

# GW DataReporter

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Version 16.6  
Operation Guide

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## Version History

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Each document has a revision number and an internal build number, which you can tell by checking the table below. Details of this document version are contained in the top row of the table below.

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# 1

# Introducing GW DataReporter

GW DataReporter is a network analytics tool. GW DataReporter captures massive quantities of data from subscriber networks, as well as real-time data, and converts it into valuable business intelligence needed to drive customer satisfaction and service profitability.

Tools in GW DataReporter include a full complement of canned reports for mining data in an array of networking and security reports and real-time monitors, plus a dedicated Advanced Reporting module for exploring fresh perspectives and gaining deeper insight. The subjects included in GW DataReporter are Network, Application, Subscriber, Device, Quality of Experience and Security.

Aside from allowing users to query, manipulate and present information collected by in-line platforms from their subscriber networks, GW DataReporter can import and then combine data generated by other systems into its reports. Its powerful, customizable analytical tools transform raw data from the network into modeled data presented in standard and customizable reports.

More in this introduction:

- To understand how to use the GW DataReporter Operation Guide, see [USING THIS GUIDE](#).
- To understand who uses GW DataReporter and for what purposes, see [WHO USES GW DATAREPORTER IN YOUR ORGANIZATION](#).
- Use the [GLOSSARY](#) in case a term is unfamiliar to you.
- For a list of the folders in which GW DataReporter's reports fall, see [REPORT FOLDERS](#).

## Using This Guide

This Operation Guide describes in detail how to operate GW DataReporter, as follows:

- See [CHAPTER 1: INTRODUCING GW DATAREPORTER](#) for descriptions of the intended audience, a glossary and other introductory material.
- See [CHAPTER 2: GETTING STARTED WITH GW DATAREPORTER](#) for descriptions of how to open and close GW DataReporter, as well as GW DataReporter navigation.

- By tapping the power of modern, Big Data technologies, GW DataReporter allows rapid and intelligent presentation of reports that permit further analysis via drill-down, graphical presentation and statistical analyses. See [CHAPTER 3: WORKING WITH GW DATAREPORTER](#) for procedures of all the above and more.
- GW DataReporter contains many detailed canned reports and Real-Time Monitors. To get the most out of these, see [CHAPTER 4: GW DATAREPORTER REPORTS](#) for their in-depth descriptions.
- To view which CDR types are required for your needs, see [CHAPTER 5: REPORT MAPPING](#).
- See [CHAPTER 6: GLOSSARY OF METRICS](#) for a glossary of all metrics used in GW DataReporter's canned reports.
- For a description of GW DataReporter preferences, see [CHAPTER 7: PREFERENCES](#).
- For a detailed description on how to use GW DataReporter's Advanced Reporting capabilities, otherwise known as Self Service, in which you create your own reports, see [CHAPTER 8: ADVANCED REPORTING \(SELF SERVICE\)](#).

## Who Uses GW DataReporter in Your Organization

The reports are designed for a number of job functions within service provider organizations:

**Table 1: Typical Usage by Job Type**

User Type	Typical Usage
<b>Management</b>	Summary reports to view, e.g. revenue lost to OTT applications, OpEx saved by traffic management or network resources utilization
<b>Marketing</b>	Subscriber segmentation Service package planning and verification
<b>Customer care managers</b>	Ability to track and analyze data for each customer Subscriber level troubleshooting
<b>Operations Management</b>	Network usage monitoring Network level troubleshooting
<b>Engineering</b>	Trend analysis

	Capacity planning Impact of usage on control pane
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## Glossary

See the following glossary if you come across a term in this guide that you are not familiar with. For descriptions of the DR types, see [DR TYPES](#).

Term	Definition
<b>Canned Report</b>	Any of the pre-defined reports available by default with the purchase of GW DataReporter, with static elements and fixed structure, as opposed to those saved or created by the user
<b>Conversations</b>	Individual connections
<b>Data Sources</b>	Gateway, SMGR, NetProtect
<b>DT</b>	DataTransform
<b>In-line Platform</b>	Gateway
<b>SMGR</b>	SubscriberMgr
<b>VC</b>	Virtual Channel
<b>NetProtect</b>	Web Security solution

## Report Folders

GW DataReporter's canned reports are organized into the following folders:

Folders	What's Inside?	Reference
<b>Network</b>	<ul style="list-style-type: none"> <li>Used for analysis and planning of network capacity and load</li> <li>Gives visibility into application usage and trends over different times of day</li> <li>Provides session-level data</li> <li>Gives deep topology-level visibility of capacity, throughput and congestion on: <ul style="list-style-type: none"> <li>Cable Networks: at the level of interface, channel and bonding group</li> <li>Mobile Networks: at the level of each individual CELL</li> </ul> </li> </ul>	<a href="#">NETWORK FOLDER</a>
<b>Subscriber</b>	<ul style="list-style-type: none"> <li>Used for subscriber profiling and usage trend monitoring</li> <li>Provides visibility of subscriber trends at the level of: <ul style="list-style-type: none"> <li>Application &amp; site usage</li> </ul> </li> </ul>	<a href="#">SUBSCRIBER FOLDER</a>

Folders	What's Inside?	Reference
	<ul style="list-style-type: none"> <li>◆ Networks usage</li> <li>◆ Tethering usage</li> <li>◆ Quality of experience</li> </ul>	
Experience	<ul style="list-style-type: none"> <li>• Used to measure quality of experience for:           <ul style="list-style-type: none"> <li>◆ Streaming Video</li> <li>◆ Web Browsing</li> </ul> </li> </ul>	<a href="#">EXPERIENCE FOLDER</a>
Security	<ul style="list-style-type: none"> <li>• Provides key data on the Antivirus, AntiPhishing and Web Filter services, focusing on the frequency of blocks, and on the categories of the blocked content</li> <li>• Provides auditing data about the NetProtect system, such as accessing the portals and profile changes</li> </ul>	<a href="#">SECURITY FOLDER</a>
Real-Time Monitor	<ul style="list-style-type: none"> <li>• Used for monitoring network metrics in real-time</li> <li>• Gives visibility of trends at the level of:           <ul style="list-style-type: none"> <li>◆ Network</li> <li>◆ Policy</li> <li>◆ User</li> <li>◆ Client IP</li> <li>◆ Application, application group</li> </ul> </li> <li>• Provides a custom monitor to view from a wide variety of metrics and attributes in real-time</li> </ul>	<a href="#">REAL TIME FOLDER</a>

Table 2: GW DataReporter Folders

## Managing Passwords

In order to facilitate installation and initial configuration, default values are provided for all required passwords.

It is **ESSENTIAL** for security that these default passwords be changed **AS SOON AS POSSIBLE**. In this section each default password is listed, along with instructions on how to change it.

### GW DataReporter GUI Password

The GW DataReporter GUI password is set on a user role basis.

The first-login default values are as follows:

- Default User Name:      Web\_Admin
- Default Password:      Web\_Admin

The user will be forced by the system to change the password on first login.

The new password must conform to the following rules:

- Minimum 8 characters
- At least 1 numeric character
- At least 1 special character

## Changing the GUI Password

This procedure describes how to change the password entered by the user to open GW DataReporter. This includes the password of the administrator, Web\_Admin. You may have to do this the first time you open GW DataReporter, or at any point subsequently.

To change your user password:

1. **OPEN PREFERENCES**, and then open the **Change Password** tab.

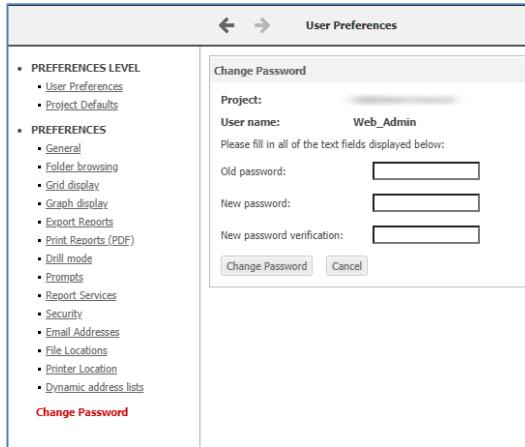


Figure 1-1: Change Password Tab

2. Complete the Old Password, New Password and New Password Verification fields, and then click Change Password.  
You have changed your password.

## 2 Getting Started with GW DataReporter

Opening GW DataReporter is described [HERE](#), and closing GW DataReporter is described [HERE](#). Use [GW DATAREPORTER NAVIGATION](#) to find out how to reach the basic features.

### Opening GW DataReporter

This procedure describes how to open GW DataReporter, which is a Web application.

To open GW DataReporter:

1. In your browser, enter the GW DataReporter intranet URL provided to you by your network administrator.  
The login page appears.

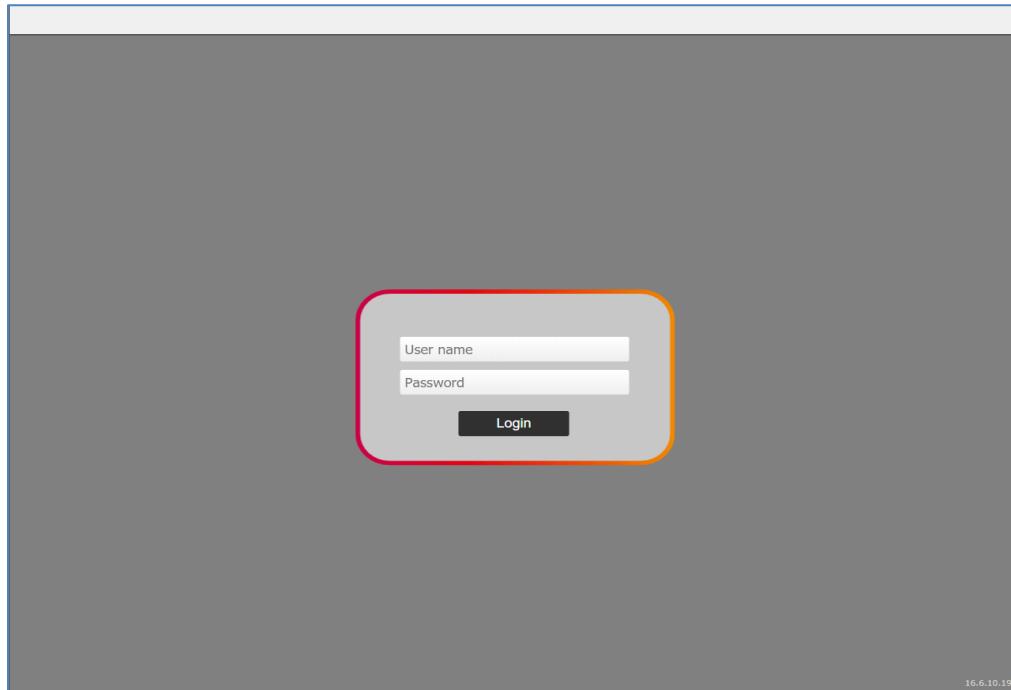


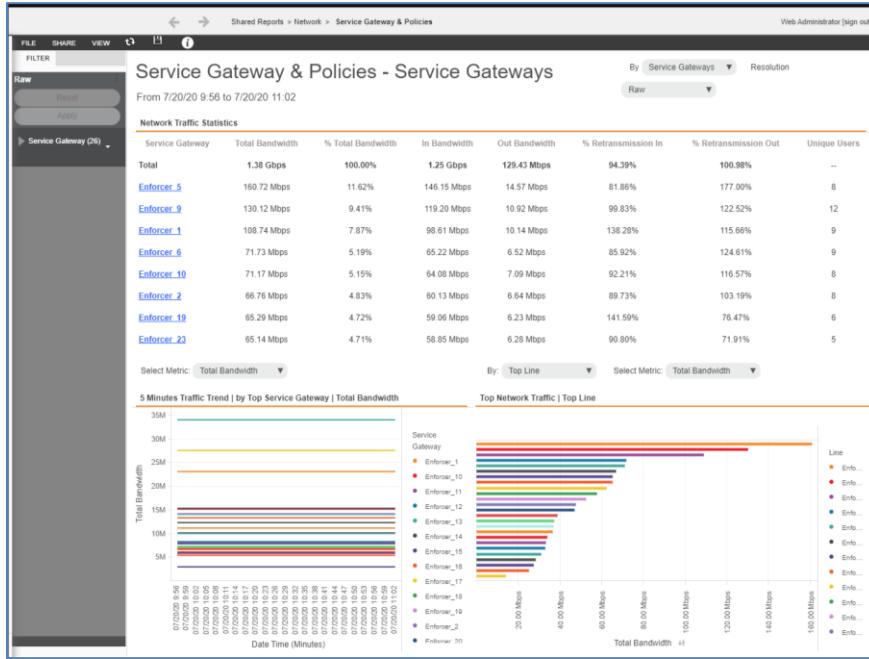
Figure 2-1: GW DataReporter Login Page

2. Enter the login credentials as instructed by your network administrator, and then press **Login**.

GW DataReporter loads and appears on the report that is the home page, with the navigation bar on top and the menu bar below that.

**NOTES:**

- Your license and report mode determines which report is the home page.
- GW DataReporter appears best when your browser is set to 100% magnification.

**Figure 2-2: Main Report and Home Page**

**NOTE** If you leave your computer, GW DataReporter times out after half an hour of disuse, and you will be prompted to re-enter your login credentials.

