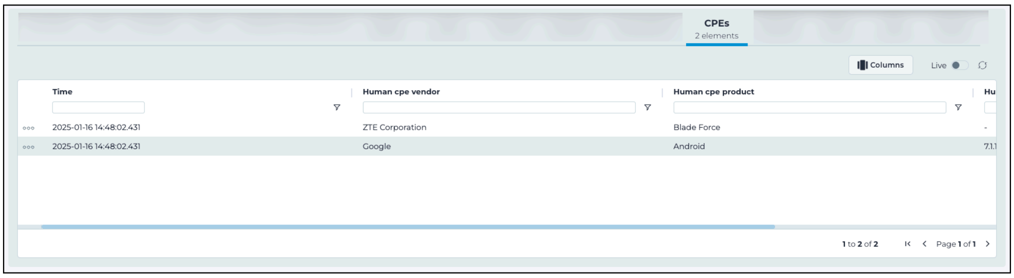
The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh ⟳ icon lets you immediately refresh the graph.

CPEs tab

*The **CPEs** tab shows all the common platform enumerations (CPEs) that Vantage has detected for this asset.*



Time	Human cpe vendor	Human cpe product	Hu
2025-01-16 14:48:02.431	ZTE Corporation	Blade Force	-
2025-01-16 14:48:02.431	Google	Android	7.1.1

Figure 42. CPE tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

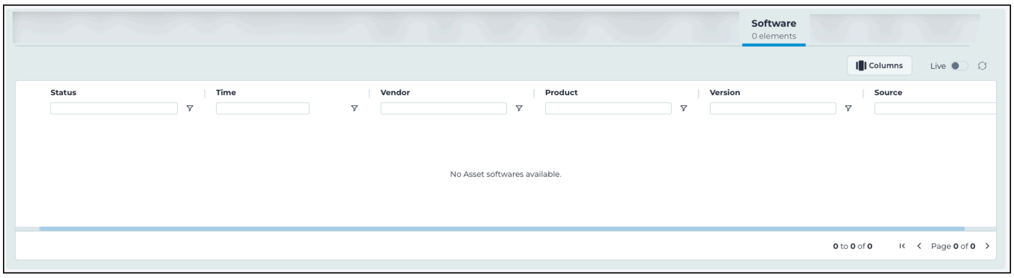
The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh icon lets you immediately refresh the graph.

Software tab

*The **Software list** tab shows all the software installations that Vantage has detected on this asset.*



No Asset softwares available.

Figure 43. Software tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

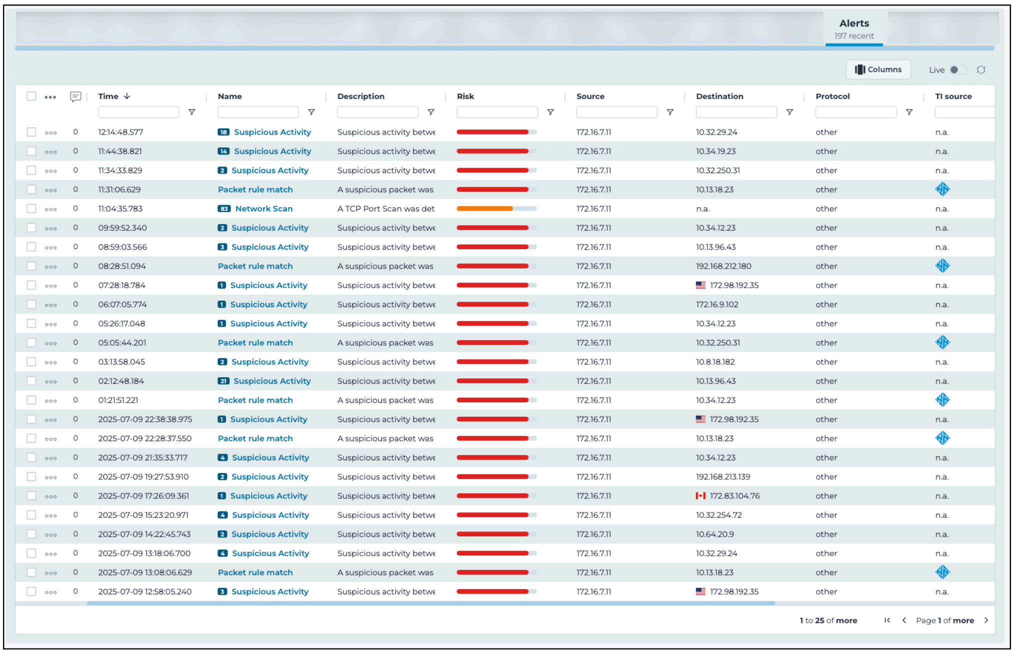
The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh icon lets you immediately refresh the graph.

Alerts tab

*The **Alerts** tab shows all the alerts that Vantage has detected for this asset.*



☐	•••		Time ↓	Name	Description	Risk	Source	Destination	Protocol	TI source
☐	◦◦◦	0	12:14:48.577	18 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.32.29.24	other	n.a.
☐	◦◦◦	0	11:44:38.821	14 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.34.19.23	other	n.a.
☐	◦◦◦	0	11:34:33.829	2 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.32.250.31	other	n.a.
☐	◦◦◦	0	11:31:06.629	Packet rule match	A suspicious packet was		172.16.7.11	10.13.18.23	other	
☐	◦◦◦	0	11:04:35.783	83 Network Scan	A TCP Port Scan was det		172.16.7.11	n.a.	other	n.a.
☐	◦◦◦	0	09:59:52.340	2 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.34.12.23	other	n.a.
☐	◦◦◦	0	08:59:03.566	3 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.13.96.43	other	n.a.
☐	◦◦◦	0	08:28:51.094	Packet rule match	A suspicious packet was		172.16.7.11	192.168.212.180	other	
☐	◦◦◦	0	07:28:18.784	1 Suspicious Activity	Suspicious activity betwe		172.16.7.11	🇺🇸 172.98.192.35	other	n.a.
☐	◦◦◦	0	06:07:05.774	1 Suspicious Activity	Suspicious activity betwe		172.16.7.11	172.16.9.102	other	n.a.
☐	◦◦◦	0	05:26:17.048	1 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.34.12.23	other	n.a.
☐	◦◦◦	0	05:05:44.201	Packet rule match	A suspicious packet was		172.16.7.11	10.32.250.31	other	
☐	◦◦◦	0	03:13:58.045	2 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.8.18.182	other	n.a.
☐	◦◦◦	0	02:12:48.184	21 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.13.96.43	other	n.a.
☐	◦◦◦	0	01:21:51.221	Packet rule match	A suspicious packet was		172.16.7.11	10.34.12.23	other	
☐	◦◦◦	0	2025-07-09 22:38:38.975	1 Suspicious Activity	Suspicious activity betwe		172.16.7.11	🇺🇸 172.98.192.35	other	n.a.
☐	◦◦◦	0	2025-07-09 22:28:37.550	Packet rule match	A suspicious packet was		172.16.7.11	10.13.18.23	other	
☐	◦◦◦	0	2025-07-09 21:35:33.717	4 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.34.12.23	other	n.a.
☐	◦◦◦	0	2025-07-09 19:27:53.910	2 Suspicious Activity	Suspicious activity betwe		172.16.7.11	192.168.213.139	other	n.a.
☐	◦◦◦	0	2025-07-09 17:26:09.361	1 Suspicious Activity	Suspicious activity betwe		172.16.7.11	🇨🇦 172.83.104.76	other	n.a.
☐	◦◦◦	0	2025-07-09 15:23:20.971	4 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.32.254.72	other	n.a.
☐	◦◦◦	0	2025-07-09 14:22:45.743	2 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.64.20.9	other	n.a.
☐	◦◦◦	0	2025-07-09 13:18:06.700	4 Suspicious Activity	Suspicious activity betwe		172.16.7.11	10.32.29.24	other	n.a.
☐	◦◦◦	0	2025-07-09 13:08:06.629	Packet rule match	A suspicious packet was		172.16.7.11	10.13.18.23	other	
☐	◦◦◦	0	2025-07-09 12:58:05.240	3 Suspicious Activity	Suspicious activity betwe		172.16.7.11	🇺🇸 172.98.192.35	other	n.a.

1 to **25** of **more** Page **1** of **more**

Figure 44. Alerts tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

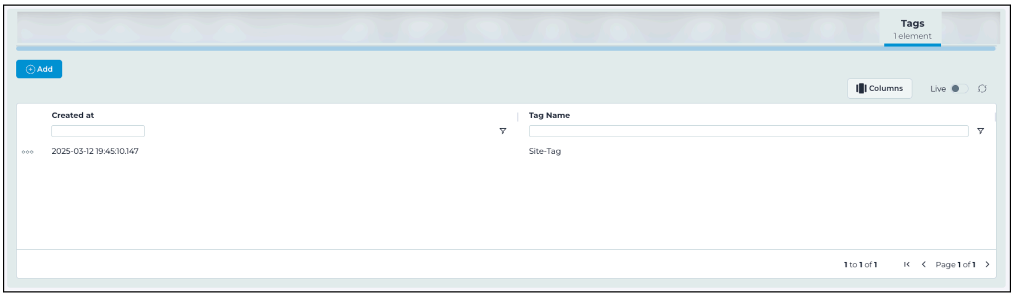
The **Live** ○ toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh ↻ icon lets you immediately refresh the graph.

Tags tab

*The **Tags** tab shows all the tags for this asset. Tags are user-defined labels that have been assigned to this asset. Tags are associated with user roles to define access control.*



Created at	Tag Name
2025-03-12 19:45:10.147	Site-Tag

Figure 45. Tags tab

Add new

This button lets you add a new tag (on page 122) to the related asset.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh icon lets you immediately refresh the graph.

Add a tag to an asset

You can add tags to assets. This lets you refine the permissions that you grant to users.

About this task

You can add one or more tags to the selected asset.

Procedure

1. Open the details page (on page 130) for the applicable asset.
2. Select the **Tags** tab.
3. Select **Add new**.

   Result: The **Tag** dropdown shows.

4. Open the dropdown and select the correct tag.

   > **Note:**
   > Only the tags that have been assigned for your organization show.

5. Select **Create**.

   Result: The tag has been added to the related asset.

Related information

Tags tab (on page 121)

Delete a tag from an asset (on page 123)

Delete a tag from an asset

If a tag has been added to a asset, you can delete it.

Procedure

1. Open the details page (on page 130) for the applicable asset.
2. Select the **Tags** tab.
3. Double-click the applicable tag.

   Result: The summary drawer shows.

4. Select **Details**.

   Result: The details page for the related tag shows.

5. Select **Actions > Delete**.

Results

The tag has been deleted.

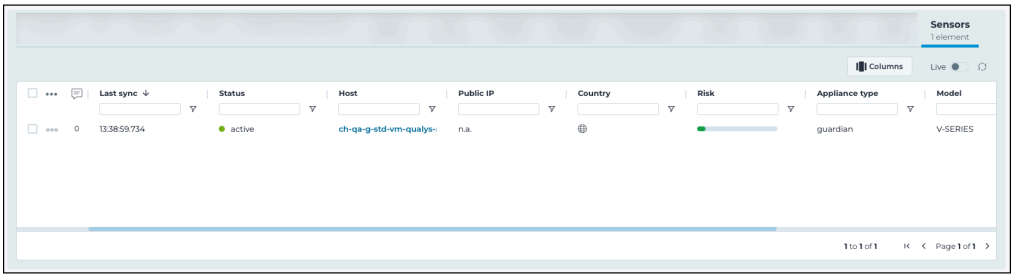
Related information

Tags tab (on page 121)

Add a tag to an asset (on page 122)

Sensors tab

*The **Sensors** tab shows all the sensors that Vantage has detected for this asset.*



☐	•••		Last sync ↓	Status	Host	Public IP	Country	Risk	Appliance type	Model
☐	○○○	0	13:38:59.734	● active	ch-qa-g-std-vm-qualys-	n.a.	🌐		guardian	V-SERIES

Figure 46. Sensors tab

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

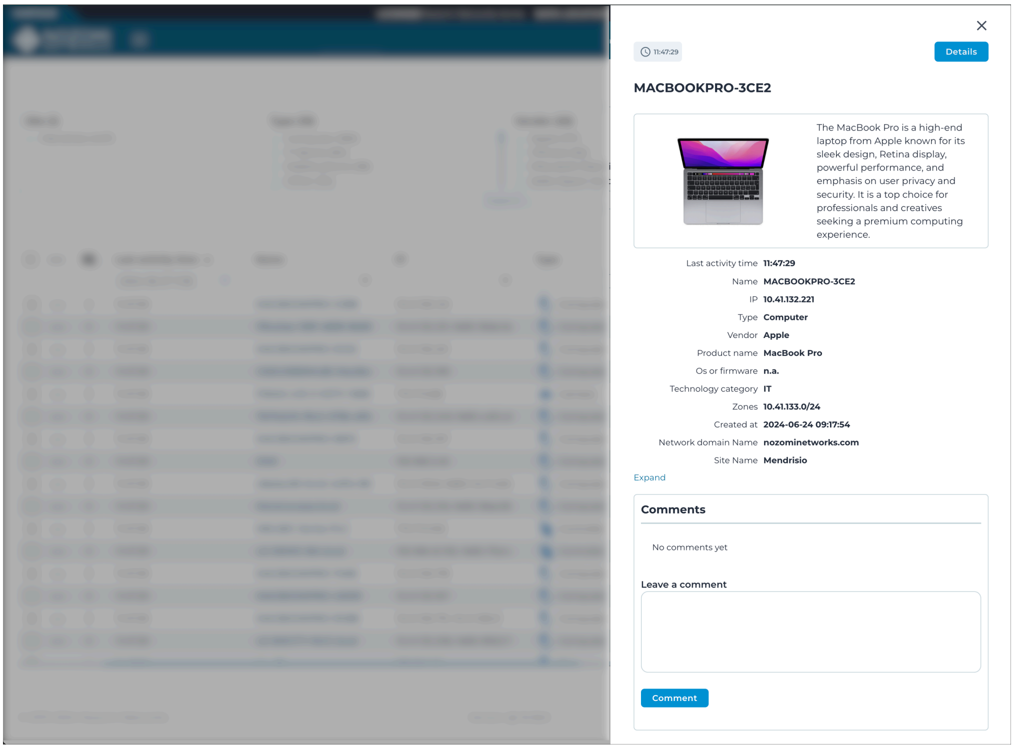
The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Refresh

The refresh icon lets you immediately refresh the graph.

Summary drawer

When you double-click an asset in the table, the summary drawer shows. This lets you post a comment, or open the related details page.



MACBOOKPRO-3CE2

The MacBook Pro is a high-end laptop from Apple known for its sleek design, Retina display, powerful performance, and emphasis on user privacy and security. It is a top choice for professionals and creatives seeking a premium computing experience.

Last activity time	**11:47:29**
Name	**MACBOOKPRO-3CE2**
IP	**10.41.132.221**
Type	**Computer**
Vendor	**Apple**
Product name	**MacBook Pro**
Os or firmware	**n.a.**
Technology category	**IT**
Zones	**10.41.133.0/24**
Created at	**2024-06-24 09:17:54**
Network domain Name	**nozominetworks.com**
Site Name	**Mendrisio**

Comments

No comments yet

Leave a comment

Figure 47. Summary drawer

Details button

You can select the **Details** button to open the details page for the related item.

Summary

The summary section shows a summary of applicable information for the related item.

Comments

This section lets you leave a comment, or read a comment that has been written, for the related item.

Related information

Open the summary drawer (on page 130)

Table interactions

Actions menu

Delete an asset

You can use the actions menu to delete an asset.

Procedure

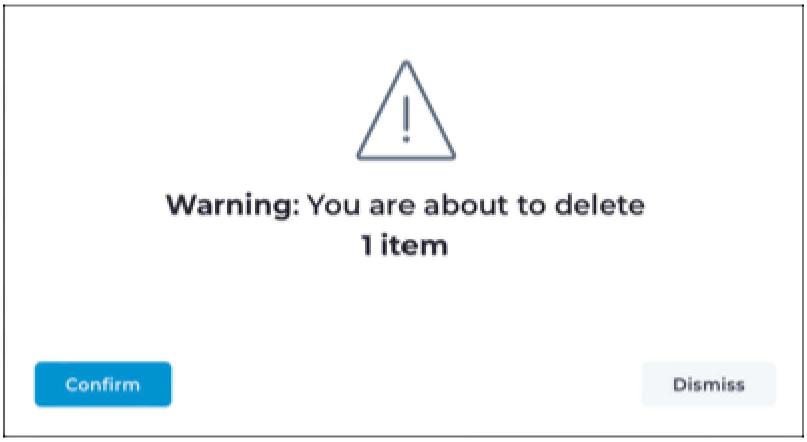
1. In the top navigation bar, select **Assets**.
2. Choose a method to open the actions menu.

   Choose from:

   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon
3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
4. Select **Delete**.



Warning: You are about to delete 1 item

Result: A confirmation dialog shows.

Results

The asset(s) has been deleted.

Export an asset

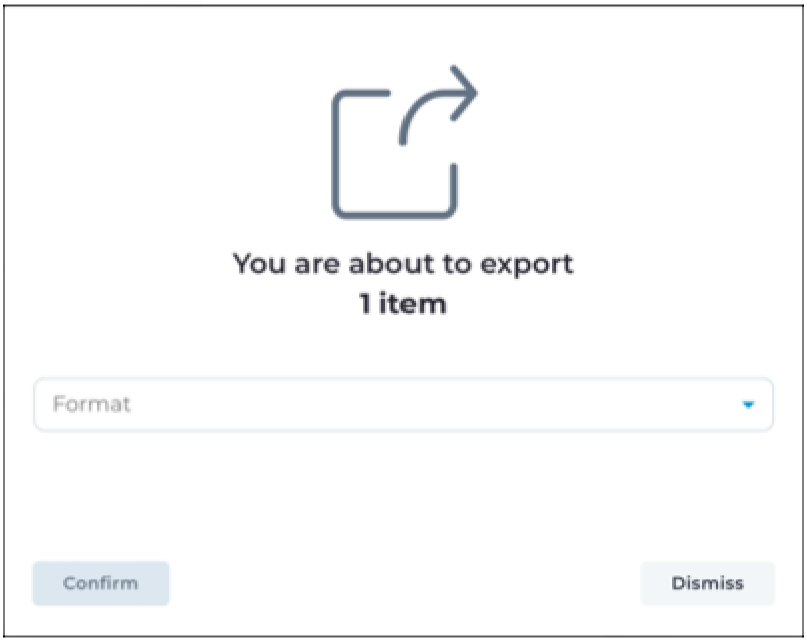
You can use the actions menu to export one or more assets to a spreadsheet.

Procedure

1. In the top navigation bar, select **Assets**.
2. Choose a method to open the actions menu.

   Choose from:
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon
3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
4. Select **Export**.

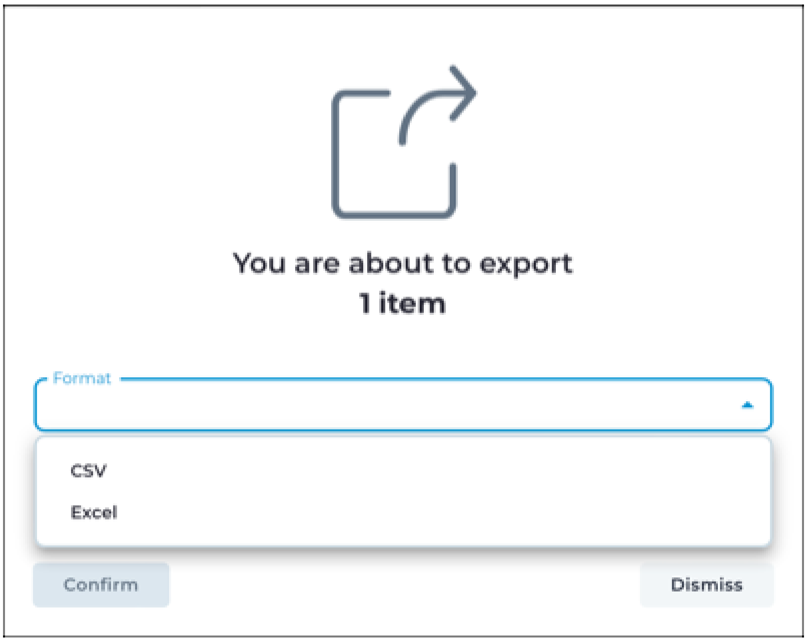


You are about to export 1 item

   Result: The export dialog shows.
5. Select the **Format** dropdown.

   Result: A dialog shows.

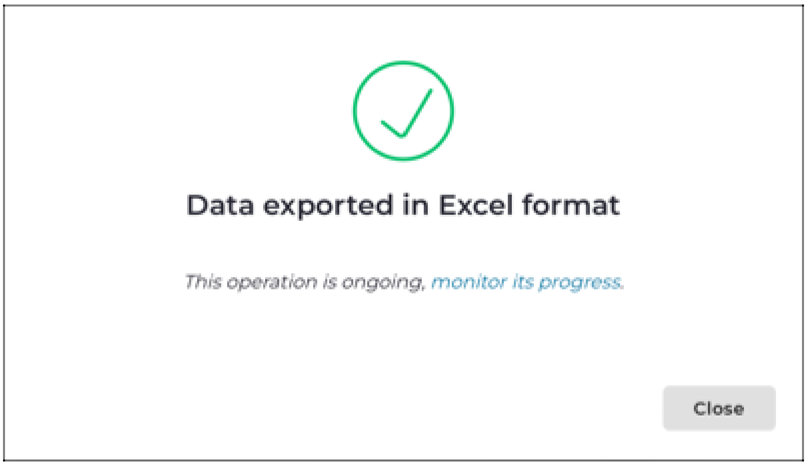
6. In the **Format** dropdown, select the format that you want to export.


You are about to export
1 item

7. Select **Confirm**.

   Result: A confirmation dialog shows.

8. Select **Close**.


Data exported in Excel format

This operation is ongoing, monitor its progress.

Results

The asset(s) has been exported.

Create an asset rule from an asset

You can create an asset rule directly from one, or more, assets in the asset page table.

Procedure

1. In the top navigation bar, select **Assets**.
2. Choose a method to open the actions menu.

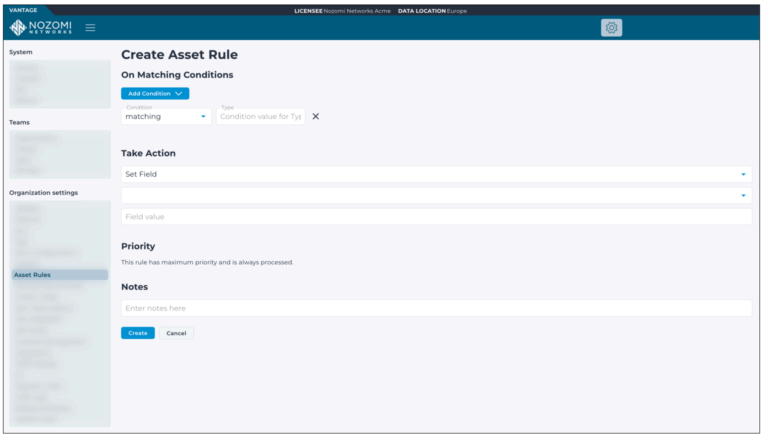
   Choose from:

   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon
3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
4. Select **Create Asset Rule From This Asset**.

   Result: The **Create Asset Rule** page opens.
5. Configure the asset rule as necessary.



LICENSEE Nozomi Networks Acme DATA LOCATION Europe

Create Asset Rule

On Matching Conditions

Condition: matching

Type: Condition value for Typ

Take Action

Set Field

Field value

Priority

This rule has maximum priority and is always processed.

Notes

Enter notes here

6. Select **Create**.

Results

The asset rule has been created.

Open the details page

You can open a details page for individual assets that are shown in the asset page table. You can open the details page with two different methods.

Procedure

1. In the top navigation bar, select **Assets**.
2. Choose a method with which to open the details page. In the row for the applicable asset:

   Choose from:

   - In the **Name** column of the table, select the hyperlink.
   - Double-click the row to open the summary drawer. In the top right section, select **Details**.

   Result: The details page (on page 102) opens.

Related information

Details page (on page 102)

Open the summary drawer

You can open a summary drawer for individual assets that are shown in the assets page table.

Procedure

1. In the top navigation bar, select **Assets**.
2. In the table, double-click the row for the applicable asset.

   Result: The summary drawer (on page 125) opens.

Related information

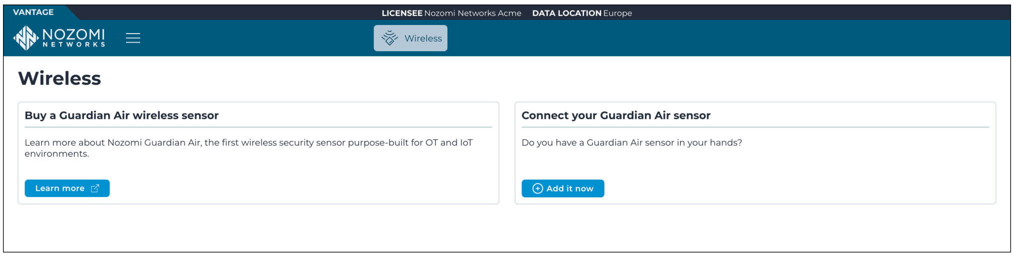
Summary drawer (on page 125)

Chapter 5. Wireless

*The **Wireless** page lets you buy and connect a Guardian Air sensor. Once you have connected one or more Guardian Air sensor, the **Wireless** page show the connected Guardian Air sensors.*

First use

If you open the Wireless page, but you have not previously connected a Guardian Air sensor, you will see a view similar to the one below.



LICENSEE Nozomi Networks Acme **DATA LOCATION** Europe

Wireless

Buy a Guardian Air wireless sensor

Learn more about Nozomi Guardian Air, the first wireless security sensor purpose-built for OT and IoT environments.

Connect your Guardian Air sensor

Do you have a Guardian Air sensor in your hands?

Figure 48. Wireless page (before a Guardian Air sensor has been added)

Buy a Guardian Air wireless sensor

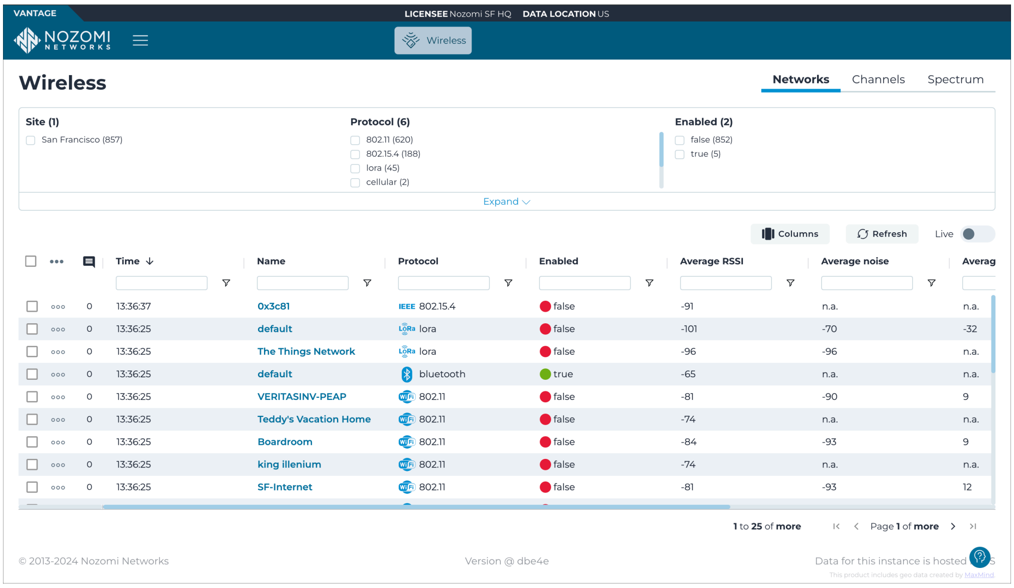
This section lets you buy your first Guardian Air sensor, and learn more about Guardian Air.

Connect your Guardian Air sensor

Once you have purchased one or more Guardian Air sensors, this section lets you connect it.

After you have connected a Guardian Air sensor

Once you have connected one or more Guardian Air sensors, you will see a view similar to the one below.


VANTAGE
NOZOMI NETWORKS
Wireless
Networks
Channels
Spectrum
Expand
Columns
Refresh
Live
© 2013-2024 Nozomi Networks
Version @ dbe4e
Data for this instance is hosted
This product includes geo data created by MaxMind.

LICENSEE Nozomi SF HQ **DATA LOCATION** US

Wireless

Site (1)
☐ San Francisco (857)

Protocol (6)
☐ 802.11 (620)
☐ 802.15.4 (188)
☐ lora (45)
☐ cellular (2)

Enabled (2)
☐ false (852)
☐ true (5)

☐	•••		Time ↓	Name	Protocol	Enabled	Average RSSI	Average noise	Averag
☐	○○○	0	13:36:37	0x3c81	IEEE 802.15.4	● false	-91	n.a.	n.a.
☐	○○○	0	13:36:25	default	LoRa lora	● false	-101	-70	-32
☐	○○○	0	13:36:25	The Things Network	LoRa lora	● false	-96	-96	n.a.
☐	○○○	0	13:36:25	default	bluetooth	● true	-65	n.a.	n.a.
☐	○○○	0	13:36:25	VERITASINV-PEAP	802.11	● false	-81	-90	9
☐	○○○	0	13:36:25	Teddy's Vacation Home	802.11	● false	-74	n.a.	n.a.
☐	○○○	0	13:36:25	Boardroom	802.11	● false	-84	-93	9
☐	○○○	0	13:36:25	king illenium	802.11	● false	-74	n.a.	n.a.
☐	○○○	0	13:36:25	SF-Internet	802.11	● false	-81	-93	12

1 to **25** of **more** Page **1** of **more**

Figure 49. Wireless page (after a Guardian Air sensor has been added)

Related information

Enable a wireless network (on page 139)

Disable a wireless network (on page 140)

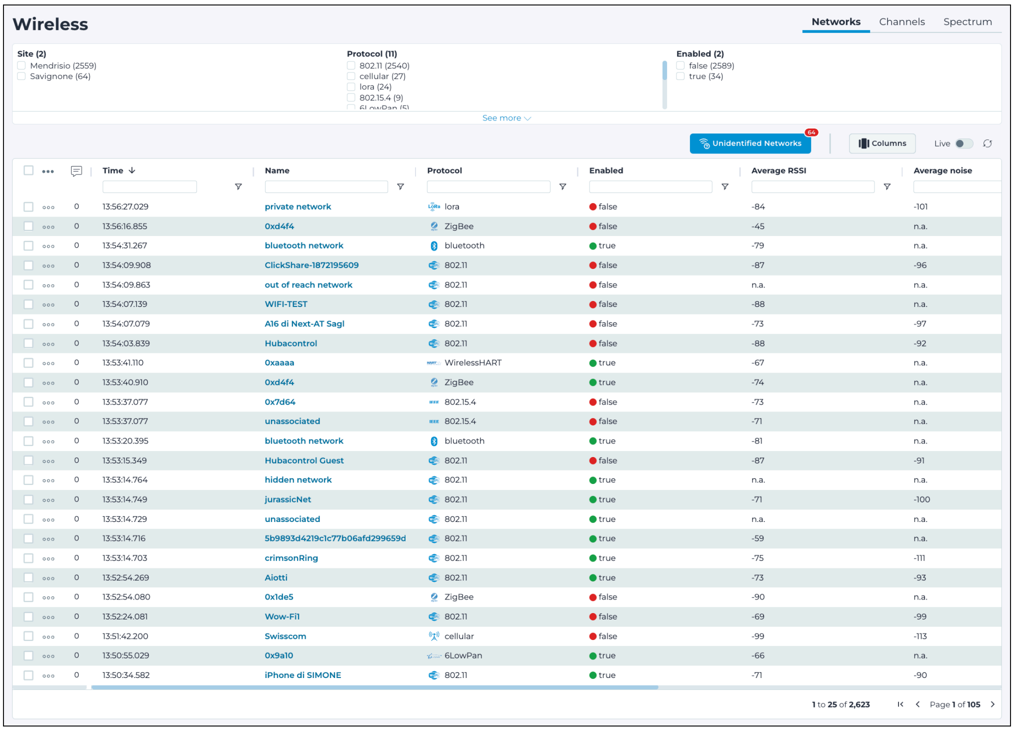
Delete a wireless network (on page 143)

Enable the inspection of devices with private MAC addresses (on page 141)

Disable the inspection of devices with private MAC addresses (on page 142)

Networks

The ***Networks*** *page shows an overview of network sites, protocols, and sensor activation statuses, and includes interactive sections for managing these elements effectively.*



Site (2)
☐ Mendrisio (2559)
☐ Savignone (64)

Protocol (11)
☐ 802.11 (2540)
☐ cellular (27)
☐ lora (24)
☐ 802.15.4 (9)
☐ 6LowPan (5)

Enabled (2)
☐ false (2589)
☐ true (34)

☐	•••		Time ↓	Name	Protocol	Enabled	Average RSSI	Average noise
☐	○○○	0	13:56:27.029	private network	lora	● false	-84	-101
☐	○○○	0	13:56:16.855	0xd4f4	ZigBee	● false	-45	n.a.
☐	○○○	0	13:54:31.267	bluetooth network	bluetooth	● true	-79	n.a.
☐	○○○	0	13:54:09.908	ClickShare-1872195609	802.11	● false	-87	-96
☐	○○○	0	13:54:09.863	out of reach network	802.11	● false	n.a.	n.a.
☐	○○○	0	13:54:07.139	WIFI-TEST	802.11	● false	-88	n.a.
☐	○○○	0	13:54:07.079	A16 di Next-AT Sagl	802.11	● false	-73	-97
☐	○○○	0	13:54:03.839	Hubacontrol	802.11	● false	-88	-92
☐	○○○	0	13:53:41.110	0xaaaa	WirelessHART	● true	-67	n.a.
☐	○○○	0	13:53:40.910	0xd4f4	ZigBee	● true	-74	n.a.
☐	○○○	0	13:53:37.077	0x7d64	802.15.4	● false	-73	n.a.
☐	○○○	0	13:53:37.077	unassociated	802.15.4	● false	-71	n.a.
☐	○○○	0	13:53:20.395	bluetooth network	bluetooth	● true	-81	n.a.
☐	○○○	0	13:53:15.349	Hubacontrol Guest	802.11	● false	-87	-91
☐	○○○	0	13:53:14.764	hidden network	802.11	● true	n.a.	n.a.
☐	○○○	0	13:53:14.749	jurassicNet	802.11	● true	-71	-100
☐	○○○	0	13:53:14.729	unassociated	802.11	● true	n.a.	n.a.
☐	○○○	0	13:53:14.716	5b9893d4219c1c77b06afd299659d	802.11	● true	-59	n.a.
☐	○○○	0	13:53:14.703	crimsonRing	802.11	● true	-75	-111
☐	○○○	0	13:52:54.269	Aiotti	802.11	● true	-73	-93
☐	○○○	0	13:52:54.080	0x1de5	ZigBee	● false	-90	n.a.
☐	○○○	0	13:52:24.081	Wow-Fi1	802.11	● false	-69	-99
☐	○○○	0	13:51:42.200	Swisscom	cellular	● false	-99	-113
☐	○○○	0	13:50:55.029	0x9a10	6LowPan	● true	-66	n.a.
☐	○○○	0	13:50:34.582	iPhone di SIMONE	802.11	● true	-71	-90

1 to **25** of **2,623**   Page **1** of **105**

Figure 50. Networks page

Site

This section shows all sites that you have added to your environment, and lets you select the sensors related to a site.

Protocol

This column shows the protocol for the related sensor.

Enabled

This column shows whether the related sensor is enabled or not.

Live

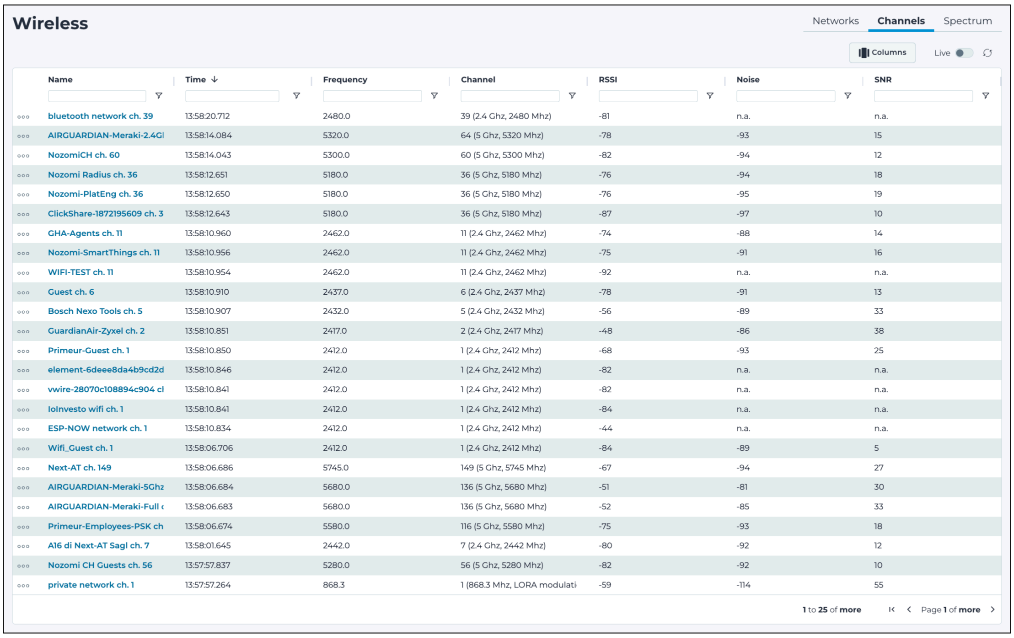
The live toggle lets you immediately refresh the graph.

Refresh

The refresh icon lets you immediately refresh the graph.

Channels

*The **Channels** page gives a detailed view and management options for wireless channels.*



Name	Time ↓	Frequency	Channel	RSSI	Noise	SNR
bluetooth network ch. 39	13:58:20.712	2480.0	39 (2.4 Ghz, 2480 Mhz)	-81	n.a.	n.a.
AIRGUARDIAN-Meraki-2.4G	13:58:14.084	5320.0	64 (5 Ghz, 5320 Mhz)	-78	-93	15
NozomiCH ch. 60	13:58:14.043	5300.0	60 (5 Ghz, 5300 Mhz)	-82	-94	12
Nozomi Radius ch. 36	13:58:12.651	5180.0	36 (5 Ghz, 5180 Mhz)	-76	-94	18
Nozomi-PlatEng ch. 36	13:58:12.650	5180.0	36 (5 Ghz, 5180 Mhz)	-76	-95	19
ClickShare-1872195609 ch. 3	13:58:12.643	5180.0	36 (5 Ghz, 5180 Mhz)	-87	-97	10
GHA-Agents ch. 11	13:58:10.960	2462.0	11 (2.4 Ghz, 2462 Mhz)	-74	-88	14
Nozomi-SmartThings ch. 11	13:58:10.956	2462.0	11 (2.4 Ghz, 2462 Mhz)	-75	-91	16
WIFI-TEST ch. 11	13:58:10.954	2462.0	11 (2.4 Ghz, 2462 Mhz)	-92	n.a.	n.a.
Guest ch. 6	13:58:10.910	2437.0	6 (2.4 Ghz, 2437 Mhz)	-78	-91	13
Bosch Nexo Tools ch. 5	13:58:10.907	2432.0	5 (2.4 Ghz, 2432 Mhz)	-56	-89	33
GuardianAir-Zyxel ch. 2	13:58:10.851	2417.0	2 (2.4 Ghz, 2417 Mhz)	-48	-86	38
Primeur-Guest ch. 1	13:58:10.850	2412.0	1 (2.4 Ghz, 2412 Mhz)	-68	-93	25
element-6deee8da4b9cd2d	13:58:10.846	2412.0	1 (2.4 Ghz, 2412 Mhz)	-82	n.a.	n.a.
vwire-28070c108894c904 c	13:58:10.841	2412.0	1 (2.4 Ghz, 2412 Mhz)	-82	n.a.	n.a.
IoInvesto wifi ch. 1	13:58:10.841	2412.0	1 (2.4 Ghz, 2412 Mhz)	-84	n.a.	n.a.
ESP-NOW network ch. 1	13:58:10.834	2412.0	1 (2.4 Ghz, 2412 Mhz)	-44	n.a.	n.a.
Wifi_Guest ch. 1	13:58:06.706	2412.0	1 (2.4 Ghz, 2412 Mhz)	-84	-89	5
Next-AT ch. 149	13:58:06.686	5745.0	149 (5 Ghz, 5745 Mhz)	-67	-94	27
AIRGUARDIAN-Meraki-5Ghz	13:58:06.684	5680.0	136 (5 Ghz, 5680 Mhz)	-51	-81	30
AIRGUARDIAN-Meraki-Full	13:58:06.683	5680.0	136 (5 Ghz, 5680 Mhz)	-52	-85	33
Primeur-Employees-PSK ch	13:58:06.674	5580.0	116 (5 Ghz, 5580 Mhz)	-75	-93	18
A16 di Next-AT Sagl ch. 7	13:58:01.645	2442.0	7 (2.4 Ghz, 2442 Mhz)	-80	-92	12
Nozomi CH Guests ch. 56	13:57:57.837	5280.0	56 (5 Ghz, 5280 Mhz)	-82	-92	10
private network ch. 1	13:57:57.264	868.3	1 (868.3 Mhz, LORA modulati	-59	-114	55

Figure 51. Channels page

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Live

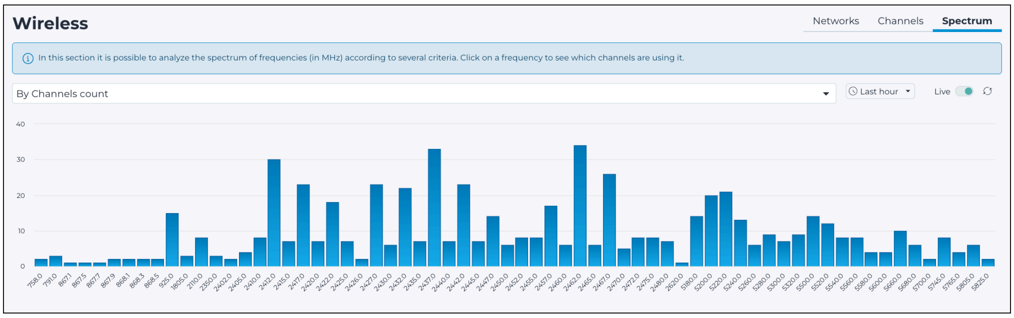
The live toggle lets you immediately refresh the graph.

Refresh

The refresh icon lets you immediately refresh the graph.

Spectrum

*The **Spectrum** page shows a comprehensive view of wireless signal metrics and customizable viewing options to analyze channels, signal strength, and noise across different timeframes.*



In this section it is possible to analyze the spectrum of frequencies (in MHz) according to several criteria. Click on a frequency to see which channels are using it.

By Channels count

Figure 52. Spectrum page

Options dropdown

This lets you select different views. You can choose from:

- By Channels count
- By Average Signal to Noise Ratio
- By Average RSSI
- By Average Noise

Timeframe dropdown

This lets you select a timeframe for the chart view. You can choose from:

- Last hour
- Last day
- Last week

Live

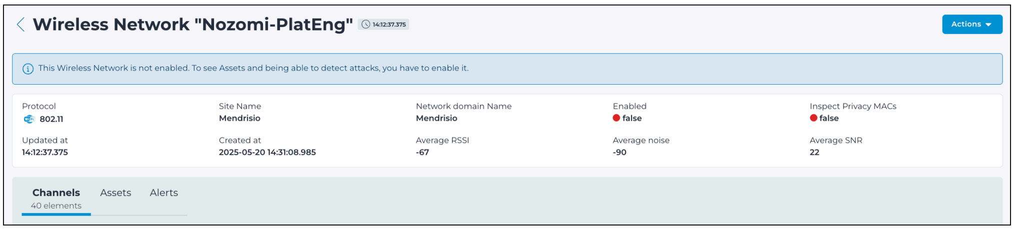
The live toggle lets you immediately refresh the graph.

Refresh

The refresh icon lets you immediately refresh the graph.

Details page

The details page displays information about wireless networks, including its protocol, site, status, and signal metrics. It also provides tabs for viewing channels, assets, and alerts.



Wireless Network "Nozomi-PlatEng" 14:12:37.375

This Wireless Network is not enabled. To see Assets and being able to detect attacks, you have to enable it.

Protocol 802.11	Site Name Mendrisio	Network domain Name Mendrisio	Enabled ● false	Inspect Privacy MACs ● false
Updated at 14:12:37.375	Created at 2025-05-20 14:31:08.985	Average RSSI -67	Average noise -90	Average SNR 22

Figure 53. Details page

Actions dropdown

This dropdown gives you access to these actions:.

- Enable a wireless network (on page 139)
- Disable a wireless network (on page 140)
- Enable the inspection of devices with private MAC addresses (on page 141)
- Disable the inspection of devices with private MAC addresses (on page 142)
- Delete a wireless network (on page 143)

Actions menu

Enable a wireless network

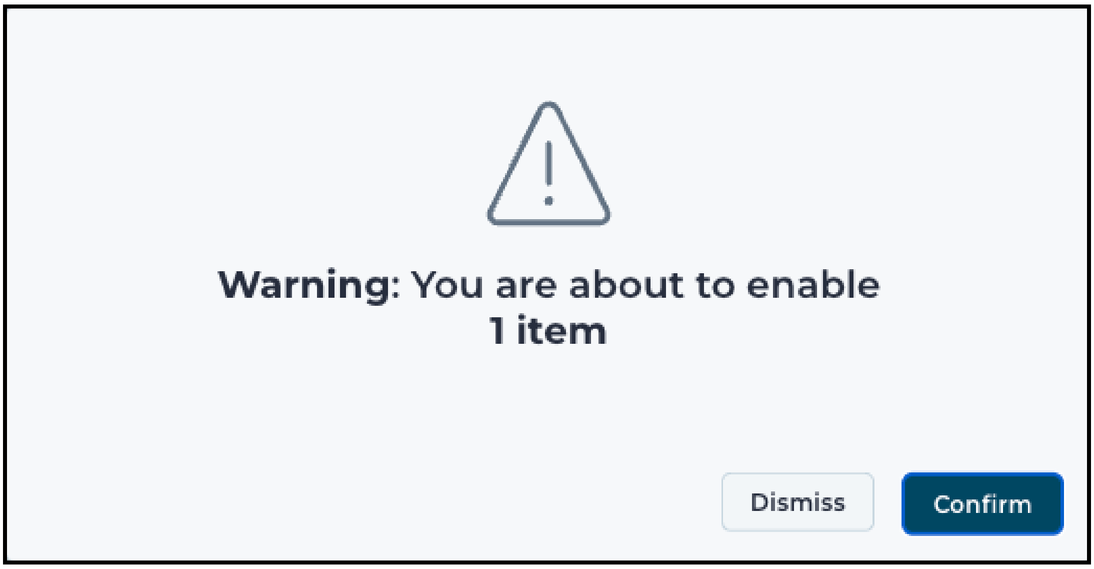
Do this procedure to enable a wireless network in Vantage to gather data such as: Assets, Alerts, Nodes, or Links.

Procedure

1. In the top navigation bar, select **Wireless**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Enable**.

   Result: A dialog shows.
5. Select **Confirm**.



Warning: You are about to enable 1 item

6. Select **Close**.

Results

The wireless network(s) has (have) been enabled.

Disable a wireless network

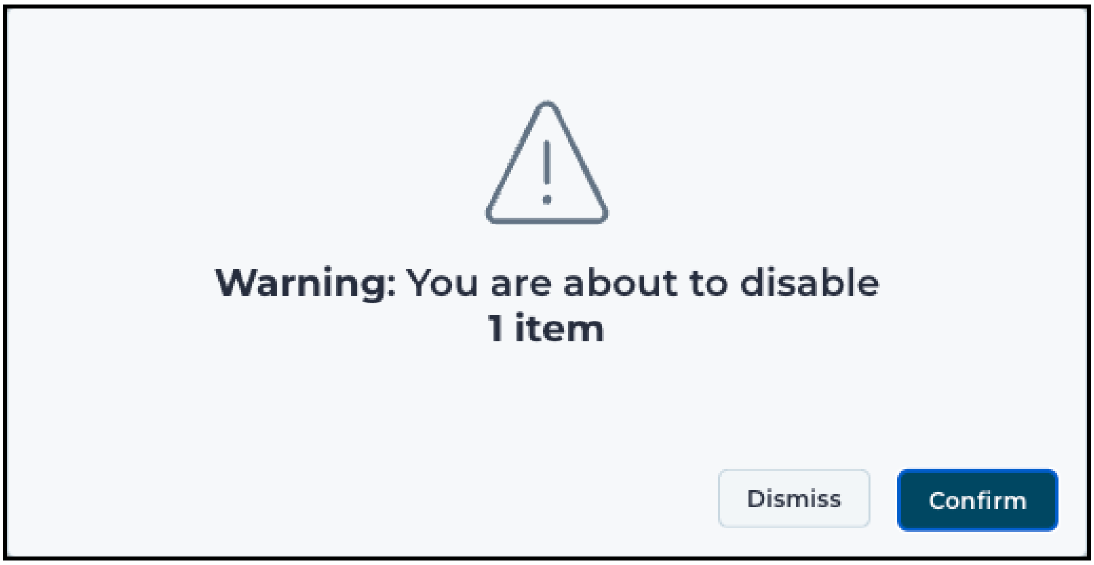
Disable a wireless network in Vantage to stop collecting data from selected assets, alerts, nodes, and links.

Procedure

1. In the top navigation bar, select **Wireless**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Disable**.

   Result: A dialog shows.
5. Select **Confirm**.



Warning: You are about to disable 1 item

6. Select **Close**

Results

The wireless network(s) has (have) been disabled.

Enable the inspection of devices with private MAC addresses

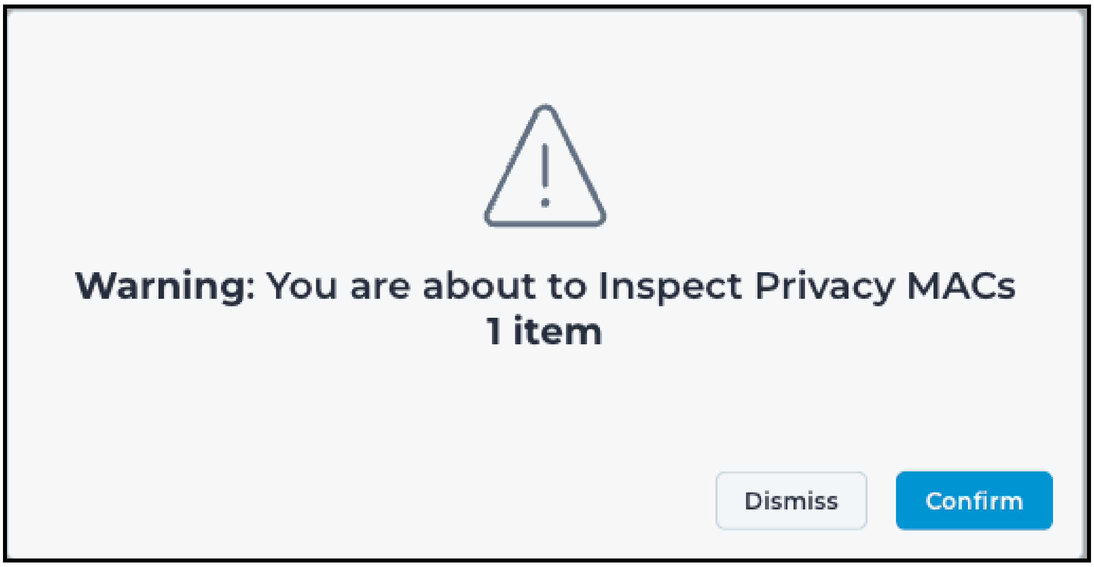
The **Inspect Privacy MACs** *function lets you also inspect devices with private MAC addresses.*

Procedure

1. In the top navigation bar, select **Wireless**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Inspect Privacy MACs**.

   Result: A dialog shows.
5. Select **Confirm**.



Warning: You are about to Inspect Privacy MACs
1 item

6. Select **Close**

Results

Private *MAC* addresses will now be inspected.

Disable the inspection of devices with private MAC addresses

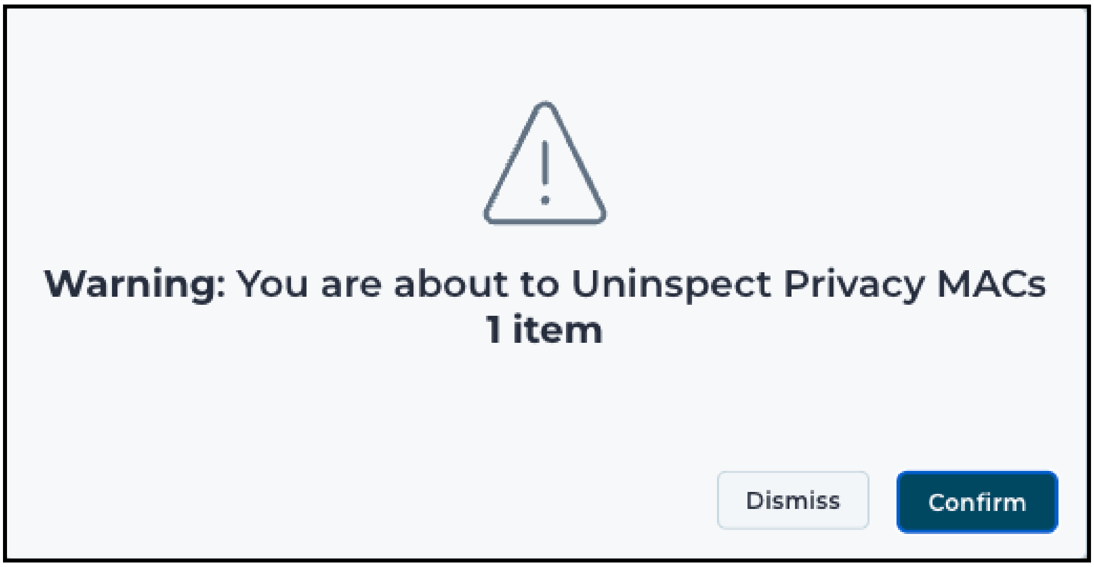
The **Uninspect Privacy MACs** *function disables the inspection of devices with private MAC addresses.*

Procedure

1. In the top navigation bar, select **Wireless**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Uninspect Privacy MACs**.

   Result: A dialog shows.
5. Select **Confirm**.



Warning: You are about to Uninspect Privacy MACs
1 item

6. Select **Close**

Results

Private *MAC* addresses will no longer be inspected.

Delete a wireless network

Delete a wireless network in Vantage to remove it from the system and stop all related data collection.

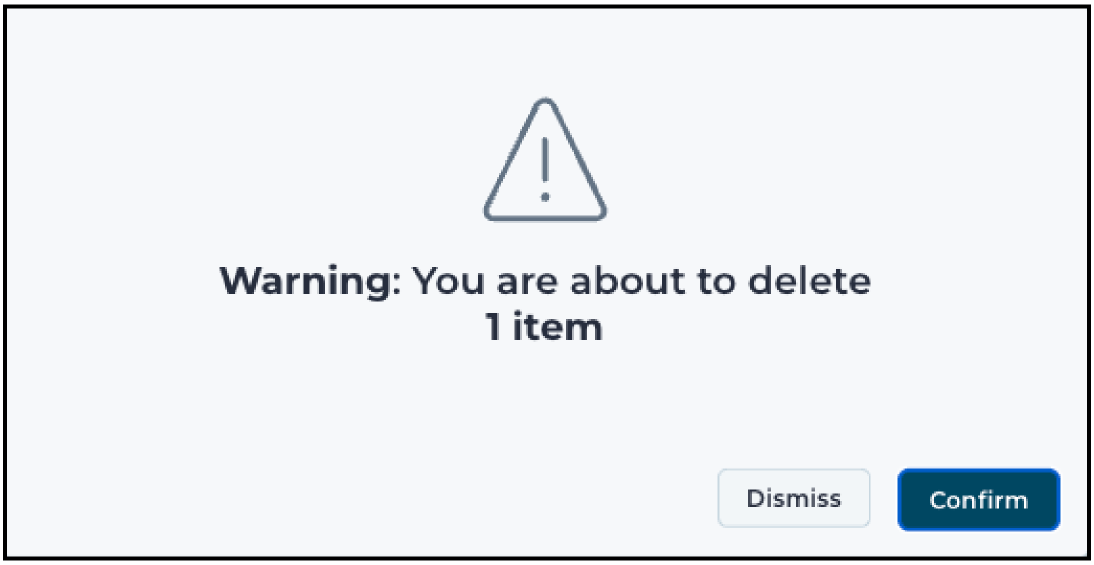
Procedure

1. In the top navigation bar, select **Wireless**.
2. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
3. Select the ••• icon to open the actions menu.
4. Select **Delete**.

   Result: A dialog shows.
5. Select **Confirm** to delete the wireless network(s).



