



VOSS Insights Dashboard Administration Guide

Release 23.1

Mar 15, 2023

Legal Information

- Copyright © 2023 VisionOSS Limited.
All rights reserved.
- This information is confidential. If received in error, it must be returned to VisionOSS ("VOSS"). Copyright in all documents originated by VOSS rests in VOSS. No portion may be reproduced by any process without prior written permission. VOSS does not guarantee that this document is technically correct or complete. VOSS accepts no liability for any loss (however caused) sustained as a result of any error or omission in the document.

DOCUMENT ID: 20230315100427

Contents

- 1 What's New** **1**
 - 1.1 Dashboard Administration Guide: Release 23.1 1

- 2 Getting Started** **2**
 - 2.1 Introduction to VOSS Insights Dashboard 2
 - 2.2 Dashboard Licensing 3

- 3 Log Search and Extraction** **6**
 - 3.1 Log Search 6
 - 3.2 Search Definitions 9

- 4 Dashboard and Reporting** **14**
 - 4.1 Introduction to Dashboards 14
 - 4.2 VOSS Reference Dashboards 18
 - 4.3 Custom Dashboards 40
 - 4.4 Working with Dashboards 41
 - 4.5 Managing Widgets 47
 - 4.6 Fields Details 53
 - 4.7 Filters Details 55

- 5 Building a Chart** **60**
 - 5.1 Building a Chart Overview 60
 - 5.2 Chart Types 60
 - 5.3 Manage Charts 77

- 6 Administration** **82**
 - 6.1 Import/Export Wizard 82
 - 6.2 Manage Dashboards 84
 - 6.3 Edit Field Groupings 88
 - 6.4 User Settings 89
 - 6.5 Manage Forwarders 90
 - 6.6 Configuration 90
 - 6.7 Theme Management 106
 - 6.8 DS9 Configuration 114
 - 6.9 About 117
 - 6.10 Help 118
 - 6.11 Edit Account 118
 - 6.12 Sign Out 118
 - 6.13 Reports 119
 - 6.14 Data Sources 122
 - 6.15 Access Controls 123

- 7 Backup and Restore** **140**

7.1 Backup and Restore the Dashboard 140

1. What's New

1.1. Dashboard Administration Guide: Release 23.1

- EKB-14909: Widget editor side panel to be open by default. See: [Managing Widgets](#)
Replaced images to show that Widget editor now expands by default.
- EKB-15143: Report scheduler is emailing report links that have empty widgets in CSV. See: [Reports](#)
Updated transform options for CSV file reports
- EKB-15202: Create probes for UCCE elements via API. See: [VOSS Reference Dashboards](#)
Added Arbitrator configuration and Dashboard setup for Cisco UCCE.
- VOSS-1028: MS Teams Video Rooms monitoring. See: [VOSS Reference Dashboards](#)
New dashboards listed for MSTEams Calls and Teams Rooms monitoring.
- VOSS-1055: Audiocodes SBC Monitoring. See: [VOSS Reference Dashboards](#)
Audiocodes SBC monitoring dashboards listed.
- VOSS-1135: Ship with standard (read-only) dashboards. See: [Introduction to Dashboards](#)
Default dashboards topic becomes VOSS Reference Dashboards, and details added for new dashboards and dashboard groups.
- VOSS-1135: Ship with standard (read-only) dashboards. See: [VOSS Reference Dashboards](#)
Default dashboards topic becomes VOSS Reference Dashboards, and details added for new dashboards and dashboard groups.
- VOSS-1135: Ship with standard (read-only) dashboards. See: [Manage Dashboards](#)
Default dashboards topic becomes VOSS Reference Dashboards, and details added for new dashboards and dashboard groups.

2. Getting Started

2.1. Introduction to VOSS Insights Dashboard

VOSS Insights Dashboard is a log analytics platform that allows multiple data sources and log formats to be consumed, extracted, analyzed, and displayed on dashboards, and to produce reports from the dashboards.

The system ships with several default dashboards, which you can copy (clone) and edit to create your own custom dashboards, and you can create new dashboards from scratch.

This guide describes how to use and manage the VOSS Insights Dashboard platform, and includes details for the following:

- Importing existing dashboard templates
- Configuring new dashboards and widgets
- Cloning existing dashboards
- Ad-hoc report printing
- Scheduling reports
- Searching logs
- Building search extraction queries
- Troubleshooting issues by analyzing the logs being collected

The VOSS Insights platform design allows it to be used in multiple workflows. This guide describes the system elements that must be configured in a particular order, but there is no overall prescribed linear flow that must be followed.

Related Topics

- Introduction to Dashboards in the Dashboards Administration Guide.
- Default Dashboards in the Dashboards Administration Guide.
- Custom Dashboards in the Dashboards Administration Guide.

2.2. Dashboard Licensing

2.2.1. Overview

The VOSS Insights product and features are activated via a license file that is loaded on to every arbitrator and dashboard server.

2.2.2. Load a License File

To load a license file:

1. Obtain the license file
2. Choose **About**
3. Click **EDIT PRODUCT KEY** and replace it with the one from the license file.

Note: When updating a license file, any custom theme that is applied remains active.

2.2.3. Add New License and Activate Product Key

The VOSS Insights license file contains an expiry date. You will need to activate and add a new license file once the expiry date is reached.

1. As an admin user, log in to the GUI.
2. View the activation window, which displays the product key.
3. Copy the product key for each individual server.
4. Provide details to the VOSS representative.
5. The VOSS representative will provide you with a product key to activate the server.
 - Admin user navigates to the Arbitrator server, enters the product key, agrees to the license terms, and clicks Submit.
 - Admin user navigates to the Dashboard server, enters the product key, agrees to the license terms, and clicks Submit.

PRODUCT REGISTRATION

Enter your product key:

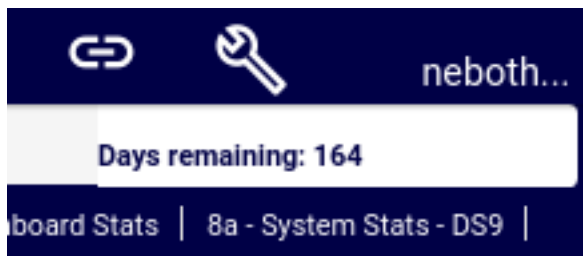
I accept the [End User License Agreement](#) **SUBMIT**

To purchase a new license, contact our sales department.
[Voss Solutions](#)

Provide this product id: 3 JTT-3 7R7X-PJ4EK

2.2.4. View License Days Remaining

The remaining days on the License are displayed in the UI upon login.



This **View License Expiration** setting can be enabled or hidden from the **Permissions** on the **Access Control Editor**:

The screenshot shows the 'Access Control Editor' interface. At the top, there is a navigation bar with a 'Back' button, the title 'Access Control Editor', and a user profile 'admin'. Below the navigation bar are tabs for 'Permissions', 'Users', 'Customers', 'SAML', and 'Password Policy'. The main content area is titled 'Permissions' and features a sidebar with a list of groups: 'Reporter Permissions' (selected), 'Administrator', 'RK_TEST', and 'HCL'. The main area displays the configuration for the 'Reporter Permissions' group. It includes a 'Group name' field containing 'Reporter Permissions'. Under the 'Permissions' section, there are several checkboxes: 'Select All' (unchecked), 'View Application' (checked), 'View Search' (unchecked), and 'View License Expiration' (unchecked, highlighted with a red box). Under the 'Action' section, there are checkboxes for 'Edit Dashboards', 'Edit Datasources', 'Edit Definitions', and 'Edit Field Groupings', all of which are unchecked.

Alternatively, to see how many days left:

1. From the main menu for the logged in user, choose **About**.
2. Check the **DAYS LICENSED** and **DAYS REMAINING** values.

3. Log Search and Extraction

3.1. Log Search


3.1.1. Overview

The Search page stores all log data elements in a JSON index data store.

On this page you can search all data, and add and edit log search/extraction definitions.

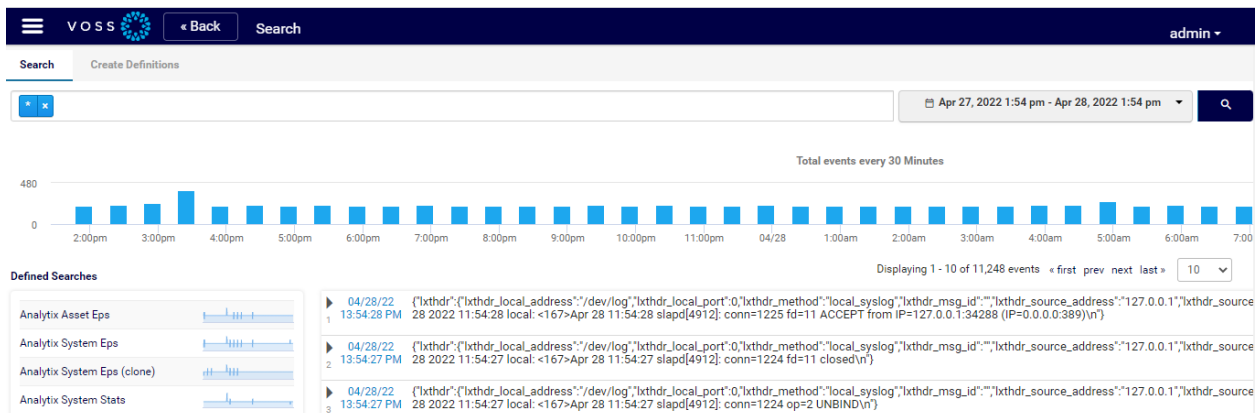
You can select the following tabs on this page:

- [Search Tab](#)
- [Create Definitions Tab](#)

Note: To access the Search page, click the Main Menu icon , then select the **Search** menu at the bottom left of the main menu.

3.1.2. Search Tab

By default, the Search tab displays the last 10 log events to enter the system. Once Logs are collecting, this is where the JSON indexed records will be located. The system builds a library of all words contained in logs.



The screenshot displays the V O S S Search interface. At the top, there is a navigation bar with a menu icon, the text 'V O S S', a 'Back' button, a 'Search' button, and a user profile 'admin'. Below the navigation bar, there are two tabs: 'Search' (active) and 'Create Definitions'. A search input field is present with a date range filter set to 'Apr 27, 2022 1:54 pm - Apr 28, 2022 1:54 pm'. Below the search bar is a bar chart titled 'Total events every 30 Minutes' showing event counts across a 24-hour period. The chart shows a peak in activity around 3:00pm. Below the chart is a 'Defined Searches' section with four entries: 'Analytix Asset Eps', 'Analytix System Eps', 'Analytix System Eps (clone)', and 'Analytix System Stats'. To the right of the defined searches is a list of log events. The first event is from 04/28/22 at 13:54:28 PM, showing a successful connection from IP 127.0.0.1. The second event is from 04/28/22 at 13:54:27 PM, showing a connection closure. The third event is from 04/28/22 at 13:54:27 PM, showing a connection unbind.

Search Criteria

A search bar at the top of the page contains a wildcard "*" to display logs. The search bar allows for key word searches using single words or concatenated words with Boolean logic, such as 'and/or/not', in addition to using VOSS Insight's automated Regular Expression engine to perform search extractions and save them as definitions. The search engine displays all words once you've typed in the first letters.

The drop-down to the right of the search bar defines the time period to search for logs. The default is the last 24 hours. This setting is important, especially when searching for logs from a source that has stopped sending data, since log data (and the JSON indexed records) are time-based.

To set a date and time range period, click the down-arrow at the drop-down in the Search bar to display a date/time calendar, where you can select a preset period (Last 24 Hours, Last 1 Hour, Last 30 Minutes, Last 5 Minutes) along with a custom date and time selection.

Note: The longer the date range, the more data the system searches, thus the search time period is directly associated to the amount of data over time.

Viewing Search Results

The page displays the number of logs displayed and available, based on the search criteria and the selected date/time range. You can use the **first/prev/next/last** buttons to skip to navigate the data. The adjacent drop-down allows you to define the number of logs to display on the page.



Bar Graph View of Log Data

The bar graph below the search bar displays the last 24 hours (default) of log events. Each bar represents the quantity of logs collected in each 30 minute interval.

The **Chart context menu** hamburger icon to the right above the bar graph provides an option to retrieve the graph in multiple formats, for example, to print or download to PDF, to download to PNG, JPEG, or SVG.

The bar graph changes based on the selected data interval, and based on the selected definitions.



Defined Searches

The Search tab contains a **Defined Searches** field, which lists all saved search definitions.

A graph to the right of each search definition indicates the amount of logs in that definition, for the time period selected in the time bar.

Select a defined search to refresh the page to display all the logs for that definition. The bar graph also adjusts to reflect the quantities of logs in this definition.



JSON Format Logs

The main body of the Search tab displays the JSON format of the logs associated with the selected search definition. Details below each log are the data fields that have been extracted and are being analyzed on dashboards. A down-arrow at each field opens a dialog that provides search functions to select from:

Search in context	Searches through all of the selected definition for that field and highlights it.
Exclude from search	Searches through all of the selected definition for all data without that field.
Search all	Searches the entire log index data store for that field and highlights it.



The right-pointing arrow at the left of each log entry allows you to expand the log details, providing information for each component of the logging elements along with a copy of the raw log.

Click the down-arrow within the expanded log view for any item to search (Search in context, Exclude from search, or Search all).

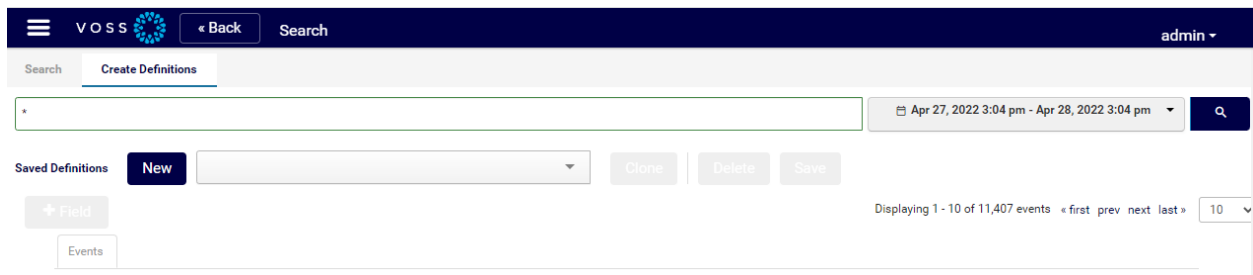
```

09/23/16 {"ltxhdr":
15:09:55 PM {"ltxhdr_arblog_address": "192.168.103.115", "ltxhdr_arblog_port":
{"ltxhdr_arblog_virtualip": "10.13.37.119", "ltxhdr_device_hostname": "devparb",
"ltxhdr_device_site": "10.13.37.128", "ltxhdr_entity_name": "10.13.37.128",
"ltxhdr_local_address": "10.13.37.128", "ltxhdr_local_port": "64514",
"ltxhdr_method": "tcp_syslog", "ltxhdr_msg_id": "10.13.37.119",
"ltxhdr_source_address": "10.13.37.119", "ltxhdr_source_port": "54202",
"ltxhdr_tags": "tcp_syslog ARBLOG", "ltxhdr_time_epoch": "1474661395",
ltxrawlog: <13>Sep 23 2016 15:09:55 geordi: 23-Sep-2016 15:09:54.412 querier
09/23/16 {"ltxhdr":
15:09:55 PM {"ltxhdr_arblog_address": "192.168.103.115", "ltxhdr_arblog_port":
{"ltxhdr_arblog_virtualip": "10.13.37.119", "ltxhdr_device_hostname": "devparb",
"ltxhdr_device_site": "10.13.37.128", "ltxhdr_entity_name": "10.13.37.128",
"ltxhdr_local_address": "10.13.37.128", "ltxhdr_local_port": "64514",
"ltxhdr_method": "tcp_syslog", "ltxhdr_msg_id": "10.13.37.119",
"ltxhdr_source_address": "10.13.37.119", "ltxhdr_source_port": "54202",
"ltxhdr_tags": "tcp_syslog ARBLOG", "ltxhdr_time_epoch": "1474661395",
ltxrawlog: <13>Sep 23 2016 15:09:55 geordi: 23-Sep-2016 15:09:54.412 querier

```

3.1.3. Create Definitions Tab

On the Create Definitions tab you can define the search definitions that display logs on the Search tab.



3.2. Search Definitions

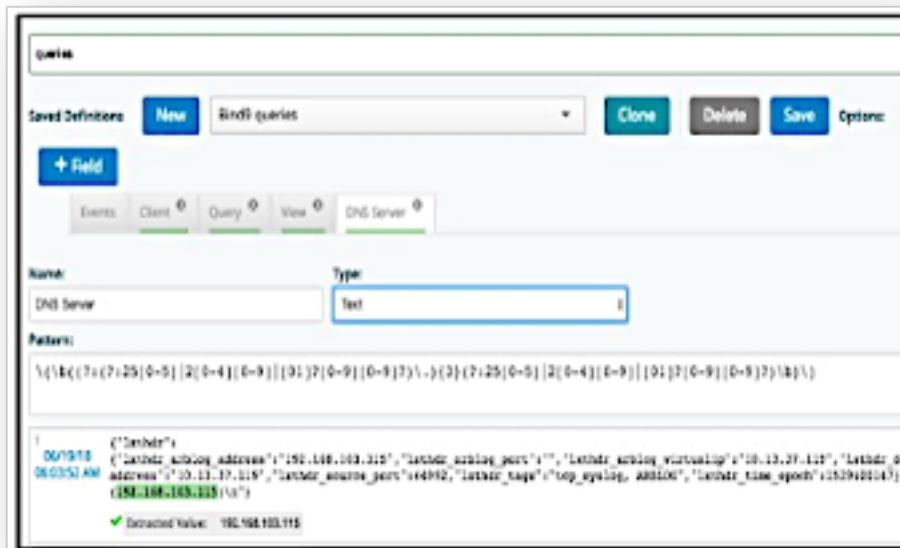
3.2.1. Overview

A saved search definition creates a dashboard and report with the title being the name you give the definition.

You can create any number of combinations of saved search definitions on any log source (i.e. multiple search definitions on a DNS log).



4. At **Saved Definitions** click **New**, then click **Field**.
5. At the **Type** field, choose the field type based on the context of the log, either Text, Integer, Float, Epoch Date, or Calculation.



Note: When selecting field type “Calculation”, you’ll need to specify the math to derive an integer result. An example is a bandwidth calculation. In this case, the result is stored with the definition and will be available to utilize on a dashboard.

Drag the field(s) to calculate, add a numeric input, and then design the equation by dragging the operands and groupings.

The equation will display below the bar to allow for easy checking of the logic. Click **Test Calculation** to allow the system to perform the math and display the results for further logic testing before saving the calculation.

The screenshot shows the 'Queries' configuration page. At the top, there's a 'Saved Definitions' section with a 'New' button and a dropdown menu showing 'Bind9 queries'. Below this is a '+ Field' button and a breadcrumb trail: 'Events' > 'Client' > 'Query' > 'View' > 'DNS Server'. The 'Name' field is 'DNS Server' and the 'Type' is 'Calculation'. Under 'Operations', there are buttons for 'Field', 'Numeric Input', '+ (Add)', and '- (Subtract)'. The 'Calculation' section shows a sequence of operations: '((Open Parenthesis)', 'Field' (with 'Client' selected), 'Count', and '* (Multiply)'. The 'Formatted Calculation' is shown as $(\text{COUNT}("Client") * 5) / 2$. A 'Test Calculation' button is present. At the bottom, a table shows the 'Date' and 'Calculated Value'.

Date	Calculated Value
03/29/18 11:31:31 AM	605
03/29/18 11:32:31 AM	705

6. Repeat these steps for each field you wish to analyze.
7. Once complete, fill out a name for the new search definition.

3.2.3. Manage Saved Definitions

This procedure clones, edits, and deletes saved definitions/resources.

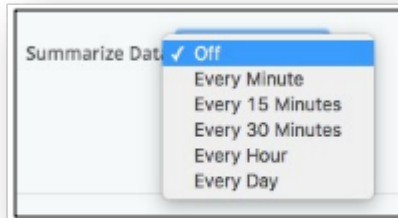
1. On the Insights Dashboard main interface, select the **Search** menu.
2. On the **Create Definitions** tab, select a saved definition from the drop-down.
3. Choose an option:
 - Click **Clone** to copy an existing saved definition, then give the clone a new name. Now you can simply change only the field extractions you want instead of creating them from new.



- Modify an existing saved definition, then click **Save**.

When saving a modified definition, the dashboard updates when new log data arrives into the system.

- Click **Delete** to remove a search definition from the list.
- **Summarize Data** gives you the option of consolidating the data from the logs based on time. Clicking the drop-down, allows you to choose the required interval on which the data will be summarized (Minute, 15 Minutes, 30 Minutes, Hourly, and Daily). When invoking summarization all unique combinations of text fields will be kept.



Integer fields are aggregated together with their associated operation (Counts are summed; Min, Max, Avg, Stddev, and Variance aggregations are stored for every integer field). This is a method of making the dashboards more responsive since it will summarize the data and store only that one value versus all of the values.

4. Dashboard and Reporting

4.1. Introduction to Dashboards


4.1.1. Overview

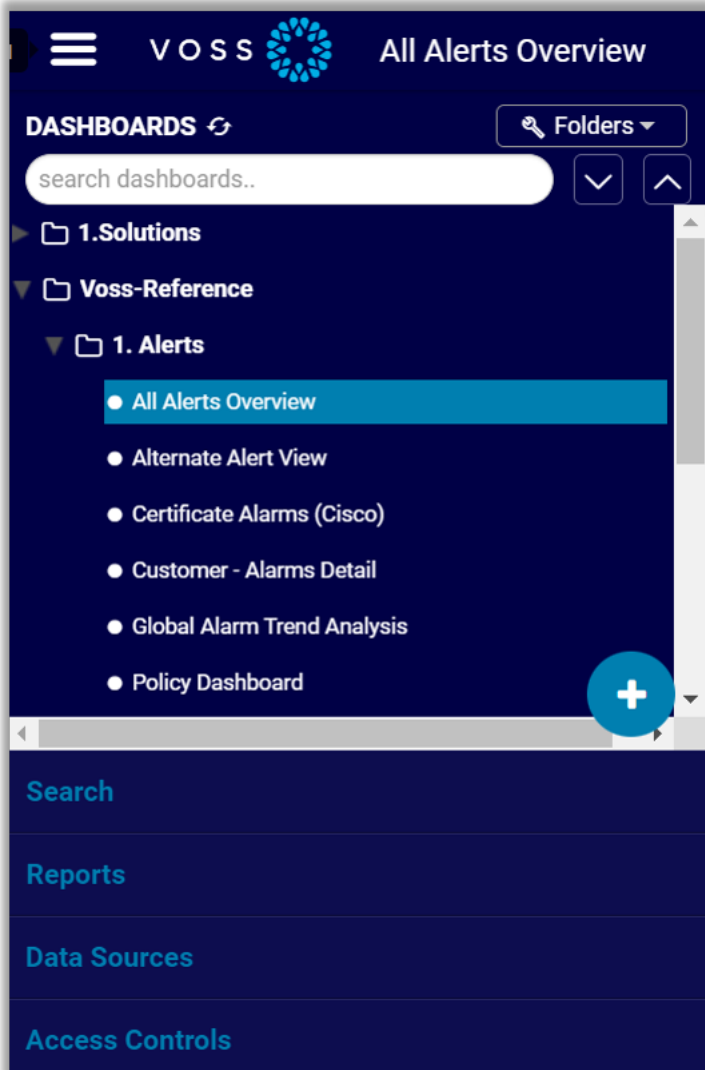
In the Insights Dashboard user interface, the **DASHBOARDS** panel displays all dashboards, reports, and their associated folders, and the following additional menus, which you can use to work with the dashboards:

- Search
- Reports
- Data Sources
- Access Controls

Note:

- Both default and custom dashboards display in the **DASHBOARDS** panel. Default (VOSS reference) dashboards are read-only. To make a custom dashboard based on a default dashboard, you can clone (copy) the default dashboard, then modify the clone and save it as a new, custom dashboard.

- An animated wave icon  displays while the GUI is loading or refreshing data.
-



Related Topics

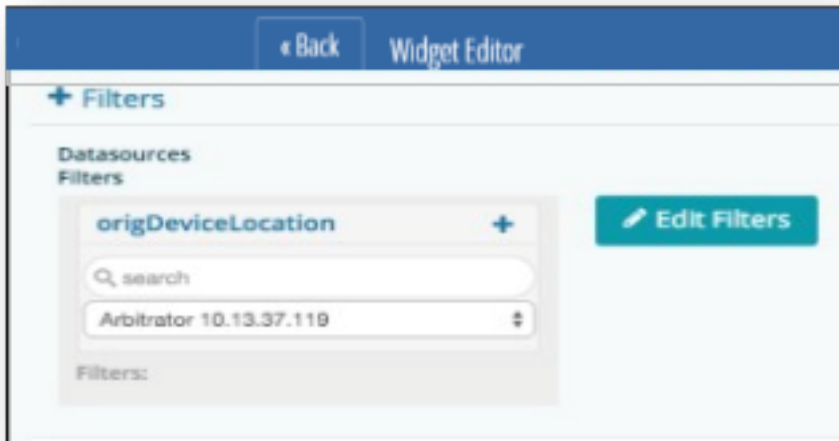
- Introduction in the Dashboards Administration Guide.
- VOSS Reference Dashboards in the Dashboards Administration Guide.
- Custom Dashboards in the Dashboards Administration Guide.
- Working with Dashboards in the Dashboards Administration Guide.
- Access Controls in the Dashboards Administration Guide.

4.1.2. Search Dashboards

Use the Search bar at the top of the **DASHBOARDS** panel to perform a quick search to find dashboards by their name.

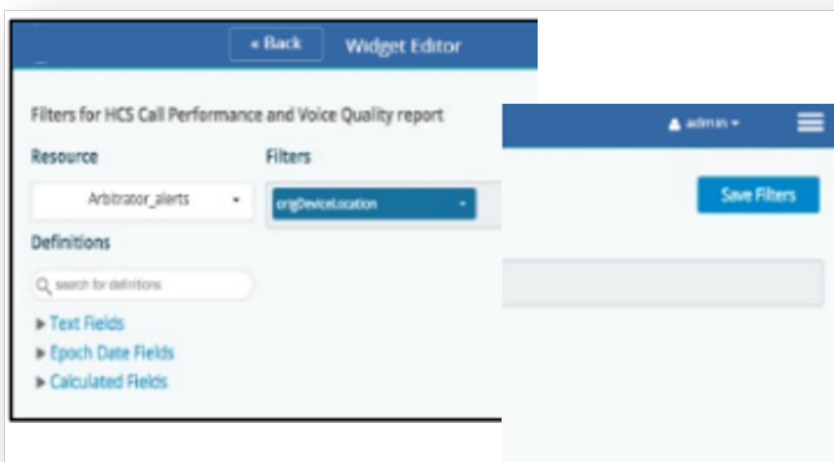
4.1.3. Global Filters

Selecting a dashboard in the **DASHBOARDS** panel displays configuration and display options for that dashboard. One such option is **Global Filters**, which allows you to configure and apply global filters based on a data element extracted from a search definition and resource defined for the dashboard.



Click **Edit Filters** to open the **Filter Wizard**, where you can select the Resource and the Definition to apply as a filter. Once complete click **Save Filters** to return to the dashboard.

An example of a global filter is producing a performance dashboard by customer location. The widgets on the dashboard are all the performance statistics but the data is filtered by the customer location.



Note: Global filters (and customer filters) work as an IN function that searches for exact string match in SQL. For example:

```
IN (172.30.42.1, 172.30.42.2)
```

You must type out all values in the search box (separated by commas), and then press Enter. If you press Enter after selecting each IP address, the search only returns data if all of the IPs are found in the field (which is unlikely).

4.1.4. Dashboard Folders

Dashboards are organized initially in alphabetical order.

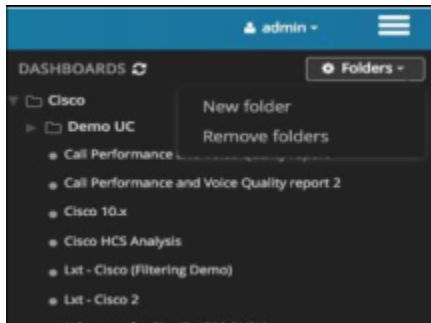
When creating dashboards, you can organize these into folders that expand out into trees based on the order you define.

To add a new sub-folder or top-level folder in the **DASHBOARDS** panel, click the **Folders** down-arrow and select either **New sub folder** or **New top level folder**.

You can drag and drop a sub-folder into the relevant top-level folder, or drag the relevant dashboard into a folder.

To remove a folder, select the folder, then select **Remove folder** from the **Folders** drop-down.

Note: Dashboards with the same name can exist in different folders. The names of dashboards in the same folder must be unique.



4.1.5. Search, Reports, Data Sources, and Access Controls Menus


The table describes additional menus in the **DASHBOARDS** panel:

Search	Select Search to display the main Search screens, which store all logs in a JSON index data store.
Re-ports	Select Reports to open the Report Scheduler, where each report can be scheduled based on customer, duration, repeat timeframe, and email address.
Data Sources	Select Data Sources to open the page where you can define multiple data sources to extract data on which to analyze and report.
Access Con-trols	Select Access Controls to open the Access Control Editor where you can set up multi-tenant customers and users, configure roles, permissions, password policy, SAML settings, and user log in credentials.

4.2. VOSS Reference Dashboards

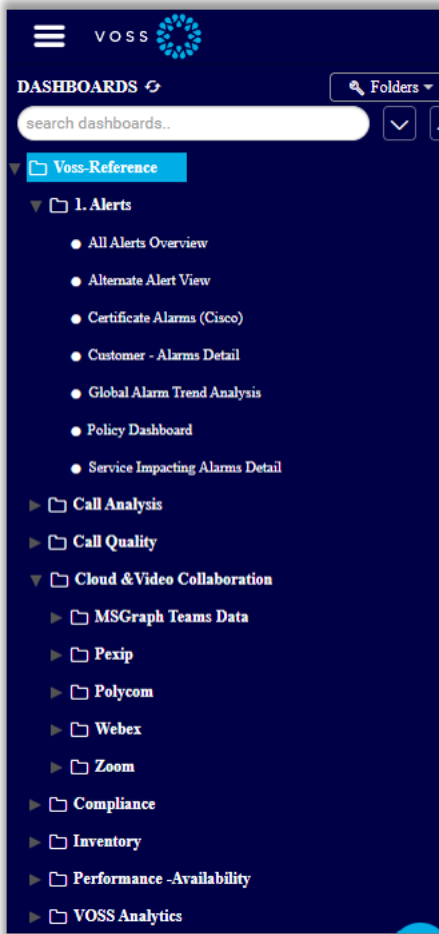
4.2.1. Overview

VOSS Insights Dashboard ships with a collection of standard, read-only, reference dashboards.

To access the reference dashboards, click the hamburger icon  to open the **Dashboards** pane, then expand the **VOSS reference** folder. The dashboards are organized in several sub-folders.

While you can't edit, delete, or move the reference dashboards (or their folders), you can clone (copy) any of these dashboards, then modify the clone to create new, custom dashboards that meet your requirements.

Note: Dashboards are based on search definitions that extract data from one or more fields. These may be predefined search definitions that ship with the default dashboards, or definitions that you set up to create custom views of the data to meet the needs of your organization.



Important: The VOSS reference dashboards described in this topic is the standard set shipped with Insights v23.1. The VOSS reference dashboards collection may change at each software release. As at Insights 23.1, the following collections are included:

- *Alerts Dashboards*
- *Call Analysis Dashboards*
- *Call Quality Dashboards*
- *Cloud & Video Collaboration Dashboards*
- *Compliance Dashboards*
- *Inventory Dashboards*
- *Performance - Availability Dashboards*
- *VOSS Analytics Dashboards*

Related Topics

- Introduction to Dashboards in the Dashboards Administration Guide.
- Custom Dashboards in the Dashboards Administration Guide.
- Creating a Probe in the VOSS Insights Arbitrator Administration Guide.
- Assigning a Probe to an Asset in the VOSS Insights Arbitrator Administration Guide.
- Introduction in the Dashboards Administration Guide.
- Log Search in the Dashboards Administration Guide.

4.2.2. Alerts Dashboards

VOSS Insights provides the following reference dashboards for alerts:

- All Alerts Overview
- Alternate Alert View
- Certificate Alarms (Cisco)
- Customer Alarms details
- Global Alarm Tiered Analysis
- Policy Dashboard
- Service Impacting Alarms Detail

4.2.3. Call Analysis Dashboards

VOSS Insights provides the following reference dashboards for call analysis:

Folder	Reference Dashboards
SBC	<ul style="list-style-type: none"> • Audiocodes • Audiocodes API • Metaswitch
SIP - E1	<ul style="list-style-type: none"> • Call Analysis All • Cisco Call Detail - Cause Code Analysis • CUCM Route Pattern Analysis • Jabber Stats • SIP Trunk / Gateway Status

Note: Audiocodes dashboards display performance data collected via SNMP and the API from collection scripts and probes on the Arbitrator, providing support for SBC and Gateway, and allowing Audiocodes-specific alerting.

4.2.4. Call Quality Dashboards

VOSS Insights provides the following reference dashboards for call quality:

- Call Performance and Voice Quality
- CUCM Voice Quality Site Performance

4.2.5. Cloud & Video Collaboration Dashboards

VOSS Insights provides the following reference dashboards for cloud and video collaboration:

Folder	Reference Dashboards
MS Graph Teams Data	<ul style="list-style-type: none"> • MSTEams Media Data • MSTEams Participant Data • MSTEams Segments Data • MSTEams Session Data • MSTEams Streams Data • 0365 Users • Teams Devices • Teams Groups • Teams Headsets • Teams Health Overview • Teams Issues • Teams Teamwork Devices
Pexip	<ul style="list-style-type: none"> • Pexip Capacity Management Reports • PexIP End-to-End Conference Status • PexIP End-to-End Conference Trend Correlation • Pexip Historical Call Report • Pexip Performance Reports • Pexip Real-time Reporting • PexIP with SFB End-to-End Conference Details
Polycom	<p>Reports on the health and status of Polycom meeting room devices for audio and video conferencing. For example, Polycom Device Status provides a system, software, and audio dashboard for Polycom devices.</p> <ul style="list-style-type: none"> • Polycom Connections • Polycom Device Status • Polycom Device Status Overview • Polycom other information
Webex	<ul style="list-style-type: none"> • Meetings (subfolder) <ul style="list-style-type: none"> – Meetings Quality – Meetings Who joined – Participant Summary • Devices • Licenses • Locations • People • Webex Calling • Webex Insights • Webex Security <p>Webex dashboards can be used if your Arbitrator is configured for Webex.</p>

Folder	Reference Dashboards
Zoom	<ul style="list-style-type: none"> • Zoom Additional Details Dashboard • Zoom Client Satisfaction • Zoom Meeting Participants Detail • Zoom Meeting Participants QoS • Zoom Meeting Telephony Details • Zoom Meetings • Zoom Meetings / Webinars QoS • Zoom Plan Usage • Zoom Webinar Detail • Zoom Webinars Participants QoS

▼ **Polycm**

- Polycm Connections
- Polycm Device Status
- Polycm Device Status Overview
- Polycm other information

▼ **Webex**

▼ **Meetings**

- Meetings Quality
- Meetings Quality
- Meetings Who joined
- Participant Summary
- **Devices**
- Licenses
- Locations
- People
- Webex Calling
- Webex Insights
- Webex Security

Using the MS Graph Teams Data Dashboards

VOSS reference dashboards for Microsoft Teams Calls/Teams Room use Graph API for monitoring. The dashboards display data as graphs and charts, and then displays the same data in tables (at the bottom of each dashboard), so that you can print the information in the tables, in an easily readable format.