## GW DataReporter Navigation

Upon opening GW DataReporter, the user is presented with the **Home** page. All GW DataReporter pages, including the **Home** page, contains the following:

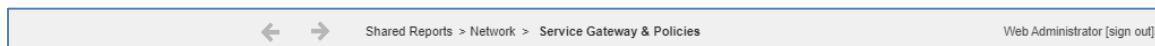
Area	Location	Description	Reference
<b>Navigation bar</b>	Top	Contains basic navigation buttons	<a href="#">NAVIGATION WITH THE NAVIGATION BAR</a>
<b>Menu bar</b>	Below Navigation bar	Contains options related to the report you currently have opened	<a href="#">REPORT MANAGEMENT</a>

<b>Reporting panel</b>	Left	Contains links to all reports, plus your history and subscriptions	<a href="#">NAVIGATION WITH THE REPORTING PANEL</a>
<b>Report area</b>	Center	Contains the report, which contains graphs and grids	<a href="#">PARTS OF A REPORT</a>

The canned reports are the nuts and bolts of GW DataReporter. To open a report, see the [WORKFLOW FOR USING A REPORT](#).

## Navigation with the Navigation Bar

The GW DataReporter **Navigation** bar appears at the top of all GW DataReporter web pages, and contains basic navigation buttons.



**Figure 2-3: The GW DataReporter Navigation Bar**

The **Navigation** bar contains the following navigation buttons:

Button	Description	Reference
	Clicking the region of the navigation bar to the left of the arrows returns you to the home page.	<a href="#">OPENING GW DATAREPORTER</a>
	Returns you to previous and subsequent pages	<a href="#">RETURNING TO PREVIOUS AND SUBSEQUENT PAGES</a>
Shared Reports > Network > <b>Service Gateways</b>	Your location in GW DataReporter, with links	
Web Administrator	Opens Admin options <b>Note:</b> This only appears if you are the administrator.	
[Sign out]	Signs you out	<a href="#">CLOSING GW DATAREPORTER</a>

## Returning to Previous and Subsequent Pages

On the [NAVIGATION BAR](#), the left arrow reverts the page to the last-run report or page, while the right arrow re-runs the report or page that was run subsequently.

Repeated pressing of the left or right arrow cycles through all of the reports or pages from the current session.

For example:

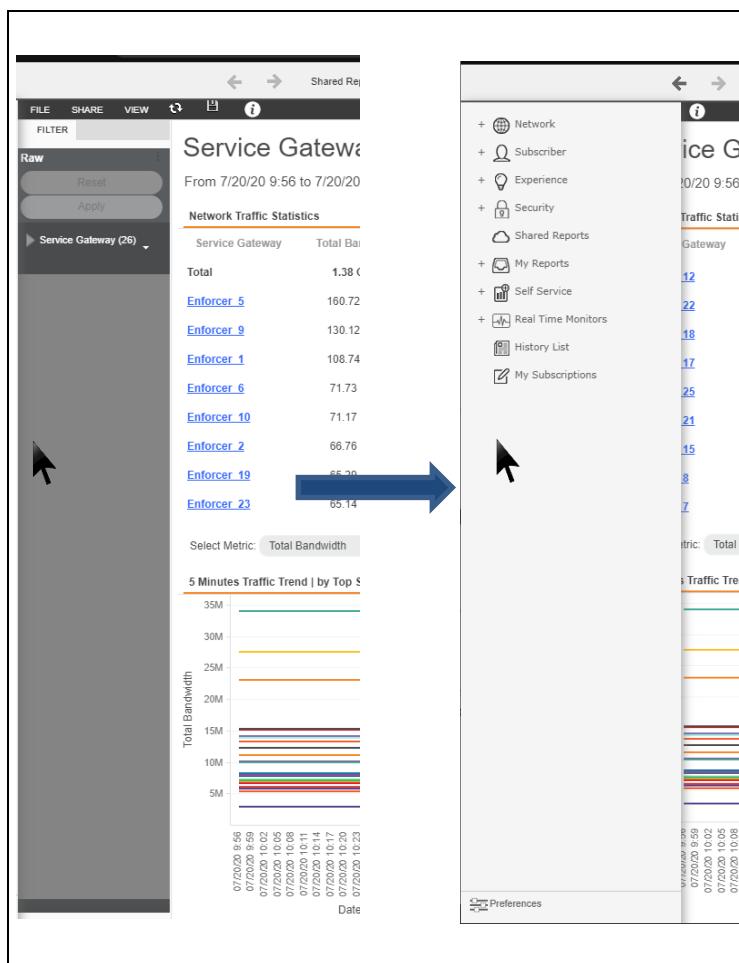
- Clicking the left and right arrow buttons in the folder system moves you back and forth among folders you have visited.
- Clicking the left and right arrow buttons between reports moves you in those, skipping over any **REPORT CRITERIA** and **FILTERING** you have performed.

## Expanding the Reporting Panel

The **Reporting** panel contains the reports on top, followed by other options.

To expand the **Reporting** panel:

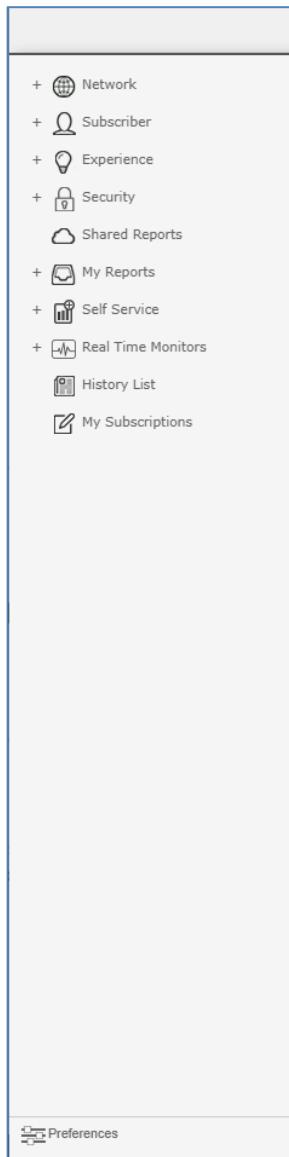
Move your mouse to the left side of the page, to the light-colored strip beyond the shadow.



**Figure 2-4: Reporting Panel Appearing**

## Navigation with the Reporting Panel

On the left side of the page, GW DataReporter displays an expandable panel menu containing the reports on top, followed by other options.



The **Reporting** panel contains the following navigation options:

Button	Name	Description	Reference
	Network	Expands the <b>Network</b> folder of reports	<a href="#">NETWORK FOLDER</a>
	Subscriber	Expands the <b>Subscriber</b> folder of reports	<a href="#">SUBSCRIBER FOLDER</a>
	Experience	Expands the <b>Experience</b> folder of reports	<a href="#">EXPERIENCE FOLDER</a>
	Security	Expands the Security folder of reports and templates	<a href="#">SECURITY FOLDER</a>
	Shared Reports	Opens the <b>Shared Reports</b> page, containing a folder for each folder as well as any other folders added by the administrator	<a href="#">OPENING A REPORT FROM SHARED OR MY REPORTS</a>
	My Reports	Opens the <b>My Reports</b> page, containing reports you have saved and folders you have created <b>Note:</b> The <b>My Reports</b> page only appears after you have saved a report there.	
	Self Service	Opens Self Service	<a href="#">ADVANCED REPORTING (SELF SERVICE)</a>
	Real-Time Reports	Expands the <b>Real-Time</b> monitors	<a href="#">REAL TIME FOLDER</a>
	History List	Opens the <b>History List</b> page	<a href="#">OPENING A REPORT FROM HISTORY</a>
	My Subscriptions	Opens the My Subscriptions page	<a href="#">SUBSCRIPTION MANAGEMENT</a>
	Preferences	Opens GW DataReporter <b>Preferences</b>	<a href="#">PREFERENCES</a>

## Closing GW DataReporter

To close GW DataReporter, do one of the following:

1. From the **Navigation** bar, click [**Sign out**].  
The login page appears, showing that you are logged out.
2. Close the browser window.

## 3 Working with GW DataReporter

By tapping the power of modern, Big Data technologies, GW DataReporter allows rapid and intelligent presentation of reports that permit further analysis via drill-down, graphical presentation and statistical analyses. This chapter describes how to work with GW DataReporter, as follows:

- See [USING A REPORT](#) to best understand the basic workflow, as well as other procedures that help you with GW DataReporter reports.
- See [REPORT DISTRIBUTION](#) to understand how to present reports for distribution.
- See [FOLDER MANAGEMENT](#) to understand what you can do with the folders in the GW DataReporter system.
- See [ACCESS MANAGEMENT](#) to understand how to change access privileges.
- See [SUBSCRIPTION MANAGEMENT](#) to understand the different types of subscriptions and how to manage them.
- See [REPORT ADMINISTRATION](#) for enabling, disabling and publishing GW DataReporter reports.

## Using a Report

It's a good idea to start with the [WORKFLOW FOR USING A REPORT](#) and review the [PARTS OF A REPORT](#).

See also the [TIME FRAME ABBREVIATIONS](#) for common abbreviations having to do with time frames in some of the reports.

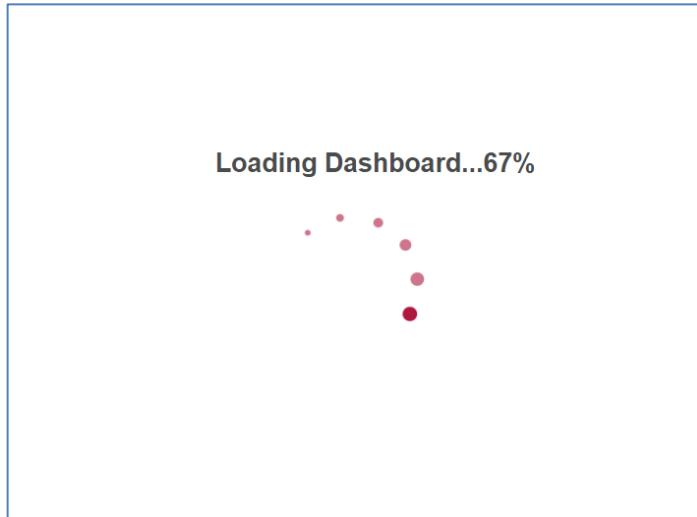
## Workflow for Using a Report

This workflow describes how best to open and use a Visual Insight reports.

1. From the **Reporting** panel, click the folder of the report, as follows:
  - ◆ Click a canned report folder to view all of the canned reports within.
  - ◆ Click **My Reports** to view all of the reports that you saved viewable only to you, as described in [SAVING A PREPARED REPORT](#).
  - ◆ Click **Shared Reports > Custom Reports** to view all of the reports saved by other GW DataReporter users made available to you, as described in [SAVING A PREPARED REPORT](#).
2. Click the report.

One of the following happens:

- ◆ A status page briefly appears, on which you can refresh status or cancel the report, among other things, and then the report opens.



**Figure 3-1: Processing Request Page**

- ◆ For some reports, the **Filter Criteria** page appears, where you must select the criteria by which to present the report. See [SELECTING REPORT CRITERIA](#).
3. From the report area, you can do the following:
- ◆ From the **Resolution** dropdown list, change the time resolution that the report presents, to any of the following:
    - **Raw:** Granularity down to 5 minutes
    - **Hourly:** Granularity down to the hour
    - **Daily:** Granularity down to the day
    - **Weekly:** Granularity down to the week
    - **Monthly:** Granularity down to the month
  - ◆ From the other dropdown lists, change the attributes and metrics for the report to present, as required.

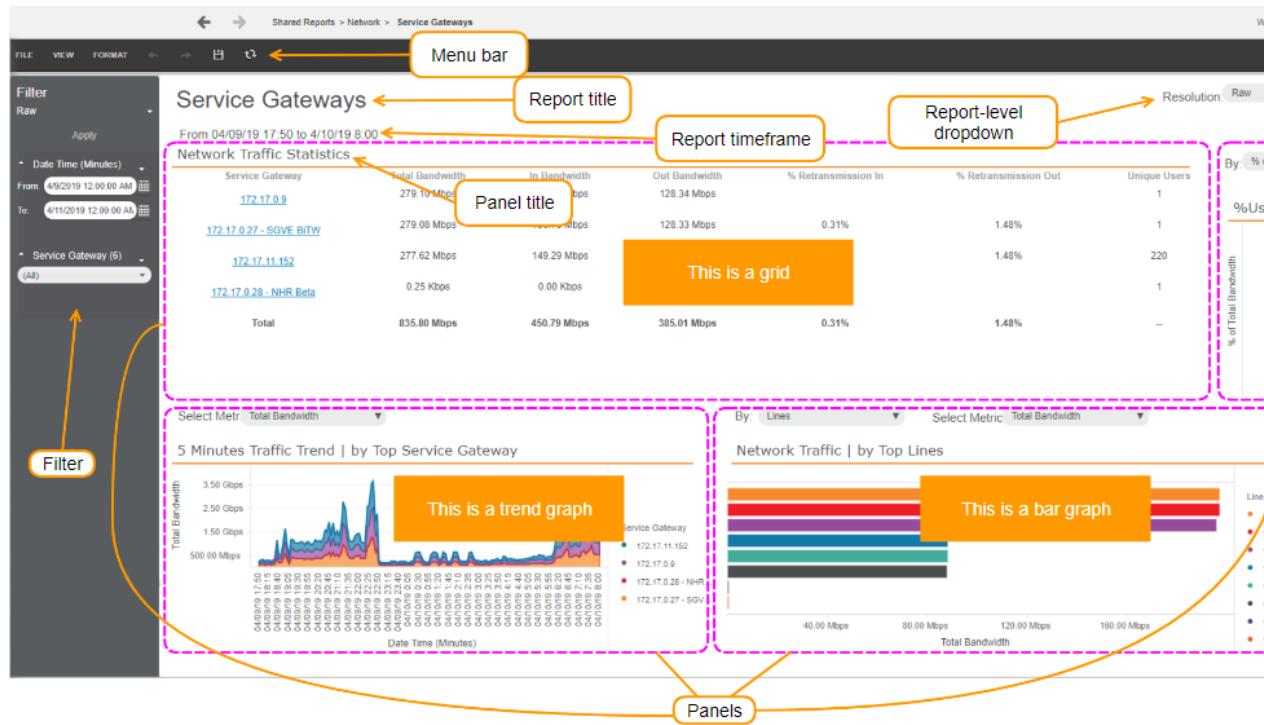
**NOTE** The dropdown lists in the report area may vary for each report.