Warning: You are about to delete 1 item

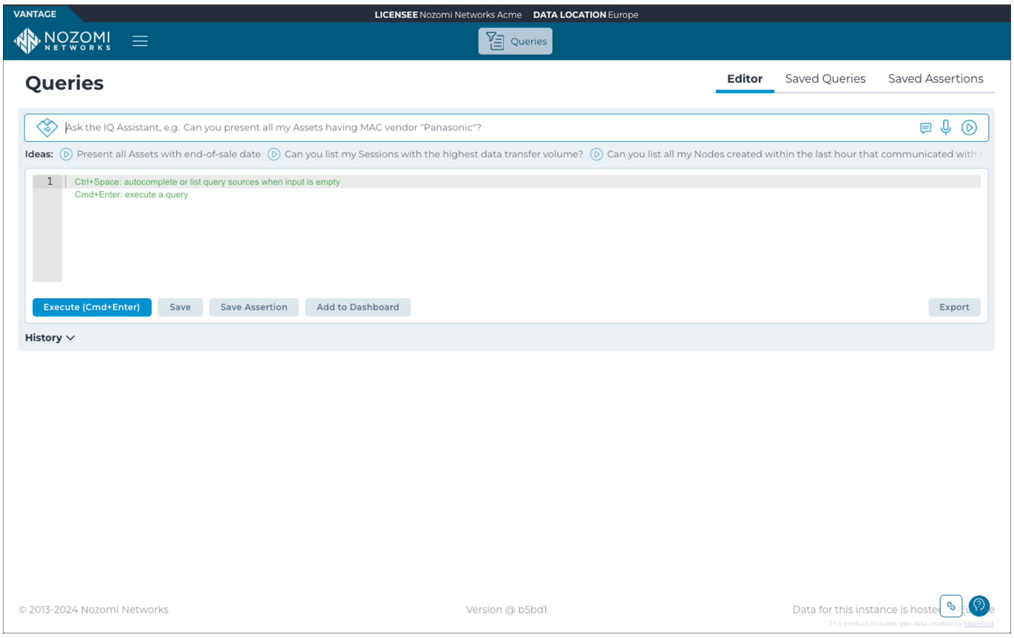
   Result: A dialog shows.
6. Select **Close**.

Results

The wireless network has been deleted.

Chapter 6. Queries

*The **Queries** page lets you write queries for your system. You can also save queries and assertions to be used again.*



Ask the IQ Assistant, e.g. Can you present all my Assets having MAC vendor "Panasonic"?

Present all Assets with end-of-sale date

Can you list my Sessions with the highest data transfer volume?

Can you list all my Nodes created within the last hour that communicated with

```
Ctrl+Space: autocomplete or list query sources when input is empty
Cmd+Enter: execute a query
```

Figure 54. Queries page

The **Queries** page has these tabs:

- Editor (on page 148)
- Saved Queries (on page 150)
- Saved Assertions (on page 151)

Related information

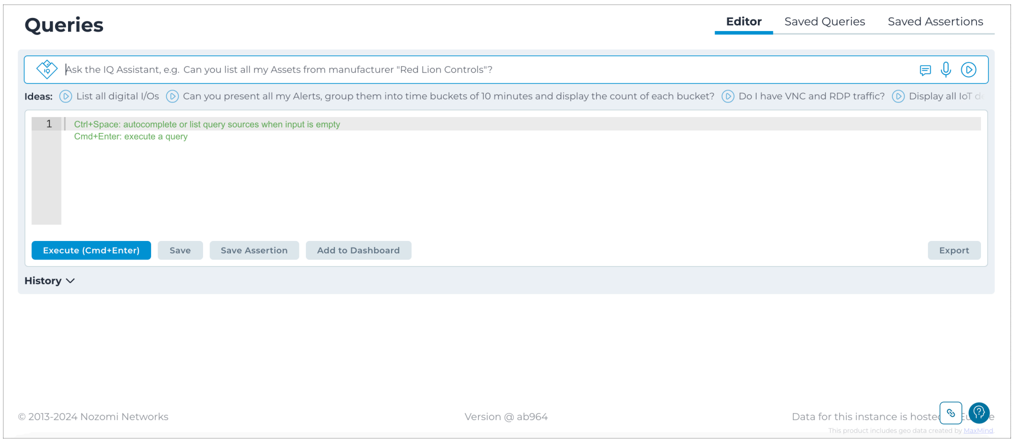
Execute a query (on page 154)

Commands (on page 155)

Functions (on page 162)

Editor

*The **Editor** page lets you write queries for your system. When you query Vantage, the data it returns is based on the tables, fields, commands, and functions that you specify in the query text field.*



Ask the IQ Assistant, e.g. Can you list all my Assets from manufacturer "Red Lion Controls"?

Ideas: List all digital I/Os Can you present all my Alerts, group them into time buckets of 10 minutes and display the count of each bucket? Do I have VNC and RDP traffic? Display all IoT d

```
Ctrl+Space: autocomplete or list query sources when input is empty
Cmd+Enter: execute a query
```

© 2013-2024 Nozomi Networks Version @ ab964 Data for this instance is hoste

This product includes geo data created by MaxMind.

Figure 55. Editor page

This page lets you enter search queries and assertions and lets you save them for future use. You can also export them in Microsoft Excel or *comma-separated value (CSV)* format.

You can use the hashtag # symbol to enter a comment. For example:

```
asset_cpes # comment 1
| join assets asset_id id
# comment 2
| select cpe assets_name
| sort assets_name asc
```

Execute

This button lets you execute the query. Alternatively, you can use the keyboard shortcut `Cmd + Enter`.

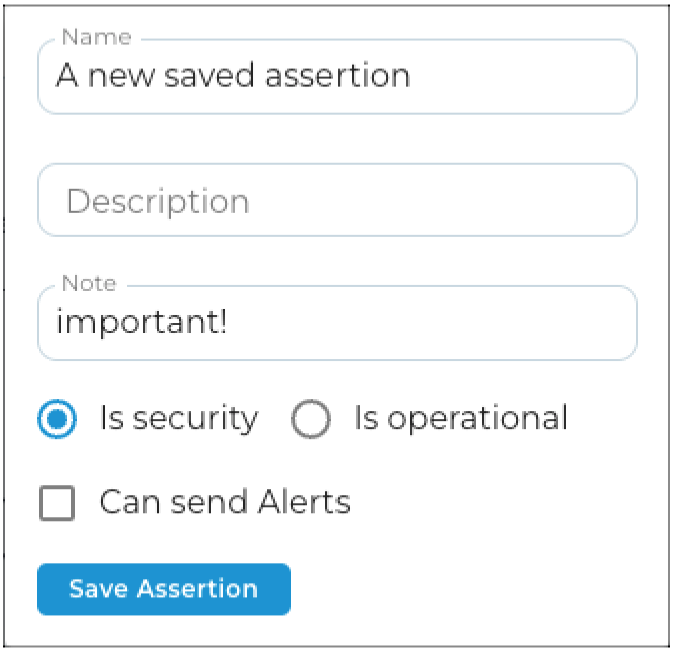
Save

This button lets you save the current query.

Save Assertion

This button lets you save the current assertion. Once you have entered the details in the dialog and select **Save Assertion**, the assertion will show in the **Saved Assertions** page.

You can customize the assertion name and description using field values from your query. For more information, see Customize assertion name and description (on page 152).



Name: A new saved assertion

Description

Note: important!

● Is security ○ Is operational

☐ Can send Alerts

Figure 56. Save Assertion dialog

Add to Dashboard

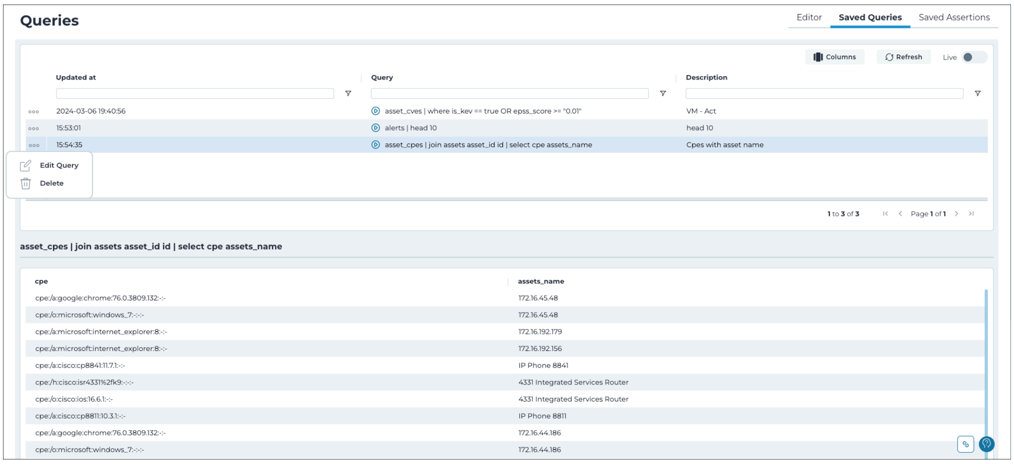
This button lets you add a widget to a dashboard.

Export

This button lets you export the results in either *CSV* or Microsoft Excel format.

Saved Queries

*The **Saved Queries** page shows all the queries that have previously been saved.*



Updated at	Query	Description
2024-03-06 19:40:56	asset_cves | where is_kev == true OR epss_score >= "0.01"	VM - Act
15:53:01	alerts | head 10	head 10
15:54:35	asset_cpes | join assets asset_id id | select cpe assets_name	Cpes with asset name

asset_cpes | join assets asset_id id | select cpe assets_name

cpe	assets_name
cpe:/a:google:chrome:76.0.3809.132:-:-	172.16.45.48
cpe:/o:microsoft:windows_7:-:-:-	172.16.45.48
cpe:/a:microsoft:internet_explorer:8:-:-	172.16.192.179
cpe:/a:microsoft:internet_explorer:8:-:-	172.16.192.156
cpe:/a:cisco:cp8841:11.7.1:-:-	IP Phone 8841
cpe:/h:cisco:isr4331%2fk9:-:-:-	4331 Integrated Services Router
cpe:/o:cisco:ios:16.6.1:-:-	4331 Integrated Services Router
cpe:/a:cisco:cp8811:10.3.1:-:-	IP Phone 8811
cpe:/a:google:chrome:76.0.3809.132:-:-	172.16.44.186
cpe:/o:microsoft:windows_7:-:-:-	172.16.44.186

Figure 57. Saved Queries page

To run the applicable query, select the ▷ icon and the results will show in the pane below.

The actions menu has these options:

- **Edit Query**
- **Delete**

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

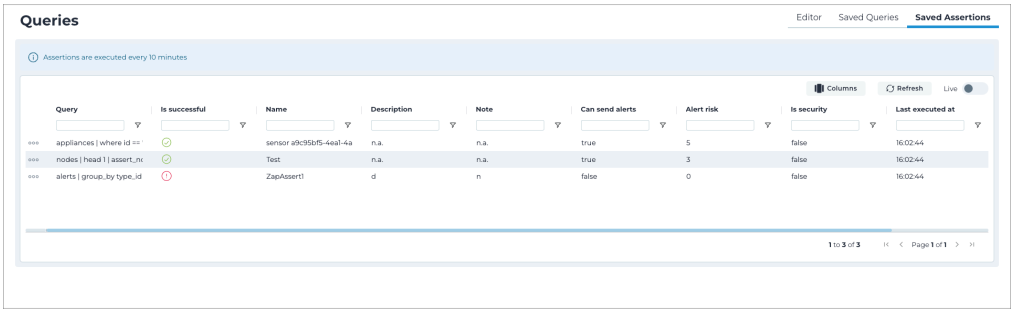
The **Refresh** ↻ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Saved Assertions

*The **Saved Assertions** page shows all the assertions that have previously been saved.*



Assertions are executed every 10 minutes

	Query	Is successful	Name	Description	Note	Can send alerts	Alert risk	Is security	Last executed at
ooo	appliances | where id == '	✓	sensor a9c95bf5-4ea1-4a	n.a.	n.a.	true	5	false	16:02:44
ooo	nodes | head 1 | assert_nc	✓	Test	n.a.	n.a.	true	3	false	16:02:44
ooo	alerts | group_by type_id	!	ZapAssert1	d	n	false	0	false	16:02:44

Figure 58. Saved Assertions page

The actions menu has these options:

- **Edit Query**
- **Delete**

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** ⟳ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Customize assertion name and description

You can customize assertion names and descriptions with dynamic field values using string interpolation.

About this task

When saving an assertion, you can use field placeholders in the name and description fields. These placeholders are replaced with actual values from your query results when alerts are generated. This lets you create more descriptive and context-aware assertion names and alert descriptions.

Procedure

1. In the top navigation bar, select **Queries**.
2. Select **Editor**.
3. In the query field, enter your query.
4. Select **Execute** or press `Cmd + Enter`
5. Select **Save Assertion**.

   Result: The **Save Assertion** dialog opens.
6. In the **Name** field, enter a name for the assertion. To insert a field value from your query, select the plus icon button next to the field.

   Result: A placeholder `{{FIELD_NAME}}` is inserted into the field with `FIELD_NAME` highlighted. Replace it with the actual field name from your query.

   Tip:
   Field names must match the fields returned by your query. For example, if your query returns `host`, `name`, or `ip` fields, you can use `{{host}}`, `{{name}}`, or `{{ip}}`.
7. In the **Description** field, enter a description. You can also use field placeholders here by selecting the plus icon button.
   Example: `The sensor {{host}} with model {{model}} has been offline for more than 15 minutes`
8. Complete the remaining fields in the dialog.
9. Select **Save Assertion**.

Results

When the assertion generates an alert, the placeholders in the name and description are replaced with the actual values from the query results.

Example

If you save an assertion with the following configuration:

- Name: `Sensor offline: {{host}}`
- Description: `The sensor {{host}} with model {{model}} has not synchronized in the last 15 minutes`
- Query: `sensors | where minutes_ago(last_sync) > 15 | assert_empty`

When a sensor with `host` = `nozomi-guardian` and `model` = `V-SERIES` fails the assertion, the generated alert will display:

- Name: `Sensor offline: nozomi-guardian`
- Description: `The sensor nozomi-guardian with model V-SERIES has not synchronized in the last 15 minutes`

Execute a query

It is important to know how to execute a query correctly in Vantage.

About this task

Note:
Strings are always "quoted", otherwise they are interpreted as data fields. For example, you can write a query similar to `alerts | where closed_time > time` to compare two fields.

Note:
Use the `/` operator to navigate into *JavaScript Object Notation (JSON)* fields.

Note:
When you access a *JSON* sub field, occurrences of `/` are translated to `.` For example, `os:info/source` becomes `os:info.source` in the resulting dataset.

Procedure

1. In the top navigation bar, select **Queries**.
2. Choose a method to show the available data sources.

   Choose from:
   - In the Query text field, select **Ctrl+Space**.
   - In the Query text field, enter the first few letters of a data source.

   Result: A list of available data sources shows.
3. Enter your query.
4. Select **Execute (Cmd+Enter)**.

   Result: The results of your query show.
5. If necessary, select **Save** to save the query for future use.
6. If necessary, select **Save Assertion** to save the assertion for future use.
7. If necessary, select **Export** and choose **Excel** or **CSV** as an export format.

Commands

A list of example query commands.

assert_empty

Description: `assert_empty` will be rendered as a green or red bar and can be used to express conditions that need to be verified in the Vantage dataset.

Examples:

```
links | where protocol == "telnet" | assert_empty
```

assert_not_empty

Description: `assert_not_empty` will be rendered as a green or red bar and can be used to express conditions that need to be verified in the Vantage dataset.

Examples:

```
links | where protocol == "iec104" | where
 minutes_ago(last_activity_time) < 5 | assert_not_empty
```

bucket

Usage: `bucket <field> <range>`

Description: `bucket` will interpret `field` as a numeric value and will group the data in multiples of range.

Examples:

```
alerts | bucket risk 3
```

column

Usage: `column <value_field> <count_field> [option]`

Description: `column` will render a column chart with `value_field` on the X axis and `count_field` on the Y axis.

Examples:

```
assets | group_by type | sort count desc | column type count
```

Options:

`color`: Change the color of the whole chart. The color must be provided in hex format.

Example: -color:7bc043

`colors`: Change the color of a single point in the chart that matches the provided label.

Arguments are a sequence of labels and colors in hex format all separated by a comma.

Example: -colors:dns,7bc043,modbus,f37736,iec104,ee4035

`stops`: Change the color of chart items based on their value.

Arguments are a sequence of values and colors in hex format all separated by a comma.

The respective color is applied when the value is <= to the actual value in the chart.

Example: -stops:3,7bc043,6,f37736,10,ee4035

count

Description: `count` returns the number of records in the dataset

Examples:

```
links | count
```

exclude

Usage: `exclude <field1> ... <fieldN>`

Description: `exclude` removes the specified fields from each record of the dataset.

Examples:

```
assets | exclude name zones nodes
```

expand

Usage: `expand <array_field>`

Description: Expands a record into multiple records where the original `array_field` is replaced by each single value in it.

Examples:

```
nodes | expand roles
```

gauge

Usage: `gauge <field> [min] [max] [option]`

Description: Outputs a numeric field drawn as a gauge from the first dataset row.

Examples:

```
alerts
| where time > days_ago(7)
| reduce risk avg
| gauge round(risk_avg) -stops:3,7bc043,6,f37736,10,ee4035
```

Options:

`color`: Change the color of the whole chart. The color must be provided in hex format.

Example: -color:7bc043

`stops`: Change the color of chart items based on their value.

Arguments are a sequence of values and colors in hex format all separated by a comma.

The respective color is applied when the value is <= to the actual value in the chart.

Example: -stops:3,7bc043,6,f37736,10,ee4035

grid

Usage: `grid <cols> <field1> ... <fieldN> [option]`

Description: Outputs a grid with `cols` columns with the specified fields in every cell.

Examples:

```
alerts | group_by type_id | grid 4 type_id count
```

```
sites | group_by country avg(risk) | grid 4 country avg_risk
 -stops:3,7bc043,7,f37736,10,ee4035
```

Options:

`color`: Change the color of the whole chart. The color must be provided in hex format.

Example: -color:7bc043

`colors`: Change the color of a single point in the chart that matches the provided label.

Arguments are a sequence of labels and colors in hex format all separated by a comma.

Example: -colors:dns,7bc043,modbus,f37736,iec104,ee4035

`stops`: Change the color of chart items based on their value.

Arguments are a sequence of values and colors in hex format all separated by a comma.

The respective color is applied when the value is <= to the actual value in the chart.

Example: -stops:3,7bc043,6,f37736,10,ee4035

group_by

Usage: `group_by <field1> [sum(<field2>)|avg(<field2>)]`

Description: Groups the dataset by a field and calculates the count of each bucket. Optionally sum and avg (average) can be calculated for some other numeric fields.

Examples:

```
alerts | group_by type_id avg(risk) avg(severity) sum(risk)
```

```
nodes | group_by type
```

head

Usage: `head [N]`

Description: Takes the first `N` records from the dataset, if `N` is not specified takes the first 10 records.

Examples:

```
assets | head
```

```
alerts | head 200
```

history

Usage: `history <value_field> <count_field> [option]`

Description: `history` will render a line chart with `value_field` on the X axis and `count_field` on the Y axis.

Examples:

```
alerts
| where time > days_ago(7)
| bucket time 3600000
| select bucket count
| sort bucket asc
| history bucket count
```

Options:

`color`: Change the color of the whole chart. The color must be provided in hex format.

Example: -color:7bc043

`colors`: Change the color of a single point in the chart that matches the provided label.

Arguments are a sequence of labels and colors in hex format all separated by a comma.

Example: -colors:dns,7bc043,modbus,f37736,iec104,ee4035

`stops`: Change the color of chart items based on their value.

Arguments are a sequence of values and colors in hex format all separated by a comma.

The respective color is applied when the value is <= to the actual value in the chart.

Example: -stops:3,7bc043,6,f37736,10,ee4035

join

Usage: `join <external_table> <inner_field> <external_field>`

Description: Joins two tables to create a new dataset where `inner_table.inner_field` is equal to `external_table.external_field`. The resulting dataset has all the fields from `external_table` prefixed with the `<external_table>_` string. For example, a table joined with `assets` will contain the `assets_name` field. Joining the same table multiple times will produce columns prefixed with the `<external_table>_` repeated the same time the table is joined. For example, the query `links | join nodes from id | join nodes to id` will contain `nodes_id` and `nodes_nodes_id` columns.

Examples:

```
vulnerabilities | join assets asset_id id
```

```
links | join nodes from id | join nodes to id
```

```
nodes | join assets name name | join links ip from
```

pie

Usage: `pie <value_field> <count_field> [option]`

Description: Renders a pie chart where the name of each slice is `value_field` and the slice is proportional to `count_field`.

Examples:

```
assets | group_by type | sort count desc | pie type count
```

Options:

`color`: Change the color of the whole chart. The color must be provided in hex format.

Example: -color:7bc043

`colors`: Change the color of a single point in the chart that matches the provided label.

Arguments are a sequence of labels and colors in hex format all separated by a comma.

Example: -colors:dns,7bc043,modbus,f37736,iec104,ee4035

`stops`: Change the color of chart items based on their value.

Arguments are a sequence of values and colors in hex format all separated by a comma.

The respective color is applied when the value is <= to the actual value in the chart.

Example: -stops:3,7bc043,6,f37736,10,ee4035

reduce

Usage: `reduce <field> [sum|avg]`

Description: `reduce` aggregates a numeric `field` by using the `sum` or `avg` functions and outputs a single number.

Examples:

```
alerts | reduce risk avg
```

select

Usage: `select <field1> ... <fieldN> [option]`

Description: `select` gives the possibility to restrict the fields in the dataset, to rename fields with the `->` operator or to apply functions to fields.

Examples:

```
nodes | select name properties/http.server_version
```

```
nodes | select name->my_name
```

```
nodes | select days_ago(last_activity_time)
```

```
assets | select name tags -fit:width
```

Options:

`fit`: Choose how the table will fit the content, this option accepts two values:

`width`: the table will adapt to the width of the container, cells width will be equally distributed

`content`: the table will expand to fully show the content of every cell

Note: This option only has an effect only when used in the context of Dashboard/Report widgets.

sort

Usage: `sort <field> [asc|desc]`

Description: Sorts the dataset by a `field`. `asc` or `desc` can be specified to define the sorting order, by default the order is ascending.

Examples:

```
assets | sort level
```

```
alerts | sort risk desc
```

uniq

Usage: `uniq <field1> ... <fieldN>`

Description: Reduce the dataset by returning only the unique records by one or more fields.

Examples:

```
alerts | uniq type_id risk
```

value

Usage: `value <field> [option]`

Description: Outputs a numeric field as a big graphical number by taking it from the first row of the dataset.

Examples:

```
alerts | reduce risk avg | value round(risk_avg)
 -stops:3,7bc043,6,f37736,10,ee4035
```

Options:

`color`: Change the color of the whole chart. The color must be provided in hex format.

Example: -color:7bc043

`stops`: Change the color of chart items based on their value.

Arguments are a sequence of values and colors in hex format all separated by a comma.

The respective color is applied when the value is <= to the actual value in the chart.

Example: -stops:3,7bc043,6,f37736,10,ee4035

where

Usage: `where <field1> [[==|!=|>=|>|<|<=|include?|!include?|exclude?|start_with?|!start_with?|end_with?|!end_with?|in_subnet?|in?|!in?|in_zones?] <field2>]`

Description: Filters the dataset by a specified criterion. `field1` and `field2` can be strings, fields, numbers or function calls. Some operators are specific to certain data types: * `in_subnet?` requires a subnet in CIDR notation as the right operand * `in?` and `!in?` works with JSON arrays as the right operand * `in_zones?` works with tiered zones and requires a tiered zone name as the right operand

Examples:

```
nodes
| select name properties/http.server_version
| where !is_empty(properties.http.server_version)
```

```
nodes | where is_public
```

```
nodes | where ip in_subnet? "192.168.1.0/24"
```

```
nodes | where type in? ["computer","historian"]
```

```
nodes | where type == "computer" OR days_ago(last_activity_time) < 5
```

```
sensors | where !is_empty(tags)
```

```
nodes | join assets name name | where assets_tags include? "tag1"
```

```
alerts | where zone_src in_zones? "GlobalTieredZone"
```

Functions

A list of example query functions.

coalesce

Usage: `coalesce(<field1>,<field2>,...)`

Description: Takes a list of fields and literals and returns the first non-empty value.

Examples:

```
nodes | select coalesce(label,name,"fallback")
```

concat

Usage: `concat(<field1>,<field2>,...)`

Description: Returns the concatenations of a list of fields and literals interpreted as strings.

Examples:

```
nodes | select concat(label,"/",name)
```

days_ago

Usage: `days_ago(<field|number>)`

Description: Returns the difference in days between the timestamp `field` and the time of execution of the query. In the `where` clause the `days_ago(number)` syntax gives the best query performance.

Examples:

```
alerts | select days_ago(time)
```

```
alerts | where days_ago(time) < 20
```

```
alerts | where time >= days_ago(20)
```

dist

Usage: `dist(<field1>,<field2>)`

Description: Returns the difference between `field1` and `field2`. The fields can also be literals.

Examples:

```
nodes | select dist(sent.bytes,received.bytes)
```

div

Usage: `div(<field1>,<field2>)`

Description: Returns the result of the arithmetic division of `field1` by `field2`. The fields can also be literals.

Examples:

```
nodes | select div(last_activity_time,"1000")
```

floor

Usage: `floor(<field>)`

Description: Returns the greatest integer less than or equal to the provided field.

Examples:

```
alerts | reduce risk avg | select floor(risk_avg)
```

```
assets | select div(risk, "10") | select floor(div)
```

format_time

Usage: `format_time(<time_field>, [format_string])`

Description: Returns a string representation of the time field formatted according to the format string or the default formatting string ('YYYY-MM-DD HH24:MI:SS') if none is specified. Accepted format patterns are:

- YYYY: year, 4 digits
- MM: month number, 2 digits
- DD: day of month, 2 digits
- HH12: hour of day, 01-12
- HH24: hour of day, 00-23
- MI: minute, 00-59
- SS: second, 00-59

Characters that can be used as separators are: -, :, whitespace

Examples:

```
sessions | select format_time(last_activity_time)
```

```
sessions | where last_activity_time > days_ago(7) | select
 format_time(last_activity_time, "YYYY-MM-DD") | group_by formatted
```

hours_ago

Usage: `hours_ago(<field|number>)`

Description: Returns the difference in seconds between the timestamp `field` and the time of execution of the query. In the `where` clause the `hours_ago(<number>)` syntax gives the best query performance.

Examples:

```
alerts | select hours_ago(time)
```

```
alerts | where hours_ago(time) < 20
```

```
alerts | where time >= hours_ago(20)
```

ipv4

Usage: `ipv4(<field>)`

Description: Returns a non-empty value if the field argument is an IPv4.

Examples:

```
nodes | select ipv4(ip)
```

```
nodes | where ipv4(ip) != ""
```

ipv6

Usage: `ipv6(<field>)`

Description: Returns a non-empty value if the field argument is an IPv6.

Examples:

```
nodes | select ipv6(ip)
```

```
nodes | where ipv6(ip) != ""
```

is_empty

Usage: `is_empty(<field>)`

Description: Returns true if the field is an empty string or array, false otherwise.

Examples:

```
nodes | where !is_empty(label)
```

```
nodes | select protocols is_empty(protocols)
```

is_recent

Usage: `is_recent(<field>)`

Description: Returns true if `field` represents a time in the last 30 minutes, false otherwise.

Examples:

```
alerts | where is_recent(time)
```

minutes_ago

Usage: `minutes_ago(<field|number>)`

Description: Returns the difference in minutes between the timestamp `field` and the time of execution of the query. In the `where` clause the `minutes_ago(<number>)` syntax gives the best query performance.

Examples:

```
alerts | select minutes_ago(time)
```

```
alerts | where minutes_ago(time) < 20
```

```
alerts | where time >= minutes_ago(20)
```

mult

Usage: `mult(<field1>,<field2>,...)`

Description: Multiplies the fields or literal values in the arguments list.

Examples:

```
alerts | select mult(risk,"10")
```

parse

Usage: `parse(<field>,<regex>)`

Description: Extracts a new field from an existing field by leveraging a POSIX regular expression. The new field will have the value of the portion of text that matches the regular expression, if the regular expression contains parentheses the return value will be the portion of text matching the regular expression inside the parentheses.

Examples:

```
assets | select
 parse(properties,".sysDescr\.0.:\s.([a-zA-Z0-9\-\.\s]+).")->sysDescr
```

```
assets | select parse(name, "\d+")->number
```

round

Usage: `round(<field>,[<decimal_places>])`

Description: Rounds a number at the given `decimal_places`. If `decimal_places` is not specified the number will be rounded to the closer integer.

Examples:

```
alerts | reduce risk avg | select round(risk_avg,3)
```

```
alerts | reduce risk avg | select round(risk_avg)
```

seconds_ago

Usage: `seconds_ago(<field|number>)`

Description: Returns the difference in seconds between the timestamp `field` and the time of execution of the query. In the `where` clause the `seconds_ago(<number>)` syntax gives the best query performance.

Examples:

```
alerts | select seconds_ago(time)
```

```
alerts | where seconds_ago(time) < 20
```

```
alerts | where time >= seconds_ago(20)
```

size

Usage: `size(<array_field>)`

Description: Returns the size of the `array_field`.

Examples:

```
nodes | where size(roles) > 1
```

split

Usage: `split(<field>,<splitter_string>,<index>)`

Description: Splits the value of `field` by `splitter_string` and returns the item at the `index` position, where `index` starts at 1.

Examples:

```
nodes | select split(mac_address,":",1)
```

to_epoch

Usage: `to_epoch(<timestamp_field>)`

Description: Converts a timestamp field into the numeric version suitable for queries.

Examples:

```
wireless_networks | bucket to_epoch(created_at) 3600000
```

Chapter 7. Vulnerabilities

*The **Vulnerabilities** page shows a list of all the vulnerabilities that Vantage has detected in your system. Vulnerabilities are weaknesses that reduce the security of your system and give threat actors an opportunity to exploit your system.*

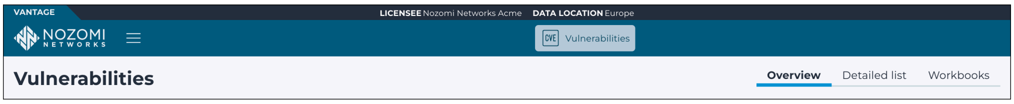


Figure 59. Vulnerabilities page

The Vulnerabilities page has these tabs:

- Overview (on page 170)
- Detailed list (on page 172)
- Workbooks (on page 181)

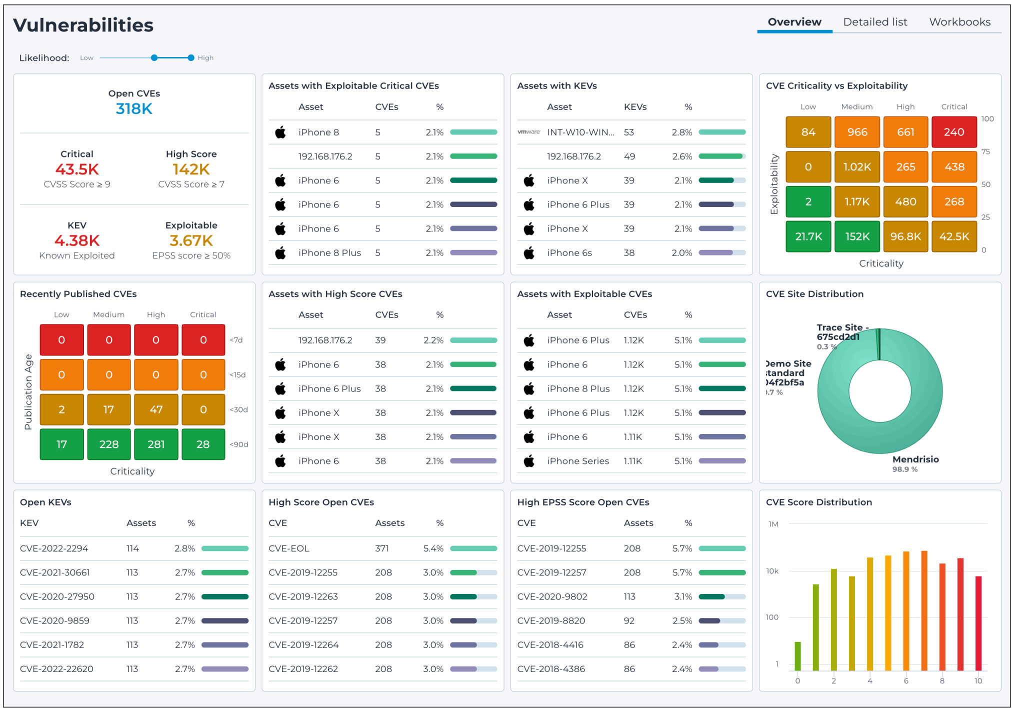
Related information

Resolve a vulnerability (on page 179)

Export a vulnerability (on page 177)

Overview

*The **Overview** page provides a comprehensive summary of the system's vulnerability landscape, helping you prioritize risk mitigation efforts.*



Open CVEs
318K

Critical
43.5K
CVSS Score ≥ 9

High Score
142K
CVSS Score ≥ 7

KEV
4.38K
Known Exploited

Exploitable
3.67K
EPSS score ≥ 50%

Assets with Exploitable Critical CVEs

Asset	CVEs	%
iPhone 8	5	2.1%
192.168.176.2	5	2.1%
iPhone 6	5	2.1%
iPhone 6	5	2.1%
iPhone 6	5	2.1%
iPhone 8 Plus	5	2.1%

Assets with KEVs

Asset	KEVs	%
INT-W10-WIN...	53	2.8%
192.168.176.2	49	2.6%
iPhone X	39	2.1%
iPhone 6 Plus	39	2.1%
iPhone X	39	2.1%
iPhone 6s	38	2.0%

CVE Criticality vs Exploitability

Exploitability	Low	Medium	High	Critical
100	84	966	661	240
75	0	1.02K	265	438
50	2	1.17K	480	268
25	21.7K	152K	96.8K	42.5K
0				

Criticality

Recently Published CVEs

Publication Age	Low	Medium	High	Critical
<7d	0	0	0	0
<15d	0	0	0	0
<30d	2	17	47	0
<90d	17	228	281	28

Criticality

Assets with High Score CVEs

Asset	CVEs	%
192.168.176.2	39	2.2%
iPhone 6	38	2.1%
iPhone 6 Plus	38	2.1%
iPhone X	38	2.1%
iPhone X	38	2.1%
iPhone 6	38	2.1%

Assets with Exploitable CVEs

Asset	CVEs	%
iPhone 6 Plus	1.12K	5.1%
iPhone 6	1.12K	5.1%
iPhone 8 Plus	1.12K	5.1%
iPhone 6 Plus	1.12K	5.1%
iPhone 6	1.11K	5.1%
iPhone Series	1.11K	5.1%

CVE Site Distribution

Open KEVs

KEV	Assets	%
CVE-2022-2294	114	2.8%
CVE-2021-30661	113	2.7%
CVE-2020-27950	113	2.7%
CVE-2020-9859	113	2.7%
CVE-2021-1782	113	2.7%
CVE-2022-22620	113	2.7%

High Score Open CVEs

CVE	Assets	%
CVE-EOL	371	5.4%
CVE-2019-12255	208	3.0%
CVE-2019-12263	208	3.0%
CVE-2019-12257	208	3.0%
CVE-2019-12264	208	3.0%
CVE-2019-12262	208	3.0%

High EPSS Score Open CVEs

CVE	Assets	%
CVE-2019-12255	208	5.7%
CVE-2019-12257	208	5.7%
CVE-2020-9802	113	3.1%
CVE-2019-8820	92	2.5%
CVE-2018-4416	86	2.4%
CVE-2018-4386	86	2.4%

CVE Score Distribution

Figure 60. Overview page

Likelihood

The **Likelihood** slider allows you to adjust the risk threshold, helping you focus on vulnerabilities most likely to be exploited.

Open CVEs

See the total number of known *CVE* affecting assets in the system.

Assets with Exploitable Critical CVEs

Lists assets that have known *CVE*s with active exploits in the wild.

Assets with KEVs

Highlights assets impacted by *Known Exploited Vulnerabilities (KEV)*.

CVE Criticality vs Exploitability

Provides a visual representation of *CVE*s categorized by their severity and likelihood of exploitation.

Recently Published CVEs

Displays a grid of newly published *CVE*s categorized by severity and publication age.

Assets with High Score CVEs

Shows assets affected by *CVE*s with a high score, indicating high risk.

Assets with Exploitable CVEs

Identifies assets with *CVE*s that have known exploitability indicators.

CVE Site Distribution

Displays how *CVE*s are distributed across different monitored sites.

Open KEVs

Lists vulnerabilities that have been publicly disclosed as *KEV*s.

High Score Open KEVs

Displays *KEV*s that have high severity scores.

High EPSS Score Open KEVs

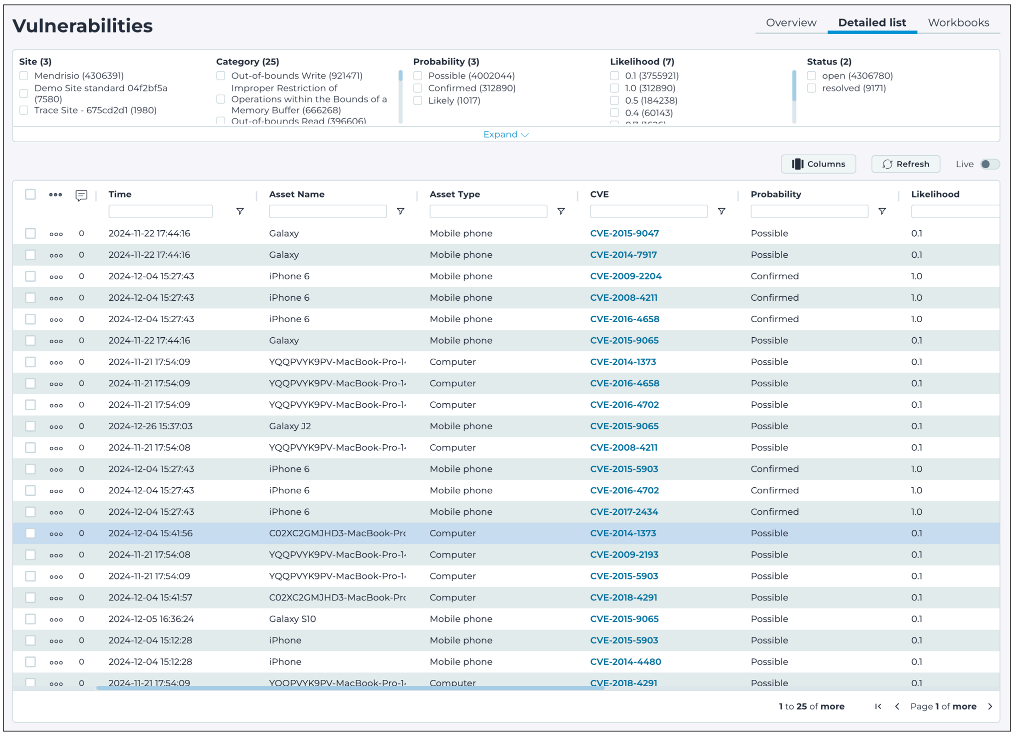
Lists vulnerabilities with a high *Exploit Prediction Scoring System (EPSS)* scores, indicating a high probability of real-world exploitation.

CVE Score Distribution

Use the distribution graph to analyze *CVE* severity scores and assess overall risk exposure.

Detailed list

The ***Detailed list*** *page shows a list of all the vulnerabilities and their related details.*



Site (3)
- ☐ Mendrisio (4306391)
- ☐ Demo Site standard 04f2bf5a (7580)
- ☐ Trace Site - 675cd2d1 (1980)

Category (25)
- ☐ Out-of-bounds Write (921471)
- ☐ Improper Restriction of Operations within the Bounds of a Memory Buffer (666268)
- ☐ Out-of-bounds Read (396606)

Probability (3)
- ☐ Possible (4002044)
- ☐ Confirmed (312890)
- ☐ Likely (1017)

Likelihood (7)
- ☐ 0.1 (3755921)
- ☐ 1.0 (312890)
- ☐ 0.5 (184238)
- ☐ 0.4 (60143)

Status (2)
- ☐ open (4306780)
- ☐ resolved (9171)

☐	•••		Time	Asset Name	Asset Type	CVE	Probability	Likelihood
☐	•••	0	2024-11-22 17:44:16	Galaxy	Mobile phone	CVE-2015-9047	Possible	0.1
☐	•••	0	2024-11-22 17:44:16	Galaxy	Mobile phone	CVE-2014-7917	Possible	0.1
☐	•••	0	2024-12-04 15:27:43	iPhone 6	Mobile phone	CVE-2009-2204	Confirmed	1.0
☐	•••	0	2024-12-04 15:27:43	iPhone 6	Mobile phone	CVE-2008-4211	Confirmed	1.0
☐	•••	0	2024-12-04 15:27:43	iPhone 6	Mobile phone	CVE-2016-4658	Confirmed	1.0
☐	•••	0	2024-11-22 17:44:16	Galaxy	Mobile phone	CVE-2015-9065	Possible	0.1
☐	•••	0	2024-11-21 17:54:09	YQQPVYK9PV-MacBook-Pro-1	Computer	CVE-2014-1373	Possible	0.1
☐	•••	0	2024-11-21 17:54:09	YQQPVYK9PV-MacBook-Pro-1	Computer	CVE-2016-4658	Possible	0.1
☐	•••	0	2024-11-21 17:54:09	YQQPVYK9PV-MacBook-Pro-1	Computer	CVE-2016-4702	Possible	0.1
☐	•••	0	2024-12-26 15:37:03	Galaxy J2	Mobile phone	CVE-2015-9065	Possible	0.1
☐	•••	0	2024-11-21 17:54:08	YQQPVYK9PV-MacBook-Pro-1	Computer	CVE-2008-4211	Possible	0.1
☐	•••	0	2024-12-04 15:27:43	iPhone 6	Mobile phone	CVE-2015-5903	Confirmed	1.0
☐	•••	0	2024-12-04 15:27:43	iPhone 6	Mobile phone	CVE-2016-4702	Confirmed	1.0
☐	•••	0	2024-12-04 15:27:43	iPhone 6	Mobile phone	CVE-2017-2434	Confirmed	1.0
☐	•••	0	2024-12-04 15:41:56	C02XC2GMJHD3-MacBook-Pr	Computer	CVE-2014-1373	Possible	0.1
☐	•••	0	2024-11-21 17:54:08	YQQPVYK9PV-MacBook-Pro-1	Computer	CVE-2009-2193	Possible	0.1
☐	•••	0	2024-11-21 17:54:09	YQQPVYK9PV-MacBook-Pro-1	Computer	CVE-2015-5903	Possible	0.1
☐	•••	0	2024-12-04 15:41:57	C02XC2GMJHD3-MacBook-Pr	Computer	CVE-2018-4291	Possible	0.1
☐	•••	0	2024-12-05 16:36:24	Galaxy S10	Mobile phone	CVE-2015-9065	Possible	0.1
☐	•••	0	2024-12-04 15:12:28	iPhone	Mobile phone	CVE-2015-5903	Possible	0.1
☐	•••	0	2024-12-04 15:12:28	iPhone	Mobile phone	CVE-2014-4480	Possible	0.1
☐	•••	0	2024-11-21 17:54:09	YQQPVYK9PV-MacBook-Pro-1	Computer	CVE-2018-4291	Possible	0.1

1 to **25** of **more** Page **1** of **more**

Figure 61. Detailed list page

Site

This shows a list of all the sites that are applicable for the vulnerabilities in the current table view.

Category

This shows a list of all the different categories that are applicable for the vulnerabilities in the current table view.

Probability

This shows a list of the different probabilities that have been confirmed for all the vulnerabilities in the current table view. When a vulnerability is not confirmed, it will show as **Possible**.

Likelihood

This shows a list of the different likelihoods that are applicable for the vulnerabilities in the current table view. This is a numerical assessment of the possibility that this vulnerability exists on an asset. It is measured on a scale from 0.1 to 1.0, where 1.0 is the most likely.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

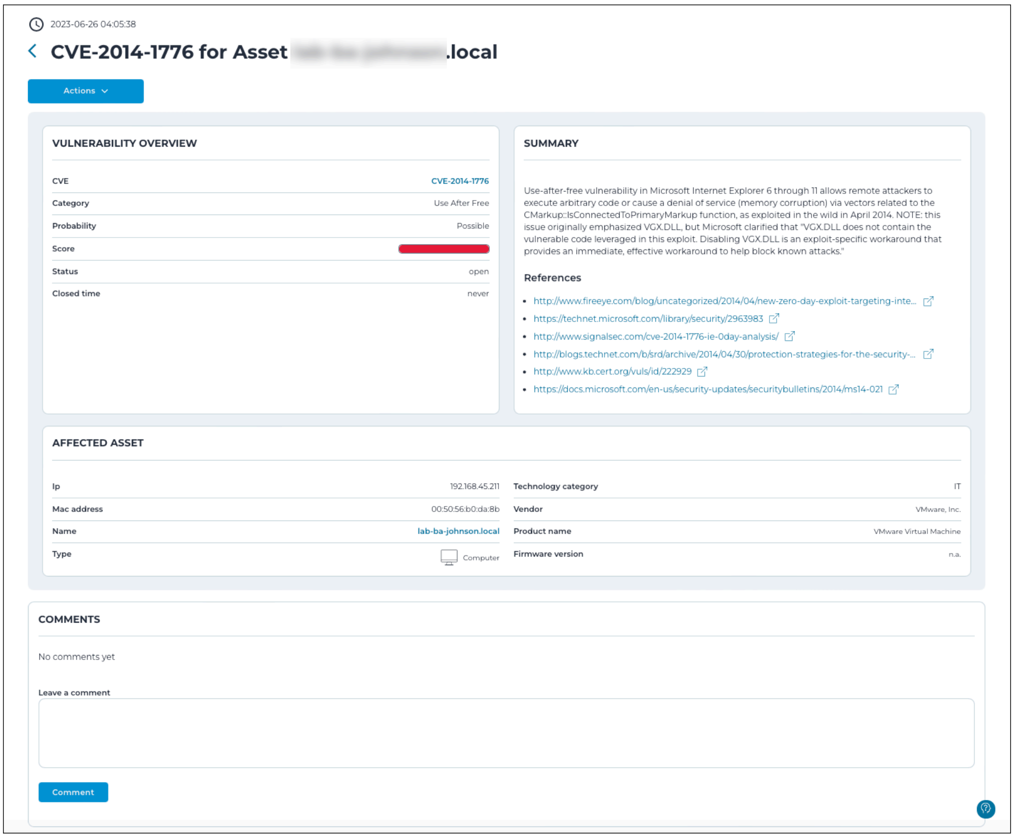
The **Refresh** icon lets you immediately refresh the current view.

Live

The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Details page

The details page shows a set of fields which are applicable to the related type of vulnerability.



2023-06-26 04:05:38

CVE-2014-1776 for Asset [redacted].local

VULNERABILITY OVERVIEW

CVE	CVE-2014-1776
Category	Use After Free
Probability	Possible
Score	🟥
Status	open
Closed time	never

SUMMARY

Use-after-free vulnerability in Microsoft Internet Explorer 6 through 11 allows remote attackers to execute arbitrary code or cause a denial of service (memory corruption) via vectors related to the CMarkup::IsConnectedToPrimaryMarkup function, as exploited in the wild in April 2014. NOTE: this issue originally emphasized VGX.DLL, but Microsoft clarified that "VGX.DLL does not contain the vulnerable code leveraged in this exploit. Disabling VGX.DLL is an exploit-specific workaround that provides an immediate, effective workaround to help block known attacks."

References

- http://www.fireeye.com/blog/uncategorized/2014/04/new-zero-day-exploit-targeting-inte...
- https://technet.microsoft.com/library/security/2963983
- http://www.signalsec.com/cve-2014-1776-ie-0day-analysis/
- http://blogs.technet.com/b/srd/archive/2014/04/30/protection-strategies-for-the-security-...
- http://www.kb.cert.org/vuls/id/222929
- https://docs.microsoft.com/en-us/security-updates/securitybulletins/2014/ms14-021

AFFECTED ASSET

Ip	192.168.45.211	Technology category	IT
Mac address	00:50:56:b0:da:8b	Vendor	VMware, Inc.
Name	lab-ba-johnson.local	Product name	VMware Virtual Machine
Type	Computer	Firmware version	n.a.

COMMENTS

No comments yet

Leave a comment

Figure 62. Details page

Actions dropdown

This dropdown gives you access to the action: Resolve Vulnerability (on page 179).

Vulnerability Overview

This section shows overview details for the related vulnerability.

Summary

This section shows a summary of information for the related vulnerability.

Affected Asset

This section shows this information for the affected asset:

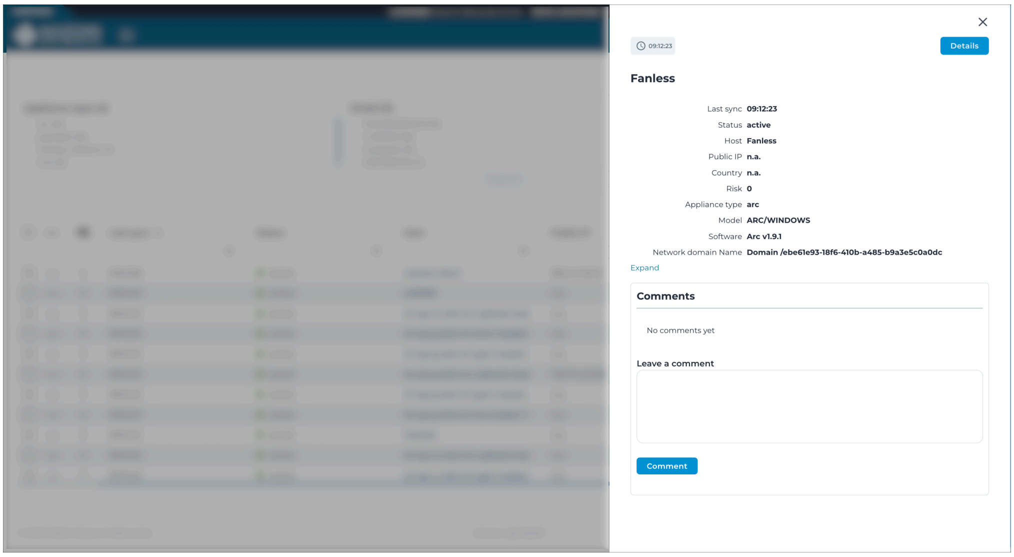
- ip
- Mac address
- Name
- Type
- Technology category
- Vendor
- Product name
- Firmware version

Comments

This section lets you leave a comment, or read a comment that has been written, for the related vulnerability.

Summary drawer

When you double-click a sensor in the table, the summary drawer shows. This lets you post a comment, or open the related details page.



Fanless

Last sync **09:12:23**
Status **active**
Host **Fanless**
Public IP **n.a.**
Country **n.a.**
Risk **0**
Appliance type **arc**
Model **ARC/WINDOWS**
Software **Arc v1.9.1**
Network domain Name **Domain /ebe61e93-18f6-410b-a485-b9a3e5c0a0dc**

No comments yet

Figure 63. Summary drawer

Details button

You can select the **Details** button to open the details page for the related item.

Summary

The summary section shows a summary of applicable information for the related item.

Comments

This section lets you leave a comment, or read a comment that has been written, for the related item.

Table interactions

Actions menu

Export a vulnerability

You can use the actions menu to export one or more vulnerabilities to a spreadsheet.

Procedure

1. In the top navigation bar, select **Vulnerabilities**.
2. Choose a method to open the actions menu.

   Choose from:

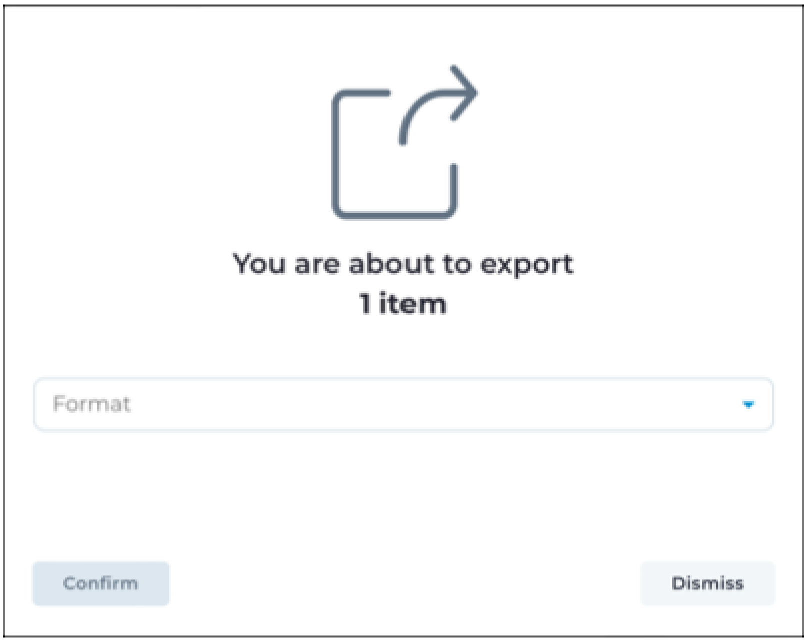
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon

3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose

4. Select **Export**.

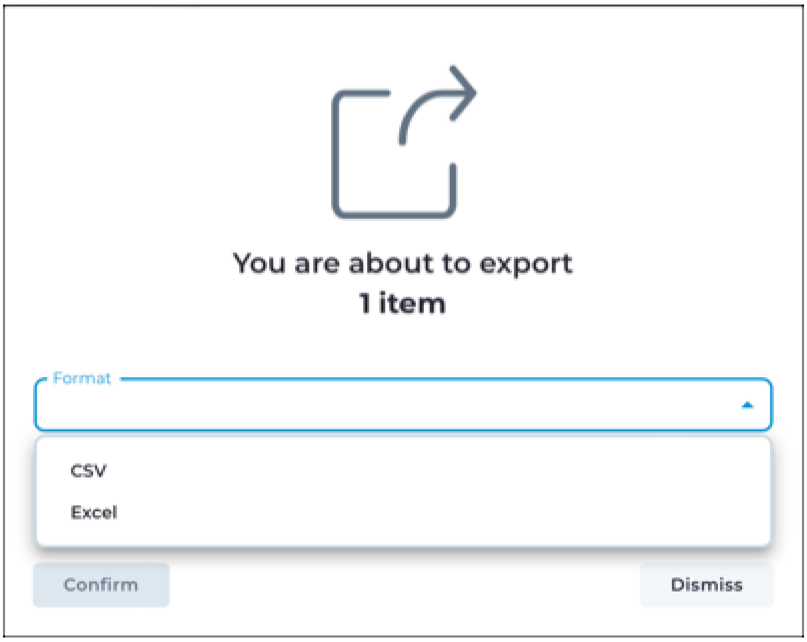
   You are about to export
   1 item

   Result: The export dialog shows.

5. Select the **Format** dropdown.

   Result: A dialog shows.

6. In the **Format** dropdown, select the format that you want to export.

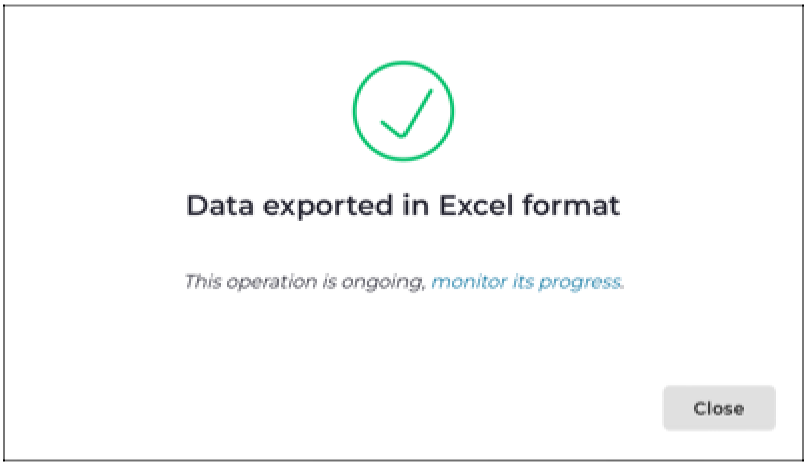


You are about to export
1 item

7. Select **Confirm**.

   Result: A confirmation dialog shows.

8. Select **Close**.



Data exported in Excel format

This operation is ongoing, monitor its progress.

Results

The vulnerability has been exported.

Resolve a vulnerability

You can use the actions menu to resolve one or more vulnerabilities.

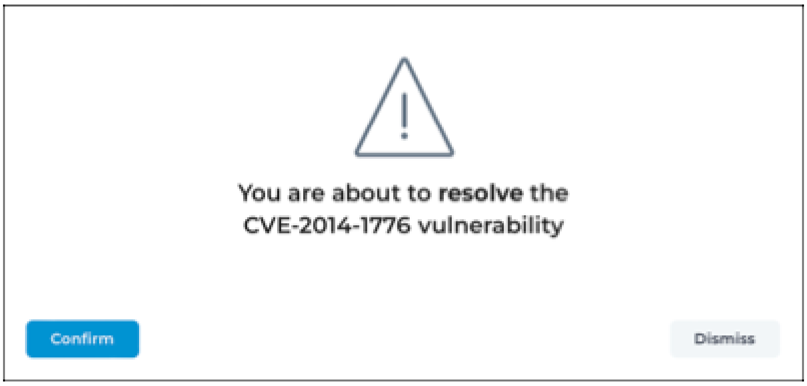
Procedure

1. In the top navigation bar, select **Vulnerabilities**.
2. Choose a method to open the actions menu.

   Choose from:
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon
3. If you use the ••• icon in the table, choose a method to select one, or more, items.