Note: Before you can use the MS Graph Teams Data dashboards to collect and display Microsoft Teams data, you'll need to configure the Microsoft tenant (on Microsoft); that is, to register the application and obtain a customer tenant ID, client secret, and client ID. You will need these details to input on the Arbitrator when enabling MS Teams monitoring (via **Archive Management > Configuration Management > API Config > MS Teams Config**). See the *Configuration* section in the Arbitrator Administration Guide for further details.



MSTeams Media Data Dashboard

This dashboard provides statistics on media for all calls, including:

- Video calls over time
- Audio calls over time
- VBS calls over time
- Wifi signal strength over time
- Send/receive quality ratio over time

- Events over time
- Concealed samples over time
- Audio degradation over time
- Packet loss percentage over time



MSTEams Participant Data Dashboard

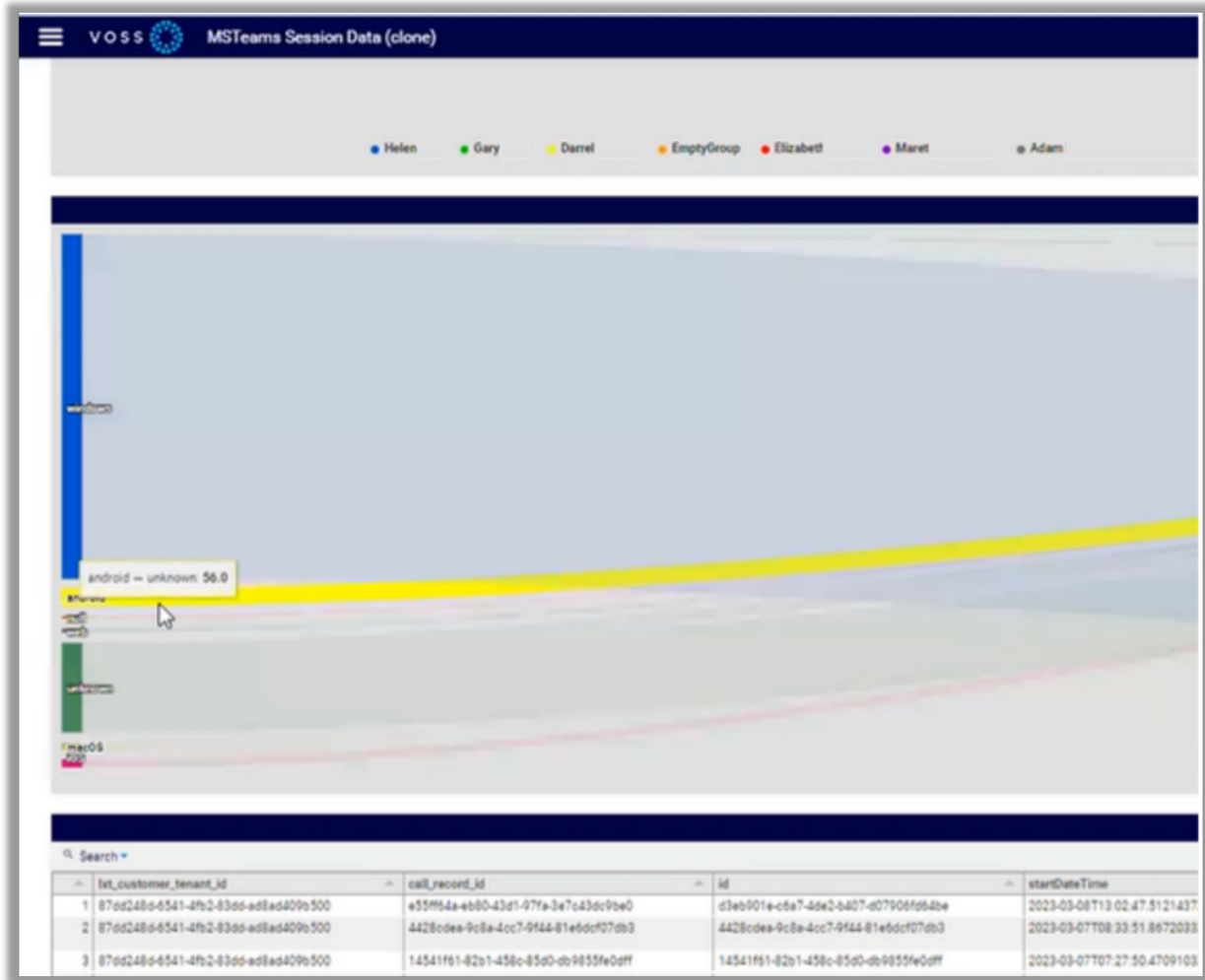
This dashboard collects and displays participant data, for example, top participants, and the number of calls per participant.

MSTEams Segments Data Dashboard

This dashboard collects and displays detailed call data (for caller and callee), and whether calls are internal or outside of the tenant you have set up.

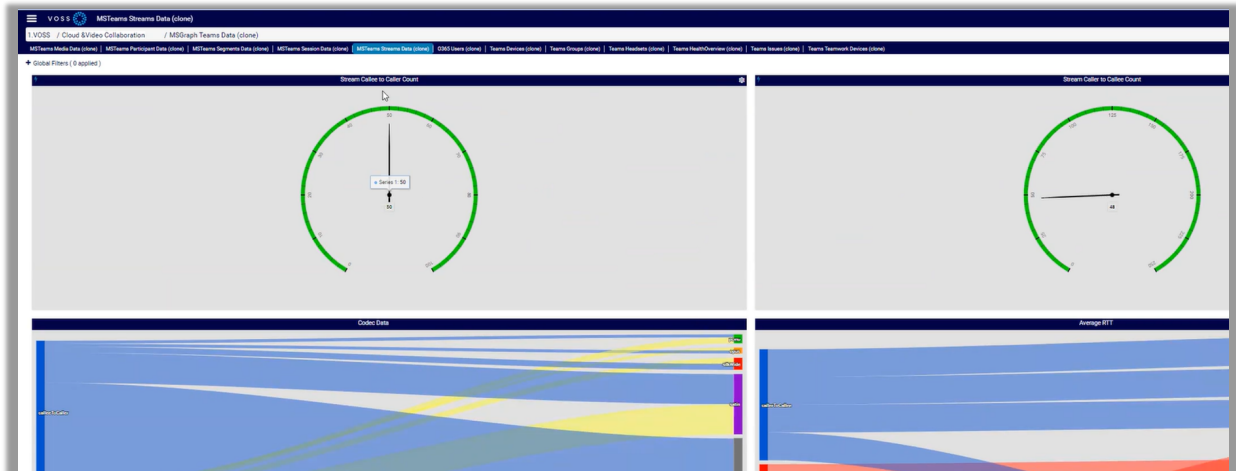
MSTEams Session Data Dashboard

This dashboard collects and displays session data, such as top ten callers, top ten called, user agents (the platform used, such as Windows or Android),



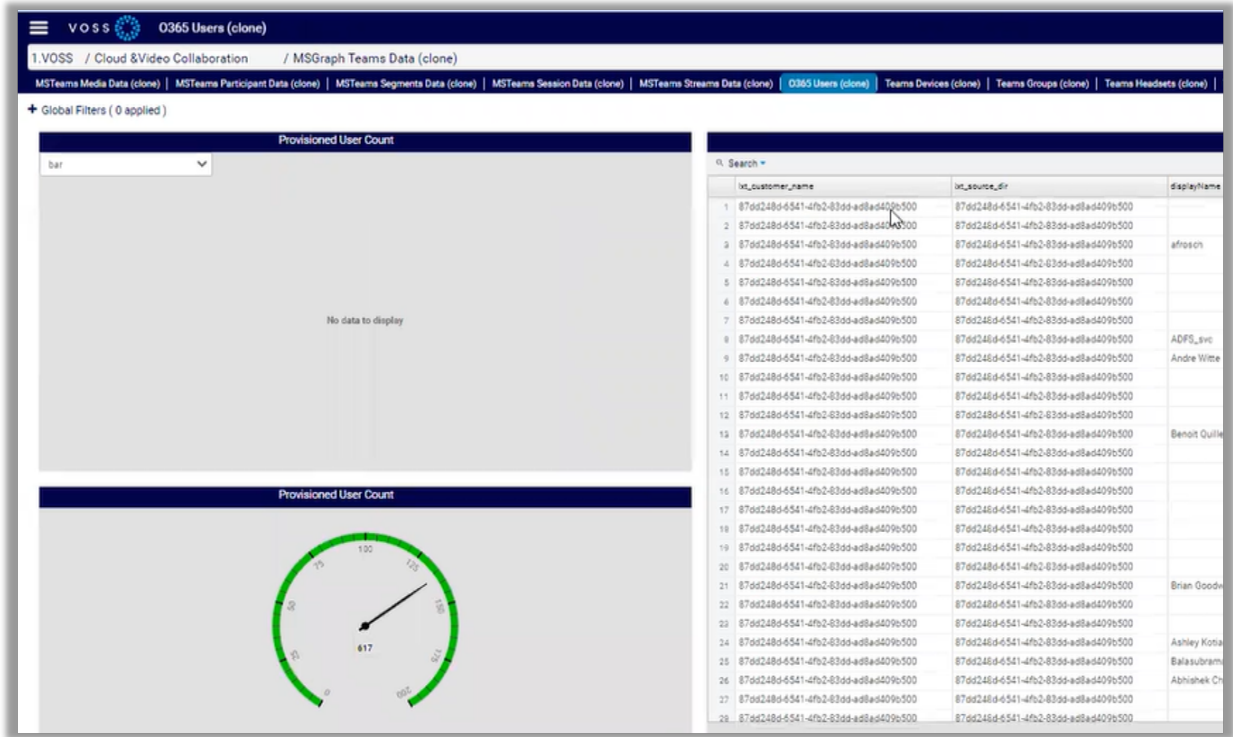
MSTEams Streams Data Dashboard

This dashboard collects and displays data such as the number of call streams that have gone out, caller to caller count, the codecs used, and round trip times (RTT).



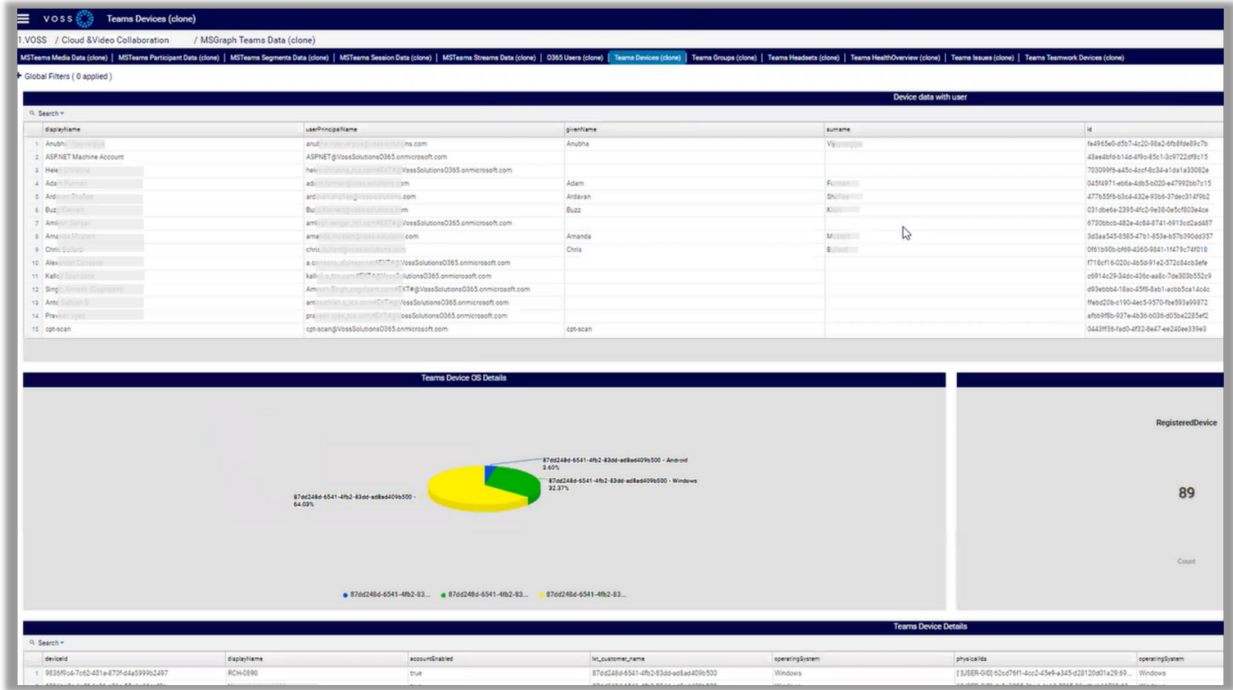
0365 Users Dashboard

This dashboard displays details for your 0365 users, including the number of 0365 users you have, their provisioning and other details.



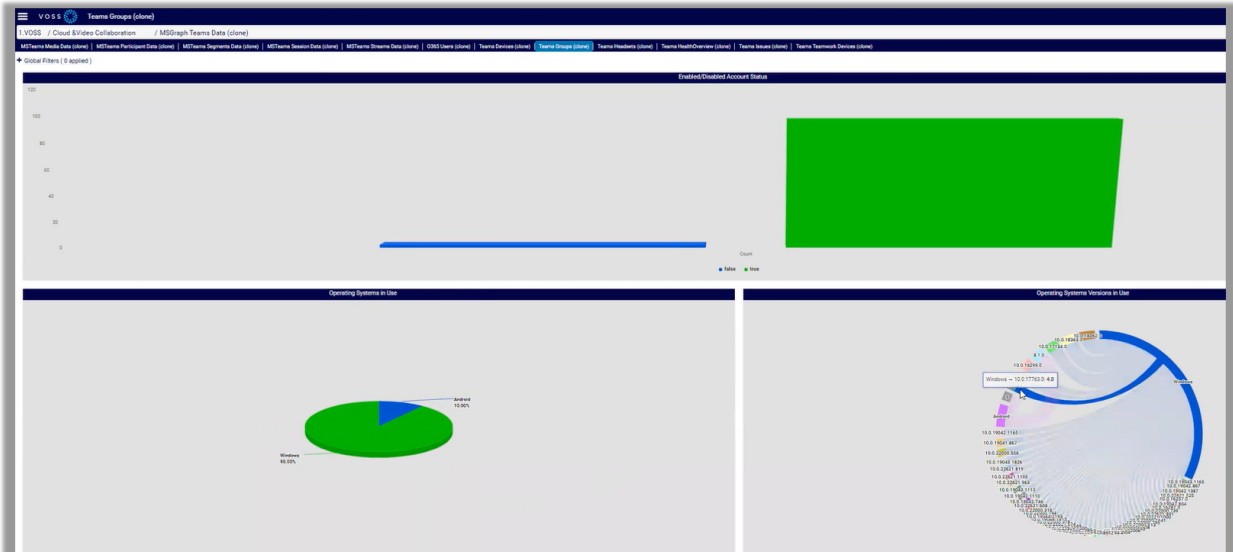
Teams Devices Dashboard

This dashboard provides details for the devices deployed in your environment, including devices per user, operating systems, and registration details.



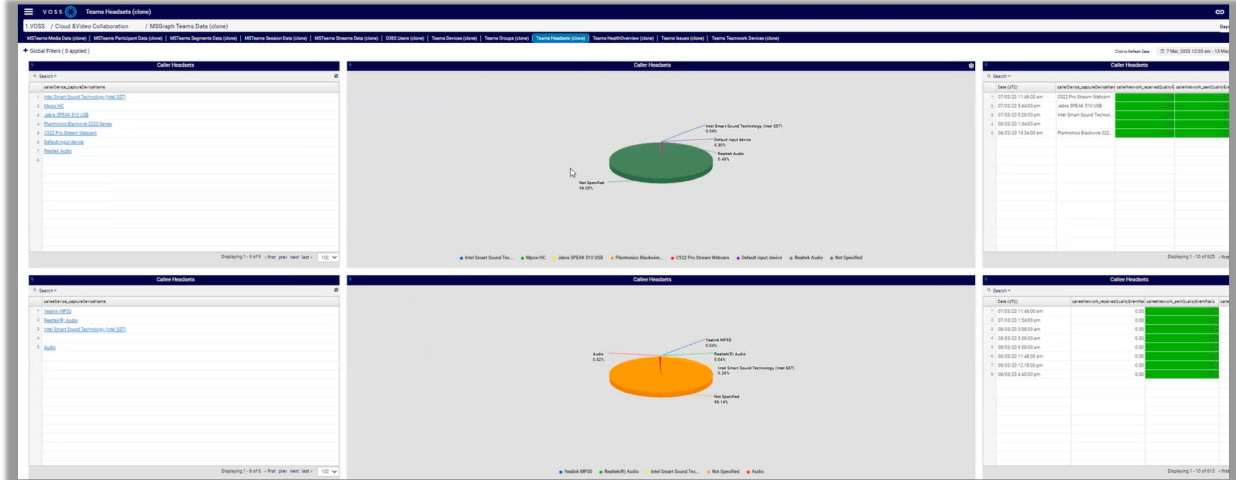
Teams Groups Dashboard

This dashboard collects data about enabled and disabled users, operating systems in use and their versions.



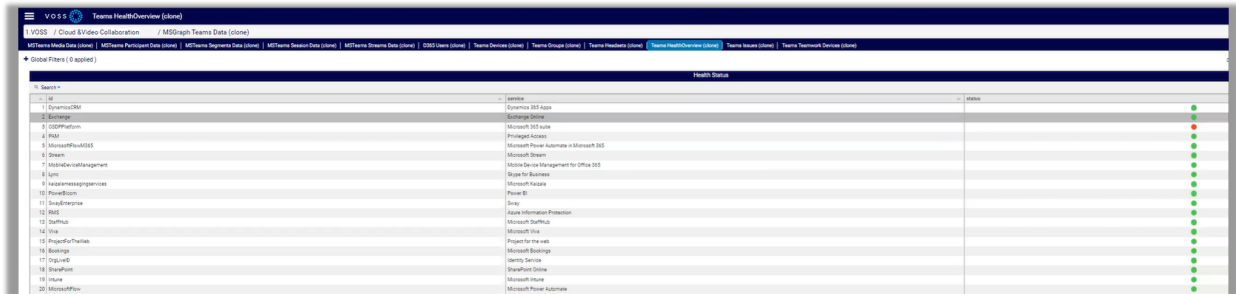
Teams Headsets Dashboard

This dashboard collects and displays data about the headsets in use, including device name and type, by caller and callee. You can click on a device to view further details, such as whether any issues are detected on the device.



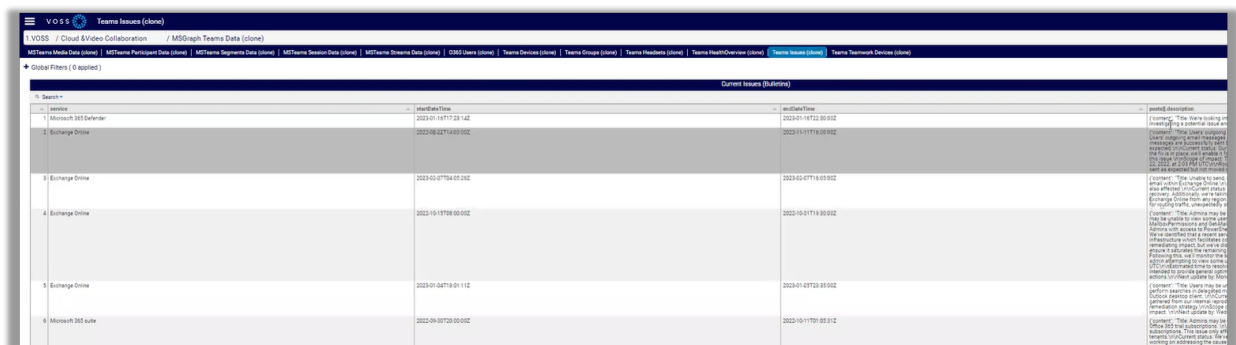
Teams Health Overview Dashboard

This dashboard collects hourly data from Microsoft to report on the health of apps and data on the remote Microsoft site, for example, service degradation is reported.



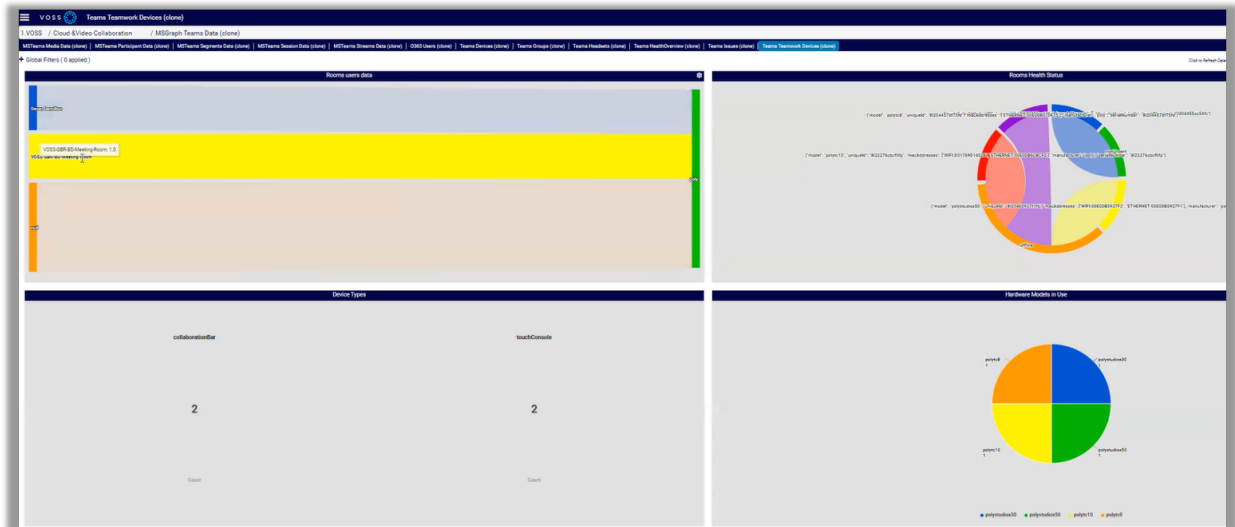
Teams Issues Dashboard

This dashboard detailed historical data for any teams issues.



Teams Teamwork Devices Dashboard

This dashboard displays MS Teams Rooms data, including configured rooms, software health status and activity status, type of Teams devices, and hardware models in use.



4.2.6. Compliance Dashboards

VOSS Insights provides the following reference dashboards for compliance:

- Cisco CUC Voicemail
- Cisco CUCM Compliance
- Cisco CUCM Health Check
- Cisco Smart License clone

Using the Cisco Smart License Dashboard

The Cisco Smart License dashboard is a VOSS reference dashboard that you can clone to create a new, custom dashboard for monitoring reports to support license management for Cisco Smart Licensing. For example, to view details for license types and products, to monitor license status and usage over time, and to manage capacity and license costs.

To set up and use this dashboard:

1. In Arbitrator, add and configure the following probe for Cisco Smart License: `getCiscoSmartLicense`

CREDENTIAL CONFIGURATION Errors exist Save

<input type="checkbox"/> Name	Username	Password	Confirm
<input type="checkbox"/> Cisco Smart License	CLIENT_ID	CLIENT_SECRET	CLIENT_SECRET

MONITOR PROFILE > Local System

Groups	Templates/Profiles								
<p>Probe Group</p> <ul style="list-style-type: none"> Cisco Smart License (1) Local System Stats (5) 	<table border="1"> <thead> <tr> <th><input type="checkbox"/> Name</th> <th>Frequency</th> <th>Credentials 1 & 2</th> <th>Enabled</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Local System Stats</td> <td>30 Seconds</td> <td>None & None</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table> <p>Name Cisco Smart License <input checked="" type="checkbox"/> Enabled</p> <p>Frequency 6 Hours</p> <p>Credential 1 Cisco Smart License</p> <p>Credential 2 None</p> <p>Start Time <input checked="" type="checkbox"/> Immediate</p> <p>Days <input checked="" type="checkbox"/> Sun <input checked="" type="checkbox"/> Mon <input checked="" type="checkbox"/> Tue <input checked="" type="checkbox"/> Wed <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> Fri <input checked="" type="checkbox"/> Sat</p>	<input type="checkbox"/> Name	Frequency	Credentials 1 & 2	Enabled	<input type="checkbox"/> Local System Stats	30 Seconds	None & None	<input checked="" type="checkbox"/>
<input type="checkbox"/> Name	Frequency	Credentials 1 & 2	Enabled						
<input type="checkbox"/> Local System Stats	30 Seconds	None & None	<input checked="" type="checkbox"/>						

PROBE CONFIGURATION Errors exist

Groups	Probes								
<p>Group Name</p> <ul style="list-style-type: none"> Local System Stats (5) Cisco Smart License (1) 	<table border="1"> <thead> <tr> <th><input type="checkbox"/> Name</th> <th>Description</th> <th>Unit</th> <th>Command and Parameters</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> Smart License</td> <td></td> <td></td> <td> <input type="checkbox"/> Custom <input type="checkbox"/> Auto-scale? <p>Select Category Cisco Cloud (Creds)</p> <p>Select Script Cisco Smart License</p> <p>Domain voss-solutions.com</p> <p>[Optional]: Virtual Account Name</p> </td> </tr> </tbody> </table>	<input type="checkbox"/> Name	Description	Unit	Command and Parameters	<input type="checkbox"/> Smart License			<input type="checkbox"/> Custom <input type="checkbox"/> Auto-scale? <p>Select Category Cisco Cloud (Creds)</p> <p>Select Script Cisco Smart License</p> <p>Domain voss-solutions.com</p> <p>[Optional]: Virtual Account Name</p>
<input type="checkbox"/> Name	Description	Unit	Command and Parameters						
<input type="checkbox"/> Smart License			<input type="checkbox"/> Custom <input type="checkbox"/> Auto-scale? <p>Select Category Cisco Cloud (Creds)</p> <p>Select Script Cisco Smart License</p> <p>Domain voss-solutions.com</p> <p>[Optional]: Virtual Account Name</p>						

- In Arbitrator, attach the probe to the relevant asset.

Note: The *getCiscoSmartLicense* probe for this dashboard ships with VOSS Insights. Once configured and assigned to the device you wish to monitor, the probe gathers Cisco Smart License data via Cisco Cloud Smart License API. You can view the data via the Cisco Smart License dashboard.

- In VOSS Insights Dashboard, in the **Dashboards** panel, select the custom dashboard you created (based on the VOSS reference Compliance dashboard for Cisco Smart License).

View data in the dashboard, which provides further options for configuring filters and time periods for the data you wish to view.

Using the Cisco CUCM Health Check Dashboard

You can create a clone of the VOSS reference compliance dashboard, Cisco CUCM Health Check, for reporting on the following data:

- Software versions
- DHCP
- DNS
- NTP status
- SSH status
- Telnet status
- Web GUI timeout
- CUCM Diag status
- DB replication

To set up and use this dashboard:

1. In Insights Arbitrator, configure the following probes to gather status data from Cisco UCM (CUCM):

Probe	Commands to run to gather data
getCiscoCucmConfig	<ul style="list-style-type: none"> • show status • show network eth0 • show webapp session timeout • utils ntp status
ciscoCucmServiceStatus	<ul style="list-style-type: none"> • utils service list
ciscoCucmDiagTest	<ul style="list-style-type: none"> • utils diagnose test
ciscoCucmDbRep	<ul style="list-style-type: none"> • utils dbreplication runtimestate
ciscoCucmDisasterRecoverHistory	<ul style="list-style-type: none"> • utils disaster_recovery history backup

2. In VOSS Insights Dashboard, select your custom dashboard (based on the VOSS reference dashboard, **Cisco UCM Health Check**), and view data.

The dashboard screen provides further options for configuring filters and time periods for the data you wish to view, based on these predefined definitions:

- arbitrator_cisco_cucm_config
- arbitrator_cisco_cucm_diagtest
- arbitrator_cisco_cucm_dbrep

- arbitrator_cisco_cucm_services
- arbitrator_cisco_cucm_disaster_recovery_history

You can run the following reports based on the dashboard data:

- Pub/Sub/TFTP uptime
- Diagnostic tests
- NTP Status
- Replication
- Service status
- Backup and disaster recovery
- Platform availability

4.2.7. Inventory Dashboards

VOSS Insights provides the following reference dashboards for inventory:

- Cisco Headset Summary
- Device Inventory Dashboard
- Phone Inventory
- Gateways

4.2.8. Performance - Availability Dashboards

VOSS Insights provides the following reference dashboards for performance (availability):

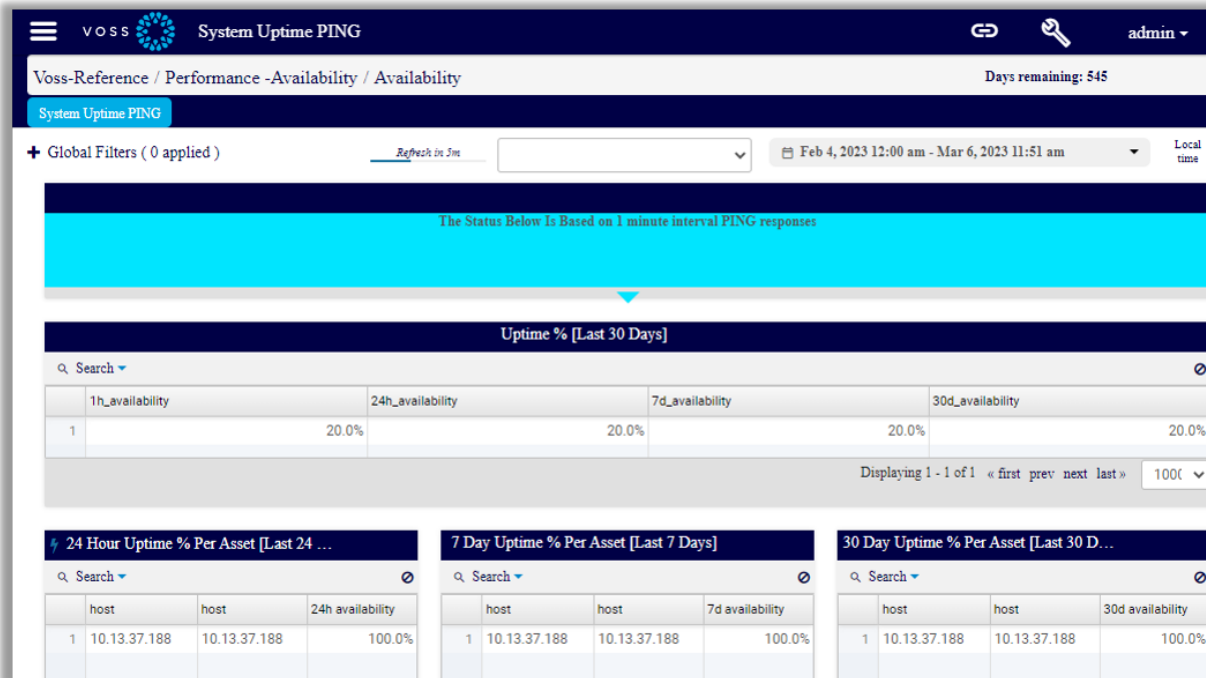
Folder	Reference Dashboards
Availability	<ul style="list-style-type: none"> • System Uptime PING
Cisco	<p>Use the Cisco Performance dashboards to view data on performance-related statistics for Cisco devices:</p> <ul style="list-style-type: none"> • Cisco CUCM RTMT data • Cisco Expressway • Cisco Gateways - Performance • Cisco Smart License • Cisco UCCX • Cisco UCCX RTMT data • CUCM Counters • CUCM CPU & Memory Utilization • CUCM Resource Summary • CUCM Service Status • UNITY Counters
Insights	<ul style="list-style-type: none"> • Insights Components Arbitrator • Insights Components Dashboard • Insights Components DS9
UCCE	<ul style="list-style-type: none"> • Cisco UCCE CUIC • Cisco UCCE CVP • Cisco UCCE FINESSE • Cisco UCCE Overview <p>Cisco UCCE dashboards allow you to view monitoring reports for a Cisco UCCE deployment.</p>
Vmware	<ul style="list-style-type: none"> • Vmware Status
Windows	<ul style="list-style-type: none"> • System Stats

Note: VOSS reference dashboards for Insights DS9 are available if a VOSS Insights DS9 server is installed.

Using the System Uptime PING Dashboard

The VOSS reference dashboard *System Uptime PING* is a read-only dashboard that allows you to view and monitor system-level availability data. System Uptime PING displays live statistics for predefined parameters, such as *lxt_connect_time* and *lxt_total_time*, displayed as dashboard widgets, for a selected Arbitrator.

Note: To modify this dashboard you'll need to copy it and save it as a new, custom dashboard.



To set up and use this dashboard:

1. In Dashboard, clone and save a custom dashboard from the VOSS reference dashboard, System Uptime PING.
2. In Arbitrator, add and configure the PING probe.
3. In Arbitrator, attach the PING probe to the relevant assets (one or more).

Note: The PING probe ships with VOSS Insights. Once configured and assigned to each device that you wish to monitor, the PING probe stores historical availability results to the database.

4. In VOSS Insights Dashboard, point to an Arbitrator to view data:
 - a. In the **DASHBOARDS** panel, select your custom System Uptime PING dashboard (the one you created, based on the VOSS reference System Uptime PING dashboard).
 - b. Display the **Data source types** and **Data sources** fields (if hidden). To do this:
 - Click the toolbar Wrench icon, then select **Hide/Show** to display the **Hide Show Options** dialog.
 - Select **Show Data source selector**, and click **Save**.
5. Choose an option:
 - a. To view data for a particular widget, click the cog icon on the widget, then select **Edit Widget** to open the **Configure Data** dialog. In the **Resource** drop-down, choose the widget that defines the data you want to view in the dashboard, for example, *Day_availability_ping*), then choose a data source (the relevant Arbitrator), and click **Save**.

The dashboard displays data relevant to the widget and the selected data source.

- b. To view data for all widgets (global view), for a selected Arbitrator, choose **Data source type** Remote Arbitrator Postgre (global option), then from the **Data Source** drop-down, choose an Arbitrator.

Note: This option provides a live refresh of data for all widgets, for a selected Arbitrator.

To save this global data view, click **Save**. Alternatively, the page loads data in the widgets, and you can choose another Arbitrator in the **Data Source** drop-down to load data for the next Arbitrator for which you want to view data.

The page loads fresh data each time you change the value in the **Data Source** drop-down. Displayed data depends on data available from the Arbitrator for which you're running the query.

Cisco UCCE Dashboard with ListProcesses

This dashboard provides monitoring reports for a UCCE deployment, including such ListProcess details as **Process Description**, **Process Status** and **Process UpTime** and **Service**.