4. You can do any of the following:
- ◆ [FILTER THE REPORT](#).
  - ◆ [REFRESH THE REPORT](#).
  - ◆ From a graph area, you can perform any of the [GRAPH ACTIONS](#).
  - ◆ From a grid area, you can [SORT THE GRID BY THE CONTENTS OF A COLUMN](#).

- ◆ EXPAND A REPORT'S PANEL.
  - ◆ EXPORT A PANEL to Excel, PDF or a CSV file.
  - ◆ PRINT THE REPORT from your browser.
5. From **File** in the menu bar, you can do the following:
- ◆ To open a report again later and view current data, **SAVE THE PREPARED REPORT**.
  - ◆ To view the report as a PDF, **EXPORT THE REPORT TO PDF**.

## Parts of a Report

The following diagram shows all the parts of a GW DataReporter Visual Insight report:



## Selecting Report Criteria

After selecting a report to open, you may be prompted, on the **Filter Criteria** page, to select attributes, metrics and filters by which to present the report. This is part of the **WORKFLOW FOR USING A REPORT**.

The **Report Criteria** page is made up of selection areas, such as **Select Attributes**, **Select Metrics** and **Date/Time Filter**. In each selection area, you prepare the report criteria by moving items between **Available** and **Selected**. When an item is in the **Selected** field, it appears in the report.

Here is a sample **Report Criteria** page:

The screenshot shows the GW DataReporter interface with three main selection panels:

- 1. Select Attributes for Peak Bandwidth over 5 Minutes**: Available items include Application, Application Group, End Time, Policy Line, Policy Pipe, Policy VC, and Service Gateway. One item, "Date Time (5 Minutes)", is selected and moved to the "Selected" list.
- 2. Select Metrics for Peak Bandwidth over 5 Minutes (Required)**: Available items include various bandwidth and volume metrics like Peak In Bandwidth (Mbps), Peak Out Bandwidth (Mbps), and Total Volume (MB). Two items, "SMIN -Total Bandwidth (Mbps)" and "Peak Total Bandwidth (Mbps)", are selected and moved to the "Selected" list.
- 3. Date/Time Filter for Peak Bandwidth over 5 Minutes (Required)**: A date selection field is present, with "Run Dossier" and "Cancel" buttons at the bottom.

To prepare the report criteria:

1. For each selection area, do any of the following:
  - ◆ To move an item from **Available** to **Selected**, or from **Selected** to **Available**, select the item and use the arrow buttons, or double-click the item.
  - ◆ If the items are spread over more than one page, then use the navigation arrows to find the criteria:

This screenshot shows the "1. Select Attributes for Peak Bandwidth over 5 Minutes" panel. The "Available" list contains the following items: Application, Application Group, End Time, Policy Line, Policy Pipe, Policy VC, and Service Gateway. The "End Time" item is currently highlighted.

- ◆ You can always search for a specific item by entering your selection in the search field, and then click the magnifying glass :

**2. Select Metrics (Required)**

Choose objects from the list.

Search for:

Available:

- In Bandwidth (Avg)
- In Bandwidth (Sum)
- Volume In

1 - 3 of 3

**NOTE Some selection areas require you to select only one and no more.**

2. To run the report, click **Run Document** or **Run Dashboard**.

A status page appears, on which you can refresh status or cancel the report, among other things, and then the report opens.

3. For a description of how the report page is set up, see **REPORT NAVIGATION**.

## Filtering a Report

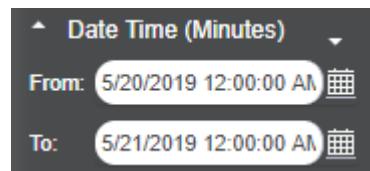
This procedure describes how to filter a report, which is helpful if you want to narrow down the scope of what a report covers. This is part of the **WORKFLOW FOR USING A REPORT**.

**NOTE This procedure is relevant for the newer reports based on Visual Insight.**

To filter a report:

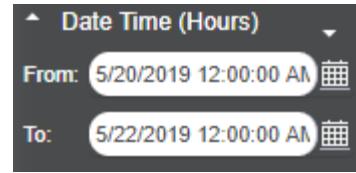
1. In the **Filter** area, depending on the report, do any of the following:

- ◆ Filter the time frame that you want to include:
  - If from the **Resolution** dropdown list you selected **Raw**, then, from the **Date Time (Minutes)** filter, enter the **From** and **To** dates and times, down to the minute, within the last 24 hours. Entering this time frame is described [HERE](#).

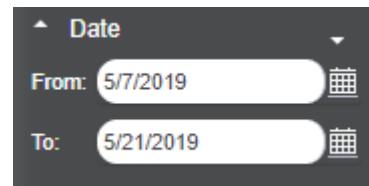


**Figure 3-2: Date Time (Minutes) Filter**

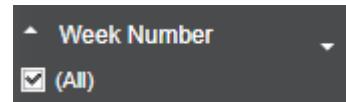
- If from the **Resolution** dropdown list you selected **Hourly**, then, from the **Date Time (Hours)** filter, enter the **From** and **To** dates and times, down to the hour, within the last two weeks. Entering this time frame is described [HERE](#).
- If from the **Resolution** dropdown list you selected **Daily**, then, from the **Date** filter, enter the time frame, enter the **From** and **To** dates, within the last three months. Entering this time frame is described [HERE](#).
- If from the **Resolution** dropdown list you selected **Weekly**, then, from the **Week Number** filter, select the weeks within the last three months.
- If from the **Resolution** dropdown list you selected **Monthly**, then, from the **Month-Year** filter, select the months within the last six months.



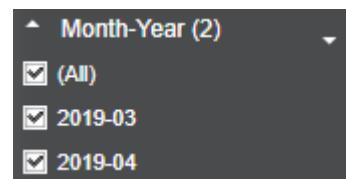
**Figure 3-3: Date Time (Hours) Filter**



**Figure 3-4: Date Filter**

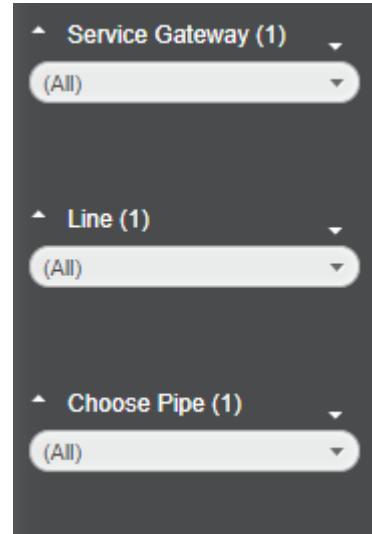


**Figure 3-5: Week Number Filter**



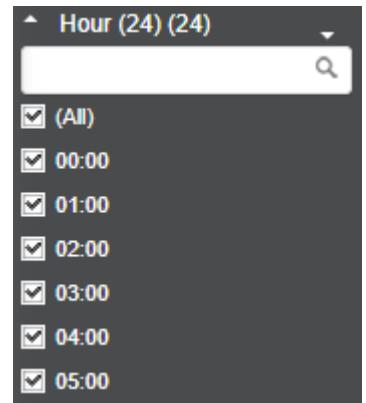
**Figure 3-6: Month-Year Filter**

- ◆ Filter the network elements that you want to include, which are the **Gateway**, **Line**, **Pipe** or **VC**.



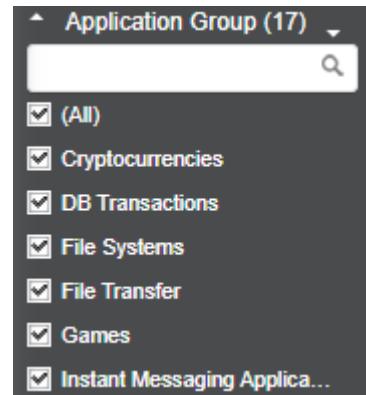
**Figure 3-7: Network Element Filters in the Policy Pipes Report**

- ◆ From the **Hour (24)** filter, select the hours in the last 24-hour period that you want to include.



**Figure 3-8: Hour (24) Filter in the Applications Rank Report**

- ◆ From the **Application Group** filter, select the application groups that you want to include.



**Figure 3-9: Application Group Filter in the Applications Rank Report**

- From the **Top Domains** filter, in the number field, enter the number of top domains you want to appear.

**Figure 3-10: Top Domains Filter in the Most Active HTTP Domains**

- Click **Apply** for the filter to apply.

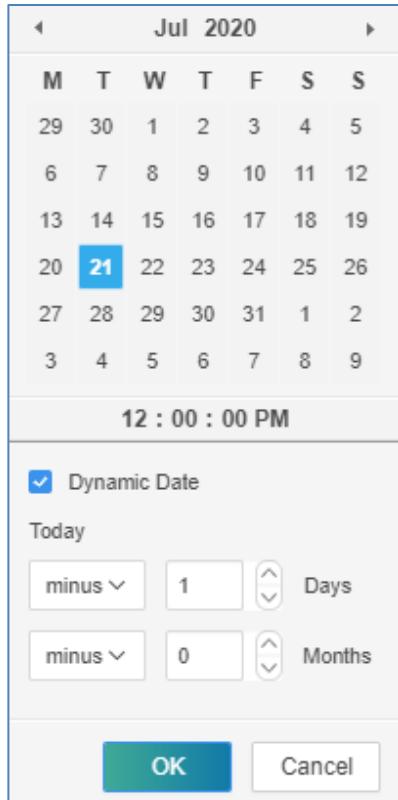
## Entering the Time Frame in a Time Frame Filter

This procedure describes how to enter the time frame in the **Date Time (Minutes)**, **Date Time (Hours)** and **Date** filters.

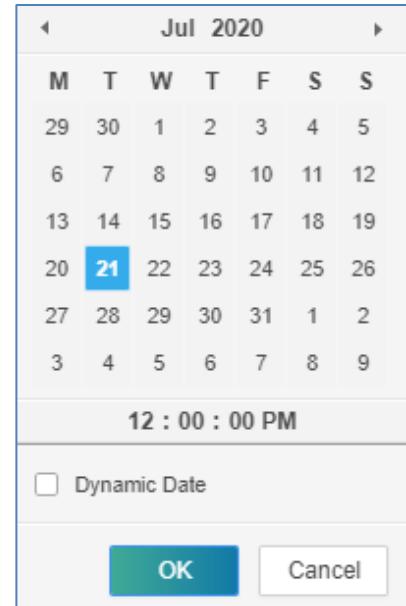
To enter a time frame in a time frame filter, for both the **From** and **To** fields:

- Click the calendar icon.  
The calendar dialog box appears, with **Dynamic Date** selected.
- Do one of the following:

- ♦ If you want the date relative to today, then leave **Dynamic Date** selected, and then select how many days and months minus today.
- ♦ If you want to select the date, then clear the **Dynamic Date** option, and then, in the date picker, select the date.



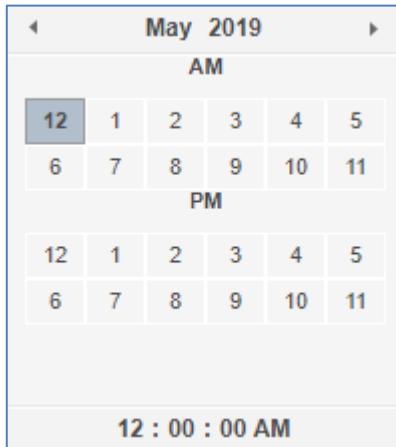
**Figure 3-11: Calendar with Dynamic Date Selected**



**Figure 3-12: Calendar with Dynamic Date Cleared**

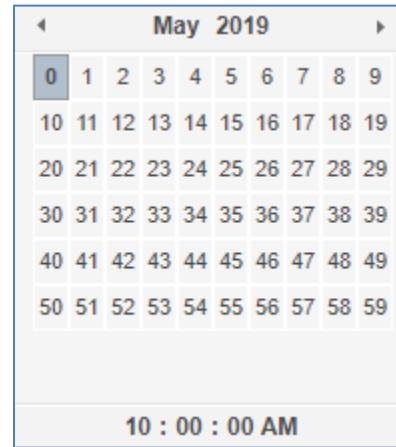
3. Do the following:

- ♦ Click the HH part of the time display to select the hour:



Changing the HH is only relevant for the **Date Time (Minutes)** and **Date Time (Hours)** filters.

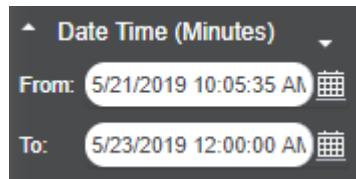
- ♦ Click the MM part of the time display to select the minute within the hour:



Changing the MM and SS is only relevant for the **Date Time (Minutes)** filter.