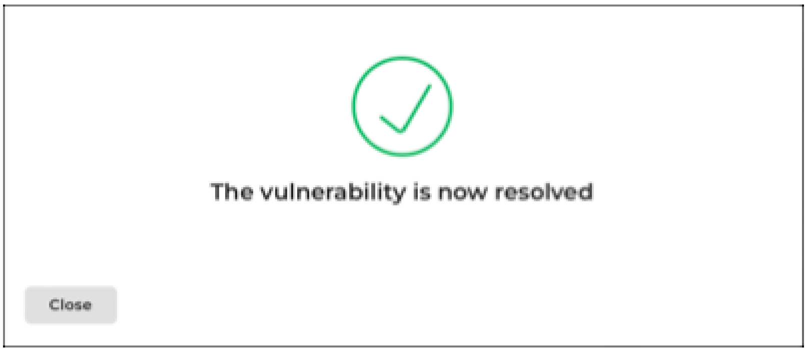
   Choose from:
   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose
4. Select **Resolve Vulnerability**.

   Result: A dialog shows.
5. Select **Confirm**.



You are about to resolve the CVE-2014-1776 vulnerability

   Result: A dialog shows.
6. Select **Close**.



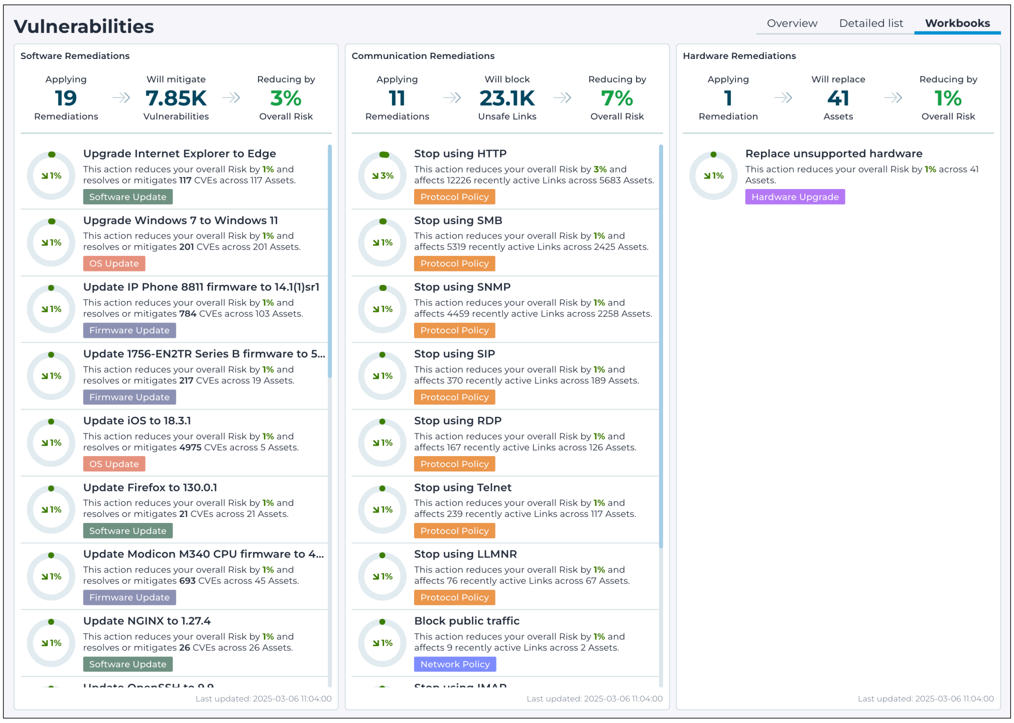
The vulnerability is now resolved

Results

The vulnerability has been resolved.

Workbooks

*The **Workbooks** page shows recommended courses of action that can improve your network security. Generated through machine learning, workbooks highlight the vulnerabilities currently creating the highest risk exposure.*



Upgrade Internet Explorer to Edge (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **117** CVEs across 117 Assets.
Software Update

Upgrade Windows 7 to Windows 11 (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **201** CVEs across 201 Assets.
OS Update

Update IP Phone 8811 firmware to 14.1(1)sr1 (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **784** CVEs across 103 Assets.
Firmware Update

Update 1756-EN2TR Series B firmware to 5... (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **217** CVEs across 19 Assets.
Firmware Update

Update iOS to 18.3.1 (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **4975** CVEs across 5 Assets.
OS Update

Update Firefox to 130.0.1 (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **21** CVEs across 21 Assets.
Software Update

Update Modicon M340 CPU firmware to 4... (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **693** CVEs across 45 Assets.
Firmware Update

Update NGINX to 1.27.4 (1%)
This action reduces your overall Risk by **1%** and resolves or mitigates **26** CVEs across 26 Assets.
Software Update

Last updated: 2025-03-06 11:04:00

Stop using HTTP (3%)
This action reduces your overall Risk by **3%** and affects 12226 recently active Links across 5683 Assets.
Protocol Policy

Stop using SMB (1%)
This action reduces your overall Risk by **1%** and affects 5319 recently active Links across 2425 Assets.
Protocol Policy

Stop using SNMP (1%)
This action reduces your overall Risk by **1%** and affects 4459 recently active Links across 2258 Assets.
Protocol Policy

Stop using SIP (1%)
This action reduces your overall Risk by **1%** and affects 370 recently active Links across 189 Assets.
Protocol Policy

Stop using RDP (1%)
This action reduces your overall Risk by **1%** and affects 167 recently active Links across 126 Assets.
Protocol Policy

Stop using Telnet (1%)
This action reduces your overall Risk by **1%** and affects 239 recently active Links across 117 Assets.
Protocol Policy

Stop using LLMNR (1%)
This action reduces your overall Risk by **1%** and affects 76 recently active Links across 67 Assets.
Protocol Policy

Block public traffic (1%)
This action reduces your overall Risk by **1%** and affects 9 recently active Links across 2 Assets.
Network Policy

Last updated: 2025-03-06 11:04:00

Replace unsupported hardware (1%)
This action reduces your overall Risk by **1%** across 41 Assets.
Hardware Upgrade

Last updated: 2025-03-06 11:04:00

Figure 64. Workbooks page

Banner image

The banner image is a powerful visual report that uses bubble graphics to represent the relative impact of each workbook recommendation.

List

The list shows ranked recommendations, with the most effective actions at the top. For each workbook, Vantage shows:

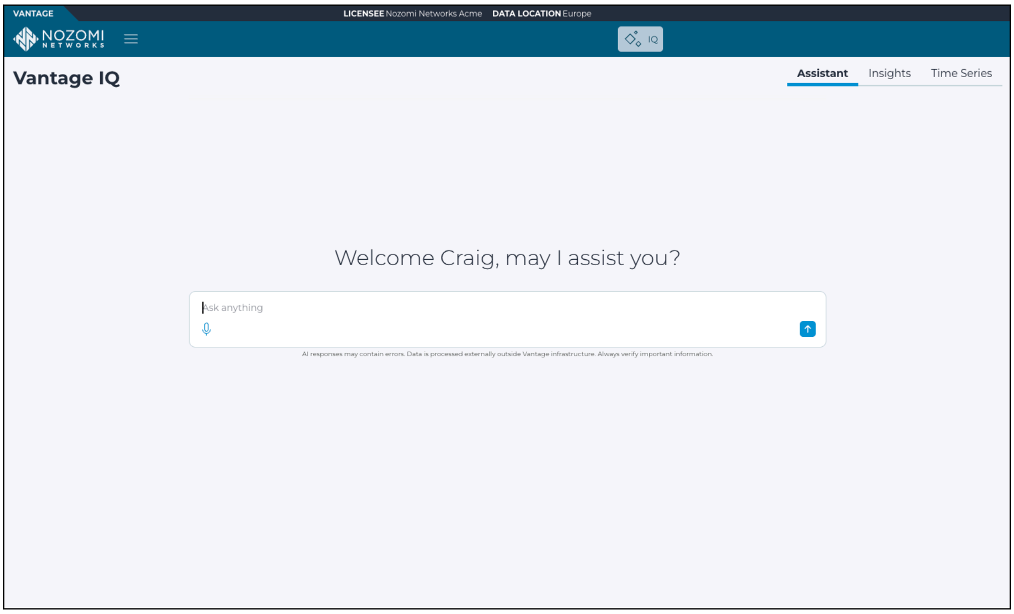
- On the left, the highest risk score among all the vulnerabilities included in the workbook.
- A title that shows the recommended course of action.
- A description of the issue and the benefits of addressing it.
- In the top right corner of each workbook, Vantage shows:
  - An assessment of the risk reduction you will achieve if you follow the recommended steps. It is shown as a percentage.
  - The number of assets where the vulnerability was detected.
  - The number of *CVE* that you would address if you follow the recommended steps.

Related information

Use a workbook to improve your network security (on page 260)

Chapter 8. Vantage IQ

Vantage IQ helps you navigate and explore your network. You can use smart query commands to leverage advanced machine learning and data analytic algorithms to dive deeper into your data.



LICENSEE Nozomi Networks Acme **DATA LOCATION** Europe

Welcome Craig, may I assist you?

AI responses may contain errors. Data is processed externally outside Vantage infrastructure. Always verify important information.

Figure 65. Vantage IQ page

Vantage IQ replicates the learned experiences of seasoned security analysts and automates tasks. Vantage IQ automatically:

- Reviews data
- Correlates data
- Prioritizes tasks

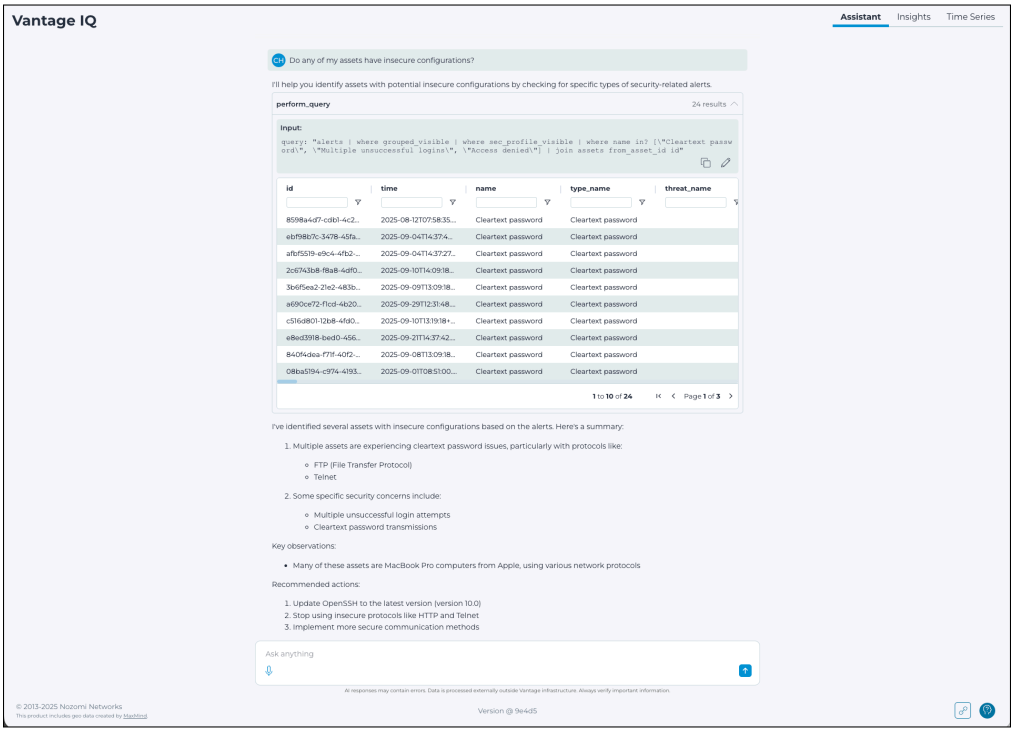
The dashboard shows the most recent insights. Vantage IQ uses the security level of each insight to prioritize them. When you click an individual insight, it will show the related details.

The **Vantage IQ** page has these tabs:

- Assistant (on page 186)
- Insights (on page 187)
- Time Series (on page 191)

Assistant

*The **Assistant** page lets you ask questions about your environment. The Vantage IQ assistant uses artificial intelligence (AI) connected to your Vantage instance.*



Do any of my assets have insecure configurations?

I'll help you identify assets with potential insecure configurations by checking for specific types of security-related alerts.

```
query: "alerts | where grouped_visible | where sec_profile_visible | where name in? [\"Cleartext passw
ord\", \"Multiple unsuccessful logins\", \"Access denied\"] | join assets from_asset_id id"
```

id	time	name	type_name	threat_name
8598a4d7-cdb1-4c2...	2025-08-12T07:58:35....	Cleartext password	Cleartext password	
ebf98b7c-3478-45fa...	2025-09-04T14:37:4...	Cleartext password	Cleartext password	
afbf5519-e9c4-4fb2-...	2025-09-04T14:37:27...	Cleartext password	Cleartext password	
2c6743b8-f8a8-4df0...	2025-09-10T14:09:18...	Cleartext password	Cleartext password	
3b6f5ea2-21e2-483b...	2025-09-09T13:09:18...	Cleartext password	Cleartext password	
a690ce72-f1cd-4b20...	2025-09-29T12:31:48....	Cleartext password	Cleartext password	
c516d801-12b8-4fd0...	2025-09-10T13:19:18+...	Cleartext password	Cleartext password	
e8ed3918-bed0-456...	2025-09-21T14:37:42....	Cleartext password	Cleartext password	
840f4dea-f71f-40f2-...	2025-09-08T13:09:18...	Cleartext password	Cleartext password	
08ba5194-c974-4193...	2025-09-01T08:51:00....	Cleartext password	Cleartext password	

1 to **10** of **24** Page **1** of **3**

I've identified several assets with insecure configurations based on the alerts. Here's a summary:

1. Multiple assets are experiencing cleartext password issues, particularly with protocols like:
   - FTP (File Transfer Protocol)
   - Telnet
2. Some specific security concerns include:
   - Multiple unsuccessful login attempts
   - Cleartext password transmissions

Key observations:

- Many of these assets are MacBook Pro computers from Apple, using various network protocols

Recommended actions:

1. Update OpenSSH to the latest version (version 10.0)
2. Stop using insecure protocols like HTTP and Telnet
3. Implement more secure communication methods

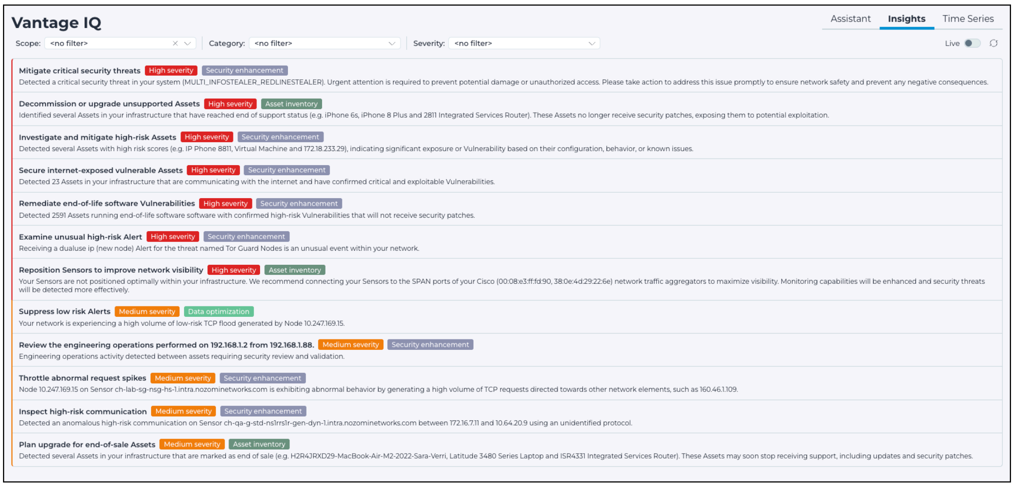
AI responses may contain errors. Data is processed externally outside Vantage infrastructure. Always verify important information.

Figure 66. Assistant tab

The assistant let's you query your Vantage instance.

Insights

*The **Insights** page shows a dynamic summary of all the insights for your organization. The table shows a row for each insight, which relate to items within the environment that need to be addressed. The severity and the last trigger time of the insights are used to sort them.*



Scope: <no filter>
Category: <no filter>
Severity: <no filter>

Mitigate critical security threats High severity Security enhancement
Detected a critical security threat in your system (MULTI_INFOSTEALER_REDLINESTEALER). Urgent attention is required to prevent potential damage or unauthorized access. Please take action to address this issue promptly to ensure network safety and prevent any negative consequences.

Decommission or upgrade unsupported Assets High severity Asset inventory
Identified several Assets in your infrastructure that have reached end of support status (e.g. iPhone 6s, iPhone 8 Plus and 2811 Integrated Services Router). These Assets no longer receive security patches, exposing them to potential exploitation.

Investigate and mitigate high-risk Assets High severity Security enhancement
Detected several Assets with high risk scores (e.g. IP Phone 8811, Virtual Machine and 172.18.233.29), indicating significant exposure or Vulnerability based on their configuration, behavior, or known issues.

Secure internet-exposed vulnerable Assets High severity Security enhancement
Detected 23 Assets in your infrastructure that are communicating with the internet and have confirmed critical and exploitable Vulnerabilities.

Remediate end-of-life software Vulnerabilities High severity Security enhancement
Detected 2591 Assets running end-of-life software software with confirmed high-risk Vulnerabilities that will not receive security patches.

Examine unusual high-risk Alert High severity Security enhancement
Receiving a dualuse ip (new node) Alert for the threat named Tor Guard Nodes is an unusual event within your network.

Reposition Sensors to improve network visibility High severity Asset inventory
Your Sensors are not positioned optimally within your infrastructure. We recommend connecting your Sensors to the SPAN ports of your Cisco (00:08:e3:ff:fd:90, 38:0e:4d:29:22:6e) network traffic aggregators to maximize visibility. Monitoring capabilities will be enhanced and security threats will be detected more effectively.

Suppress low risk Alerts Medium severity Data optimization
Your network is experiencing a high volume of low-risk TCP flood generated by Node 10.247.169.15.

Review the engineering operations performed on 192.168.1.2 from 192.168.1.88. Medium severity Security enhancement
Engineering operations activity detected between assets requiring security review and validation.

Throttle abnormal request spikes Medium severity Security enhancement
Node 10.247.169.15 on Sensor ch-lab-sg-nsg-hs-1.intra.nozominetworks.com is exhibiting abnormal behavior by generating a high volume of TCP requests directed towards other network elements, such as 160.46.1.109.

Inspect high-risk communication Medium severity Security enhancement
Detected an anomalous high-risk communication on Sensor ch-qa-g-std-ns1rrs1r-gen-dyn-1.intra.nozominetworks.com between 172.16.7.11 and 10.64.20.9 using an unidentified protocol.

Plan upgrade for end-of-sale Assets Medium severity Asset inventory
Detected several Assets in your infrastructure that are marked as end of sale (e.g. H2R4JRXD29-MacBook-Air-M2-2022-Sara-Verri, Latitude 3480 Series Laptop and ISR4331 Integrated Services Router). These Assets may soon stop receiving support, including updates and security patches.

Figure 67. Insights tab

The **Insights** page shows correlated alerts and root-cause analysis. Vantage IQ uses deep neural networks to identify network activity patterns. Integrating data across Vantage makes it easier to:

- Analyze data forensically
- Tune settings
- Enhance security

A deeper understanding of security data and network traffic can help prioritize remediation efforts and close security gaps.

Filters

To filter the table view, there are these three dropdowns at the top of the page:

- **Scope**: This let's you use sites to limit the scope
- **Category**: This let's you use the insight category to filter the results
- **Severity**: This let's you use the insight severity level to filter the results

Severity levels

High severity

You should investigate this type of insight as soon as possible. The majority of critical insights relate to security issues.

Medium severity

This type of insight has security and operational concerns. The majority of warning insights are alerting improvements.

Low severity

This type of insight does not require immediate action. Informational insights help you understand your environment better.

The order the insights are shown in the list is:

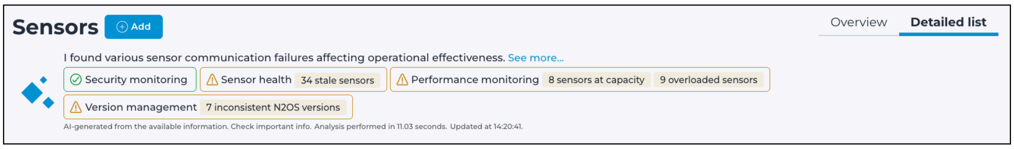
- The most recent **High severity** insights will show first, older **High severity** insights will be next
- The most recent **Medium severity** insights show next, older **Medium severity** insights will be next
- The most recent **Low severity** insights will show next, older **Low severity** insights will be next

Table rows

You can select the table row of the insight to show a more detailed description of the insight. This lets you explore the insight further in the **Details list** of the related page.

Additional views

Vantage IQ insights also show at the top of the dashboard and table views of selected pages. It summarizes the data on the related page and helps you to quickly recognize problems. When the icon is animated, Vantage IQ is still processing the insights. Updates only take a few seconds.



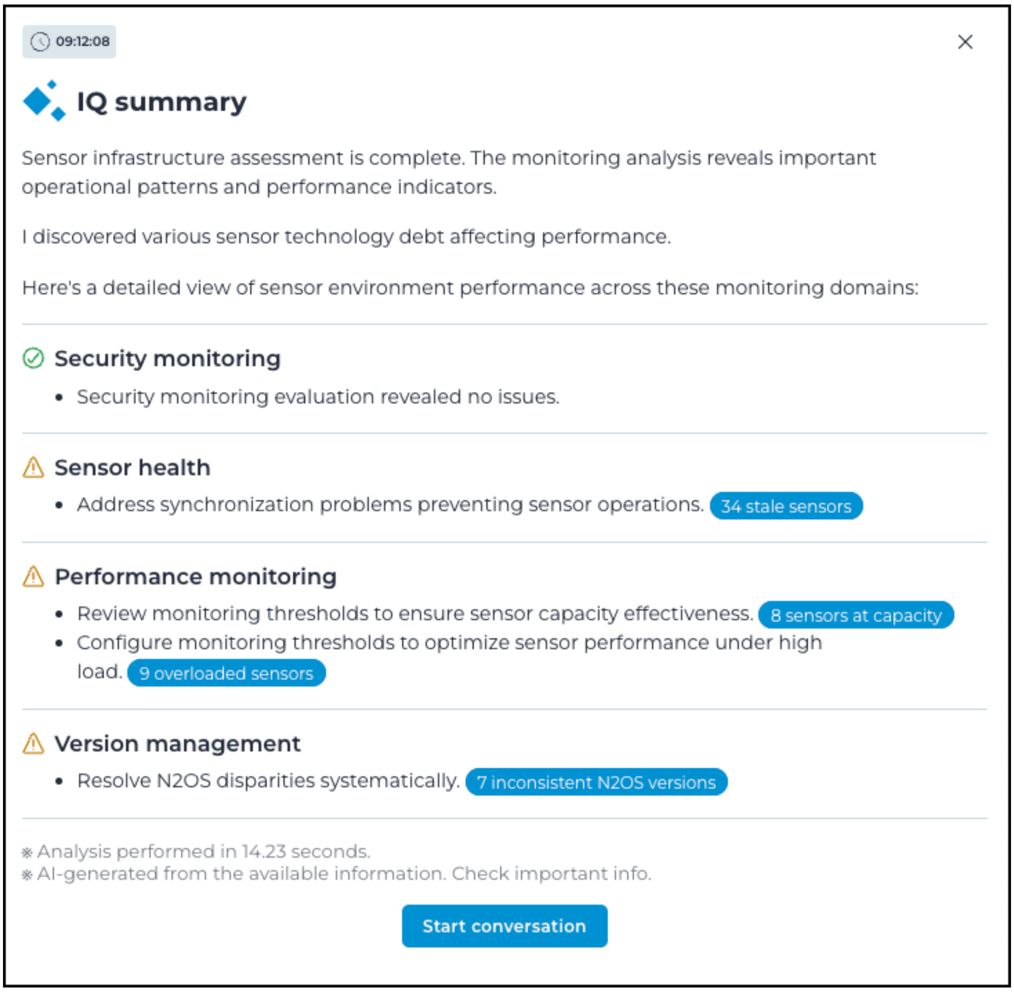
I found various sensor communication failures affecting operational effectiveness. See more...

AI-generated from the available information. Check important info. Analysis performed in 11.03 seconds. Updated at 14:20:41.

Figure 68. Insights view (Sensors page Details list shown)

If you select an insight in the summary section, the applicable filter will be applied, and the page or table will update. If you make changes on the page, for example, if you apply filters in a table view, the assistant summary section will become blurred, as it is no longer applicable. To restore the original filtered view, you can select **Restore filters** and the page will be reset. If you select **Dismiss**, the original insights view will show again.

You can select **See more...** to open the summary drawer.



IQ summary

Sensor infrastructure assessment is complete. The monitoring analysis reveals important operational patterns and performance indicators.

I discovered various sensor technology debt affecting performance.

Here's a detailed view of sensor environment performance across these monitoring domains:

Security monitoring

- Security monitoring evaluation revealed no issues.

Sensor health

- Address synchronization problems preventing sensor operations. 34 stale sensors

Performance monitoring

- Review monitoring thresholds to ensure sensor capacity effectiveness. 8 sensors at capacity
- Configure monitoring thresholds to optimize sensor performance under high load. 9 overloaded sensors

Version management

- Resolve N2OS disparities systematically. 7 inconsistent N2OS versions

Analysis performed in 14.23 seconds.
AI-generated from the available information. Check important info.

Figure 69. Summary drawer (Sensors page shown)

If you then select one of the blue buttons, the related table will open with the applicable filter applied.

You can select **Start conversation** to open the Assistant (on page 186) with the summary attached. You can then use the Assistant (on page 186) to further investigate the insights.

Open insight details

Select an insight from the Insights list to open its details. Explore related data, identify patterns, and act on findings immediately.

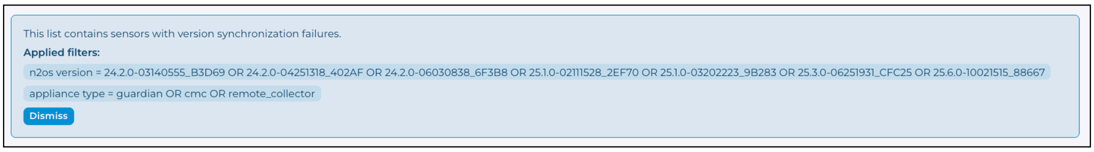
About this task

Open insight details to investigate the conditions or events associated with a specific insight. This step is typically part of a larger workflow where you assess and respond to detected anomalies, risks, or patterns in your environment. Understanding the detailed context behind each insight helps you prioritize actions and collaborate more effectively with your team.

Procedure

1. In the top navigation bar, select **IQ**.
2. Select **Insights**.
3. Select anywhere in the insight row in the **Insights** table.

   Result: The applicable **Details list** opens, and displays context and related data for the selected insight.

   This list contains sensors with version synchronization failures.

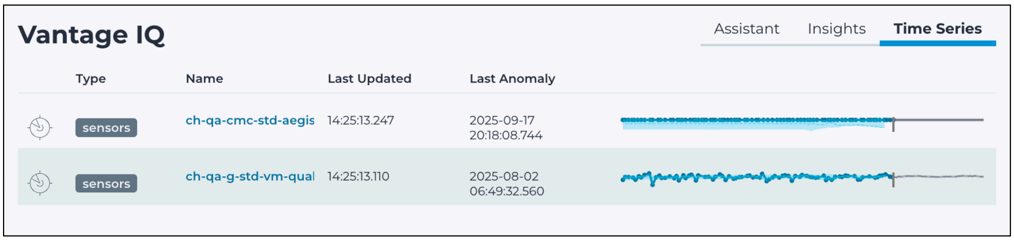
   Applied filters:

   n2os version = 24.2.0-03140555_B3D69 OR 24.2.0-04251318_402AF OR 24.2.0-06030838_6F3B8 OR 25.1.0-02111528_2EF70 OR 25.1.0-03202223_9B283 OR 25.3.0-06251931_CFC25 OR 25.6.0-10021515_88667

   appliance type = guardian OR cmc OR remote_collector

Time Series

Each sensor must be enabled for time series.



Type	Name	Last Updated	Last Anomaly
sensors	ch-qa-cmc-std-aegis	14:25:13.247	2025-09-17 20:18:08.744
sensors	ch-qa-g-std-vm-qual	14:25:13.110	2025-08-02 06:49:32.560

Figure 70. Time Series tab

With Time Series, you can predict and alert on abnormal bandwidth from any sensor's baseline network activity using advanced machine learning techniques. Was the change expected or outside of the normal range of deviation for that period? Forecasting is done via deep neural networks. It is possible to find existing trends and predict forecast reliability using online signal analysis.

Queries

With Vantage IQ, you can create charts, graphs, and AI calculations.

You can use these queries:

- Cluster (on page 193)
- Compare (on page 195)
- Correlation (on page 196)
- Describe (on page 197)
- Forecast (on page 198)
- Pivot (on page 199)
- Popular (on page 200)
- Simplify (on page 201)
- Timeline (on page 202)
- Versus (on page 203)
- Visualize (on page 204)

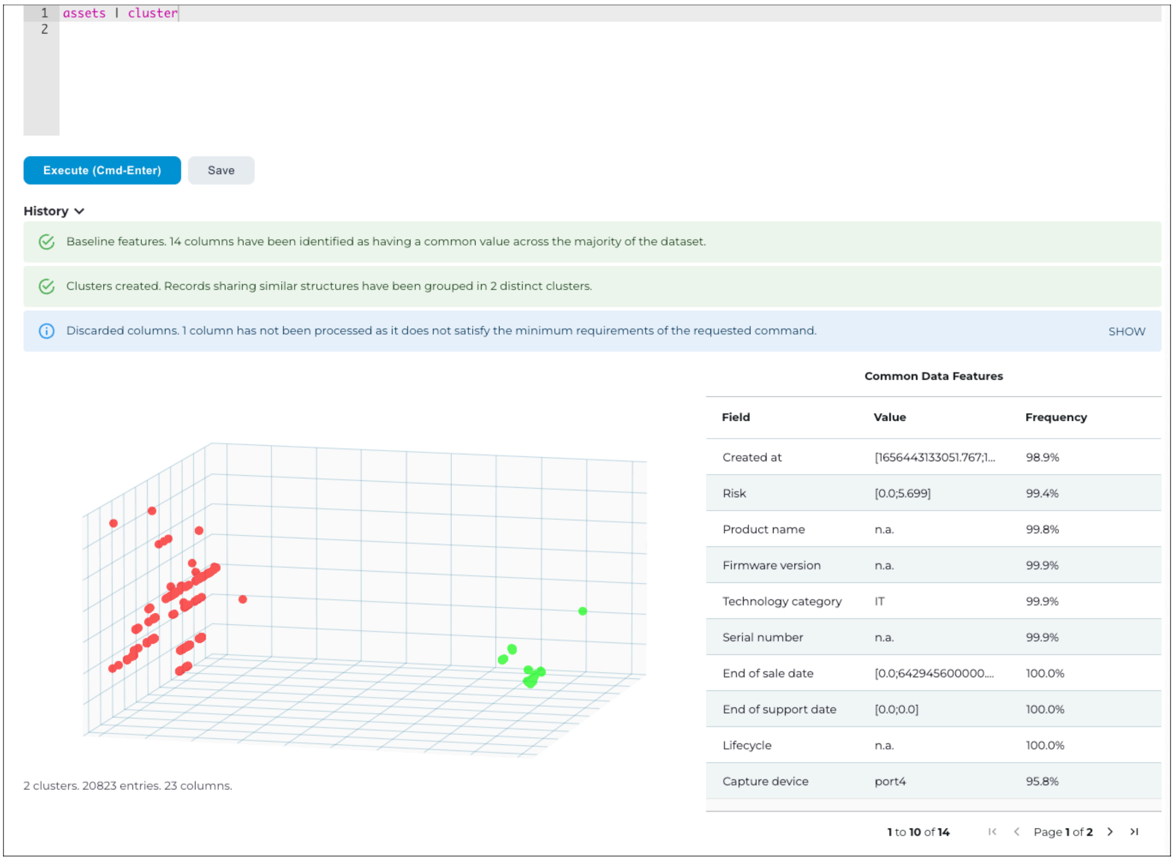
Cluster

Vantage IQ query example: Cluster.

Usage: <field> | cluster <number>

Description: Group different rows in several clusters based on automatically recognized patterns within the data.

Example: `assets | cluster`



```
assets | cluster
```

Baseline features. 14 columns have been identified as having a common value across the majority of the dataset.

Clusters created. Records sharing similar structures have been grouped in 2 distinct clusters.

Discarded columns. 1 column has not been processed as it does not satisfy the minimum requirements of the requested command.

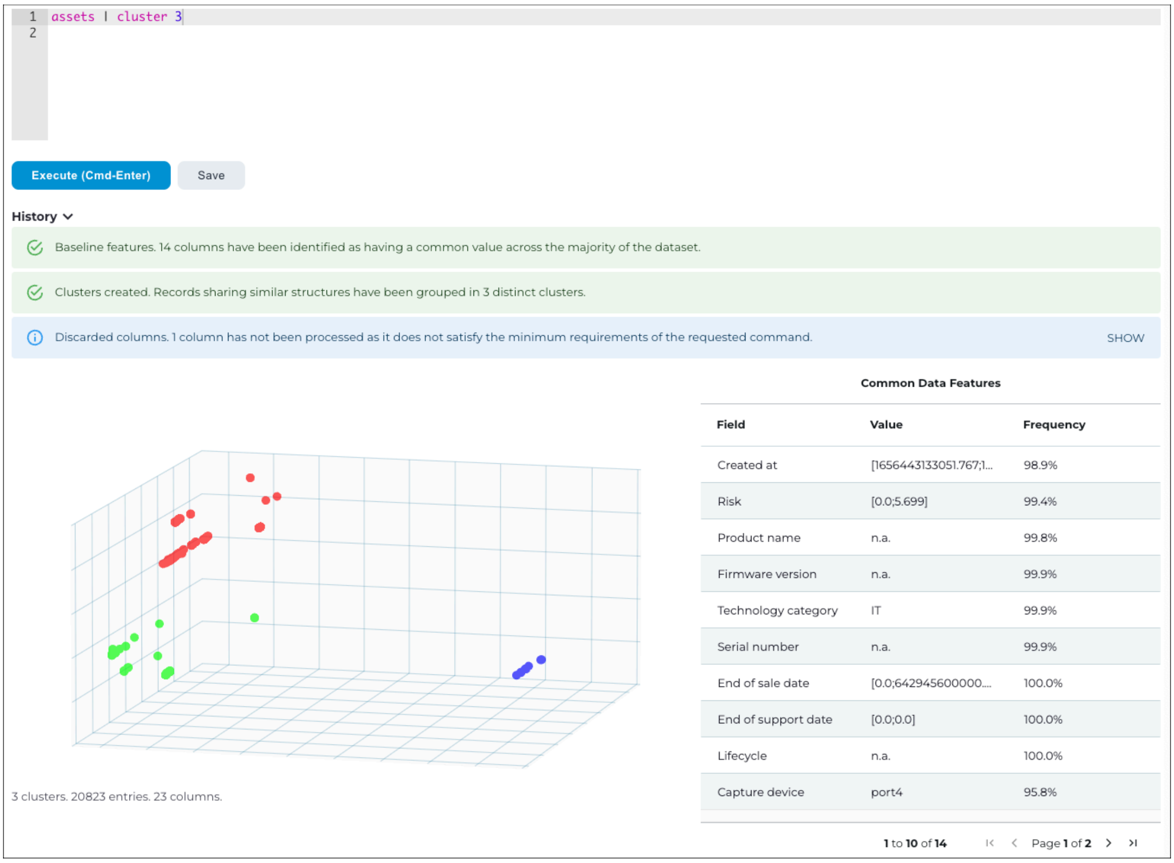
2 clusters. 20823 entries. 23 columns.

Common Data Features

Field	Value	Frequency
Created at	[1656443133051.767;1...	98.9%
Risk	[0.0;5.699]	99.4%
Product name	n.a.	99.8%
Firmware version	n.a.	99.9%
Technology category	IT	99.9%
Serial number	n.a.	99.9%
End of sale date	[0.0;642945600000....	100.0%
End of support date	[0.0;0.0]	100.0%
Lifecycle	n.a.	100.0%
Capture device	port4	95.8%

1 to 10 of 14 Page 1 of 2

Example: `assets | cluster 3`



```
assets | cluster 3
```

Baseline features. 14 columns have been identified as having a common value across the majority of the dataset.

Clusters created. Records sharing similar structures have been grouped in 3 distinct clusters.

Discarded columns. 1 column has not been processed as it does not satisfy the minimum requirements of the requested command.

3 clusters. 20823 entries. 23 columns.

Common Data Features

Field	Value	Frequency
Created at	[1656443133051.767;1...	98.9%
Risk	[0.0;5.699]	99.4%
Product name	n.a.	99.8%
Firmware version	n.a.	99.9%
Technology category	IT	99.9%
Serial number	n.a.	99.9%
End of sale date	[0.0;642945600000....	100.0%
End of support date	[0.0;0.0]	100.0%
Lifecycle	n.a.	100.0%
Capture device	port4	95.8%

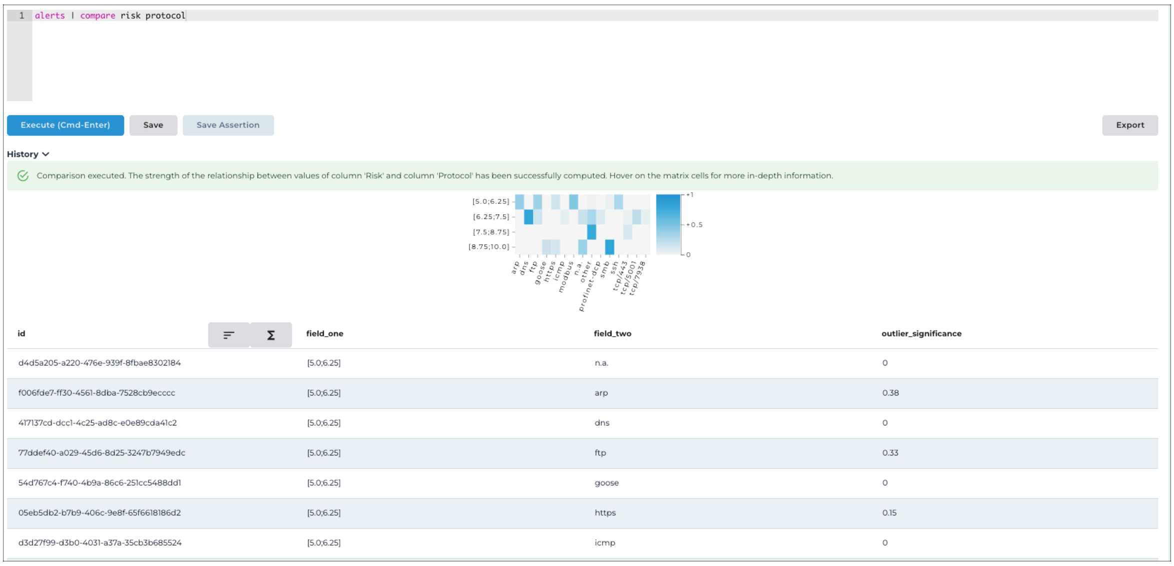
Compare

Vantage IQ query example: Compare.

Usage: <field> | compare <field1> <field2>

Description: Compute nonlinear value relationships between two categorical, interval, and ordinal columns.

Example: `alerts | compare risk protocol`

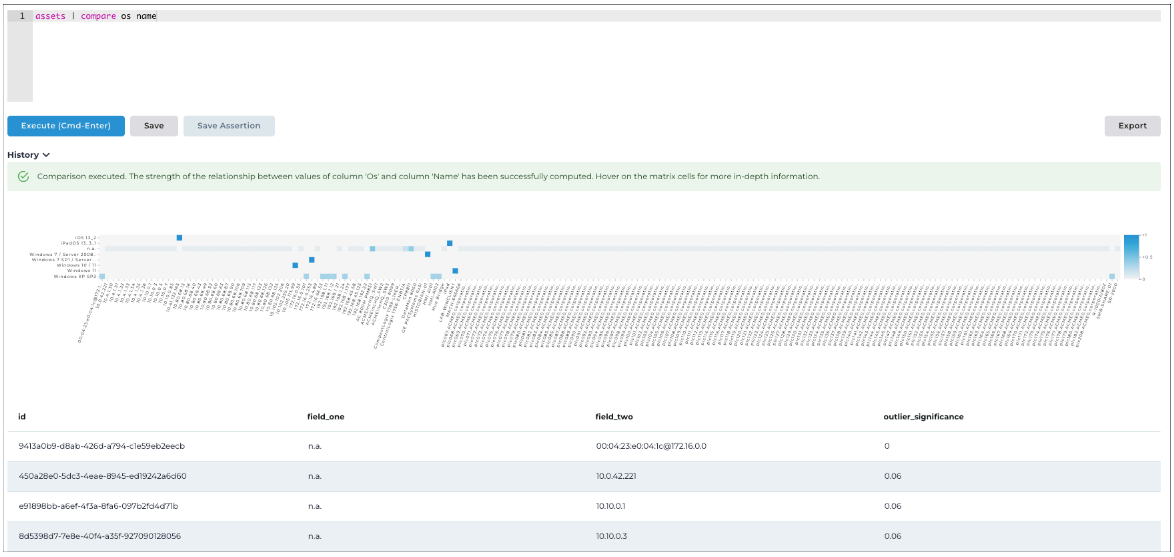


```
1 alerts | compare risk protocol
```

Comparison executed. The strength of the relationship between values of column 'Risk' and column 'Protocol' has been successfully computed. Hover on the matrix cells for more in-depth information.

id	field_one	field_two	outlier_significance
d4d5a205-a220-476e-939f-8fbae8302184	[5.0;6.25]	n.a.	0
f006fde7-ff30-4561-8dba-7528cb9ecccc	[5.0;6.25]	arp	0.38
417137cd-dcc1-4c25-ad8c-e0e89cda41c2	[5.0;6.25]	dns	0
77ddef40-a029-45d6-8d25-3247b7949edc	[5.0;6.25]	ftp	0.33
54d767c4-f740-4b9a-86c6-251cc5488dd1	[5.0;6.25]	goose	0
05eb5db2-b7b9-406c-9e8f-65f6618186d2	[5.0;6.25]	https	0.15
d3d27f99-d3b0-4031-a37a-35cb3b685524	[5.0;6.25]	icmp	0

Example: `assets | compare os name`



```
1 assets | compare os name
```

Comparison executed. The strength of the relationship between values of column 'Os' and column 'Name' has been successfully computed. Hover on the matrix cells for more in-depth information.

id	field_one	field_two	outlier_significance
9413a0b9-d8ab-426d-a794-c1e59eb2eecb	n.a.	00:04:23:e0:04:1c@172.16.0.0	0
450a28e0-5dc3-4eae-8945-ed19242a6d60	n.a.	10.0.42.221	0.06
e91898bb-a6ef-4f3a-8fa6-097b2fd4d71b	n.a.	10.10.0.1	0.06
8d5398d7-7e8e-40f4-a35f-927090128056	n.a.	10.10.0.3	0.06

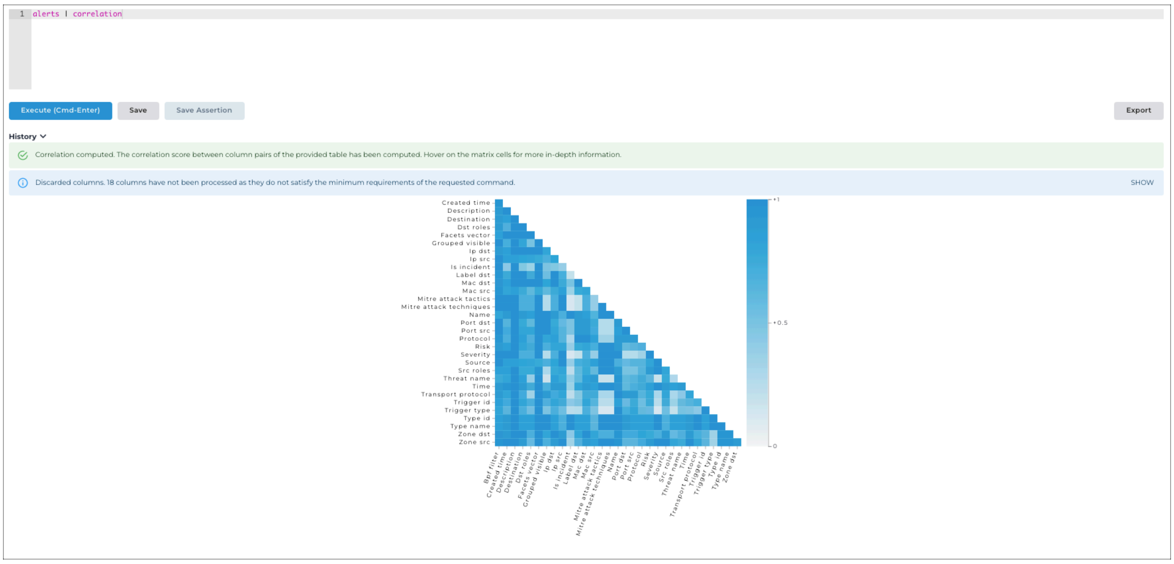
Correlation

Vantage IQ query example: Correlation.

Usage: <field> | correlation

Description: Compute nonlinear correlations between categorical, interval, and ordinal columns.

Example: `alerts | correlation`

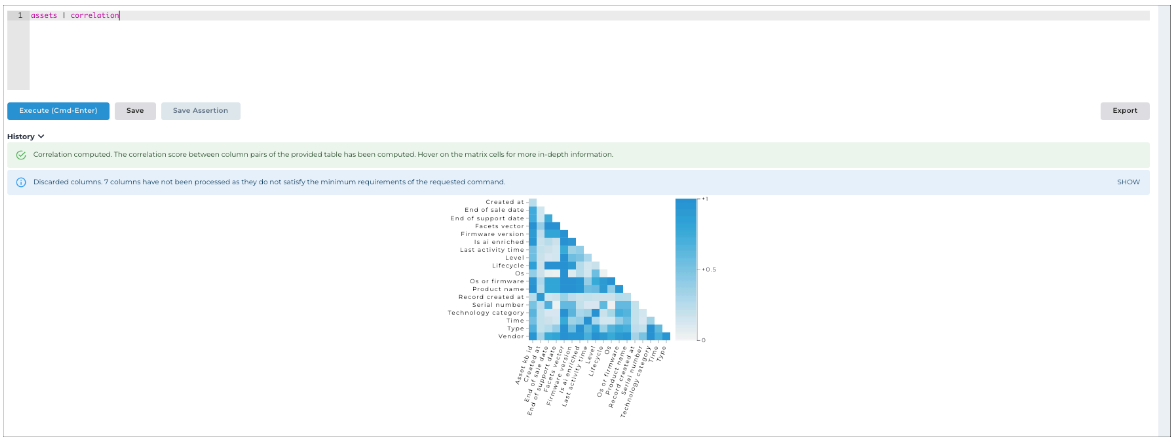


```
alerts | correlation
```

Correlation computed. The correlation score between column pairs of the provided table has been computed. Hover on the matrix cells for more in-depth information.

Discarded columns. 18 columns have not been processed as they do not satisfy the minimum requirements of the requested command.

Example: `assets | correlation`



```
assets | correlation
```

Correlation computed. The correlation score between column pairs of the provided table has been computed. Hover on the matrix cells for more in-depth information.

Discarded columns. 7 columns have not been processed as they do not satisfy the minimum requirements of the requested command.

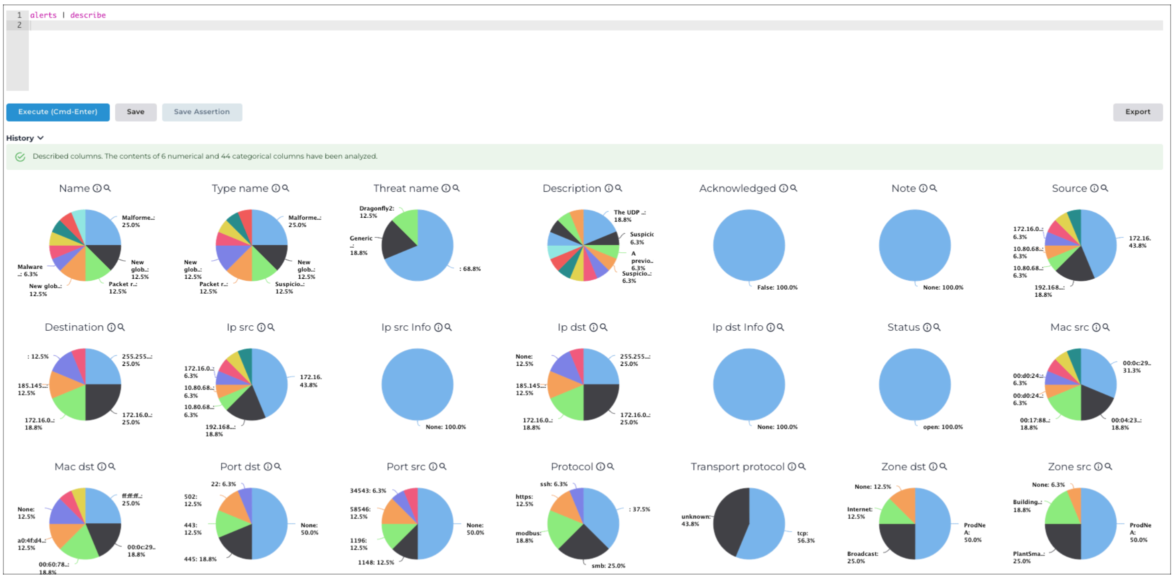
Describe

Vantage IQ query example: Describe.

Usage: <field> | describe

Description: Compute several descriptive statistics of the passed content.

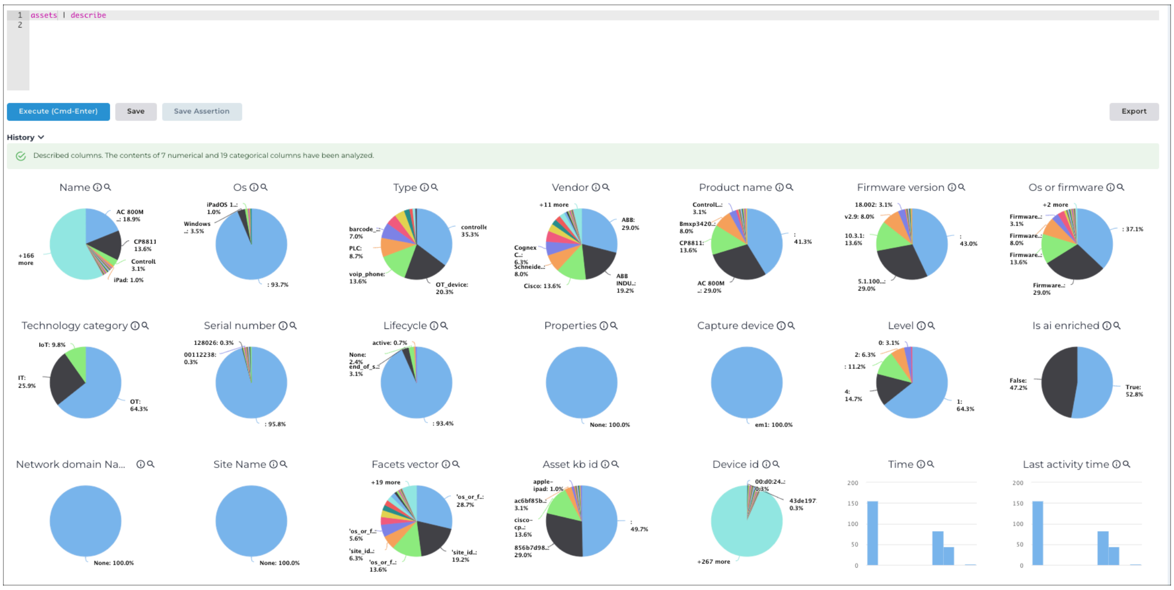
Example: `alerts | describe`



```
alerts | describe
```

Described columns. The contents of 6 numerical and 44 categorical columns have been analyzed.

Example: `assets | describe`



```
assets | describe
```

Described columns. The contents of 7 numerical and 19 categorical columns have been analyzed.

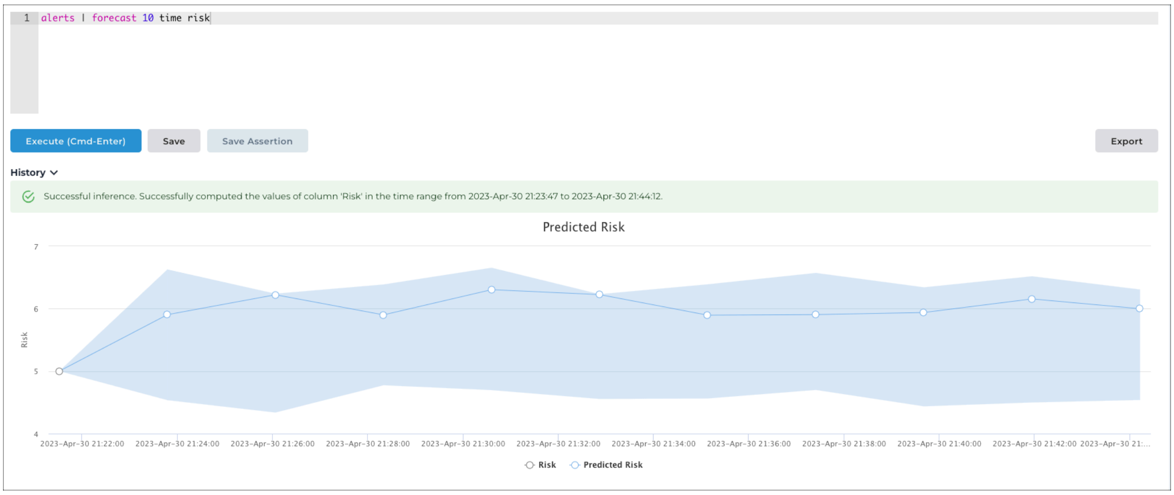
Forecast

Vantage IQ query example: Forecast.

Usage: <field> | forecast <number> <field1> <field2> <field3>

Description: Forecast the values of a numeric time series.

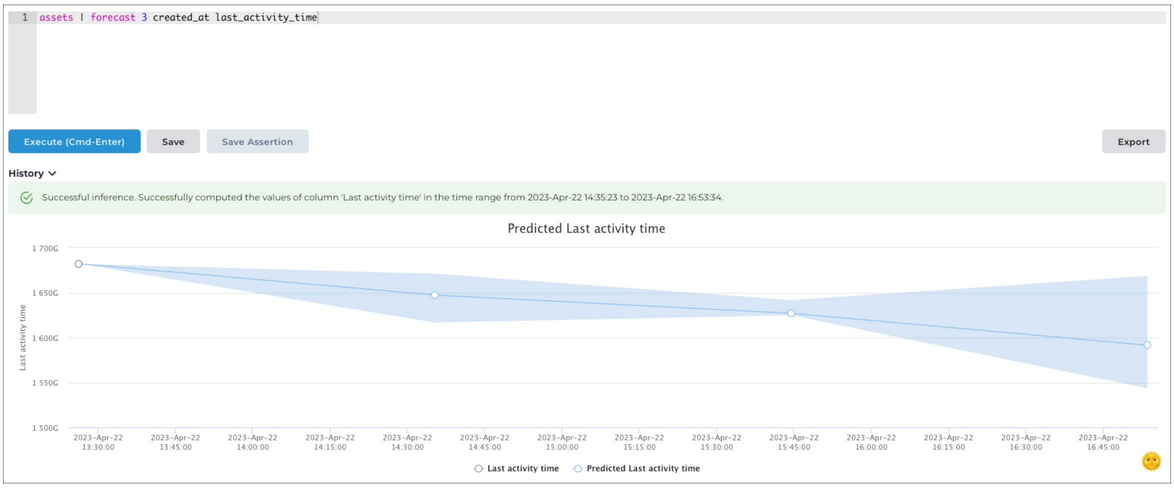
Example: `alerts | forecast 10 time risk`



```
alerts | forecast 10 time risk
```

Successful inference. Successfully computed the values of column 'Risk' in the time range from 2023-Apr-30 21:23:47 to 2023-Apr-30 21:44:12.

Example: `assets | forecast 3 created_at last_activity_time`



```
assets | forecast 3 created_at last_activity_time
```

Successful inference. Successfully computed the values of column 'Last activity time' in the time range from 2023-Apr-22 14:35:23 to 2023-Apr-22 16:53:34.

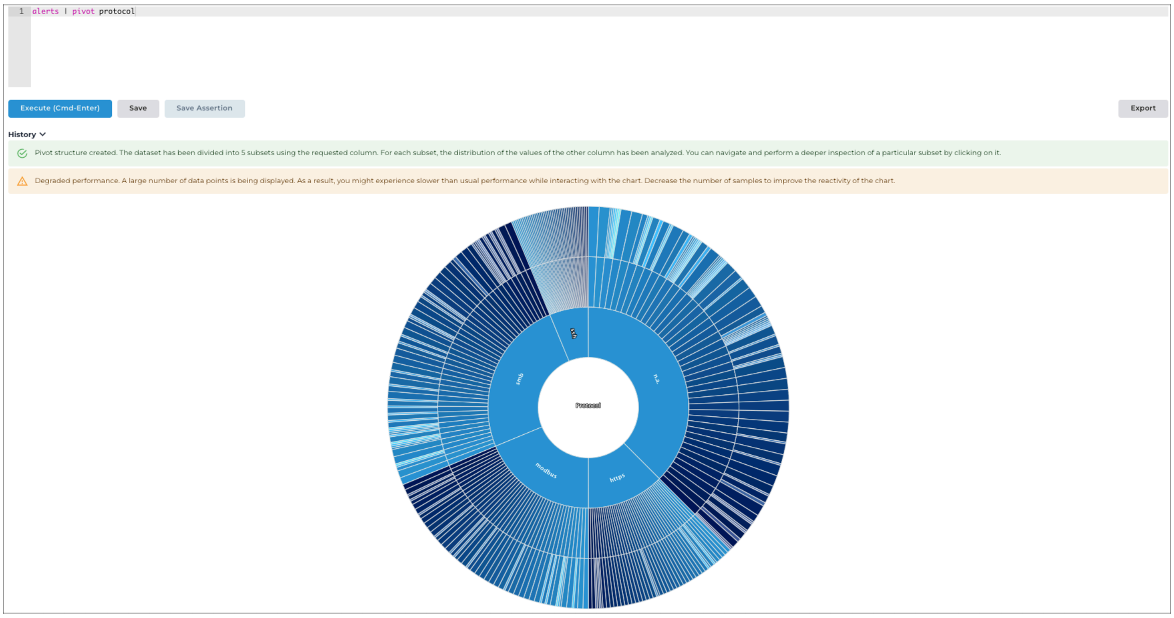
Pivot

Vantage IQ query example: Pivot.