Asset Name	Asset Description	IP Address	Service	Process Name	Process Description	Process Status
1 UCCE	UCCE	10.13.37.43	CTI Server 1A	nmm.exe	Node Manager Manager	pcoe-CG1A
2 UCCE	UCCE	10.13.37.43	CTI Server 1A	nodeman.exe	Node Manager	
3 UCCE	UCCE	10.13.37.43	Cisco ICM Diagnostic Framework	DiagFwSvc.exe	Cisco ICM Diagnostic Framework	bin-DiagFwSvc.exe
4 UCCE	UCCE	10.13.37.43	Outbound Option Dialer	baDialer_SIP.exe	ICM Dialer Component	pcoe-Dialer_BADialer_SIP-X [CM(X)-X] [CTI-Active,StandBy,Dis-Act] [Ports C:24,R:24,B:0] [MR-X] [SIP-X]
5 UCCE	UCCE	10.13.37.43	Outbound Option Dialer	nmm.exe	Node Manager Manager	pcoe-Dialer
6 UCCE	UCCE	10.13.37.43	Outbound Option Dialer	nodeman.exe	Node Manager	
7 UCCE	UCCE	10.13.37.43	Peripheral Gateway 1A	eagt pim.exe	EAGTPIM EXE	pcoe-PG1A eagt pim - pim1 - [CM ACTIVE]
8 UCCE	UCCE	10.13.37.43	Peripheral Gateway 1A	Jtapigw.exe	JtapigwJVMLauncher EXE	
9 UCCE	UCCE	10.13.37.43	Peripheral Gateway 1A	mdsproc.exe	Message Delivery System	pcoe-PG1A mdsproc - (InSvc Is-Enb Clk)
10 UCCE	UCCE	10.13.37.43	CTI Server 1A	ctisrvr.exe	CTISrvr	pcoe-CG1A ctisrvr - [ACTIVE ccoe-pg-1a-20 SecurityMode - MIXED (NonSecurePort: 42027, SecurePort: 42030)]

To set up and use this dashboard:

In Arbitrator:

1. Add the probe group, e.g.: **Cisco UCCE List Processes**.
2. Add the probe with settings as below:

Probes

Name	Description	Unit	Command and Parameters
<input type="checkbox"/> Cisco UCCE List Process			<input type="checkbox"/> Custom <input type="checkbox"/> Auto-scale? Select Category: Cisco UCCE Select Script: Cisco UCCE API creds

1. Create the credentials:

VOSS

1. Go to **Assets** and assign the probe to a device:

Templates/Profiles

Name	Frequency	Credentials 1 & 2	Enabled
<input type="checkbox"/> Cisco UCCE Main Componen...	5 Minutes	UCCE & None	<input checked="" type="checkbox"/>
<input type="checkbox"/> 1b-PING Monitor	1 Minute	None & None	<input checked="" type="checkbox"/>

Enabled
 Failover
 Start Time: Immediate?
 Days: Sun Mon Tue Wed Thu Fri Sat

Name: Cisco UCCE List Processes
Frequency: 5 Minutes
Credential 1: Cisco UCCE API Creds
Credential 2: None

In VOSS Insights Dashboard:

Use the resource `Arbitrator_cisco_ucce_processes` dashboard to view data.

Resource

Arbitrator_cisco_ucce_processes ▼

Definitions

search for definitions

▼ Text Fields

- Asset Description
- Asset Name
- Hostname
- IP Address
- Process Description
- Process Name
- Process Status
- Process UpTime
- Service

▼ Epoch Date Fields

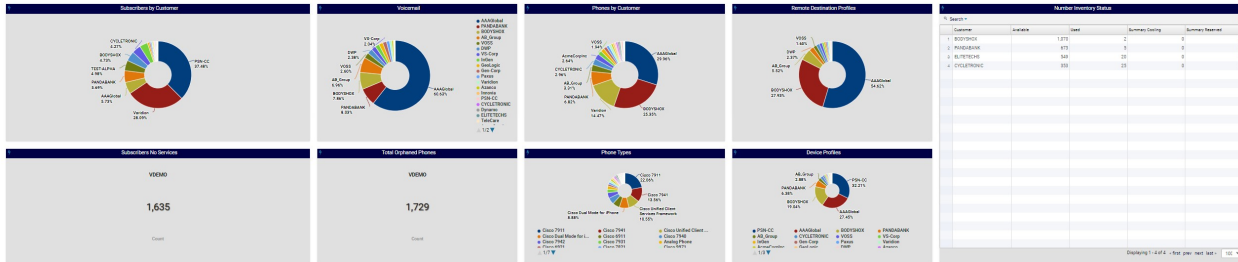
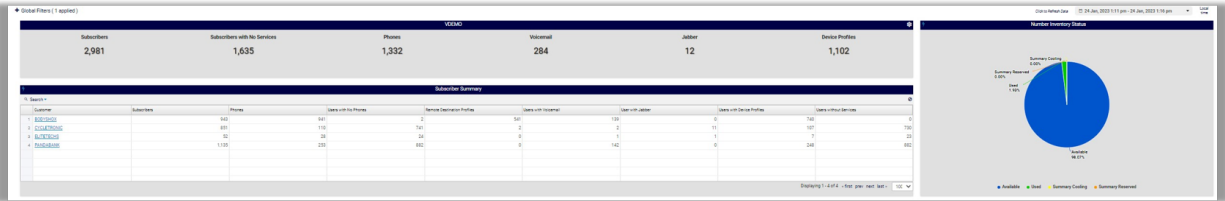
- lxt_timestamp_epoch

The dashboard screen provides further options for configuring filters and time periods for the data you wish to view.

4.2.9. VOSS Analytics Dashboards

VOSS Insights provides the following reference dashboards for VOSS Analytics:

Folder	Reference Dashboards
Subscribers / Services / Entitlement	<ul style="list-style-type: none"> • Entitlement Detail • Entitlement Summary • HCS License Detail • HCS License Report • Service Assignment Summary • Subscriber Detail • Subscriber Services
Phones / Devices / Voice-mail	<ul style="list-style-type: none"> • Device Profile Detail • Device Profile Summary • Orphaned Phones & Voicemail • Phone & Jabber Detail • Phone Summary • Phone Types • Remote Destination Profile Detail • Voicemail Detail
Number Inventory / Lines	<ul style="list-style-type: none"> • E164 Number Inventory • Internal Number Inventory • Internal Number Inventory Detail • Lines & Call Forward Detail • Lines Summary
Transactions	<ul style="list-style-type: none"> • Transaction Details • Transaction Summary • Transaction Trends
Hunt & Pickup Groups	<ul style="list-style-type: none"> • Hunt Group Detail • Hunt Pilot • Pickup Group Detail
MsGraph	<ul style="list-style-type: none"> • VOSS Msgraph • VOSS Msteams
Webex Teams	<ul style="list-style-type: none"> • Customer Summary Dashboard • Customer Summary Dashboard_Drilldown • Provider Summary Dashboard • VOSS Sync Status <p>Webex dashboards can be used if your Arbitrator is configured for Webex.</p>




Search	Device	Manufacturer	Model	Serial Number	Phone Number	Provisioned	Provisioned	Provisioned
1	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
2	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
3	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
4	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
5	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
6	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
7	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
8	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
9	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
10	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
11	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
12	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
13	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
14	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
15	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
16	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
17	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
18	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
19	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
20	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
21	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
22	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
23	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
24	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
25	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
26	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
27	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
28	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
29	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
30	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
31	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
32	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
33	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
34	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1
35	IPHONE11,2	Apple	iPhone11,2	12000000000000000000	12000000000000000000	1	1	1

Search	Provider	Customer	FirstName	LastName	UserPrincipalName	Office	PhoneNumber
13	VOSS	VOSS	Deron	Hamilton	deron.hamilton@voss-solutions.com	Reading	+44 118 402 1191
14	VOSS	VOSS	Kelly	Mark	kelly.mark@voss-solutions.com	Reading	
15	VOSS	VOSS	Marion	Tavaz	marion.tavaz@voss-solutions.com	Reading	
16	VOSS	AB_Group	Alexia	Tomkiewicz	Alexia.Tomkiewicz@capshybrid.comicrosoft.com	St. Stephens Ward	01885-703597
17	VOSS	VOSS	Nyasha	Chigwenza	nyasha.chigwenza@voss-solutions.com	Cape Town	
18	VOSS	VOSS	Andreas	Karlsburg	andreas.karlsburg@voss@ind.onmicrosoft.com	CL2-AB-C-Hamburg	8201118
20	VOSS	VOSS	Grant	Wilson	grant.wilson@voss-solutions.com	Cape Town	
21	VOSS	VOSS	Rachel	Chikwan	rachel.chikwan@voss-solutions.com	Reading	+44 118 903 0940
22	VOSS	VOSS	Jim	Morton	jim.morton@voss-solutions.com	Reading	
23	VOSS	VOSS	Debbie	Robertson	debbie.robertson@voss-solutions.com	Reading	
24	VOSS	VOSS	Daniel	Browne	daniel.browne@voss-solutions.com	Cape Town	
25	VOSS	VOSS	Den	Payne	den.payne@voss-solutions.com	Cape Town	+1 409 206 0421
26	VOSS	VOSS	Nasser	Sachman	nasser.sachman@voss@ind.onmicrosoft.com	Cape Town	
27	VOSS	VOSS	Daron	Hamilton	daron.hamilton@voss-solutions.com	Reading	+44 118 402 1191
28	VOSS	VOSS	Paul	Kruger	paul.kruger@voss-solutions.com	Cape Town	+27 21 525 2048
29	VOSS	VOSS	Kyle	Black	kyle.black@voss-solutions.com	Reading	+27 222 971 59
30	VOSS	VOSS	Tege	Uwe (R. S)	tegeu@voss-solutions.com	Reading	
31	VOSS	VOSS	Leon	Sivaneepol	leon.sivaneepol@voss-solutions.com	Cape Town	
32	VOSS	VOSS	Mark	Oosthuizen	mark.oosthuizen@voss-solutions.com	Cape Town	+27 84 908 0512
33	VOSS	VOSS	Seh	Schumacher	seh.schumacher@voss-solutions.com	Reading	+44 118 402 1191
34	VOSS	VOSS	Janya	Linford	janya.linford@voss-solutions.com	Reading	+44 118 402 1191
35	VOSS	VOSS	Tanya	Linford	tanya.linford@voss-solutions.com	Reading	+44 118 402 1191

4.3. Custom Dashboards

You can create new dashboards based on a default dashboard that ships with the system, or create new, custom dashboards from scratch.

To create a new custom dashboard, use one of these options:

- Click the Plus (+) icon  in the **DASHBOARDS** panel.
- Select one of the VOSS Reference Dashboards **DASHBOARDS** pane, then clone this dashboard, save it as a new, custom dashboard, and configure the options you require.

Related Topics

- Introduction to Dashboards in the Dashboards Administration Guide.
- VOSS Reference Dashboards in the Dashboards Administration Guide.
- Introduction in the Dashboards Administration Guide.

4.4. Working with Dashboards

4.4.1. View Dashboards

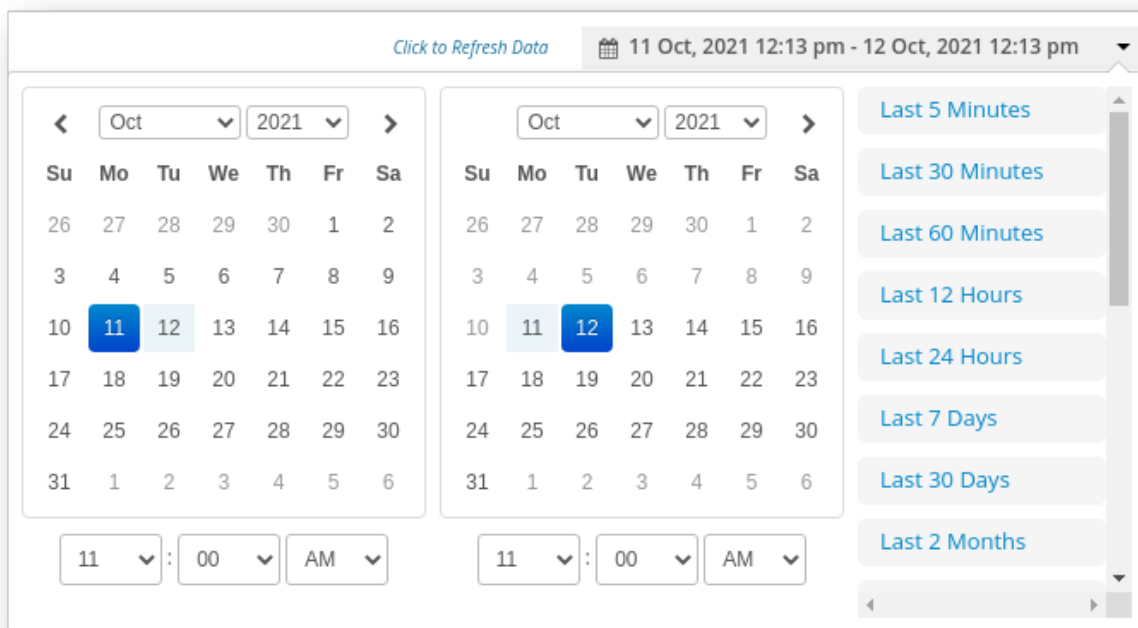
To access the **DASHBOARDS** panel, click the hamburger icon to expand the panel displaying a list of the available default and custom dashboards.

Note: Folders and dashboards display only if search definitions have been performed. You will need to create search definitions to view these items.

4.4.2. Define Dashboard Time Frame

Select a dashboard to define its date/timeframe (the period for which data displays), which defaults to 24 hours.


Click on the date drop-down at the top-right of the screen to open the calendar, along with a list of pre-set time frames (for example, Last 5 minutes, Last 30 Minutes, Last Hour). Scroll through and select the date/timeframe that you want to include on the dashboard.



An option is available to toggle between **Local time** and **UTC time** in the display.

Note that, as with the search definition, the more time selected the more data to analyze thus time to render the widgets is based on the time frame selected and the amount of data to pull.

4.4.3. Add a Dashboard

To create a new dashboard from the **DASHBOARD** panel, click the Plus (+) icon  to open the **Dashboard Editor**.

Fill out details for the new dashboard, and click **Save**.

Now you will need to create resource definitions and widgets to use in your dashboard.

4.4.4. Clone a Dashboard

Cloning a dashboard creates a copy of an existing dashboard, which you can rename and edit to create a new dashboard.

Note: The VOSS Reference Dashboards are read-only. You can clone a reference dashboard then edit the clone to suit your requirements.

Click the **System Configuration** icon on the toolbar (wrench icon) to open the **System Configuration** menu, then select **Clone Dashboard** to open the Dashboard Editor with a copy of the dashboard.

Change the dashboard name and click **Save**. The new dashboard you created (copy of an existing dashboard) opens. Now you can edit the dashboard widgets.

Dashboard Editor

Dashboard Name
Alert Overview DH

Refresh Interval
Manual

Default Date Range
Last 24 Hours

Always use default range on dashboard load

Set as Default

Lock with Password

Save

Dashboard Name
Give your dashboard a name.

Refresh Interval
Select the interval you would like widgets to be refreshed at.

Default Date Range
Select the default date range for the dashboard.

Always use default range on dashboard load
If this option is selected, the default range will always be used when the dashboard is reloaded. This includes moving and deleting widgets. The user will still be allowed to change time ranges and the changes will not be preserved on reload.

Set as Default
Check this field if you want this to be the default dashboard for the user.

4.4.5. Edit Dashboard

Click the **System Configuration** icon on the toolbar (wrench icon) to open the **System Configuration** menu, then select **Edit Dashboard** to open the page where you can edit the dashboard name as required.

Note: The VOSS Reference Dashboards are read-only. You can clone a reference dashboard then edit the clone to suit your requirements.

Additionally, you can set the refresh interval by clicking on the drop-down menu and choosing the interval. This will determine how often the system refreshes the data from the database.

Click **Save** button to save your changes.

The screenshot shows the 'Dashboard Editor' interface for Voss. The top navigation bar includes a menu icon, the 'VOSS' logo, a 'Back' button, and the title 'Dashboard Editor'. The main content area is split into two columns. The left column contains configuration options for a dashboard named 'Alert Overview DH':

- Dashboard Name:** A text input field containing 'Alert Overview DH'.
- Refresh Interval:** A dropdown menu set to 'Manual'.
- Default Date Range:** A dropdown menu set to 'Last 24 Hours'.
- Always use default range on dashboard load:** An unchecked checkbox.
- Set as Default:** An unchecked checkbox.
- Lock with Password:** An unchecked checkbox next to an empty password input field.

At the bottom left of the form is a dark blue 'Save' button. The right column provides explanatory text for each configuration option:

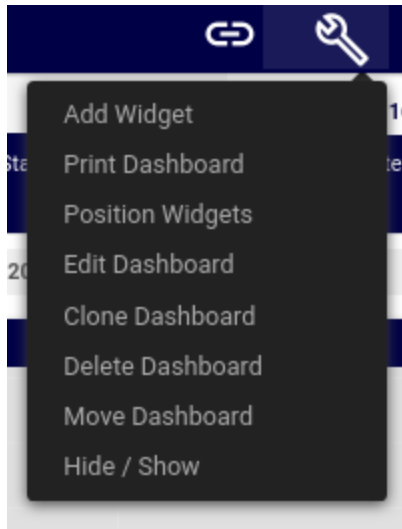
- Dashboard Name:** 'Give your dashboard a name.'
- Refresh Interval:** 'Select the interval you would like widgets to be refreshed at.'
- Default Date Range:** 'Select the default date range for the dashboard.'
- Always use default range on dashboard load:** 'If this option is selected, the default range will always be used when the dashboard is reloaded. This includes moving around the dashboard. The user will still be allowed to change time ranges. Any changes will not be preserved on reload.'
- Set as Default:** 'Check this field if you want this to be the default dashboard for the user.'

4.4.6. Add a Widget to a Dashboard

Click the **System Configuration** icon on the toolbar (wrench icon) to open the **System Configuration** menu, then select **Add Widget** to open the **Add Widget** dialog, with the following options:

- **Generic Chart:** to choose a chart and pull in data from the resource definitions.
- **Rich Text:** add HTML formatted text, including hyperlinks.

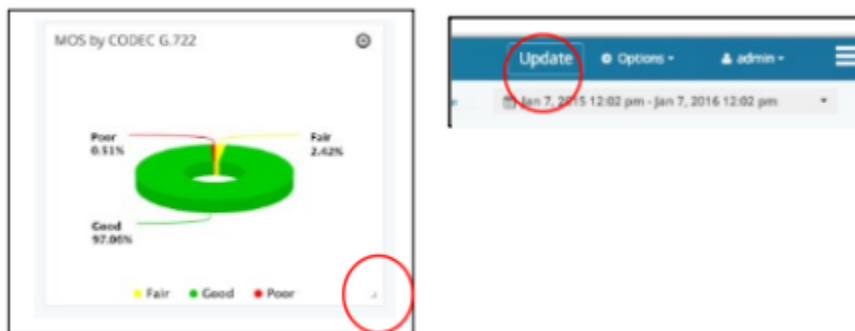
See “Widget Editor” for details on how to build the widget.



4.4.7. Position Widgets on a Dashboard

Click the **System Configuration** icon on the toolbar (wrench icon) to open the **System Configuration** menu, then select **Position Widgets** to place the dashboard in a mode that allows you to move the widgets around the page and resize the boxes.

When you hover over a widget a corner symbol appears in the bottom right corner. Grab that corner to drag and resize the box. To move the entire widget just grab the widget anywhere and drag it to the desired location. When complete be sure you click **Update** in the top right corner to save the new dashboard positioning.

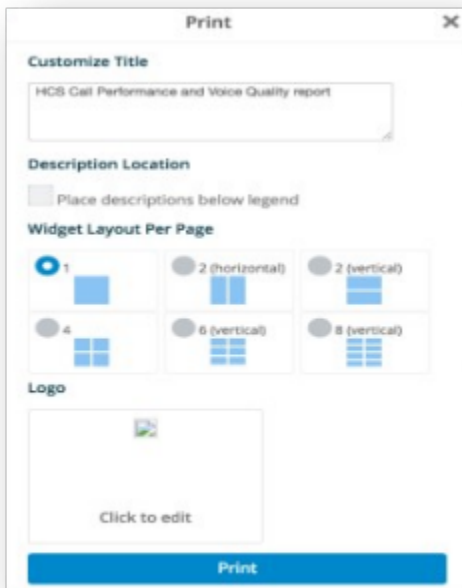


4.4.8. Print Dashboard

Click the wrench icon to display the System Configuration menu, then select **Print Dashboard** to open the Print dialog, where you can fill out a title for the print job.

Fill out the title you want, then check the **Place descriptions below legend** check box. This will place all description text in the Widgets below the charts.

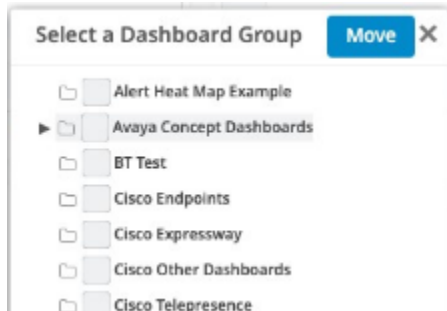
Select the design by choosing the number of widgets to place on a page. Once complete upload a logo and print the report.



4.4.9. Move a Dashboard

Select a dashboard you wish to move, then click the wrench icon to display the System Configuration menu, and choose **Move Dashboard** to display the tree of all folders defined in the system.

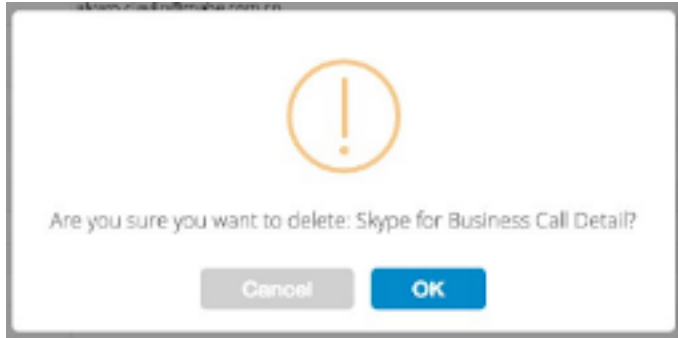
Click on the folder to which you want to move the dashboard.



4.4.10. Delete a Dashboard

Click the **System Configuration** icon on the toolbar (wrench icon) to open the **System Configuration** menu, then select **Delete Dashboard** to delete the dashboard and remove it from the menu.

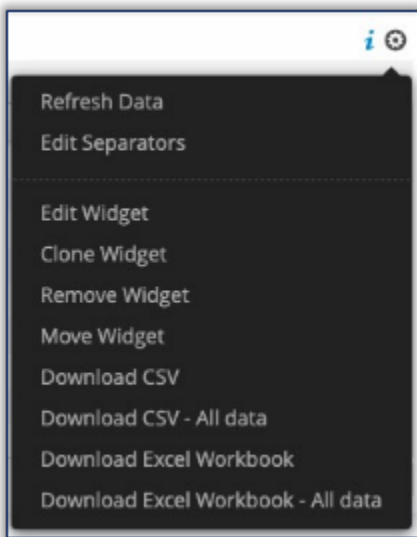
Note: This does not delete the extraction definitions. You will need to go to the search screen for this function.



4.5. Managing Widgets

4.5.1. Overview

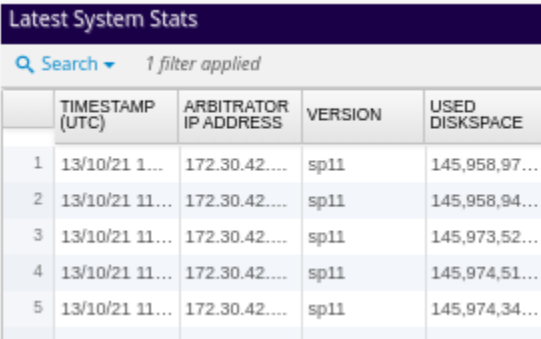
Dashboards contain a number of editable widgets, for which you can configure the look and feel, and the data presented in each widget, in a **Widget Editor**.



Widget editing options depend on the configuration of the selected widget. The table describes the possible **Widget Options** menu options:

Option	Description
Refresh Data	Performs a manual refresh of the data from the database.
Edit Separators	Opens a separate page where you can select one or more separators that you want to use on your widget, i.e. Left, Right, Top, Bottom or All.
Save Chart	(Only available if the Widget is a Chart). Saves any widget to your desktop as a .svg file. This file can then be imported into documents for custom reporting.
Edit Widget	Opens up the widget editor, where you can edit the data and the analysis of the data that is represented on the widget.
Clone Widget	Creates a copy of the widget, which you can then modify to meet the specific data analysis needed. This is much quicker than creating a brand new widget/dashboard.
Remove Widget	Deletes the widget from the dashboard.
Move Widget	Launches a tree of all the folders and dashboards in the system. Simply choose the folder and click on the dashboard destination you want.
Download CSV	Downloads the underlying data (chart or table) to .csv, which you can save to your computer. The data will be pulled based on the time selected in the time-bar.
Download CSV - All data	Choosing "All data" downloads all of the table data in that widget (regardless of the time set in the time-bar) to a .csv file that you can save to your local computer. The "All data" option takes global filters into consideration.
Download Excel Workbook	(Only available if the Widget is a Table.) Downloads the table data to an Excel file that you can save to your local computer.
Download Excel Workbook - All data	(Only available if the Widget is a Table.) Downloads <i>all</i> the table data to an Excel file that you can save to your local computer. The "All data" option takes global filters into consideration.

Note: You can *filter* data in a widget before downloading a file option. Use the **Search** function of the widget. The downloaded file would then *only* contain the filtered data.



	TIMESTAMP (UTC)	ARBITRATOR IP ADDRESS	VERSION	USED DISKSPACE
1	13/10/21 1...	172.30.42...	sp11	145,958,97...
2	13/10/21 11...	172.30.42...	sp11	145,958,94...
3	13/10/21 11...	172.30.42...	sp11	145,973,52...
4	13/10/21 11...	172.30.42...	sp11	145,974,51...
5	13/10/21 11...	172.30.42...	sp11	145,974,34...

4.5.2. Widget Editor

To edit a widget, click the cog icon (Widget Options) at the top right on the widget, to display a menu with options for managing widgets. Select **Edit Widget** to open the **Widget Editor**, which provides options for configuring data resources, settings for configuring how data displays, and drill down options. Configuring a widget in this way provides several powerful data analysis options.

You can select the following tabs on this screen to configure the widget:

- [Resource Tab](#)
- [Settings Tab](#)
- [Drilldown Tab](#)

The screenshot shows the 'Widget Editor' interface with the 'Resource' tab selected. The interface is divided into several sections:

- Resource:** A dropdown menu showing 'Insights_system_Log'.
- Definitions:** A search bar and a list of field categories: Text Fields, Integer Fields, and Epoch Date Fields.
- Fields:** A list of fields with their data types: 'txt_timestamp_epoch' (Epoch Date), 'action' (Text), 'area' (Text), and 'duration' (Integer).
- Filters:** A 'Drop Zone' for adding filters.
- Additional Sorting:** A 'Drop Zone' for adding sorting criteria.
- Right Pane:** A data table with columns: 'txt_timestamp_epoch (UTC)', 'action', 'area', and 'duration (Sum)'. The table contains 18 rows of data.

	txt_timestamp_epoch (UTC)	action	area	duration (Sum)
1	03/09/22 3:24:49 pm	import	asset	
2	04/20/22 2:51:09 pm	import	asset	
3	03/03/22 7:42:51 pm	import	profile	
4	04/21/22 6:38:05 pm	import	asset	
5	05/04/22 1:53:08 pm	import	profile	
6	03/03/22 3:25:13 pm	export	profile	
7	03/04/22 8:51:42 pm	export	profile	
8	04/21/22 7:50:09 pm	import	asset	
9	04/21/22 2:34:43 pm	import	asset	
10	03/03/22 6:35:28 pm	export	profile	
11	04/28/22 6:11:58 pm	export	policy	
12	04/20/22 5:51:55 pm	export	asset	
13	04/20/22 3:28:27 pm	import	asset	
14	03/04/22 10:41:02 pm	import	policy	
15	04/20/22 2:48:41 pm	export	asset	
16	03/03/22 9:29:44 pm	import	policy	
17	03/10/22 4:32:32 pm	import	asset	
18	04/26/22 2:55:55 pm	export	policy	

The right pane in the Widget Editor displays data based on the widget configuration.

Note: If the widget you open for editing contains pre-existing configuration and data, this data displays in the chart pane without running additional queries. This means that you can view configuration changes immediately, based on pre-existing data.

The chart pane contains the following configuration options:

Date range calendar	Select a date range for the data you wish to analyze.
Overwrite Dashboard Date Range	Define whether to allow the widget date range to overwrite the dashboard date range.
Auto Query	Define whether to allow automatic queries. If you have this setting enabled, the system automatically runs the query to refresh data when you update the widget configuration. Disable this setting to limit the number of queries, and to only run the query manually once you complete the configuration. In this case, you'll click the Query button to run the query when you're ready to do so.

Resource Tab

This tab configures the widget's data sources, search definitions, fields, filters, and sorting.

The screenshot shows the Voss Widget Editor interface. The top navigation bar includes a menu icon, the Voss logo, a 'Back' button, the title 'Widget Editor', and an 'admin' dropdown. The main interface is divided into several sections:

- Resource**: A dropdown menu currently set to 'Insights_system_Log'.
- Definitions**: A search box for definitions and a list of categories: Text Fields, Integer Fields, and Epoch Date Fields.
- Fields**: A list of fields with their data types: 'txt_timestamp_epoch' (Epoch Date), 'action' (Text), 'area' (Text), and 'duration' (Integer).
- Filters**: A 'Drop Zone' for adding filters.
- Additional Sorting**: A 'Drop Zone' for adding sorting criteria.
- Table**: A table displaying data for the selected resource. The table has columns for 'txt_timestamp_epoch (UTC)', 'action', 'area', and 'duration (Sum)'. The data rows show a sequence of 'import' and 'export' actions on various assets and policies.

At the top right of the main area, there is a date range selector set to 'Apr 1, 2022 12:00 am - Jun 16, 2022 4:04 pm', a 'Query' button, and a 'Save' button. Below the date range, there are two checkboxes: 'Overwrite Dashboard Date Range' (checked) and 'Auto Query' (checked).

	txt_timestamp_epoch (UTC)	action	area	duration (Sum)
1	03/09/22 3:24:49 pm	import	asset	
2	04/20/22 2:51:09 pm	import	asset	
3	03/03/22 7:42:51 pm	import	profile	
4	04/21/22 6:38:05 pm	import	asset	
5	05/04/22 1:53:08 pm	import	profile	
6	03/03/22 3:25:13 pm	export	profile	
7	03/04/22 8:51:42 pm	export	profile	
8	04/21/22 7:50:09 pm	import	asset	
9	04/21/22 2:34:43 pm	import	asset	
10	03/03/22 6:35:28 pm	export	profile	
11	04/28/22 6:11:58 pm	export	policy	
12	04/20/22 5:51:55 pm	export	asset	
13	04/20/22 3:28:27 pm	import	asset	
14	03/04/22 10:41:02 pm	import	policy	
15	04/20/22 2:48:41 pm	export	asset	
16	03/03/22 9:29:44 pm	import	policy	
17	03/10/22 4:32:32 pm	import	asset	
18	04/26/22 2:55:55 pm	export	policy	

The table describes the fields on the **Resource** tab:

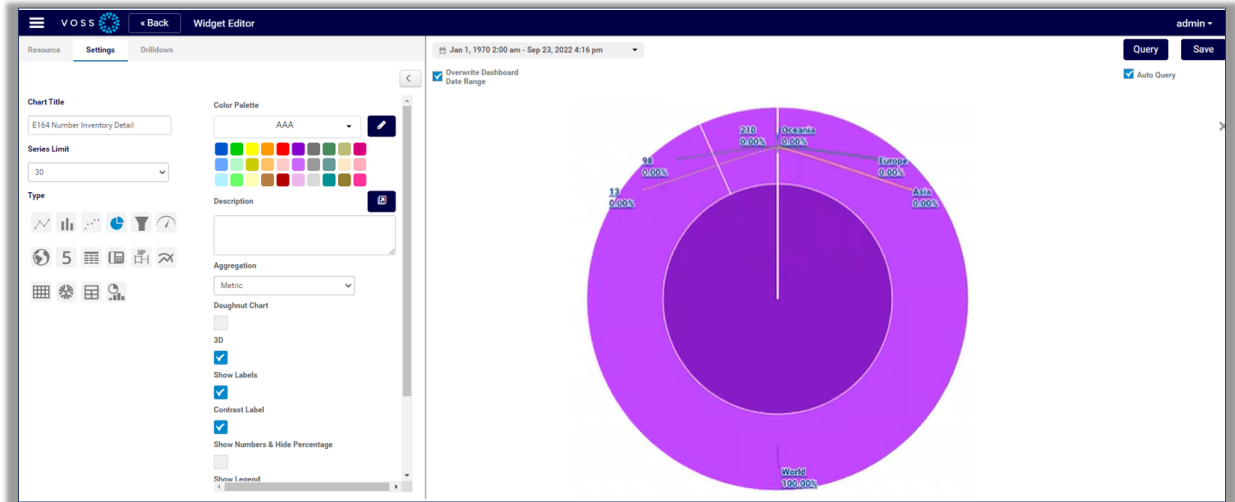
Field	Description
Data Source	This drop-down lists all the databases to which the VOSS Insights platform has access. This can be its local database or it can contain multiple databases. You can find details for adding new data sources elsewhere in this guide.
Resource	Click the Edit Resources button to display/hide this drop-down, which contains the list of existing definitions. When editing an existing widget within a dashboard, the default name is the search definition used for that dashboard. However you can use this to pull data onto a widget from any defined search definition, thus creating a dashboard of widgets that analyze data from multiple data sources (Ex: Firewall, DNS, Router, Application) From SP66, new data definitions are also available for: <ul style="list-style-type: none"> • VOSS Automate MSgraph, MStears, and Spark objects (search for <code>msggraph</code>, <code>msteams</code>, <code>spark</code>). • Webex API data (search for <code>webex</code>).
Fields	Drag and drop fields here (from Definitions) that you want to analyze on the widget. You can add as many fields as required to a single widget.
Definitions	Click the Edit Resources button to display/hide this field. Definitions are categorized by type (Text fields, Integer fields, Float fields, Epoch Date fields, Calculated fields, and Filter Only fields), based on the data type extracted from the search definitions previously created and associated with the widget. First choose a definition in the Resource drop-down to filter the field types and fields associated with the definition, then you can drag the required fields into the Fields panel on the left.
Filters	Allows you to set a filter definition for the widget. For example, filter only on values greater than 200. These filters allow the widget to be created to provide analysis of the data based on the specific context. Drag and drop fields here that you want to use as filters (from Definitions).
Additional Sorting	Allows you to set the starting order for fields that appear in a table. Using this field allows the column sort to be pre-set based on the fields dropped into this panel. Drag and drop fields here, from Definitions .

Note: Where dates are listed, the zero (0) value is not interpreted and shown as Jan. 1, 1970, but simply as 0.