#### 4. Click OK.

The time frame is entered accordingly.



**Figure 3-13: Entered Time Frame**

## Viewing Report Insights

The **Insights** area, located in the lower part of many reports, presents notifications in real time of applicable insights from activity on your network.



**Figure 3-14: Report Insights**

The insights are rule-based and activate when criteria are met. They are designed to draw your attention to network trends, so that you can prepare for and take advantage of them, and outliers, so that you can respond efficiently to them.

Insights are relevant to the report on which they appear, and do not change when report filters are applied.

Insights yield the following information:

Insight Information	Description
<b>Type</b>	<b>Shift Above:</b> The average for an activity has risen. <b>Shift Below:</b> The average for an activity has dropped. <b>Trend Upward:</b> The activity is trending up. <b>Trend Downward:</b> The activity is trending down. <b>Outlier:</b> An exception to normal activity has been detected. <b>Minimum Threshold:</b> The activity has passed the minimum threshold. <b>Maximum Threshold:</b> The activity has passed the maximum threshold.
<b>Activity</b>	The metric along with attribute that the insight is presenting, for example, the percent of video watched with stalls
<b>Busy Hour</b>	Whether the activity occurred in a busy hour or weekend
<b>Domain/Publisher</b>	The location or source where the activity occurs
<b>Time Period</b>	The time period in which the activity occurs

## Time Frame Abbreviations

The following describes how to read the time frame abbreviations scattered throughout the graphs and grids in GW DataReporter.

In most graphs:

- **Current (C)** = Rolling period for which there is data in the system
  - ◆ **Day:** Yesterday (previous one day ending at 23:59 PM last night)
  - ◆ **Week:** Current rolling week of days ending yesterday (previous seven days ending at 23:59 PM last night)
  - ◆ **Month:** Current rolling month of days ending yesterday (previous 30 days ending at 23:59 PM last night)
- **Last** = Rolling period before Current
  - ◆ **Day (LD=Last Day):** Day before yesterday (two calendar-days ago ending at 23:59 PM the night before last)
  - ◆ **Week (LW=Last Week):** Week before current rolling week of days (8-14 days ago ending at 23:59 PM eight nights ago)
  - ◆ **Month (LM=Last Month):** Month before current rolling month of days (31-60 days ago ending at 23:59 PM 31 nights ago)

However, in Applications Movers, Web Experience and Video Experience:

- **Current** = Latest full calendar week (Mon–Sun); latest full calendar month
- **Last** = Calendar week before the latest calendar week; Calendar month before the latest calendar month

## Refreshing a Report

After filtering a report, you can refresh the report and reset it to the default settings. This is part of the [WORKFLOW FOR USING A REPORT](#).

To refresh a report:

- From the menu bar, click the refresh button .
- The report refreshes and resets to the default settings. If there was a report criteria page, then the report criteria page appears.

## Sorting a Grid by the Contents of a Column

This is part of the [WORKFLOW FOR USING A REPORT](#). To sort a grid by the data of a specific column:

1. Right-click the column header, and then select one of the following:
  - ◆ **Sort > Ascending** for the bottom value to be greatest
  - ◆ **Sort > Descending** for the top value to be greatest
2. To return to the complete report, from the menu bar, click the back arrow .

## Expanding a Panel

This procedure describes how to expand a panel in a report, so that the panel covers the entire report area. This is part of the [WORKFLOW FOR USING A REPORT](#).

To expand a panel:

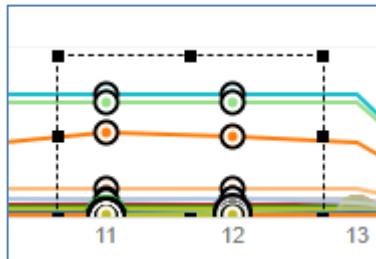
1. Hover over the panel that you want to expand.
- In the upper right corner of the panel, a menu arrow appears .
2. Click the arrow, and then, from the menu, select **Maximize**.
  3. To return to the complete report, from the menu bar, click the back arrow .

## Graph Actions

This is part of the [WORKFLOW FOR USING A REPORT](#). From the **Report** area you can do the following actions:

- Zoom in to an area of the report, so as to keep only specific points:

- a. Select the area into which you want to zoom by dragging the mouse over the area.



**Figure 3-15: Selecting an Area in a Graph**

- b. Right click, and then, from the menu, select **Keep Only**.
  - c. To return to the previous view, from the menu bar, click the back arrow .
- Exclude specific points from a specific area of the report:
    - a. Select the area whose data you want to exclude by dragging the mouse over the area.
    - b. Right click, and then, from the menu, select **Exclude**.
    - c. To return to the previous view, from the menu bar, click the back arrow .
  - Drill down to view the data of a specific area of the report by another attribute:
    - a. Select the area whose data you want to view by another attribute by dragging the mouse over the area.
    - b. Right click, and then, from the menu, select **Drill to** the attribute.
  - View the graph as a grid:
    - a. Hover over the panel that you want to view as a grid.
 

In the upper right corner of the panel, a menu arrow appears .
    - b. Click the arrow, and then, from the menu, select **Change Visualization > Grid**.
    - c. To return the view to graph, from the menu bar, click the back arrow .

## Exporting a Panel

This procedure describes how to export a panel of a report to Excel, PDF or a CSV file. A graph panel may be exported to PDF or CSV, whereas a grid panel may also be exported to Excel.

To export a panel to Excel, PDF or a CSV file:

1. Hover over the top-right corner of the panel so that you see a triangle dropdown icon ▾.
2. Click the dropdown icon, and then do one of the following:
  - ◆ Select **Export > Excel** to export to an Excel file.
  - ◆ Select **Export > PDF** to export to a PDF file.
  - ◆ Select **Export > CSV** to export to a CSV file.

A new tab opens, and the exported file downloads to your browser.

## Report Distribution

This section includes procedures for distributing reports, so that you can communicate GW DataReporter's big data insights to others. These procedures are:

- **SAVING A PREPARED REPORT:** Saving the report to **Custom Reports**, **Shared Reports** or **My Reports**, so that you can open it again later and view current data
- **EXPORTING A REPORT TO PDF:** Exporting a report to PDF, which can then, for example, be added as an email attachment
- **PRINTING A REPORT:** Printing a report using your browser's print option
- **ADDING A REPORT TO THE HISTORY LIST:** Adding a report to the **History List**, thus saving it with the selected report criteria and filters
- **RUNNING A REPORT FROM THE HISTORY LIST:** Running a report from the **History List**, as well as other actions you can perform from the **History List**
- **SHARING A REPORT:** Sharing a report with another user by providing the user with a link or creating an HTML snippet
- **SENDING AN EMAIL OF THE REPORT AS OF NOW:** Send an email of the report according to the current filters and criteria, in HTML or PDF form
- **VIEWING DATA BEHIND THE EXCEL GRAPH:** View the data in table form of a graph in a downloaded Excel, and is relevant after **EXPORTING A PANEL** to Excel or CSV

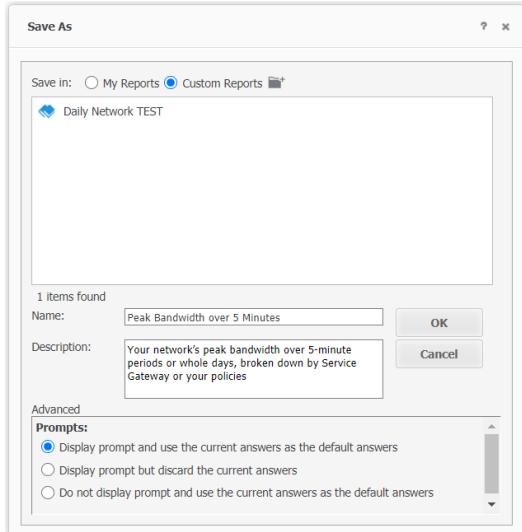
## Saving a Prepared Report

This procedure describes how, after filtering and otherwise preparing a report, to save the report to **Custom Reports** or **My Reports**, so that you and others can open it again later and view current data.

To save a report:

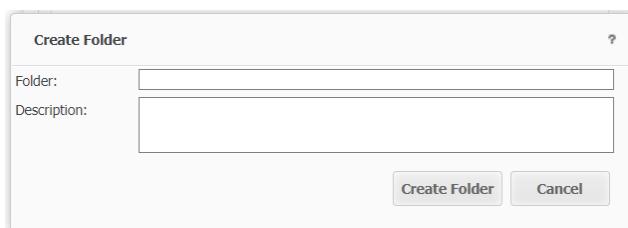
1. Filter and prepare the report how you want it to appear when run at a later date.
2. From the menu bar, click **File > Save As**.

The **Save As** dialog box appears, as follows:



**Figure 3-16: Save As Dialog Box**

3. From the dropdown list, select whether you want to save the report in **Custom Reports** or **My Reports**, as follows:
  - ◆ Save the report in **Custom Reports** if you want other GW DataReporter users to open the report.
  - ◆ Save the report in **My Reports** if you want the report available only to you.
4. If you want to save the report in an existing folder, then, in **Shared Custom Reports** or **My Reports**, select the folder.
5. If you want to create a folder in which to save the report, then do the following:
  - a. Click, next to the dropdown list, **Create New Folder** .



**Figure 3-17: Create Folder Dialog Box**

- b. In the **Create Folder** dialog box, name the folder and provide an optional description, and then click **Create Folder**.

The folder is saved and is selected from the dropdown list.

6. If the report was preceded by a prompt, then select one of the following:
  - ◆ **Display prompt and use the current answers as the default answers:** Select this option if you want the user to have the option of changing the report criteria before running the report.
  - ◆ **Display prompt but discard the current answers:** Select this option if you do not want the prior report criteria.
  - ◆ **Do not display prompt and use the current answers as the default answers:** Select this option if you want both the prior report criteria and the post-run filters saved. This option should be selected for **SUBSCRIPTIONS**.
7. Type a name for the report and an optional description, and then click **OK**.

The report is available in the location that you saved it. The default is **MY REPORTS**.

**NOTE**

For every report in which the *Do Not Display Prompt and Use the Current Answers as the Default Answers* option was selected, after upgrading GW DataReporter, you must run and save the report with the **Save As** option, overwriting the old report.

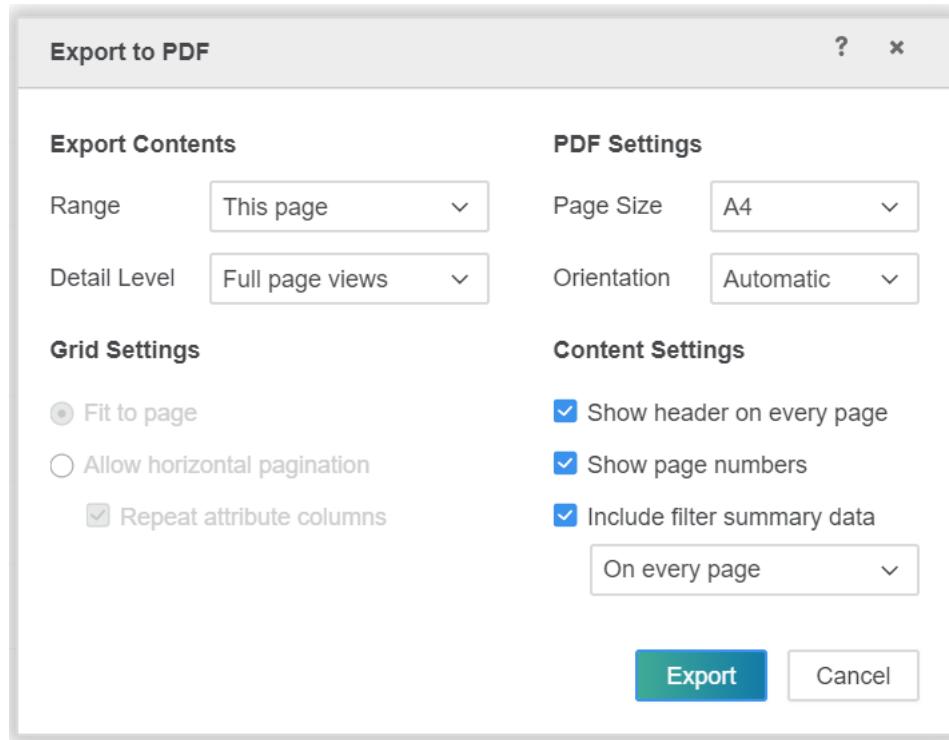
## Exporting a Report to PDF

This procedure describes how to export a report to PDF, which can then, for example, be added as an email attachment.

To export a report to PDF:

1. If the report contains a **Filter**, then filter the data that you want the PDF to contain.
2. From the menu bar, select **File > Export to PDF**.

The **Export Options** dialog box appears.



**Figure 3-18: Export Options Dialog Box**

3. Do one of the following:
  - ◆ Select **Current Sheet** if you want the PDF to contain only the resolution that you selected from the resolution dropdown lists within the report.
  - ◆ Select **All Sheets** if you want the PDF to contain each resolution option from the resolution dropdown lists within the report.

**NOTE**

The **All Sheets** option does not export all metric and attribute combinations, rather only those that are currently displayed on the screen.