Usage: <field> | pivot <field>

Description: Splits the data using the unique values of a given column and analyzes the distributions of the other columns for each one of these values.

Example: `alerts | pivot protocol`

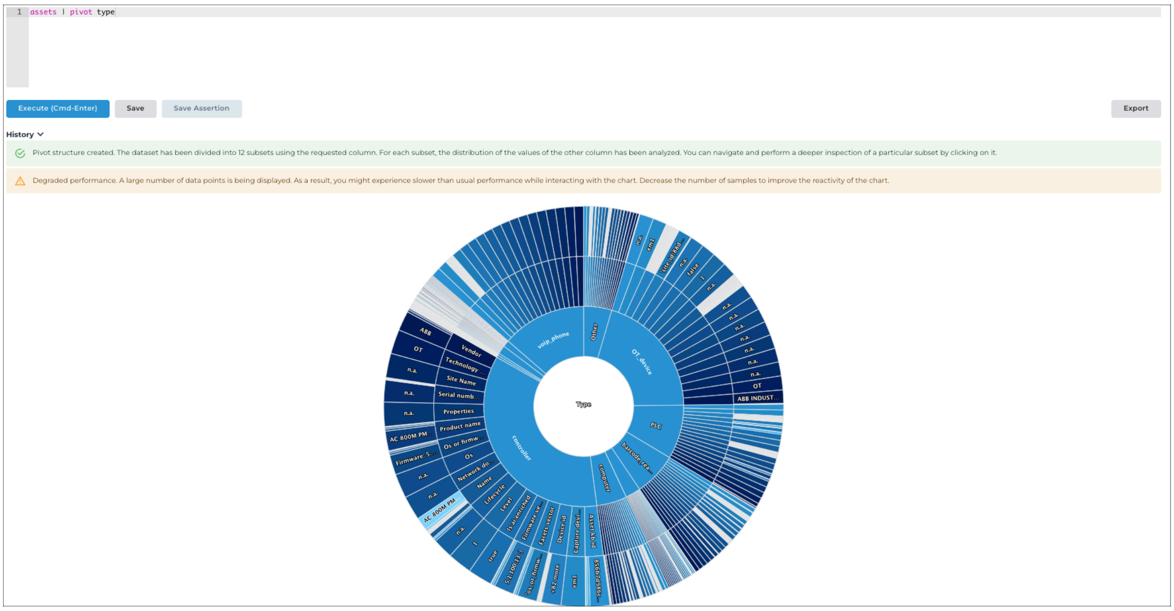


```
alerts | pivot protocol
```

Pivot structure created. The dataset has been divided into 5 subsets using the requested column. For each subset, the distribution of the values of the other column has been analyzed. You can navigate and perform a deeper inspection of a particular subset by clicking on it.

Degraded performance. A large number of data points is being displayed. As a result, you might experience slower than usual performance while interacting with the chart. Decrease the number of samples to improve the reactivity of the chart.

Example: `assets | pivot type`



```
assets | pivot type
```

Pivot structure created. The dataset has been divided into 12 subsets using the requested column. For each subset, the distribution of the values of the other column has been analyzed. You can navigate and perform a deeper inspection of a particular subset by clicking on it.

Degraded performance. A large number of data points is being displayed. As a result, you might experience slower than usual performance while interacting with the chart. Decrease the number of samples to improve the reactivity of the chart.

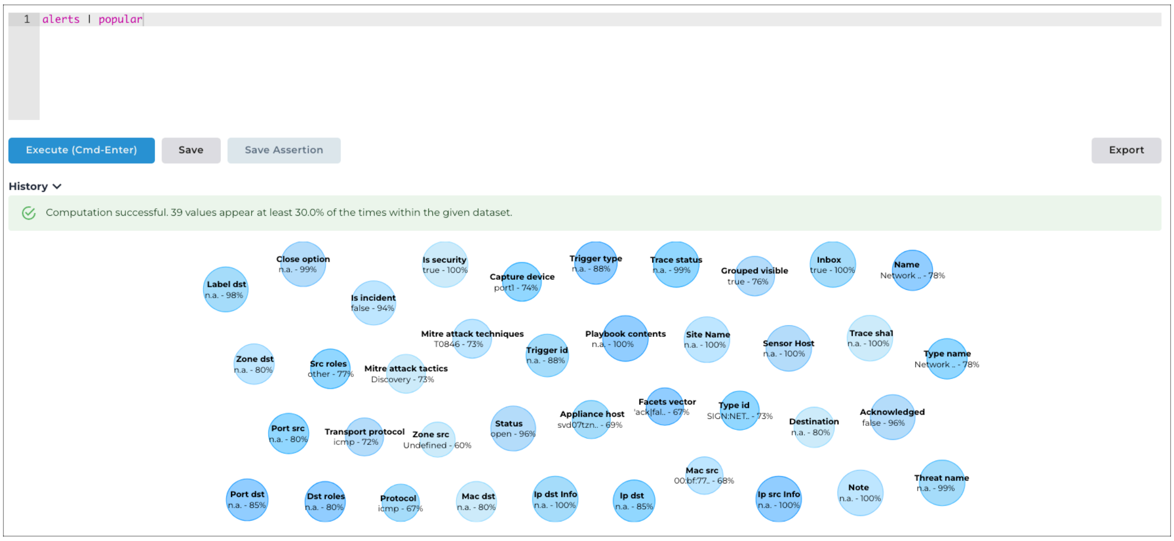
Popular

Vantage IQ query example: Popular.

Usage: <field> | popular <field>

Description: Find the most popular values in a table and visualize them.

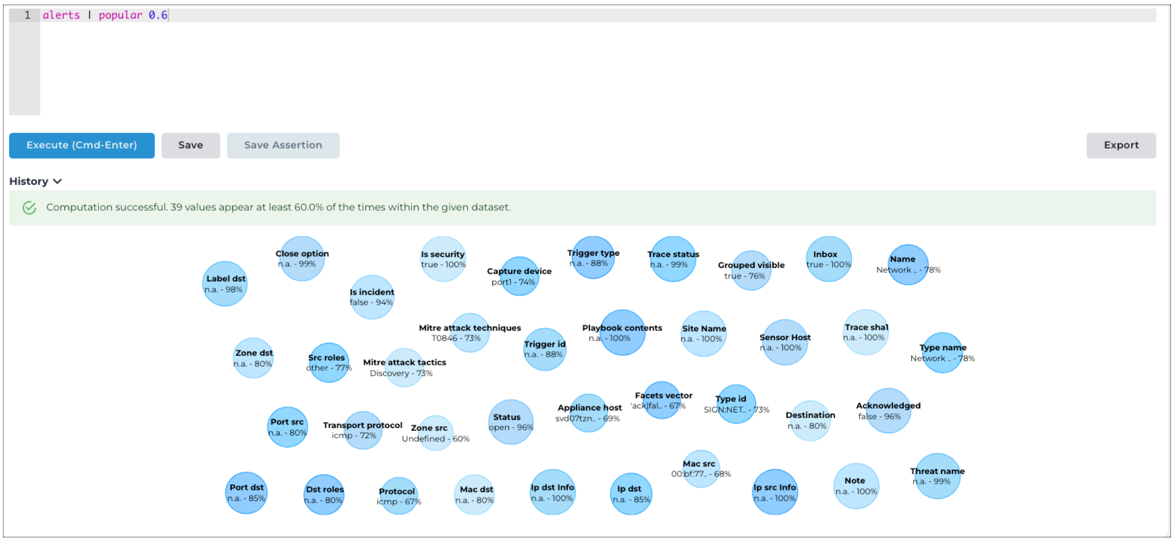
Example: `alerts | popular`



```
alerts | popular
```

Computation successful. 39 values appear at least 30.0% of the times within the given dataset.

Example: `alerts | popular 0.6`



```
alerts | popular 0.6
```

Computation successful. 39 values appear at least 60.0% of the times within the given dataset.

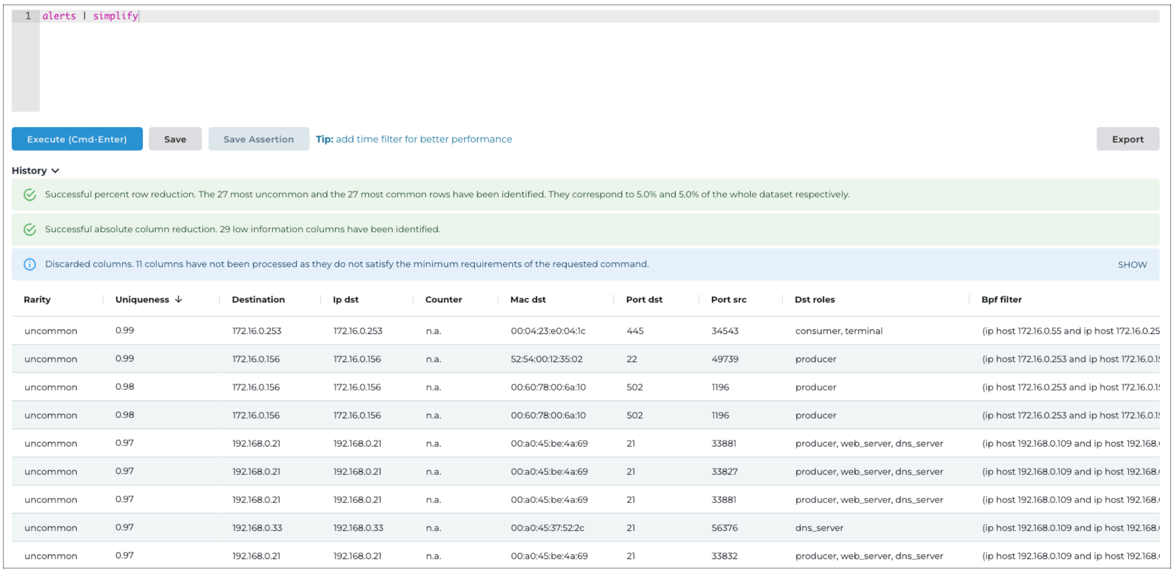
Simplify

Vantage IQ query example: Simplify.

Usage: <field> | simplify <field> <rows> <number>

Description: Identify the rows and columns carrying the highest information level.

Example: `alerts | simplify`



```
alerts | simplify
```

Tip: add time filter for better performance

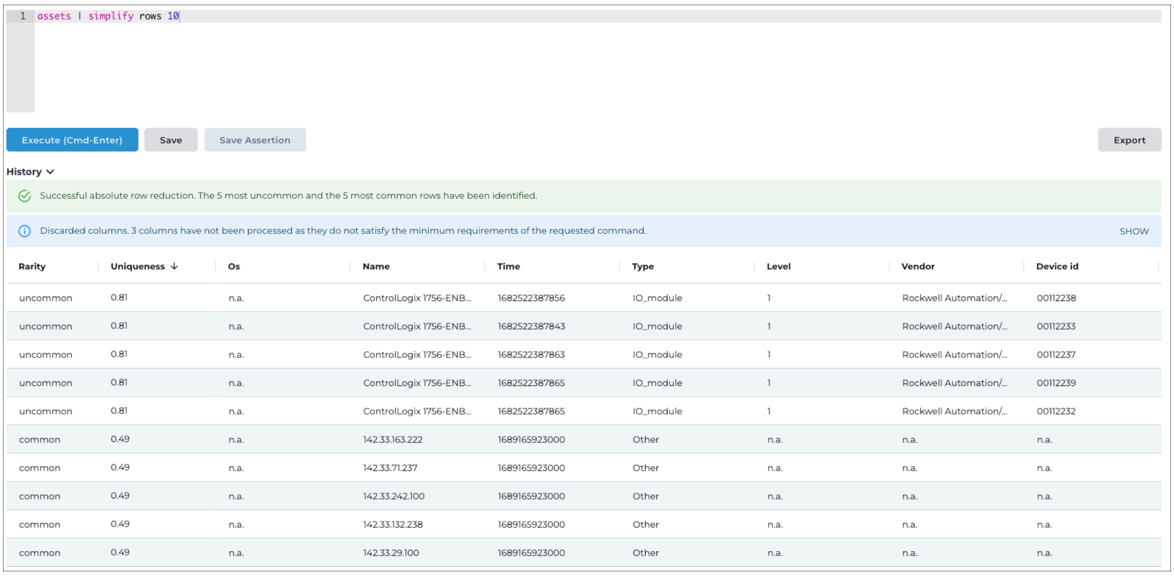
Successful percent row reduction. The 27 most uncommon and the 27 most common rows have been identified. They correspond to 5.0% and 5.0% of the whole dataset respectively.

Successful absolute column reduction. 29 low information columns have been identified.

Discarded columns. 11 columns have not been processed as they do not satisfy the minimum requirements of the requested command.

Rarity	Uniqueness ↓	Destination	Ip dst	Counter	Mac dst	Port dst	Port src	Dst roles	Bpf filter
uncommon	0.99	172.16.0.253	172.16.0.253	n.a.	00:04:23:e0:04:1c	445	34543	consumer, terminal	(ip host 172.16.0.55 and ip host 172.16.0.25
uncommon	0.99	172.16.0.156	172.16.0.156	n.a.	52:54:00:12:35:02	22	49739	producer	(ip host 172.16.0.253 and ip host 172.16.0.1
uncommon	0.98	172.16.0.156	172.16.0.156	n.a.	00:60:78:00:6a:10	502	1196	producer	(ip host 172.16.0.253 and ip host 172.16.0.1
uncommon	0.98	172.16.0.156	172.16.0.156	n.a.	00:60:78:00:6a:10	502	1196	producer	(ip host 172.16.0.253 and ip host 172.16.0.1
uncommon	0.97	192.168.0.21	192.168.0.21	n.a.	00:a0:45:be:4a:69	21	33881	producer, web_server, dns_server	(ip host 192.168.0.109 and ip host 192.168.
uncommon	0.97	192.168.0.21	192.168.0.21	n.a.	00:a0:45:be:4a:69	21	33827	producer, web_server, dns_server	(ip host 192.168.0.109 and ip host 192.168.
uncommon	0.97	192.168.0.21	192.168.0.21	n.a.	00:a0:45:be:4a:69	21	33881	producer, web_server, dns_server	(ip host 192.168.0.109 and ip host 192.168.
uncommon	0.97	192.168.0.33	192.168.0.33	n.a.	00:a0:45:37:52:2c	21	56376	dns_server	(ip host 192.168.0.109 and ip host 192.168.
uncommon	0.97	192.168.0.21	192.168.0.21	n.a.	00:a0:45:be:4a:69	21	33832	producer, web_server, dns_server	(ip host 192.168.0.109 and ip host 192.168.

Example: `assets | simplify rows 10`



```
assets | simplify rows 10
```

Successful absolute row reduction. The 5 most uncommon and the 5 most common rows have been identified.

Discarded columns. 3 columns have not been processed as they do not satisfy the minimum requirements of the requested command.

Rarity	Uniqueness ↓	Os	Name	Time	Type	Level	Vendor	Device id
uncommon	0.81	n.a.	ControlLogix 1756-ENB...	1682522387856	IO_module	1	Rockwell Automation/...	00112238
uncommon	0.81	n.a.	ControlLogix 1756-ENB...	1682522387843	IO_module	1	Rockwell Automation/...	00112233
uncommon	0.81	n.a.	ControlLogix 1756-ENB...	1682522387863	IO_module	1	Rockwell Automation/...	00112237
uncommon	0.81	n.a.	ControlLogix 1756-ENB...	1682522387865	IO_module	1	Rockwell Automation/...	00112239
uncommon	0.81	n.a.	ControlLogix 1756-ENB...	1682522387865	IO_module	1	Rockwell Automation/...	00112232
common	0.49	n.a.	142.33.163.222	1689165923000	Other	n.a.	n.a.	n.a.
common	0.49	n.a.	142.33.71.237	1689165923000	Other	n.a.	n.a.	n.a.
common	0.49	n.a.	142.33.242.100	1689165923000	Other	n.a.	n.a.	n.a.
common	0.49	n.a.	142.33.132.238	1689165923000	Other	n.a.	n.a.	n.a.
common	0.49	n.a.	142.33.29.100	1689165923000	Other	n.a.	n.a.	n.a.

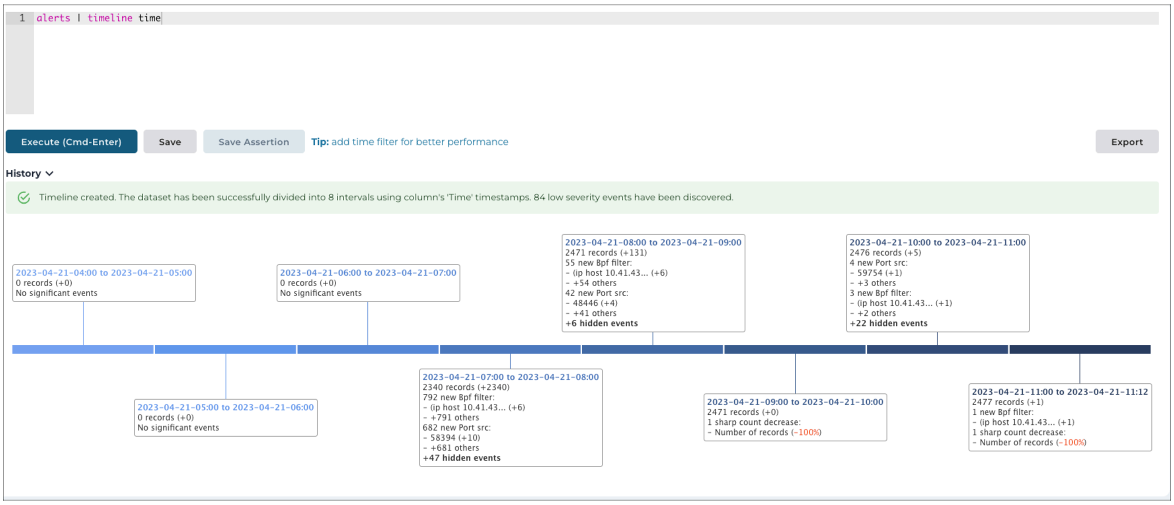
Timeline

Vantage IQ query example: Timeline.

Usage: <field> | timeline <field>

Description: Displays the most significant events for the given dataset as time moves forward.

Example: `alerts | timeline time`

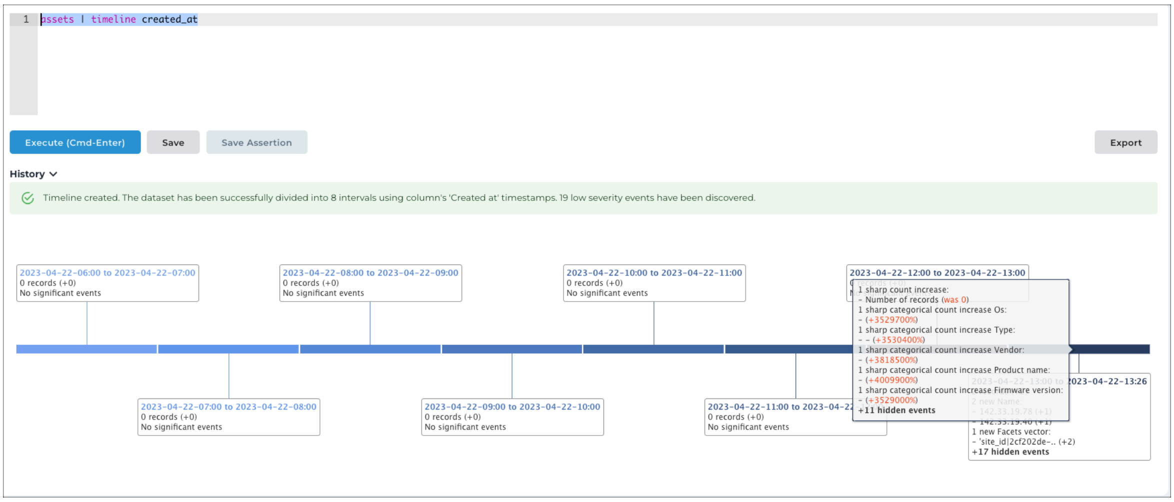


```
1  alerts | timeline time
```

Timeline created. The dataset has been successfully divided into 8 intervals using column's 'Time' timestamps. 84 low severity events have been discovered.

```
2023-04-21-04:00 to 2023-04-21-05:00
0 records (+0)
No significant events

2023-04-21-05:00 to 2023-04-21-06:00
0 records (+0)
No significant events

2023-04-21-06:00 to 2023-04-21-07:00
0 records (+0)
No significant events

2023-04-21-07:00 to 2023-04-21-08:00
2340 records (+2340)
792 new Bpf filter:
- (ip host 10.41.43... (+6)
- +791 others
682 new Port src:
- 58394 (+10)
- +681 others
+47 hidden events

2023-04-21-08:00 to 2023-04-21-09:00
2471 records (+131)
55 new Bpf filter:
- (ip host 10.41.43... (+6)
- +54 others
42 new Port src:
- 48446 (+4)
- +41 others
+6 hidden events

2023-04-21-09:00 to 2023-04-21-10:00
2471 records (+0)
1 sharp count decrease:
- Number of records (-100%)

2023-04-21-10:00 to 2023-04-21-11:00
2476 records (+5)
4 new Port src:
- 59754 (+1)
- +3 others
3 new Bpf filter:
- (ip host 10.41.43... (+1)
- +2 others
+22 hidden events

2023-04-21-11:00 to 2023-04-21-11:12
2477 records (+1)
1 new Bpf filter:
- (ip host 10.41.43... (+1)
1 sharp count decrease:
- Number of records (-100%)
```

Example: `assets | timeline created_at`



```
1  assets | timeline created_at
```

Timeline created. The dataset has been successfully divided into 8 intervals using column's 'Created at' timestamps. 19 low severity events have been discovered.

```
2023-04-22-06:00 to 2023-04-22-07:00
0 records (+0)
No significant events

2023-04-22-07:00 to 2023-04-22-08:00
0 records (+0)
No significant events

2023-04-22-08:00 to 2023-04-22-09:00
0 records (+0)
No significant events

2023-04-22-09:00 to 2023-04-22-10:00
0 records (+0)
No significant events

2023-04-22-10:00 to 2023-04-22-11:00
0 records (+0)
No significant events

2023-04-22-11:00 to 2023-04-22
0 records (+0)
No significant events

2023-04-22-12:00 to 2023-04-22-13:00
1 sharp count increase:
- Number of records (was 0)
1 sharp categorical count increase Os:
- (+3529700%)
1 sharp categorical count increase Type:
- - (+3530400%)
1 sharp categorical count increase Vendor:
- (+3818500%)
1 sharp categorical count increase Product name:
- (+4009900%)
1 sharp categorical count increase Firmware version:
- (+3529000%)
+11 hidden events

2023-04-22-13:00 to 2023-04-22-13:26
2 new Name:
- 142.33.19.78 (+1)
- 142.33.19.40 (+1)
1 new Facets vector:
- 'site_id|2cf202de-.. (+2)
+17 hidden events
```

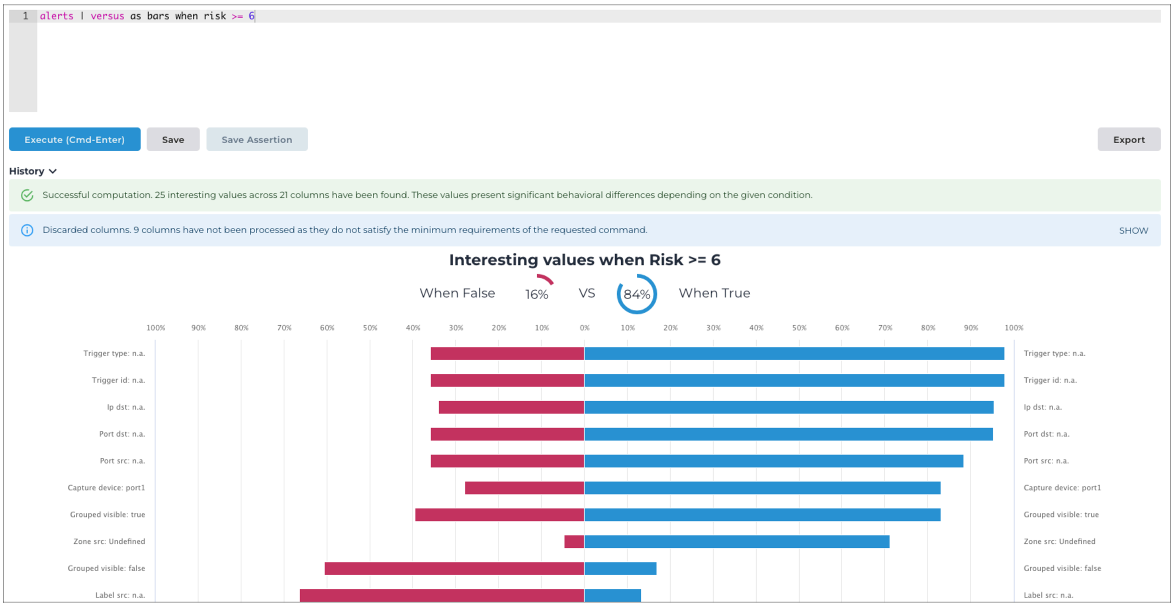
Versus

Vantage IQ query example: Versus.

Usage: <field> | versus as <format> <field>

Description: Given a boolean condition, it divides the dataset into two subsets and compares them in order to find column where the behavior has significant changes.

Example: `alerts | versus as bars when risk >= 6`

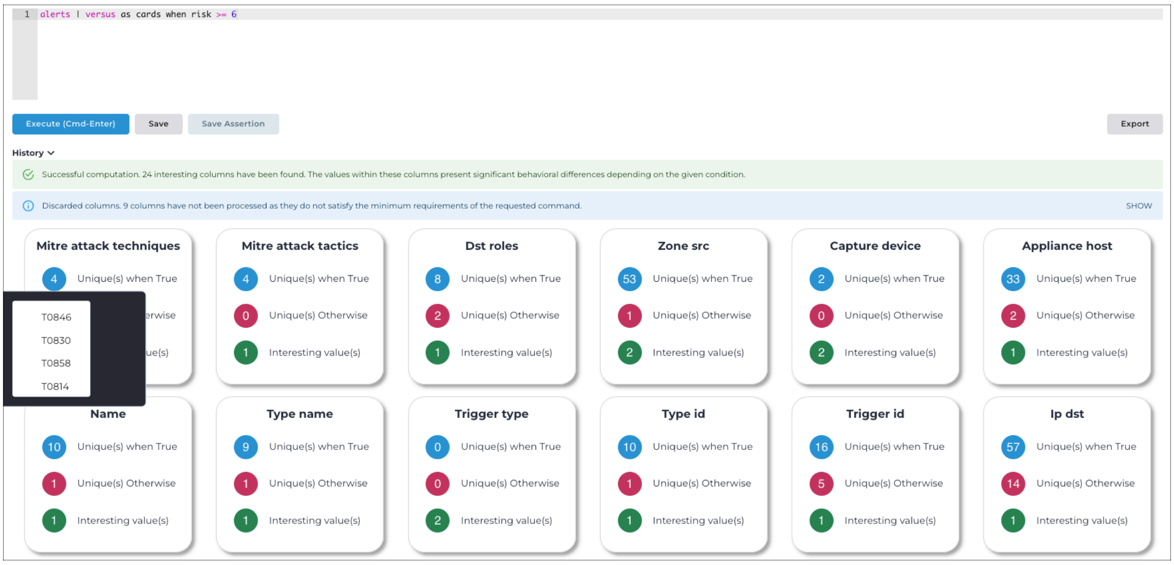


```
alerts | versus as bars when risk >= 6
```

Successful computation. 25 interesting values across 21 columns have been found. These values present significant behavioral differences depending on the given condition.

Discarded columns. 9 columns have not been processed as they do not satisfy the minimum requirements of the requested command.

Example: `alerts | versus as cards when risk >= 6`



```
alerts | versus as cards when risk >= 6
```

Successful computation. 24 interesting columns have been found. The values within these columns present significant behavioral differences depending on the given condition.

Discarded columns. 9 columns have not been processed as they do not satisfy the minimum requirements of the requested command.

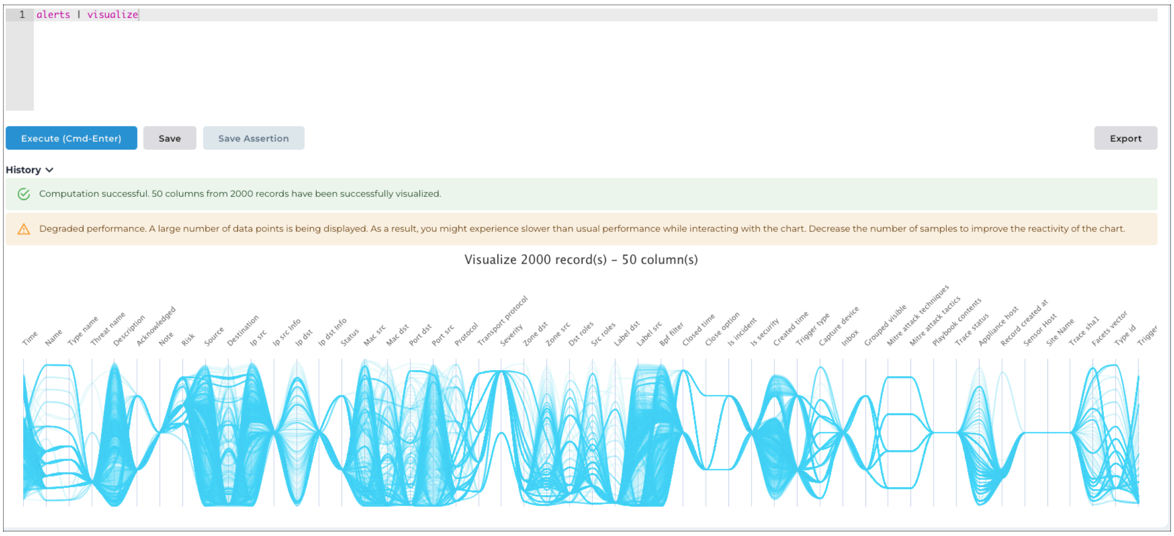
Visualize

Vantage IQ query example: Visualize.

Usage: <field> | visualize

Description: Provides a graphical visualization of the given rows.

Example: `alerts | visualize`

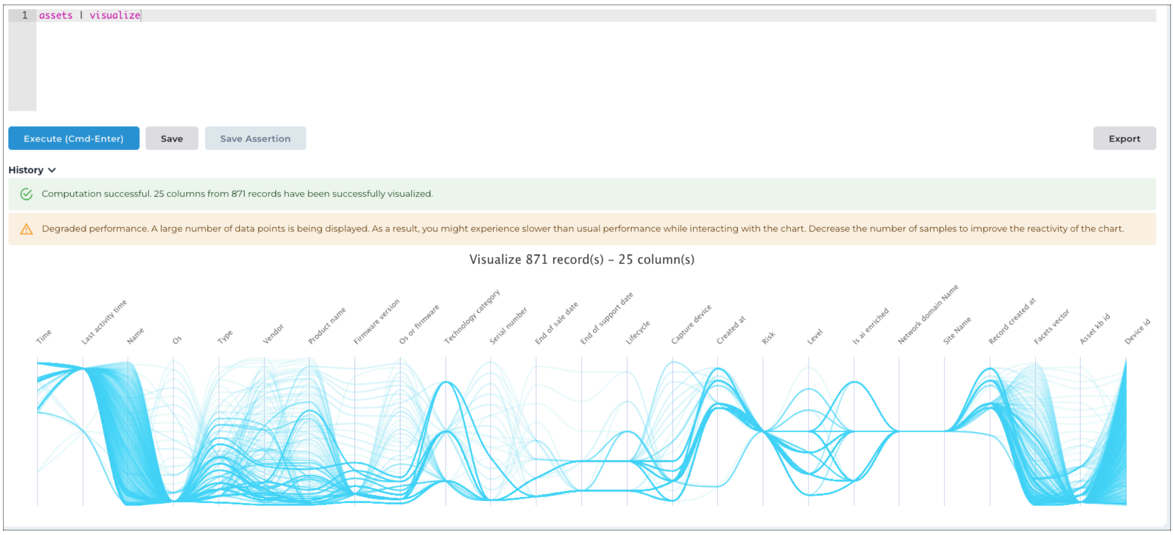


```
alerts | visualize
```

Computation successful. 50 columns from 2000 records have been successfully visualized.

Degraded performance. A large number of data points is being displayed. As a result, you might experience slower than usual performance while interacting with the chart. Decrease the number of samples to improve the reactivity of the chart.

Example: `assets | visualize`



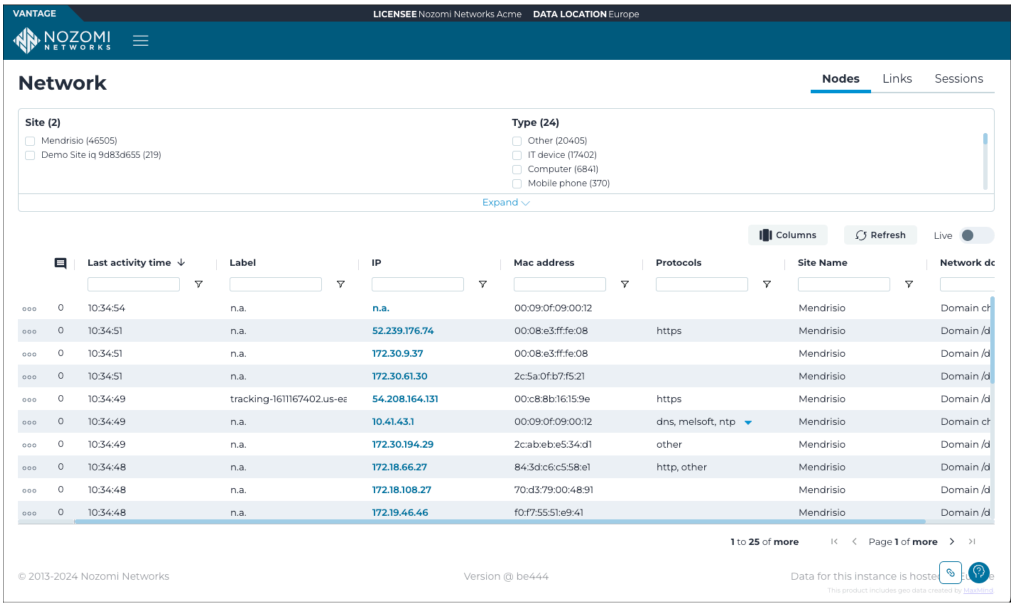
```
assets | visualize
```

Computation successful. 25 columns from 871 records have been successfully visualized.

Degraded performance. A large number of data points is being displayed. As a result, you might experience slower than usual performance while interacting with the chart. Decrease the number of samples to improve the reactivity of the chart.

Chapter 9. Network

*The **Network** page shows a visual representation of your network and all its assets.*


VANTAGE
LICENSEE Nozomi Networks Acme
DATA LOCATION Europe
NOZOMI NETWORKS
Network
Nodes
Links
Sessions
Expand
Columns
Refresh
Live
© 2013-2024 Nozomi Networks
Version @ be444
Data for this instance is hoste
This product includes geo data created by MaxMind.

Site (2)
☐ Mendrisio (46505)
☐ Demo Site iq 9d83d655 (219)

Type (24)
☐ Other (20405)
☐ IT device (17402)
☐ Computer (6841)
☐ Mobile phone (370)

		Last activity time ↓	Label	IP	Mac address	Protocols	Site Name	Network dc
○○○	0	10:34:54	n.a.	n.a.	00:09:0f:09:00:12		Mendrisio	Domain ch
○○○	0	10:34:51	n.a.	52.239.176.74	00:08:e3:ff:fe:08	https	Mendrisio	Domain /d
○○○	0	10:34:51	n.a.	172.30.9.37	00:08:e3:ff:fe:08		Mendrisio	Domain /d
○○○	0	10:34:51	n.a.	172.30.61.30	2c:5a:0f:b7:f5:21		Mendrisio	Domain /d
○○○	0	10:34:49	tracking-1611167402.us-ea	54.208.164.131	00:c8:8b:16:15:9e	https	Mendrisio	Domain /d
○○○	0	10:34:49	n.a.	10.41.43.1	00:09:0f:09:00:12	dns, melsoft, ntp	Mendrisio	Domain ch
○○○	0	10:34:49	n.a.	172.30.194.29	2c:ab:eb:e5:34:d1	other	Mendrisio	Domain /d
○○○	0	10:34:48	n.a.	172.18.66.27	84:3d:c6:c5:58:e1	http, other	Mendrisio	Domain /d
○○○	0	10:34:48	n.a.	172.18.108.27	70:d3:79:00:48:91		Mendrisio	Domain /d
○○○	0	10:34:48	n.a.	172.19.46.46	f0:f7:55:51:e9:41		Mendrisio	Domain /d

1 to **25** of **more** Page **1** of **more**

Figure 71. Network page

General

The **Network** page has these tabs:

- Nodes (on page 208)
- Links (on page 209)
- Sessions (on page 210)

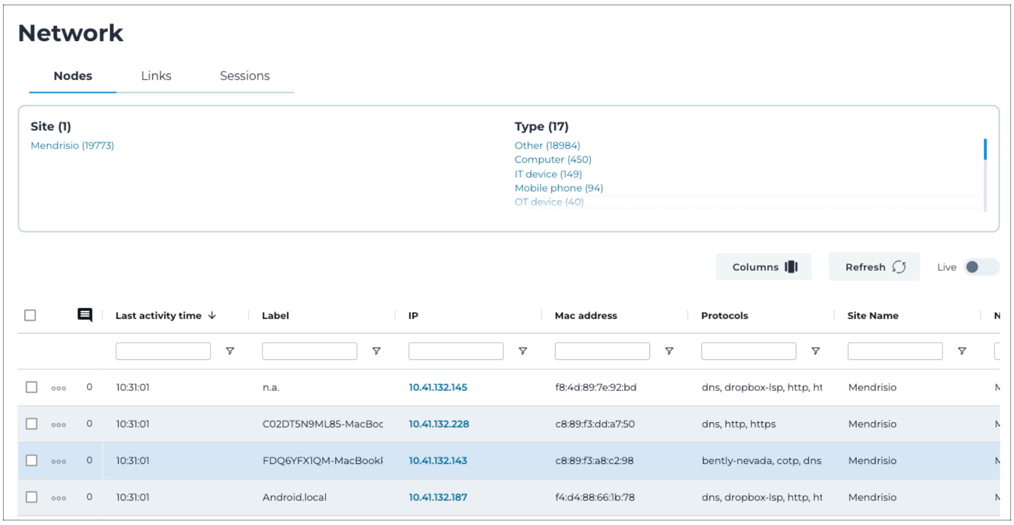
Related information

Graph (on page 211)

Graph customization (on page 220)

Nodes

*The **Nodes** page shows a visual representation of your network and all its assets.*



Site (1)
Mendrisio (19773)

Type (17)
Other (18984)
Computer (450)
IT device (149)
Mobile phone (94)
OT device (40)

☐			Last activity time ↓	Label	IP	Mac address	Protocols	Site Name	N
☐	○○○	0	10:31:01	n.a.	10.41.132.145	f8:4d:89:7e:92:bd	dns, dropbox-lsp, http, ht	Mendrisio	N
☐	○○○	0	10:31:01	C02DT5N9ML85-MacBoc	10.41.132.228	c8:89:f3:dd:a7:50	dns, http, https	Mendrisio	N
☐	○○○	0	10:31:01	FDQ6YFX1QM-MacBookI	10.41.132.143	c8:89:f3:a8:c2:98	bently-nevada, cotp, dns	Mendrisio	N
☐	○○○	0	10:31:01	Android.local	10.41.132.187	f4:d4:88:66:1b:78	dns, dropbox-lsp, http, ht	Mendrisio	N

Figure 72. Nodes page

Site

This section shows a list of all the sites in your environment.

Type

This section shows a list of all the types of node in your environment.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

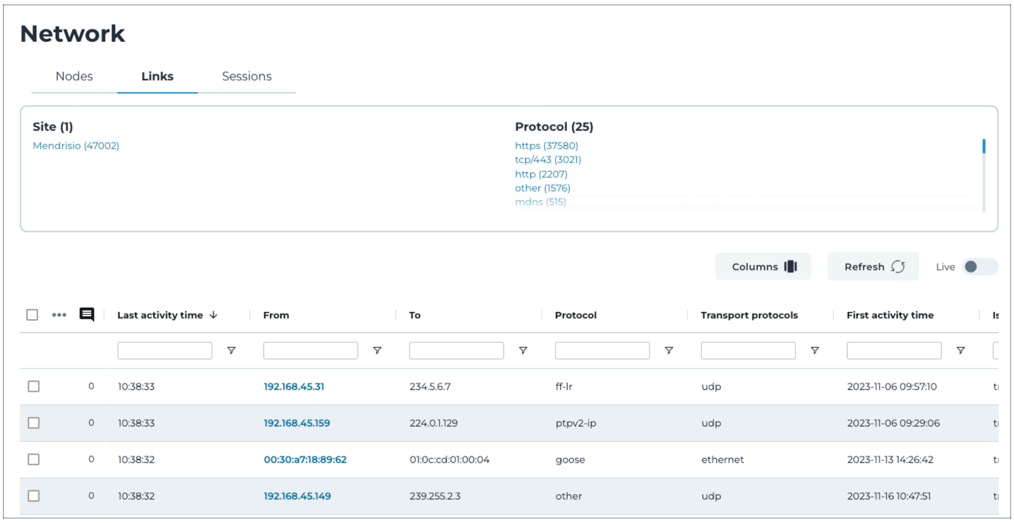
The **Refresh** ⟳ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Links

*The **Links** page shows a visual representation of your network and all its assets.*



Site (1)
Mendrisio (47002)

Protocol (25)
https (37580)
tcp/443 (3021)
http (2207)
other (1576)
mdns (515)

☐		Last activity time ↓	From	To	Protocol	Transport protocols	First activity time	Is
☐	0	10:38:33	192.168.45.31	234.5.6.7	ff-lr	udp	2023-11-06 09:57:10	t
☐	0	10:38:33	192.168.45.159	224.0.1.129	ptpv2-ip	udp	2023-11-06 09:29:06	t
☐	0	10:38:32	00:30:a7:18:89:62	01:0c:cd:01:00:04	goose	ethernet	2023-11-13 14:26:42	t
☐	0	10:38:32	192.168.45.149	239.255.2.3	other	udp	2023-11-16 10:47:51	t

Figure 73. Links page

Site

This section shows a list of all the sites in your environment.

Protocol

This section shows a list of all the protocols in your environment.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

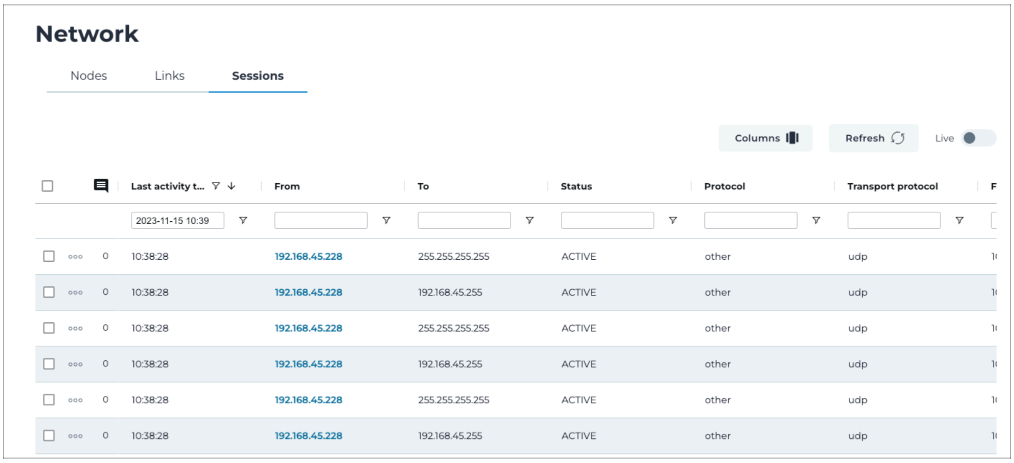
The **Refresh** icon lets you immediately refresh the current view.

Live

The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Sessions

*The **Sessions** page shows a visual representation of your network and all its assets.*



☐			Last activity t...	From	To	Status	Protocol	Transport protocol	F
			2023-11-15 10:39						
☐	○○○	0	10:38:28	192.168.45.228	255.255.255.255	ACTIVE	other	udp	1
☐	○○○	0	10:38:28	192.168.45.228	192.168.45.255	ACTIVE	other	udp	1
☐	○○○	0	10:38:28	192.168.45.228	255.255.255.255	ACTIVE	other	udp	1
☐	○○○	0	10:38:28	192.168.45.228	192.168.45.255	ACTIVE	other	udp	1
☐	○○○	0	10:38:28	192.168.45.228	255.255.255.255	ACTIVE	other	udp	1
☐	○○○	0	10:38:28	192.168.45.228	192.168.45.255	ACTIVE	other	udp	1

Figure 74. Sessions page

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** ↻ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Chapter 10. Graph

Displays a visual map of your network, highlighting asset connections and communication paths. Users can switch between network and physical views to explore infrastructure relationships.

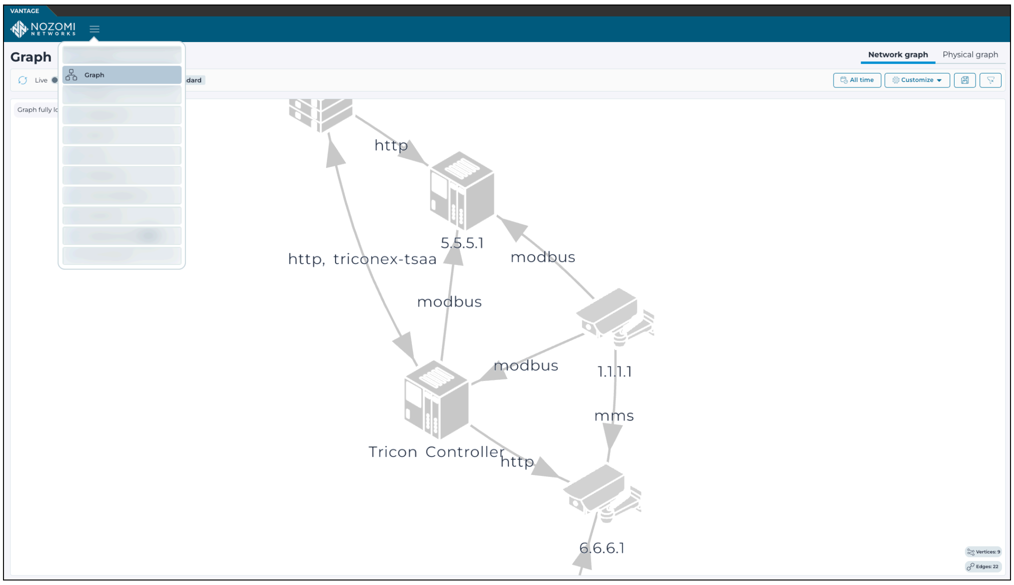


Figure 75. Graph page

The **Graph** page has these tabs:

- Network graph (on page 214)
- Physical graph (on page 217)

Related information

Network graph (on page 214)

Physical graph (on page 217)

Graph customization (on page 220)

Network graph

The ***Network graph*** *page shows a visual representation of your network and all its assets. The icons can represent both assets or nodes. If a node belongs to an asset, then only the asset will show. If several nodes belong to the same asset, they will not show, and only the asset will show. In the case that a node does not belong to an asset, the node itself will show.*

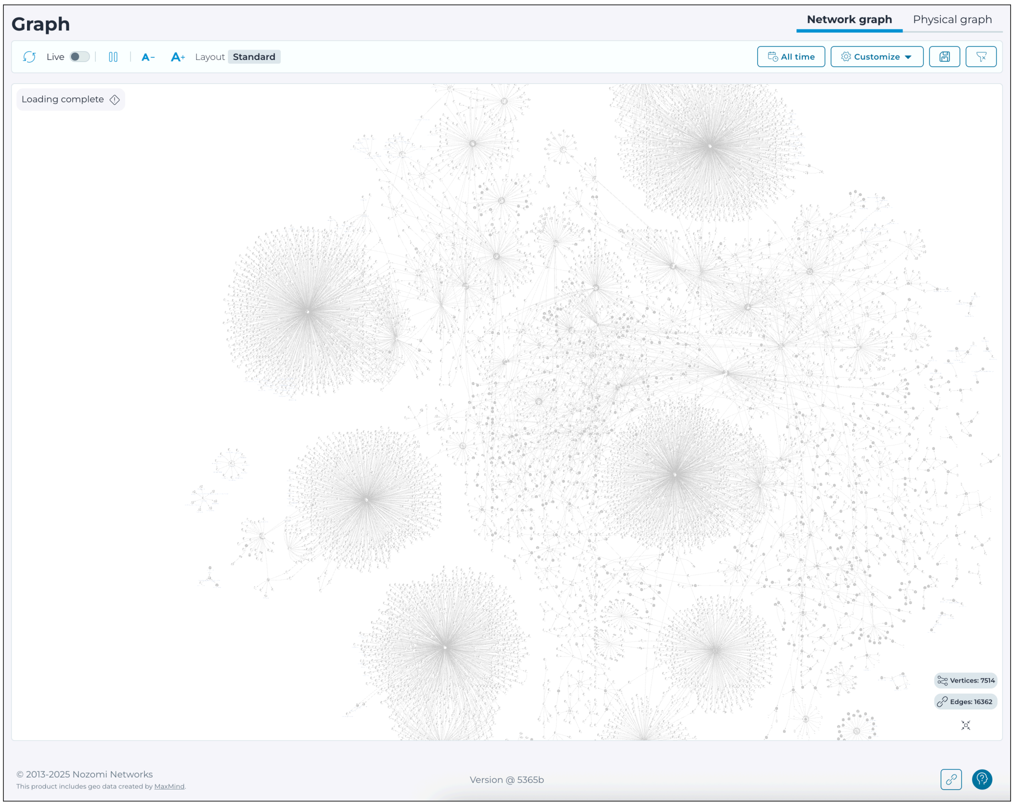
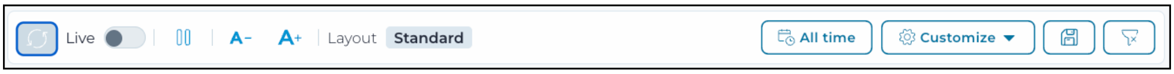


Figure 76. Network graph page

Icons

The top left and right corners have icons that you let interact with the graph.



Refresh

The **Refresh** ⟳ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Pause-play

The pause-play ⏸ icon lets you pause, or restart the motion of the graph.

Layout

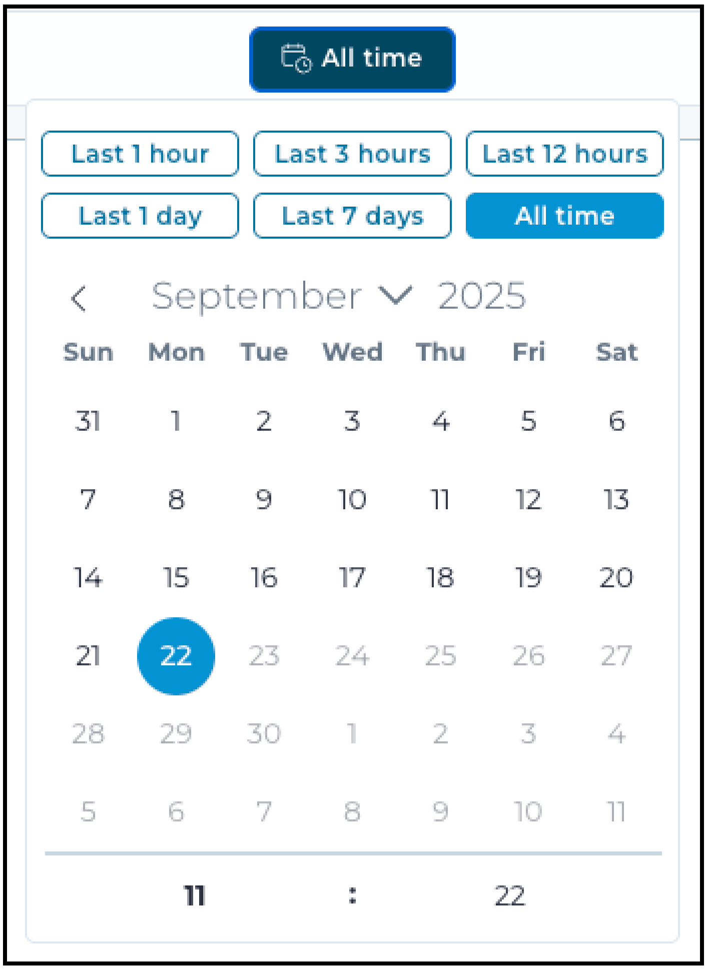
The Layout icon shows which layout is active in the graph. You can select from the available options in the **Customize** menu.

Icon size

These icons let you increase, or decrease the size of the icons.

Time selector

Choose a time period for the graph.



Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11

11 : 22

Figure 77. Time selector

Customize

The **Customize** button opens a menu of settings that you can choose from. For more details, see Graph customization (on page 220).

Save

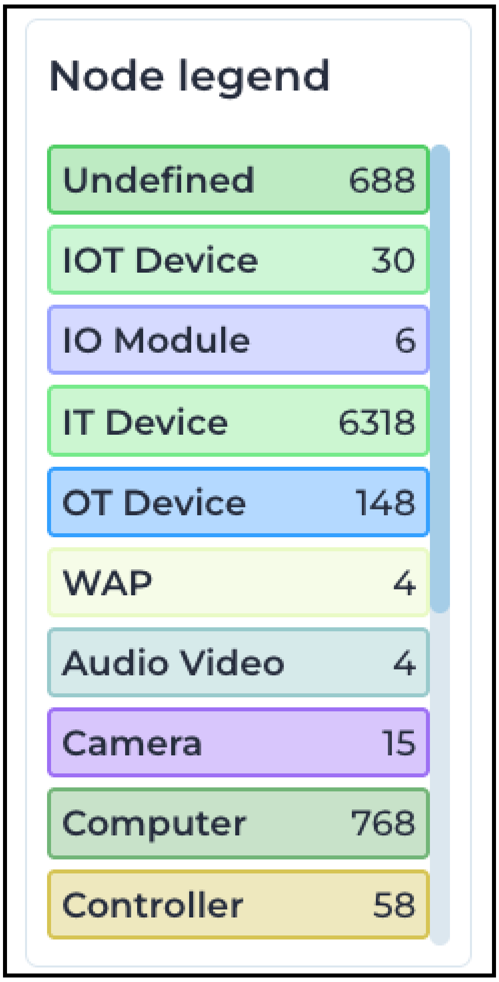
The save icon lets you save the current filter settings.

Clear filter

The clear filter icon lets you clear all the current filters.

Legend

The legend icon is in the bottom left corner of the graph. The legend will show when you click on the icon. To hide it, you need to click on it again.



Node legend

Undefined	688
IOT Device	30
IO Module	6
IT Device	6318
OT Device	148
WAP	4
Audio Video	4
Camera	15
Computer	768
Controller	58

Each type of node shows in a different color. The total number of the related type is also shown.

Reset and center zoom

The reset and center zoom icon resets the zoom level and centers the graph.