Settings Tab

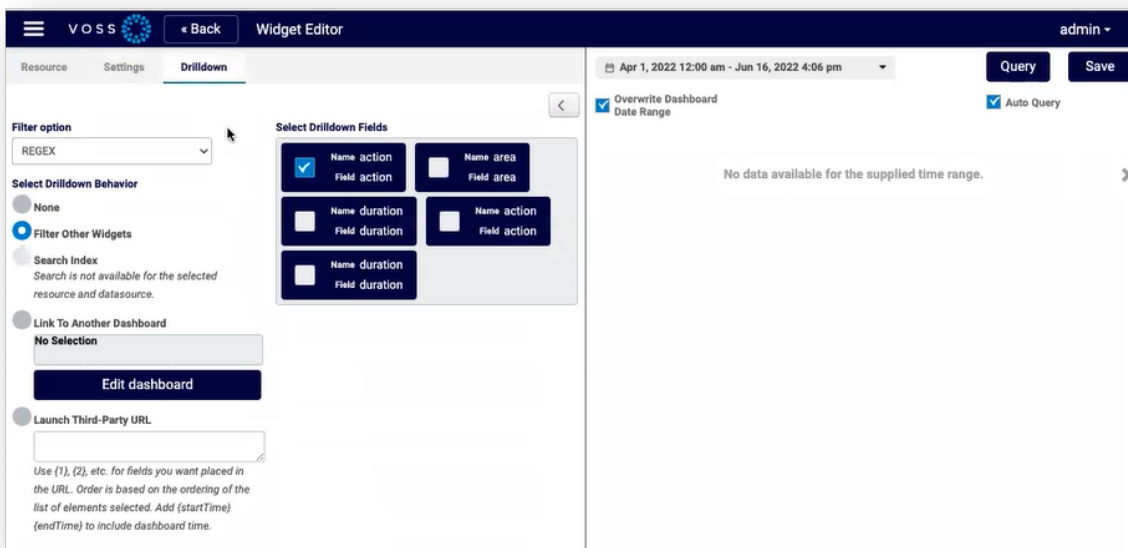
This tab defines settings for charts on the widget, including the chart title, a description, the series limit, and the chart type. You can also define chart colors.

Additional configuration fields on the tab are based on the chart type you choose.



Drilldown Tab

This tab defines the drill-down field behavior and allows you to choose the fields that will display as drill-downs.



4.6. Fields Details

4.6.1. Overview

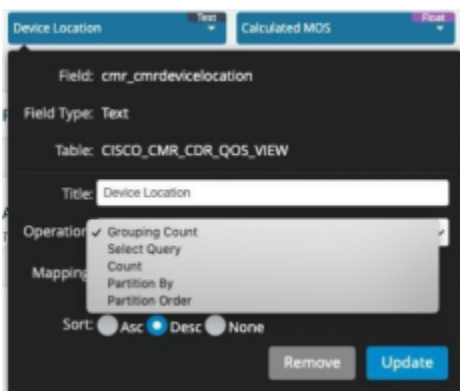
The data elements in the **Fields** box have several analytic options depending on the context of the field and the desired functions, (e.g. Integer Field with a SUM Calculation). The following field type options are available:

- Text
- Integer
- Calculate

4.6.2. Text Fields

If the extracted field is a text field then it will show “Text” in the **Field Type**. The **Title** is automatically populated with the field name from the log. This title can be changed to describe more accurately the data field. Next is an **Operation** box that provides two options:

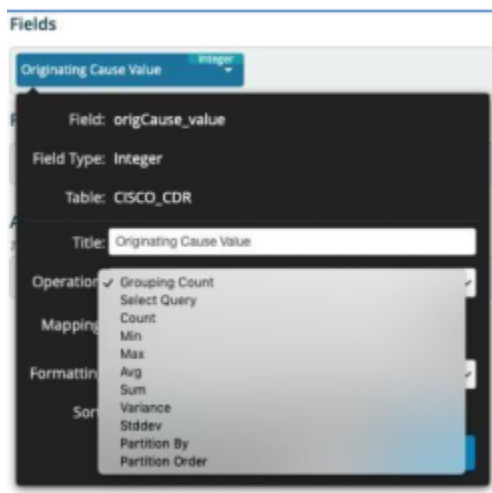
- Grouping Count - will group all of the same fields and count the number of times they occur in the data, for example: Field is Acme Trading and it occurred 35 times. The output will be Acme Trading count of 35.
- Select Query - allows you to choose to output all records from the query without grouping them. Warning: This could result in a tremendous amount of data depending on the topic being analyzed. Example is a call table that could return millions of rows.
- Count - will return the total count of the value. If there are 1000 occurrences of the value “350” the output will be 1000.
- Partition By and Partition Order - These two functions are specific to our PostgreSQL database and allow you to show the most recent or the earliest entries in the data. They are utilized with the “Select Query” on the data set.



4.6.3. Integer Fields

If the extracted field is an integer field then it will show “Integer” in the **Field Type**. The **Title** is automatically populated with the field name from the log. This title can be changed to describe more accurately the data field. Next is an **Operation** box that provides eight options:

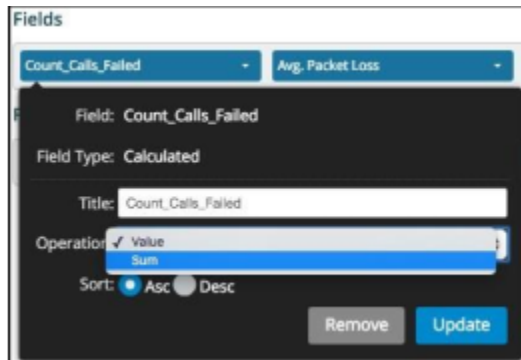
- Grouping Count - will group all of the same fields and count the number of times they occur in the data, for example: Field is the value “350” and it occurred 10 times. The output will be 350 count of 10.
- Select Query - allows you to choose to output all records from the query without grouping them. Warning: This could result in a tremendous amount of data depending on the topic being analyzed. Example is a call table that could return millions of rows.
- Count - will return the total count of the value. If there are 1000 occurrences of the value “350”, the output will be 1000.
- Min - will calculate the minimum value that has occurred in the data and output that value.
- Max - will calculate the maximum value that has occurred in the data and output that value.
- Avg - will calculate the average value of all the data and output that value.
- Sum - will calculate the sum of all the data and output that value.
- Variance - will calculate the variance within the data and output that value. Variance is how far a set of integers are spread out, thus a variance value of zero indicates that all the values are identical.
- Stddev - will calculate the standard deviation within the data and output that value. Standard deviation will quantify the amount of variation or dispersion of the data set. A value close to zero indicates that the data points are close to the *mean* or the expected value while a high value indicates that the data points are spread out over a wide range of values.
- Partition By and Partition Order - These two functions are specific to our PostgreSQL database and allow you to show the most recent or the earliest entries in the data. They are utilized with the “Select Query” on the data set.



4.6.4. Calculated Fields

If the extracted field is a pre calculated field then it will show Calculated in the **Field Type**. The **Title** is automatically populated with the field name used in the database. This title can be changed to describe more accurately the data field. Next is an **Operation** box that provides two options:

- Value - will output the exact value of the calculated field, for example: The calculation is the count of all failed calls then the output will be that value.
- Sum - will sum up all the values of the calculated field, for example: The calculation is the call failure ratio then the output will be the sum of all of these values.



4.7. Filters Details

4.7.1. Overview

This section allows filters to be applied to data elements being analyzed from the **Fields** box. As with Fields there are several analytic options depending on the context of the filter and the desired functions, i.e. Integer Field utilizing a greater than Calculation. The following options are available:

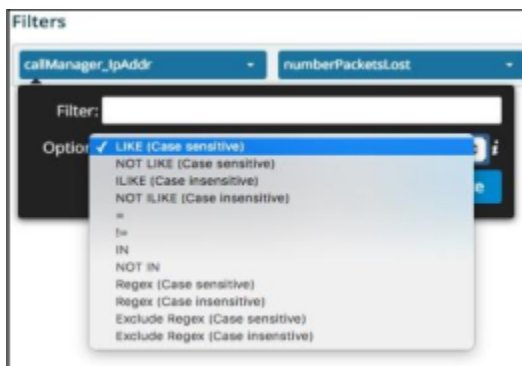
- Text
- Integer
- Calculate

4.7.2. Text

There is an empty Filter box labeled **Filter** where the custom filter function needs to be input. Next is an **Option** box that provides/defines the filter that is applied in the filter box. There are 12 available filtering functions:

- LIKE (Case Sensitive) - is a function that based on the pattern entered in the filter field will return the data that matches the pattern from the extracted string. This function is case sensitive. An underscore (_) in the pattern indicates matches any single character while a percentage sign (%) indicates matches any sequence of zero or more characters.
- NOT LIKE (Case Sensitive) - is a function that based on the pattern entered in the filter field will return the data that does not match the pattern from the extracted string. This function is case sensitive. An underscore (_) in the pattern indicates matches any single character while a percentage sign (%) indicates matches any sequence of zero or more characters.

- ILIKE (Case Insensitive) - is a function that based on the pattern entered in the filter field will return the data that matches the pattern from the extracted string. This function is NOT case sensitive. An underscore (_) in the pattern indicates matches any single character while a percentage sign (%) indicates matches any sequence of zero or more characters.
- NOT ILIKE (Case Insensitive) - is a function that based on the pattern entered in the filter field will return the data that does not match the pattern from the extracted string. This function is NOT case sensitive. An underscore (_) in the pattern indicates matches any single character while a percentage sign (%) indicates matches any sequence of zero or more characters.
- Equals (=) - is a function that based on the pattern entered in the filter field will return the data that is equal to the pattern from the extracted string.
- Not Equal (!=) - is a function that based on the pattern entered in the filter field will return the data that is not equal to the pattern from the extracted string.
- IN - is a function that based on the pattern entered in the filter field will return the data that exists within a comma separated list, i.e. 1, 2, 3, 4.
- NOT IN - is a function that based on the pattern entered in the filter field will return the data that DOES NOT exist within a comma separated list, i.e. 1, 2, 3, 4.
- REGEX (Case Sensitive) - is a function that utilizes POSIX Regular Expressions to extract data. It is case sensitive.
- REGEX (Case Insensitive) - is a function that utilizes POSIX Regular Expressions to extract data. It is NOT case sensitive.
- EXCLUDE REGEX (Case Sensitive) - is a function that utilizes POSIX Regular Expressions to extract the data that doesn't match the pattern. It is case sensitive.
- EXCLUDE REGEX (Case Insensitive) - is a function that utilizes POSIX Regular Expressions to extract the data that doesn't match the pattern. It is NOT case sensitive.



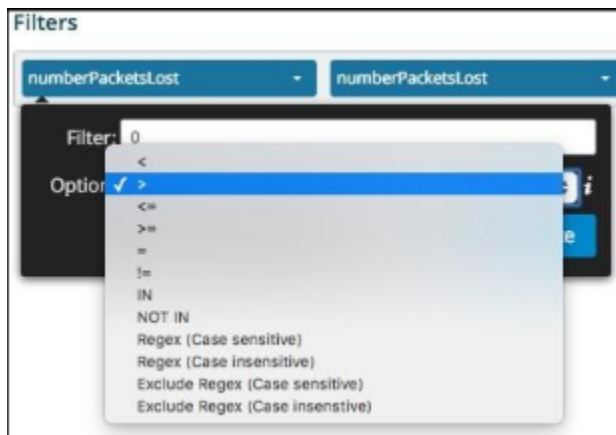
4.7.3. Integer

There is an empty Filter box labeled Filter where the custom filter function needs to be input. Next is an Option box that provides/defines the filter that is applied in the filter box.

There are twelve available filtering functions:

- Less Than (<) - is a function that based on the value entered in the filter field will return the data that is less than the value from the extracted string.
- Greater Than (>) - is a function that based on the value entered in the filter field will return the data that is greater than the value from the extracted string.

- Less Than or Equal (<=) - is a function that based on the value entered in the filter field will return the data that is less than or equal to the value from the extracted string.
- Greater Than or Equal (>=) - is a function that based on the value entered in the filter field will return the data that is greater than or equal to the value from the extracted string.
- Equals (=) - is a function that based on the value entered in the filter field will return the data that is equal to the value from the extracted string.
- Not Equal (!=) - is a function that based on the value entered in the filter field will return the data that is not equal to the value from the extracted string.
- IN - is a function that based on the values entered in the filter field will return the values that exists within a comma separated list (i.e. 1,2,3,4)
- NOT IN - is a function that based on the values entered in the filter field will return the values that DOES NOT exist within a comma separated list, i.e. 1,2,3,4.
- REGEX (Case Sensitive) - is a function that utilizes POSIX Regular Expressions to extract data. It is case sensitive.
- REGEX (Case Insensitive) - is a function that utilizes POSIX Regular Expressions to extract data. It is NOT case sensitive.
- EXCLUDE REGEX (Case Sensitive) - is a function that utilizes POSIX Regular Expressions to extract the data that doesn't match the pattern. It is case sensitive.
- EXCLUDE REGEX (Case Insensitive) - is a function that utilizes POSIX Regular Expressions to extract the data that doesn't match the pattern. It is NOT case sensitive.



4.7.4. Filter Only

If utilizing a Filter Only value in the Option box there are not any additional options. This is a predefined function in the database and the system will utilize this for the filtered content.

4.7.5. Mapping

By clicking on the wrench icon, a page will pop up allowing a powerful feature of mapping data elements to common names. This can be any data such as Cause Codes to Cause Names, Location Numbers to Location Names, Protocol Numbers to Protocol Names, etc. When applying a mapping to a Field then the mapped value will show up in the widget in place of the data from the log.

There are four flexible functions to utilize to map the data from the log:

- Regex
- Greater Than
- Less Than
- Range

The order of each mapping element is important since precedence is top down. You can rearrange them by clicking and dragging the keypad icon next to the **Key** label.

5. Building a Chart

5.1. Building a Chart Overview

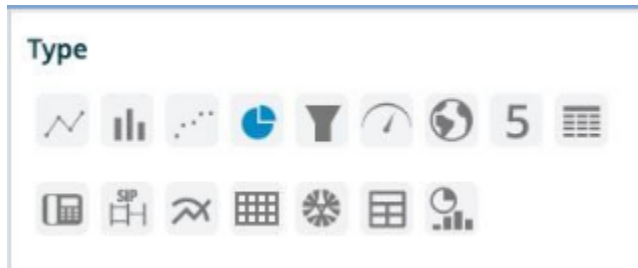
After you have the data elements defined for the widget then you can decide how to reflect the analysis. Just below the **Configure Data** section is a section defined as **Build Chart**.

5.1.1. Build Chart

Here you have several options to choose from based on the data type.

Type: There are 11 chart types exposed that can be utilized to display your data. (Line/Area Chart, Column/Bar Chart, Scatter Chart, Pie/Doughnut Chart, Funnel Chart, Gauge Chart, Card Chart, Table Chart, Call Hops and SIP Ladder Diagram.)

Each one has specific rules that apply to certain data elements. Example: Table data elements over time (i.e. DNS Entries for the day by IP address) will not display with a gauge type. Each chart type also will bring up specific options that can be utilized for that chart under the Settings section



5.2. Chart Types

5.2.1. Line / Area Chart

When clicking on the **Line Chart** the **Settings** options below are adjusted to that particular selection. You have the following choices:

- Color Palette - This defines the colors to associate with data values, the line plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. ([Color Palette Changes](#))

- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Axis X Label - Labels the X Axis (Horizontal) for the chart such as “Date”.
- Axis Y Label - Labels the Y Axis (Vertical) for the chart such as “milliseconds”.
- Area Chart - By selecting this check box the chart will display the area under the line versus simply the line within the chart.
- Numeric Precision - Select the decimal precision for each point.
- Over Time & Interval - By selecting this check box the chart will display the data over the specified time and based on the interval toggled within the adjacent box, i.e. Minute, Hour, Daily, Weekly, and Monthly.
- Over Time Accumulation – Selecting this box will accumulate all of the values as they are represented in the chart versus each value.
- Show Data Table - Selecting this will display data in a table below the chart.
- Stacked - By selecting this check box the chart will stack the values on top of each other.
- Show Labels - By selecting this check box then each value that defines the chart will be labeled on the chart.
- Show Bullets - By selecting this check box then a bullet will be placed on the chart for each value.
- Show Legend - By selecting this check box then the Field Definition for the values being charted will be displayed in the position selected, with the associated color representation.
- Placement – Drop-down box providing options on where to place the legend on the chart.
- Show Alert Line - This allows a value to be set to show a threshold or “Alert” line on the chart and have it represented in a different color.
- Empty Group Text - enter text to show if the group name is empty (instead of “EmptyGroup”).



Settings

The screenshot shows a 'Settings' panel for a chart, divided into two main sections. The left section contains settings for the chart's appearance and data handling, while the right section focuses on 'Overtime Accumulation' features.

Left Section:

- Color Palette:** A dropdown menu set to 'Alert Severity Map' with a color palette grid below it. A blue edit icon is to the right.
- Description:** A text input field with a blue icon to the right.
- Axis X Label:** A text input field.
- Axis Y Label:** A text input field.
- Area Chart:** A checkbox that is currently unchecked.
- Numeric Precision:** A text input field containing the value '2'.
- Over Time & Interval:** A checkbox that is unchecked, followed by a dropdown menu set to 'Hourly' and another dropdown menu set to 'show Local time'.

Right Section (Overtime Accumulation):

- Overtime Accumulation:** A checkbox that is unchecked.
- Show Data Table:** A checkbox that is unchecked.
- Stacked:** A checkbox that is unchecked.
- Show Labels:** A checkbox that is unchecked.
- Contrast Label:** A checked checkbox.
- Show Bullets:** A checked checkbox with an information icon.
- Show Legend:** A checked checkbox with a 'Placement' dropdown menu set to 'bottom'.
- Show Alert Line:** A checkbox that is unchecked, followed by a 'Value' input field containing '0', a 'Color' dropdown menu showing a red color swatch, and a 'Text' input field containing 'Alert'.
- Default Text:** A text input field.

5.2.2. Column / Bar Chart

When clicking on the Column/Bar Chart, the **Settings** options below are adjusted to that particular selection. You have the following choices:

- Color Palette - This defines the colors to associate with data values, the columns/bars plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. ([Color Palette Changes](#))
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Axis X Label - Labels the X Axis (Horizontal) for the chart, such as "Date".
- Axis Y Label - Labels the Y Axis (Vertical) for the chart, such as "milliseconds".
- Horizontal Chart - By selecting this check box, the chart will display the columns/bars horizontally across the chart.
- Numeric Precision - Select the decimal precision for each point.
- Scrollbar – Number of Columns – Input the number of columns (vertical or horizontal) that you want to represent on the chart. A scrollbar will appear that will allow you to scroll through the remainder of the data while only representing the number of columns selected.
- Over Time & Interval - By selecting this check box the chart will display the data over the specified time based on the interval toggled within the adjacent box, i.e. Minute, Hour, Daily, Weekly and Monthly.


- Over Time Accumulation – Selecting this box will accumulate all of the values as they are represented in the chart versus each value.
- Show Data Table - Selecting this will display data in a table below the chart.
- Group Columns on Dimension – Selecting this will allow you to group the metrics on the dimensions being analyzed in the chart.
- Stack Type – By selecting this box the chart will stack the values based on the type selected: Stack, StackPercentage or Drilldown.
- Drilldown Overtime – Axis X Type: Select the X Axis drilldown for an overtime chart based on the “Category” or the “DateTime”.
- 3D - By selecting this check box the columns/bars will be displayed in a 3D representation.
- Show Labels - By selecting this check box, each value that defines the chart will be labeled on the chart.
- Contrast Label – Select this to provide better contrast on the font. Usually utilized with dark mode in the browser.
- Show Legend - By selecting this check box, the Field Definition for the values being charted will be displayed in the selected position on the chart with the associated color representation.
- Placement – Drop-down box providing options on where to place the legend on the chart.
- Show Alert Line – This allows a value to be set to show a threshold or “Alert” line on the chart and have it represented in a different color.
- Empty Group Text - enter text to show if the group name is empty (instead of “EmptyGroup”).



Settings

Color Palette

Alert Severity Map ✎



Description 📄

Axis X Label

Axis Y Label

Horizontal Chart

Numeric Precision

2

Scrollbar - Number Of Columns i

0

Over Time & Interval

Hourly ▼

show Local time ▼

Overtime Accumulation

Show Data Table

Group Columns On Dimension i

Stack Type

None ▼

Drilldown Overtime - Axis X Type

Category ▼

3D

Show Labels

Contrast Label

Show Legend

Placement ▼

bottom

Show Alert Line

Value

Color

Text

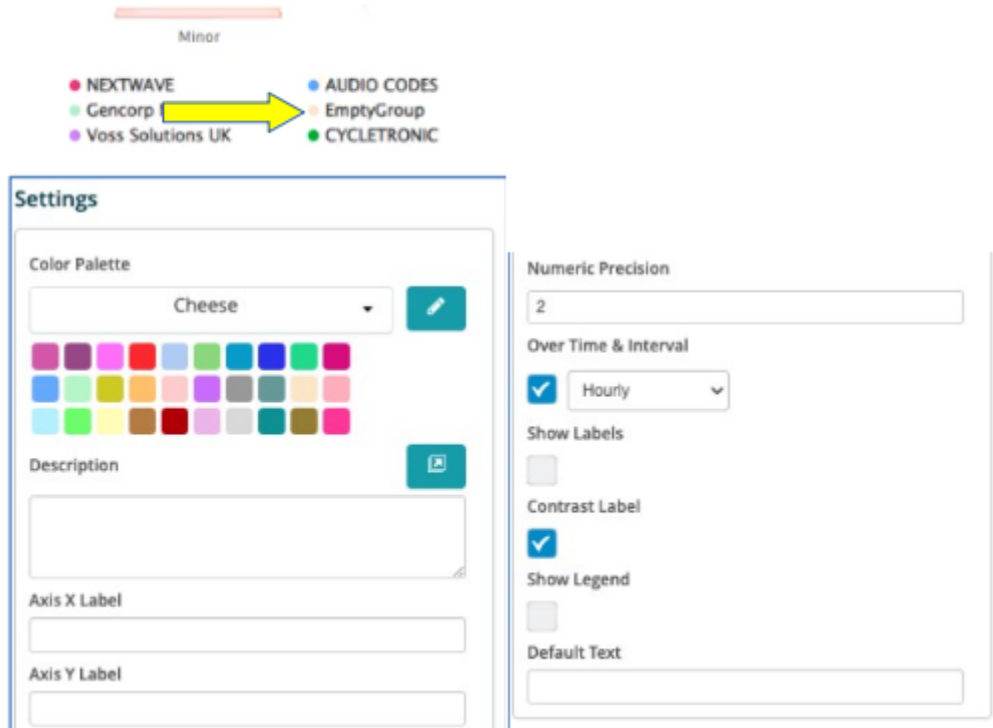
Default Text

5.2.3. Scatter Chart

When clicking on the Scatter Chart the **Settings** options below are adjusted to that particular selection. You have the following choices:

- Color Palette - This defines the colors to associate with data values, the scatter plots plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. (*Color Palette Changes*)
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Axis X Label - Labels the X Axis (Horizontal) for the chart, such as “Date”.
- Axis Y Label - Labels the Y Axis (Vertical) for the chart, such as “milliseconds”.
- Numeric Precision - Select the decimal precision for each point.
- Over Time & Interval - By selecting this check box the chart will display the data over the specified time and based on the interval toggled within the adjacent box, i.e. Minute, Hour, Daily, Weekly and Monthly.

- Show Labels - By selecting this check box then each value that defines the chart will be labeled on the chart.
- Contrast Label - Select this to provide better contrast on the font. Usually utilized with dark mode in the browser.
- Show Legend - By selecting this check box then the Field Definition for the values being charted will be displayed in the selected position on the chart with the associated color representation.
- Empty Group Text - enter text to show if the group name is empty (instead of “EmptyGroup”).



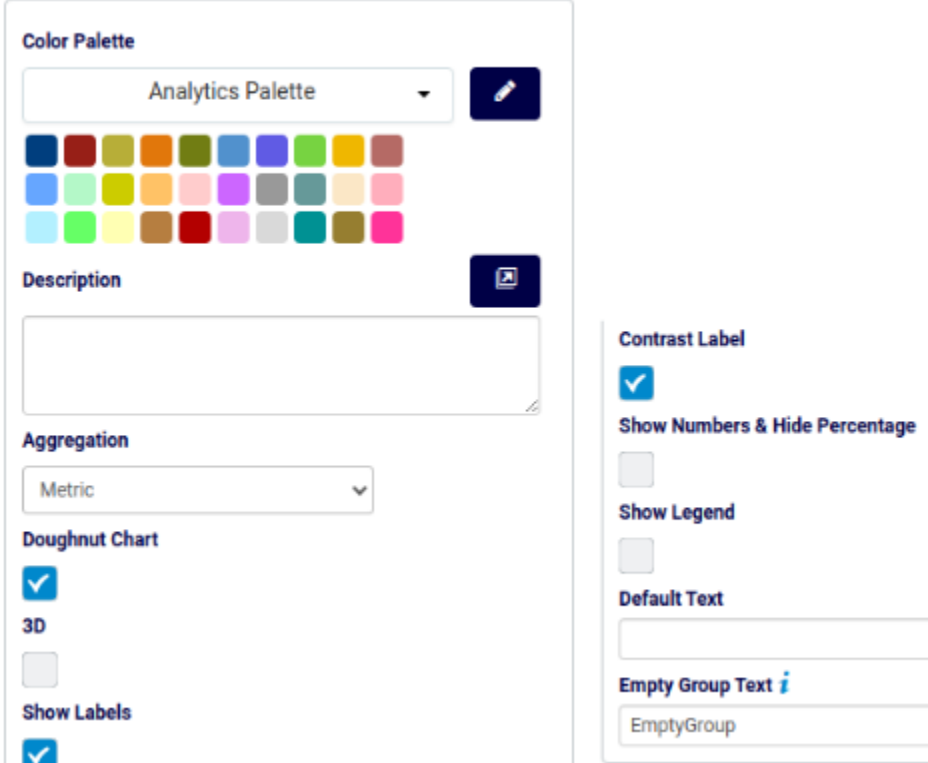
5.2.4. Pie / Doughnut Chart

When clicking on the Pie / Doughnut Chart the **Settings** options below are adjusted to that particular selection. You have the following choices:

- Color Palette - This defines the colors to associate with data values and the Pie/Doughnut plots plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. (*Color Palette Changes*)
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Doughnut Chart - By selecting this check box the chart will turn into a Doughnut chart with the values plotted around an empty space in the middle versus wedges of a Pie.
- 3D - Show the chart in 3-D.
- Show Labels - By selecting this check box then each value that defines the chart will be labeled on the chart.
- Contrast Label - Select this to provide better contrast on the font. Usually utilized with dark mode in the browser.

- Show Numbers & Hide Percentage - Allows the values / numbers to be shown on the chart versus the percentages.
- Show Legend - By selecting this check box then the Field Definition for the values being charted will be displayed in the selected position on the chart with the associated color representation.
- Empty Group Text - enter text to show if the group name is empty (instead of “EmptyGroup”).

Settings

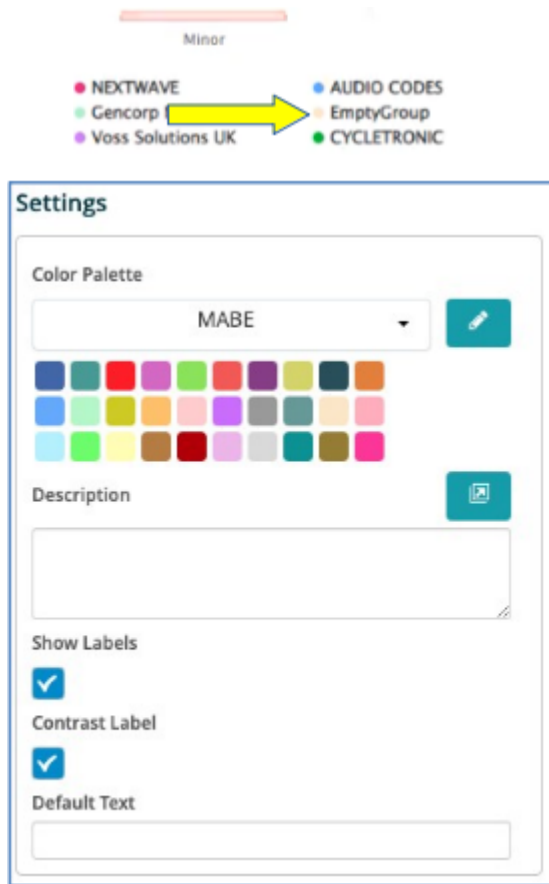


The screenshot shows a settings interface for a chart. On the left, there are several sections: 'Color Palette' with a dropdown set to 'Analytics Palette' and a color grid; 'Description' with a text input field; 'Aggregation' with a dropdown set to 'Metric'; 'Doughnut Chart' with a checked checkbox; '3D' with an unchecked checkbox; and 'Show Labels' with a checked checkbox. On the right, there are more settings: 'Contrast Label' with a checked checkbox; 'Show Numbers & Hide Percentage' with an unchecked checkbox; 'Show Legend' with an unchecked checkbox; 'Default Text' with an empty text input; and 'Empty Group Text' with a text input containing 'EmptyGroup'.

5.2.5. Funnel Chart

When clicking on the Funnel Chart the **Settings** options below are adjusted to that particular selection. You have the following options:

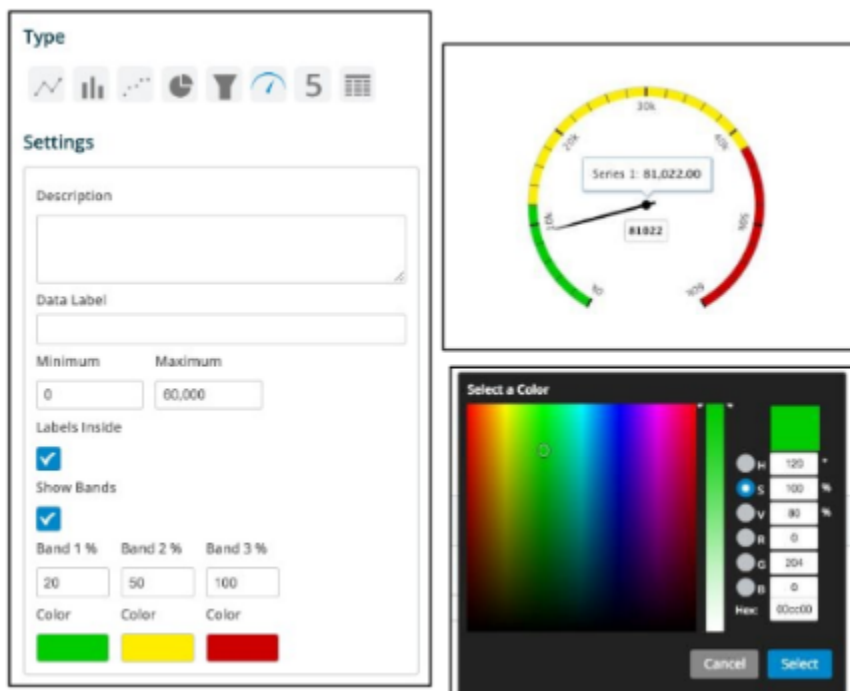
- Color Palette - This defines the colors to associate with data values and the funnel plots plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. ([Color Palette Changes](#))
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Show Labels - By selecting this check box then each value that defines the chart will be labeled on the chart.
- Contrast Label - Select this to provide better contrast on the font. Usually utilized with dark mode in the browser.
- Empty Group Text - enter text to show if the group name is empty (instead of “EmptyGroup”).



5.2.6. Gauge Chart

When clicking on the Gauge Chart the **Settings** options below are adjusted to that particular selection. You have the following choices:

- **Description** - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- **Data Label** - Labels the middle of the gauge with value from field extraction.
- **Minimum and Maximum** - Place the starting value (Minimum) and the ending value (Maximum) for the gauge needle to traverse, i.e. Start at 0 and End at 60,000
- **Labels Inside** - By selecting this check box the value will be labeled with the definition based on the field extraction.
- **Show Bands** - By selecting this check box then the gauge will have a maximum of 3 colored bands indicating certain severity levels. These are user defined thus a good, minor and major severity can be easily defined based on the data elements extracted. Simply place values for each color in the associated box to represent the percentage of the gauge band that color is to occupy. Tip: Make your major issue (Red) 100 thus simply modifying the good and minor automatically recalculates the major.
- **Modify each color band** by simply clicking on the color swatch. A color box pops up where you can select the hue or enter specific values to change the color.



5.2.7. Card Chart

When clicking on the Card Chart the **Settings** options below are adjusted to that particular selection. This chart option creates a card for each value to analyze. You have the following choices:

- Colour Palette - This defines the colors to associate with data values, and the Card plots, plus you to save that palette for use with additional widgets. See the options on how to define the palette below. ([Color Palette Changes](#))
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Hide Fields - Allows you to hide fields that you may not want to show on a graph. The field choice starts at 1 from left to right. Enter the number or numbers of fields you want to hide. Separate each by a comma.
- Colour Palette Option - This allows you to select a specific color for either the **Text** or the **Background** on the Card Chart.
- Card Type - This allows you to select the type of data to show on a Card. There will be additional options that open up based on the value selected here. The types are Data Card, MM Data Card (Multiple Metrics and Dimensions displayed on the Card), Trending Card (Provides a Direction or Color change to indicate the positive or negative trend for the data), Accumulated Trending Card (same as trending but based on the accumulated values versus the individual values).
- Layout Vertically - By clicking in the check box this will orient all the cards in a vertical fashion in the widget.
- Label Prefix - This allows a description of the element on each card to be placed before the value.
- Label Suffix - This allows a description of the value on each card to be placed after the value.
- Font Size - Select the font size for the Label Prefix/Suffix and the data element.
- Font Weight - Select the font weight, i.e. normal or bold.

- Format As Decimal - Check this box to add the decimal point to the value on the card.
- Display Text Only - Select this value to only show the text on the card.
- Empty Group Text - enter text to show if the group name is empty (instead of “EmptyGroup”).

The image shows a 'Settings' panel for a chart type. At the top, there is a 'Minor' label with a red bar. Below it, a color palette is shown with a yellow arrow pointing to the 'EmptyGroup' color (orange). The color palette includes: NEXTWAVE (red), Gencorp (green), Voss Solutions UK (purple), AUDIO CODES (blue), EmptyGroup (orange), and CYCLETRONIC (green).