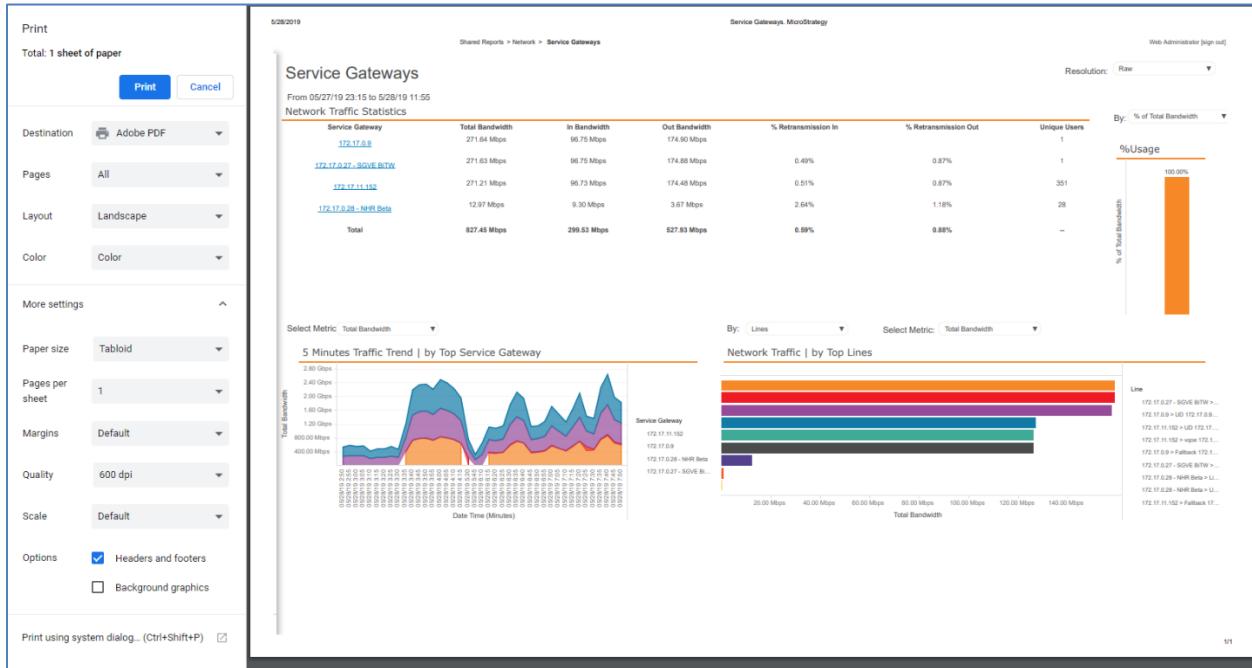
4. Click **OK**.
- The report exports to PDF.
5. Open the PDF from your browser or with an external PDF reader, and, to navigate, use the table of contents built in to the browser or external reader.

## Printing a Report

This procedure describes how to print a report using your browser's print option, which prints only what actually appears in the report at the time that you print it.

To print a report:

1. If the report contains a **Filter**, then filter the data that you want the printout to contain.
2. From the menu bar, select **File > Print**.  
Your browser's print options screen appears.
3. Prepare the print options as needed, and verify that the paper size is of the correct dimensions. For example, A3 and Tabloid work, whereas A4 and Executive do not.



**Figure 3-19: Print Options in Chrome**

4. Click your browser's print button.  
The report prints.

## Adding a Report to the History List

When you add a report to the **History List**, you save it with the selected report criteria and filters, so that it loads in the background after GW DataReporter has been opened. This is only relevant for reports in which you selected criteria on a **REPORT CRITERIA** page.

To add a report or to the **History List**:

1. From the **Report Criteria** page, select the criteria and then click **Run**.
2. Filter the report as required.
3. With the report open, from the menu bar, select **File > Add to History List**.

The report is added to the **History List**. When you open it from the **History List**, it appears with the criteria and filters you previously selected.

## Running a Report from the History List

This procedure describes how to run a report from the **History List**, as well as other actions you can perform from the **History List**.

To open a report from the **History List**:

1. From the **Reporting** panel, select **History List**.

The **History List** page appears.

Name	Status	Message Creation Time	Actions	Remove
>  Hourly Peaks	Ready [mark as "unread"]	5/26/19 3:07:30 PM	abl	
>  Minutes of Use	Ready	5/26/19 7:56:02 AM	abl	
>  Encrypted Video QoE	Ready	5/26/19 5:57:40 AM	abl	

Figure 3-20: History List Page

2. Click on the row of a report to run it.
3. You can Other actions perform from the **History List**, in the row of a report:
  - ♦ From the **Actions** column:
    - Export to Excel by clicking .
    - Export to PDF by clicking .
    - Open detailed information about the report and the criteria and filters it was saved with by clicking .
    - Rename the report as it appears in the **History List** by clicking abl.
  - From the **Remove** column, remove the report from the **History List** by selecting it and then clicking **Remove**.

## Sharing a Report

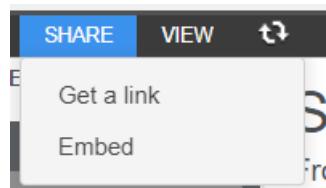
This procedure describes how to share a report with another user by providing the user with a link or creating an HTML snippet.

**NOTE** To view the report that has been shared, the user must also log in to GW DataReporter.

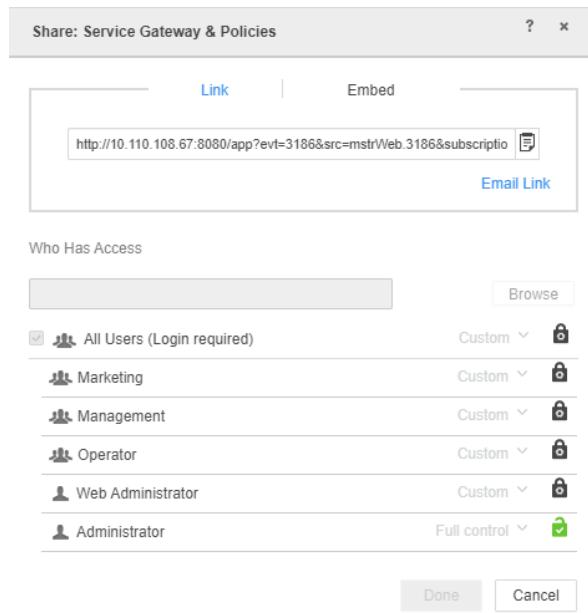
To email a link to a GW DataReporter user:

1. From the menu bar, click the share button SHARE.

The **Share** drop-down appears.



Choosing either **Get a Link** or **Embed** will call up the **Share** pop-up.



**Figure 3-21: Share Dialog Box**

**NOTE** Within the Share pop-up, you can switch between sharing a link or embedding the report itself.

2. From the Sharing Options area, click Email Link.

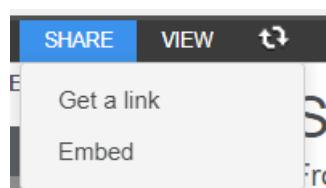
An Outlook email opens containing the link and the name of the report as the subject.

3. Click **Close** to close the **Share** dialog box.

To present a link that you can copy:

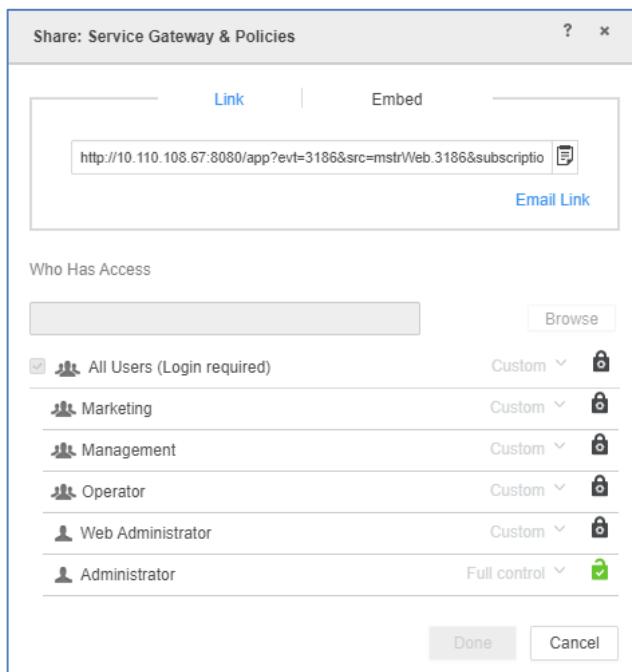
1. From the menu bar, click the share button **SHARE**.

The **Share drop-down** menu appears.



2. From the Sharing Options area, click Get a link.

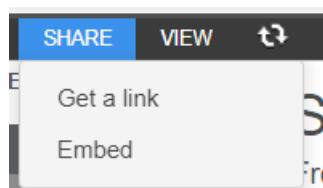
The link appears in the text-box portion of the pop-up.



3. Click to copy the report's link to the clipboard.
4. Click **Close** to close the **Share** dialog box.

To present an HTML snippet that you can copy into your HTML file:

1. From the menu bar, click the share button .
2. The Share drop-down menu appears.



3. From the Share drop-down area, click Embed.
4. The snippet appears below along with options for tweaking the link. You can select the snippet by clicking in the field.
5. Edit the snippet directly in the field, or by doing the following:
6. Edit the Width and Height fields.
7. Select Navigation Bar, Toolbar, Tools Panel or Footer to add them to the snippet.
8. Click to copy the HTML snippet to the clipboard.
9. Click Done to close the Share dialog box.

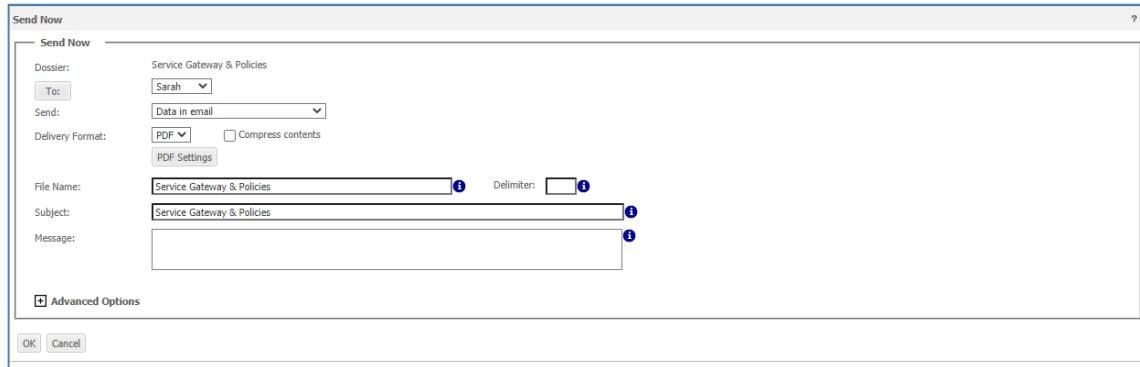
## Sending an Email of the Report as of Now

This procedure describes how to send an email of the report according to the current filters and criteria, in HTML or PDF form.

To send an email of a report according to the current filters and criteria:

1. From the menu bar, select **File > Send Now**.

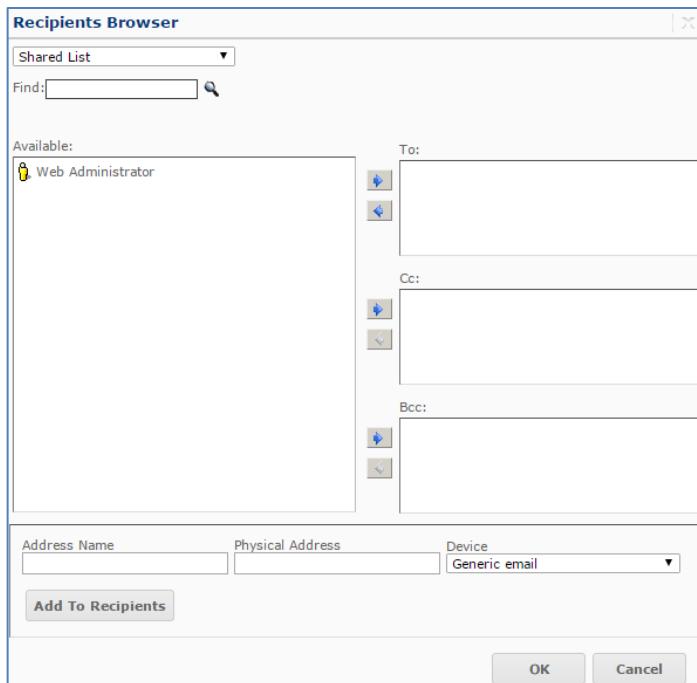
The **Send Now** screen appears.



**Figure 3-22: Send Now Screen**

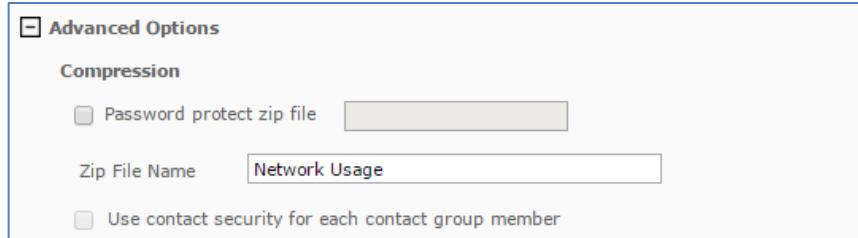
2. Do the following:

- ◆ From the **To** dropdown list, select the email address of the recipient, or click **To** to enter, in the **Recipients Browser** dialog box, the address of the recipient or recipients.