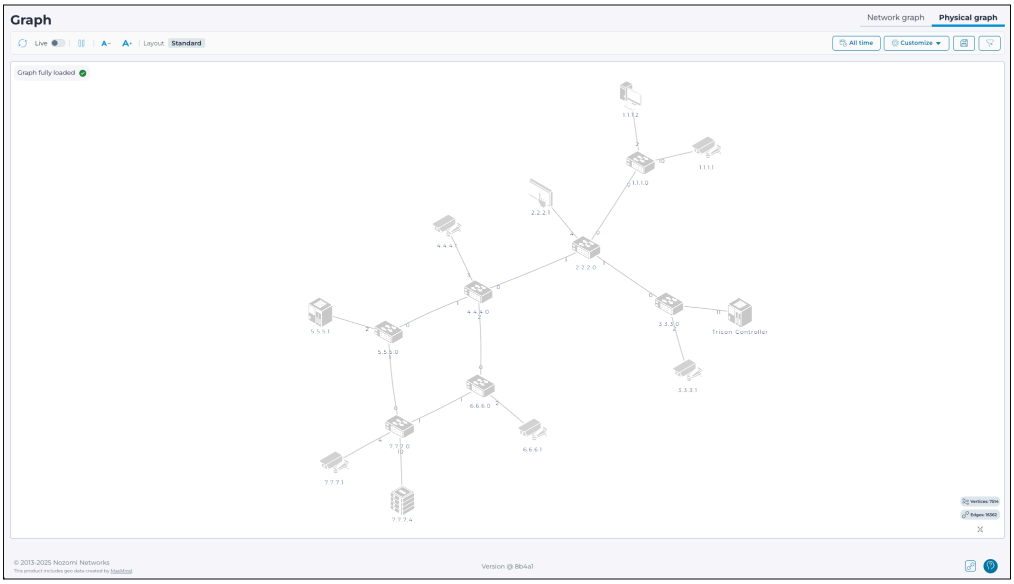
Graph navigation

To use the graph, you can:

- Use your cursor to zoom in and out
- Use your mouse to click-and-drag the graph and move it
- Select links (lines) and assets (icons) to view the related details in the right drawer
- In the drawer, you can select **Details** to open the related Vantage page

Physical graph

*The **Physical graph** page displays a real-time interactive map of all physical device connections in the network. Nodes are shown only if a physical link has been detected for them. The graph, shows how devices connect at the cable level. It is a live, visual way to understand your physical network layout down to the port.*



Graph fully loaded

Vertices: 7514

Edges: 16362

© 2013-2025 Nozomi Networks

This product includes geo data created by MaxMind

Version @ 8b4a1

Figure 78. Physical graph page

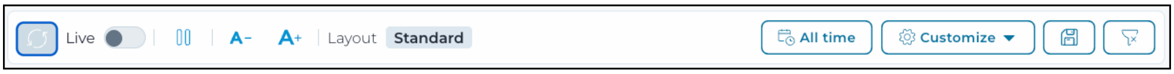
Overview

The **Physical graph** view provides a visual representation of cable-level connections between devices in the network. It uses data collected through Smart Polling to display physical links in a dynamic topology graph that reflects actual hardware wiring, including switch port details.

This view supplements logical graphs by showing real-time or historical physical connectivity between assets. Devices are positioned based on link data, with visual indicators that show port assignments and device types. Use the **Physical graph** to examine network structure, trace physical paths, and identify connectivity changes.

Icons

The top left and right corners have icons that you let interact with the graph.



Refresh

The **Refresh** ⟳ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Pause-play

The pause-play ⏸ icon lets you pause, or restart the motion of the graph.

Layout

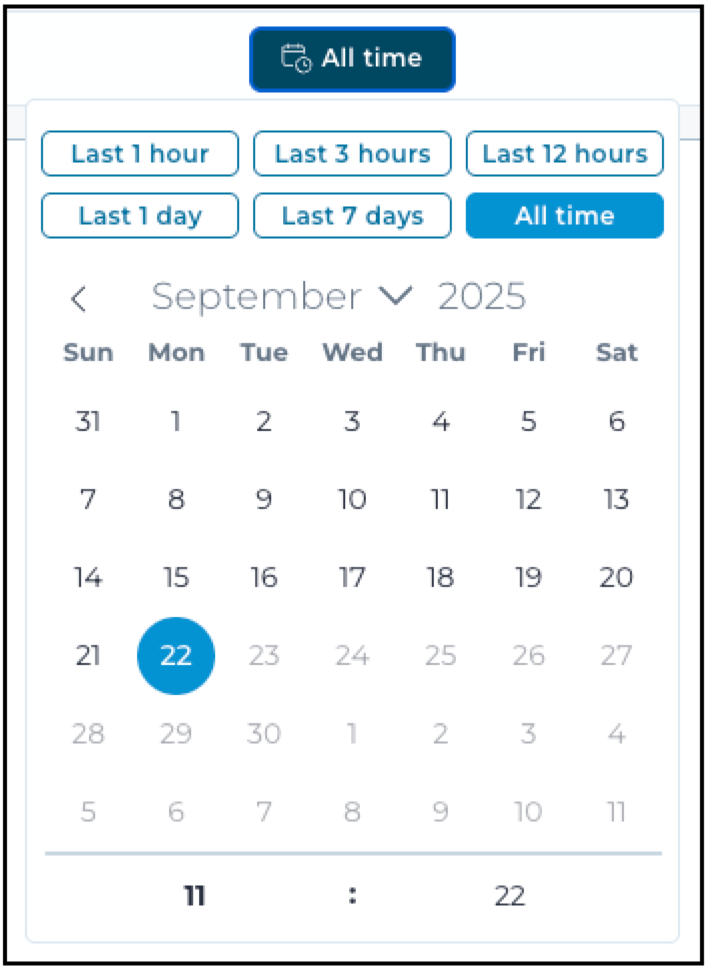
The Layout icon shows which layout is active in the graph. You can select from the available options in the **Customize** menu.

Icon size

These icons let you increase, or decrease the size of the icons.

Time selector

Choose a time period for the graph.



Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4
5	6	7	8	9	10	11

11 : 22

Figure 79. Time selector

Customize

The **Customize** button opens a menu of settings that you can choose from. For more details, see Graph customization (on page 220).

Save

The save 💾 icon lets you save the current filter settings.

Clear filter

The clear filter icon lets you clear all the current filters.

Reset and center zoom

The reset and center zoom icon resets the zoom level and centers the graph.

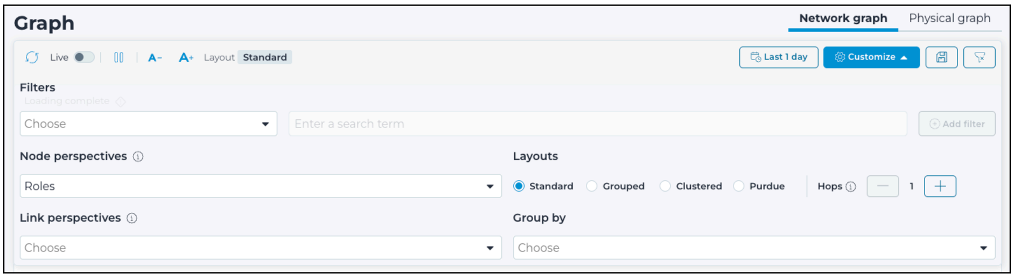
Graph navigation

To use the graph, you can:

- Use your cursor to zoom in and out
- Use your mouse to click-and-drag the graph and move it
- Select links (lines) and assets (icons) to view the related details in the right drawer
- In the drawer, you can select **Details** to open the related Vantage page

Graph customization

*The **Customize** button lets you customize the graph view.*



Layout Standard

Filters: Choose

Node perspectives: Roles

Layouts: ● Standard ○ Grouped ○ Clustered ○ Purdue

Hops: 1

Link perspectives: Choose

Group by: Choose

Figure 80. Customization settings (Network graph version shown)

The **Customize** button opens a menu of settings that you can choose from to change the graph view. These settings let you change the appearance and structure of the network graph for more effective data interpretation.

Filters

Use filters to restrict the visible assets and links based on selected criteria. This helps reduce visual clutter and focus on relevant areas of the network.

If several filters of different types are selected, a logical AND is applied.

If several filters of the same type are selected, a logical OR is applied.

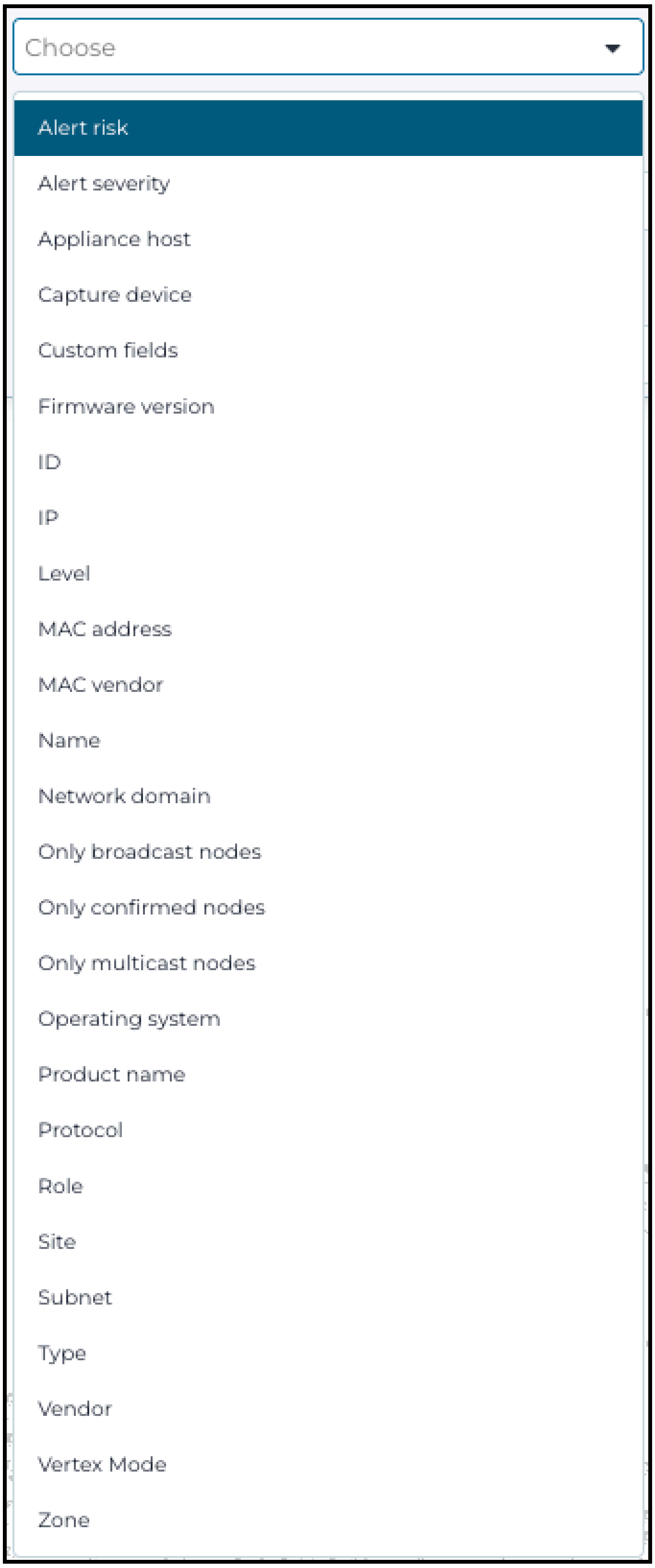


Figure 81. Filter dropdown

Once a filter is selected, one of these items will become active to the right:

- A dropdown that lets you make a further, related selection
- A text field that let's you enter and search for custom text

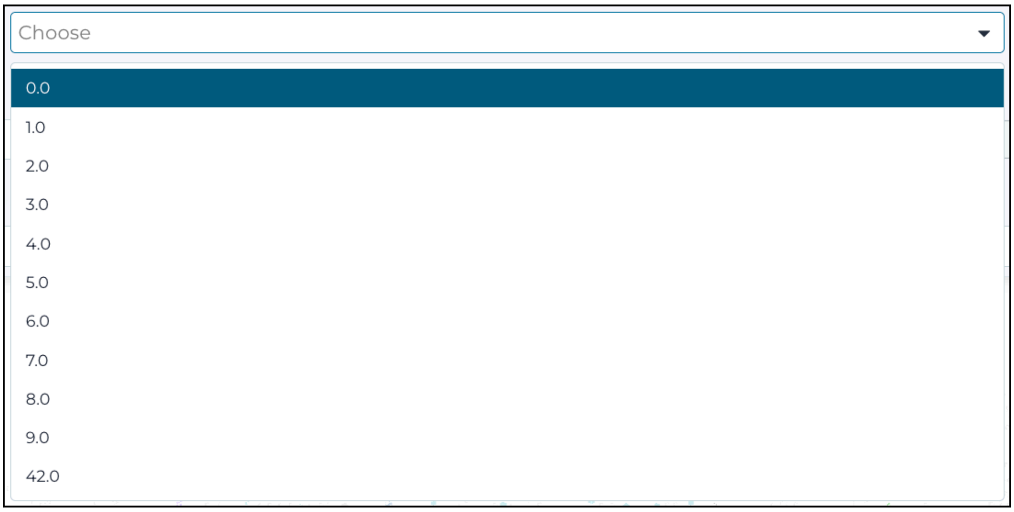


Figure 82. Choose dropdown/ text field

Node perspectives

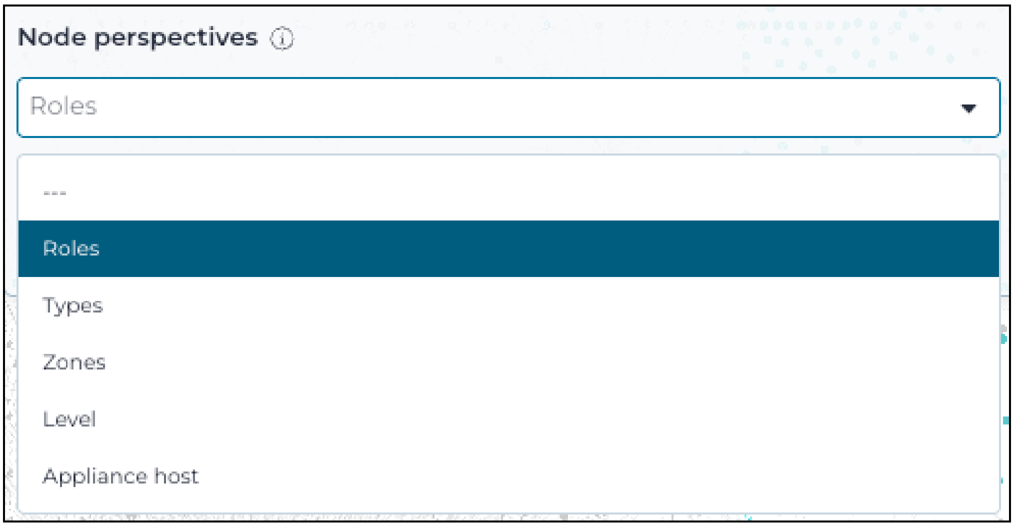


Figure 83. Nodes perspectives dropdown

Select the property that changes the color of the nodes in the graph. This setting controls the perspective from which nodes are visually and semantically organized. You can choose how the color of individual nodes show in the graph:

- **Roles** – Color nodes based on assigned roles, such as client, server, or gateway
- **Types** – Color nodes according to their device type (e.g., switch, sensor, workstation)
- **Zones** – Color nodes by logical zones, often reflecting segmentation policies or network architecture

- **Level** – Color nodes based on hierarchical levels, such as Purdue model layers
- **Appliance host** – Color nodes based on the monitoring appliance that discovered or manages them

Layouts

Select one of the available graph layout types to change how assets and links are visually arranged:

Standard: Default arrangement based on connectivity.

Grouped: Group nodes based on the **Group by** selection. Nodes will be grouped in different circles based on the value of the defined property. For example, if the property is **Zones**, nodes that belong to the same zone will be put in the same circle.

Clustered: The nodes are hierarchically grouped in clusters based on the topology. If a **Group by** is defined, this sets the first level of the hierarchy.

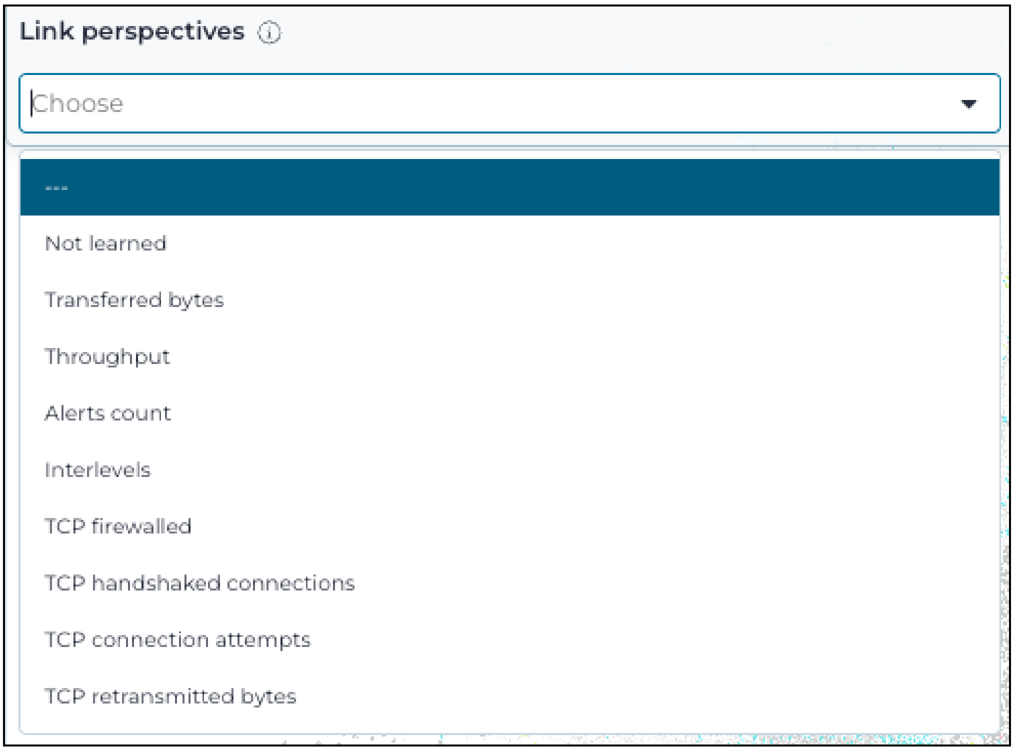
Purdue (Network graph only): Follows the Purdue model for industrial control system layers.

Hops

The **Hops** settings lets you adjust the number of connection hops shown in the graph in any filtered view. The settings let you start with a focused set of assets and progressively discover additional connections. This makes it easier to investigate relationships without losing context. The lowest setting is `1` and not `0`. This is because a graph with a single isolated node has no value. Therefore, by default you will see the node `1.1.1.1` with the first level of connected nodes. When you increase the setting to `2`, the nodes that are connected to all the first level nodes will also show.

From the start position, you not only see what you have filtered, but the first level of connected nodes. For example, if you filter with the *IP* address: `1.1.1.1`, you will not just see the single isolated node `1.1.1.1`, but also the first level of connected nodes.

Link perspectives (Network graph only)



Link perspectives

Choose

Not learned

Transferred bytes

Throughput

Alerts count

Interlevels

TCP firewalled

TCP handshaked connections

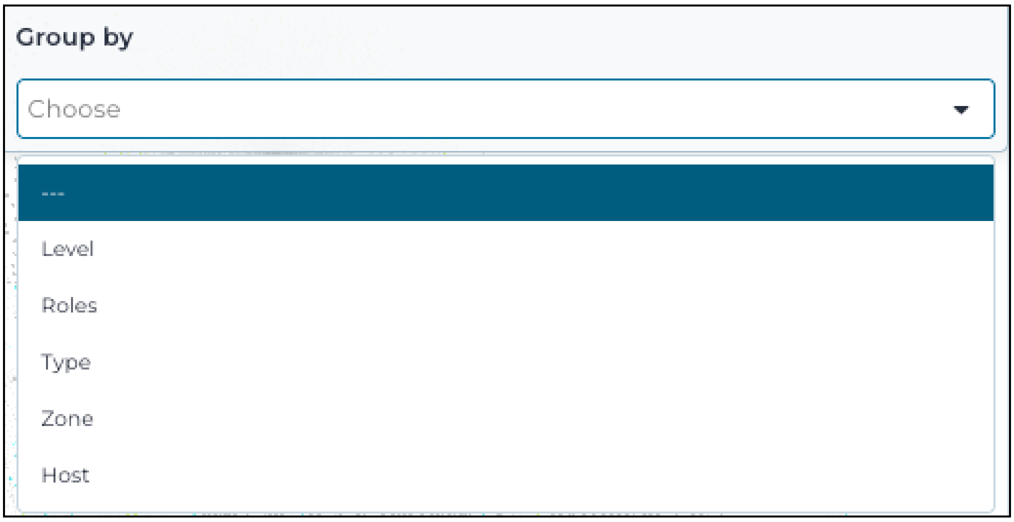
TCP connection attempts

TCP retransmitted bytes

Figure 84. Link perspectives dropdown

Select the property that changes the color of the links in the graph. Link perspectives help illustrate different types of relationships or communication flows between devices. You can choose how the color of individual links show in the graph.

Group by



Group by

Choose

Level

Roles

Type

Zone

Host

Figure 85. Group by dropdown

Dynamically group nodes in the graph by specified metadata such as device type or subnet. This feature enhances pattern visibility and makes it easier to detect anomalies or segment relationships.

When **Group by** is defined, the result will depend on the selected layout:

Standard: All nodes with the same **Group by** value will be condensed into a single node. For example, if the **Group by** is **Roles**, then all the nodes with the same role will be condensed into a single node.

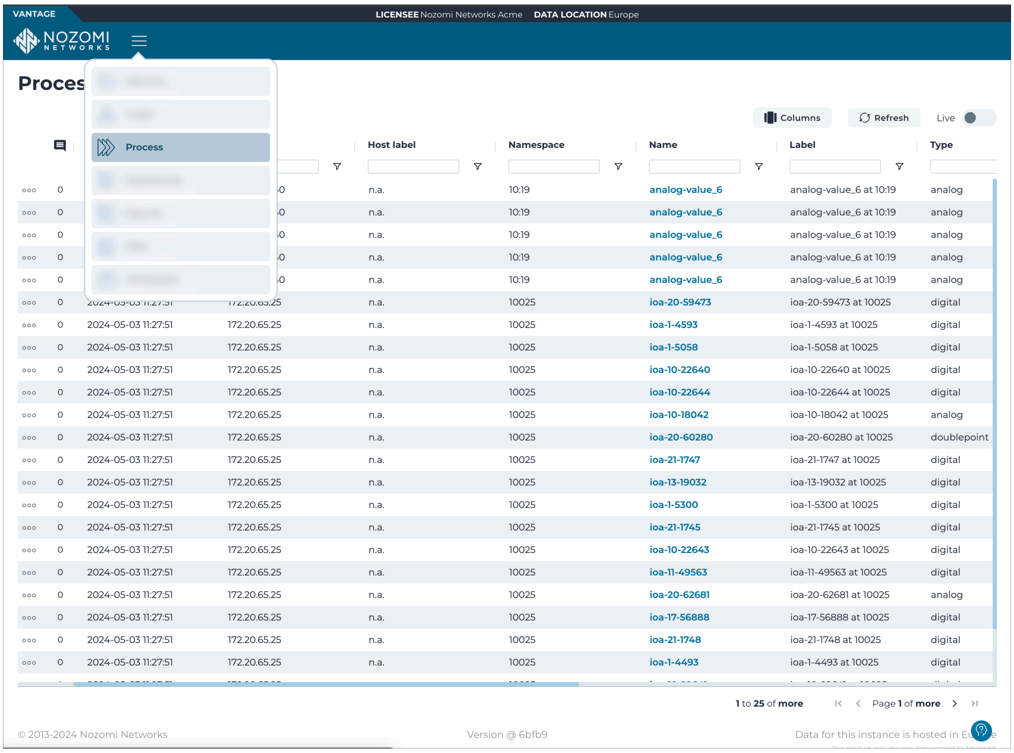
Grouped: All nodes with the same **Group by** value will be put in the same circle. For example, if the **Group by** value is **Zone**, then all the nodes that belong to the same zone will be put in the same circle.

Clustered: All nodes with the same **Group by** value will be put in the same first level cluster of the cluster hierarchy.

Purdue: Nodes will show in different circles based on their level. Circles will show in a three dimensional view.

Chapter 11. Process

*The **Process** page shows a list of processes in your environment. Processes are a set of repeatable functions that a business does to deliver a core value.*



				Host label	Namespace	Name	Label	Type
○○○	0			n.a.	10:19	analog-value_6	analog-value_6 at 10:19	analog
○○○	0			n.a.	10:19	analog-value_6	analog-value_6 at 10:19	analog
○○○	0			n.a.	10:19	analog-value_6	analog-value_6 at 10:19	analog
○○○	0			n.a.	10:19	analog-value_6	analog-value_6 at 10:19	analog
○○○	0			n.a.	10:19	analog-value_6	analog-value_6 at 10:19	analog
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-20-59473	ioa-20-59473 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-1-4593	ioa-1-4593 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-1-5058	ioa-1-5058 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-10-22640	ioa-10-22640 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-10-22644	ioa-10-22644 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-10-18042	ioa-10-18042 at 10025	analog
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-20-60280	ioa-20-60280 at 10025	doublepoint
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-21-1747	ioa-21-1747 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-13-19032	ioa-13-19032 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-1-5300	ioa-1-5300 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-21-1745	ioa-21-1745 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-10-22643	ioa-10-22643 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-11-49563	ioa-11-49563 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-20-62681	ioa-20-62681 at 10025	analog
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-17-56888	ioa-17-56888 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-21-1748	ioa-21-1748 at 10025	digital
○○○	0	2024-05-03 11:27:51	172.20.65.25	n.a.	10025	ioa-1-4493	ioa-1-4493 at 10025	digital

1 to **25** of **more** Page **1** of **more**

© 2013-2024 Nozomi Networks Version @ 6bfb9 Data for this instance is hosted in Eu

Figure 86. Process page

Process includes:

- Repeatable tasks
- Data collection
- Resource control in accordance with business policies

Variables model communication between operational devices as they participate in the industrial process.

Individual values within operational devices are represented as variables, and Vantage tracks them over time in **Process**.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** ↻ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Table interactions

Actions menu

Enable history

The ***Enable History*** *function lets you start to map historical values.*

Procedure

1. In the top navigation bar, select ≡ > **Process**.

   Result: The Process (on page 227) page opens.

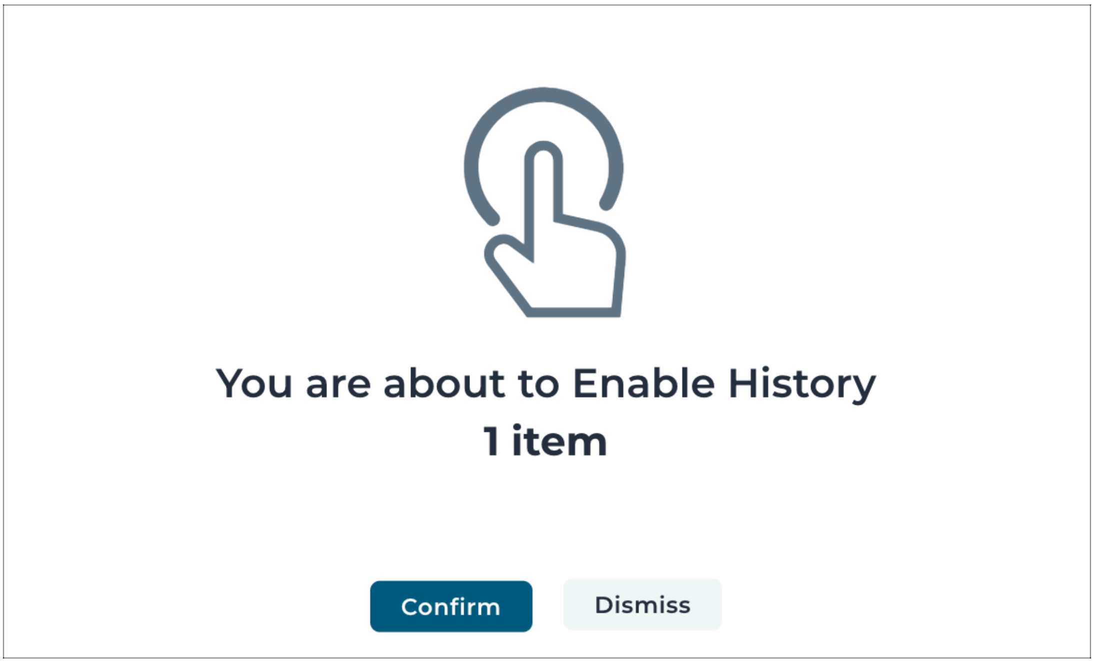
2. Choose a method to open the actions menu.

   Choose from:
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon

3. Select **Enable History**.

   Result: A dialog shows.

4. Select **Confirm**.



You are about to Enable History

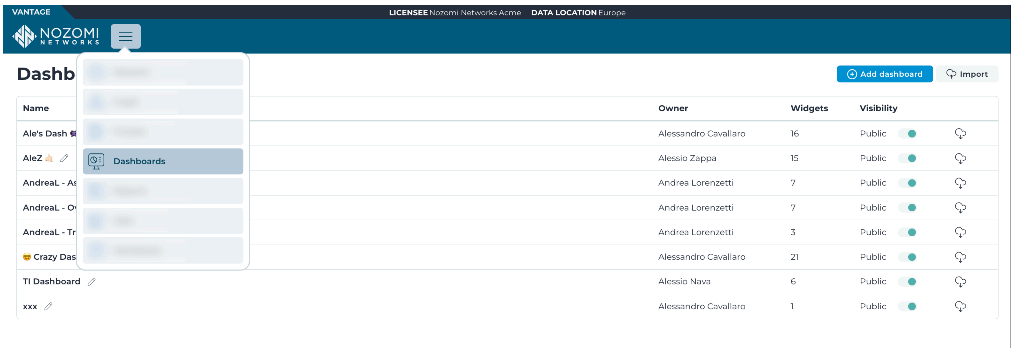
1 item

Results

History has been enabled.

Chapter 12. Dashboards

*The **Dashboards** page shows a list of all the dashboards that have been created.*



LICENSEE Nozomi Networks Acme **DATA LOCATION** Europe

Name	Owner	Widgets	Visibility
Ale's Dash	Alessandro Cavallaro	16	Public
AleZ	Alessio Zappa	15	Public
AndreaL - As	Andrea Lorenzetti	7	Public
AndreaL - O	Andrea Lorenzetti	7	Public
AndreaL - Tr	Andrea Lorenzetti	3	Public
Crazy Das	Alessandro Cavallaro	21	Public
TI Dashboard	Alessio Nava	6	Public
xxx	Alessandro Cavallaro	1	Public

Figure 87. Dashboards page

Add dashboard

This button lets you Create a dashboard (on page 234).

Import

This button lets you Import a dashboard (on page 235).

Related information

Create a dashboard (on page 234)

Import a dashboard (on page 235)

Export a dashboard (on page 236)

Add a widget (on page 237)

Print a dashboard (on page 238)

Create a dashboard

This procedure explains how to create a dashboard, select a template, enter a name, and set visibility options.

Procedure

1. In the top navigation bar, select ☰ **> Dashboards**.

   Result: The Dashboards (on page 231) page opens.

2. From the **Choose a template** dropdown, select an option.

   You can choose from these options:

   - Empty
   - Alerts
   - Assets
   - Overview
   - Sensors
   - Traffic
   - Vulnerabilities

3. In the **Dashboard name** field, enter a name for your dashboard.
4. **Optional:** If you want the dashboard to be visible to everyone in your organization, select **is public?** to on.
5. Select **Create dashboard**.

Results

The dashboard has been created, and it is now visible in the **Dashboards** page.

Import a dashboard

It is possible to import a dashboard that has previously been exported in JSON format.

Procedure

1. In the top navigation bar, select ☰ **> Dashboards**.

   Result: The Dashboards (on page 231) page opens.

2. In the top right section, select **Import**.

   Result: The **Import a dashboard** page opens.

3. Select **Choose file** and select the *JSON* dashboard file.
4. Once the file has loaded, select **Confirm**.

Results

The dashboard has been imported, and it is now visible in the **Dashboards** page.

Export a dashboard

It is possible to export a dashboard in JSON format.

Procedure

1. In the top navigation bar, select ≡ > **Dashboards**.

   Result: The Dashboards (on page 231) page opens.

2. To the right of the applicable dashboard, select the ☁ icon.

Results

The dashboard downloads in *JSON* format.

Add a widget

Once you have a dashboard, you can add a widget to it.

Procedure

1. In the top navigation bar, select ☰ **> Dashboards**.

   Result: The Dashboards (on page 231) page opens.

2. Select the applicable dashboard.
3. In the top right section, select **Add widget**.

   Result: The **Edit widget** page opens.

4. From the **Widget** dropdown, select a widget type.
5. **Optional:** In the **Title** field, edit the title of the widget as necessary.
6. Select **Apply**.

Results

The widget has been added to the dashboard.

Print a dashboard

Print and save dashboards in PDF format using the built-in print-friendly option. Follow simple steps to generate a downloadable file for local storage or sharing.

Procedure

1. In the top navigation bar, select ☰ **> Dashboards**.

   Result: The Dashboards (on page 231) page opens.

2. Select the applicable dashboard.
3. In the top right section, select **Print mode**.

   Result: The page will show in a print-friendly format.

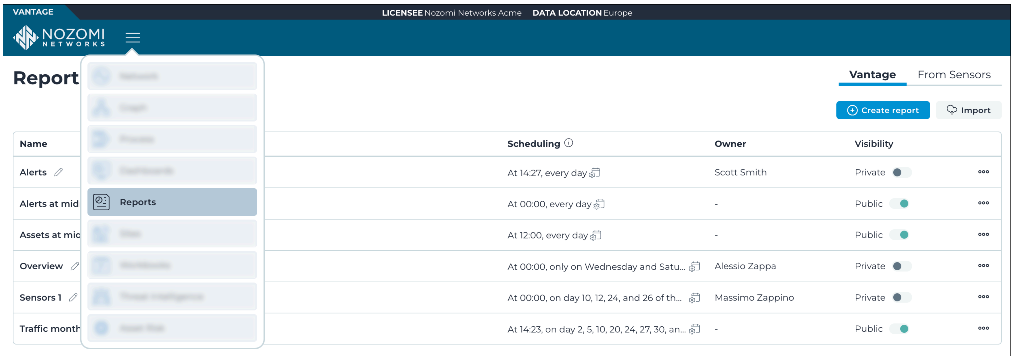
4. To save the file in *portable document format (PDF)* format, follow the standard procedure for your browser.

Results

The *PDF* file has been saved locally on your computer.

Chapter 13. Reports

*The **Reports** page shows all the reports that the sensors in your system have created.*



Name	Scheduling	Owner	Visibility
Alerts	At 14:27, every day	Scott Smith	Private
Alerts at mid	At 00:00, every day	-	Public
Assets at mid	At 12:00, every day	-	Public
Overview	At 00:00, only on Wednesday and Satu...	Alessio Zappa	Private
Sensors 1	At 00:00, on day 10, 12, 24, and 26 of th...	Massimo Zappino	Private
Traffic month	At 14:23, on day 2, 5, 10, 20, 24, 27, 30, an...	-	Public

Figure 88. Reports page

The **Reports** page has these tabs:

- Vantage (on page 242)
- From Sensors (on page 248)

Related information

Create a report (on page 243)

Import a report (on page 246)

Export a report (on page 250)

Edit a report (on page 249)

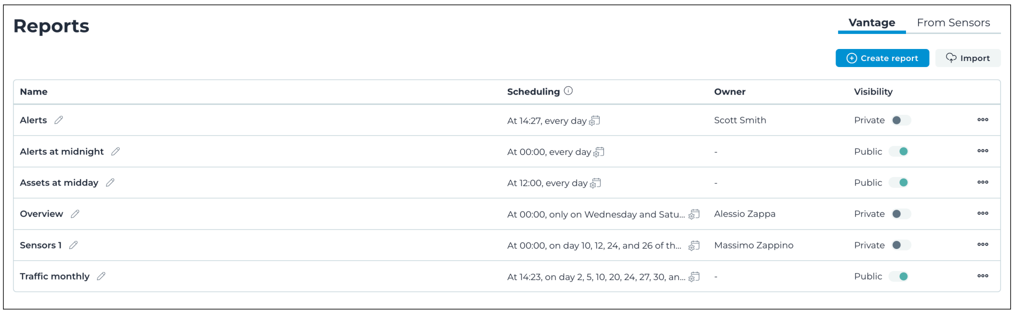
Edit the settings of a report (on page 249)

Delete a report (on page 250)

Print a report (on page 247)

Vantage

*The **Vantage** page shows all the reports that have been created in Vantage.*



Name	Scheduling	Owner	Visibility
Alerts	At 14:27, every day	Scott Smith	Private
Alerts at midnight	At 00:00, every day	-	Public
Assets at midday	At 12:00, every day	-	Public
Overview	At 00:00, only on Wednesday and Satu...	Alessio Zappa	Private
Sensors 1	At 00:00, on day 10, 12, 24, and 26 of th...	Massimo Zappino	Private
Traffic monthly	At 14:23, on day 2, 5, 10, 20, 24, 27, 30, an...	-	Public

Figure 89. Vantage page

Create report

This lets you Create a report (on page 243).

Import

This lets you Import a report (on page 246).

Name

The name of the report. To modify the name, you can select the pencil icon, modify the name and select the tick icon.

Scheduling

The details of when the report is scheduled for creation.

Owner

The person that created the report.

Visibility

This toggle lets you choose whether the report is visible to a private or a public audience.

Actions menu

The actions menu gives you access to these options:

- Edit (on page 249)
- Settings (on page 249)
- Export (on page 250)
- Delete (on page 250)

Related information

From Sensors (on page 248)

Create a report

Learn how to create and schedule a custom report using predefined templates, recurrence settings, and visibility options in your organization.

About this task

The creation and scheduling of custom reports lets you streamline how critical information is shared within your organization. The use of predefined templates helps you quickly design reports tailored to specific needs, such as tracking vulnerabilities, monitoring traffic, or providing an overview of assets. The recurrence settings and visibility options make sure that the reports are generated on time and reach the correct audience, enhancing collaboration and decision-making across teams.

Procedure

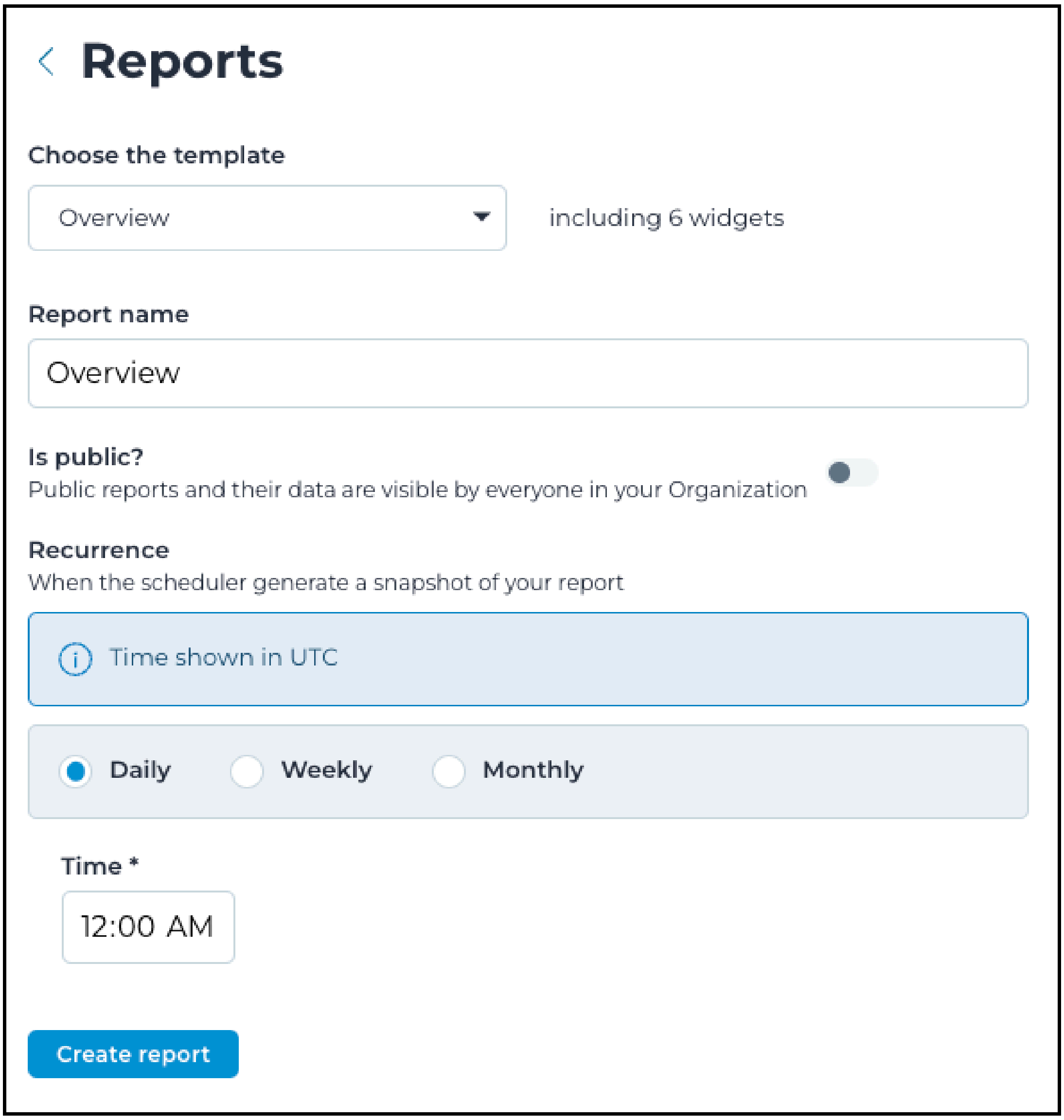
1. In the top navigation bar, select ☰ > **Reports**.

   Result: The Reports (on page 239) page opens.

2. In the top right corner, select **Create report**.

3. **Optional:**

   From the **Choose a template** dropdown, select an option.



Reports

Choose the template: Overview (including 6 widgets)

Report name: Overview

Is public?
Public reports and their data are visible by everyone in your Organization

Recurrence
When the scheduler generate a snapshot of your report

Time shown in UTC

● Daily ○ Weekly ○ Monthly

Time *: 12:00 AM

   You can choose from these options;

   - Empty
   - Alerts
   - Assets
   - Overview
   - Sensors
   - Traffic
   - Vulnerabilities

4. In the **Report name** field, enter a name for the report.
5. **Optional:** To make the report visible to everyone in your organization, set the **Is public?** toggle to on.

6. In the **Recurrence** section, select one of these radio buttons:

   Choose from:
   - Daily
   - Weekly
   - Monthly
7. In the **Time** field, set the time that the report will be generated.
8. Select **Create report**.

Results

The report has been scheduled for creation.

Import a report

Learn how to import a report that was previously created in Vantage.

Procedure

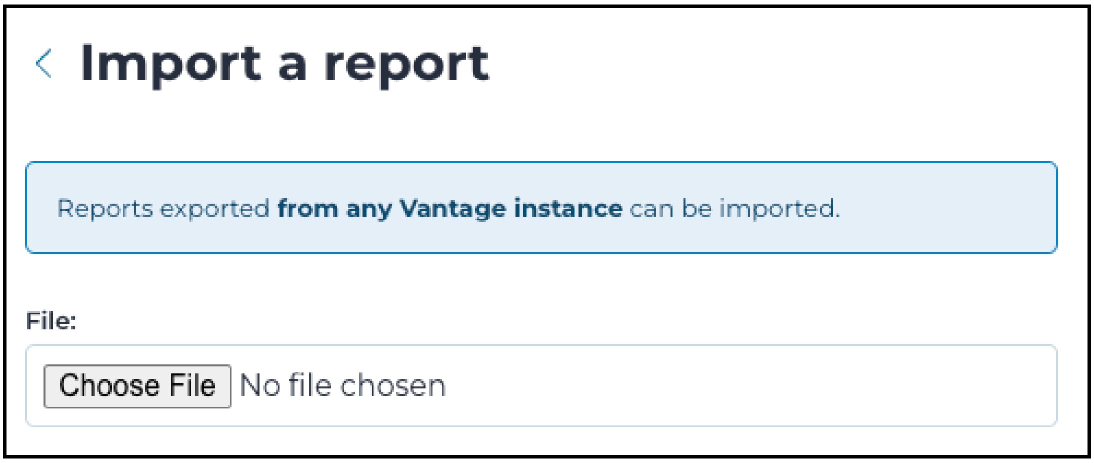
1. In the top navigation bar, select ☰ > **Reports**.

   Result: The Reports (on page 239) page opens.

2. In the top right corner, select **Import**.

   Result: The **Import a report** page opens.

3. Select **Choose File**.

   Reports exported **from any Vantage instance** can be imported.

   File:

4. Select the report file.

   The report will be in *JSON* format.

5. Select **Confirm**.

Print a report

Print and save reports in PDF format using the built-in print-friendly option. Follow simple steps to generate a downloadable file for local storage or sharing.

Procedure

1. In the top navigation bar, select ≡ > **Reports**.

   Result: The Reports (on page 239) page opens.

2. Select the applicable report.
3. In the top right section, select **Print mode**.

   Result: The page will show in a print-friendly format.

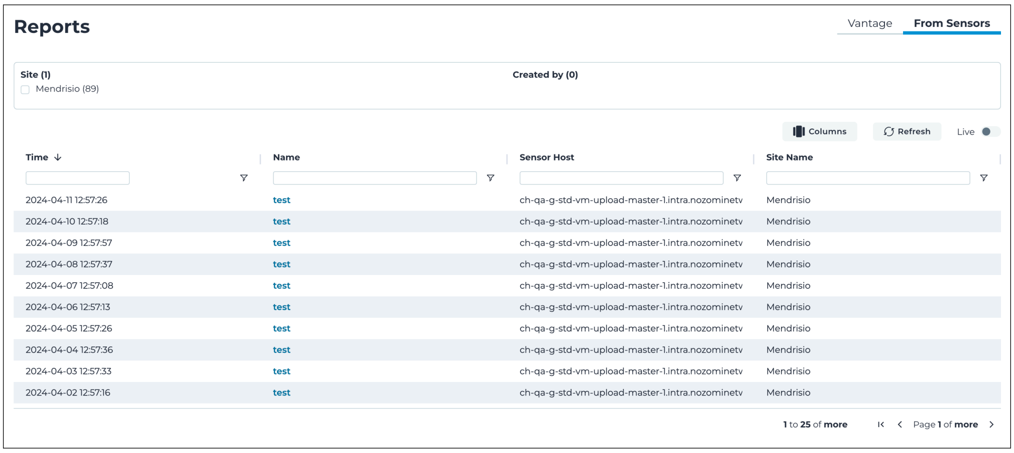
4. To save the file in *PDF* format, follow the standard procedure for your browser.

Results

The *PDF* file has been saved locally on your computer.

From Sensors

*The **From Sensors** page shows all the reports that have been created on sensors in your system.*



Site (1)
☐ Mendrisio (89)

Created by (0)

Time ↓	Name	Sensor Host	Site Name
2024-04-11 12:57:26	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-10 12:57:18	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-09 12:57:57	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-08 12:57:37	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-07 12:57:08	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-06 12:57:13	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-05 12:57:26	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-04 12:57:36	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-03 12:57:33	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio
2024-04-02 12:57:16	test	ch-qa-g-std-vm-upload-master-1.intra.nozominetv	Mendrisio

1 to 25 of more   Page 1 of more

Figure 90. From Sensors page

Site

This shows the site location of the sensors that created the report.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** icon lets you immediately refresh the current view.

Live

The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Related information

Vantage (on page 242)

Table interactions

Actions menu

Edit a report

Learn how to use the actions menu to edit reports.

Procedure

1. In the top navigation bar, select ≡ > **Reports**.

   Result: The Reports (on page 239) page opens.

2. In the table, select the ••• icon.
3. Select **Edit**.

   Result: The report opens.

4. Edit the report as necessary.
5. Select **Apply**.

Results

The report has been edited.

Edit the settings of a report

Learn how to use the actions menu to edit the settings of a report.

Procedure

1. In the top navigation bar, select ≡ > **Reports**.

   Result: The Reports (on page 239) page opens.

2. In the table, select the ••• icon.
3. Select **Settings**.

   Result: The report opens.

4. Edit the report settings as necessary.
5. Select **Edit report**.

Results

The report has been edited.

Export a report

Learn how to use the actions menu to export reports.

Procedure

1. In the top navigation bar, select ☰ > **Reports**.

   Result: The Reports (on page 239) page opens.

2. In the table, select the ••• icon.
3. Select **Export**.

Results

The report downloads in *JSON* format.

Delete a report

You can use the actions menu to delete reports.

Procedure

1. In the top navigation bar, select ☰ > **Reports**.

   Result: The Reports (on page 239) page opens.

2. In the table, select the ••• icon.
3. Select **Delete**.

   Result: A dialog shows.

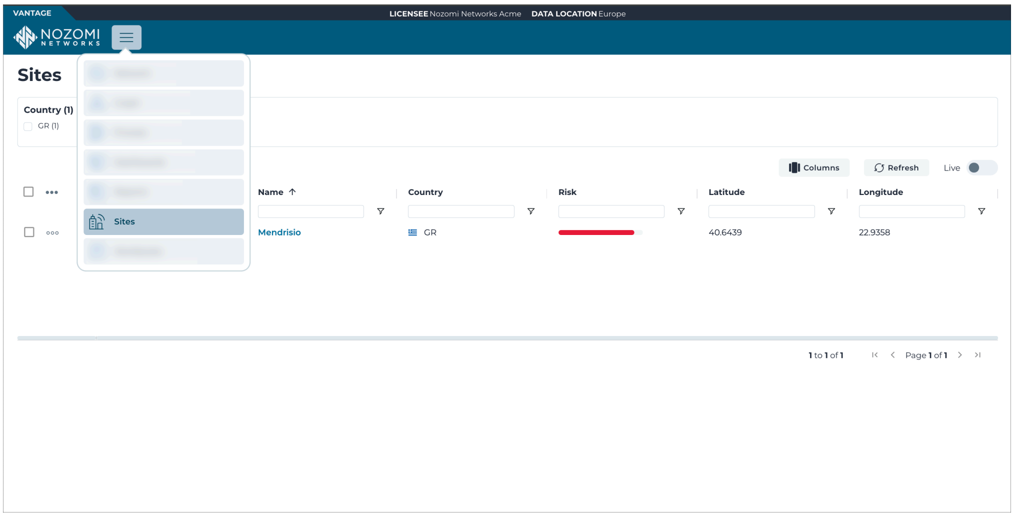
4. Select **OK**.

Results

The report has been deleted.

Chapter 14. Sites

*The **Sites** page shows all the geographical locations of the assets in your system. It lets you associate a site to one or more network domains. You can also add details such as the country or city of the site.*



Name	Country	Risk	Latitude	Longitude
Mendrisio	GR		40.6439	22.9358

Figure 91. Sites page

Country

This shows a list of all the countries that are applicable for the sites in the current table view.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** icon lets you immediately refresh the current view.

Live

The **Live** toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Table interactions

Actions menu

Export a site

You can use the actions menu to export sites.

Procedure

1. In the top navigation bar, select ≡ > **Sites**.

   Result: The Sites (on page 251) page opens.

2. Choose a method to open the actions menu.

   Choose from:

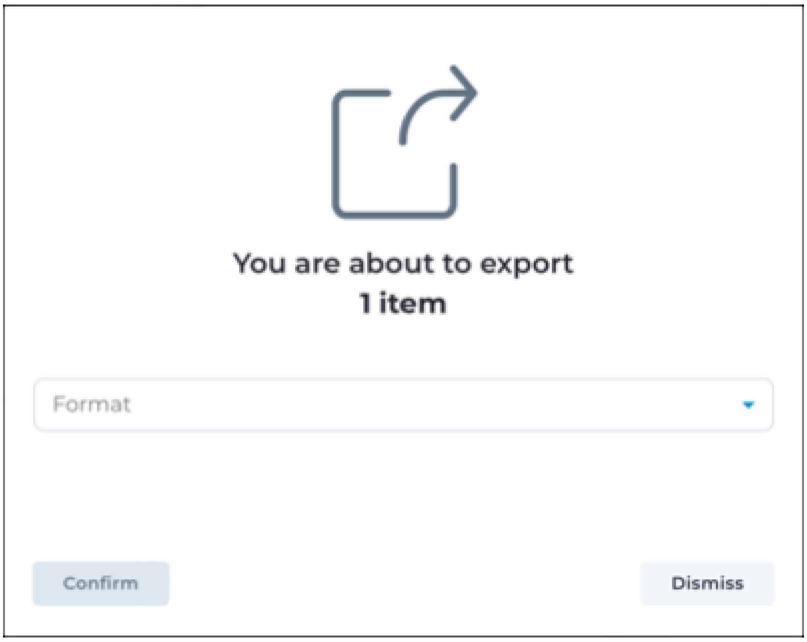
   - In the table, select the hyperlink to open the details page. Select **Actions**
   - In the table, select the ••• icon

3. If you use the ••• icon in the table, choose a method to select one, or more, items.

   Choose from:

   - Select the top checkbox to select all the items in the current table view
   - Select multiple checkboxes for the items that you want to choose
   - Select the checkbox for the item that you want to choose

4. Select **Export**.



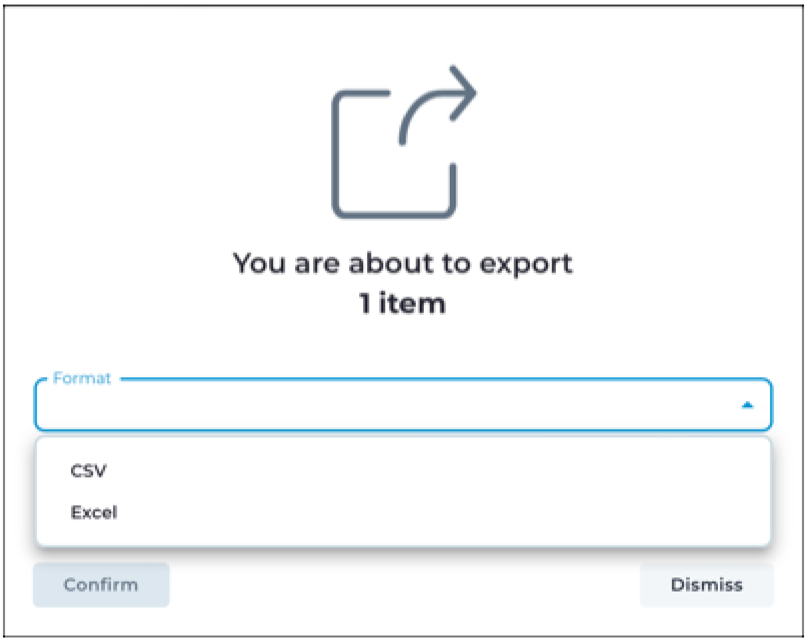
You are about to export 1 item

   Result: The export dialog shows.

5. Select the **Format** dropdown.

   Result: A dialog shows.

6. In the **Format** dropdown, select the format that you want to export.

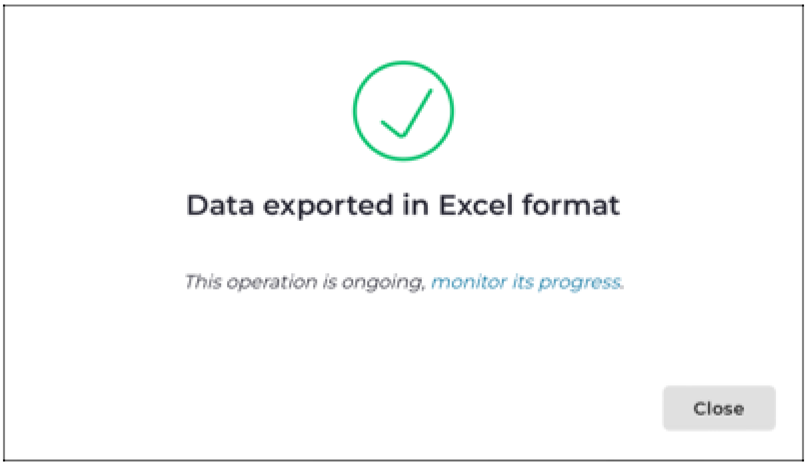


You are about to export
1 item

7. Select **Confirm**.

   Result: A confirmation dialog shows.

8. Select **Close**.



Data exported in Excel format

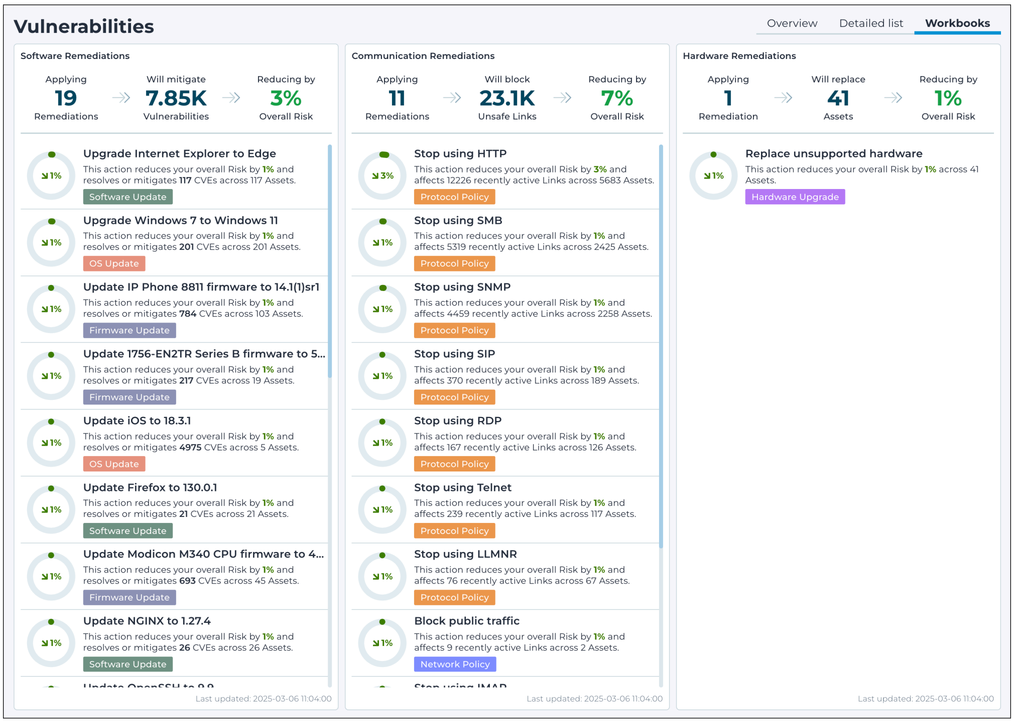
This operation is ongoing, monitor its progress.