The 'Settings' panel is divided into two main sections:

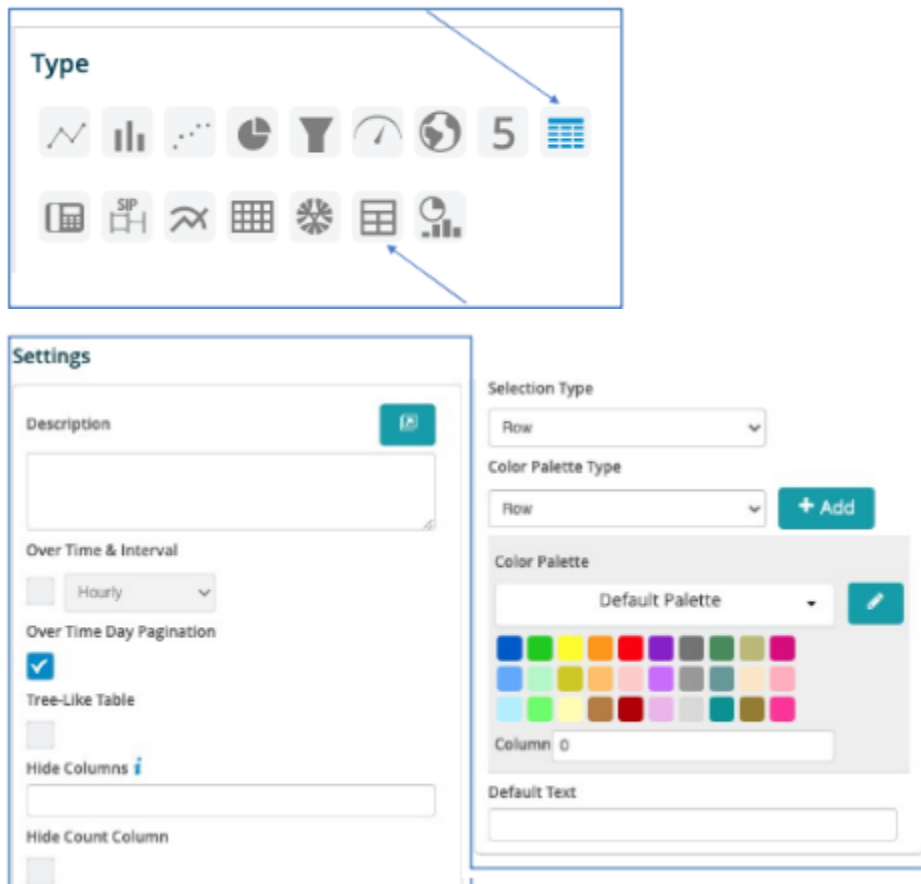
- Left Section:**
 - Color Palette:** A dropdown menu set to 'Aj Codes' with a pencil icon.
 - Description:** A text input field with an image icon.
 - Hide Fields:** A text input field.
 - Color Palette Option:** Radio buttons for 'Text' and 'Background' (selected). A 'Font Color' selector is below.
 - Card Type:** A dropdown menu set to 'Data Card'.
 - Layout Vertically:** A label at the bottom.
- Right Section:**
 - Layout Vertically:** A label at the top.
 - Display one dimension or one metric data:** A blue bar with a white checkmark.
 - Label Prefix:** A text input field.
 - Label Suffix:** A text input field.
 - Font Size:** A dropdown menu set to '44'.
 - Font Weight:** A dropdown menu set to 'normal'.
 - Format As Decimal:** An unchecked checkbox.
 - Display Text Only:** An unchecked checkbox.
 - Default Text:** A text input field.
 - Empty Group Text:** A text input field containing 'EmptyGroup'.

5.2.8. Table Charts

There are two table choices within the platform. When clicking on the Table Chart the **Settings** options below are adjusted to that particular selection.

Table 1

Table 1 (Icon is indicated by the top row arrow).



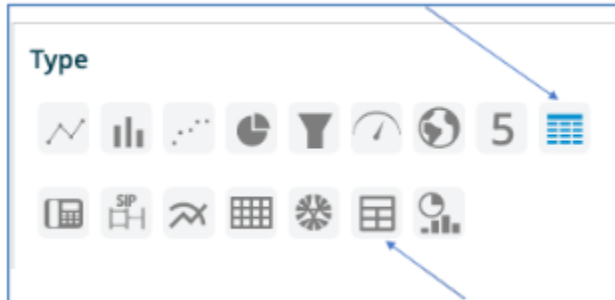
You have the following choices:

- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Over Time & Interval - By selecting this box the chart will display the data over the specified time and based on the interval toggled within the adjacent box, i.e. Minute, Hour, Daily, Weekly and Monthly.
- Over Time Day Pagination - By selecting this box the table can be viewed page by page over the time interval.
- Tree-Like Table - If this box is selected then each row in the table will have an arrow indicator that allows a parent / child relationship within the row. Clicking the arrow opens up the children below. Clicking again displays only the top / parent level.
- Hide Columns - Allows you to hide columns that you may not want to show on the table. The column choice starts at 1 from left to right. Enter the number or numbers of columns you want to hide. Separate each by a comma.
- Hide Count Column - There is a default "Count" column added to the end of the table. Selecting this field will hide that column.
- Selection Type - Select Row or Cell. Cell will underline the field (similar to a URL) that is being used in the drill down selected at the bottom. Row is just a standard view.

- Color Palette Type - Select Row or Cell. This allows a custom color (based on values, regex, ranges or comparisons) to be applied to either the cell or the row.
- Color Palette Option - This allows you to select the specific color to apply, based on the selection above. The color palette is applied based on the calculation set up and applied to the column selected next to that field. (Starts with column 1).

Table 2

Table 2: Icon is indicated by the bottom row arrow).



Settings

Description 🗑️

Over Time & Interval
 Hourly

Over Time Day Pagination

Hide Count Column

Column Width Adjustment
Default

Show Metric Summary

Vertical Header

Table Field Renderer ⚙️

Table Tree Renderer ⚙️

Selection Type
Row

Color Palette Type
Row

Default Text

Overwrite dashboard date range

ASSET NAME	HOST NAME	IP ADDRESS	RULE NAME
Table Renderers			
ASSET NAME Text	Renderer Type Default		
HOST NAME Text	Options Prefix		
IP ADDRESS Text	Align		
RULE NAME Text	Hide Column <input type="checkbox"/>		
Occurrences (Count) Text	+		

You have the following choices:

- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.

- Over Time & Interval - By selecting this box the chart will display the data over the specified time and based on the interval toggled within the adjacent box, i.e. Minute, Hour, Daily, Weekly and Monthly.
- Over Time Day Pagination - By selecting this box the table can be viewed page by page over the time interval.
- Tree-Like Table - If this box is selected then each row in the table will an arrow indicator that allows a parent / child relationship within the row. Clicking the arrow opens up the children below. Clicking again displays only the top / parent level.
- Hide Count Column - There is a default “Count” column added to the end of the table. Selecting this field will hide that column.
- Column Width Adjustment - Column widths can fit contents or can be customized.
- Show Metric Summary - Add a summary row to the bottom of the table.
- Vertical Header - Selecting this box will place the text within the header of each column in a vertical position.
- Table Renderers - By clicking the **Edit** button here it opens up a box with several options to design how you want to represent the data in the table. Included with this is the color palette as well. The fields are represented on the left-hand side. There are 4 Renderer types to choose from in that drop-down box:
 - Default - Just as it is present in the table
 - Text - Convert the data to text
 - Traffic Light - This is a colored ball that is driven by the values within the palette
 - Tick Cross - A symbol to represent the data type in the row)

The Tree Table Renderer configuration screen allows you to control how data is grouped per tree table.

Data table - customer and site levels

Search				
	product	ownerUserName	Count	
+			9	
-	AAAGlobal		9	
-	AAA-Boston	Cisco 9971	ba_user1	2
-	AAA-NewYork	Cisco 6911	emood11	1
-	AAA-Brisbane	Cisco 9971	nbisample76013	1
-	AAA-Brooklyn	Cisco Unified Client Services Framework	jsol	1

Displaying 1 - 1000 of 5,062 < first prev next last > 1000

Each selection provides for additional choices that are logically assigned. Additionally, you can choose to put in a custom prefix or suffix for the data. An example is a \$ or a metric such as Gbps.

- Selection Type - Select Row or Cell. Cell will underline the field (similar to a URL) that is being used in the drill down selected at the bottom. Row is just a standard view.
- Color Palette Type - Select Row or Cell. This allows a custom color (based on values, regex, ranges or comparisons) to be applied to either the cell or the row.

Search Box

Table charts also show a search box for displayed fields. Values can be searched for by a range of matching operators, including regex.

Search

Customer	equals	
Site	equals	
Name	equals	
Voicemail Usage	equals	

Reset Search

Voicemail Usage

false

Search operators dropdown:

- equals
- not equal
- starts with
- ends with
- contains
- in
- not in
- regex
- exclude regex

The example below illustrates the results of a combined “ends with” and regex *SEP[0A]* (contains *SEP* followed by either *0* or *A*):

Search

Customer equals

Orig. Device Location ends with BWG1

Orig. Device Name regex SEP[0A]

Caller Party equals

Orig. IP equals

Orig. Media Transport IP equals

Orig. Cause Evaluation regex

Orig. Called Party equals

Final Called Party equals

Time Connect (UTC)	Orig. Device Location	Orig. Device Name
1:24 ... 01/01/70 12:00:00 ...	Cu226-VOSS-RDG-CL1-BWG1	SEP00E16D15ED77
04 pm 29/04/21 3:01:05 pm	Cu226-VOSS-RDG-CL1-BWG1	SEP00E16D15ED77
08 am 01/02/70 12:00:00 ...	Cu226-VOSS-RDG-CL1-BWG1	SEP0013C429890F
07 pm 01/01/70 12:00:00 ...	Cu226-VOSS-RDG-CL1-BWG1	SEP000427D407DA
25 pm 30/04/21 4:09:34 pm	Cu226-VOSS-RDG-CL1-BWG1	SEP000427D407DA
11 pm 01/01/70 12:00:00 ...	Cu226-VOSS-RDG-CL1-BWG1	SEP000427D407DA
42 pm 30/04/21 4:10:49 pm	Cu226-VOSS-RDG-CL1-BWG1	SEP000427D407DA
00 pm 30/04/21 4:16:12 pm	Cu226-VOSS-RDG-CL1-BWG1	SEPAAAA08441193
40 pm 01/01/70 12:00:00 ...	Cu226-VOSS-RDG-CL1-BWG1	SEPAAAA08441193
29 pm 30/04/21 4:20:36 pm	Cu226-VOSS-RDG-CL1-BWG1	SEPAAAA08441193

regex=SEP[0A]

5.2.9. Call Hop Charts

When clicking on the Call Hop Chart the **Settings** options below are adjusted to that particular selection. This chart option creates a view where all the individual hops of the call are visible along with each hop latency.

- **Color Palette** - The color palette can be utilized to design specific highlight colors based on the amount of latency on each hop. For example: If a hop is over 200ms of latency that value on that hop can be colored red. The color palette is a choice for the user.
- **Description** - A complete description of what this chart and widget represents can be typed in this box. This description will show up when you click the “i” in the top right corner of the widget.
- **Call Displaying Type** - There are two choices. Call Hops utilized for Skype for Business and Call Paths utilized for Avaya RTCP.
- The boxes just under the description are auto created based on the fields dragged out on the “Fields” bar. The numbers can be changed to represent the position that each of these fields show in the Call Hop chart. The last box **Metric Suffix** allows you to enter the metric measurement that the latency is presented in, i.e. ms for milliseconds.

Type

Settings

Color Palette

Optus

Description

Time

1

Caller Column

2

Callee Column

3

Metric Column

6

Hop Column

5

IP Column

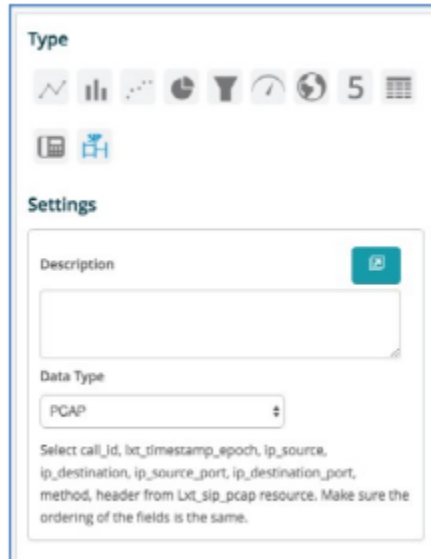
4

Metric Suffix

5.2.10. SIP Signaling Ladder Diagram Charts

This chart is a specialty chart utilized only when you are collecting SIP signaling data from pcap files or from the LX Raptor. Select the specific data type from the drop-down menu under **Data Type**.

A full description of the chart content can be placed in the box under **Description**.



Type

Settings

Description

Data Type
PCAP

Select call_id, lxt_timestamp_epoch, ip_source, ip_destination, ip_source_port, ip_destination_port, method, header from Lxt_sip_pcap resource. Make sure the ordering of the fields is the same.

5.2.11. Multi Chart

When clicking on the Multi Chart the **Settings** options below are adjusted to that particular selection. You have the following choices:

- Color Palette - This defines the colors to associate with data values, the columns/bars plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. (*Color Palette Changes*)
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Combination Chart Type - There are 3 choices to choose from.
 - Single Y-Axis Title - This places the data on a single axis.
 - Multi Y-Axis Titles - The titles and the data are represented across the Y Axis individually
 - Individual Charts - Each data point is graphed across the chart individually.
- Over Time & Interval - By selecting this box the chart will display the data over the specified time and based on the interval toggled within the adjacent box, i.e. Minute, Hour, Daily, Weekly and Monthly.
- Dimensions - This allows the dimension to be displayed with the metric on the chart label if applicable.

5.2.12. Chord Diagram

A chord diagram displays the inter-relationships between data in a matrix. Configure the first field (to) as a dimension, the second field (From) as a dimension and the third field (Weight) as a metric.

When clicking on the Chord Diagram the **Settings** options below are adjusted to that particular selection. You have the following choices:

- Color Palette - This defines the colors to associate with data values, the columns/bars plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. (*Color Palette Changes*)
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Contrast Label - Select this to provide better contrast on the font. Usually utilized with dark mode in the browser.
- Label Font Size - Input the font size.
- Chord Diagram Type - The two choices are Sankey, which shows the relationship horizontally or Dependency Wheel, which connects the relationship in a wheel design.

5.2.13. Combo Chart

A combo chart allows you to combine multiple metrics with a dimension to be displayed on the chart.

When clicking on the Combo Chart the **Settings** options below are adjusted to that particular selection. You have the following choices:

- Color Palette - This defines the colors to associate with data values, the columns/bars plus allows you to save that palette for use with additional widgets. See the options on how to define the palette below. (*Color Palette Changes*)
- Description - Allows you to enter a description of the chart to be displayed along the top portion of the chart.
- Over Time & Interval - By selecting this box the chart will display the data over the specified time and based on the interval toggled within the adjacent box, i.e. Minute, Hour, Daily, Weekly and Monthly).
- Show Labels - By selecting this box then each value that defines the chart will be labeled on the chart.
- Show Data Table - Selecting this will display data in a table below the chart.
- Contrast Label - Select this to provide better contrast on the font. Usually utilized with dark mode in the browser.
- Chart Type - The choices are Line, Spline, Column, Bar, Area or Areaspline. Select what works best to represent the data on the chart.

Settings

5.3. Manage Charts

5.3.1. Color Palette Changes

Click the **Edit** button next to the Color Palette name and a box is displayed allowing the color palette to be changed.

Select the color to represent each data elements/values extracted from the log field definitions. Name the choices and click **Save**. Now you can simply select this name in the Color Palette drop-down box. The associated chart will apply the colors based on the selected Color Palette name.

5.3.2. Build Chart in Widget Editor

Chart Title

Once you have finished designing your widget you can give it a title. In the text box below Chart Title, enter the specific name you want to represent the data in the Widget. This name will be at the top of the widget on the dashboard.

Series Limit

Next select the number of data points that need to be reflected in the chart.

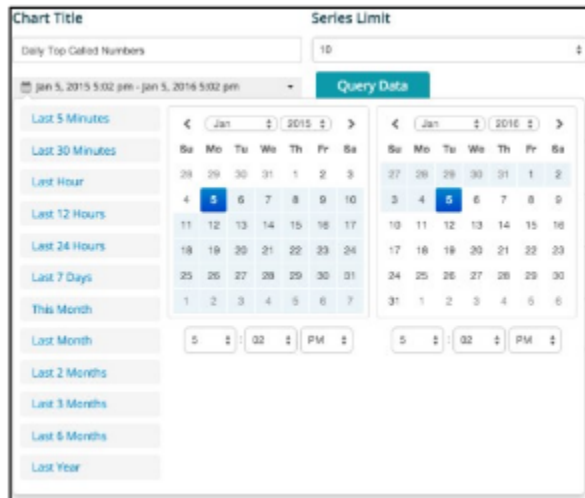
This is an upper limit thus the chart will not reflect more than selected here.

Timeframe

Next select the time frame by clicking on the data box just below the Chart Title.

A box will pop up showing a preset list of time frames.

If desired select one of these, i.e. This Month, otherwise a custom date and time frame can be selected by choosing the day/month/year/time in the left hand **from** calendar and the same in the right hand **to** calendar.



Query Data

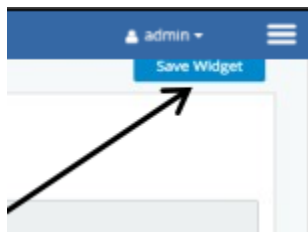
By clicking this button the system will query the data based on your inputs and return a chart to inspect.

The chart will auto update its preview chart upon any field changes.

Save Widget

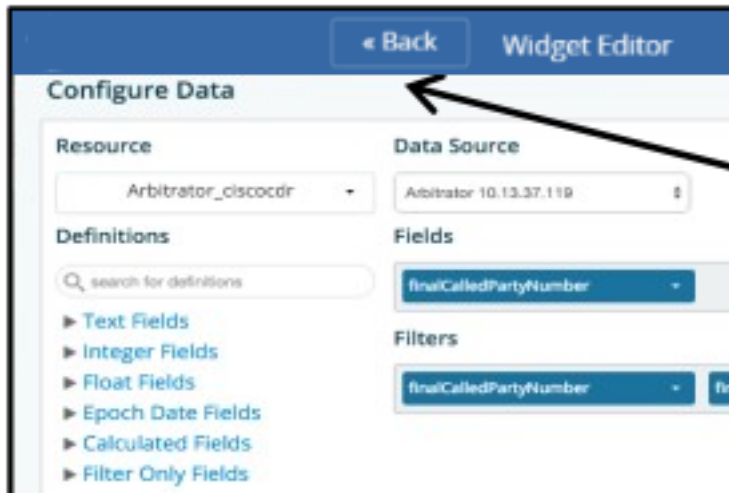
The **Save Widget** button is located in the top-right corner of the screen.

Make sure that you click this button before exiting the widget editor. If you don't click this button, changes will not be saved.



Back

The **Back** button is located in the top-left corner of the screen. Clicking this button returns you to the dashboard associated with that widget.



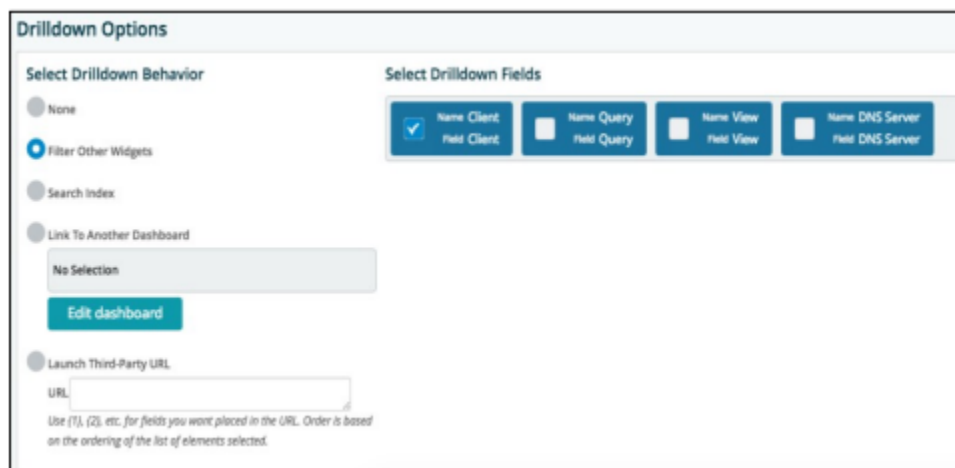
5.3.3. Drilling down into the Data

Drilldown Options

After you have your widgets and data sources defined you will find an option at the bottom of the Widget Editor screen that will allow for drilling into the data elements within your dashboard. This enables rapid viewing of data associated with certain elements and enables consolidated workflow through the data analysis.

If the selected data elements for your widget allow for drilldown then they will automatically appear in the **Select Drilldown Fields** bar.

Check the check box next to the field that you want to utilize as the basis of drilling into the data. An example could be an interface address on a router to see all data associated with that interface. Next select the type of drilldown behavior you want for this widget.



- Selecting **None** disables drilldown functions for this widget.

- Selecting **Filter Other Widgets** causes all of the other widgets on the dashboard to recalculate based on the selected field/data element checked in the bar to the side. This will allow a field such as an IP address in a table to be selected within the widget and all of the other analytic widgets on the dashboard will recalculate to only show the data associated with that IP address.
- Selecting **Search Index** enables the automatic launching of the Index data search screen. Populating it with the exact text selected within the widget and then setting the date range in the search return based on what is defined in the dashboard, pulls up all the logs that match that text string. This is a very rapid way of searching for all logs based on certain analysis observed within a dashboard widget.
- Selecting **Link to Another Dashboard** opens up a tree of all the dashboards defined within the system. Select the dashboard to which you want to link the drilldown function. You can also select to edit this dashboard prior to the linking. This function allows the flexibility of defining dashboard for certain analysis and linking to them from an overview type of dashboard. The example is an overall dashboard of multiple customers with a drilldown to a specific customer dashboard enabled by selecting that customer identifier within the widget.
- Selecting **Launch Third-Party URL** and entering the URL for the selected page to launch in the **URL** text box, will tie that URL to the data fields within the widget on the dashboard. This is a very quick analytic drilldown into more detail about certain elements and behaviors within the dashboard. An example is to tie a Malware definition website to malware behaviors observed from firewall log data.

6. Administration

6.1. Import/Export Wizard

The Import/Export Wizard allows you to save dashboard templates and to move them between systems.

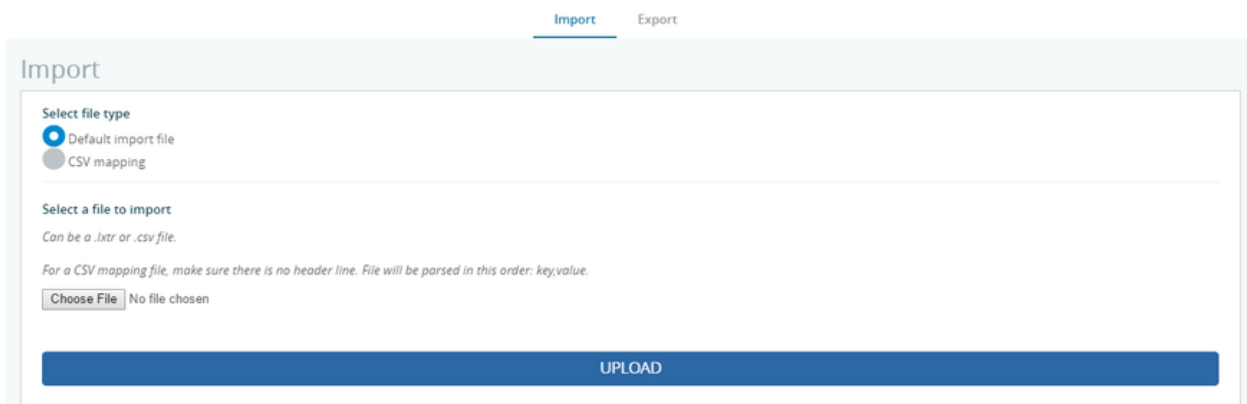
To open the Import/Export Wizard, click the **admin** menu then select **Import/Export Wizard**.

The Import / Export Wizard page contains the following tabs:

- Import
- Export

6.1.1. Import Tab

This tab allows you to select a saved template and to import it into your system. The saved files are in a proprietary format (.lxt.r).



The screenshot shows the 'Import' tab of the wizard. At the top, there are two tabs: 'Import' (active) and 'Export'. Below the tabs, the 'Import' section is titled 'Import'. It contains a 'Select file type' section with two radio buttons: 'Default import file' (selected) and 'CSV mapping'. Below this is a 'Select a file to import' section with a text input field. A note below the input field states: 'Can be a .lxt.r or .csv file. For a CSV mapping file, make sure there is no header line. File will be parsed in this order: key,value.' Below the input field is a 'Choose File' button and the text 'No file chosen'. At the bottom of the form is a large blue 'UPLOAD' button.

With a **CSV Mapping** import, options are available to create, overwrite, or append the new mappings.

Click **Choose File**, select the required file and click **Upload**. The dashboard template will be imported into the system where you can modify, customize and arrange it as needed.

If the dashboard you're importing contains widgets using field groupings, the field groupings are also imported.

6.1.2. Export Tab

This tab allows you to select a dashboard template on your system and to export it to another system.

Click **Export** to open a window showing all of your dashboards as well as a 'drop zone'.

On **Export** dashboards tab:


1. Click the triangle button(s) to display and expand the dashboard tree.
2. Select the folder or dashboard checkbox(s).
3. Click the **Export .ixtr** button when complete.

The `.ixtr` file will be saved to your local computer.

The export retains any field groupings created on the dashboard. See [Edit Field Groupings](#).

6.2. Manage Dashboards

6.2.1. Overview

When logging in, users can view available dashboards via the Main Menu icon .

Admin users can manage the tree and the list of dashboards via the **Admin** menu. To access the **Manage Dashboards** page, select **Admin > Manage Dashboards**

Note: You cannot edit, move, or delete the standard, default, read-only VOSS reference dashboards that ship with the system. You can only clone these dashboards to create new custom dashboards.

You can select the following tabs on this page:

- Management
- Data Source
- Arrangement
- Dashboard Synchronization
- Report Synchronization

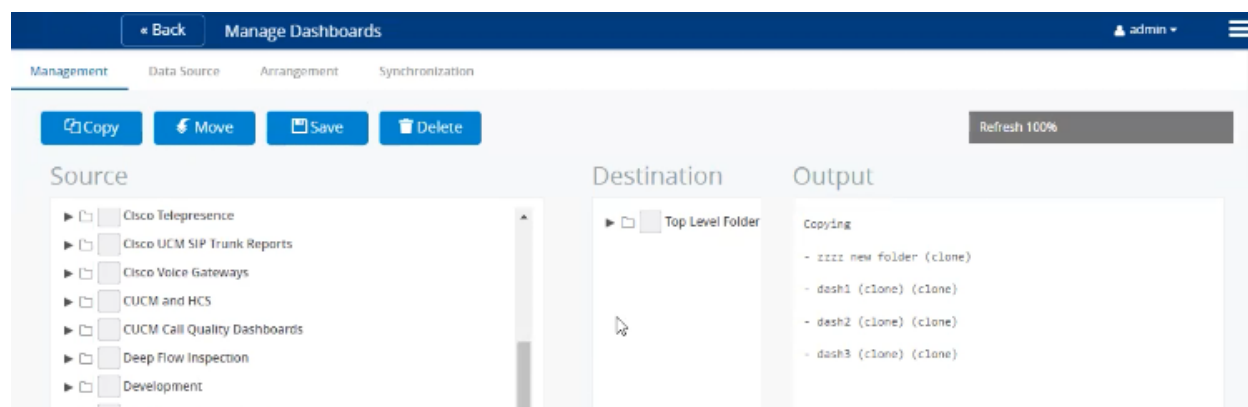
6.2.2. Management Tab

This tab provides the following dashboard management options:

- **Source:** a tree of all the dashboards defined in the system along with all the user accounts defined in the system. This column shows available dashboard screens.
- **Destination:** the top level and sub folders the dashboards will be copied or moved to.
- **Output:** shows the output of the command used, for example, if **Copy** was used, the heading Copying will be shown, followed by the list of copied items.

Select items from **Source** and use **Copy**, **Move** or **Delete** to carry out tasks on the selection. When copying, duplicate dashboards will be cloned: the text “(clone)” will be appended to the dashboard name.

Click **Save** to save the dashboards after you’ve made any changes.



6.2.3. Data Source Tab

This tab provides the following dashboard management options:

- Drop-downs: **Data source types**, **Data sources**
- Columns:
 - **Dashboard:** select elements from the tree to carry out the bulk update of data sources.
 - **Widget:** displays the current data sources of the selection
 - **Changes:** according to the selected values in the **Data source types**, **Data sources**, shows updates to be made to the data sources of the selected elements.

Click **Save** to save the dashboards after you’ve made any changes.

6.2.4. Arrangement Tab

This tab provides the following dashboard management options:

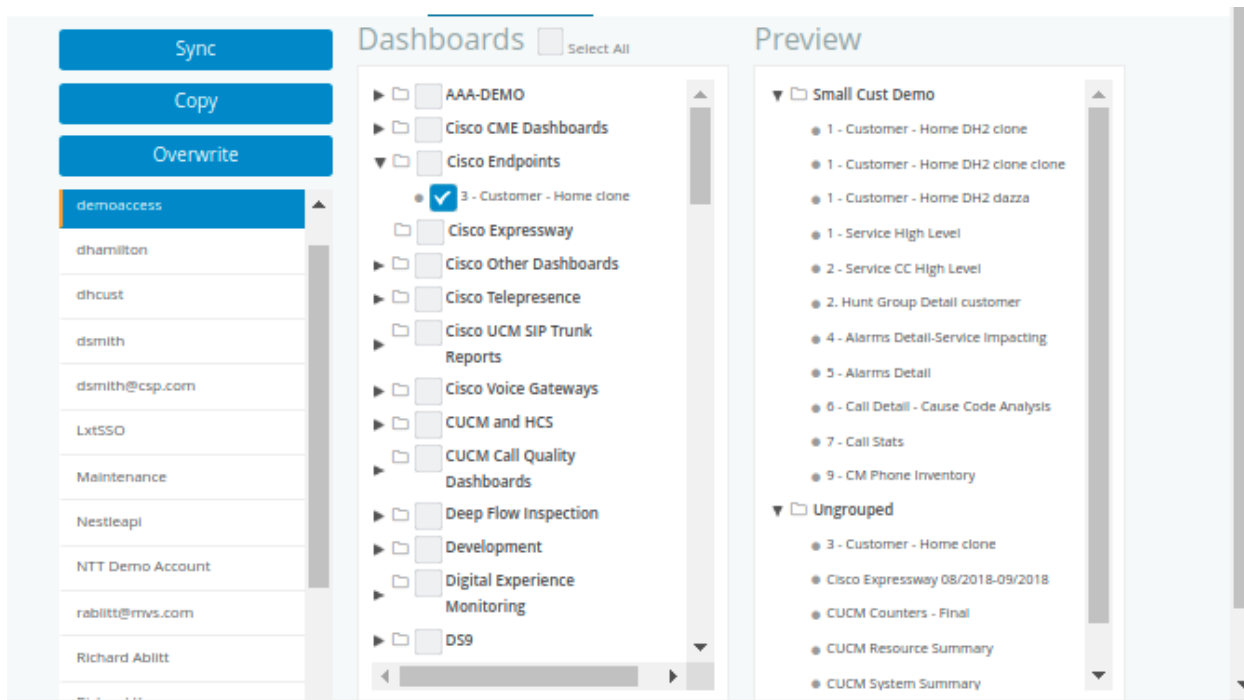
- **Source:** a tree of all the dashboards defined in the system along with all the user accounts defined in the system. This column shows available dashboard screens.
To arrange, select dashboard folder. It will then show up in the **List** column.
- **List:** this column will allow you to arrange the order of items, using drag-and-drop.
- **Changes:** shows the output of the arrangement.

Click **Save** to save the arrangement.

6.2.5. Dashboard Synchronization Tab

This tab provides the following dashboard management options:

- Actions: **Sync**, **Copy** and **Overwrite**
- Columns:
 - Choose the relevant user to which you want to sync selected dashboards
 - **Dashboards:** user associated dashboards are selected. Select or un-select manually.
 - **Preview:** output of selection



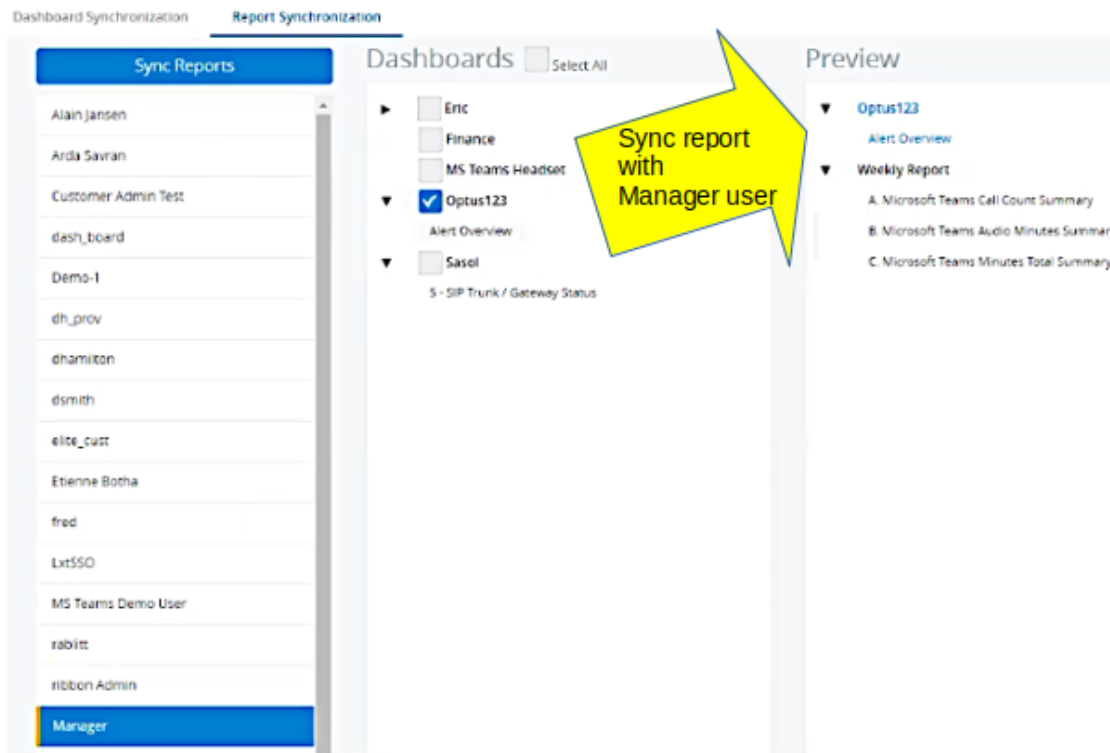
6.2.6. Report Synchronization Tab

This tab allows you to sync reports (via the **Sync Reports** button), and to view available reports that can be synced (via the **Dashboards** column).

Logged in users can create and share reports with other users.

Target users won't need to recreate synced scheduled reports, and they will be able to delete synced reports, if necessary.