**Figure 3-23: Recipients Browser Dialog Box**

- ◆ From the **Send** dropdown list, select whether you want the email to contain a representation of the report or whether it should contain just a link to it.
- ◆ If from the **Send** dropdown list you selected a **Data in Email** option, then, from the **Delivery Format** dropdown list, select the format.
  - ◆ If you selected **PDF** or **Excel** as the format, then select **Compress Contents** if you want the representation's contents compressed to a zip file.
  - ◆ In the **Subject** field, enter the subject of the email.
  - ◆ In the **Message** field, enter the text of any message you want the email to include.
- 3. If you selected **Compress Contents**, and you want the zip file to be password protected, then do the following:
  - a. Click Advanced Options.



**Figure 3-24: Send Now Dialog Box – Advanced Options**

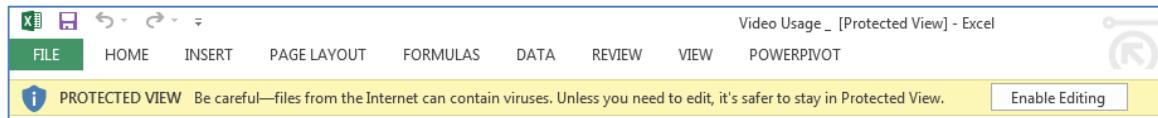
- b. Select **Password Protected Zip File**, and then, in the adjacent field, enter the password.
- c. In the **Zip File Name** field, enter the name of the zip file.
4. Click **OK**.

The email is sent.

## Viewing the Data behind the Excel Graph

This procedure describes how to view the data in table form of a graph in a downloaded Excel, and is relevant after [EXPORTING A PANEL](#) to Excel or CSV

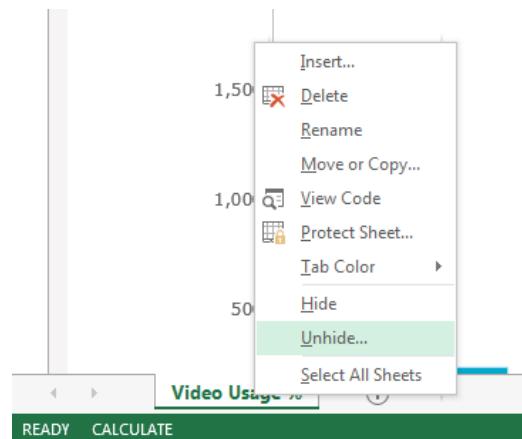
**NOTE** For Excel exports, in order to make changes to the Excel after opening, you may need to enable file editing. To do so, click **Enable Editing**.



**Figure 3-25: Enable Editing Option in Excel**

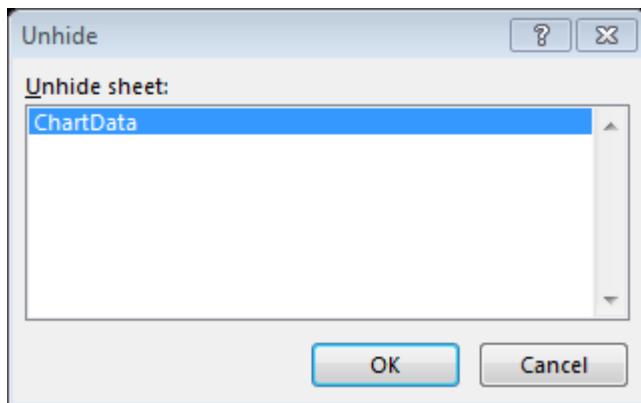
To view the data behind the graph in a downloaded Excel:

1. In the Excel, at the bottom of the page, right-click the page tab and then click **Unhide**.



**Figure 3-26: Unhide Option in Excel**

The **Unhide** dialog box appears.

**Figure 3-27: Unhide Dialog Box in Excel**

2. With **ChartData** selected, click **OK**.

The data opens in a table in a tab.

## Folder Management

This section describes actions that you can do in **Custom Reports** or **Shared Reports, My Reports** and the folders within either. These actions are:

- **ADDING A FOLDER:** Adding a folder in **Custom Reports** or **My Reports**
- **OPENING A REPORT FROM SHARED OR MY REPORTS:** Opening a report from either source, and performing a few other tasks
- **CREATING A SHORTCUT TO A REPORT:** Creating a shortcut in **Custom Reports**, **Shared Reports** or **My Reports** to a report or folder

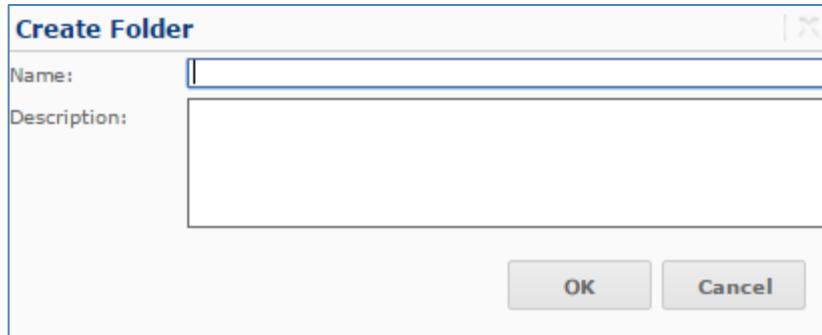
### Adding a Folder

This procedure describes how to add a personal folder to **Custom Reports** or **My Reports** as a place to save reports or Self-Service reports.

To add a personal folder:

1. In **Custom Reports** or **My Reports**, or in any folder that you have created therein, right-click on any folder, and then select **New > Folder**.

The **Create Folder** dialog box appears.



**Figure 3-28: Create Folder Dialog Box**

**NOTE** If you want to create a folder within a folder, you must first enter that folder, and then right-click a folder.

If the folder does not contain any folders yet for you to right-click, then you must first create a folder from a report, as described in [SAVING THE REPORT](#).

2. Complete the fields, and then click **OK**.

The folder is added, at the same level of the folder from which you selected **New > Folder**.

**NOTE**

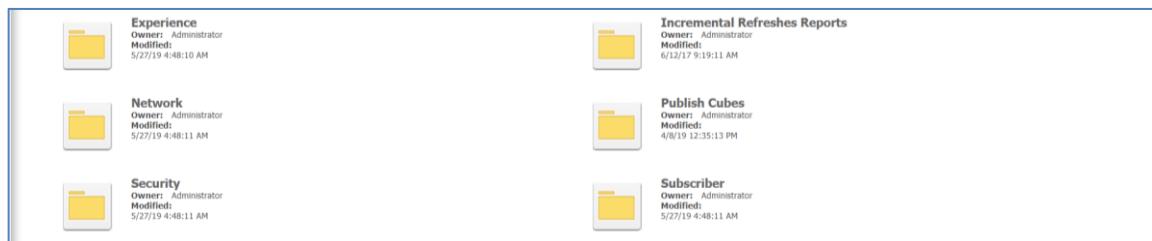
## Opening a Report from Custom, Shared or My Reports

This procedure describes how to open a report from **Custom Reports**, **Shared Reports** or **My Reports**.

To open a report from Custom Reports, Shared Reports or My Reports:

1. From the Reporting panel, click Custom Reports, Shared Reports or My Reports.

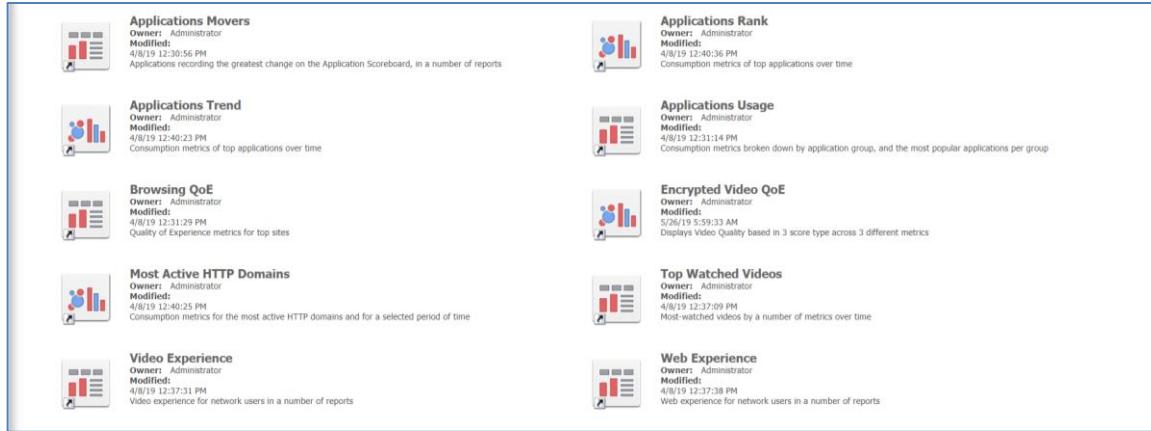
**Custom Reports, Shared Reports or My Reports** opens.



**Figure 3-29: Shared Reports**

2. Click the folder containing the report you want to open.

The reports contained in the folder appear.

**Figure 3-30: Shared Reports**

3. Hover over the report, and then do any of the following:
  - ◆ To open a report, click the report.

**Figure 3-31: Moused-Over Report**

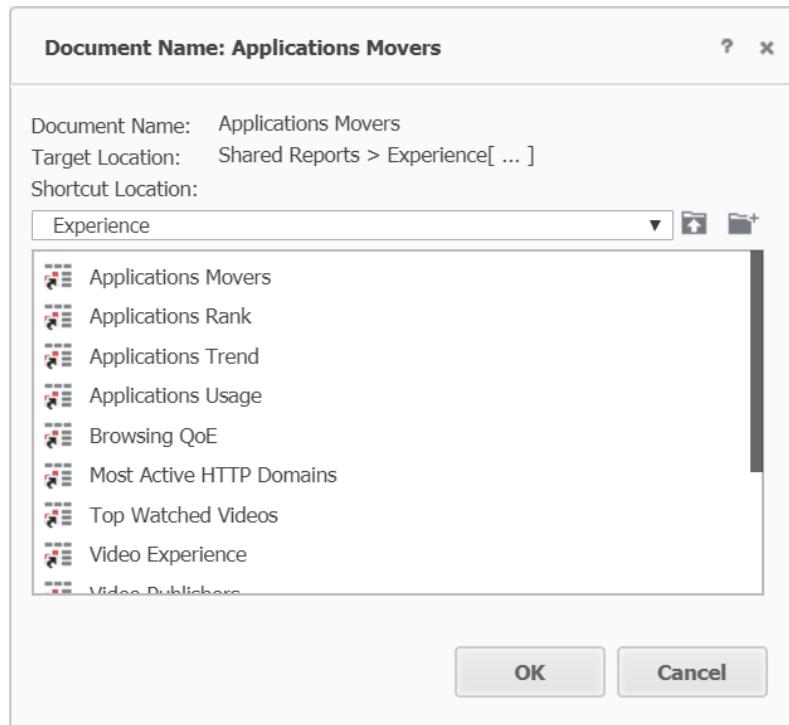
- ◆ To send an email of the report, in HTML or PDF form, click **Send Now**. For more information, see [SENDING AN EMAIL OF THE REPORT AS OF NOW](#).
- ◆ To export the report as PDF, click **PDF**.
- ◆ To add subscriptions, click **Subscriptions**. For more information, see [SUBSCRIPTION MANAGEMENT](#).

## Creating a Shortcut to a Report

This procedure describes how to create a shortcut to a report.

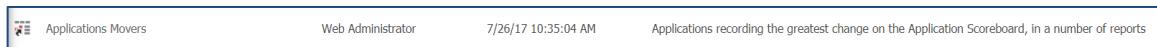
To create a shortcut to a report:

1. From **Custom Reports**, **Shared Reports**, **My Reports** or any folder therein, right-click on the report for which you want to create a shortcut, and then select **Create Shortcut**.



**Figure 3-32: Copy Shortcut Dialog Box**

2. From the dialog box, use the **Up One Level** button to navigate to the folder to which you want to add the shortcut, and then click **OK**. The shortcut appears in the folder that you specified.



**Figure 3-33: Shortcut to a Report**

## Access Management

This section describes contains procedures for managing access privileges to a report or folder.

Any user can define access privileges for an object that that user has created. See [CHANGING ACCESS PRIVILEGES](#) for more information.

For the folders and the canned reports, access privileges are already defined according to the group to which the GW DataReporter user has been assigned. Nevertheless, the administrator, web\_admin, can define access privileges via **Shared Reports** for a folder or for individual canned reports. This includes the folders or reports in **Custom Reports**.

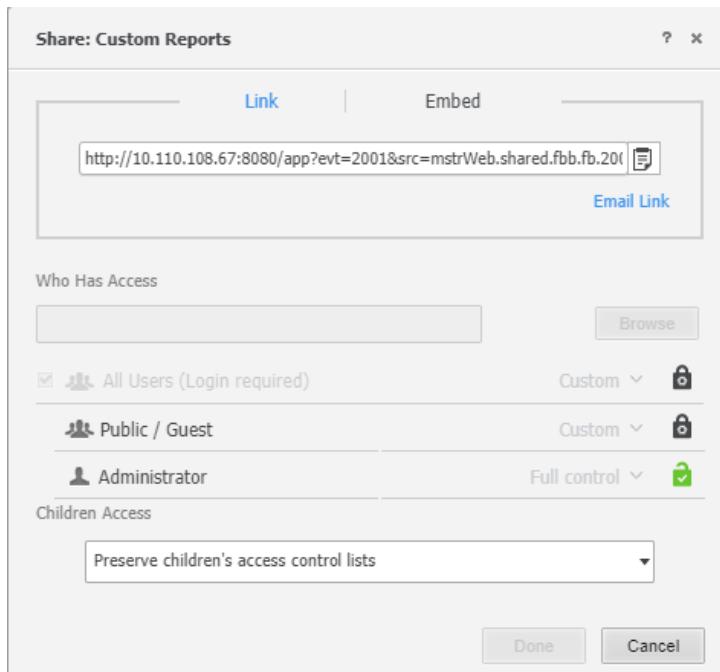
## Changing Access Privileges

This procedure describes how to change access privileges for a report or folder. See [SELECTING PERMISSION LEVELS](#) for definitions of the access privileges for each level.