Results

The site(s) has (have) been exported.

Chapter 15. Workbooks

The ***Workbooks*** *page shows recommended courses of action that can improve your network security. Generated through machine learning, workbooks highlight the vulnerabilities currently creating the highest risk exposure.*



Upgrade Internet Explorer to Edge
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **117** CVEs across 117 Assets.
Software Update

Upgrade Windows 7 to Windows 11
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **201** CVEs across 201 Assets.
OS Update

Update IP Phone 8811 firmware to 14.1(1)sr1
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **784** CVEs across 103 Assets.
Firmware Update

Update 1756-EN2TR Series B firmware to 5...
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **217** CVEs across 19 Assets.
Firmware Update

Update iOS to 18.3.1
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **4975** CVEs across 5 Assets.
OS Update

Update Firefox to 130.0.1
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **21** CVEs across 21 Assets.
Software Update

Update Modicon M340 CPU firmware to 4...
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **693** CVEs across 45 Assets.
Firmware Update

Update NGINX to 1.27.4
1%
This action reduces your overall Risk by **1%** and resolves or mitigates **26** CVEs across 26 Assets.
Software Update

Last updated: 2025-03-06 11:04:00

Stop using HTTP
3%
This action reduces your overall Risk by **3%** and affects 12226 recently active Links across 5683 Assets.
Protocol Policy

Stop using SMB
1%
This action reduces your overall Risk by **1%** and affects 5319 recently active Links across 2425 Assets.
Protocol Policy

Stop using SNMP
1%
This action reduces your overall Risk by **1%** and affects 4459 recently active Links across 2258 Assets.
Protocol Policy

Stop using SIP
1%
This action reduces your overall Risk by **1%** and affects 370 recently active Links across 189 Assets.
Protocol Policy

Stop using RDP
1%
This action reduces your overall Risk by **1%** and affects 167 recently active Links across 126 Assets.
Protocol Policy

Stop using Telnet
1%
This action reduces your overall Risk by **1%** and affects 239 recently active Links across 117 Assets.
Protocol Policy

Stop using LLMNR
1%
This action reduces your overall Risk by **1%** and affects 76 recently active Links across 67 Assets.
Protocol Policy

Block public traffic
1%
This action reduces your overall Risk by **1%** and affects 9 recently active Links across 2 Assets.
Network Policy

Last updated: 2025-03-06 11:04:00

Replace unsupported hardware
1%
This action reduces your overall Risk by **1%** across 41 Assets.
Hardware Upgrade

Last updated: 2025-03-06 11:04:00

Figure 92. Workbooks page

Banner image

The banner image is a powerful visual report that uses bubble graphics to represent the relative impact of each workbook recommendation.

List

The list shows ranked recommendations, with the most effective actions at the top. For each workbook, Vantage shows:

- On the left, the highest risk score among all the vulnerabilities included in the workbook.
- A title that shows the recommended course of action.
- A description of the issue and the benefits of addressing it.
- In the top right corner of each workbook, Vantage shows:
    - An assessment of the risk reduction you will achieve if you follow the recommended steps. It is shown as a percentage.
    - The number of assets where the vulnerability was detected.
    - The number of *CVE* that you would address if you follow the recommended steps.

Related information

Use a workbook to improve your network security (on page 260)

Use a workbook to improve your network security

When workbooks make recommendations, you should use them to improve your network security.

Procedure

1. In the top navigation bar, select ≡ > **Workbooks**.

   Result: The Workbooks (on page 181) page opens.

2. Make a note of the description in the largest bubble in the banner image.

   > **Note:**
   > This workbook also shows at the top of the list of workbooks below.

3. Choose a method with which to open the list of vulnerabilities that you can address.

   Choose from:

   - In the banner image, select the largest bubble.
   - In the list, select **Review** to the right of a workbook.

4. Resolve the vulnerability (on page 179).

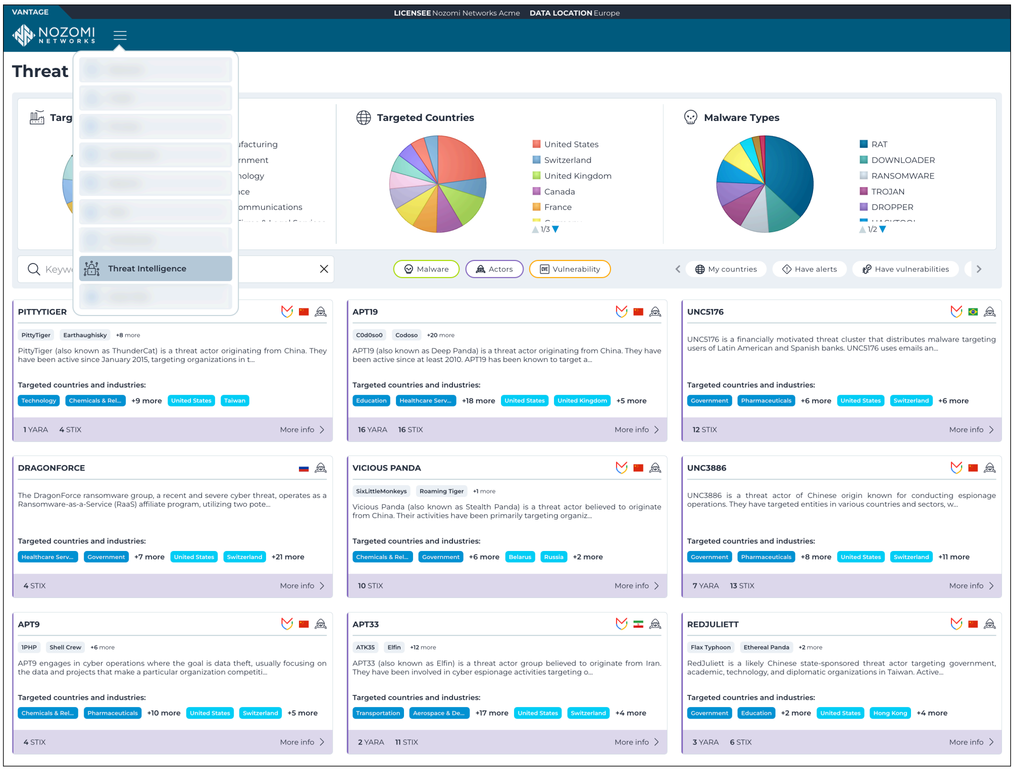
   > **Note:**
   > You should create a plan to take the recommended action. For example, a workbook might recommend that you upgrade all assets that run an old application version. In this case, you should create a maintenance schedule and take the necessary steps to update those applications to the latest, secure version.

Related information

Workbooks (on page 181)

Chapter 16. Threat Intelligence

*The **Threat Intelligence** page shows an overview of all of the available threat cards and categories. It also lets you filter the threat cards to show only malware, threat actors, or vulnerabilities*



PITTYTIGER
PittyTiger | Earthaughisky | +8 more
PittyTiger (also known as ThunderCat) is a threat actor originating from China. They have been active since January 2015, targeting organizations in t...
Targeted countries and industries: Technology | Chemicals & Rel... | +9 more | United States | Taiwan
1 YARA 4 STIX More info

APT19
C0d0so0 | Codoso | +20 more
APT19 (also known as Deep Panda) is a threat actor originating from China. They have been active since at least 2010. APT19 has been known to target a...
Targeted countries and industries: Education | Healthcare Serv... | +18 more | United States | United Kingdom | +5 more
16 YARA 16 STIX More info

UNC5176
UNC5176 is a financially motivated threat cluster that distributes malware targeting users of Latin American and Spanish banks. UNC5176 uses emails an...
Targeted countries and industries: Government | Pharmaceuticals | +6 more | United States | Switzerland | +6 more
12 STIX More info

DRAGONFORCE
The DragonForce ransomware group, a recent and severe cyber threat, operates as a Ransomware-as-a-Service (RaaS) affiliate program, utilizing two pote...
Targeted countries and industries: Healthcare Serv... | Government | +7 more | United States | Switzerland | +21 more
4 STIX More info

VICIOUS PANDA
SixLittleMonkeys | Roaming Tiger | +1 more
Vicious Panda (also known as Stealth Panda) is a threat actor believed to originate from China. Their activities have been primarily targeting organiz...
Targeted countries and industries: Chemicals & Rel... | Government | +6 more | Belarus | Russia | +2 more
10 STIX More info

UNC3886
UNC3886 is a threat actor of Chinese origin known for conducting espionage operations. They have targeted entities in various countries and sectors, w...
Targeted countries and industries: Government | Pharmaceuticals | +8 more | United States | Switzerland | +11 more
7 YARA 13 STIX More info

APT9
1PHP | Shell Crew | +6 more
APT9 engages in cyber operations where the goal is data theft, usually focusing on the data and projects that make a particular organization competiti...
Targeted countries and industries: Chemicals & Rel... | Pharmaceuticals | +10 more | United States | Switzerland | +5 more
4 STIX More info

APT33
ATK35 | Elfin | +12 more
APT33 (also known as Elfin) is a threat actor group believed to originate from Iran. They have been involved in cyber espionage activities targeting o...
Targeted countries and industries: Transportation | Aerospace & De... | +17 more | United States | Switzerland | +4 more
2 YARA 11 STIX More info

REDJULIETT
Flax Typhoon | Ethereal Panda | +2 more
RedJuliett is a likely Chinese state-sponsored threat actor targeting government, academic, technology, and diplomatic organizations in Taiwan. Active...
Targeted countries and industries: Government | Education | +2 more | United States | Hong Kong | +4 more
3 YARA 6 STIX More info

Figure 93. Threat Intelligence page

Targeted Industries

This section lets you filter cards based on any of the selected industries in the chart.

Targeted Countries

This section lets you filter cards on any of the selected countries.

Malware Types

This section lets you select which types of malware show.

Search bar

This lets you search the Threat Intelligence based on these attributes:

- Aliases
- Description
- Filenames
- Malware types
- Name
- Origin country
- *Structured Threat Information Expression (STIX)* domains
- *STIX IP* addresses
- *STIX URLs*

- Targeted country
- Targeted industry
- Trigger *IDs*
- *STIX* hashes

Malware

This button lets you filter malware cards based on any of the selected types. For more details, see Malware (on page 265).

Actors

This button lets you filter the content that shows below to only threat actors. For more details, see Actors (on page 267).

Vulnerability

This button lets you filter the content that shows below to only vulnerabilities. This section shows all known *CVEs*. For more details, see Vulnerability (on page 269).

My countries

This button lets you filter the threat cards to show only content that is relevant for the countries that your organization has sites in.

Have alerts

This button lets you filter the threat cards to show only content that have associated alerts.

Have vulnerabilities

This button lets you filter the threat cards to show only content that have associated vulnerabilities.

High risk

This button lets you filter the threat cards to show only content that have a high risk score.

Actively exploited

This button lets you filter the threat cards to show only vulnerabilities that are known to have been exploited.

Threat cards

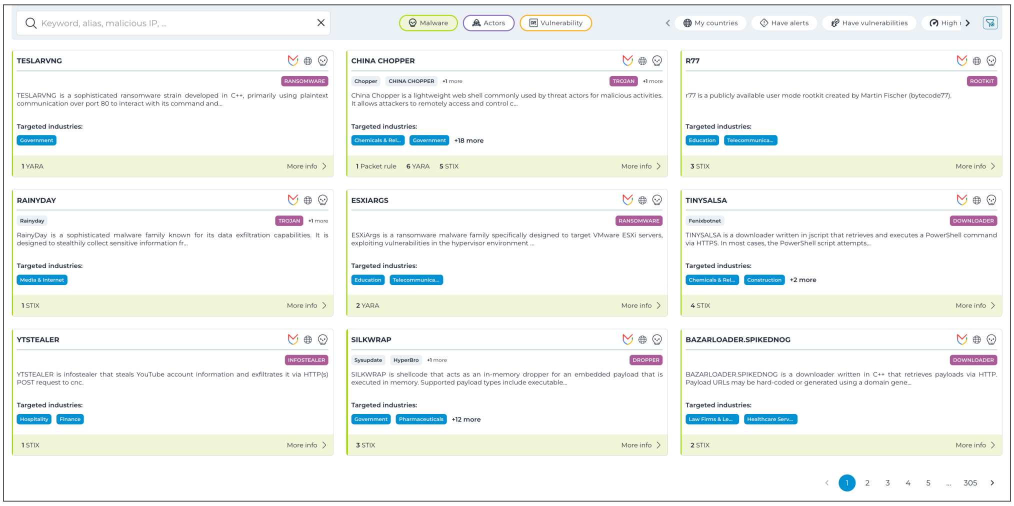
For more details, see:

- Malware threat cards (on page 265)
- Actors threat cards (on page 267)
- Vulnerability threat cards (on page 269)

Malware

*Learn how the **Malware** page shows malware-specific attributes and associated threat cards.*

Malware filter



TESLARVNG

RANSOMWARE

TESLARVNG is a sophisticated ransomware strain developed in C++, primarily using plaintext communication over port 80 to interact with its command and...

Targeted industries: Government

1 YARA

CHINA CHOPPER

Chopper CHINA CHOPPER +1 more TROJAN +1 more

China Chopper is a lightweight web shell commonly used by threat actors for malicious activities. It allows attackers to remotely access and control c...

Targeted industries: Chemicals & Rel... Government +18 more

1 Packet rule 6 YARA 5 STIX

R77

ROOTKIT

r77 is a publicly available user mode rootkit created by Martin Fischer (bytecode77).

Targeted industries: Education Telecommunica...

3 STIX

RAINYDAY

Rainyday TROJAN +1 more

RainyDay is a sophisticated malware family known for its data exfiltration capabilities. It is designed to stealthily collect sensitive information fr...

Targeted industries: Media & Internet

1 STIX

ESXIARGS

RANSOMWARE

ESXiArgs is a ransomware malware family specifically designed to target VMware ESXi servers, exploiting vulnerabilities in the hypervisor environment ...

Targeted industries: Education Telecommunica...

2 YARA

TINYSALSA

Fenixbotnet DOWNLOADER

TINYSALSA is a downloader written in jscript that retrieves and executes a PowerShell command via HTTPS. In most cases, the PowerShell script attempts...

Targeted industries: Chemicals & Rel... Construction +2 more

4 STIX

YTSTEALER

INFOSTEALER

YTSTEALER is infostealer that steals YouTube account information and exfiltrates it via HTTP(s) POST request to cnc.

Targeted industries: Hospitality Finance

1 STIX

SILKWRAP

Sysupdate HyperBro +1 more DROPPER

SILKWRAP is shellcode that acts as an in-memory dropper for an embedded payload that is executed in memory. Supported payload types include executable...

Targeted industries: Government Pharmaceuticals +12 more

3 STIX

BAZARLOADER.SPIKEDNOG

DOWNLOADER

BAZARLOADER.SPIKEDNOG is a downloader written in C++ that retrieves payloads via HTTP. Payload URLs may be hard-coded or generated using a domain gene...

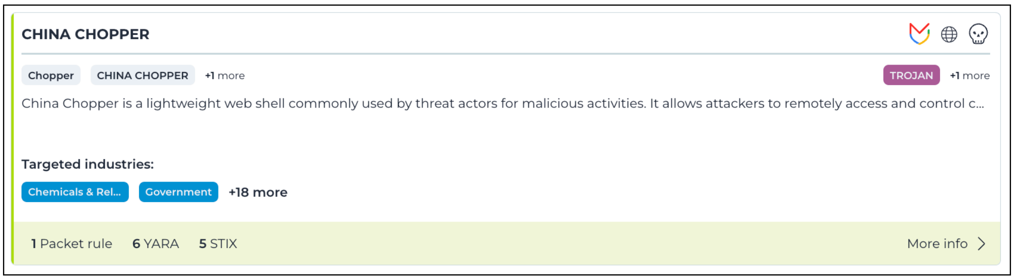
Targeted industries: Law Firms & Le... Healthcare Serv...

2 STIX

Figure 94. Malware filter applied

You can use the **Malware** button to show only malware-related threat cards.

Threat card



CHINA CHOPPER

Chopper CHINA CHOPPER +1 more TROJAN +1 more

China Chopper is a lightweight web shell commonly used by threat actors for malicious activities. It allows attackers to remotely access and control c...

Targeted industries:

Chemicals & Rel... Government +18 more

1 Packet rule 6 YARA 5 STIX

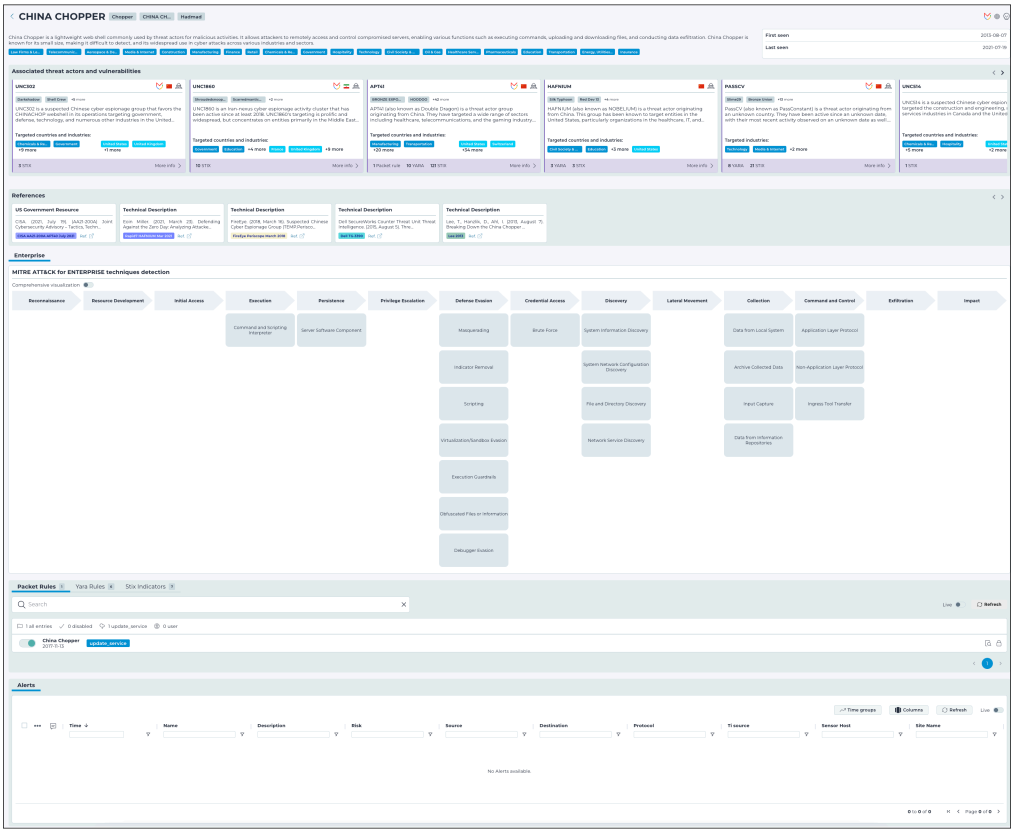
Figure 95. Malware threat card

A malware threat card can show all, or some, of these attributes:

- The name of the malware
- The Mandiant icon shows whenever a threat card is enriched with Mandiant data
- This icon shows that the malware is global
- This icon shows the number of related alerts
- This icon indicates it is a malware-related threat card
- RANSOMWARE Shows the type of malware
- A description section

- The industries that the malware is known to have targeted
- The rules, patterns, and indicators that are associated with the threat card content, the **More info** button lets you view more details in the details page

Details page



China Chopper is a lightweight web shell commonly used by threat actors for malicious activities. It allows attackers to remotely access and control compromised servers, enabling various functions such as executing commands, uploading and downloading files, and conducting data exfiltration. China Chopper is known for its small size, making it difficult to detect, and its widespread use in cyber attacks across various industries and sectors.

First seen 2013-08-07
Last seen 2021-07-19

UNC302
UNC302 is a suspected Chinese cyber espionage group that favors the CHINACHOP webshell in its operations targeting government, defense, technology, and numerous other industries in the United...
Targeted countries and industries: Chemicals & Re..., Government +9 more; United States, United Kingdom +1 more
3 STIX

UNC1860
UNC1860 is an Iran-nexus cyber espionage activity cluster that has been active since at least 2018. UNC1860's targeting is prolific and widespread, but concentrates on entities primarily in the Middle East...
Targeted countries and industries: Government, Education +4 more; France, United Kingdom +9 more
10 STIX

APT41
APT41 (also known as Double Dragon) is a threat actor group originating from China. They have targeted a wide range of sectors including healthcare, telecommunications, and the gaming industry....
Targeted countries and industries: Manufacturing, Transportation +20 more; United States, Switzerland +34 more
1 Packet rule 10 YARA 121 STIX

HAFNIUM
HAFNIUM (also known as NOBELIUM) is a threat actor originating from China. This group has been known to target entities in the United States, particularly organizations in the healthcare, IT, and...
Targeted countries and industries: Civil Society & ..., Education +3 more; United States
3 YARA 3 STIX

PASSCV
PassCV (also known as PassConstant) is a threat actor originating from an unknown country. They have been active since an unknown date, with their most recent activity observed on an unknown date as well....
Targeted industries: Technology, Media & Internet +2 more
8 YARA 21 STIX

UNC514
UNC514 is a suspected Chinese cyber espion
targeted the construction and engineering,
services industries in Canada and the United
Targeted countries and industries: Chemicals & Re..., Hospitality +5 more; United Stat +2 more
1 STIX

US Government Resource
CISA. (2021, July 19). (AA21-200A) Joint Cybersecurity Advisory – Tactics, Techn...
CISA AA21-200A APT40 July 2021 Ref.

Technical Description
Eoin Miller. (2021, March 23). Defending Against the Zero Day: Analyzing Attacke...
Rapid7 HAFNIUM Mar 2021 Ref.

Technical Description
FireEye. (2018, March 16). Suspected Chinese Cyber Espionage Group (TEMP.Perisco...
FireEye Periscope March 2018 Ref.

Technical Description
Dell SecureWorks Counter Threat Unit Threat Intelligence. (2015, August 5). Thre...
Dell TG-3390 Ref.

Technical Description
Lee, T., Hanzlik, D., Ahl, I. (2013, August 7). Breaking Down the China Chopper ...
Lee 2013 Ref.

MITRE ATT&CK for ENTERPRISE techniques detection

Reconnaissance	Resource Development	Initial Access	Execution	Persistence	Privilege Escalation	Defense Evasion	Credential Access	Discovery	Lateral Movement	Collection	Command and Control	Exfiltration	Impact
			Command and Scripting Interpreter	Server Software Component		Masquerading	Brute Force	System Information Discovery		Data from Local System	Application Layer Protocol		
						Indicator Removal		System Network Configuration Discovery		Archive Collected Data	Non-Application Layer Protocol		
						Scripting		File and Directory Discovery		Input Capture	Ingress Tool Transfer		
						Virtualization/Sandbox Evasion		Network Service Discovery		Data from Information Repositories			
						Execution Guardrails							
						Obfuscated Files or Information							
						Debugger Evasion							

1 all entries 0 disabled 1 update_service 0 user

China Chopper 2017-11-13 update_service

☐	Time	Name	Description	Risk	Source	Destination	Protocol	Ti source	Sensor Host	Site Name

No Alerts available.

0 to 0 of 0 Page 0 of 0

Figure 96. Details page

Actors

*Learn how the **Actors** page shows threat actor-specific attributes and associated threat cards.*

Actors filter

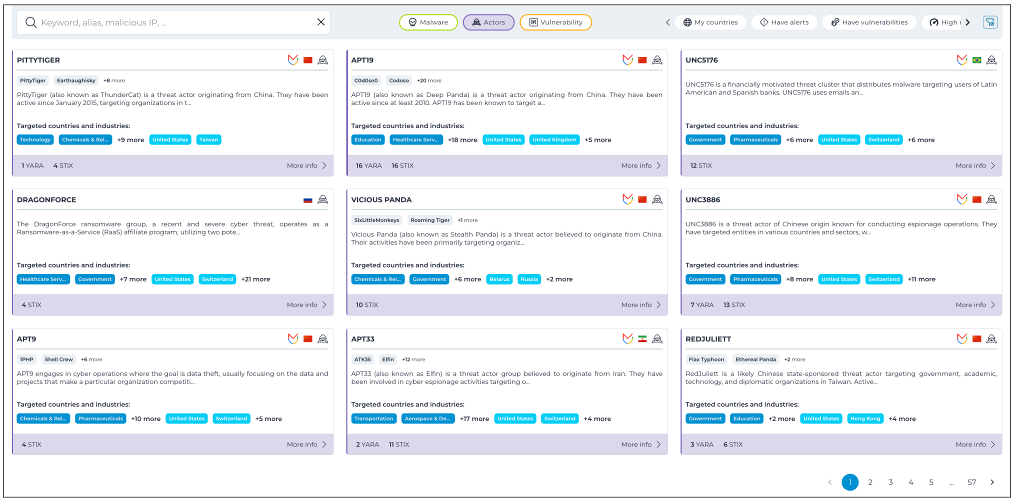
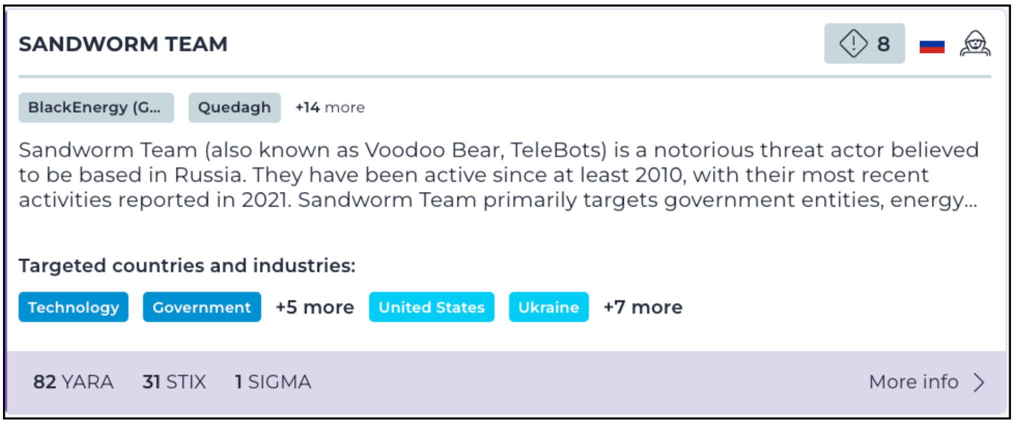


Figure 97. Actors filter applied

You can use the **Actors** button to show only actors-related threat cards.

Threat card



SANDWORM TEAM ◇ 8

BlackEnergy (G... Quedagh +14 more

Sandworm Team (also known as Voodoo Bear, TeleBots) is a notorious threat actor believed to be based in Russia. They have been active since at least 2010, with their most recent activities reported in 2021. Sandworm Team primarily targets government entities, energy...

Targeted countries and industries:

Technology Government +5 more United States Ukraine +7 more

82 YARA 31 STIX 1 SIGMA More info

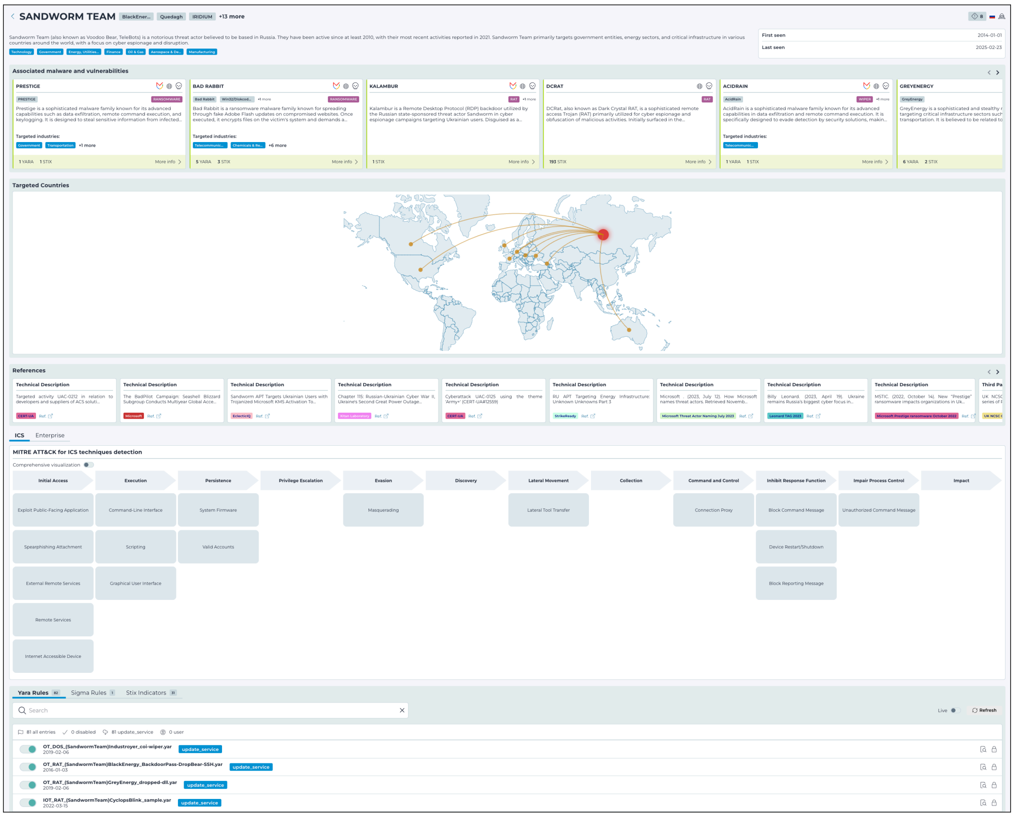
Figure 98. Actors threat card

An actor threat card show all, or some, of these attributes:

- The name of the threat actor
- The Mandiant icon shows whenever a threat card is enriched with Mandiant data
- 🇨🇳 A flag will show the origin country
- ◇ This icon shows the number of related alerts

- Indicates it is a actor-related threat card
- RANSOMWARE Shows the type of malware
- A description section
- The countries and industries that the malware is known to have targeted
- The rules, patterns, and indicators that are associated with the threat card content, the **More info** button lets you view more details in the details page

Details page



SANDWORM TEAM BlackEner... Quedagh IRIDIUM +13 more

Sandworm Team (also known as Voodoo Bear, TeleBots) is a notorious threat actor believed to be based in Russia. They have been active since at least 2010, with their most recent activities reported in 2021. Sandworm Team primarily targets government entities, energy sectors, and critical infrastructure in various countries around the world, with a focus on cyber espionage and disruption.

Technology · Government · Energy, Utilities... · Finance · Oil & Gas · Aerospace & De... · Manufacturing

First seen: 2014-01-01
Last seen: 2025-02-23

Associated malware and vulnerabilities

PRESTIGE (PRESTIGE, RANSOMWARE): Prestige is a sophisticated malware family known for its advanced capabilities such as data exfiltration, remote command execution, and keylogging. It is designed to steal sensitive information from infected...
Targeted industries: Government, Transportation, +1 more
1 YARA 1 STIX — More info

BAD RABBIT (Bad Rabbit, Win32/Diskcod..., +1 more, RANSOMWARE): Bad Rabbit is a ransomware malware family known for spreading through fake Adobe Flash updates on compromised websites. Once executed, it encrypts files on the victim's system and demands a...
Targeted industries: Telecommunic..., Chemicals & Re..., +6 more
5 YARA 3 STIX — More info

KALAMBUR (RAT, +1 more): Kalambur is a Remote Desktop Protocol (RDP) backdoor utilized by the Russian state-sponsored threat actor Sandworm in cyber espionage campaigns targeting Ukrainian users. Disguised as a...
1 STIX — More info

DCRAT (RAT): DCRat, also known as Dark Crystal RAT, is a sophisticated remote access Trojan (RAT) primarily utilized for cyber espionage and obfuscation of malicious activities. Initially surfaced in the...
193 STIX — More info

ACIDRAIN (AcidRain, WIPER, +1 more): AcidRain is a sophisticated malware family known for its advanced capabilities in data exfiltration and remote command execution. It is specifically designed to evade detection by security solutions, makin...
Targeted industries: Telecommunic...
1 YARA 1 STIX — More info

GREYENERGY (GreyEnergy): GreyEnergy is a sophisticated and stealthy r targeting critical infrastructure sectors such transportation. It is believed to be related to
6 YARA 2 STIX

Targeted Countries

References

Technical Description — Targeted activity UAC-0212 in relation to developers and suppliers of ACS soluti... (CERT-UA, Ref.)

Technical Description — The BadPilot Campaign: Seashell Blizzard Subgroup Conducts Multiyear Global Acce... (Microsoft, Ref.)

Technical Description — Sandworm APT Targets Ukrainian Users with Trojanized Microsoft KMS Activation To... (EclecticIQ, Ref.)

Technical Description — Chapter 115: Russian-Ukrainian Cyber War II, Ukraine's Second Great Power Outage... (Xitan Laboratory, Ref.)

Technical Description — Cyberattack UAC-0125 using the theme 'Army+' (CERT-UA#12559) (CERT-UA, Ref.)

Technical Description — RU APT Targeting Energy Infrastructure: Unknown Unknowns Part 3 (StrikeReady, Ref.)

Technical Description — Microsoft . (2023, July 12). How Microsoft names threat actors. Retrieved Novemb... (Microsoft Threat Actor Naming July 2023, Ref.)

Technical Description — Billy Leonard. (2023, April 19). Ukraine remains Russia's biggest cyber focus in... (Leonard TAG 2023, Ref.)

Technical Description — MSTIC. (2022, October 14). New "Prestige" ransomware impacts organizations in Uk... (Microsoft Prestige ransomware October 2022, Ref.)

Third Pa — UK NCSC series of F (UK NCSC)

ICS | Enterprise

MITRE ATT&CK for ICS techniques detection

Comprehensive visualization ○

Initial Access	Execution	Persistence	Privilege Escalation	Evasion	Discovery	Lateral Movement	Collection	Command and Control	Inhibit Response Function	Impair Process Control	Impact
Exploit Public-Facing Application	Command-Line Interface	System Firmware		Masquerading		Lateral Tool Transfer		Connection Proxy	Block Command Message	Unauthorized Command Message	
Spearphishing Attachment	Scripting	Valid Accounts							Device Restart/Shutdown		
External Remote Services	Graphical User Interface								Block Reporting Message		
Remote Services											
Internet Accessible Device											

Yara Rules 82 | Sigma Rules 1 | Stix Indicators 31

81 all entries · 0 disabled · 81 update_service · 0 user

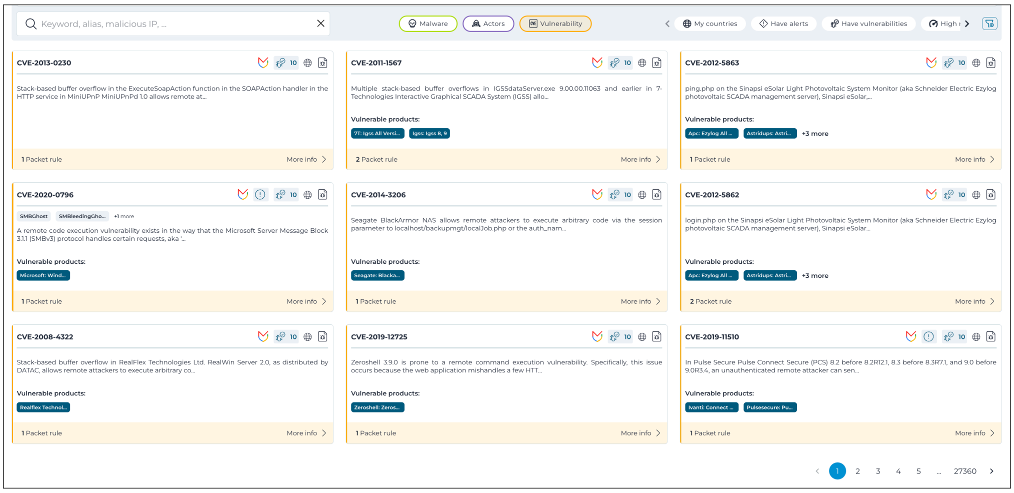
Rule	Date	Source
OT_DOS_(SandwormTeam)Industroyer_coi-wiper.yar	2019-02-06	update_service
OT_RAT_(SandwormTeam)BlackEnergy_BackdoorPass-DropBear-SSH.yar	2016-01-03	update_service
OT_RAT_(SandwormTeam)GreyEnergy_dropped-dll.yar	2019-02-06	update_service
IOT_RAT_(SandwormTeam)CyclopsBlink_sample.yar	2022-03-15	update_service

Figure 99. Details page

Vulnerability

*Learn how the **Vulnerability** page shows vulnerability-specific attributes and associated threat cards.*

Vulnerability filter



CVE-2013-0230 10

Stack-based buffer overflow in the ExecuteSoapAction function in the SOAPAction handler in the HTTP service in MiniUPnP MiniUPnPd 1.0 allows remote at...

1 Packet rule

CVE-2011-1567 10

Multiple stack-based buffer overflows in IGSSdataServer.exe 9.00.00.11063 and earlier in 7-Technologies Interactive Graphical SCADA System (IGSS) allo...

Vulnerable products: 7T: Igss All Versi... Igss: Igss 8, 9

2 Packet rule

CVE-2012-5863 10

ping.php on the Sinapsi eSolar Light Photovoltaic System Monitor (aka Schneider Electric Ezylog photovoltaic SCADA management server), Sinapsi eSolar,...

Vulnerable products: Apc: Ezylog All ... Astridups: Astri... +3 more

1 Packet rule

CVE-2020-0796 10

SMBGhost SMBleedingGho... +1 more

A remote code execution vulnerability exists in the way that the Microsoft Server Message Block 3.1.1 (SMBv3) protocol handles certain requests, aka '...

Vulnerable products: Microsoft: Wind...

1 Packet rule

CVE-2014-3206 10

Seagate BlackArmor NAS allows remote attackers to execute arbitrary code via the session parameter to localhost/backupmgt/localJob.php or the auth_nam...

Vulnerable products: Seagate: Blacka...

1 Packet rule

CVE-2012-5862 10

login.php on the Sinapsi eSolar Light Photovoltaic System Monitor (aka Schneider Electric Ezylog photovoltaic SCADA management server), Sinapsi eSolar...

Vulnerable products: Apc: Ezylog All ... Astridups: Astri... +3 more

2 Packet rule

CVE-2008-4322 10

Stack-based buffer overflow in RealFlex Technologies Ltd. RealWin Server 2.0, as distributed by DATAC, allows remote attackers to execute arbitrary co...

Vulnerable products: Realflex Technol...

1 Packet rule

CVE-2019-12725 10

Zeroshell 3.9.0 is prone to a remote command execution vulnerability. Specifically, this issue occurs because the web application mishandles a few HTT...

Vulnerable products: Zeroshell: Zeros...

1 Packet rule

CVE-2019-11510 10

In Pulse Secure Pulse Connect Secure (PCS) 8.2 before 8.2R12.1, 8.3 before 8.3R7.1, and 9.0 before 9.0R3.4, an unauthenticated remote attacker can sen...

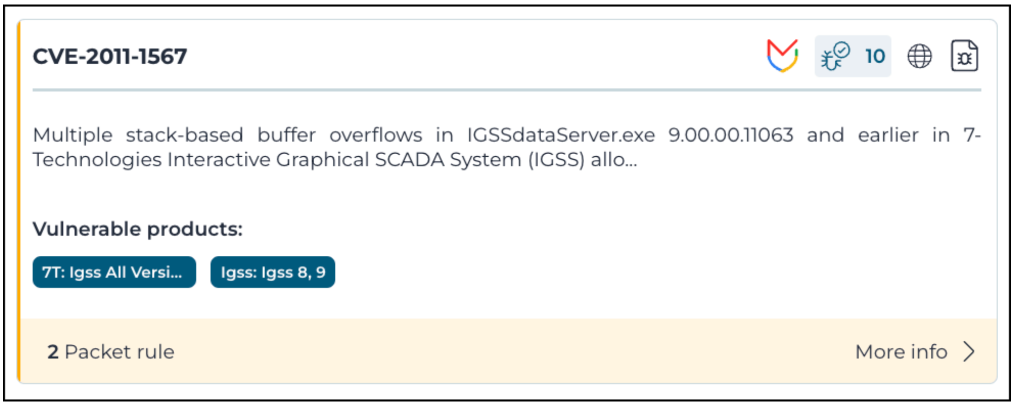
Vulnerable products: Ivanti: Connect ... Pulsesecure: Pu...

1 Packet rule

Figure 100. Vulnerability filter applied

You can use the **Vulnerability** button to show only vulnerability-related threat cards.

Threat card



CVE-2011-1567 10

Multiple stack-based buffer overflows in IGSSdataServer.exe 9.00.00.11063 and earlier in 7-Technologies Interactive Graphical SCADA System (IGSS) allo...

Vulnerable products:

7T: Igss All Versi... Igss: Igss 8, 9

2 Packet rule

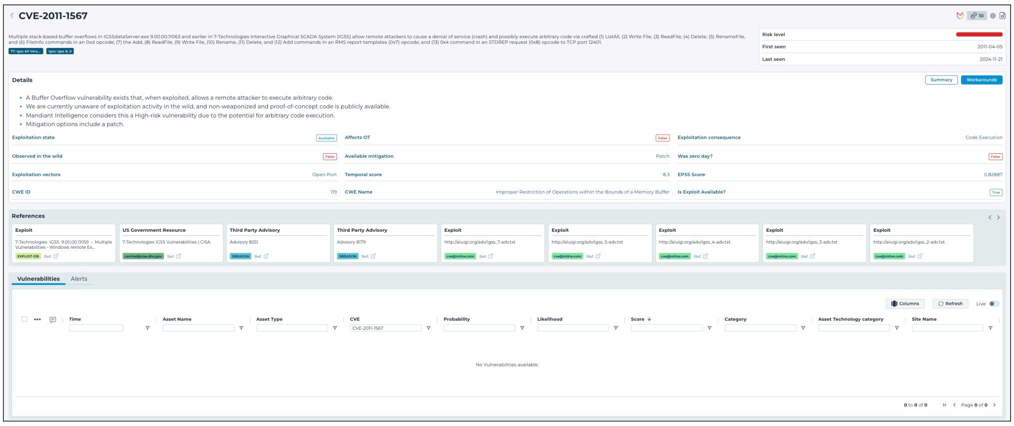
Figure 101. Vulnerability threat card

A vulnerability threat card show all, or some, of these attributes:

- The name of the vulnerability
- The Mandiant icon shows whenever a threat card is enriched with Mandiant data
- This icon shows that the vulnerability is global
- This icon shows the score
- This icon indicates that it is a vulnerability-related threat card

- A description section
- The products that are vulnerable
- The rules, patterns, and indicators that are associated with the threat card content, the **More info** button lets you view more details in the details page

Details page



CVE-2011-1567

Multiple stack-based buffer overflows in IGSSdataServer.exe 9.00.00.11063 and earlier in 7-Technologies Interactive Graphical SCADA System (IGSS) allow remote attackers to cause a denial of service (crash) and possibly execute arbitrary code via crafted (1) ListAll, (2) Write File, (3) ReadFile, (4) Delete, (5) RenameFile, and (6) FileInfo commands in an 0xd opcode; (7) the Add, (8) ReadFile, (9) Write File, (10) Rename, (11) Delete, and (12) Add commands in an RMS report templates (0x7) opcode; and (13) 0x4 command in an STDREP request (0x8) opcode to TCP port 12401.

Risk level	
First seen	2011-04-05
Last seen	2024-11-21

Details

- A Buffer Overflow vulnerability exists that, when exploited, allows a remote attacker to execute arbitrary code.
- We are currently unaware of exploitation activity in the wild, and non-weaponized and proof-of-concept code is publicly available.
- Mandiant Intelligence considers this a High-risk vulnerability due to the potential for arbitrary code execution.
- Mitigation options include a patch.

Exploitation state	Available	Affects OT	False	Exploitation consequence	Code Execution
Observed in the wild	False	Available mitigation	Patch	Was zero day?	False
Exploitation vectors	Open Port	Temporal score	8.3	EPSS Score	0.82887
CWE ID	119	CWE Name	Improper Restriction of Operations within the Bounds of a Memory Buffer	Is Exploit Available?	True

References

Exploit	7-Technologies IGSS 9.00.00.11059 - Multiple Vulnerabilities - Windows remote Ex...	EXPLOIT-DB Ref.
US Government Resource	7-Technologies IGSS Vulnerabilities | CISA	central@cisa.dhs.gov Ref.
Third Party Advisory	Advisory 8251	SREASON Ref.
Third Party Advisory	Advisory 8179	SREASON Ref.
Exploit	http://aluigi.org/adv/igss_7-adv.txt	cve@mitre.com Ref.
Exploit	http://aluigi.org/adv/igss_5-adv.txt	cve@mitre.com Ref.
Exploit	http://aluigi.org/adv/igss_4-adv.txt	cve@mitre.com Ref.
Exploit	http://aluigi.org/adv/igss_3-adv.txt	cve@mitre.com Ref.
Exploit	http://aluigi.org/adv/igss_2-adv.txt	cve@mitre.com Ref.

Time	Asset Name	Asset Type	CVE	Probability	Likelihood	Score ↓	Category	Asset Technology category	Site Name
			CVE-2011-1567						

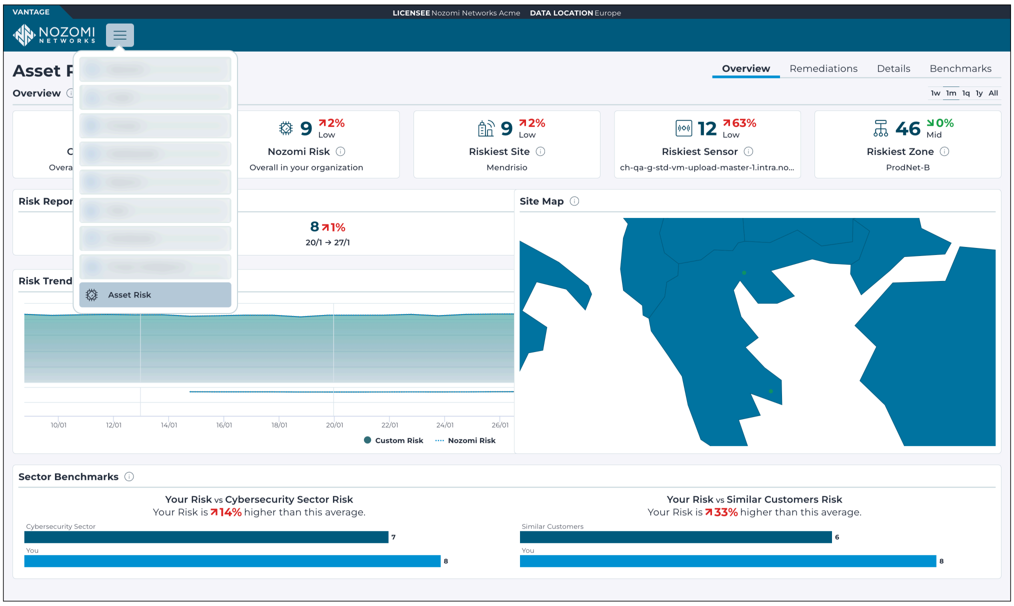
No Vulnerabilities available.

0 to 0 of 0 Page 0 of 0

Figure 102. Details page

Chapter 17. Asset Risk

*The **Asset Risk** page provides an in-depth view of asset risk levels. This includes an overview, detailed analysis, and benchmark comparisons to help assess and manage risks effectively.*



Your Risk vs Cybersecurity Sector Risk
Your Risk is ↗14% higher than this average.

Your Risk vs Similar Customers Risk
Your Risk is ↗33% higher than this average.

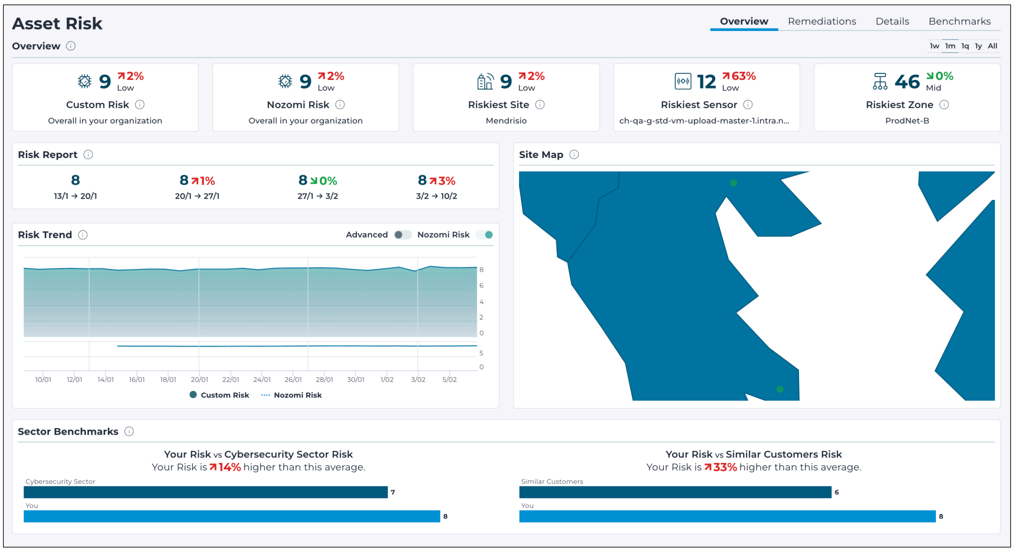
Figure 103. Asset Risk page

The **Asset Risk** page has these tabs:

- Overview (on page 274)
- Remediations (on page 276)
- Details (on page 277)
- Benchmarks (on page 279)

Overview

*The **Overview** page lets you analyze your risk position over time and compare it to the average risks of your industry and similar customers.*



Your Risk is ↗14% higher than this average.

Your Risk is ↗33% higher than this average.

Figure 104. Overview page

Custom Risk

The overall risk, which is based on your specific risk formula.

Nozomi Risk

This is based on the standard Nozomi risk formula.

Riskiest Site

This shows the site in your organization that has the highest risk.

Riskiest Sensor

This shows the sensor that has the highest risk based on your specific risk formula.

Riskiest Zone

This shows the zone that has the highest risk based on your specific risk formula.

Risk Report

This shows the average risk values in the selected time frame.

Risk Trend

This lets you monitor the trends of both your overall risks, as well as Nozomi risks over time.

Site Map

This lets you evaluate the risk positions of your different sites.

Sector Benchmarks

This lets you compare your Nozomi risk industry sectors and similar customers.

Related information

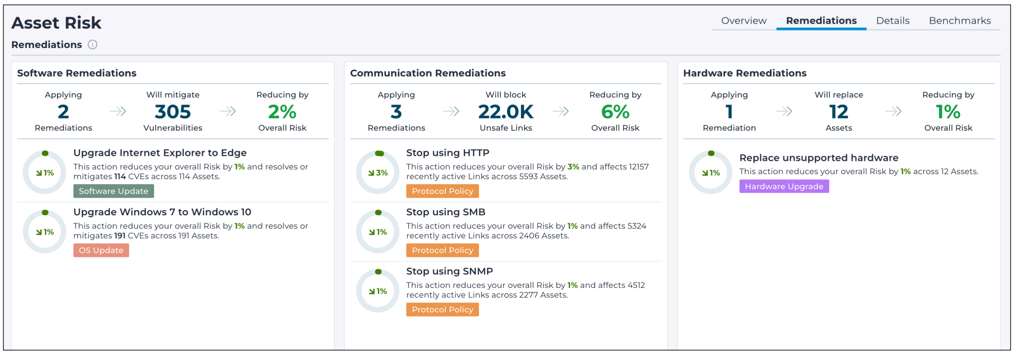
Remediations (on page 276)

Details (on page 277)

Benchmarks (on page 279)

Remediations

*The **Remediations** tab provides an overview of the remediation actions you can take to reduce asset risks.*



Upgrade Internet Explorer to Edge
This action reduces your overall Risk by **1%** and resolves or mitigates **114** CVEs across 114 Assets.

Upgrade Windows 7 to Windows 10
This action reduces your overall Risk by **1%** and resolves or mitigates **191** CVEs across 191 Assets.

Stop using HTTP
This action reduces your overall Risk by **3%** and affects 12157 recently active Links across 5593 Assets.

Stop using SMB
This action reduces your overall Risk by **1%** and affects 5324 recently active Links across 2406 Assets.

Stop using SNMP
This action reduces your overall Risk by **1%** and affects 4512 recently active Links across 2277 Assets.

Replace unsupported hardware
This action reduces your overall Risk by **1%** across 12 Assets.

Figure 105. Remediations Overview

Software Remediations

These actions address software risks related to your assets.

Communication Remediations

These actions address network protocol risks related to your assets.

Hardware Remediations

These actions address hardware risks related to your assets.

Related information

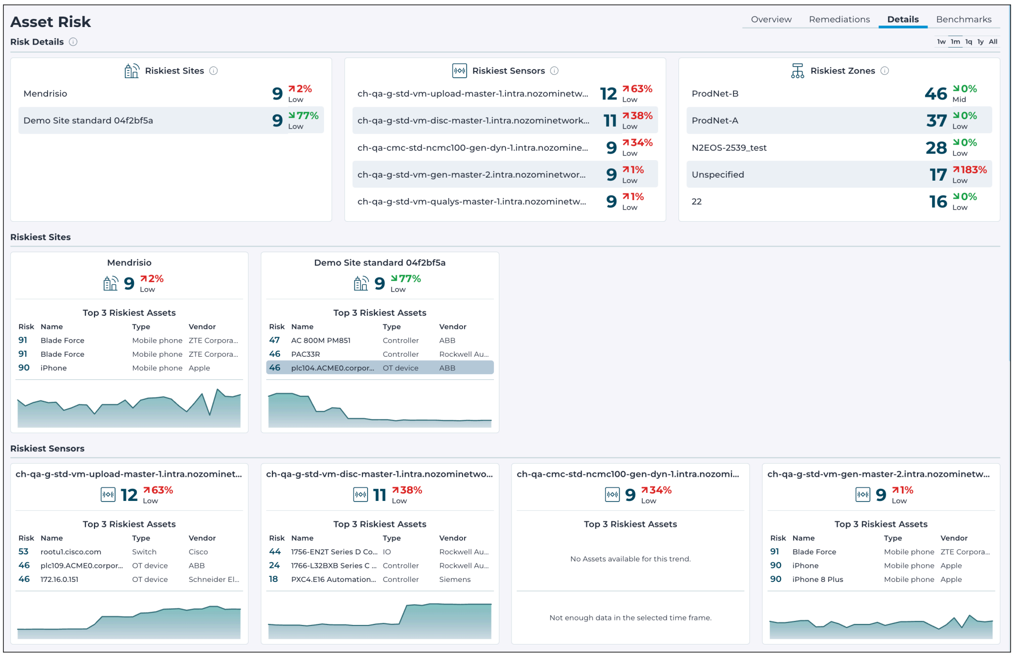
Overview (on page 274)

Details (on page 277)

Benchmarks (on page 279)

Details

*The **Details** page provides an in-depth analysis of asset risks, highlighting the riskiest sites, sensors, and zones, along with detailed information about their associated assets.*



Riskiest Sites		
Mendrisio	9	↗2% Low
Demo Site standard 04f2bf5a	9	↘77% Low

Riskiest Sensors		
ch-qa-g-std-vm-upload-master-1.intra.nozominetw...	12	↗63% Low
ch-qa-g-std-vm-disc-master-1.intra.nozominetwork...	11	↗38% Low
ch-qa-cmc-std-ncmc100-gen-dyn-1.intra.nozomine...	9	↗34% Low
ch-qa-g-std-vm-gen-master-2.intra.nozominetwor...	9	↗1% Low
ch-qa-g-std-vm-qualys-master-1.intra.nozominetw...	9	↗1% Low

Riskiest Zones		
ProdNet-B	46	↘0% Mid
ProdNet-A	37	↘0% Low
N2EOS-2539_test	28	↘0% Low
Unspecified	17	↗183% Low
22	16	↘0% Low

Mendrisio 9 ↗2% Low

Top 3 Riskiest Assets

Risk	Name	Type	Vendor
91	Blade Force	Mobile phone	ZTE Corpora...
91	Blade Force	Mobile phone	ZTE Corpora...
90	iPhone	Mobile phone	Apple

Demo Site standard 04f2bf5a 9 ↘77% Low

Top 3 Riskiest Assets

Risk	Name	Type	Vendor
47	AC 800M PM851	Controller	ABB
46	PAC33R	Controller	Rockwell Au...
46	plc104.ACME0.corpor...	OT device	ABB

ch-qa-g-std-vm-upload-master-1.intra.nozominet... 12 ↗63% Low

Top 3 Riskiest Assets

Risk	Name	Type	Vendor
53	rootu1.cisco.com	Switch	Cisco
46	plc109.ACME0.corpor...	OT device	ABB
46	172.16.0.151	OT device	Schneider El...

ch-qa-g-std-vm-disc-master-1.intra.nozominetwo... 11 ↗38% Low

Top 3 Riskiest Assets

Risk	Name	Type	Vendor
44	1756-EN2T Series D Co...	IO	Rockwell Au...
24	1766-L32BXB Series C ...	Controller	Rockwell Au...
18	PXC4.E16 Automation...	Controller	Siemens

ch-qa-cmc-std-ncmc100-gen-dyn-1.intra.nozomi... 9 ↗34% Low

Top 3 Riskiest Assets

No Assets available for this trend.

Not enough data in the selected time frame.

ch-qa-g-std-vm-gen-master-2.intra.nozominetw... 9 ↗1% Low

Top 3 Riskiest Assets

Risk	Name	Type	Vendor
91	Blade Force	Mobile phone	ZTE Corpora...
90	iPhone	Mobile phone	Apple
90	iPhone 8 Plus	Mobile phone	Apple

Figure 106. Details page

This pages shows a more in-depth view of data that is shown in the Overview (on page 274) page.