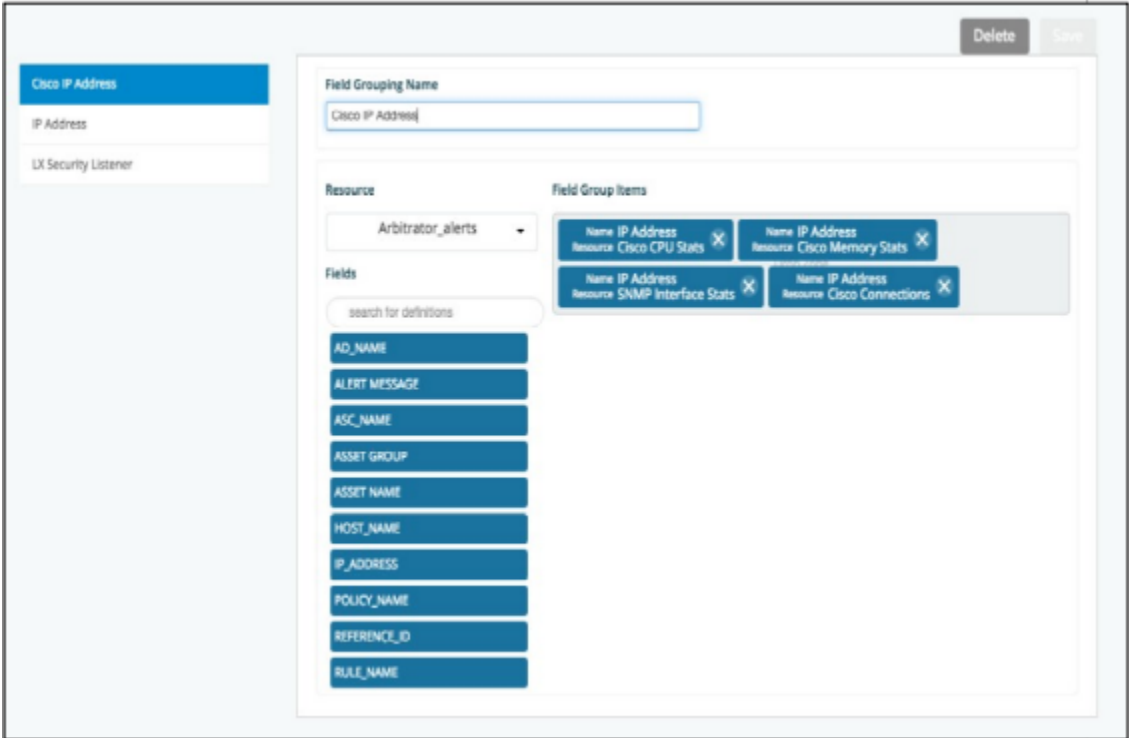
The **Preview** column displays the target user's reports and any synced reports.



6.3. Edit Field Groupings

Click the **Admin** drop-down menu and select the **Edit Field Groupings** option. This function will pull up another window where you will be able to define and label similar groups of data that will provide for common analysis and drill down functions on a single dashboard.

An example is the device IP address from three different data resources such as SNMP Query Stats, API Calls and Log Data. This will allow all of the drilldown functions defined in a widget to recalculate the data associated with these multiple data sources on a single dashboard.

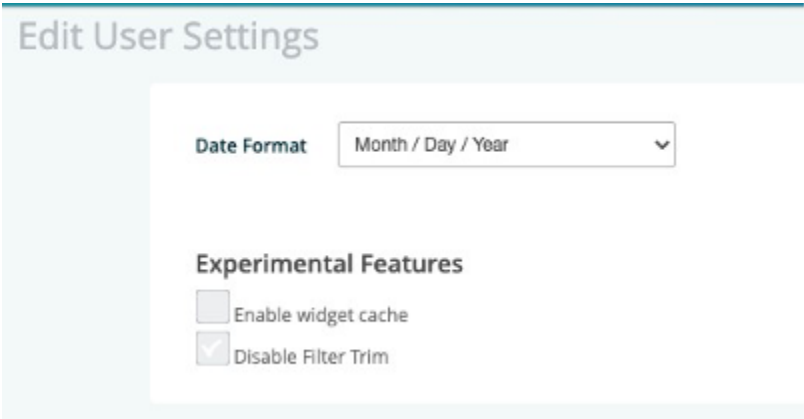


6.4. User Settings

Click the Admin drop-down menu and select the User Settings option. This function is primarily intended for international date representations on dashboard and reporting output. Other user specific settings will be added to this section in the future.

Date Format:

Experimental Settings are also available under **User Settings**.



6.5. Manage Forwarders

Forwarders are individual Windows applications that load on Windows based servers to allow for the definition, monitoring and extraction of data from the server, the Windows Operating System and the resident applications.

This section provides for a centralized method of acquiring status and changing configuration profiles on each Forwarder deployed. The Forwarder is scheduled to check into this dashboard host on a regular interval. If there is a new profile loaded, then it will update itself automatically.

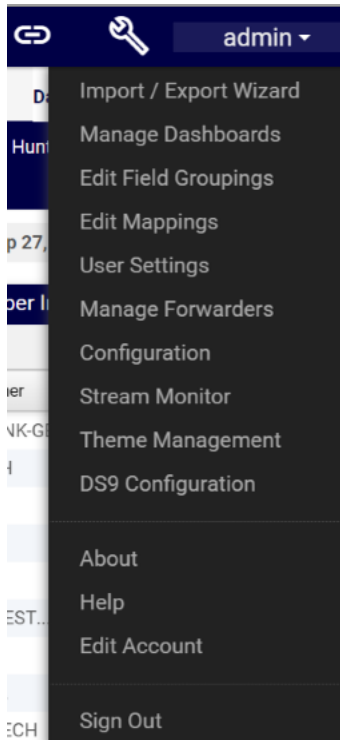
Computer	IP Address	Site	Entity	Operating System	Profile	Status
demo-forwarder	92.194.162.60	Azure	Coast	Windows Server 2012 R2 Datacenter		OK
demo-forwarder	92.194.162.60	Azure	Albata	Windows Server 2012 R2 Datacenter		OK
Winon2008	98.221.13.304	Ohe	Polo	Windows Server 2008 R2 Enterprise		OK
demo-forwarder	92.232.246.149	Azda_Site_Test	Azda_Entity_Test	Windows Server 2012 R2 Datacenter		OK
DMG015 FE	23.101.187.17	Azure_Site	Azure_Entity	Windows Server 2012 R2 Datacenter		OK
DESKTOP-IF4BCJD	45.42.188.69	Gatneau	Thi_h_u_test	Windows 10 Enterprise 2016 LTSC		OK
demo-forwarder	92.194.162.60	Virtual	Azure_Forwarder	Windows Server 2012 R2 Datacenter		OK
demo-forwarder	92.194.162.60	Azure	Sky	Windows Server 2012 R2 Datacenter		OK

6.6. Configuration

6.6.1. Overview

The Insights Dashboard **Configuration Settings** page provides several options to configure and administer functions of the Dashboard application.

Note: To access the **Configuration Settings** page, click the profile menu, then select **Configuration**.

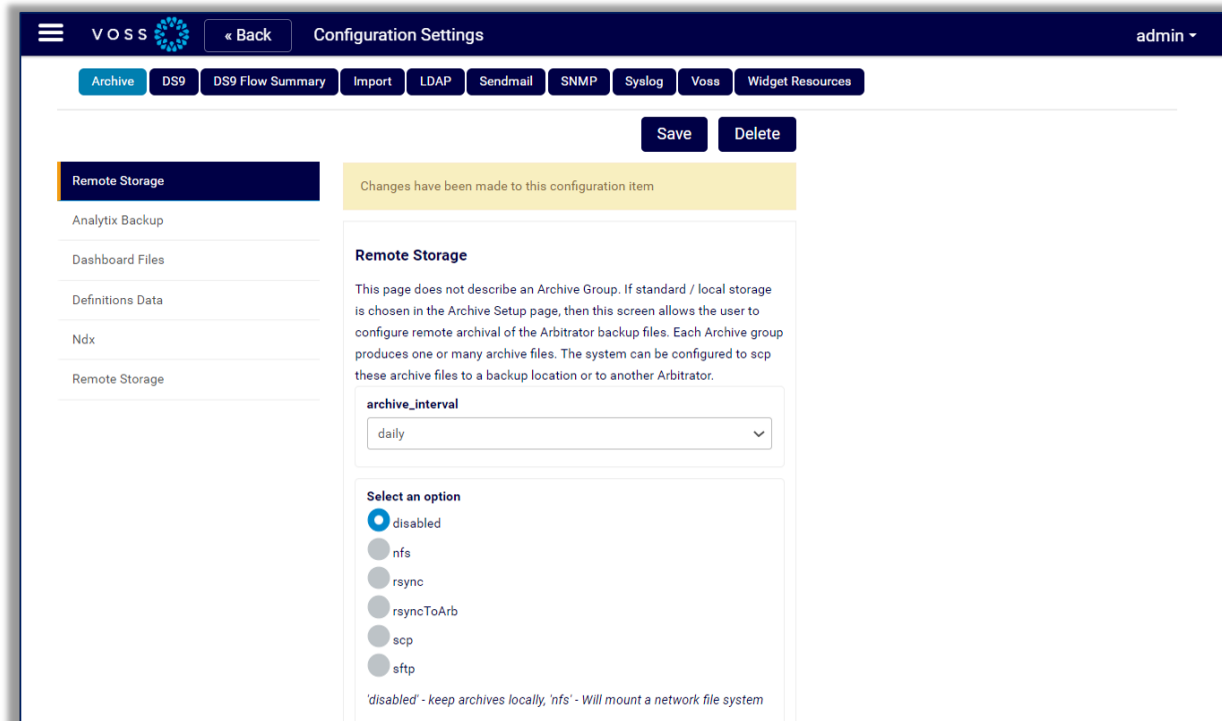


You can select the following tabs on this page:

- [Archive](#)
- [DS9](#)
- [DS9 Flow Summary](#)
- [Import](#)
- [LDAP](#)
- [Sendmail](#)
- [SNMP](#)
- [Syslog](#)
- [VOSS](#)
- [Widget Resources](#)

6.6.2. Archive

The **Archive** tab configures archiving (backup) settings for the Insights Dashboard application.



You can select the following tabs on this page:

- [Remote Storage](#)
- [Analytix Backup](#)
- [Dashboard Files](#)
- [Definitions Data](#)
- [Ndx](#)
- [Remote Storage](#)

Remote Storage

This tab configures backup settings, including storage type (standard or nfs), remote location (for nfs), and allows you to view the list of archive files and non-SCP'd files.

You can choose to mount an NFS drive to the system. All archived files will then be archived to the NFS mounted drive.

Note: Removing the NFS mount will *not* copy the NFS contents back to local storage.

Only NFS v3 mounts are currently supported.

The system does a backup daily. For the most part, there is nothing for the user to configure. All data and configuration that exists on the system are archived automatically on a daily basis. Archived data are logically grouped together and by default stored into separate archived files locally on the server.

Analytix Backup

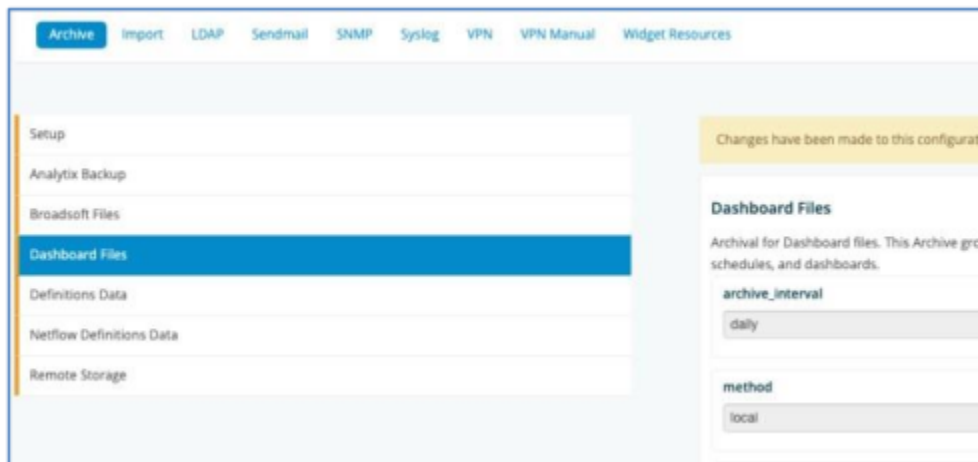
This tab displays the Dashboard backup settings. The settings are read-only, for informational purposes only.

This Archive group contains the Dashboard configuration settings (assets, licensing), user permissions settings (LDAP), and NDX files.

The backup excludes data from the specific Broadsoft data store, along with definition data and files. Broadsoft definitions and definition files each have their own separate Archive group.

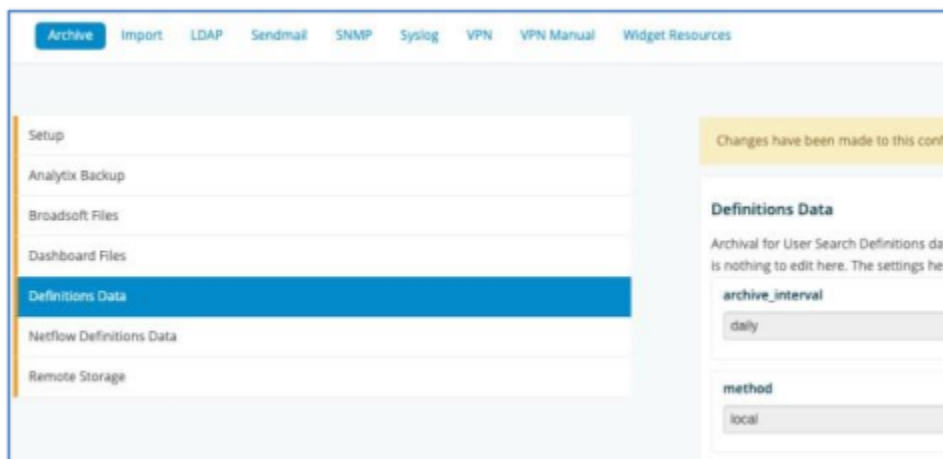
Dashboard Files

Read-only, Dashboard files archive group settings. This archive group will archive all Dashboard settings. This includes all user created definition files, mappings, color palettes, user configs, schedules, and dashboards.



Definitions Data

Read-only, Dashboard definitions archive group settings. This archive group backs up all User Search Definitions data in the database tables. This is the data that drives the widgets.



Ndx

This archive group manages Ndx files. The default for **monthsKept** is 6 months.

Ndx

This screen can be used to manage Ndx files on the system.

max_ndx_file_size

1
▼

The maximum size the ndx searchable file should be. Once the max size is hit, the ndx server will create a new ndx file.

max_searchable_days

1
▼

The maximum number of days that should be searchable. Ndx files greater than this time will still live on the system but will not be searchable from the UI.

monthsKept

6
▼

The maximum number of months to keep ndx archives around. Each archived ndx will take up disk space. Warning, increasing this number too large may require customer to also increase the hard disk size.

Remote Storage

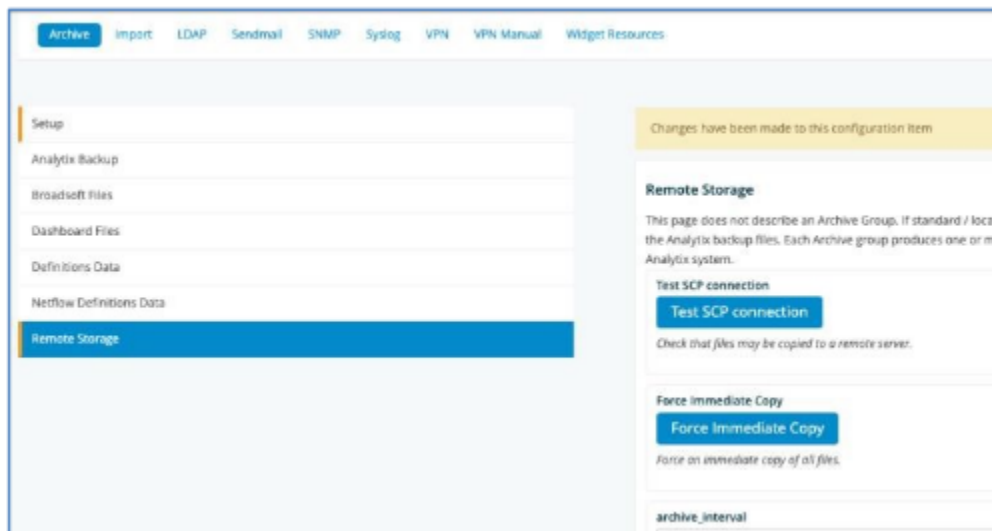
This tab allows you to configure remote archiving of the system backup files, if you've chosen standard / local storage in the setup.

Each archive group produces one or many archive files. The system can be configured to scp these archive files to a backup location or to another VOSS Insights system.

The archives can be sent to a separate backup location (SFTP-server, SCP or remote synced to another Dashboard).

The table describes settings on this tab:

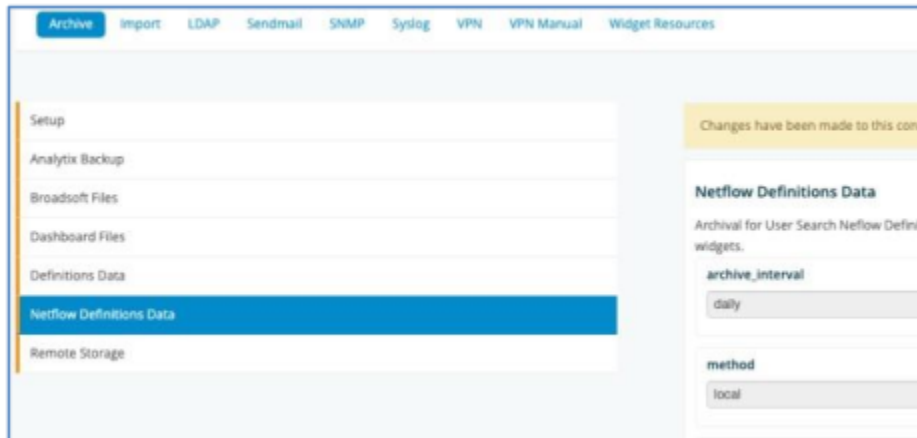
archive_interval	Choose a schedule, either Daily, Weekly, or Monthly.
method	Choose a method. Either of the following: <ul style="list-style-type: none"> • scp: System will copy archives to a remote location. Scp is not a sync. To reduce load on system and network, system only copies new / changing archives over to the scp location. • sftp: System will copy archives to a remote location. Sftp is not a sync. To reduce load on system and network, system only copies new / changing archives over to the sftp location. • rsync: System will sync the archive directory to remote system. The remote system must have rsync installed for this to work. • rsyncToAnalytix: System will sync the archives directory to a remote Dashboard. This utilizes the rsync protocol so both Dashboards will always be in sync.
IP location	The IP address. Also add username and password .
destination	The path on the remote server to the folder where backups are to be stored.



6.6.3. DS9

This tab configures settings for DS9.

The NetFlow definitions data archive group backs up all Netflow Definitions data, which is the data that drives the widgets. These are read-only settings, for information purposes only.



Related Topics

- [Backup and Restore the Dashboard](#)

6.6.4. DS9 Flow Summary

This tab displays and configures DS9 NetFlow summary status, options for detection of applications, internal subnets, and NetFlow, and port filtering.

6.6.5. Import

This tab allows you to import data into the system from a .csv file. There are specific instructions on this page that need to be followed on how to format the .csv. This functionality will allow you to manually add data that can be utilized in different contexts within the VOSS Insights platform. An example could be specific costs associated with calling functions.

VOSS Configuration Settings

« Back

Archive DS9 DS9 Flow Summary **Import** LDAP Sendmail SNMP Syslog Voss Widget Resources

Save Delete

Import

Import - Date Range Mapping

Changes have been made to this configuration item

Import

Import Configuration. This configuration is used to import a file to server. Enter tablename to insert data and select a file to be imported then click IMPORT button.

Table

msteamsdevices

Tablename that the CSV file will be written. Note: LayerX will prefix the tablename with "lxtl_" to ensure its uniqueness from internal tables.

delimiter

,

CSV delimiter character.

Import File

Choose File No file chosen

Import- Date Range Mapping

This setting allows you to import in a list of named date ranges (for example: Fiscal Quarters that may not align to standard calendar quarters, etc.).

If a date range mapping is imported, the Dashboard GUI allows you to change the Dashboard calendar by the imported date range name. Multiple named date ranges may be provided. Only dates are currently supported. The times for the entire day will be used (midnight to midnight).

Select a file to be imported then click **IMPORT**.

CSV format requirements described on this page must be followed:

CSV file to import. The CSV should adhere to the CSV RFC <https://www.ietf.org/rfc/rfc4180.txt>.
 Additionally, there are two more requirements. First, the first line of the CSV must contain the desired names **for** each CSV placement. Secondly, the second line of the CSV must contain the desired

(continues on next page)

(continued from previous page)

types **for** each CSV placement. Use `'integer'`, `'float'`, or `'string'`. The normal
 ↳ CSV data can then start
 on lines **3 and** above. Inherently a CSV file does **not** describe the names or
 ↳ types of each CSV placement.
 This **is** required so the system can create the proper database table **and** store
 ↳ the data appropriately.
 Failure to include these two lines will result **in** a failure to **import in** the
 ↳ CSV data.

The screenshot shows the 'Import - Date Range Mapping' configuration page in the Voss system. The page has a dark blue header with the Voss logo and a navigation menu. Below the header, there are several tabs: 'Archive', 'DS9', 'DS9 Flow Summary', 'Import' (selected), 'LDAP', 'Sendmail', 'SNMP', 'Syslog', 'Voss', and 'Widget Resources'. The 'Import' tab is active, and the 'Import - Date Range Mapping' sub-tab is selected. The main content area contains a description of the feature, a 'Table' field with a placeholder 'LayerX defined.', a 'delimiter' field with a placeholder 'CSV delimiter character.', and an 'Import File' section with a 'Choose File' button and 'No file chosen' text. There is also an 'IMPORT' button and a link to download a template file.

Once imported, you can use the date range drop down to cycle through and select the custom dates.

The screenshot shows a web application interface with a dropdown menu open. The dropdown lists the following items:

- SMP11 18/19
- SMP12 18/19
- SMP01 19/20
- SMP02 19/20
- SMP03 19/20
- SMP04 19/20
- SMP05 19/20
- SMP06 19/20
- SMP07 19/20
- SMP08 19/20
- SMP09 19/20
- SMP10 19/20
- SMP11 19/20
- SMP12 19/20
- SMP01 20/21
- SMP02 20/21
- SMP03 20/21
- SMP04 20/21
- SMP05 20/21
- SMP06 20/21
- SMP07 20/21
- SMP08 20/21
- SMP09 20/21
- SMP10 20/21

The background table has the following data:

Destination	Users with Device Profiles	Users with Remote Destination Profiles
	0	18
	39	3,243
	27	174
	0	21
	0	15
	0	3
	0	86
	0	7
	0	5
	0	110

At the bottom of the table, it says "Displaying 1 - 53 of 53" with navigation links: "first prev next last" and a page number "1000".

6.6.6. LDAP

The system uses a local LDAP server to store user information. The system also supports authenticating with an external Microsoft Active Directory server. If an external Microsoft AD is used, the system will automatically sync all users locally. Local user accounts are necessary to set specific system privileges. Please note that Microsoft AD passwords are never stored locally. Authentication always occurs with external Microsoft AD. Once authenticated, the system allows the user access based on the user's local system privileges. In order to properly configure this screen, the customer administrator must have an in-depth knowledge of the customer's Microsoft AD architecture. Improper configuration may cause too little or too many users in the system.

The screenshot shows the Voss Configuration Settings interface. At the top, there is a navigation bar with the Voss logo, a 'Back' button, and the title 'Configuration Settings'. Below this is a horizontal menu with buttons for 'Archive', 'DS9', 'DS9 Flow Summary', 'Import', 'LDAP' (which is highlighted), 'Sendmail', 'SNMP', 'Syslog', 'Voss', and 'Widget Resources'. On the right side of the configuration area, there are 'Save' and 'Delete' buttons. A yellow notification bar at the top of the configuration area states 'Changes have been made to this configuration item'. The main content area is titled 'External Config' and contains a detailed explanation of the system's LDAP configuration options. Below the text, there are two buttons: 'Test LDAP configuration' and 'Commit LDAP configuration', each with a corresponding instruction on how to use them.

External Config

The system uses a local ldap server to store user information. The system also supports authenticating with an external Microsoft Active Directory server. If an external Microsoft AD is used, the system will automatically sync all users locally. Local user accounts are necessary to set specific system privileges. Please note that Microsoft AD passwords are never stored locally. Authentication always occurs with external Microsoft AD. Once authenticated, the system allows the user access based on the user's local system privileges. In order to properly configure this screen, the customer administrator must have an in depth knowledge of the customer's Microsoft AD architecture. Improper configuration may cause too little or too many users in the system.

Test LDAP configuration

Test LDAP configuration

Use this button to test the configuration that is filled in the form below.

Commit LDAP configuration

Commit LDAP configuration

Use this button to commit your configuration to the system once you are satisfied with your

The **auto_sync_always_clean** option can be set to clear user dashboards before sync.

The screenshot shows a configuration option named 'auto_sync_always_clean'. It is a dropdown menu currently set to 'false'. Below the dropdown is a detailed explanation of the option's function and when it should be used.

auto_sync_always_clean

false

If this is set to 'true', then the system will always clear the users dashboards before performing an autosync. The 'true' setting forces the users dashboard to always be the same as the Administrator's set of dashboards. This flag is used when either 'windows_auto_sync_dashboards' is set to 'true' or when the 'auto_sync_dashboards_by_permission_groups' is set to 'true'. If there users on the system that creates their own dashboards, then this setting should be set to 'false'. Sync is done everytime a user logs into the system.

6.6.7. Sendmail

Although the system has Sendmail built in, this tab allows for specific configuration changes to allow the system to interface with specific customer mail functions. All settings on this tab are optional settings.

The screenshot shows the Voss Configuration Settings interface. At the top, there is a navigation bar with the Voss logo, a '« Back' button, and the title 'Configuration Settings'. Below this is a horizontal menu with buttons for 'Archive', 'DS9', 'DS9 Flow Summary', 'Import', 'LDAP', 'Sendmail' (highlighted in blue), 'SNMP', 'Syslog', 'Voss', and 'Widget Resources'. On the right side of the main content area, there are 'Save' and 'Delete' buttons. A yellow notification banner at the top of the configuration area states 'Changes have been made to this configuration item'. On the left, a dark blue sidebar contains a 'Configuration' link. The main configuration area is titled 'Configuration' and contains the following text: 'Sendmail Configuration. This configuration screen can be used to change a few sendmail options. All fields are optional.' There are two input fields: 'smart_relay_hostname' and 'sendmail_from_email'. Below the first field is a note: 'Optional. Text. If your organization has a smart relay server, then enter the fully qualified name of the hostname here. Ip addresses are not supported by sendmail.' Below the second field is a note: 'Optional. Text. If this is filled in, the system will use this as the 'from' email address on all emails generated by this system. The default from address is root@<hostname>'

6.6.8. SNMP

This tab allows the system to be configured to work with SNMP v3. It allows you to select the specific authentication and encryption methods to be utilized.

The screenshot shows the Voss Configuration Settings interface. At the top, there is a navigation bar with the Voss logo, a 'Back' button, and the title 'Configuration Settings'. Below this is a horizontal menu with buttons for 'Archive', 'DS9', 'DS9 Flow Summary', 'Import', 'LDAP', 'Sendmail', 'SNMP' (highlighted in blue), 'Syslog', 'Voss', and 'Widget Resources'. On the right side of the main content area, there are 'Save' and 'Delete' buttons. A yellow notification banner at the top of the configuration area states 'Changes have been made to this configuration item'. The main configuration area is titled 'SNMPv3 User Config' and includes a sub-section 'Commit SNMPv3 User Configuration' with a 'Commit SNMPv3 User Configuration' button. Below this are three input fields: 'Engine ID' (OCTECT STRING), 'User Name' (OCTECT STRING), and 'Authentication Protocol' (MD5).

6.6.9. Syslog

This tab configures the IP address of your central syslog server.

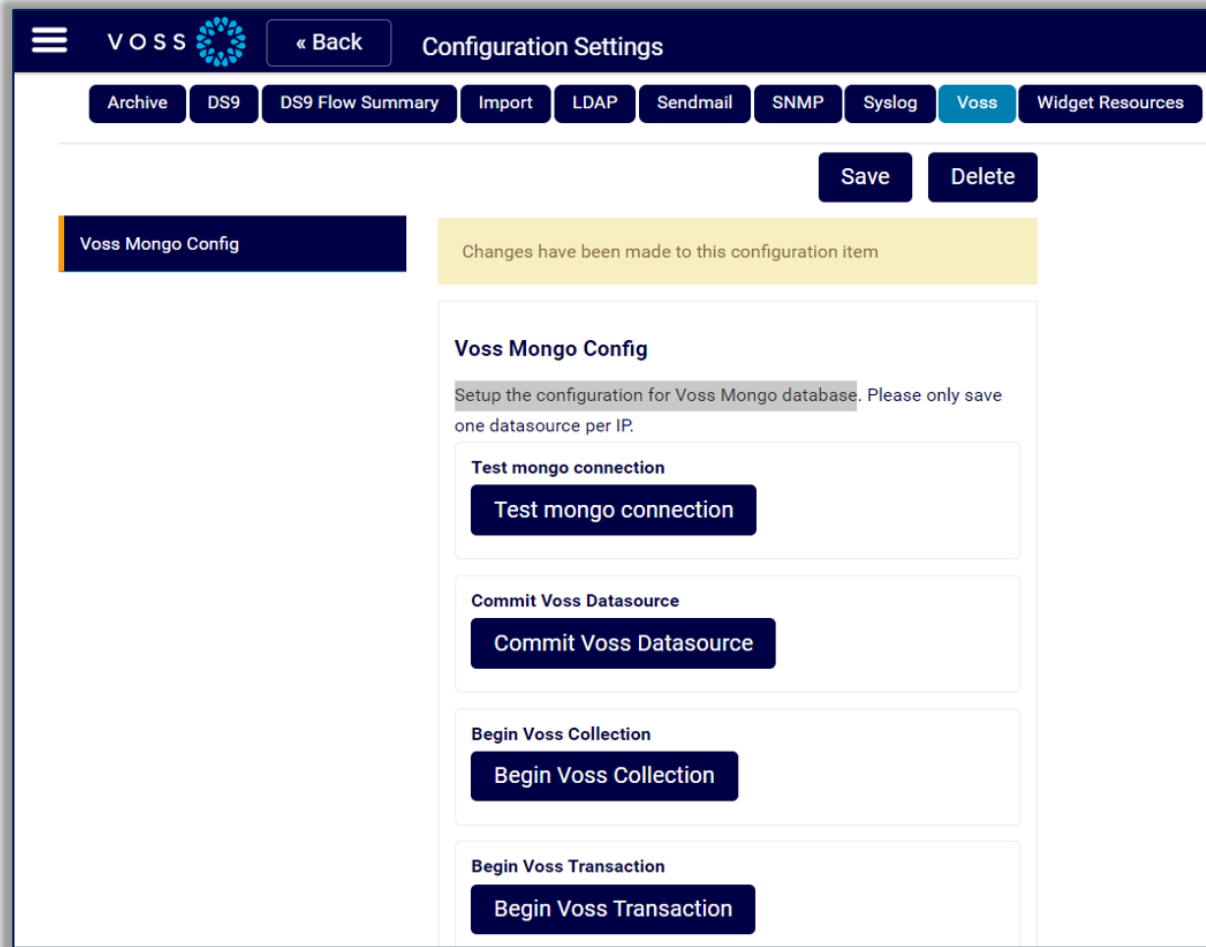
The system can send out syslog messages about several of the internal functions, including backup and archival success.

This is a system-wide setting. If an IP address is specified, the system will send any internal messages onto the specified syslog server. Only one central syslog server can be specified at this time. Please validate firewall settings are open to allow incoming messages on the specified IP address and port.

The screenshot shows the Voss Configuration Settings interface. At the top, there is a navigation bar with the Voss logo, a « Back button, and the title "Configuration Settings". Below this is a menu of configuration options: Archive, DS9, DS9 Flow Summary, Import, LDAP, Sendmail, SNMP, Syslog (highlighted), Voss, and Widget Resources. On the right side, there are "Save" and "Delete" buttons. The main content area is titled "Syslog Server" and features a yellow notification banner stating "Changes have been made to this configuration item". The configuration section includes a heading "Syslog Server" and a descriptive paragraph: "Use this screen to configure the ip address of your central syslog server. This is a system wide setting. If an ip address is specified the system will send any internal Layer X messages onto the specified syslog server. Only one central syslog server can be specified at this time. Please validate firewall settings are open to allow incoming messages on the specified ip address and port." Below the text is a form field labeled "external_syslog_ip" with a text input box. Underneath the input box is a note: "Optional. Enter in the ip address of your organization's central syslog server. A single Ip Address or a single Domain name. Note. Domain name entries must resolve through the system configured DNS (user specified in system DNS settings)". At the bottom of the form, there is a field labeled "protocol" with a dropdown menu.

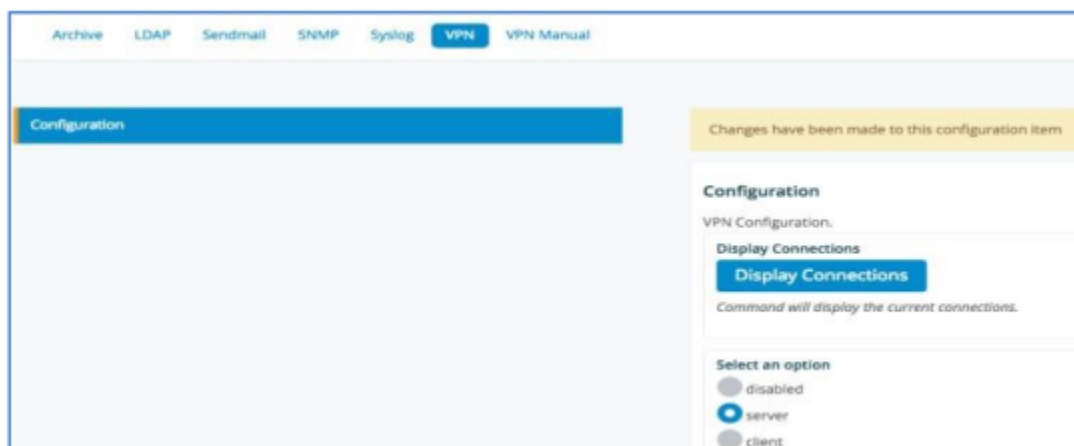
6.6.10. VOSS

This tab configures the setup for VOSS Mongo database.



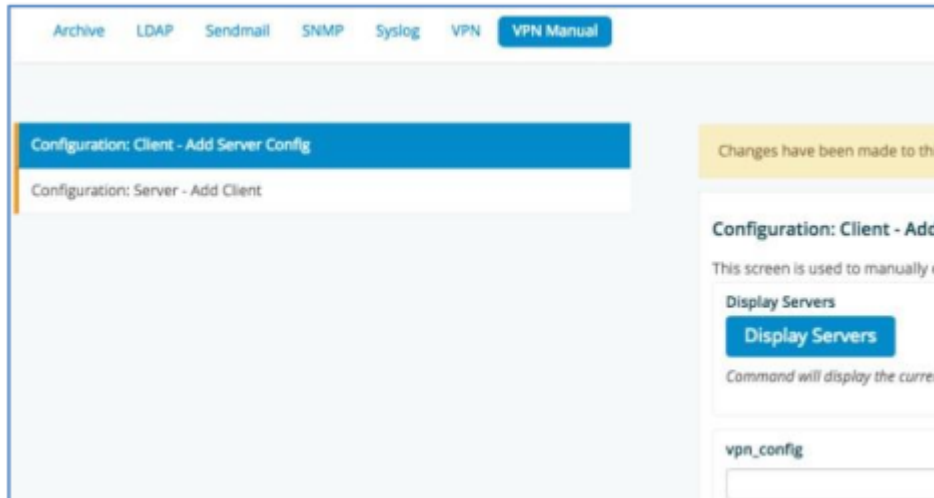
6.6.11. VPN

The system can be connected to another Dashboard/Reporting platform, an Arbitrator Correlation platform, a Windows Forwarder or other client that supports the connectivity. Utilize this screen to set up automated connections to a server or client. The default port utilized is port 1194. Note that the screen selections will change based on the context selected (server or client).