To change access privileges:

1. From **Shared Reports** or a folder in **Shared Reports**, right-click on the report or folder, and then select **Share**.

The **Share** dialog box appears, with the **Who Has Access** list defining all of the users and groups that have access.



**Figure 3-34: Share Dialog Box**

**NOTE** See [SHARING A REPORT](#) if you want, for the report or folder, to email a link to a user, present a link or present an HTML snippet that you can copy into your HTML file.

2. Do one of the following:
  - ♦ If in the **Who Has Access** list you want to define all of the users that have access, then clear the **All Users** option.
  - ♦ If you want the **Who Has Access** list to define exceptions to the rule, then select **All Users**, and then, from the dropdown list, [SELECT THE PERMISSION LEVEL](#) that is to be the rule.
3. Do any of the following:
  - ♦ To remove a group or user from the **Who Has Access** list, then hover over the row, and then select **X**.

- ◆ To add a group or user to the **Who Has Access** list, see [ADDING TO THE WHO HAS ACCESS LIST](#).
  - ◆ To change the permission level of a group or user on the **Who Has Access** list, in that row, [SELECT THE PERMISSION LEVEL](#).
4. If you are changing access privileges for a folder, then, in the Children Access area, select one of the following:
    - ◆ **Preserve children's access control lists:** The access privileges that you selected for the folder apply to the objects in the folder unless otherwise selected for an object.
    - ◆ **Overwrite children's access control lists:** The access privileges that you selected for the folder apply to the objects in the folder even if otherwise selected for an object.
  5. Click **OK**.

The changes are saved.

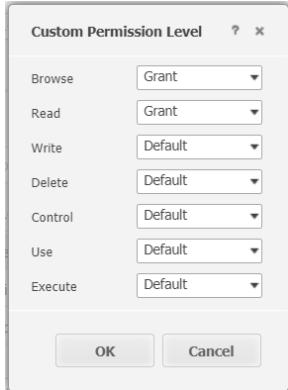
**NOTE** The OK button is greyed out if you have not yet made any changes or if you do not have privileges to change the object.

## Selecting Permission Levels

This procedure describes how to select the permission level, from the **Share** dialog box, when changing access privileges for a report or folder.

To select the access level from the **Share** dialog box:

1. Click the dropdown list, and then select any of the following:
  - ◆ **Full Control:** The user has all of the access privileges of an administrator.
  - ◆ **Denied All:** The user may not access the object. If this is a folder or canned report, it remains visible from the **Reporting** panel.
  - ◆ **Current Custom:** The user has the custom access privileges.
  - ◆ **Custom:** The user has the custom access privileges as you define them.
2. If you selected **Custom**, then, from the **Custom Permission Level** dialog box, we recommend that you select **Browse, Read, Use** and **Execute**, and then click **OK**.



**Figure 3-35: Custom Permission Level Dialog Box**

## Adding to the Who Has Access List

This procedure describes how to add a group or user to the **Who Has Access** list, in order to define who has access or an exception to the rule.

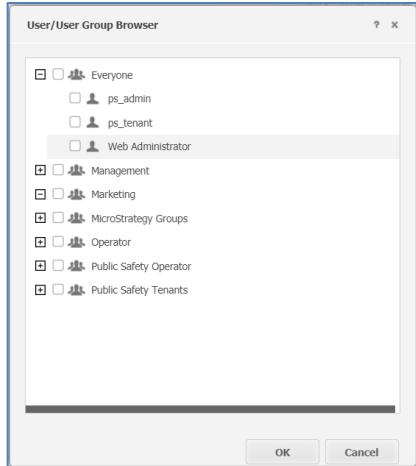
To add a group or user to the **Who Has Access** list:

1. Do one of the following:
  - ◆ In the **Type Users or Groups Here** field, enter the user or group using autocomplete.



**Figure 3-36: Using Autocomplete in Type Users or Groups Here**

- ◆ Click **Browse**, and then, in the **User/User Group Browser** dialog box, select the users, and then click **OK**.



**Figure 3-37: User/User Group Browser**

2. From the dropdown list, **SELECT THE PERMISSION LEVEL**, and then click **Add**.

The user or group appears in the **Who Has Access** list with the permission level you defined.

## Subscription Management

This section contains procedures for managing your GW DataReporter subscriptions to reports.

When you define a subscription for a report, GW DataReporter sends for distribution, according to a schedule, a copy of it or a link to it.

GW DataReporter supports email subscriptions. For other subscriptions, contact Customer Success.

With email subscriptions, you may do the following:

- To open the **My Subscriptions** pages, see [VIEWING MY SUBSCRIPTIONS](#).
- To add an email subscription, so that emails of the report are sent, complete the **Email Subscription** page, as described in [ADDING AN EMAIL SUBSCRIPTION](#).
- To open, edit or remove an existing subscription, see [MANAGING MY SUBSCRIPTIONS](#).

### Viewing My Subscriptions

This procedure describes how to view a list of the subscriptions that you have added.

There are two types of **My Subscriptions** pages:

- Personal **My Subscriptions**: Lists all the subscriptions that you have added

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- **Report My Subscriptions:** Lists all the subscriptions that you have added for a specific report

To view the personal **My Subscriptions:**

- From the **Dashboard Options** toolbar, click  **My Subscriptions.**

Shared links							
Subscription Name	Report/Document	Owner	Address	Personalized	Action	Unsubscribe	
HTTP Protocols 10/10/2016 10:23:31 AM	HTTP Protocols	Web Administrator					
Policy Pipes 10/9/2016 5:41:31 PM	Policy Pipes	Web Administrator		<input checked="" type="checkbox"/>			
Policy Pipes 10/9/2016 5:50:12 PM	Policy Pipes	Web Administrator		<input checked="" type="checkbox"/>			
Service Gateways 7/7/2016 5:29:51 PM	Service Gateways	Web Administrator					

History List Subscriptions							
Subscription Name	Report/Document	Owner	Schedule	Recipient	Personalized	Action	Unsubscribe
IP Versions 10/9/16 11:03:43 AM	IP Versions	Web Administrator	Daily	Web Administrator	<input checked="" type="checkbox"/>		

E-mail Subscriptions							
Subscription Name	Report/Document	Owner	Schedule	Recipient	Address	Personalized	Action
Device Usage Trends 10/10/16 12:12:06 PM	Device Usage Trends	Web Administrator	Daily	Web Administrator			

**Figure 3-38: Personal My Subscriptions**

To view the **My Subscriptions** of a specific report:

- From **Custom Reports**, **Shared Reports** or **My Reports**, hover over the report to which you want to add subscriptions, and then click **Subscriptions**.

Device Usage Trends							
Owner	Administrator	Subscription Name	Owner	Address	Personalized	Action	
undefined		You do not have any email subscriptions					
Personal view							
Subscription Name	Owner	Address	Personalized	Action			
History List							
Subscription Name	Owner	Schedule	Recipient	Personalized	Action		
You do not have any history list subscriptions							
<a href="#">Add history list subscription</a>							
Email							
Subscription Name	Owner	Schedule	Recipient	Address	Personalized	Action	
You do not have any email subscriptions							
<a href="#">Add email subscription</a>							
File							
Subscription Name	Owner	Schedule	Recipient	Address	Personalized	Action	
You do not have any file subscriptions							
<a href="#">Add file subscription</a>							
Print							
Subscription Name	Owner	Schedule	Recipient	Address	Personalized	Action	
You do not have any print subscriptions							
<a href="#">Add print subscription</a>							

**Figure 3-39: My Subscriptions Page of a Report**

See [MANAGING MY SUBSCRIPTIONS](#) for descriptions of what you can do on both **My Subscriptions** pages.

## Adding an Email Subscription

This procedure describes how add an email subscription for a report.

To add an email subscription:

1. From **Custom Reports**, **Shared Reports** or **My Reports**, hover over the report to which you want to add subscriptions, and then click **Subscriptions**.

The **My Subscriptions** page appears.

2. In the Email area, click Add Email Subscription.

**NOTE** The subscription type is indicate by the small print, not the bold text.

The **Email Subscription** page appears, with a few fields completed by default.

Figure 3-40: Email Subscription Page

3. In the **Name** field, change the name of the subscription from the default as needed.
4. From the **Schedule** dropdown list, select how often the email should be sent.
5. Define the recipients of the email, by doing one of the following:

- ◆ If you want to send to one email address, and this address is on the **Shared List** of GW DataReporter users or the **Personal List** of email addresses, then, from the **To** dropdown list, select the address name.

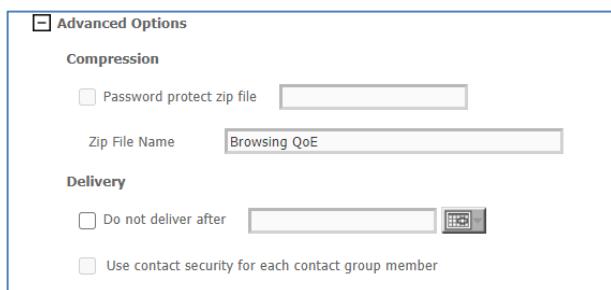
#### NOTES

- To add an email address to your Personal List, see [ADDING TO THE EMAIL ADDRESSES PERSONAL LIST](#).
  - ◆ If you want to send to more than one email address, or to an address that is not on the **Shared List** of GW DataReporter users or the **Personal List** of email addresses, then add the recipients from the **Recipients Browser**, as described [HERE](#).
6. From the **Send** dropdown list, select one of the following:
    - ◆ **Data in Email:** The report appears in the email
    - ◆ **Data in Email and to History List:** The report appears in the email, and History List includes a link to the instance of the report
    - ◆ **Data and Link to History List and Email:** The report appears in the email, and the email includes a link to the History List instance of the report
    - ◆ **Link to History List in Email:** The email includes a link to the History List instance of the report
  7. If from the **Send** dropdown list, you selected a **Data in Email** option, then do the following, from the **Delivery Format** dropdown list, select one of the following formats:
    - ◆ **PDF:** The email presents the report in PDF format
    - ◆ **MHT:** The email presents the report as a dynamic report (Flash technology)
    - ◆ **MSTR:** The email presents the report as a dynamic report (Flash technology)
  8. Do any of the following:
    - ◆ If you want the representation's contents compressed to a zip file, then select **Compress Contents**.
    - ◆ If you want to expand layouts, then select **Expand Layouts**.
    - ◆ If you selected **PDF** as the **Delivery Format**, and you want to expand page-by fields, then select **Expand Page-by Fields**.
  9. Do any of the following:
    - ◆ In the **File Name** field, change as needed the name of the file to be sent in the email.
    - ◆ In the **Subject** field, change as needed the subject of the email.

- ♦ In the **Message** field, enter the text of any message you want the email to include.

**NOTE** For information about Burst capabilities, contact Customer Success.

10. If you select **Send a Preview Now**, then after you click **OK** below, a preview will be sent.
11. If you selected **Compress Contents**, and you want the zip file to be password protected, then open **Advanced Options**, and then do the following:
  - a. Select **Password Protected Zip File**, and then, in the adjacent field, enter the password.
  - b. In the **Zip File Name** field, enter the name of the zip file.



**Figure 3-41: Subscription – Advanced Options**

12. If you want the files delivered only until a certain date, then open **Advanced Options**, and then do the following:
  - a. Select Do Not Deliver After.
  - b. Use the **Calendar** button to select the date.
13. Click **OK**.

The email subscription has been added and appears in the **Email** area of the **My Subscriptions** page.

Email	Subscription Name	Owner	Schedule	Recipient	Address	Personalized	Action	Unsubscribe
<a href="#">Device Usage Trends 10/10/16 12:12:06 PM</a>		Web Administrator	Daily	Web Administrator	[REDACTED]			

**Figure 3-42: Completed Email in Email Area**

14. You can manage the subscription with any of the actions described in **MANAGING MY SUBSCRIPTIONS**.

## Adding Email Recipients with the Recipients Browser

This procedure describes how to add recipients to an email subscription with the **Recipients Browser**, and it is part of [ADDING AN EMAIL SUBSCRIPTION](#). These recipients may be GW DataReporter users or email addresses on your Personal List, or you may add them manually from the **Recipients Browser**.

### NOTE

To add an email address to your Personal List, see [ADDING EMAIL ADDRESSES TO THE PERSONAL LIST](#).

To add a subscription recipient by hand:

1. In the **Email Subscription** area, click **To**.  
The Recipients Browser appears.
2. For each recipient existing on the **Shared** or **Personal** list that you want to add, do the following:
  - a. From the dropdown list in the top left, do the following:
    - To send to GW DataReporter users, select the **Shared List**.
    - To send to email addresses on the **Personal List**, select **Personal List**.
  - b. From the **Available** area, select the user.
  - c. Add the user to the **To**, **CC** or **BCC** list by clicking the respective arrow.
3. To add a recipient that is not on the **Shared** and **Personal** lists, do the following:
  - a. In the **Address Name** field, enter the display name of the email address.
  - b. In the **Physical Address** field, enter the email address.
  - c. In the **Device** dropdown list, leave it as **Generic Email**.
  - d. Click **Add to Recipients**.