Risk Details

This shows a summary view for the categories below.

Riskiest Sites

This shows more details for the riskiest site, and the top three riskiest sensors in it. Each tile shows the:

- Risk
- Name
- Type
- Vendor

You can select an asset to open the related details page.

Riskiest Sensors

This shows the sensors that have the highest risk levels and the riskiest assets connected to the sensor. Each tile shows the:

- Risk
- Name

- Type
- Vendor

Riskiest Zones

This shows the zones that have the highest risk levels and the riskiest assets in the zone. Each tile shows the:

- Risk
- Name
- Type
- Vendor

Related information

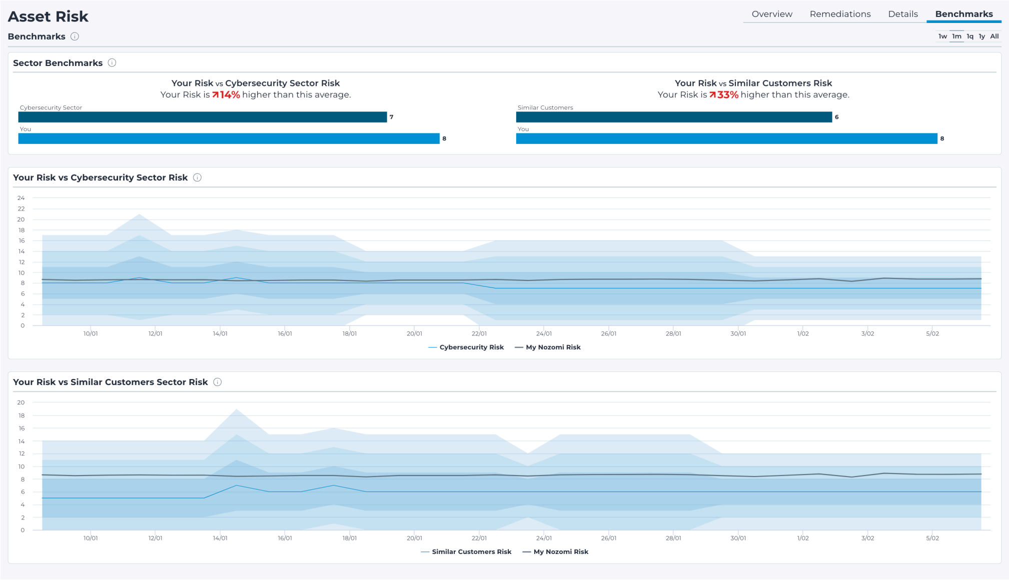
Overview (on page 274)

Remediations (on page 276)

Benchmarks (on page 279)

Benchmarks

*The **Benchmarks** page lets you compare your organization's risk levels against industry sectors and similar customers to evaluate your security posture.*



Your Risk vs Cybersecurity Sector Risk
Your Risk is ↗14% higher than this average.

Your Risk vs Similar Customers Risk
Your Risk is ↗33% higher than this average.

Figure 107. Benchmarks page

Related information

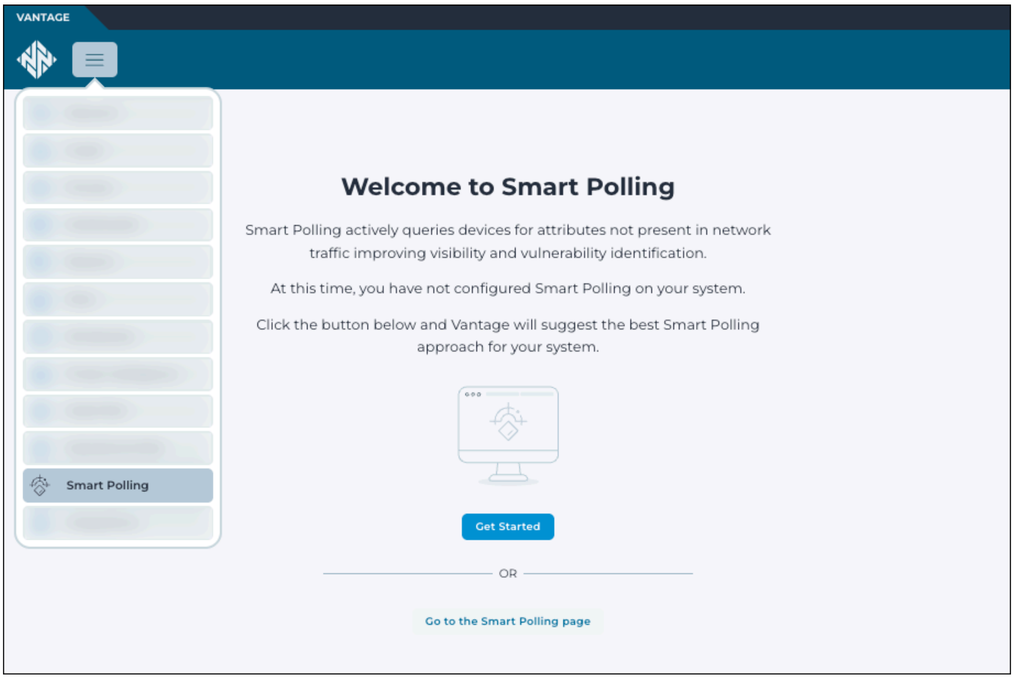
Overview (on page 274)

Remediations (on page 276)

Details (on page 277)

Chapter 18. Smart Polling

Smart Polling provides a centralized interface for creating, managing, and monitoring polling plans within your organization. It helps you streamline data collection and control monitoring activities from one location.



Welcome to Smart Polling

Smart Polling actively queries devices for attributes not present in network traffic improving visibility and vulnerability identification.

At this time, you have not configured Smart Polling on your system.

Click the button below and Vantage will suggest the best Smart Polling approach for your system.

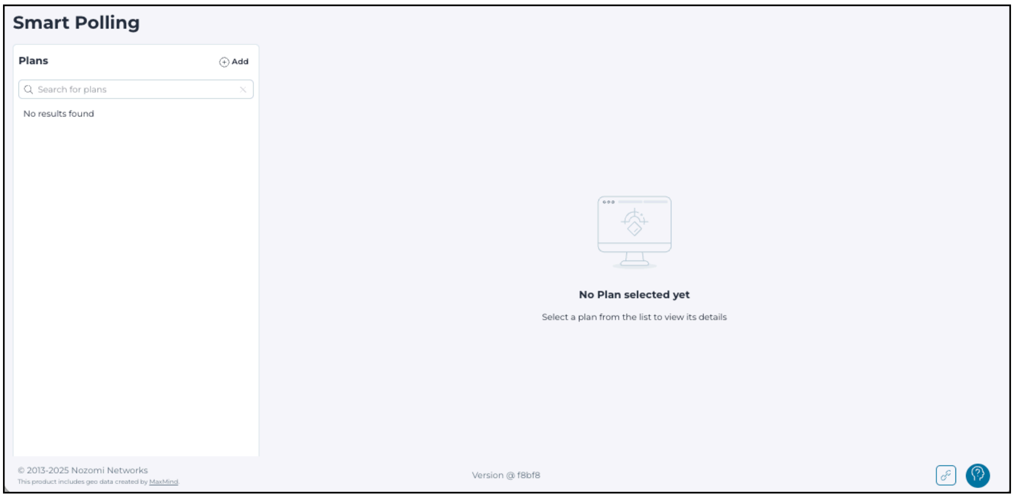
Figure 108. Smart Polling welcome page

The first time that you open the Smart Polling page, when no Smart Polling plans have been created for your organization, the welcome page will show.

The welcome page lets you choose from these two options:

- **Get Started** to Automatically add a Smart Polling plan from the onboarding page (on page 291)
- **Go to the Smart Polling page** to:
  - Add a Smart Polling plan that requires credentials (on page 295), or
  - Add a Smart Polling plan that does not require credentials (on page 298)

Once your organization has at least one Smart Polling plan, you will no longer see the welcome page. Instead, you will see the **Smart Polling Plans** page.


Smart Polling
Plans
Add
Search for plans
© 2013-2025 Nozomi Networks
This product includes geo data created by MaxMind.
Version @ f8bf8

No results found

No Plan selected yet

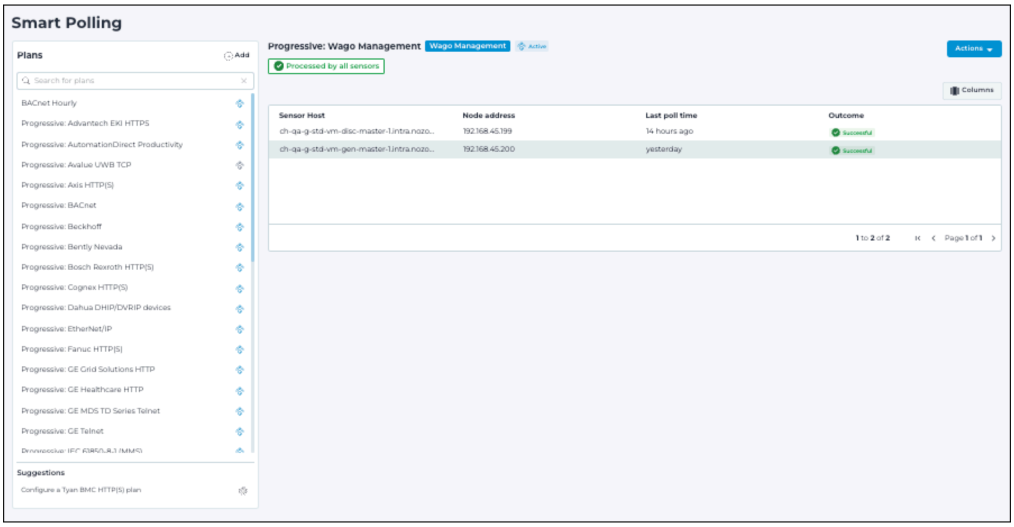
Select a plan from the list to view its details

Figure 109. Plans page

For more details, see Smart Polling plans (on page 285).

Smart Polling plans

Learn how Smart Polling plans are displayed, managed, and executed in the Vantage platform. This includes understanding plan statuses, how to add or search for plans, and how to interpret result data. Icons and table fields provide insight into device polling outcomes and plan performance. Plans can be defined in Vantage, but are executed in Guardian sensors, or Arc sensors that are connected to Guardian. Vantage receives the result of those executions via the usual synchronization process.



BACnet Hourly
Progressive: Advantech EKI HTTPS
Progressive: AutomationDirect Productivity
Progressive: Avalue UWB TCP
Progressive: Axis HTTP(S)
Progressive: BACnet
Progressive: Beckhoff
Progressive: Bently Nevada
Progressive: Bosch Rexroth HTTP(S)
Progressive: Cognex HTTP(S)
Progressive: Dahua DHIP/DVRIP devices
Progressive: EtherNet/IP
Progressive: Fanuc HTTP(S)
Progressive: GE Grid Solutions HTTP
Progressive: GE Healthcare HTTP
Progressive: GE MDS TD Series Telnet
Progressive: GE Telnet

Configure a Tyan BMC HTTP(S) plan

Progressive: Wago Management

Sensor Host	Node address	Last poll time	Outcome
ch-qa-g-std-vm-disc-master-1.intra.nozo...	192.168.45.199	14 hours ago	Successful
ch-qa-g-std-vm-gen-master-1.intra.nozo...	192.168.45.200	yesterday	Successful

1 to 2 of 2 Page 1 of 1

Figure 110. Populated Plans page

Plans

The **Plans** section shows a list of all the Smart Polling plans that have been added for your organization. The icons show the current status of the plan:

- ◈: Active
- ◈: Paused

Add button

The ⊕ **Add** icon lets you add a new Smart Polling plan.

Search field

The search field lets you easily find a specific Smart Polling plan.

Results

Once a Smart Polling plan has been executed, the results will show in the **Smart Polling Plans** page. When you select a specific plan, the table will show the:

- Status of the plan through the `ACTIVE` | `INACTIVE` indicator
- Result of the last polling of each node polled within the last two weeks

The table columns will show:

- **Node address**: The *IP* address of the node that was detected
- **Sensor Host**: The name of the sensor
- **Last poll time**: The time since the last execution of the plan for that node
- **Outcome**: The result of the last execution of the plan, which can be:
    - `Successful`: Smart Polling was able to poll the host and enrich the corresponding asset
    - `No connection to host`: Verify that the device is up, its services are running, that the sensor has a route to that host and no firewall is blocking the connection
    - `Inconclusive`: This device is unsupported or only partly supported by Smart Polling
    - `Missing credentials`: Add the credentials to the **Credentials Manager**
    - `Wrong credentials`: Update the credentials in the **Credentials Manager**

For more details about the additional information that Smart Polling can provide, see Smart Polling results (on page 306).

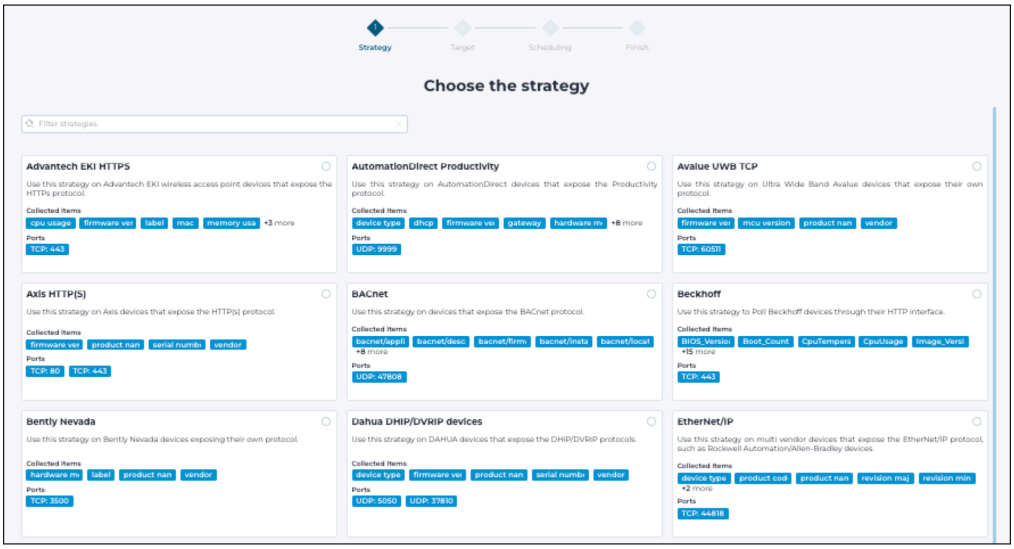
Suggestions

Vantage regularly analyzes your organization and adds recommended Smart Polling plans to the **Suggestions** section based on the results. If there are no suggestions, this section will not show.

Plan creation

Learn how to create a Smart Polling plan by choosing a strategy, defining parameters, adding targets and credentials, and scheduling when data collection runs. Customize each step to control how and when your sensors gather information. Use recurrence or interval scheduling to automate plan execution.

Strategy



Choose the strategy

Advantech EKI HTTPS
Use this strategy on Advantech EKI wireless access point devices that expose the HTTPs protocol.
Collected Items: cpu usage, firmware ver, label, mac, memory usa, +3 more
Ports: TCP: 443

AutomationDirect Productivity
Use this strategy on AutomationDirect devices that expose the Productivity protocol.
Collected Items: device type, dhcp, firmware ver, gateway, hardware m, +8 more
Ports: UDP: 9999

Avalue UWB TCP
Use this strategy on Ultra Wide Band Avalue devices that expose their own protocol.
Collected Items: firmware ver, mcu version, product nan, vendor
Ports: TCP: 60511

Axis HTTP(S)
Use this strategy on Axis devices that expose the HTTP(s) protocol.
Collected Items: firmware ver, product nan, serial numb, vendor
Ports: TCP: 80, TCP: 443

BACnet
Use this strategy on devices that expose the BACnet protocol.
Collected Items: bacnet/appli, bacnet/desc, bacnet/firm, bacnet/insta, bacnet/locat, +8 more
Ports: UDP: 47808

Beckhoff
Use this strategy to Poll Beckhoff devices through their HTTP interface.
Collected Items: BIOS_Versio, Boot_Count, CpuTempera, CpuUsage, Image_Versi, +15 more
Ports: TCP: 443

Bently Nevada
Use this strategy on Bently Nevada devices exposing their own protocol.
Collected Items: hardware m, label, product nan, vendor
Ports: TCP: 3500

Dahua DHIP/DVRIP devices
Use this strategy on DAHUA devices that expose the DHIP/DVRIP protocols.
Collected Items: device type, firmware ve, product nan, serial numb, vendor
Ports: UDP: 5050, UDP: 37810

EtherNet/IP
Use this strategy on multi vendor devices that expose the EtherNet/IP protocol, such as Rockwell Automation/Allen-Bradley devices.
Collected Items: device type, product cod, product nan, revision maj, revision min, +2 more
Ports: TCP: 44818

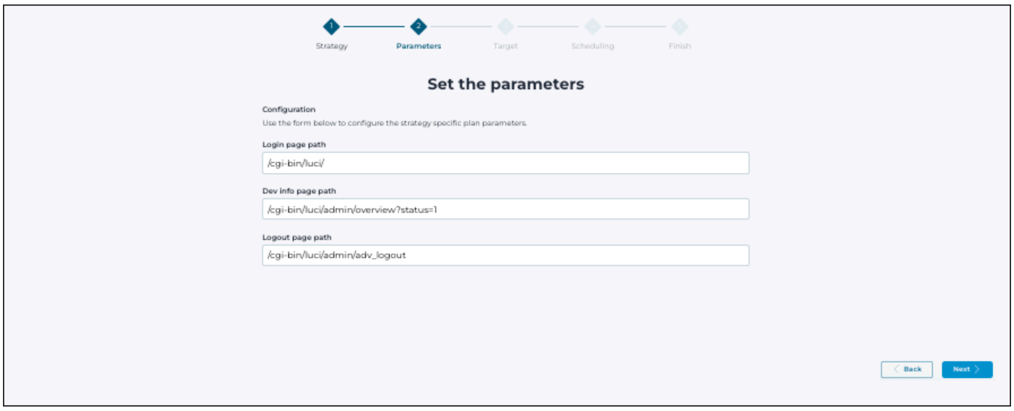
Figure 111. Choose the strategy page

Filter strategies: This field lets you enter text to easily find a specific strategy.

All available strategies show on the page with a summary. The summary section shows the:

- Name of the strategy
- A description of what the strategy does
- The information that is collected
- Ports used

Parameters



Set the parameters

Configuration

Use the form below to configure the strategy specific plan parameters.

Login page path: /cgi-bin/luci/

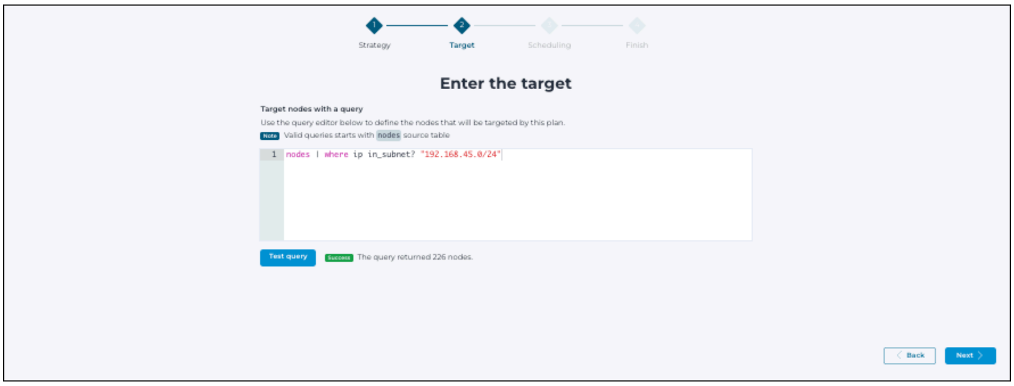
Dev info page path: /cgi-bin/luci/admin/overview?status=1

Logout page path: /cgi-bin/luci/admin/adv_logout

Figure 112. Parameters page

Target

Some of the strategies that are available require you to enter the related credentials. Therefore, there are two possible versions of the **Target** page that can show.



Enter the target

Target nodes with a query

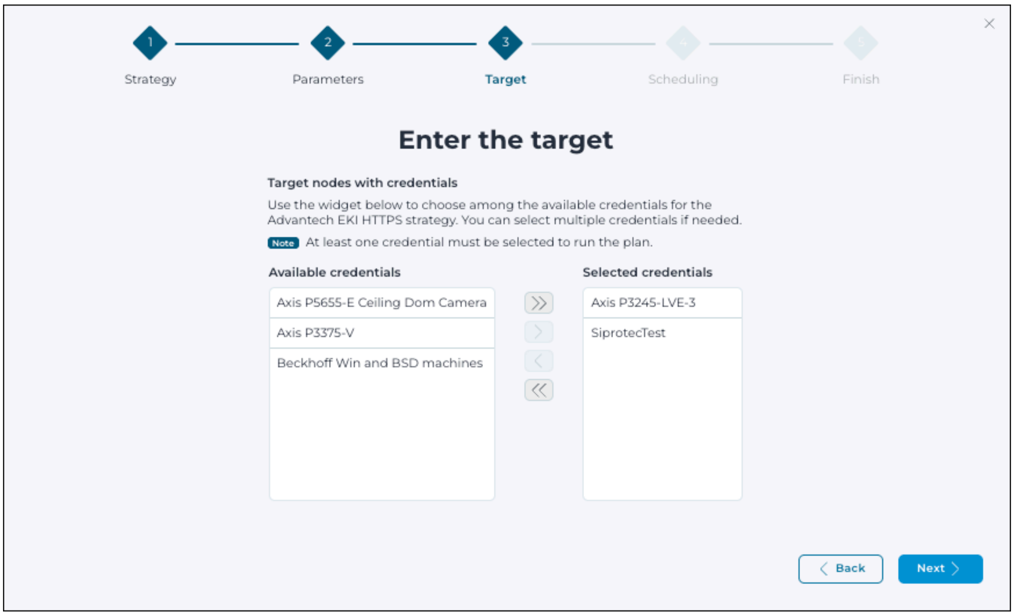
Use the query editor below to define the nodes that will be targeted by this plan.

Valid queries starts with `nodes` source table

```
nodes | where ip in_subnet? "192.168.45.0/24"
```

The query returned 226 nodes.

Figure 113. Target page (Query version shown)



Enter the target

Target nodes with credentials

Use the widget below to choose among the available credentials for the Advantech EKI HTTPS strategy. You can select multiple credentials if needed.

Note At least one credential must be selected to run the plan.

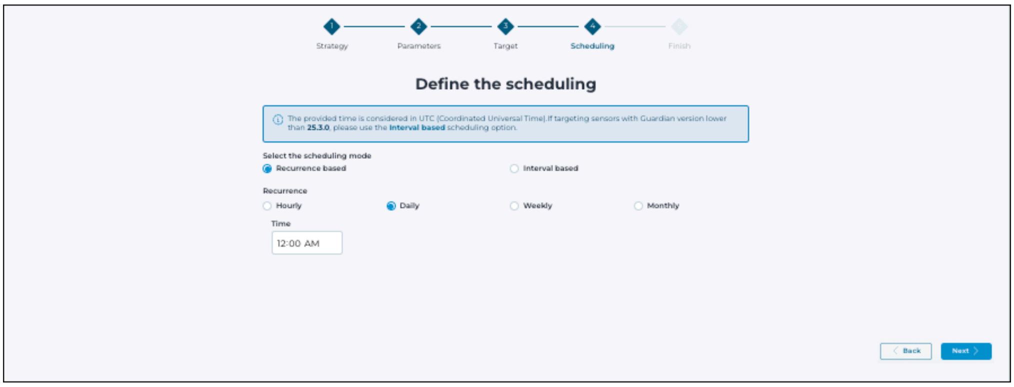
Available credentials	Selected credentials
Axis P5655-E Ceiling Dom Camera	Axis P3245-LVE-3
Axis P3375-V	SiprotecTest
Beckhoff Win and BSD machines	

Figure 114. Target page (Credentials version shown)

For strategies that require credentials, you must select one, or more, of the available credentials that show in the panel on the left. To move the credentials to the panel on the right, you can use the:

- > icon to select one credential
- >> icon to select all credentials

Scheduling



Define the scheduling

The provided time is considered in UTC (Coordinated Universal Time).If targeting sensors with Guardian version lower than **25.3.0**, please use the **Interval based** scheduling option.

Select the scheduling mode
● Recurrence based ○ Interval based

Recurrence
○ Hourly ● Daily ○ Weekly ○ Monthly

Time
12:00 AM

Figure 115. Scheduling page

Recurrence based: When this is selected, you can choose from these options:

- **Hourly**
- **Daily**
- **Weekly**
- **Monthly**

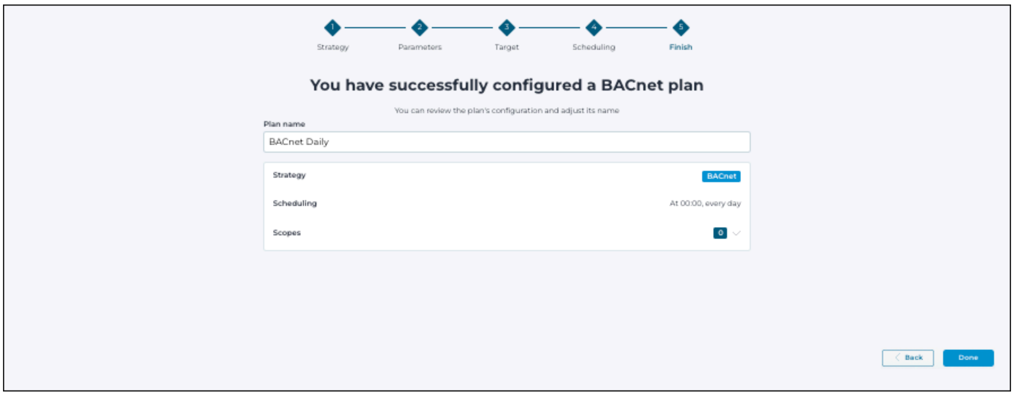
Sensors that are *Nozomi Networks Operating System (N2OS)* v25.2.0 or lower do not fully support recurrence-based scheduling. However, if you have sensors with one of these older versions of *N2OS*, and you create a recurrence-based plan, there is a workaround. Under these circumstances, Vantage will still request that the sensor runs the plan at the desired frequency, but in a slightly different way. For example, if you choose the hourly-based scheduling, it will run the plan once an hour, but not necessarily at the minute that you specified. The same will happen if you selected the daily recurrence.

If you selected the weekly or monthly recurrence, the plan will be run once per week or month, regardless of whether you specified a single day or multiple days.

Time: You then must set the time that the Smart Polling plan will be executed. The time is set in *coordinated universal time (UTC)*.

Interval based: When this is selected, the sensors will run the plan immediately. Subsequently, it will run once at every interval. For example, if your interval is **Every 1 Day(s)**, and the current time is 10:15, then the plan will run immediately, and then every day at 10:15.

Finish



You have successfully configured a BACnet plan

You can review the plan's configuration and adjust its name

Plan name: BACnet Daily

Strategy: BACnet

Scheduling: At 00:00, every day

Scopes: 0

Figure 116. Finish page

On the **Finish** page, you can edit the **Plan name**, and configure **Scopes**.

If you select the arrow in the **Scopes** section, you can choose one of these options:

- Tag
- Site
- Sensor

Once you have made your selection, the number of item will show next to the arrow.

Automatically add a plan

Automatically add a Smart Polling plan from the onboarding page

*Use the **Get Started** button on the onboarding page to automatically create one or more Smart Polling plans.*

About this task

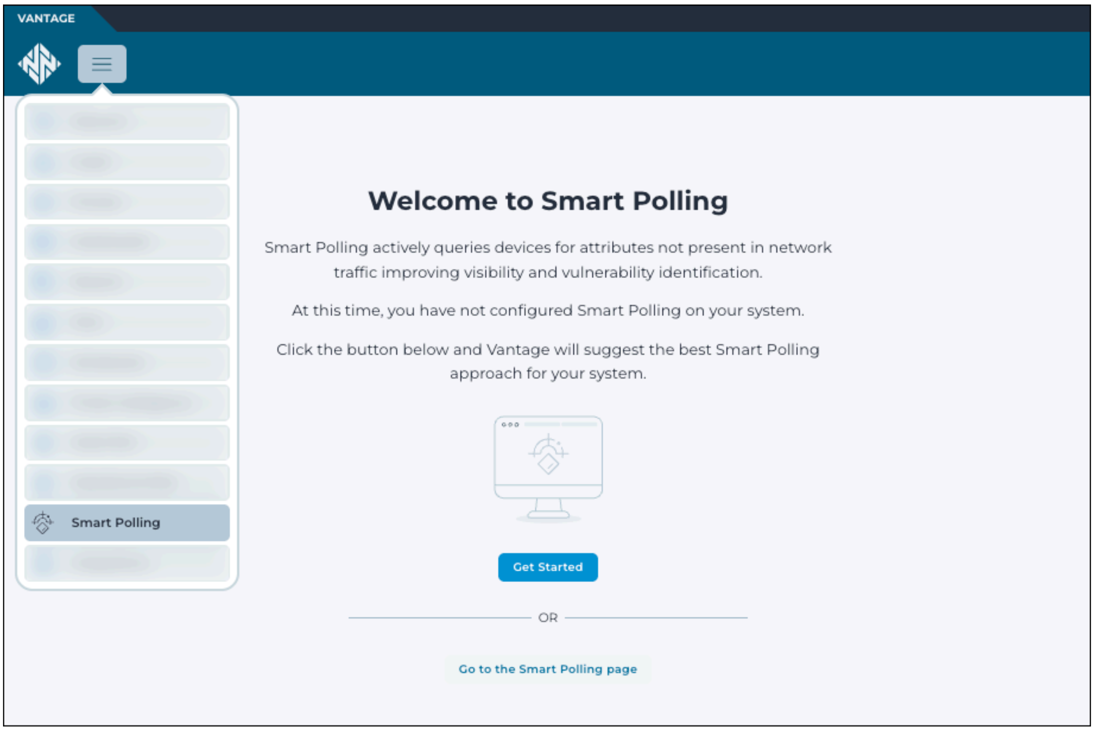
You will only see the onboarding page if no Smart Polling plans currently exist for your organization.

Procedure

1. In the top navigation bar, select ☰ > **Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. On the welcome page, select **Get Started**.

   Welcome to Smart Polling

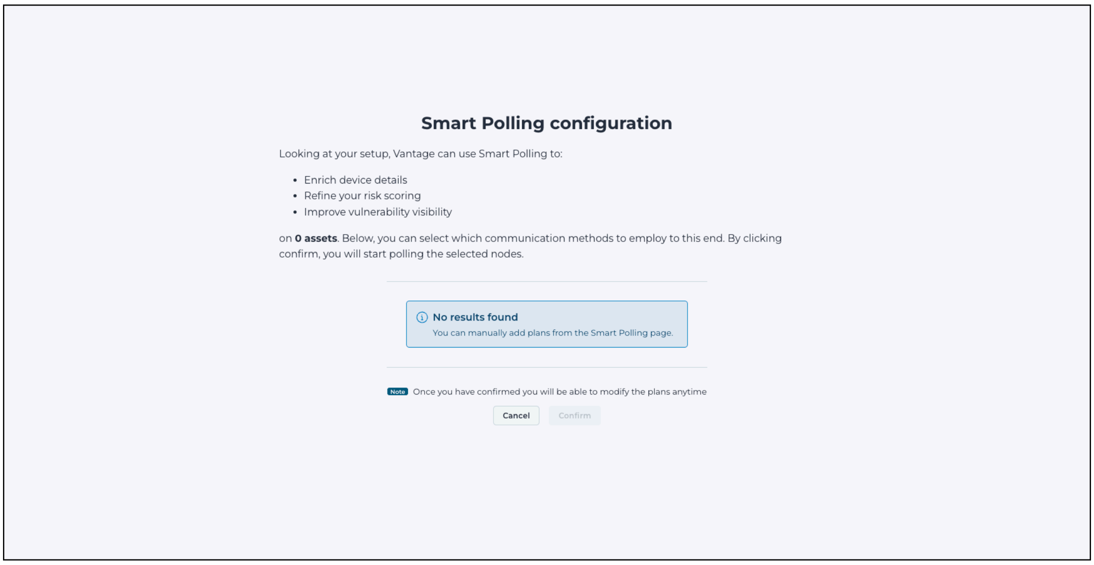
   Smart Polling actively queries devices for attributes not present in network traffic improving visibility and vulnerability identification.

   At this time, you have not configured Smart Polling on your system.

   Click the button below and Vantage will suggest the best Smart Polling approach for your system.

   Result: The **Smart Polling configuration** page opens. It will show a summary of what Vantage has detected in your environment, and the possible options that you can take.

3. Select one or more of the strategies that have been suggested.



Smart Polling configuration

Looking at your setup, Vantage can use Smart Polling to:

- Enrich device details
- Refine your risk scoring
- Improve vulnerability visibility

on **0 assets**. Below, you can select which communication methods to employ to this end. By clicking confirm, you will start polling the selected nodes.

No results found
You can manually add plans from the Smart Polling page.

Note Once you have confirmed you will be able to modify the plans anytime

4. Select **Confirm**.

Results

The Smart Polling plan(s) has (have) been added and they will run automatically.

Automatically add a Smart Polling plan from the suggestions section

*Use the **Suggestions** section on the **Smart Polling Plans** page to automatically create one or more Smart Polling plans.*

About this task

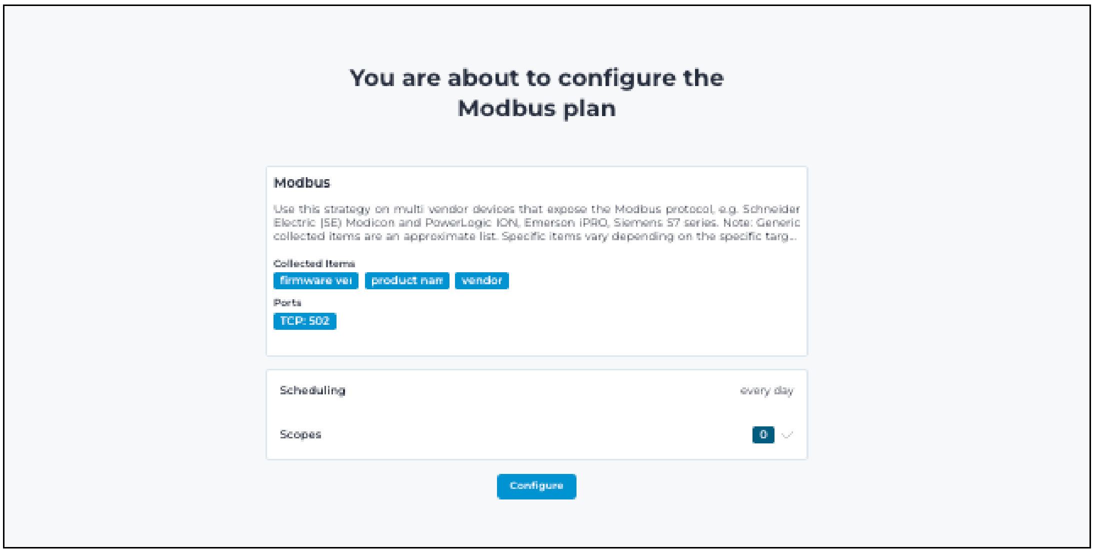
Use this process to create Smart Polling plans that automatically find the optimal target. This method allows for a single-click definition of plans that collect data from devices that the Nozomi Networks solution already recognizes in the environment.

Procedure

1. In the top navigation bar, select ☰ **> Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. To select one of the strategies that have been suggested, in the bottom left corner, select the related ⚙ icon.

   You are about to configure the Modbus plan

   Modbus

   Use this strategy on multi vendor devices that expose the Modbus protocol, e.g. Schneider Electric (SE) Modicon and PowerLogic ION, Emerson iPRO, Siemens S7 series. Note: Generic collected items are an approximate list. Specific items vary depending on the specific targ...

   Collected Items: firmware vei, product nam, vendor

   Ports: TCP: 502

   Scheduling: every day

   Scopes: 0

3. **Optional:** Expand the **Scopes** section and select **Add Scope**.
4. Select an option:

   Choose from:

   - Tag
   - Site
   - Sensor

   Result: A dialog shows.

5. Select one tag, site, or sensor.

   The option will depend on what you selected in the previous step.

6. Select **Configure**.

Results

The Smart Polling plan has been added and it will run automatically.

What to do next

If necessary, do the procedure above again for one or more of the other Smart Planning plans in the **Suggestions** section.

Manually add a plan

Add a Smart Polling plan that requires credentials

Create a Smart Polling plan that uses a strategy that requires credentials. Choose specific or all credentials, configure a schedule, and define the scope before completing the setup.

Before you begin

Make sure that the correct credentials for the Smart Polling plan you are about to add are in the **Credentials Manager**.

About this task

Use this process to create a Smart Polling plan that targets systems requiring authentication. This method allows the platform to access and collect data from sources that need credentials. You can configure the schedule and scope of the plan to suit your operational needs.

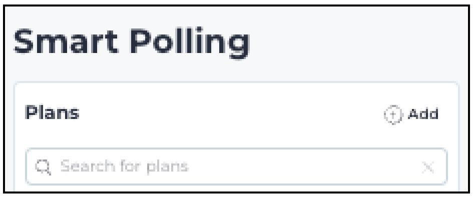
Procedure

1. In the top navigation bar, select ☰ **> Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. If the welcome page shows, select **Go to the Smart Polling page**.

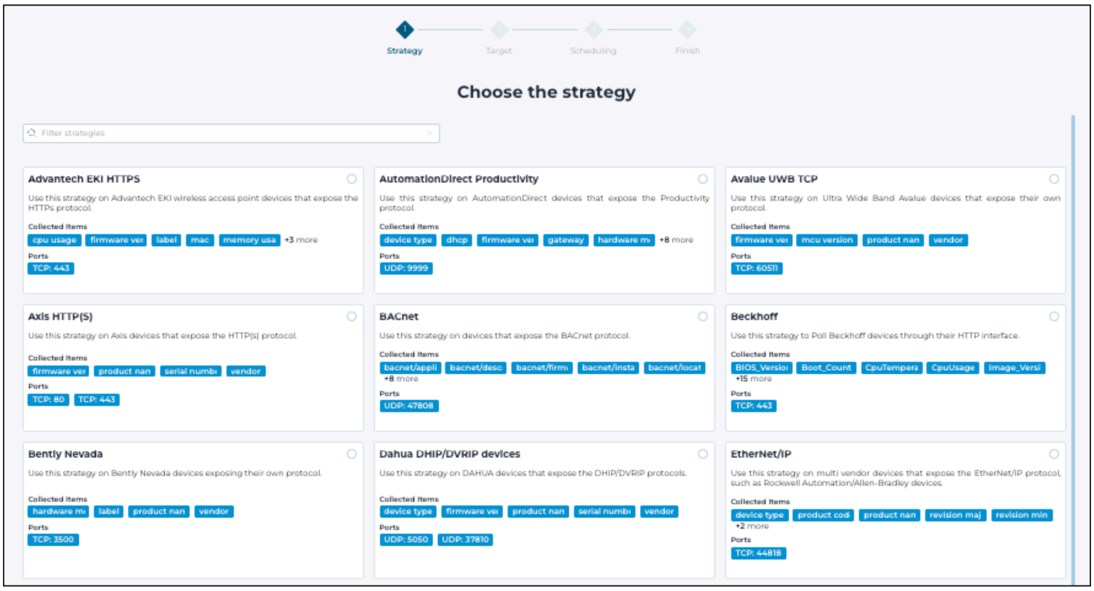
3. On the **Smart Polling** page, select the ⊕ **Add** icon.

   Result: The **Choose the Strategy** page opens.

4. **Optional:**

   To find the correct strategy, enter text in the **Filter strategies** field.



Choose the strategy

Advantech EKI HTTPS
Use this strategy on Advantech EKI wireless access point devices that expose the HTTPs protocol.
Collected Items
cpu usage, firmware ver, label, mac, memory usa, +3 more
Ports
TCP: 443

AutomationDirect Productivity
Use this strategy on AutomationDirect devices that expose the Productivity protocol.
Collected Items
device type, dhcp, firmware ver, gateway, hardware m, +8 more
Ports
UDP: 9999

Avalue UWB TCP
Use this strategy on Ultra Wide Band Avalue devices that expose their own protocol.
Collected Items
firmware ver, mcu version, product nan, vendor
Ports
TCP: 60511

Axis HTTP(S)
Use this strategy on Axis devices that expose the HTTP(s) protocol.
Collected Items
firmware ver, product nan, serial numb, vendor
Ports
TCP: 80, TCP: 443

BACnet
Use this strategy on devices that expose the BACnet protocol.
Collected Items
bacnet/appli, bacnet/desc, bacnet/firm, bacnet/insta, bacnet/locat, +8 more
Ports
UDP: 47808

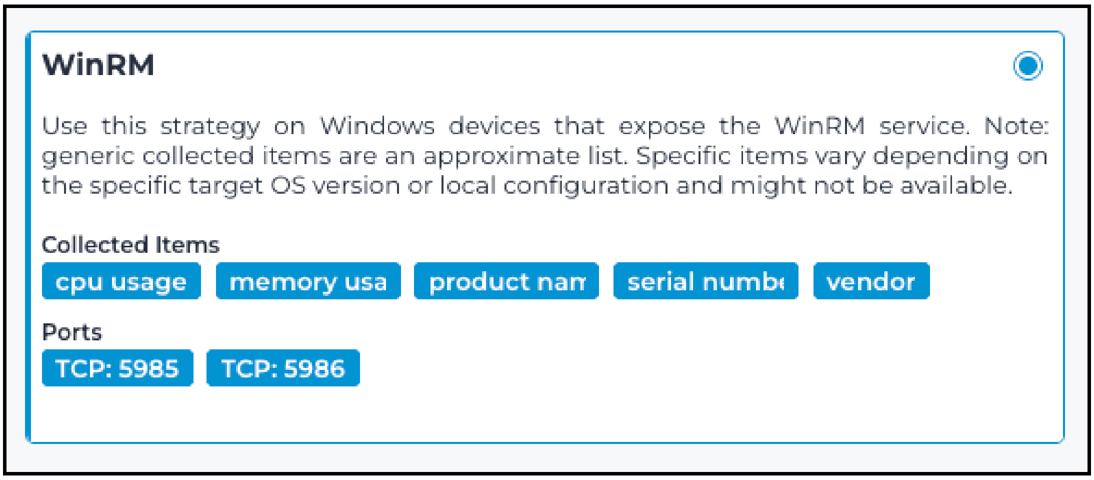
Beckhoff
Use this strategy to Poll Beckhoff devices through their HTTP interface.
Collected Items
BIOS_Versio, Boot_Count, CpuTempera, CpuUsage, Image_Versi, +15 more
Ports
TCP: 443

Bently Nevada
Use this strategy on Bently Nevada devices exposing their own protocol.
Collected Items
hardware m, label, product nan, vendor
Ports
TCP: 3500

Dahua DHIP/DVRIP devices
Use this strategy on DAHUA devices that expose the DHIP/DVRIP protocols.
Collected Items
device type, firmware ver, product nan, serial numb, vendor
Ports
UDP: 5050, UDP: 37810

EtherNet/IP
Use this strategy on multi vendor devices that expose the EtherNet/IP protocol, such as Rockwell Automation/Allen-Bradley devices.
Collected Items
device type, product cod, product nan, revision maj, revision min, +2 more
Ports
TCP: 44818

5. In the top right corner of the relevant strategy, select the radio button.



WinRM ●

Use this strategy on Windows devices that expose the WinRM service. Note: generic collected items are an approximate list. Specific items vary depending on the specific target OS version or local configuration and might not be available.

Collected Items
cpu usage, memory usa, product nan, serial numb, vendor

Ports
TCP: 5985, TCP: 5986

6. Select **Next**.

   Result: Either the **Parameters** page or the **Target** page will show.

7. **Optional:** If the **Parameters** page shows, enter the necessary details.

8. Select **Next**.

   Result: The **Target** page will show.

9. From the **Available credentials** panel on the left, select the applicable credential.

10. Choose an option:

    Choose from:

    - To select one credential, select the > icon.
    - To select all the available credentials, select the >> icon.
11. Select **Next**.

    Result: The **Scheduling** page will show.
12. On the **Scheduling** page:

    > **Important:**
    > *N2OS* versions v25.3.0 and later support both of the options below. *N2OS* versions up to and including v25.2.0 only support the **Interval based** option.

    Choose from:
    - For *N2OS* v25.3.0 and higher, select **Recurrence based**
    - For *N2OS* v25.2.0 and lower, select **Interval based**
13. Configure the schedule:

    Choose from:
    - If you chose **Recurrence based**, set the frequency and the time
    - If you chose **Interval based**, set the interval
14. Select **Next**.

    Result: The **Finish** page will show.
15. **Optional:** In the **Plan name** field, edit the name of the plan.
16. **Optional:** Expand the **Scopes** section and select **Add Scope**.
17. Select an option:

    Choose from:
    - Tag
    - Site
    - Sensor

    Result: A dialog shows.
18. Select one tag, site, or sensor.

    The option will depend on what you selected in the previous step.
19. Select **Confirm**.
20. Select **Done**.

Results

The Smart Polling plan has been added.

Add a Smart Polling plan that does not require credentials

Create a Smart Polling plan for targets that do not require credentials. Define the query, configure the schedule, and set the scope to complete the setup.

About this task

Use this process to create a Smart Polling plan for devices or systems that do not require authentication. This method enables the platform to collect data from non-credentialed targets using a query-based selection. You can configure the schedule and scope of the plan to suit your operational needs.

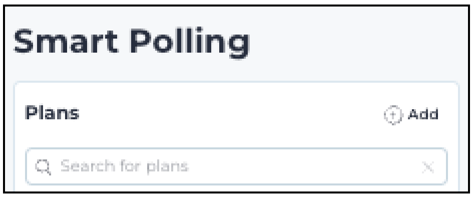
Procedure

1. In the top navigation bar, select ☰ > **Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. If the welcome page shows, select **Go to the Smart Polling page**.

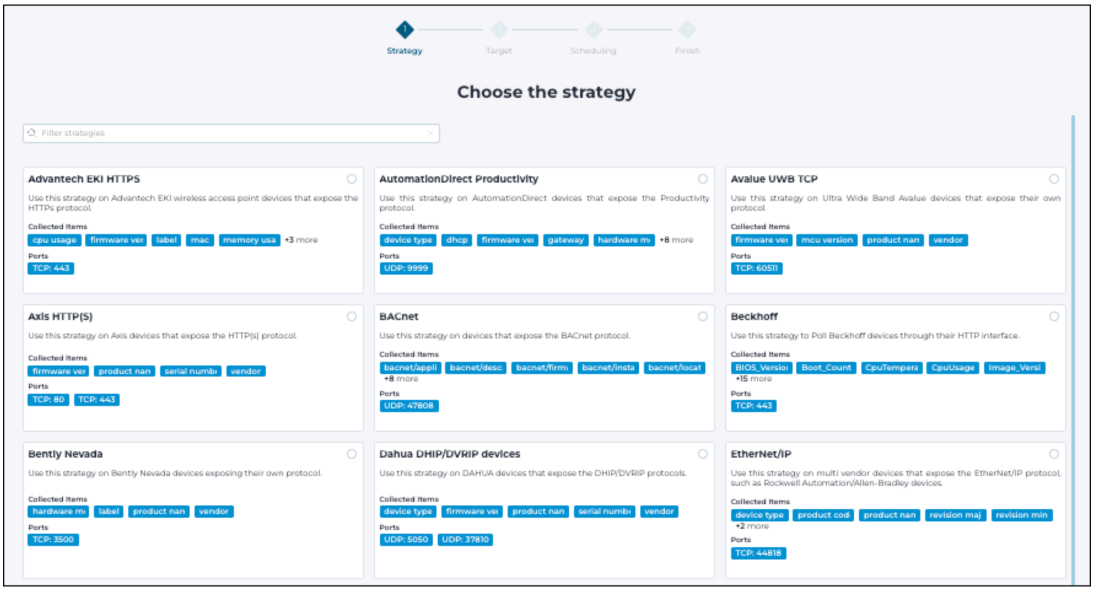
3. On the **Smart Polling** page, select the ⊕ **Add** icon.

   Result: The **Choose the Strategy** page opens.

4. **Optional:**

   To find the correct strategy, enter text in the **Filter strategies** field.

   Advantech EKI HTTPS ○
   Use this strategy on Advantech EKI wireless access point devices that expose the HTTPs protocol.
   Collected Items
   cpu usage | firmware ver | label | mac | memory usa | +3 more
   Ports
   TCP: 443

   AutomationDirect Productivity ○
   Use this strategy on AutomationDirect devices that expose the Productivity protocol.
   Collected Items
   device type | dhcp | firmware ve | gateway | hardware m | +8 more
   Ports
   UDP: 9999

   Avalue UWB TCP ○
   Use this strategy on Ultra Wide Band Avalue devices that expose their own protocol.
   Collected Items
   firmware ve | mcu version | product nan | vendor
   Ports
   TCP: 60511

   Axis HTTP(S) ○
   Use this strategy on Axis devices that expose the HTTP(s) protocol.
   Collected Items
   firmware ver | product nan | serial numb | vendor
   Ports
   TCP: 80 | TCP: 443

   BACnet ○
   Use this strategy on devices that expose the BACnet protocol.
   Collected Items
   bacnet/appli | bacnet/desc | bacnet/firm | bacnet/insta | bacnet/locat | +8 more
   Ports
   UDP: 47808

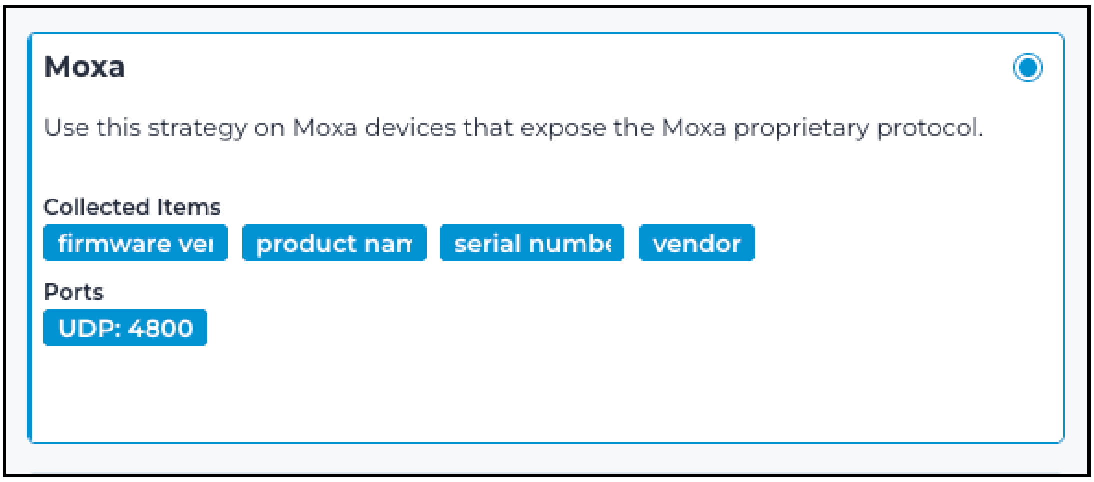
   Beckhoff ○
   Use this strategy to Poll Beckhoff devices through their HTTP interface.
   Collected Items
   BIOS_Versio | Boot_Count | CpuTempera | CpuUsage | Image_Versi | +15 more
   Ports
   TCP: 443

   Bently Nevada ○
   Use this strategy on Bently Nevada devices exposing their own protocol.
   Collected Items
   hardware m | label | product nan | vendor
   Ports
   TCP: 3500

   Dahua DHIP/DVRIP devices ○
   Use this strategy on DAHUA devices that expose the DHIP/DVRIP protocols.
   Collected Items
   device type | firmware ve | product nan | serial numb | vendor
   Ports
   UDP: 5050 | UDP: 37810

   EtherNet/IP ○
   Use this strategy on multi vendor devices that expose the EtherNet/IP protocol, such as Rockwell Automation/Allen-Bradley devices.
   Collected Items
   device type | product cod | product nan | revision maj | revision min | +2 more
   Ports
   TCP: 44818

5. In the top right corner of the relevant strategy, select the radio button.



Moxa ●

Use this strategy on Moxa devices that expose the Moxa proprietary protocol.

Collected Items

Ports

6. Select **Next**.

   Result: Either the **Parameters** page or the **Target** page will show.

7. **Optional:** If the **Parameters** page shows, enter the necessary details.

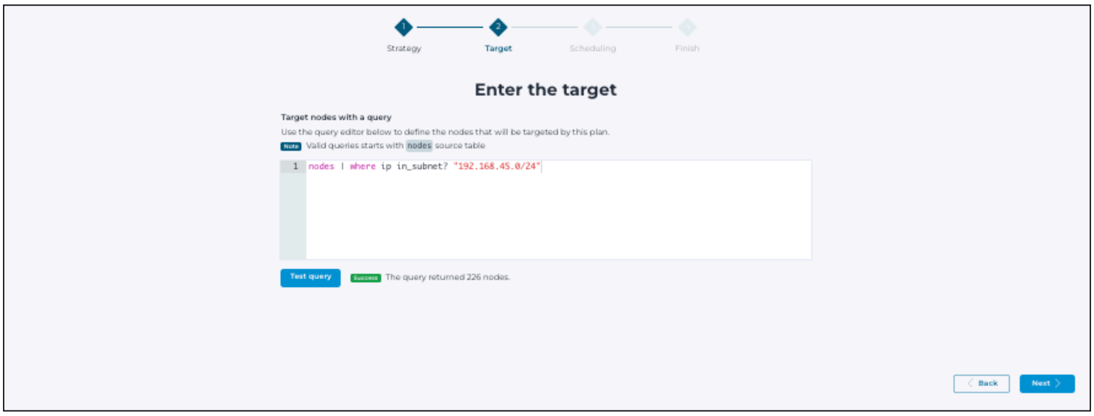
> **Note:**
> Smart Polling proposes a safe default for each of these parameters. Unless you have specific requirements, we recommend that you use these parameters.

8. Select **Next**.

   Result: The **Target** page will show.

9. In the **Target nodes with a query** section, enter a query.

   For example, `nodes | where ip in_subnet? "192.168.45.0/24"`



Enter the target

Target nodes with a query

Use the query editor below to define the nodes that will be targeted by this plan.

Note Valid queries starts with `nodes` source table

```
nodes | where ip in_subnet? "192.168.45.0/24"
```

Success The query returned 226 nodes.

10. Select **Test query**.

    If successful a `Success` indicator and the amount of nodes found will show and the **Next** button will be enabled.
11. Select **Next**.

    Result: The **Scheduling** page will show.
12. On the **Scheduling** page:

    > **Important:**
    > *N2OS* versions v25.3.0 and later support both of the options below. *N2OS* versions up to and including v25.2.0 only support the **Interval based** option.

    Choose from:
    - For *N2OS* v25.3.0 and higher, select **Recurrence based**
    - For *N2OS* v25.2.0 and lower, select **Interval based**
13. Configure the schedule:

    Choose from:
    - If you chose **Recurrence based**, set the frequency and the time
    - If you chose **Interval based**, set the interval
14. Select **Next**.

    Result: The **Finish** page will show.
15. **Optional:** In the **Plan name** field, edit the name of the plan.
16. **Optional:** Expand the **Scopes** section and select **Add Scope**.
17. Select an option:

    Choose from:
    - Tag
    - Site
    - Sensor

    Result: A dialog shows.
18. Select one tag, site, or sensor.

    The option will depend on what you selected in the previous step.
19. Select **Confirm**.
20. Select **Done**.

Results

The Smart Polling plan has been added.

Actions menu

Pause a Smart Polling plan

Temporarily suspend a Smart Polling plan without deleting it. Use this option to stop polling activity while preserving the plan configuration. The plan can be resumed at any time.

About this task

When you pause a Smart Polling plan, it temporarily disables its polling activity without removing its configuration. This is useful when you want to stop monitoring for maintenance, troubleshooting, or scheduling reasons, but plan to resume later.

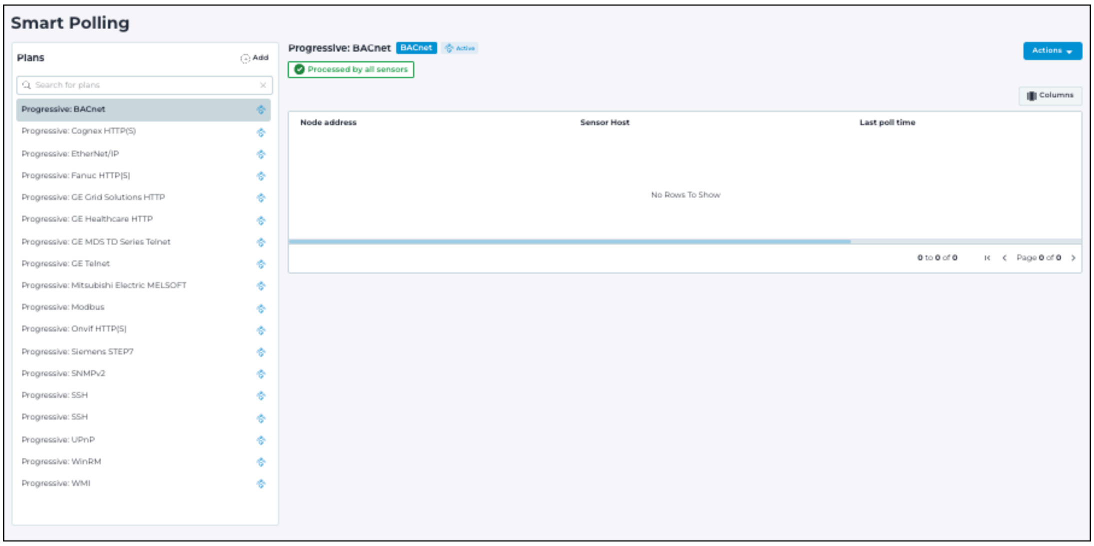
Procedure

1. In the top navigation bar, select ☰ > **Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. From the list of Smart Polling plans on the left, select the applicable plan.