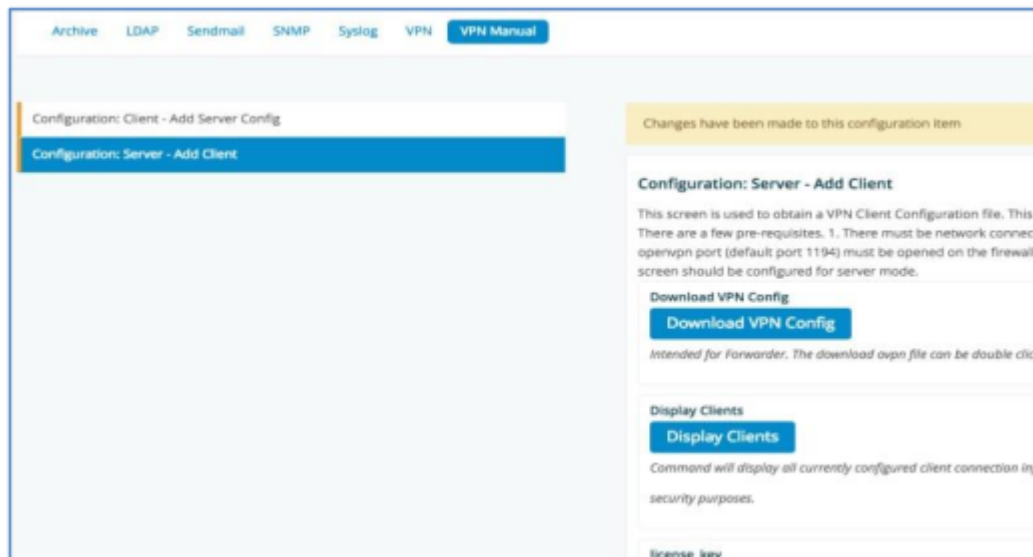


6.6.12. VPN Manual

- **Configuration: Client - Add Server Config:** The system allows you to enter a VPN configuration file directly into the system. Just paste the config directly into the bar under the label **vpn_config**.



- **Configuration: Server – Add Client:** This screen is used to obtain a VPN Client Configuration file. This will allow connectivity from the Windows Forwarder directly to this server utilizing OpenVPN. There are a few prerequisites:
 1. There must be network connectivity between the Windows Forwarder machine to this server.
 2. The specified OpenVPN port (default port 1194) must be opened on the firewall between this server and the Windows Forwarder IPs.
 3. This server VPN Configuration screen should be configured for server mode.



6.6.13. Widget Resources

This tab allows the auto-creation of a dashboard widget's resource description for a new table. At a minimum, the IP address and table name should be provided to fetch/create the `lxtapi_*` definitions. This functionality may also be used to generate dashboards for generic Postgres databases, if the database's security information is known.

The screenshot shows the Voss Configuration Settings interface. The top navigation bar includes the Voss logo, a '« Back' button, and the title 'Configuration Settings'. Below this is a horizontal menu with buttons for 'Archive', 'DS9', 'DS9 Flow Summary', 'Import', 'LDAP', 'Sendmail', 'SNMP', 'Syslog', 'Voss', and 'Widget Resources'. The 'Widget Resources' button is highlighted in blue. On the right side of the main content area, there are 'Save' and 'Delete' buttons. A yellow notification banner at the top of the main content area states 'Changes have been made to this configuration item'. On the left, a dark blue sidebar contains the text 'Widget Resource Control'. The main content area features a section titled 'Widget Resource Control' with a descriptive paragraph: 'This page will allow the auto-creation of a widget's resource description for a new table. At a minimum, the IP address and table name should be provided to fetch/create lxtapi_* definitions. This functionality may also be used to generate dashboards for generic Postgres databases, if the database's security information is known.' Below this text are three form fields: 'IP location' with the value '127.0.0.1' and a subtext 'The IP address of the database's host machine.', 'Database Name' with an empty field and a subtext '[Optional] The name of the database.', and 'username' with an empty field.

6.7. Theme Management

The Theme Management screen provides several options to configure themes: create, modify, reset and delete. Custom themes can also be created.

6.7.1. Create a New Theme

1. From the reporter user menu on the main screen, choose **Theme Management**.
2. From the **Select action** drop down, choose Create New Theme.

Theme Management

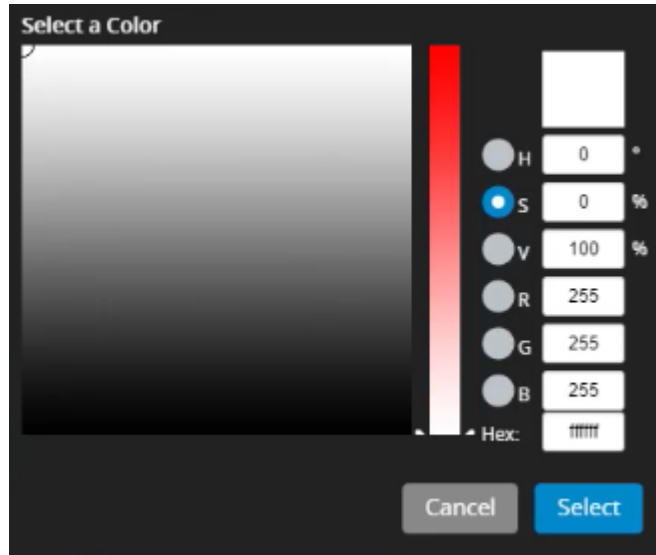
Theme name

Arbitrators

3. Enter a **Theme Name** and optionally any arbitrator to share the theme.
4. **Login Options:** refer to the **Login sample** for a preview of changes.



- a. For **Login color options** (Login Background, Login Button Background), click in the color box to open a color picker widget. You can use the sliders, buttons and input boxes to set a color. Verify your color shows in the **Hex:** input as a hex value and click **Select**.



- b. From **Import login image**, select the image to show on the login page, above the username and password input boxes.
- c. From **Import background image**, select the image to show as background on the login page, behind the login box. If not used, then the **Login Background** color applies.
If needed, select the **Remove Background image** check box to remove any imported background image.
- d. From **Login Container**, select the required color options. The **Privacy Security Text** box can be used to enter login privacy text:


Login Container

Login Container Background

Login Container Header

Login Container Text


Login Container Button

Privacy Security Text 


Tab Title


A **Tab Title** text value can be entered to show as the browser tab text.

5. **Dashboard Options**:: refer to the **Dashboard sample** for a preview of changes.

Dashboard Options 

Dashboard color options

Banner Background 

Dashboard Background 

Import logo image

Click to edit

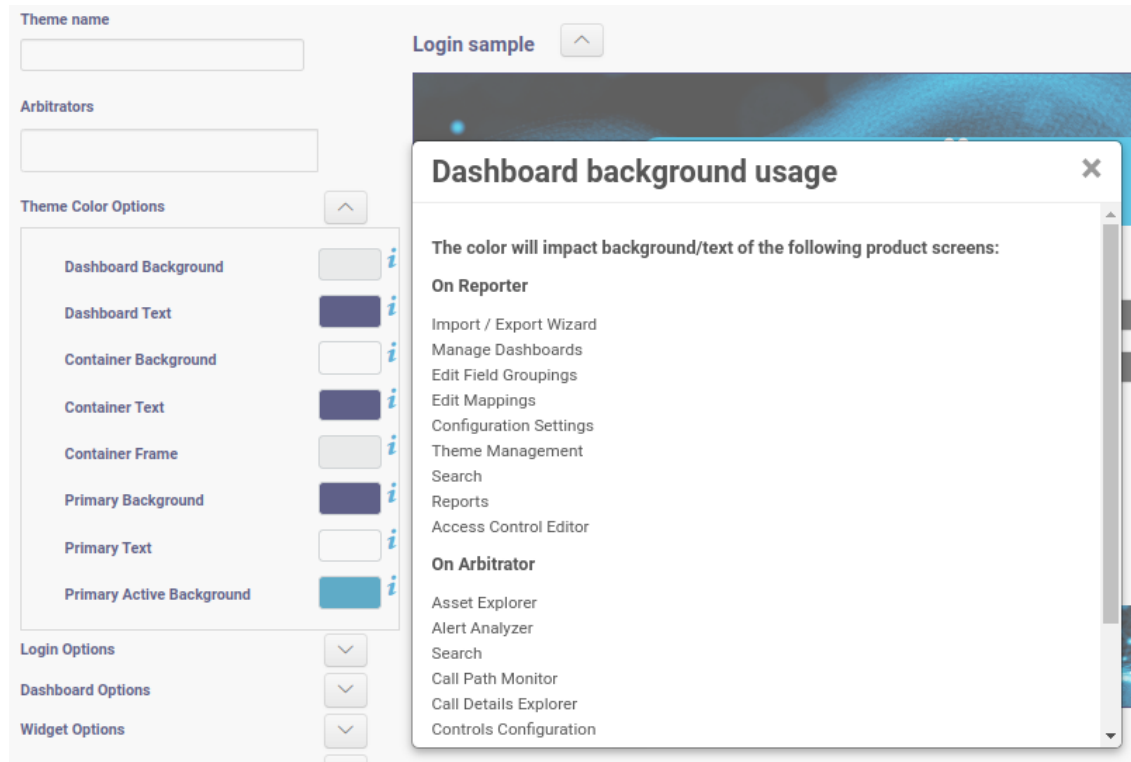
Logo Image Ratio

Logo Image Top Padding

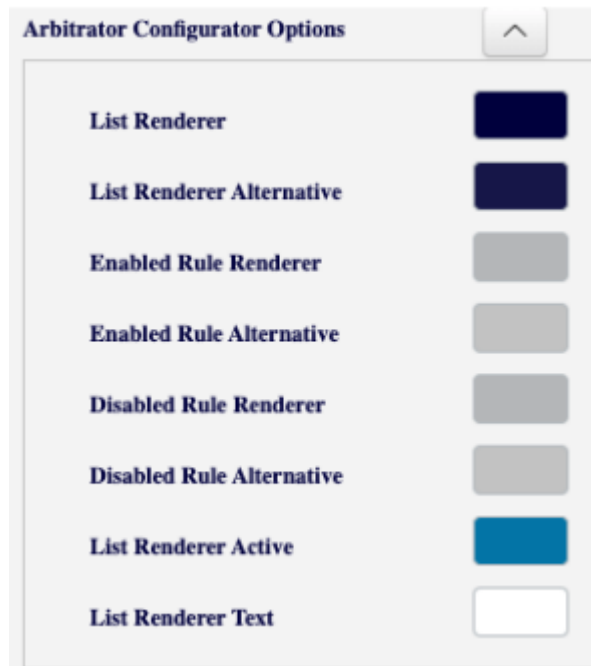
- a. For **Dashboard color options** (Banner Background, Dashboard Background), click in the color box to open a color picker widget. You can use the sliders, buttons and input boxes to set a color. Verify your color shows in the **Hex:** input as a hex value and click **Select**.

For the dashboard, Theme Color Options are also available for text, Container, Primary Active elements and Containers.

Click the **i** icon to open a list of screens affected by a color option, for example, for **Dashboard Background**:



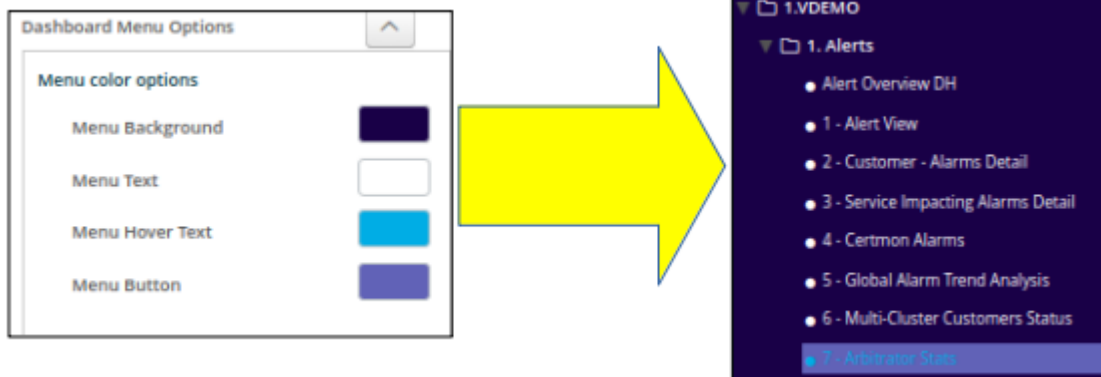
Additional Arbitrator Configurator colors are also available:



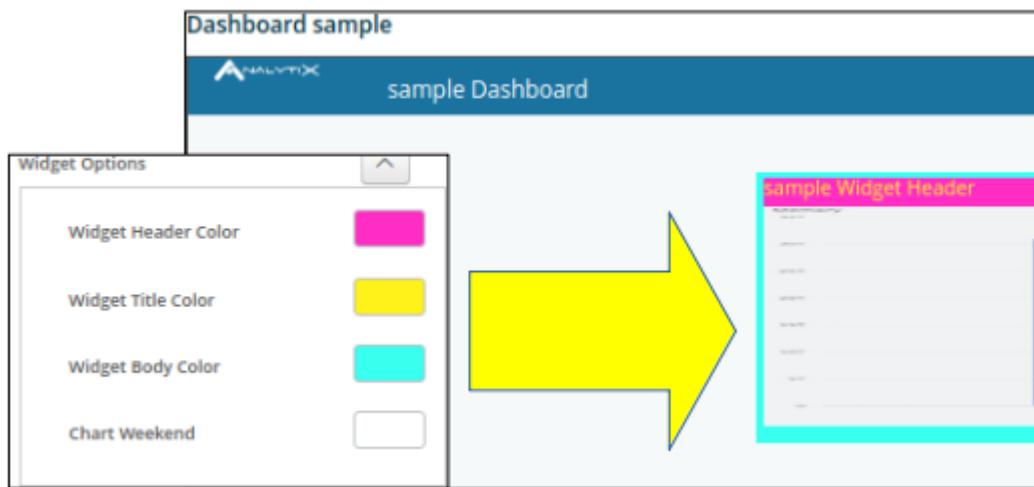
- b. Select an image from **Import logo image** to use as a logo on the banner. The image can be

scaled and positioned using **Logo Image Ratio** and **Logo Image Top Padding**. An option is also available for a browser tab icon: **Import Favicon image**.

6. **Dashboard Menu Options:** the **Menu color options** group of settings are available to customize the colors of the menu and its text (Menu Background, Menu Text, Menu Hover Text, Menu Button) - using the color pricker widget.

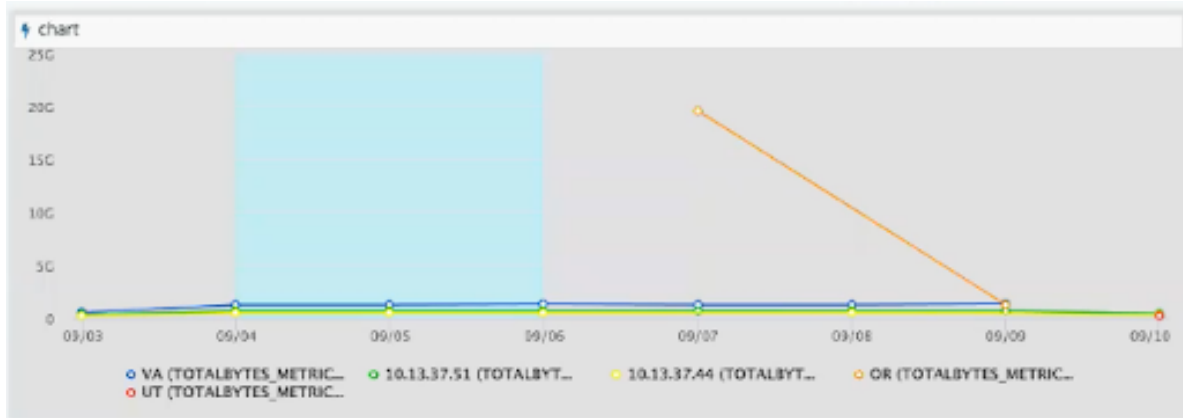


7. **Widget Options:** refer to the **Dashboard sample** for a preview of changes. The widget sample is shown on the dashboard.



Set the **Widget Header Color**, **Widget Title Color** and **Widget Body Color** using the color picker widget.

The **Chart Weekend** setting can be used to set a different chart color for charts that show daily data over a number of weeks.



8. Click **Save**. When done, the **Status** shows 100% and a message shows “Theme saved successfully”.

6.7.2. Apply a Theme to the Dashboard

1. Log in on the command line and navigate to the **Change Reporter Branding** menu.

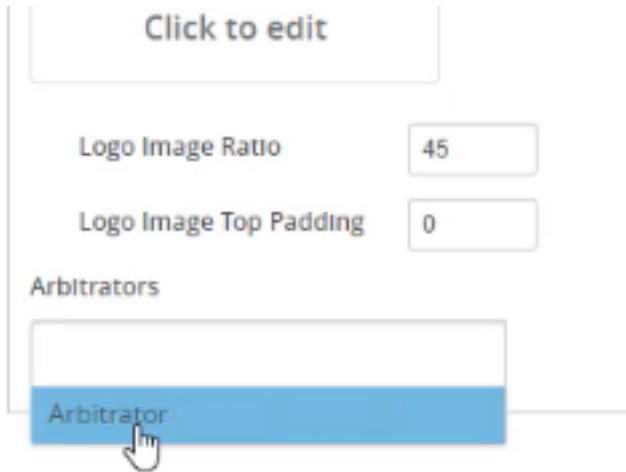
```

LayerX Administration
-----
Please choose from the following options.
+-----+
| Network Configuration |
| Time Configuration   |
| Analytix Backup Restore |
| Analytix Init        |
| Change Passwords     |
| Change Reporter Branding |
| Configure Cisco Call Managers |
| Fix Corrupt Ndx      |
| LayerX Log Snapshot  |
| LayerX Upgrade       |
| Optimize Config - Kernel |
| Optimize Config - Postgres |
| Out of Band Configuration |
+-----+
  
```

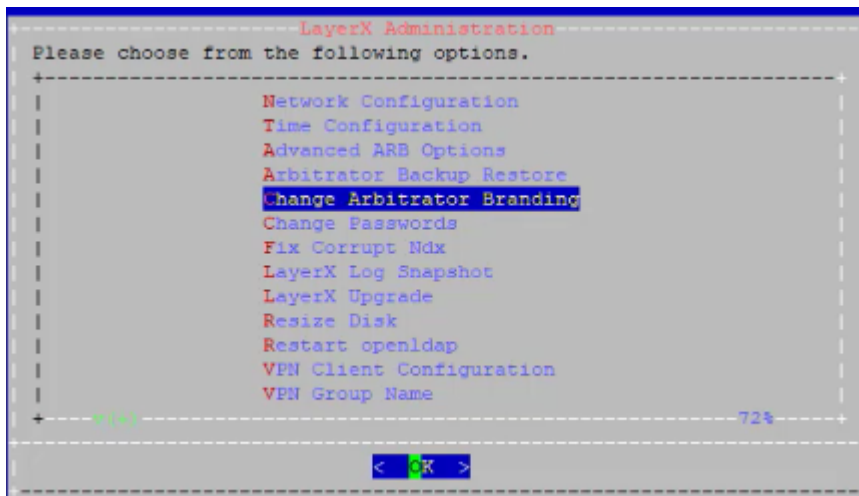
2. At **Enter Branding Theme:** input box, enter themes/<your-theme-name> and select **OK**. A console message shows: Putting THEME:themes/<your-theme-name>.
3. If you log in on the reporter now, the theme is shown.

6.7.3. Apply a Theme to the Arbitrator

1. On the selected theme on the **Theme Management** menu, ensure that the arbitrator is selected in the **Arbitrators** drop down box and that the theme is saved. (You need to make a change to the theme to save.)

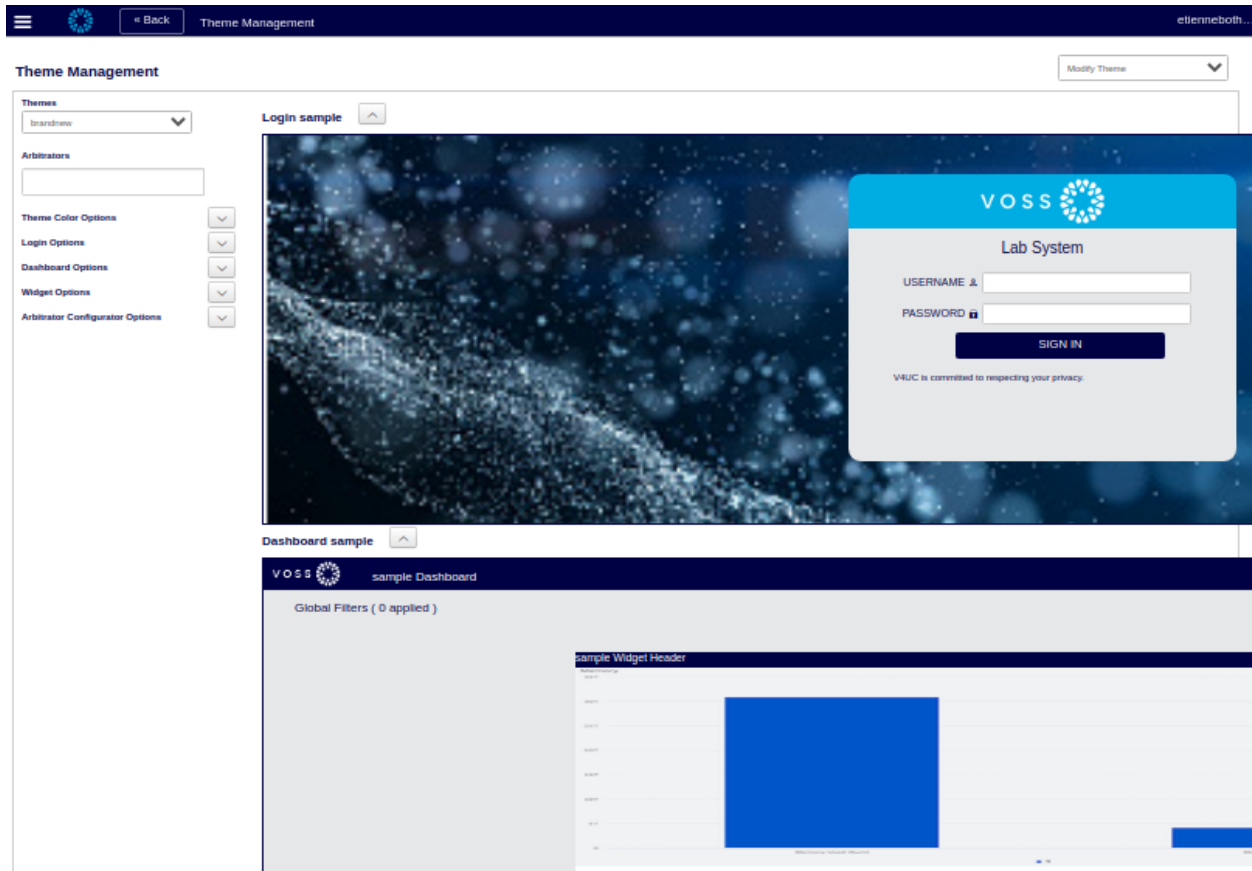


2. Click **Save**. You should now also see an **Output:** message: “Generating Arbitrator <IP> theme <your-theme-name>”
3. Log in on the command line and navigate to the **Change Arbitrator Branding** menu.



4. At **Enter Branding Theme:** input box, enter themes/<your-theme-name> and select **OK**. A console message shows: Putting THEME:themes/<your-theme-name>.
5. If you log in on the arbitrator now, the theme is shown.

6.7.4. Example Custom Theme



6.8. DS9 Configuration

6.8.1. Overview

The DS9 Alert Management page allows you to view, edit, disable, or delete existing alerts for DS9, and to add new alerts for DS9.

Note: To access this page, log in to the dashboard as admin user, and from the **admin** menu, select **DS9 Configuration**.

6.8.2. Alert types

DS9 ships with three standard alert types:

Alert type	Description
Application Threshold	This alert notifies you that a NetFlow-reporting node reports traffic for an application over or under a certain threshold. After you create an alert for the application and the threshold for a particular node, the alert is triggered when the traffic exceeds the threshold. The alert can be created across multiple applications. This means that the alert will be triggered when the combined threshold of all selected applications is reached.
Top Application	This alert notifies you whether an application is present in Top XX Applications lists. After you create an alert for a specific application for a node or interface, the alert is triggered when the application is missing in the Top XX Applications resources.
No Flow	The flow is no longer being received. This alert notifies you that a device (node or interface) is not sending data over a defined time period.

6.8.3. View alerts

1. Log in to the Dashboard as admin user.
2. From the **admin** menu, select **DS9 Configuration** to open the **DS9 Alert Management** page.
3. On the **DS9 Alert Management** page, select a DS9 system to view alerts for this system in the table in the **Alert Table** panel.

Note: You can choose to view details for all alert types or choose one. In the **Alert Table** panel, you can choose to view active or disabled alerts. Click the **Refresh** button to update alert configuration details in the table.

The screenshot displays the DS9 Alert Management interface. On the left is the 'Alert Configuration' panel with fields for 'DS9 System' (10.13.37.52) and 'Alert Type' (All). On the right is the 'Alert Table' panel, which includes a filter for 'Active' alerts and a 'Refresh' button. The table lists six alerts with columns for ID, Alert Type, Agent ID, Interface Value, Interface Type, File Name, Interval, Threshold, Inequal, Units, and Application Threshold details (Application IDs, Control, Ports).

ID	Alert Type	Agent ID	Interface Value	Interface Type	File Name	Interval	Thresh	Inequal	Units	Application Threshold		
										Application		
										Application IDs	Control	Ports
1	applicationThresh...	172.28.1.3	172.28.1.3 interface 36	ingressint	applicationThreshold_EAR29HDD...	5	2	<	Kbps		include	
2	noFlow	any	172.28.1.3 interface 37	egressint	noFlow_AH4P4ZH0T8LW7EQ16...	5						
3	noFlow	172.28.1.3	172.28.1.3 interface 36	egressint	noFlow_K18JEGK97WCSBCLN16...	5						
4	noFlow	172.28.1.3	172.28.1.3 interface 3	egressint	noFlow_U7RWFQQLSEDFM5VC16...	5						
5	topApplication	any	any	egressint	topApplication_E6SUG7NQAL7C9...	5						
6	topApplication	172.28.1.3	172.28.1.3 interface 36	ingressint	topApplication_MHTPQLFGI3RHQ...	5						

6.8.4. Add an alert

This procedure creates a DS9 alert.

1. Log in to the Dashboard as admin user.
2. From the **admin** menu, select **DS9 Configuration** to open the **DS9 Alert Management** page.
3. On the **DS9 Alert Management** page, click **Add**.
4. At **DS9 System**, choose a DS9 system from the list.

Note: The list is populated based on DS9 data sources. Once you choose a DS9, the system runs a query and populates the table in the **Alert Table** panel, displaying the details of any active / disabled alerts already configured for the DS9 you choose (active or disabled, depending on whether you select the **Active** or **Disabled** radio button).

5. At **Alert Type**, choose the alert type you want to add. Options are: No Flow, Top Application, Application Threshold
6. Configure the alert:
 - Choose the agent ID (the address for the alert) (relevant for all alert types).

Note: The option you choose at **Agents** populates the **Interfaces** drop-down.

- Choose interface type (relevant for all alert types).
- Choose interfaces (relevant for all alert types).

Note: The list is dynamically populated based on the agent you select, via an API call to the DS9 data source or the local database.

- Choose time interval (the number of minutes to query in the past) (relevant for all alert types).
- Configure threshold (unit, compare symbol, and value) (relevant for alert type *Application Threshold* only)
- Define whether to include applications, and if yes, specify application IDs (one or more, in a comma-separated list) (relevant for alert type *Application Threshold* only)
- Define whether to include ports, and if yes, specify ports, one or more, in a comma-separated list (relevant for alert type *Application Threshold* only)
- Choose severity (minor, major, or critical) (relevant for alert types *No Flow* and *Top Application* only).
- Choose the condition at **Exists**, either true or false (relevant for alert types *No Flow* and *Top Application* only).
- Mandatory. Define a numeric value as the limit (relevant for alert type *Top Application* only).

7. Click **Add**.

The system adds the new alert and progress displays in the display field adjacent to the **Refresh** button.

Wait a short while (approximately one minute) to allow the system to process the new alert and to run the query, then click the **Refresh** button to view the new alert in the table.



Note: The **Clear** button clears the interfaces data and the agent. If you don't clear these fields before adding a new alert, the value for agent and interfaces is the same as the last alert you added.

6.8.5. Edit, disable, or delete an alert

This procedure edits, disables, or deletes a DS9 alert.

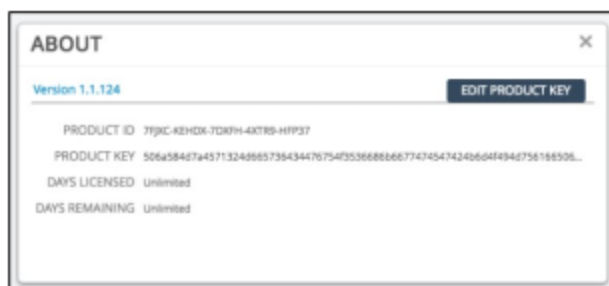
1. Log in to the Dashboard as admin user.
2. From the **admin** menu, select **DS9 Configuration** to open the **DS9 Alert Management** page.
3. On the **DS9 Alert Management** page, click **Edit**.
4. At **DS9 System**, choose a DS9 system from the list.
5. View active alerts for this system in the **Alert Table** panel.

Note: Select **Disabled** to view disabled alerts.

6. In the table, choose the alert you wish to edit. The alert's details populate the configuration fields, including a file name.
7. Choose an option:
 - To modify the alert, update the data, then click **Edit** to update the alert.
 - To disable the alert, click **Disable**. The alert is removed from the table of active alerts, and is added to disabled alerts.
 - To delete the alert, click **Delete**. The alert is removed.

6.9. About

Click the **Admin** drop-down menu and select the **About** option. This will pull up a window that displays the current product key and license details.



6.10. Help

Click the **Admin** drop-down menu and select the **Help** option. This function will link you to this admin guide loaded on the server or on the website.

6.11. Edit Account

This menu allows the Dashboard admin user (superuser) to change their password.

Click your profile to access the admin menu, then select **Edit Account**.

Fill out your old password, and then your new password. Confirm your new password, then click **Save**.

Note: By default, all new system users are assigned the **Default** role, with **Reporter Permissions**. This role and permissions group allows the minimum **View Application** permission, but also allows users with minimum permissions to change their own password, display name, email address, and report logo, via the **Access Controls** menu (accessible via the Main Menu).

The screenshot displays the VOSS Provider Summary Dashboard with an 'EDIT PROFILE' modal open. The dashboard header includes the VOSS logo and 'Provider Summary Dashboard'. The breadcrumb trail shows '1.VDEMO / 6. VOSS Analytics'. The left sidebar contains navigation links for '1. Subscribers | Services | Entitlementment', '2. Phones | Dev', 'MsGraph', 'Webex Teams', and 'Customer Summary Dashl'. Below the sidebar, there are 'Global Filters (0 applied)' and a table with two columns: 'Subscribers' (273,283) and 'Subscribers with No Services' (187,761). The 'EDIT PROFILE' modal has a close button (X) in the top right. It contains three input fields: 'EMAIL' (admin@mycorp.com), 'OLD PASSWORD' (masked with dots), 'NEW PASSWORD' (masked with dots), and 'CONFIRM PASSWORD' (masked with dots). A 'SAVE' button is located at the bottom right of the modal.

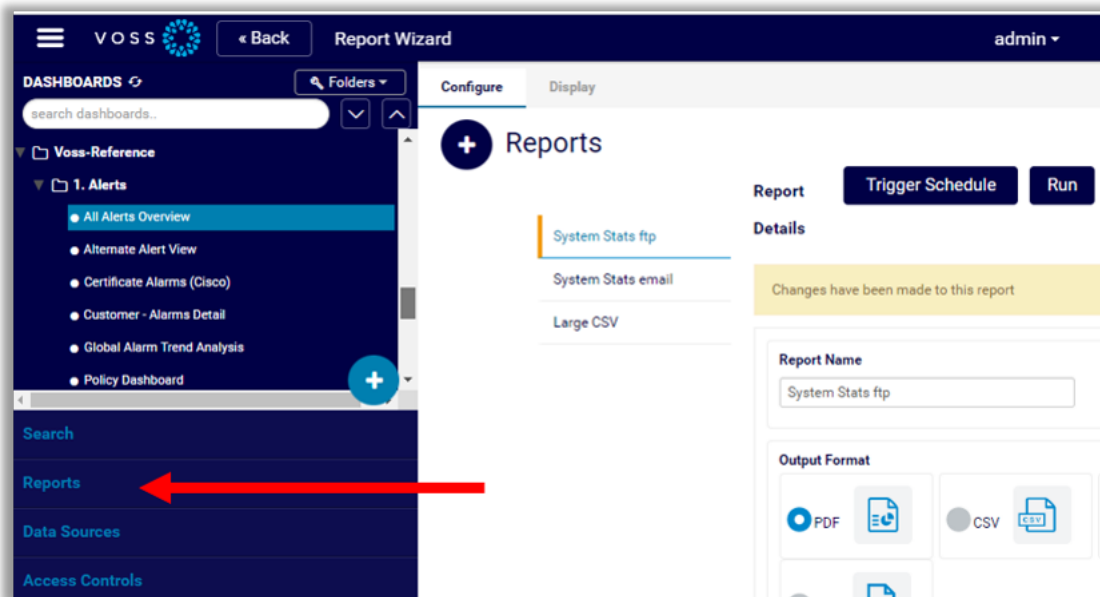
6.12. Sign Out

Click the **Admin** drop-down menu and select the **Sign Out** option to exit the system.

6.13. Reports

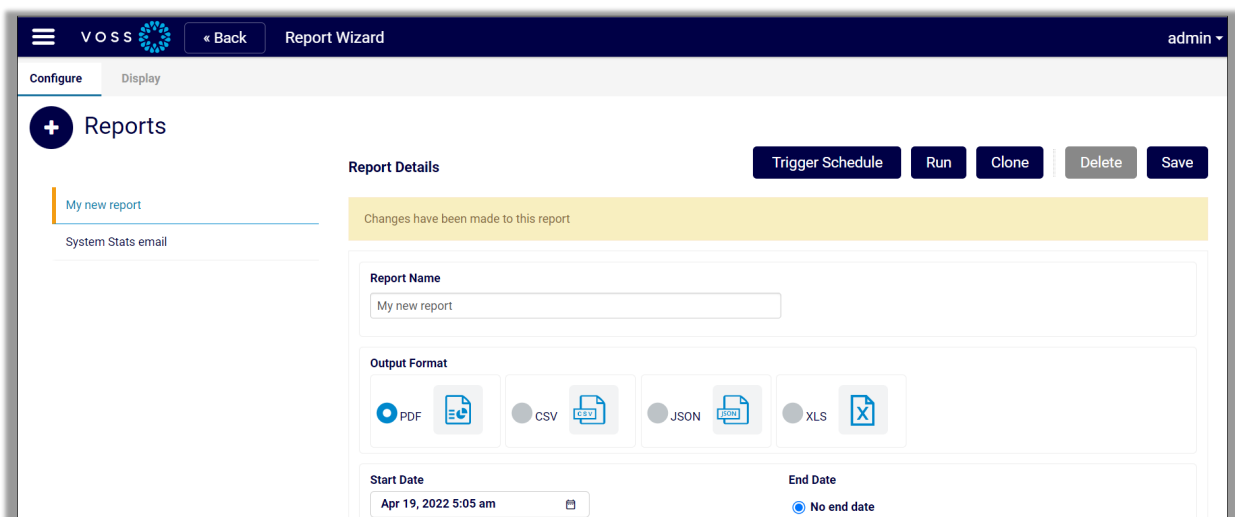
6.13.1. Overview

You can access the reports functionality via the Main Menu (hamburger icon) on the Dashboard toolbar. Click the **Reports** menu to open the Dashboard **Reports** page.



Buttons at the top of the page allow you to trigger the schedule, run the report, delete the report, or to clone (copy) the report. Cloning allows you to create a copy that you can customize to add new recipients or a different time zone, for example.

The **Reports** page also provides options for scheduling and arranging dashboards into reports.



The table describes options for working with reports:

Plus icon (+)	Click the Plus icon (+) at Reports to add a new report.
Run	To run a report manually, select the report, then click Run . In the Print dialog that displays, choose a date for the report, and click Print to run the query and generate the report. You can view the progress and details of the query as it runs, and when it's done, click Download to download the report so you can save it locally or to a network location.
Clone	To clone a report, select the relevant report, then click Clone . This allows you to create a new report based on settings in the cloned report.
Trigger Schedule	To manually trigger the schedule for a scheduled report, select the report, then click Trigger Schedule . For reports executed via a schedule, the system writes the report log details to the database (to the <i>lxt_perf_data</i> table). Event data display in a Dashboard widget (<i>lxt_perf_data widget</i>), where you can view progress and print the details.

6.13.2. Schedule and Arrange Dashboards into Reports

To schedule and arrange dashboards into reports:

1. Click the left panel **Reports** menu to open the **Report Wizard**.
2. In the **Configure** tab, click the Plus icon + at **Reports** to add a new report.
3. In the **Report Name** field, give your new report a custom name.
4. Choose the output format. Options are PDF, CSV, JSON, or XLS.

Note: Outputting to Excel workbooks (.xls) creates a new tab for each widget inside a single Excel workbook file.

Configuration options on the page depend on the output format you choose. For example, only the PDF output format allows you to define widget layout per page.

5. At **Start Date** and **End Date**, select a start date, and report end date options.
6. At **Time Zone**, choose a time zone region and city.

Note: The system uses a city library that represents most zone locations. If your city is not available, choose one that matches the time zone you require.

7. At **Report Interval**, choose the period to query data for the report. For example, **Last 12 hours**.
8. At **Repeats**, choose how often you want to repeat the running of this report. Options are: Never, Daily, Weekly, Monthly.
9. At **Descriptions Placement**, choose whether to display widget descriptions below the chart(s).
10. At **Widget Layout Per Page**, select the number of widgets to print on a page
11. At **Users**, click the Plus icon (+) to add recipients (one or more), then select the users who should receive the report.

Note: Non-admin users can also add other users to reports.

12. At **Destination**, choose whether to:

- only display the report on the GUI: **Display only**, i.e. no destination
- send the report via **Email**
- send the report via **SFTP**

Note: Reports can be sent via SFTP to a host destination.

13. Under **File name option**, if the **Override default File name** checkbox is selected, report filename options are available to include the username, date and time (HH_mm_ss) with the name (separated by an underscore _).

File name option

Override default File name

File name

File name includes User name

File name includes date

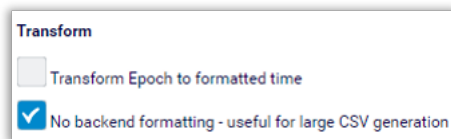
File name includes time

- The date format is obtained from the User Settings: (MMM-D-YY or D-MMM-YY)

14. At **Transform**, choose formatting options.

For the output format you chose (PDF, CSV, JSON, or XLS), define whether to transform epoch to formatted time, and if your selected file output format is CSV, you can also define whether to remove backend formatting in the generated CSV file.

Note: If you've chosen the option to remove backend formatting (CSV output only), then all data in the CSV (each cell) will have minimum formatting applied. This speeds up file generation for reports, and when you wish to download a CSV file (via a dashboard widget). This option is thus useful where the file is large.



Transform

Transform Epoch to formatted time

No backend formatting - useful for large CSV generation

15. At **Dashboards**, drag the dashboards you want to include in the report, to the **Selected Dashboards** field.

16. At **Summary Page**, use the text editor to design a summary page (including images) that will be placed at the top of the report.

17. Click **Save**.

The screenshot displays the 'Data Source Editor' interface with several configuration sections:

- Report Name:** A text input field containing '(New)'.
- Output Format:** Radio buttons for PDF, CSV, JSON, and XLS.
- Start Date:** A date picker set to 'Sep 19, 2022 10:51 am'.
- End Date:** Radio buttons for 'No end date', 'Ends after' (with a dropdown for 'occurrence(s)'), and 'End by' (set to 'Sep 20, 2022 10:51 am').
- Delay Report Creation (In Hours):** A dropdown menu set to '0'.
- Time Zone:**
 - Region:** A dropdown menu set to 'America'.
 - City:** A dropdown menu set to 'Chicago'.
- Report Interval:** A dropdown menu set to 'Last 24 hours'.
- Report Date Range:** A checkbox for 'Use Date range as time frame to query data.' which is unchecked.
- Repeats:** A dropdown menu set to 'Never'.
- Descriptions Placement:** A checkbox for 'Place widget descriptions below chart' which is unchecked.
- Widget Layout Per Page:** A set of icons for grid layouts: 1, 2 (horizontal), 2 (vertical), 4, 6 (vertical), and 8 (vertical).
- Users:** A table with columns 'User ID', 'Name', 'Email', and 'Customer'. It contains one entry: 'admin' with 'Administrator' as the name.
- Destination:** Radio buttons for 'Display only' (selected), 'Email', and 'SFTP'.
- File name option:** A checkbox for 'Override default File name' which is unchecked.
- Transform:** A checkbox for 'Transform Epoch to formatted time' which is unchecked.
- Dashboards:** A list of dashboard categories with expandable arrows: 1.VDEMO, Avaya, Cisco, Cisco CME Dashboards, Cisco TMS, Cisco TMS Dashboards, Cisco UCM SIP Trunk Reports, Cisco Voice Gateways, Concept, CUCM and HCS, and Deep Flow Inspection. To the right is a 'Selected Dashboards' section with a scrollable area.

6.14. Data Sources

Open up the Main Menu window and select **Data Sources** toward the bottom. This will open the **Data Source Editor** page which provides many options to connect to outside data sources.

The system has the ability to extract data from any SQL data source as well as all VOSS systems. The **Data Sources** window will show all of the data sources from which the system is currently configured to extract. To add a new data source click the blue **New Data Source** button and enter a Name for it.

Next choose the type in the **Data Source Type** window. This window is context sensitive and will display options based on the data source type selected (i.e. MySQL versus Sqlite). Enter the required credentials and name of the data source and click **Save**. This source will now be available extract data and define Resources.

☰ VOSS

[« Back](#)
Data Source Editor

Data Sources

ARB-Consolidator-167
▼

New Data Source

Name

ARB-Consolidator-167

Data Source Type

Remote Arbitrator Postgres Database
▼

Host

172.30.42.167

Port

5432

Delete

Save

Data Source

Select a data source to ed

Name

Enter a name for this data

Data Source Type

Select the data source typ

6.15. Access Controls


6.15.1. Access Control Editor

The VOSS Insights Dashboard application provides an **Access Control Editor**, where you can configure role-based access to the dashboards, configure system permissions, add or configure users and customers, configure SAML settings, and configure the system password policy.

Note: Only the system super user (admin account) may view and edit the password policy.

In the Access Control Editor, you can set up multiple tenants to have their own view only access to dashboards and to receive their own reports.

The screenshot displays the 'Access Control Editor' interface. At the top, there is a navigation bar with a hamburger menu icon, the 'VOSS' logo, a 'Back' button, and the title 'Access Control Editor'. The user 'admin' is logged in. Below the navigation bar, there are tabs for 'Permissions', 'Users', 'Roles', 'Customers', 'SAML', and 'Password Policy'. The 'Permissions' tab is active, showing a '+ Permissions' header and a 'Delete' button. A sidebar on the left lists various permission groups, with 'Reporter Permissions' highlighted. The main area shows the configuration for the 'Reporter Permissions' group, including a 'Group name' field, a 'Select All' checkbox, and a grid of permissions categorized into 'View' and 'Action'. The 'View' section has 'View Application' checked. The 'Action' section includes options like 'Edit Dashboards', 'Edit Reports', 'Edit User Settings', 'Import & Export', 'Toggle timezone', 'Edit Datasources', 'Edit Permissions', 'Edit Manage Dashboards', 'Stream Monitor', 'Theme Management', 'Edit Definitions', 'Edit Users & Customers', 'Edit Configuration', 'Edit Mappings', 'Role Management', 'Edit Field Groupings', 'Edit SAML', 'Edit Filters', 'Switch Data source', and 'Role Management'. At the bottom, there are two columns: 'Users in group' and 'All users', each containing a list of users with a close icon next to their names.

Note: To open the Access Control Editor, click the Main Menu (hamburger icon) , then select the **Access Controls** menu.

You can select the following tabs in the Access Control Editor:

- *Permissions Tab*
- *Users Tab*
- *Roles Tab*
- *Customers Tab*
- *SAML Tab*
- *Password Policy Tab*

Permissions Tab

This tab adds and configures permission groups.

The **Reporter Permissions** group is a default permissions group, and is assigned by default to the **Default** role. All new users added to the system are automatically assigned to the **Reporter Permissions** permissions group, which provides **View Application** rights to the system.

You can add new permissions groups, and for each permission group, you can choose permissions, and add or remove users.

Note: A user can be in one or more permission groups, but only the most restrictive one is used.

- The **Users in group** and **All users** fields display the names of users added to the system.
- The **View** and **Action** checkboxes define the permissions that can be assigned to a selected permission group.
- To create a new permission group, click the Plus (+) icon at **Permissions**, define a group name, choose permissions, add users to the group, and save your changes. Users in this group will have access to the system based on permissions configured for their permission group.

Note: All permission groups should have at least the **View Application** permission.

The screenshot displays the 'Access Control Editor' interface for Voss. The main section is titled 'Permissions' and shows the configuration for a group named 'Reporter Permissions'. The interface includes a sidebar with a list of existing permission groups, a central configuration area for the selected group, and a bottom section for user management.

Reporter Permissions

Group name: Reporter Permissions

Permissions

Select All

View

View Application View Search View License Expiration

Action

Edit Dashboards Edit Datasources Edit Definitions Edit Field Groupings

Edit Reports Edit Permissions Edit Users & Customers Edit SAML

Edit User Settings Edit Manage Dashboards Edit Configuration Edit Filters

Import & Export Stream Monitor Edit Mappings Switch Data source

Toggle timezone Theme Management Role Management

Users in group

LtISSO	×
samj	×
anoor	×
lsmith	×

All users

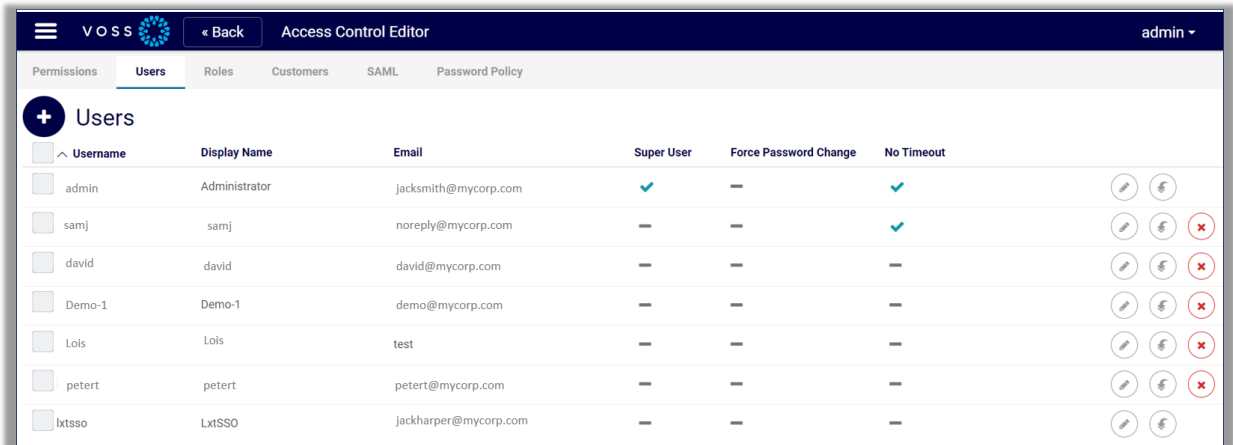
Demo-1
carmenr
bferry
loisl

Related Topics

- [Add and configure permission groups](#)

Users Tab

This tab adds, edits, and deletes users.



There are two default users upon installation:

admin	This is the system superuser. The admin can perform all functions in the system. Set these credentials and only share them with your administrator.
lxtsso	This is a single sign-on credential and is only used when the system is integrated to another platform, such as an IT Operations platform.

All new users are automatically created with a default role (called **Default**), and the **Reporter Permissions** permission group, which gives at least the **View Application** permission. Provided the default role is enabled and has dashboards associated to it, new users can log in to the system and will have access to the predefined collection of dashboards you associated to the default user role (typically dashboards you want all users to have access to). This simplifies the onboarding process.

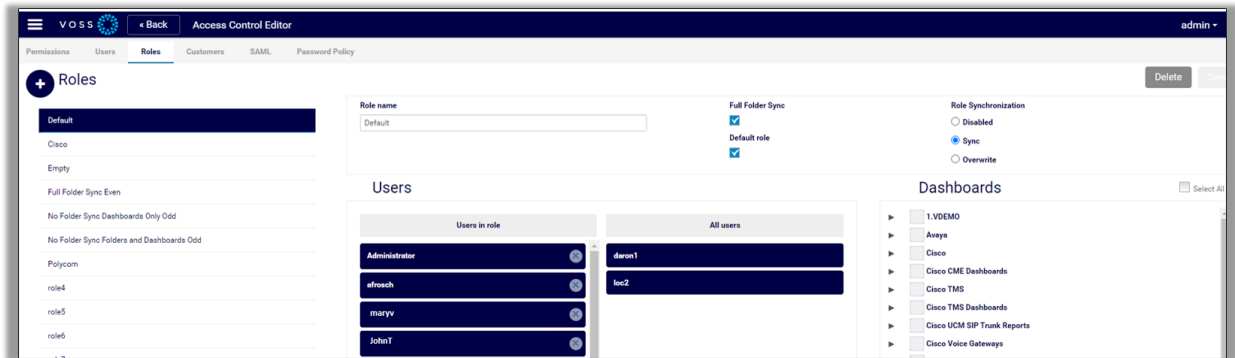
Related Topics

- [Assign dashboards to users via their user role](#)
- [Add a new user with default role and dashboards](#)
- [View a user's roles, permissions, and dashboards](#)

Roles Tab

This tab adds and edits role-based access to the dashboards.

Note: You can assign dashboards to specific roles. Users can be part of one or many roles. If the role is *enabled* (see Role Synchronization settings), any user with that role will have all the dashboards assigned to that role. Roles tie together permission groups and dashboard collections.



The table describes the fields on the Roles tab in the Access Control Editor:

Field	Description
Roles	<p>Click the Plus icon (+) to add a new role. Select a role then add or remove users associated with the role.</p> <p>The system ships with a role called <i>Default</i>. All new users are automatically associated with the <i>Default</i> role. It is recommended that you assign a selection of dashboards to the <i>Default</i> role. These are dashboards that you want all new users to have access to as soon as they're added to the system.</p> <p>You can create additional roles based on the requirements of your organization, then add or remove users as required, and choose the dashboards to assign to users based on their roles (users can have more than one role).</p>
Users	Associate and remove users from a selected role.
Dashboards	Choose dashboards to be associated with a selected role. These dashboards will be available to users assigned to the role when saving your changes.
Role name	A customizable name for the role. The system ships with a default role (called <i>Default</i>).
Full Folder Sync	Defines that when syncing dashboards to user roles, the system syncs the entire folder where dashboards are selected for the role. If Full Folder Sync and Overwrite is selected, when an admin user adds another dashboard to the folder, that dashboard is available to the user the next time the user logs in.
Default role	Defines that the selected role is the default for the system. Any new users added to the system are assigned to this role, and will have access to any dashboards associated with this role. Additionally, new users are automatically assigned <i>Reporter Permissions</i> (permissions group), which gives them view access to the system.
Role Synchronization	<p>Options for how a selected role is synced and dashboards made available or removed for users associated with the role:</p> <ul style="list-style-type: none"> • Disabled - The role is disabled. Any dashboards assigned to this role won't be synced to users added to this role. • Sync - When a user with this role logs in, they will have access to any dashboards associated with the role. Sync occurs when a user logs in. If a user is logged in when dashboards associated with their role is changed, they will see the change the next time they log in. This option deletes all dashboards currently assigned to users with the role, and copies over the current dashboard selection for the role. Manually assigned dashboards and roles are replaced in this automatic sync. • Overwrite - The existing dashboard to role association is overwritten when the next role sync occurs. <p>If Full Folder Sync and Overwrite is selected, when an admin user adds another dashboard to the folder, that dashboard is available to the user the next time the user logs in.</p>

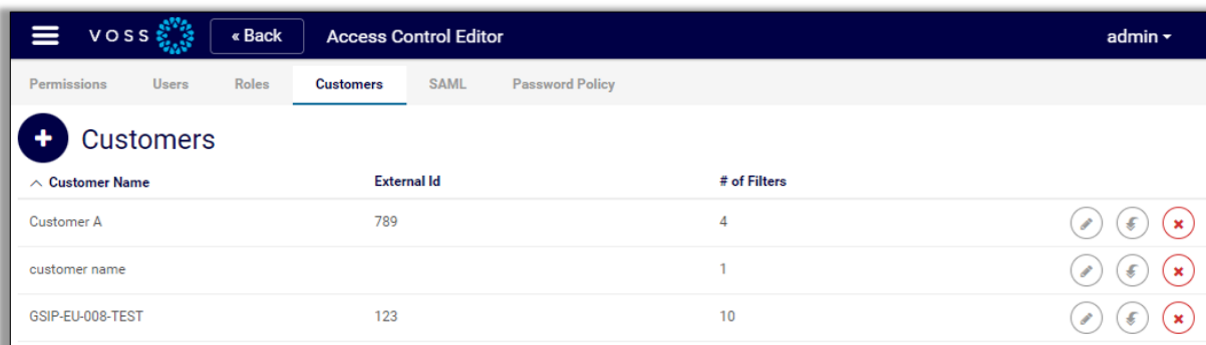
Related Topics

- [Add and configure roles](#)
- [Assign dashboards to users via their user role](#)
- [Add a new user with default role and dashboards](#)
- [View a user's roles, permissions, and dashboards](#)

Customers Tab

This tab adds, edits, clones, and deletes customers.

Customers can be actual companies (if you are an MSP), or they can be departments/individuals (if you are an enterprise).



Related Topics

- [Add and configure a customer](#)

SAML Tab

This tab configures SAML settings, which are used to enable single sign-on across security domains.

You can choose to enable SAML along with the specific signature algorithm and various attributes. This function often requires close interaction between the customer and the VOSS engineer.

Note: Security Assertion Markup Language (SAML) is an open standard for exchanging authentication and authorization data between parties, in particular, between an identity provider and a service provider. As its name implies, SAML is an XML-based markup language for security assertions (statements that service providers use to make access-control decisions).

Password Policy Tab

This tab configures the system password policy, allowing the system administrator (super user with admin role) to enforce an application user password policy across all local users.

Field	Value	Character Set
Minimum Length	5	
Minimum Uppercase	0	A-Z
Minimum Lowercase	0	a-z
Minimum Numeric	0	0-9
Minimum Special	0	!@#\$%^&*()[]
Password Lifespan	0	days
Maximum Login Attempts	10	

Related Topics


- [Configure password policy](#)

6.15.2. Add and configure roles

This procedure adds and configures a new user role.

Note: Roles are used to give users access to a collection of dashboards. The system ships with a default role called **Default**. This role must be enabled, and you will need to select the dashboards that all users should have access to by default. All new users are assigned the **Default** role, and will have immediate access to the dashboards associated with this role when they first log in. This simplifies the onboarding process for new users.

To add a new role:

1. Log in to the Dashboard application as admin user.
2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. Select the **Roles** tab.
4. Click the Plus icon (+) at **Roles**, then configure the new role:

- At **Role name**, fill out a name for the role.
- At **Users**, move relevant users from **All users** to **Users in role**.
- Choose whether this is a default role.
- Choose whether to enable full folder sync.
- Choose role synchronization options.
- Choose dashboards to associate with this role.

5. Click **Save**.

Provided the role is enabled and you have selected one or more dashboards for this role, any users with this role will have access to these dashboards the next time they log in.

Note:

- To edit a role, select the role on the **Roles** tab, update the role, and save.
 - To delete a role, select the role on the **Roles** tab, click **Delete**.
-

Related Topics


- [Roles Tab](#)

6.15.3. Add and configure permission groups

Permission groups are a way to give users specific permissions in the system.

Note: The system ships with a default permissions group called **Reporter Permissions** and a default user role called **Default**. New users are automatically assigned the **Default** role, and the **Reporter Permissions** permission group. **Reporter Permissions** automatically assigns the **View Application** permission to new users. A default collection of dashboards must be added to the **Default** role, and this role must be enabled (via the **Roles** tab in the Access Control Editor). These are dashboards that you want all new users to have access to as soon as they sign in to the system, and is a quick way of onboarding new users.

To add a permission group:

1. Log in to the Dashboard application as admin user.
2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. Select the **Permissions** tab.
4. Click the Plus icon (+) at **Permissions**, then configure the new permission group:
 - Fill out a name for the permission group.
 - Choose permissions.

Note: All permission groups should have at least the **View Application** permission.

- Add users to the permission group.
- Click **Save**.

Users in this permission group will have access to the system based on permissions configured for their permission group.

Related Topics


- [Permissions Tab](#)

6.15.4. Configure password policy

This procedure configures the password policy for local users.

1. Log in to the Dashboard application as admin user.

Note: Only a user with the admin role (super user) can view and configure the password policy.

2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. Select the **Password Policy** tab.
4. Configure the password policy settings, including:
 - minimum length of password
 - minimum uppercase letters to be included in the password
 - minimum lowercase letters to be included in the password
 - minimum numeric characters to be included in the password
 - minimum special characters to be included in the password
 - password lifespan (number of days before password will need to be changed)
 - maximum login attempts
5. Click **Save**.

Related Topics

- [Password Policy Tab](#)


6.15.5. Assign dashboards to users via their user role

This procedure automatically assigns a collection of dashboards to users via their user role.

Pre-requisites:

- Add the user. See [Add a new user with default role and dashboards](#)
- Add the role.

Associate dashboards and users to a role:

1. Log in to the Dashboard application.
2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. Select the **Roles** tab.
4. Select the role.
5. In the **Users** fields, move the relevant users from the **All users** field to the **Users in role** field, or remove users from the **Users in role** field to the **All users** field.
6. At **Dashboards**, select the relevant dashboards. Select an entire dashboard folder tree, or select a dashboard folder and select or deselect dashboards, as required.
7. Choose options for the sync:
 - Select **Full Folder Sync** if you want to refresh the users's dashboard whenever changes are made to the selected dashboard folders.
 - Select **Default role** if you want this role (and the associated dashboards) to be assigned to any user with this role.
 - Choose a **Role Synchronization** option:
 - Select **Disabled** if you don't want this role to sync dashboards to users with this role.
 - Select **Sync** to remove dashboards previously assigned to users with this role, and to replace manually assigned dashboards with dashboards associated to this role. When the user next logs in, they will have access to these dashboards.
 - Select **Overwrite** to replace existing instances of this dashboard with the dashboards associated with the role.

Note: If you have both **Full Folder Sync** and **Overwrite** selected, if the admin adds another dashboard to a dashboard folder, the user has access to the new dashboard the next time they log in.

8. Repeat this procedure to configure additional roles, if required.
9. Click **Save**.


The sync runs based on the settings you defined per role. The next time the user logs in, they will have access to the dashboards associated with their roles (one or more).

6.15.6. Add a new user with default role and dashboards

This procedure adds a new user so they have the dashboards they require for onboarding purposes.

Note: New users are automatically assigned the **Default** role, which should contain a default collection of dashboards that you want every user to have access to. This role is also assigned the **Reporter Permissions** permissions group, which provides at least **View Application** (read) access to the system. When a new user logs in the first time, they will have access to the default collection of dashboards. This makes it easier to onboard new users. The **Default** role must be enabled for your system, and you will need to associate the default collection of dashboards to the **Default** role (via the **Roles** tab in the Access Control Editor). The **Default Role** does not ship with dashboards already assigned to it.

To add a new user with the default role:

1. Log in to the Dashboard application as admin user.
2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. Select the **Users** tab.
4. Click the Plus icon (+) at **Users** to add a new user.
5. Fill out details for the new user:
 - Add a username, display name, and email address.

Note: The username is used to log in to the system. The display name is the name that displays at the top right on the GUI.

- Define whether to force the user to change their password when they first log in.
- Define whether the user's session can continue without a timeout.
- Choose the customer where this user will be assigned.
- Optionally, select additional roles for this user.

Note: All new users are automatically assigned the **Default** role.

- Optionally, select additional permission groups for the new user.

Note: All new users are automatically assigned to the **Reporter Permissions** group via the **Default** role. This permission group provides **View Application** (read) access to the system.

- Optionally, select additional permissions for the user.
- Fill out a password for the user.

6. Save your changes, then click out of the screen to refresh it.
7. View the new user listed on the **Users** tab. Use the icons to the right of the username to manage the user:
 - To edit a user account, click the **Edit** icon (pencil).

- To clone (copy) a user account, click the Clone icon (down arrow).
- To delete a user account, click the **Delete** icon (X).


Note: The user can now log in to the system with their username and **Default** role. On log in, the user has access to the dashboards associated with the **Default** role, plus any dashboards assigned via additional roles you may have configured for this user.

Related Topics

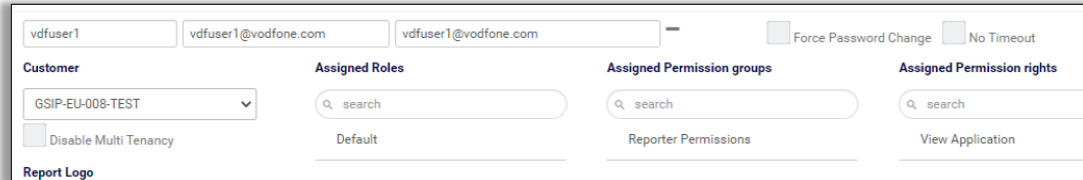
- [Users Tab](#)

6.15.7. View a user's roles, permissions, and dashboards

This procedure displays a user's account, their permissions, roles, and the dashboards associated with their role.

1. Log in to the Dashboard.
2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. To view or update a user's account:
 - Select the **User** tab.
 - Locate the relevant user, then click the Edit icon (pencil) for this user.
 - View the user's settings, including their assigned roles, permission groups, and permission rights.

Note: The following settings are editable: username, display name, email, whether to force a password change, whether timeout applies for a user's session, the customer, report logo, and password.



The screenshot shows the 'Access Control Editor' for user 'vdfuser1'. At the top, there are input fields for 'vdfuser1', 'vdfuser1@vodafone.com', and 'vdfuser1@vodafone.com'. To the right are checkboxes for 'Force Password Change' and 'No Timeout'. Below this is a 'Customer' dropdown menu set to 'GSIP-EU-008-TEST' and a 'Disable Multi Tenancy' checkbox. The main area is divided into four columns: 'Assigned Roles' (with a search bar and 'Default' selected), 'Assigned Permission groups' (with a search bar and 'Reporter Permissions' selected), and 'Assigned Permission rights' (with a search bar and 'View Application' selected). A 'Report Logo' field is at the bottom left.

4. To view the dashboards this user has, select the **Roles** tab, then:
 - Select a role.
 - At **Users in role**, inspect whether the user is assigned to the role.
 - Once you locate a user in a role, inspect the dashboards selected in the **Dashboards** tree structure for that role. These are the dashboards the user has access to.

Note: All new users are assigned the **Default** role and the collection of dashboards associated with this role. A user can have one or more roles, and will have access to the dashboards selected for each


role.

5. To view a user's permissions, select the **Permissions** tab, then:
 - Select a permission group.
 - At **Users in group**, inspect whether the user is in the permission group.
 - Once you locate a user in a permission group, inspect the permissions selected for the group.

Note: All new users are assigned the **Reporter Permissions** permissions group in the **Default** role. All permission groups must have at least the **View Application** permission. A user can be in one or more permission groups.

6.15.8. Add and configure a customer

This procedure displays, edits, clones, and deletes an existing customer, and adds a new customer.

1. Log in to the Dashboard.
2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. Select the **Customers** tab. Existing customers are listed on the page.
4. Choose an option:
 - To add a customer, click the Plus (+) icon at **Customers**.
 - In **Display Name** field, fill out a name for the customer.
 - Click **Edit Filters**, then configure filters:

Note: Filters allow you to define the data (tenanted) that only this customer will see.

- * At **Resource**, select the resource that applies to the customer.
- * At **Definitions**, select the specific definition that is unique to that customer. Drag and drop that definition to the **Filters** field. You can select multiple filter definitions.
- * Click **Update** to return to the **Customer** tab in the **Access Control Editor** (or click **Back** to cancel).
 - Click **Save** to create the new customer.
- To create a clone of a customer, select the Clone icon (down arrow) at the relevant customer (the one you want to clone).

You can create a clone (copy) of an existing customer, then modify the clone to create a new customer based on the settings in the clone. Save the new customer.
- To edit a customer, click the Edit icon (pencil). Update the customer, then save.
- To delete a customer, click the Delete icon (X) for that customer.


6.15.9. Change your password, display name, and report logo

This procedure allows a system user with minimum permissions to change their own password, their display name, email address, and the report logo.

Note: By default, all new system users are assigned the **Default** role, with **Reporter Permissions**. This role and permissions group allows the minimum **View Application** permission, but also allows non-admin users to change their own password, their display name, email address, and report logo, via the **Access Controls** menu (accessible via the Main Menu).

Admin users (superuser account) change their password via the Profile menu (click on the profile, then select **Edit Account**.)

To update your profile:

1. Log in to the Dashboard.
2. Click the Main Menu (hamburger icon) , then select **Access Control** to open the **Access Control Editor**.
3. On the **Users** tab, click the **Edit** icon (pencil).
4. Update your profile.
You can change your own password, your display name, your email address, and the report logo.
5. Click **Save**.

Related Topics

- [Edit Account](#)

7. Backup and Restore

7.1. Backup and Restore the Dashboard

7.1.1. Step 1: Backup

To configure the Dashboard backup, see [Archive](#)

Next steps

- Restore

7.1.2. Step 2: Restore

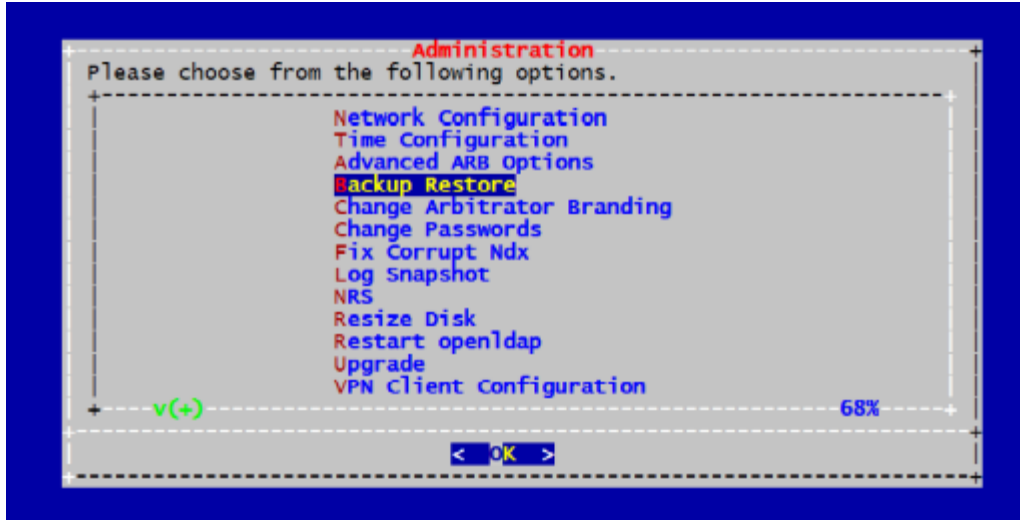
This procedure restores a backup of the Insights Dashboard.

Pre-requisites:

- Backup (see see: [Archive](#))

To restore the Dashboard application from a backup:

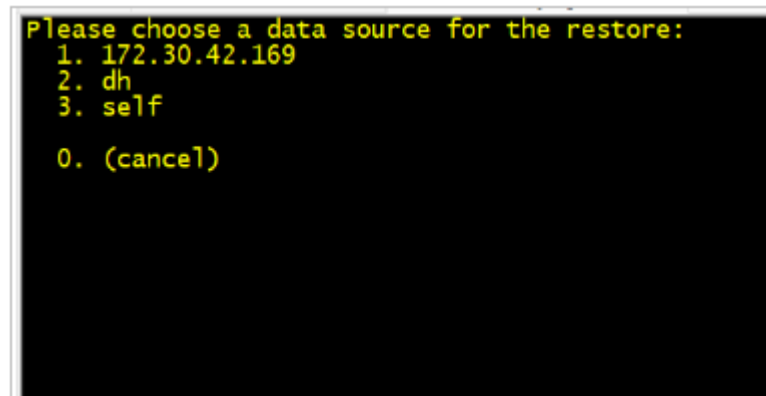
1. Log in to CLI as an admin.
2. Go to **Backup Restore** and click **OK**.



3. Navigate to **Restore a backup**.



4. Select the data source of the backup. This will be either `self` - which is stored locally, or a remote location. The example below has `dh` as an sftp server.



5. Select the data types to restore.

```
self
Please choose a data type to restore:
 1. All
 2. Avaya
 3. CISCO
 4. Config
 5. DEM
 6. Identity
 7. NDX
 8. Pexip
 9. Polycom
10. Themes
11. UHE
12. VDF
13. Webex
14. Zoom
15. DBDATA_ONLY

0. (cancel)
```

6. Select the number of months to restore (0 to 60 or all).

```
self All
self All
How many months of data to restore? (0..60, all)
  (no number means cancel)
█
```

7. Confirm the restore.

```
self All 0
Requested data and configurations will be restored.
Existing data and configurations may be replaced/overwritten.
Are you sure you wish to restore the data (y/n)?
```

8. View the message that displays when restore is complete.