3. In the top right corner, select **Actions**.



4. Select **Pause Plan**.

Results

The Smart Polling plan has been paused.

Resume a Smart Polling plan

Reactivate a previously paused Smart Polling plan to resume automated monitoring. This action restarts polling using the plan's saved configuration. Useful for restoring regular monitoring activity after a pause.

About this task

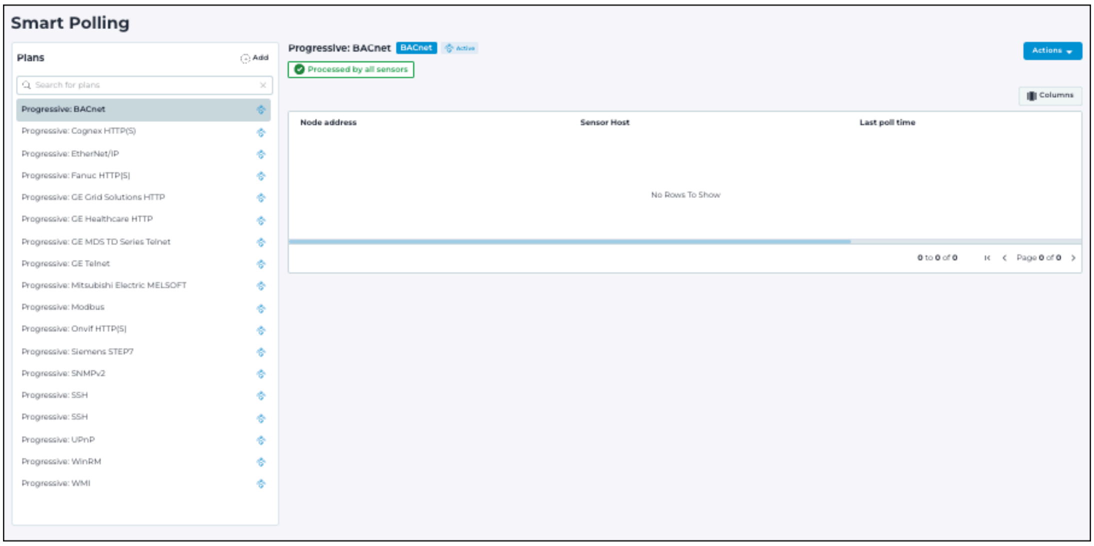
When you resume a Smart Polling plan, it restarts monitoring activity that was previously paused. This is useful after scheduled maintenance, issue resolution, or other intentional interruptions in polling. The plan resumes with its original configuration intact.

Procedure

1. In the top navigation bar, select ☰ **> Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. From the list of Smart Polling plans on the left, select the applicable plan.
3. In the top right corner, select **Actions**.



4. Select **Resume Plan**.

Results

The Smart Polling plan has been resumed.

Edit a Smart Polling plan

Modify an existing Smart Polling plan to adjust its configuration or update associated settings. Editing a plan allows you to fine-tune monitoring behavior. Ensure changes align with your system monitoring goals.

About this task

Editing a Smart Polling plan allows you to change its targets, credentials, polling intervals, or other configurations. This is useful when your monitoring requirements change or you need to correct or refine existing settings.

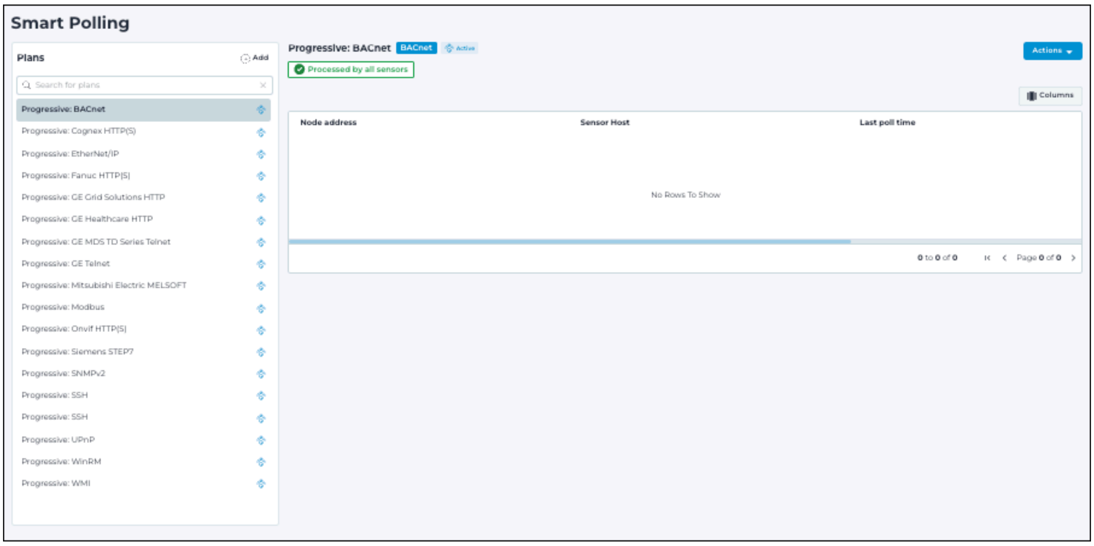
Procedure

1. In the top navigation bar, select ≡ > **Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. From the list of Smart Polling plans on the left, select the applicable plan.

3. In the top right corner, select **Actions**.

4. Select **Edit Plan**.

   Result: The **Target** page of the related Smart Polling plan will open.

5. Use the applicable procedure to edit the plan:

   Choose from:

   - Add a Smart Polling plan that requires credentials (on page 295)
   - Add a Smart Polling plan that does not require credentials (on page 298)

   You can then confirm your edited details on the **Scheduling** and **Finish** pages.

Delete a Smart Polling plan

Delete an existing Smart Polling plan to remove obsolete or unneeded monitoring configurations. This action is permanent and cannot be undone. Use caution when confirming the deletion.

About this task

Deleting a Smart Polling plan permanently removes its configuration and stops all associated monitoring activity. Use this option when a plan is no longer relevant or needed. Be sure to confirm the deletion, as this action cannot be undone.

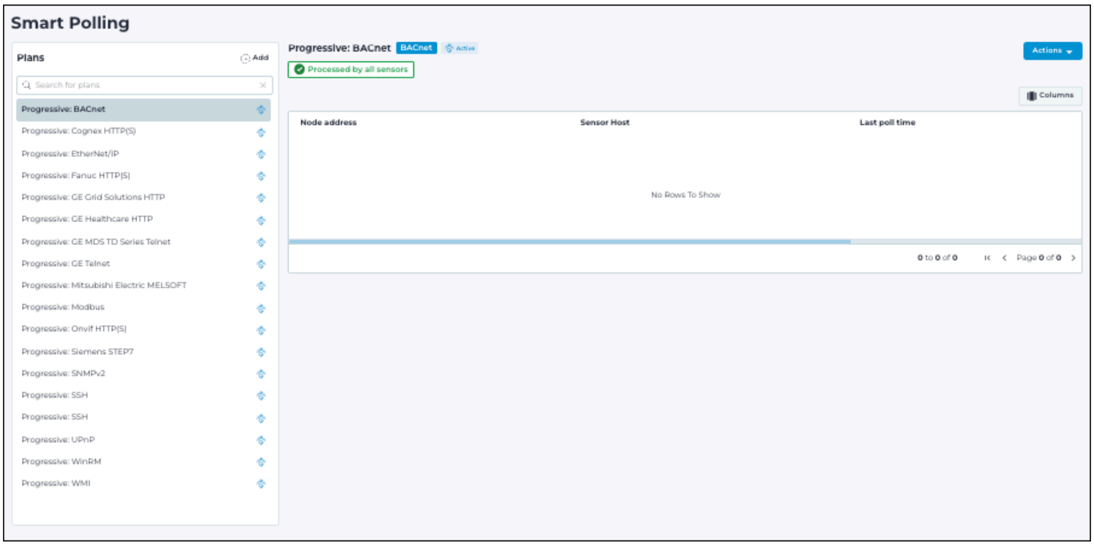
Procedure

1. In the top navigation bar, select ☰ > **Smart Polling**.

   Result: The Smart Polling (on page 281) page opens.

2. From the list of Smart Polling plans on the left, select the applicable plan.

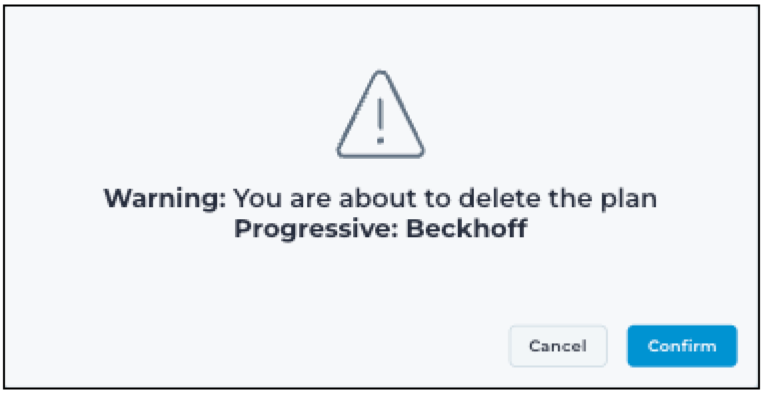
3. In the top right corner, select **Actions**.



4. Select **Delete Plan**.

   Result: A dialog shows

5. Select **Confirm**.



Warning: You are about to delete the plan **Progressive: Beckhoff**

Results

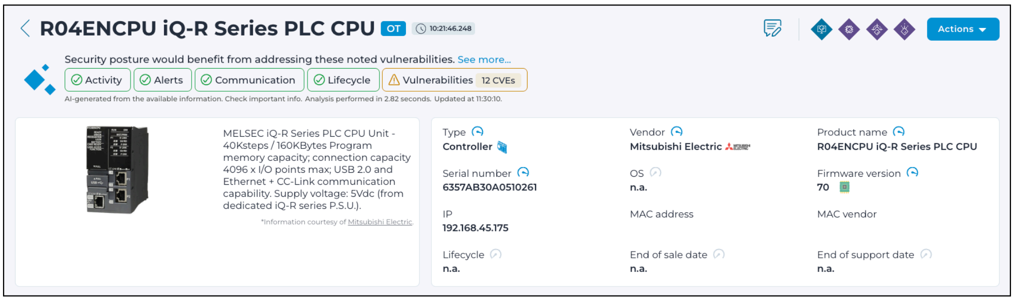
The Smart Polling plan has been deleted.

Smart Polling results

*Smart Polling retrieves details from nodes to enrich asset data. This enriched information also enables other information to be enriched, such as hardware components, common platform enumeration (CPEs), and related vulnerabilities. When the Simple Network Management Protocol strategy (SNMP) strategy is used, it also populates the **Physical graph** in the **Graph** page.*

Once a Smart Polling plan has executed successfully, some or all of the information in sections of the Assets page should have been enriched.

Overview



R04ENCPU iQ-R Series PLC CPU

Security posture would benefit from addressing these noted vulnerabilities. See more...

AI-generated from the available information. Check important info. Analysis performed in 2.82 seconds. Updated at 11:30:10.

MELSEC iQ-R Series PLC CPU Unit - 40Ksteps / 160KBytes Program memory capacity; connection capacity 4096 x I/O points max; USB 2.0 and Ethernet + CC-Link communication capability. Supply voltage: 5Vdc (from dedicated iQ-R series P.S.U.).

*Information courtesy of Mitsubishi Electric.

Type
Controller

Vendor
Mitsubishi Electric

Product name
R04ENCPU iQ-R Series PLC CPU

Serial number
6357AB30A0510261

OS
n.a.

Firmware version
70

IP
192.168.45.175

MAC address

MAC vendor

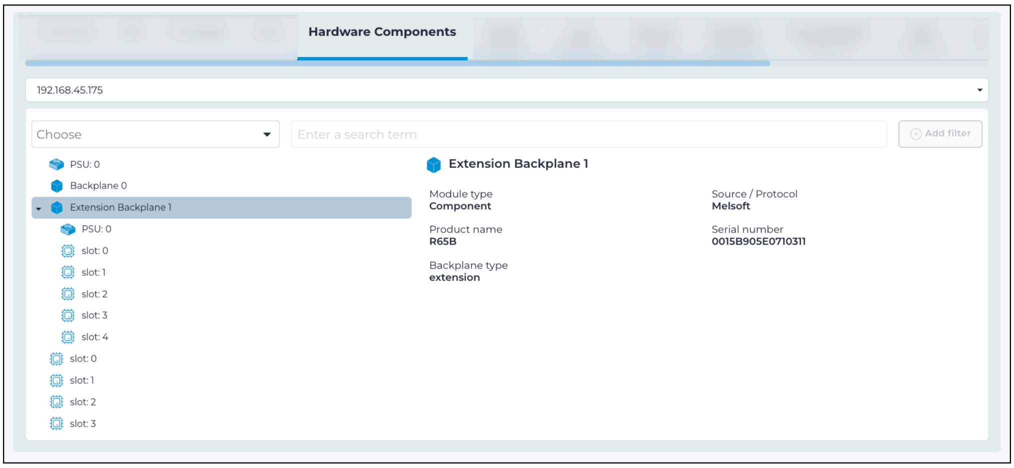
Lifecycle
n.a.

End of sale date
n.a.

End of support date
n.a.

Figure 117. Assets page overview

Hardware Components tab



192.168.45.175

Extension Backplane 1

Module type
Component

Source / Protocol
Melsoft

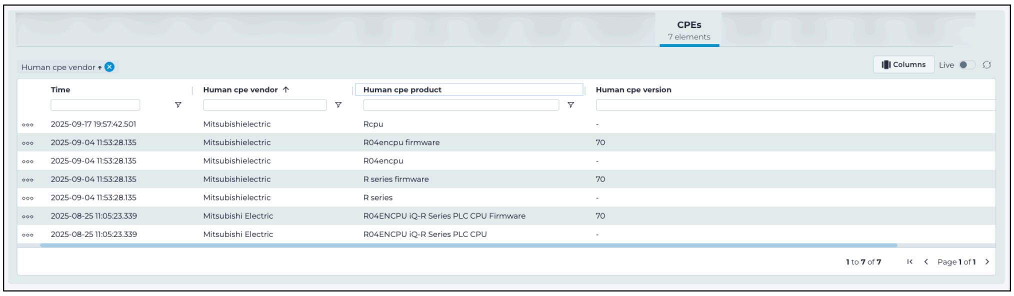
Product name
R65B

Serial number
0015B905E0710311

Backplane type
extension

Figure 118. Assets page Hardware Components tab

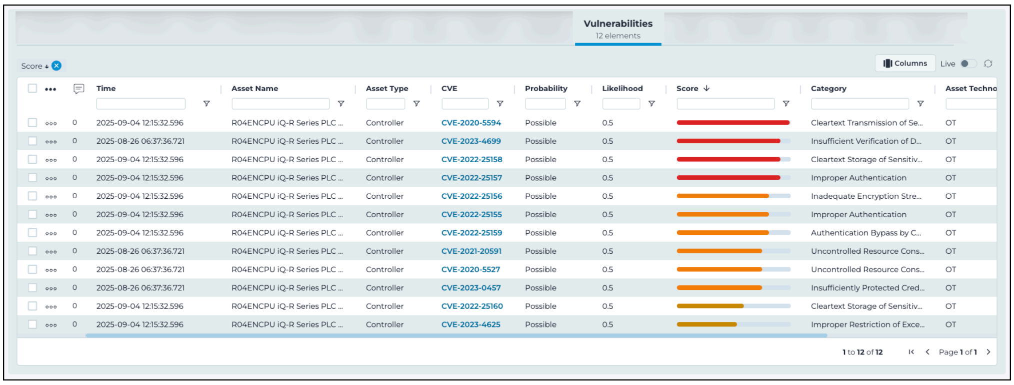
CPEs tab



Time	Human cpe vendor	Human cpe product	Human cpe version
2025-09-17 19:57:42.501	Mitsubishielectric	Rcpu	-
2025-09-04 11:53:28.135	Mitsubishielectric	R04encpu firmware	70
2025-09-04 11:53:28.135	Mitsubishielectric	R04encpu	-
2025-09-04 11:53:28.135	Mitsubishielectric	R series firmware	70
2025-09-04 11:53:28.135	Mitsubishielectric	R series	-
2025-08-25 11:05:23.339	Mitsubishi Electric	R04ENCPU iQ-R Series PLC CPU Firmware	70
2025-08-25 11:05:23.339	Mitsubishi Electric	R04ENCPU iQ-R Series PLC CPU	-

Figure 119. Assets page CPEs tab

Vulnerabilities tab



	Time	Asset Name	Asset Type	CVE	Probability	Likelihood	Score	Category	Asset Techno
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2020-5594	Possible	0.5		Cleartext Transmission of Se...	OT
0	2025-08-26 06:37:36.721	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2023-4699	Possible	0.5		Insufficient Verification of D...	OT
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2022-25158	Possible	0.5		Cleartext Storage of Sensitiv...	OT
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2022-25157	Possible	0.5		Improper Authentication	OT
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2022-25156	Possible	0.5		Inadequate Encryption Stre...	OT
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2022-25155	Possible	0.5		Improper Authentication	OT
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2022-25159	Possible	0.5		Authentication Bypass by C...	OT
0	2025-08-26 06:37:36.721	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2021-20591	Possible	0.5		Uncontrolled Resource Cons...	OT
0	2025-08-26 06:37:36.721	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2020-5527	Possible	0.5		Uncontrolled Resource Cons...	OT
0	2025-08-26 06:37:36.721	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2023-0457	Possible	0.5		Insufficiently Protected Cred...	OT
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2022-25160	Possible	0.5		Cleartext Storage of Sensitiv...	OT
0	2025-09-04 12:15:32.596	R04ENCPU iQ-R Series PLC ...	Controller	CVE-2023-4625	Possible	0.5		Improper Restriction of Exce...	OT

Figure 120. Assets page Vulnerabilities tab

Physical graph

In addition to the above sections, Smart Polling provides the necessary information to populate the **Physical graph**. To do this, you need to use the *simple network management protocol (SNMP)* strategy to poll network switches or routers.

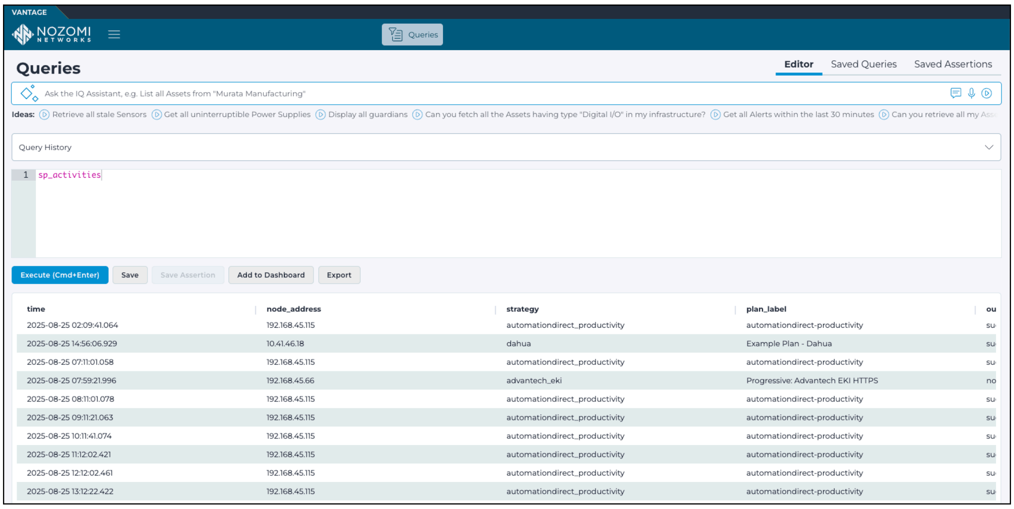
Smart Polling history

*Use the **Queries** page in Vantage to view historical execution data for Smart Polling plans. You can run general or filtered queries to see activity across all nodes or specific devices.*

Example 1

```
sp_activities
```

Shows all the executions of Smart Polling plans in your organization.


VANTAGE
NOZOMI NETWORKS
Queries
Queries
Editor
Saved Queries
Saved Assertions
Ask the IQ Assistant, e.g. List all Assets from "Murata Manufacturing"
Ideas:
Retrieve all stale Sensors
Get all uninterruptible Power Supplies
Display all guardians
Can you fetch all the Assets having type "Digital I/O" in my infrastructure?
Get all Alerts within the last 30 minutes
Can you retrieve all my Ass
Query History
Execute (Cmd+Enter)
Save
Save Assertion
Add to Dashboard
Export

```
sp_activities
```

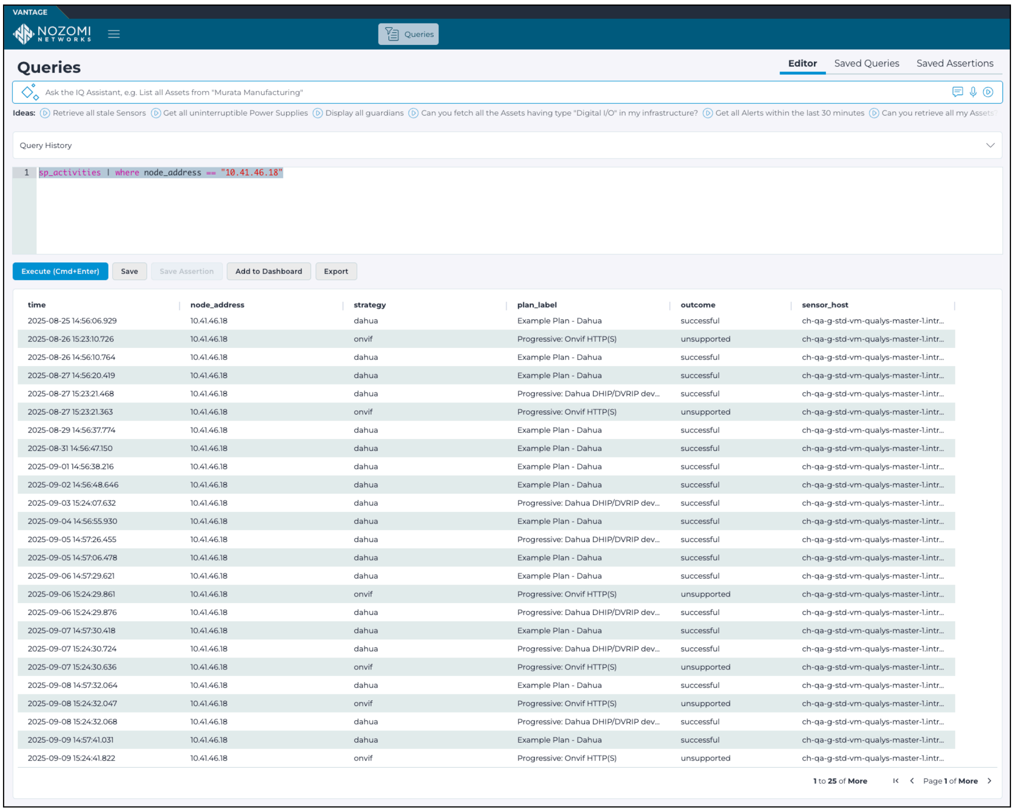
time	node_address	strategy	plan_label	ou
2025-08-25 02:09:41.064	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su
2025-08-25 14:56:06.929	10.41.46.18	dahua	Example Plan - Dahua	su
2025-08-25 07:11:01.058	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su
2025-08-25 07:59:21.996	192.168.45.66	advantech_eki	Progressive: Advantech EKI HTTPS	no
2025-08-25 08:11:01.078	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su
2025-08-25 09:11:21.063	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su
2025-08-25 10:11:41.074	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su
2025-08-25 11:12:02.421	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su
2025-08-25 12:12:02.461	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su
2025-08-25 13:12:22.422	192.168.45.115	automationdirect_productivity	automationdirect-productivity	su

Figure 121. General query

Example 2

```
sp_activities | where node_address == "10.41.46.18"
```

Shows all the executions of Smart Polling plans connected to a node with the *IP* address `10.41.46.18`.


VANTAGE
NOZOMI NETWORKS
Queries
Queries
Editor
Saved Queries
Saved Assertions
Ask the IQ Assistant, e.g. List all Assets from "Murata Manufacturing"
Ideas: Retrieve all stale Sensors Get all uninterruptible Power Supplies Display all guardians Can you fetch all the Assets having type "Digital I/O" in my infrastructure? Get all Alerts within the last 30 minutes Can you retrieve all my Assets
Query History
Execute (Cmd+Enter)
Save
Save Assertion
Add to Dashboard
Export

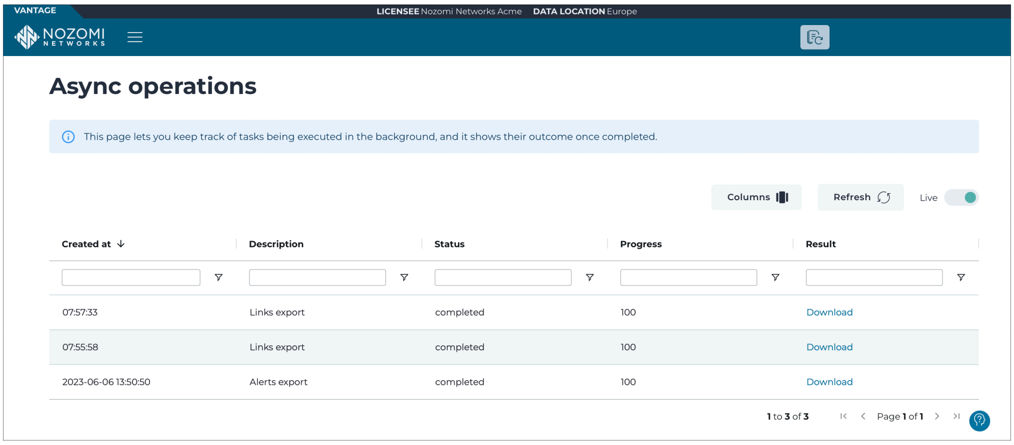
```
sp_activities | where node_address == "10.41.46.18"
```

time	node_address	strategy	plan_label	outcome	sensor_host
2025-08-25 14:56:06.929	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-08-26 15:23:10.726	10.41.46.18	onvif	Progressive: Onvif HTTP(S)	unsupported	ch-qa-g-std-vm-qualys-master-1.intr...
2025-08-26 14:56:10.764	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-08-27 14:56:20.419	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-08-27 15:23:21.468	10.41.46.18	dahua	Progressive: Dahua DHIP/DVRIP dev...	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-08-27 15:23:21.363	10.41.46.18	onvif	Progressive: Onvif HTTP(S)	unsupported	ch-qa-g-std-vm-qualys-master-1.intr...
2025-08-29 14:56:37.774	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-08-31 14:56:47.150	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-01 14:56:38.216	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-02 14:56:48.646	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-03 15:24:07.632	10.41.46.18	dahua	Progressive: Dahua DHIP/DVRIP dev...	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-04 14:56:55.930	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-05 14:57:26.455	10.41.46.18	dahua	Progressive: Dahua DHIP/DVRIP dev...	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-05 14:57:06.478	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-06 14:57:29.621	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-06 15:24:29.861	10.41.46.18	onvif	Progressive: Onvif HTTP(S)	unsupported	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-06 15:24:29.876	10.41.46.18	dahua	Progressive: Dahua DHIP/DVRIP dev...	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-07 14:57:30.418	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-07 15:24:30.724	10.41.46.18	dahua	Progressive: Dahua DHIP/DVRIP dev...	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-07 15:24:30.636	10.41.46.18	onvif	Progressive: Onvif HTTP(S)	unsupported	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-08 14:57:32.064	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-08 15:24:32.047	10.41.46.18	onvif	Progressive: Onvif HTTP(S)	unsupported	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-08 15:24:32.068	10.41.46.18	dahua	Progressive: Dahua DHIP/DVRIP dev...	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-09 14:57:41.031	10.41.46.18	dahua	Example Plan - Dahua	successful	ch-qa-g-std-vm-qualys-master-1.intr...
2025-09-09 15:24:41.822	10.41.46.18	onvif	Progressive: Onvif HTTP(S)	unsupported	ch-qa-g-std-vm-qualys-master-1.intr...

Figure 122. Specific query

Chapter 19. Async operations

The ***Async operations*** *page lets you keep track of tasks that are being executed in the background, and it shows their outcome once that they are completed.*



Async operations

This page lets you keep track of tasks being executed in the background, and it shows their outcome once completed.

Created at	Description	Status	Progress	Result
07:57:33	Links export	completed	100	Download
07:55:58	Links export	completed	100	Download
2023-06-06 13:50:50	Alerts export	completed	100	Download

Figure 123. Async operations page

Chapter 20. What's new drawer

*The **What's new** drawer shows a list of new features, enhancements, and fixes for issues.*

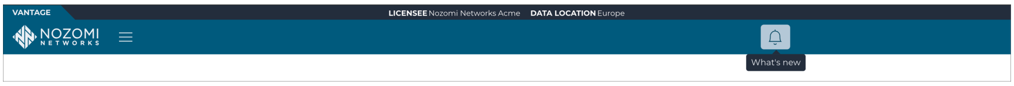
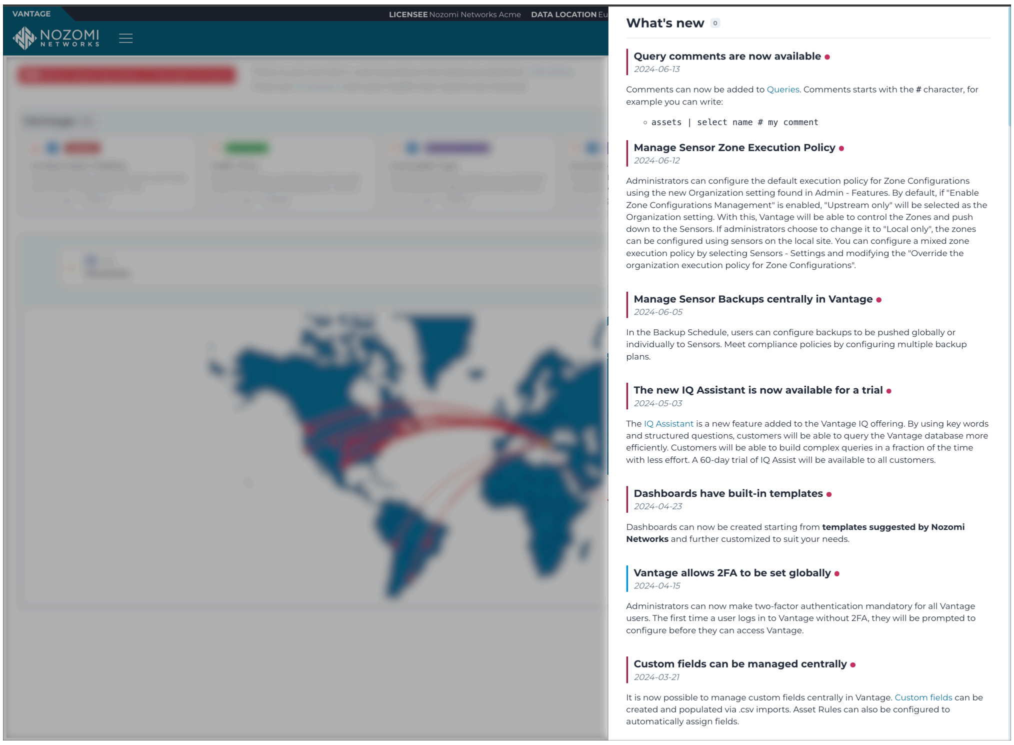


Figure 124. What's new icon



What's new 0

Query comments are now available ●
2024-06-13

Comments can now be added to Queries. Comments starts with the # character, for example you can write:

- `assets | select name # my comment`

Manage Sensor Zone Execution Policy ●
2024-06-12

Administrators can configure the default execution policy for Zone Configurations using the new Organization setting found in Admin - Features. By default, if "Enable Zone Configurations Management" is enabled, "Upstream only" will be selected as the Organization setting. With this, Vantage will be able to control the Zones and push down to the Sensors. If administrators choose to change it to "Local only", the zones can be configured using sensors on the local site. You can configure a mixed zone execution policy by selecting Sensors - Settings and modifying the "Override the organization execution policy for Zone Configurations".

Manage Sensor Backups centrally in Vantage ●
2024-06-05

In the Backup Schedule, users can configure backups to be pushed globally or individually to Sensors. Meet compliance policies by configuring multiple backup plans.

The new IQ Assistant is now available for a trial ●
2024-05-03

The IQ Assistant is a new feature added to the Vantage IQ offering. By using key words and structured questions, customers will be able to query the Vantage database more efficiently. Customers will be able to build complex queries in a fraction of the time with less effort. A 60-day trial of IQ Assist will be available to all customers.

Dashboards have built-in templates ●
2024-04-23

Dashboards can now be created starting from **templates suggested by Nozomi Networks** and further customized to suit your needs.

Vantage allows 2FA to be set globally ●
2024-04-15

Administrators can now make two-factor authentication mandatory for all Vantage users. The first time a user logs in to Vantage without 2FA, they will be prompted to configure before they can access Vantage.

Custom fields can be managed centrally ●
2024-03-21

It is now possible to manage custom fields centrally in Vantage. Custom fields can be created and populated via .csv imports. Asset Rules can also be configured to automatically assign fields.

Figure 125. What's new drawer

Chapter 21. Administration

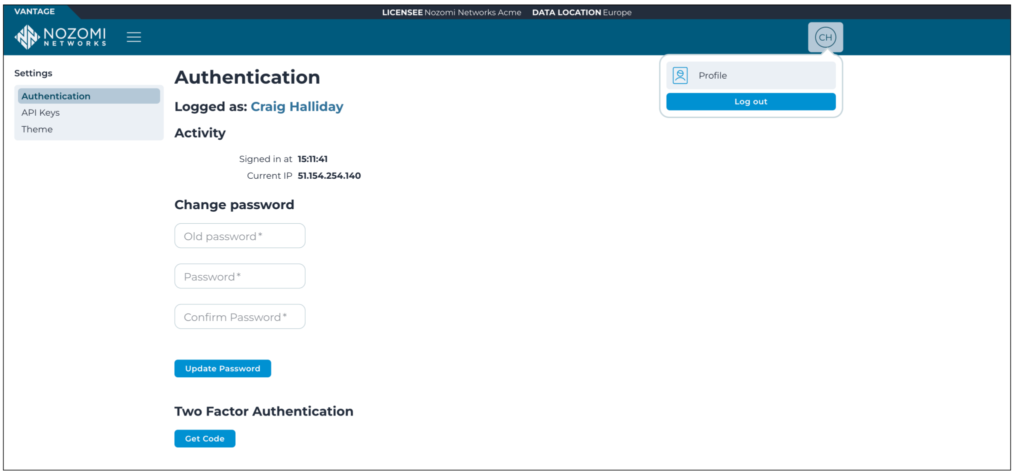
Administration page

The administration page lets a user with administrator privileges configure settings and do other tasks.

For more details, see the Vantage **Administrator Guide**.

Chapter 22. Profile settings

The profile settings menu lets you edit your user settings and update your profile.



LICENSEE Nozomi Networks Acme **DATA LOCATION** Europe

Authentication

Logged as: Craig Halliday

Activity

Signed in at 15:11:41
Current IP 51.154.254.140

Figure 126. Profile settings menu

The **Profile** page has these tabs:

- Authentication (on page 326)
- API Keys (on page 327)
- Theme (on page 329)

Related information

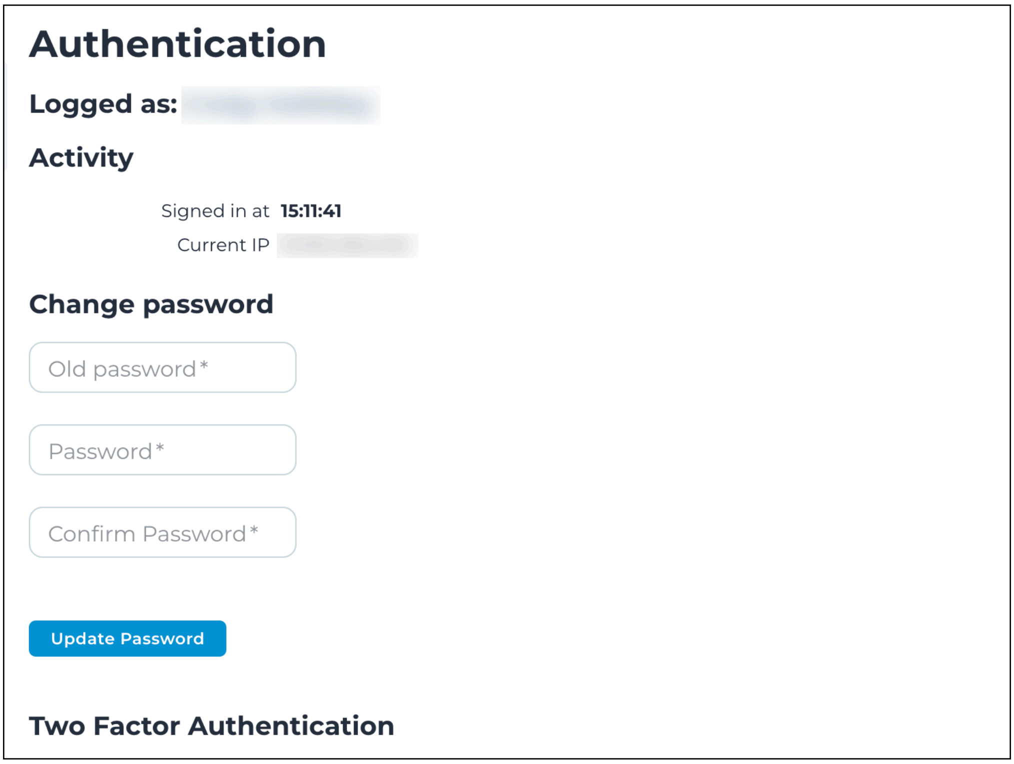
Authentication (on page 326)

API Keys (on page 327)

Theme (on page 329)

Authentication

*The **Authentication** page shows user activity details, lets you change your password, and lets you create a two-factor authentication code.*



Authentication

Logged as: [redacted]

Activity

Signed in at **15:11:41**

Current IP [redacted]

Change password

Two Factor Authentication

Figure 127. Authentication page

Activity

This section shows the last time the current user signed in and the *IP* address used.

Change password

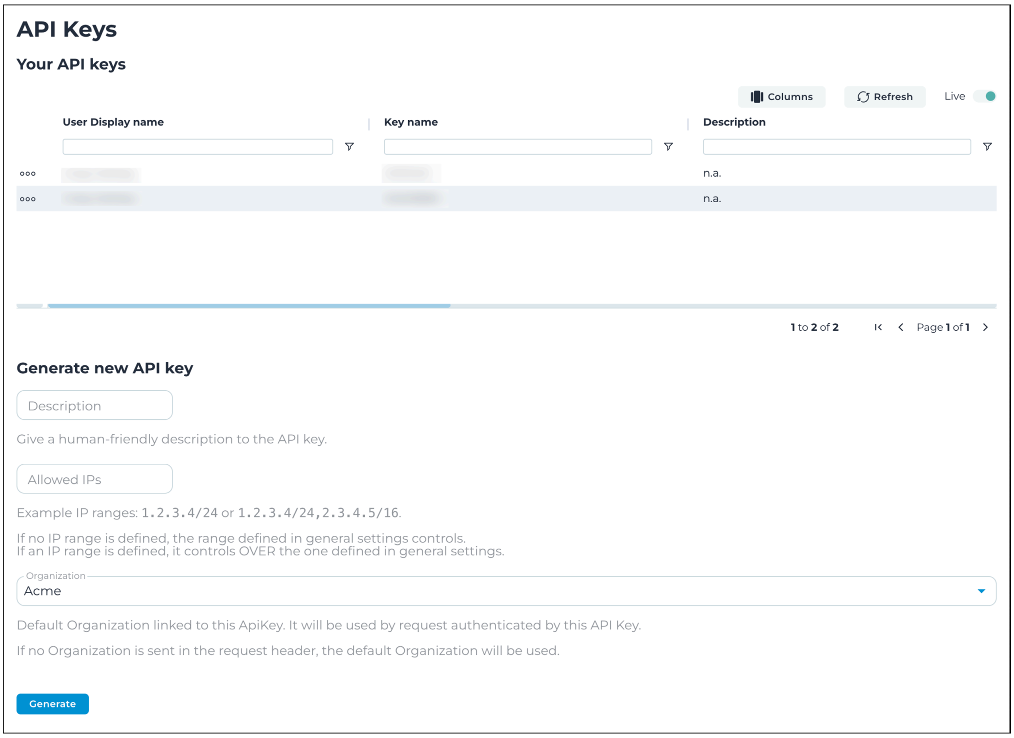
This section lets you change your password.

Two Factor Authentication

The **Get Code** button lets you create a code that can be used for *two-factor authentication (2FA)* in third-party applications.

API Keys

*The **API Keys** pages lets you manage application programming interface (API) keys for the current user. Third-party applications that integrate with Vantage must use API keys to authenticate.*



API Keys

Your API keys

User Display name	Key name	Description
[redacted]	[redacted]	n.a.
[redacted]	[redacted]	n.a.

Generate new API key

Give a human-friendly description to the API key.

Example IP ranges: `1.2.3.4/24` or `1.2.3.4/24,2.3.4.5/16`.

If no IP range is defined, the range defined in general settings controls.
If an IP range is defined, it controls OVER the one defined in general settings.

Organization: Acme

Default Organization linked to this ApiKey. It will be used by request authenticated by this API Key.

If no Organization is sent in the request header, the default Organization will be used.

Figure 128. API Keys page

Each *application programming interface (API)* key is associated with a Vantage user, who must have sufficient permissions in Vantage. This user should be the *SAML* account of the person responsible for the integration. Your third-party application must pass the *API* key name and token in order to authenticate with Vantage. An *API* key remains valid until it is revoked, or until its user is deleted.

Columns

The **Columns** button lets you select which of the available columns for the current page will show.

Refresh

The **Refresh** ↻ icon lets you immediately refresh the current view.

Live

The **Live** ● toggle lets you change live view on, or off. When live mode is on, the page will refresh periodically.

Table

Created at	The date and time that the *API* key was created.
Updated at	The date and time that the *API* key was last updated.
Revoked at	The date and time that the *API* key was revoked.
User Display name	The display name of the user associated with the *API* key.
Key name	The name of the *API* key. Vantage generates this name when you create the *API* key.
Description	The user-defined description of the *API* key.
Last sign in at	The last date and time that the *API* key was used to sign in.
Last sign in ip	The originating *IP* address of the connection that last authenticated using the *API* key.
Allowed ips	The user-defined range of *IP* addresses from which connections are permitted.
Linked organization Name	The name of an organization that will serve as a default value when *API* calls using this key do not specify an organization.

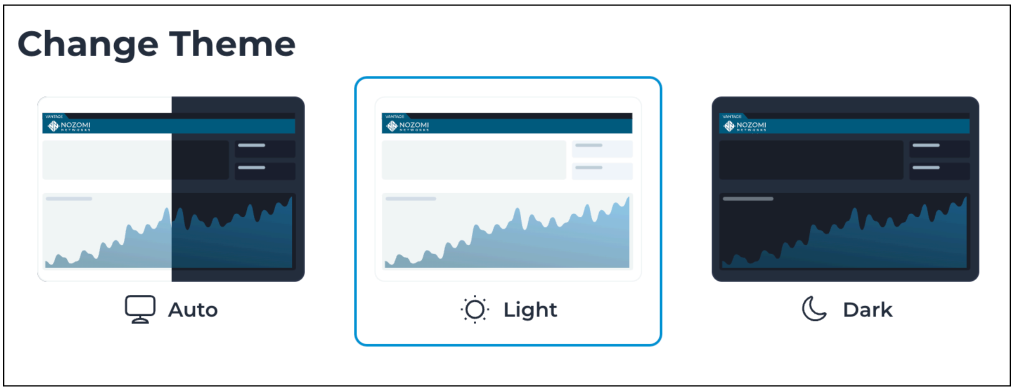
Generate new API key

This section lets you:

- Create a description for the *API* key
- Set an allowed, or range of allowed, *IP* addresses for the *API* key
- Select an organization with which to associate the *API* key

Theme

*The **Theme** page lets you choose a theme for the user interface (UI).*



Change Theme

Figure 129. Theme page

The **Theme** page lets you customize the visual appearance of the *UI*. You can choose one of these themes:

- Auto: Automatically adjusts the theme based on system settings
- Light: Uses a bright interface for better visibility in well-lit environments
- Dark: Uses a dark interface for reduced eye strain in low-light environments

Chapter 23. Organizations menu

The organizations menu lets you search or show a list of all of your organizations, and lets you switch between them. Vantage provides a default organization, but administrators can add more organizations as necessary.

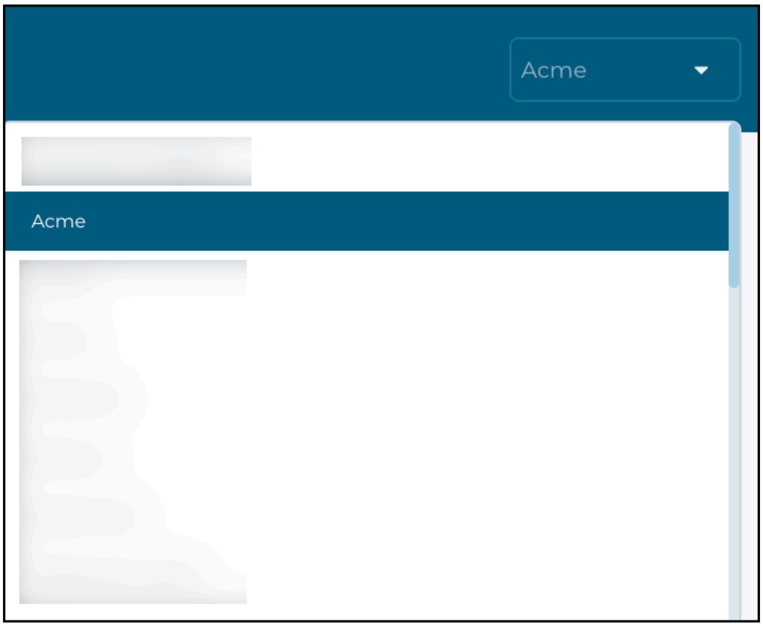


Figure 130. Organizations menu

An organization is a logical subdivision within your company. An organization is an isolated container that limits the access of your users. You can associate organizations with user groups and roles to define the type of changes that your users can make, and where they can make them.

The organizations menu lets you find one of your organizations. To do this you can either:

- Open the dropdown and select from the list
- Enter text to search the list

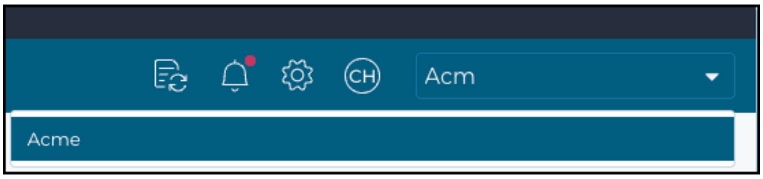


Figure 131. Search function

Glossary

Adaptive Learning

Adaptive Learning is when deviations are evaluated at a global level, rather than at the level of a single node. For example, using adaptive learning approach, the sensor doesn't raise an alert when it detects a device similar to those already installed in the network. This also applies for newly-detected communications that are similar to those previously detected. Adaptive learning is especially powerful and offers its best effect when combined with Asset Intelligence.

Application Programming Interface

An API is a software interface that lets two or more computer programs communicate with each other.

Artificial Intelligence

AI is computer intelligence, as opposed to human or animal intelligence. It is *artificial* because it is a digital computer that can perform tasks that are commonly associated with intelligent beings. *Intelligence* is the ability to learn and to reason.

Assertion Consumer Service

An ACS is a version of the SAML standard that is used to exchange authentication and authorization identities between security domains.

Asset Intelligence™

Asset Intelligence is a continuously expanding database of modeling asset behavior used by N2OS to enrich asset information, and improve overall visibility, asset management, and security, independent of monitored network data.

Authorization to Operate

ATO is a formal declaration by a designated authorizing official that authorizes operation of an information system and explicitly accepts the risk to organizational operations, organizational assets, individuals, or other organizations based on the implementation of an agreed-upon set of security controls.

Central Management Console

The Central Management Console (CMC) is a Nozomi Networks product that has been designed to support complex deployments that cannot be addressed with a single sensor. A central design principle behind the CMC is the unified experience, that lets you access information in a similar way as on the sensor.

Classless Inter-Domain Routing

CIDR is a method for IP routing and for allocating IP addresses.

Command-line interface

A command-line processor uses a command-line interface (CLI) as text input commands. It lets you invoke executables and provide information for the actions that you want them to do. It also lets you set parameters for the environment.

Comma-separated Value

A CSV file is a text file that uses a comma to separate values.

Common Vulnerabilities and Exposures

CVEs give a reference method information-security vulnerabilities and exposures that are known to the public. The United States' National Cybersecurity FFRDC maintains the system.

Controlled Unclassified Information

CUI is information that requires safeguarding or dissemination controls pursuant to federal law, regulations, and government-wide policies, but is not classified under Executive Order 13526.

Coordinated Universal Time

Coordinated Universal Time (UTC) is the primary time standard by which the world regulates clocks and time. It is based on International Atomic Time (TAI) with leap seconds added to synchronize with Earth's rotation.

curl

curl is a command-line tool and library used to transfer data to or from a server. It supports many protocols, including HTTP, HTTPS, FTP, and more. In API contexts, curl is commonly used to test and interact with endpoints by sending requests and receiving responses.

cURL

Department of Defense

DoD is the executive branch department of the United States federal government responsible for coordinating and supervising all agencies and functions directly related to national security and the United States Armed Forces.

Exploit Prediction Scoring System

EPSS is a cybersecurity risk assessment framework that predicts the likelihood of a software vulnerability being exploited in the wild. It uses data-driven models based on real-world exploit activity, vulnerability metadata, and other threat intelligence sources to help organizations prioritize patching efforts.

Extensible Markup Language

XML is a markup language and file format for the storage and transmission of data. It defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

Federal Information Processing Standards

FIPS are publicly announced standards developed by the National Institute of Standards and Technology for use in computer systems by non-military American government agencies and government contractors.

Federal Information Security Management Act

FISMA is a United States federal law that defines a framework of guidelines and security standards to protect government information and operations. It requires federal agencies to develop, document, and implement programs to provide information security for their data and information systems.

Federal Risk and Authorization Management Program

FedRAMP is a U.S. government-wide program that provides a standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services used by federal agencies.

Hypertext Transfer Protocol Secure

HTTPS is an extension of the Hypertext Transfer Protocol (HTTP). It is used for secure communication over a computer network, and is widely used on the Internet. In HTTPS, the communication protocol is encrypted using Transport Layer Security (TLS) or, formerly, Secure Sockets Layer (SSL). The protocol is therefore also referred to as HTTP over TLS, or HTTP over SSL.

Identifier

A label that identifies the related item.

Identity Provider

An IdP is a system entity that creates, maintains, and manages identity information. It also provides authentication services to applications within a federation, or a distributed network.

Industrial Control Systems

An ICS is an electronic control system and related instrumentation that is used to control industrial processes.

Information Technology

IT is the use of computers to process, create, store, and exchange data and information.

Internet of Things

The IoT describes devices that connect and exchange information through the internet or other communication devices.

Internet Protocol

An Internet Protocol address, or IP address, identifies a node in a computer network that uses the Internet Protocol to communicate. The IP label is numerical.

JavaScript Object Notation

JSON is an open standard file format for data interchange. It uses human-readable text to store and transmit data objects, which consist of attribute–value pairs and arrays.

JSON web token

A JWT is an internet standard to create data with optional encryption and/or optional signature whose payload holds JSON that asserts some number of claims. The tokens are signed either using a private secret or a private/ public key.

Known Exploited Vulnerabilities

A list of software vulnerabilities that threat actors have actively exploited. Cybersecurity organizations track KEVs to help prioritize patching and mitigate security risks.

Link Layer Discovery Protocol

LLDP is a vendor-neutral link layer protocol used by network devices for advertising identity, capabilities, and neighbors on a local area network.

Management Information Base

An MIB is a collection of definitions that specify the properties of the managed resources within a network device (like routers or switches) and how they can be accessed using SNMP (Simple Network Management Protocol).

Media Access Control

A MAC address is a unique identifier for a network interface controller (NIC). It is used as a network address in network segment communications. A common use is in most IEEE 802 networking technologies, such as Bluetooth, Ethernet, and Wi-Fi. MAC addresses are most commonly assigned by device manufacturers and are also referred to as a hardware address, or physical address. A MAC address normally includes a manufacturer's organizationally unique identifier (OUI). It can be stored in hardware, such as the card's read-only memory, or by a firmware mechanism.

National Institute of Standards and Technology

NIST is an agency of the United States Department of Commerce. NIST's mission is to promote American innovation and industrial competitiveness.

Nozomi Networks Operating System

N2OS is the operating system that the core suite of Nozomi Networks products runs on.

Operating System

An operating system is computer system software that is used to manage computer hardware, software resources, and provide common services for computer programs.

Operational Technology

OT is the software and hardware that controls and/ or monitors industrial assets, devices and processes.

Packet Capture

A pcap is an application programming interface (API) that captures live network packet data from the OSI model (layers 2-7).

Plan of Action and Milestones

POA&M is a document that identifies tasks that need to be accomplished to address security weaknesses or deficiencies. It details resources required, milestones for completion, and scheduled completion dates for each task. It is a key tool for tracking and managing remediation efforts in federal security compliance programs.

Portable Document Format

PDF is a Adobe file format that is used to present documents. It is independent of operating systems (OS), application software, hardware.

Programmable Logic Controller

A PLC is a ruggedized, industrial computer used in industrial and manufacturing processes.

Remote Terminal Unit

An RTU is a microprocessor-controlled electronic device that acts as an interface between a SCADA (supervisory control and data acquisition) system, or distributed control system, to a physical object. It transmits telemetry data to a master system, and uses messages from the master supervisory system to control connected objects.

Security Assertion Markup Language

SAML is an open standard, XML-based markup language for security assertions. It allows for the exchange of authentication and authorization data different parties such as a service provider and an identity provider.

Security Assessment Report

SAR is a comprehensive document that details the results of an independent security assessment of an information system. It includes findings, vulnerabilities, and recommendations from the assessment process and is a required component of the FedRAMP authorization.

Security Information and Event Management

SIEM is a field within the computer security industry, where software products and services combine security event management (SEM) and security information management (SIM). SIEMs provide real-time analysis of security alerts.

Security Requirements Guide

SRG is a Department of Defense publication that provides security requirements and controls for information systems and cloud computing services at various impact levels.

Simple Network Management Protocol

SNMP is an Internet Standard protocol for the collection and organization of information about managed devices on IP networks. It also lets you modify that information to change device behavior. Typical devices that support SNMP are: printers, workstations, cable modems, switches, routers, and servers.

Single Sign-on

SSO is an authentication method that lets users log in to one or more related, but independent, software systems.

Software as a Service

SaaS is a software licensing and delivery model. This type of software is hosted centrally and licensed on a subscription basis.

Strict (Learning)

Strict (Learning) is a mode which relies on a detailed anomaly-based approach. Each node is evaluated at the node level; when deviations from the baseline are detected, the sensor raises alerts. This approach is called strict because once a system is learned, it is expected to always behave as it did during the learning phase; maintaining systems with the Strict approach requires detailed knowledge of your system.

Structured Threat Information Expression

STIX™ is a language and serialization format for the exchange of cyber threat intelligence (CTI). STIX is free and open source.

System Security Plan

SSP is a formal document that provides an overview of the security requirements for an information system and describes the security controls in place or planned to meet those requirements. It is a key component of the FedRAMP authorization process.

Threat Intelligence™

Nozomi Networks **Threat Intelligence™** feature monitors ongoing OT and IoT threat and vulnerability intelligence to improve malware anomaly detection. This includes managing packet rules, YARA rules, STIX indicators, Sigma rules, and vulnerabilities. **Threat Intelligence™** allows new content to be added, edited, and deleted, and existing content to be enabled or disabled.

Transport Layer Security

TLS is a cryptographic protocol that provides communications security over a computer network. The protocol is widely used in applications such as: HTTPS, voice over IP, instant messaging, and email.

Two-factor authentication

2FA is a method that lets you add additional security to an account. The first factor is a standard password, the second factor is a code that is used on an app on a mobile device or computer that verifies the user.

Uniform Resource Identifier

A URI is a unique string of characters used to identify a logical or physical resource on the internet or local network.

Uniform Resource Locator

An URL is a reference to a resource on the web that gives its location on a computer network and a mechanism to retrieving it.

Universally unique identifier

A UUID is a 128-bit label that is used for information in computer systems. When a UUID is generated with standard methods, they are, for all practical purposes, unique. Their uniqueness is not dependent on an authority, or a centralized registry. While it is not impossible for the UUID to be duplicated, the possibility is generally considered to be so small, as to be negligible. The term globally unique identifier (GUID) is also used in some, mostly Microsoft, systems.

User Interface

An interface that lets humans interact with machines.

Virtual Local Area Network

A VLAN is a broadcast domain that is isolated and partitioned in a computer network at the data link layer (OSI layer 2).