The recipient's name is added in the **To** field.

**NOTE** The recipient is also added to your Personal list, and appears in Email Addresses, in the Preferences.

- e. If you want the recipient in the **CC** or **BCC** field of the email, then, with the **To** back arrow, remove it from the **To** field so that it appears in **Available**, and then, by clicking the respective arrow, add the user to the **CC** or **BCC** list.

## Managing My Subscriptions

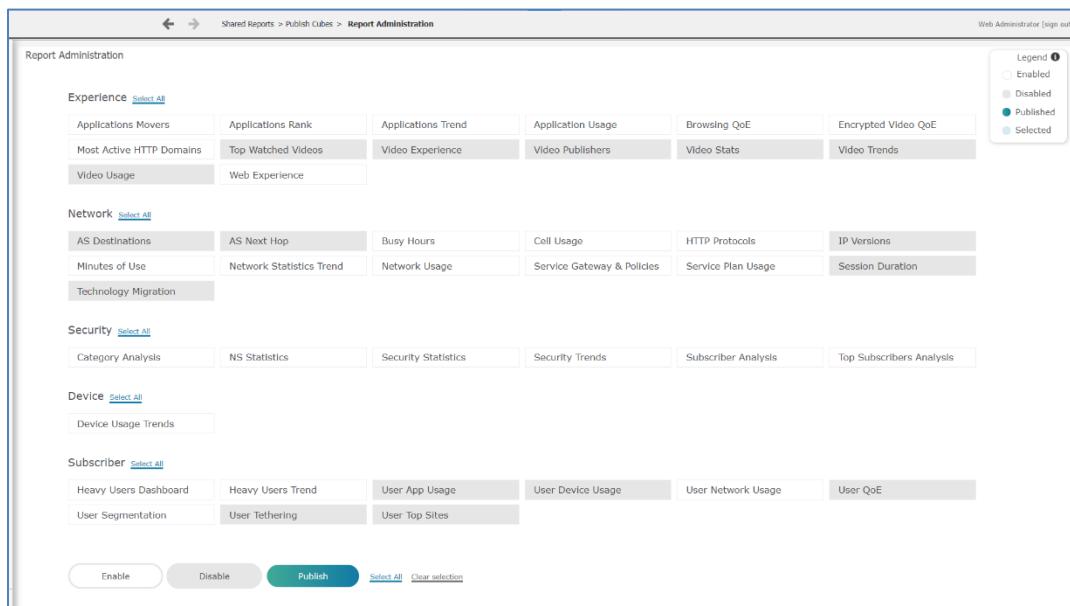
This procedure describes the actions that you can perform from the **My Subscriptions** pages.

You can do the following from **My Subscriptions**:

- To open a report from **My Subscriptions**, click it from the **Subscription Name** column.
- To edit the subscription, from the **Action** column, click .
- To cancel a subscription, in the **Unsubscribe** column, select the report of the subscription you want to cancel, and then click **Unsubscribe**.

## Report Administration

Going to **Shared Reports > Publish Cubes > Report Administration** opens a section that contains contains procedures for **DISABLING** and **ENABLING** GW DataReporter reports and manually **PUBLISHING** GW DataReporter reports. You perform these procedures from the **Report Administration** report, which appears as follows:



The screenshot shows the 'Report Administration' page with the following layout:

- Header:** Shared Reports > Publish Cubes > Report Administration. Web Administrator [sign out].
- Legend:**
  - Enabled (white circle)
  - Disabled (light gray circle)
  - Published (dark blue circle)
  - Selected (light blue circle)
- Experience:** Buttons include Applications Movers, Applications Rank, Applications Trend, Application Usage, Browsing QoE, Encrypted Video QoE, Most Active HTTP Domains, Top Watched Videos, Video Experience, Video Publishers, Video Stats, Video Trends, Video Usage, and Web Experience.
- Network:** Buttons include AS Destinations, AS Next Hop, Busy Hours, Cell Usage, HTTP Protocols, IP Versions, Minutes of Use, Network Statistics Trend, Network Usage, Service Gateway & Policies, Service Plan Usage, Session Duration, and Technology Migration.
- Security:** Buttons include Category Analysis, NS Statistics, Security Statistics, Security Trends, Subscriber Analysis, and Top Subscribers Analysis.
- Device:** Buttons include Device Usage Trends.
- Subscriber:** Buttons include Heavy Users Dashboard, Heavy Users Trend, User App Usage, User Device Usage, User Network Usage, User QoE, User Segmentation, User Tethering, and User Top Sites.
- Buttons at the bottom:** Enable, Disable, Publish (highlighted in green), Select All, and Clear selection.

**Figure 3-43: Report Administration Report**

The report is comprised of buttons for all of the GW DataReporter reports, broken up by the folders under which they appear on the **Reporting** panel. Reports can be in the following states:

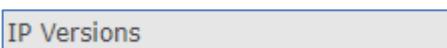
- **Enabled:** Cubes contributing to the reports are regularly refreshed, so you can view the reports. Enabled reports appear on the **Reporting** panel and, on the **Report Administration** report, the buttons of enabled reports appear with a clear background. To enable reports, see [here](#).



Policy Pipes

**Figure 3-44: An Enabled Report**

- **Disabled:** Cubes contributing to the reports are not refreshed, and you cannot view the reports. Disabled reports do not appear on the **Reporting** panel and, on the **Report Administration** report, the buttons of disabled reports appear with a grey background. To disable reports, see [here](#).



IP Versions

**Figure 3-45: A Disabled Report**

- **Published:** You can manually refresh the cubes contributing to a report, outside of the regular schedule, so you can be sure the data in the report is up to date. The buttons of published reports appear with a green check. To publish reports, see [here](#).



Cell Usage



**Figure 3-46: A Published Report**

Notes:

- When you refresh the **Report Administration** report, checks showing published reports cease to appear.
- If the action of enabling, disabling or publishing a report fails, then the report appears with a red X:



Policy Pipes



**Figure 3-47: A Report that Failed to Publish**

If the failure continues, then contact Customer Success.

## Disabling GW DataReporter Reports

This procedure describes how to disable GW DataReporter reports, which you can do to save resources. You cannot view disabled reports.

To disable reports:

1. Open the Report Administration report.
2. Do any of the following:

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- ◆ To select all of the reports in a folder, click **Select All**, which appears next to the folder's name.
- ◆ Select individual reports that you want to disable.

The buttons of selected reports appear light blue.

### NOTE

You can clear a selected report by clicking its button.

The screenshot shows the Report Administration interface with the 'Security' folder selected. The 'Select All' button for the Security folder is highlighted in blue. The legend indicates that blue highlights represent selected items. Other buttons like 'Enable', 'Disable', 'Publish', and 'Clear selection' are also visible at the bottom.

**Figure 3-48: Reports Selected in the Security Folder**

### 3. Click **Disable**.

The following happens:

- a. The following message appears:

Reports have been disabled - effect will be visible soon

- b. The selected reports are disabled, and their buttons appear grey.
- c. After you clear your browser's browsing history, reports that you disabled cease to appear on the **Reporting** panel.

## Enabling GW DataReporter Reports

This procedure describes how to enable GW DataReporter reports. You can only view enabled reports.

To enable reports:

1. Open the Report Administration report.
2. Do any of the following:
  - ◆ To select all of the reports in a folder, click **Select All**, which appears next to the folder's name.

- ◆ Select individual reports that you want to enable.

The buttons of selected reports appear light blue.

NOTE You can clear a selected report by clicking its button.

3. Click **Enable**.

The following happens:

- a. The following message appears:

Reports are being enabled - please wait

- b. After up to a few minutes, the selected reports are enabled, and they appear with a white background.
- c. After you clear your browser's browsing history, reports that you enable appear on the **Reporting** panel.

## Publishing Reports

This procedure describes how to publish reports, which you may do to ensure a report's data is up to date. GW DataReporter regularly refreshes, according to a schedule, all cubes of enabled reports. When you publish a report, GW DataReporter refreshes its cubes outside of the regular schedule.

To publish reports:

1. Open the Report Administration report.
2. Do any of the following:
  - ◆ To select all of the reports in a folder, click **Select All**, which appears next to the folder's name.
  - ◆ Select individual reports that you want to publish.

The buttons of selected reports appear light blue.

NOTE You can clear a selected report by clicking its button.

3. Click **Publish**.

The following happens:

- a. The following message appears:

Cube refresh process has commenced.

- b. After the reports have finished publishing, which may take up to a few minutes, they appear with a check .



# 4 GW DataReporter Reports

## Overview of GW DataReporter Reports

Below are tables for each of the folders of reports under the  Shared Reports option:

- [TABLE OF NETWORK REPORTS](#): Containing the reports in the [NETWORK FOLDER](#)
- [TABLE OF SUBSCRIBER REPORTS](#): Containing the reports in the [SUBSCRIBER FOLDER](#)
- [TABLE OF DEVICE REPORTS](#): Containing the report in the [DEVICE FOLDER](#)
- [TABLE OF EXPERIENCE REPORTS](#): Containing the reports in the [EXPERIENCE FOLDER](#)
- [TABLE OF SECURITY REPORTS](#): Containing the reports in the [SECURITY FOLDER](#)
- [TABLE OF REAL-TIME MONITORS](#): Containing the monitors in the [REAL-TIME FOLDER](#)
- [TABLE OF SELF-SERVICE REPORTS](#): Containing the reports in the [SELF-SERVICE FOLDER](#)

The tables in the sections below are each comprised of a row and link for each of the GW DataReporter reports, split into folders. For each row the following information is provided:

- **Description:** What you can find in the report.
- **Report Administration:** As described in [REPORT ADMINISTRATION](#), by default, reports may be **Enabled**, meaning their cubes are refreshed by schedule and they appear in the **Reporting** panel, or **Disabled**, meaning their cubes are not refreshed by schedule and they do not appear in the **Reporting** panel. Reports that are disabled by default appear in the [APPENDIX](#).
- **Report Mode:** The report mode is the type of network the service provider provides. During configuration, the customer defines the report mode. Based on this report mode, GW DataReporter presents the reports as follows:
  - ◆ **Fixed:** Those relevant to the fixed network appear.
  - ◆ **Cable:** Those relevant to the cable network as well as the fixed network appear.
  - ◆ **Mobile:** Those relevant to the mobile network as well as the fixed network appear.

- ♦ **Security:** Those relevant to NetProtect security features appear.
  - ♦ **All:** All reports appear.
- Report mode does not affect the **Real-Time Monitors**.
- **NetProtect Deployment Mode:** Relevant only for the NetProtect reports and templates, it defines which reports and templates appear. The customer defines this during configuration. The modes are as follows:
    - ♦ **Enterprise:** Those relevant to the enterprise appear.
    - ♦ **Enterprise Extended:** Those relevant to the enterprise appear, as well as a few others.
    - ♦ **ISP:** All reports and templates appear.

**NOTE** **Report Mode and the NetProtect Deployment Mode are defined during GW DataReporter integration with GW Controller.**

- **License:** Whether you need a Metrics or an Analytics license for the report to appear, as follows:
  - ♦ **Metrics:** With partial functionality, not all reports are enabled. This is identical to GW DataReporter Light in the DataTransform.
  - ♦ **Analytics:** Includes all those belonging to the Metrics license in addition to others, and identical to GW DataReporter Professional in the DataTransform.

## Table of Network Reports

NAME	DESCRIPTION	Report Administration	Report Mode	License
<b>AS DESTINATIONS</b>	Various metrics on most active Autonomous System destinations	Disabled by default	Fixed	Metrics
<b>AS NEXT HOP</b>	Bubble graph depicting in- and outbound traffic from and to the Next Hop Autonomous System	Disabled by default	Fixed	Metrics
<b>BUSY HOURS</b>	Presents the times of day with the heaviest use, in a number of panels	Enabled by default	Fixed	Metrics

Name	Description	Report Administration	Report Mode	License
Cell Usage	Identifies the top (most active) cells distribution by bandwidth over time by multiple dimensions	Enabled by default	Mobile	Analytics
CMTS Host Usage	Identifies the top CMTS hosts by bandwidth and unique subscribers over a selected period of time	Enabled by default	Cable	Analytics
CMTS Interface Usage	Compares the top CMTS interfaces by bandwidth over a selected period of time	Enabled by default	Cable	Analytics
CMTS Interface Monitoring	Enables you to select and view the activity of a CMTS interface by bandwidth over a period of time	Enabled by default	Cable	Metrics
HTTP Protocols	Transport protocols by volume or number of unique subscribers, filtered by application	Enabled by default	Fixed	Analytics
IP Versions	IP transport trends by volume or number of unique subscribers, filtered by device, OS and/or device vendor	Disabled by default	Fixed	Metrics
MAC Domain Usage	Identifies the top MAC domains, over a selected period of time, by bandwidth or the number of average unique subscribers	Enabled by default	Cable	Analytics
Minutes of Use	Provides a summary of VOIP minutes used for each plan	Enabled by default	Fixed	Analytics
Network Statistics Trend	Presents consumption metrics over time for the policy objects that you select	Enabled by default	Fixed	Metrics

Name	Description	Report Administration	Report Mode	License
Network Usage	Network usage by volume or bandwidth (total, or in vs. out), for all or some applications, and all or some service plans	Enabled by default	Fixed	Metrics
Gateways & Policies	Presents network traffic for the in-line platforms in your network	Enabled by default	Fixed	
Policy Lines	Presents network traffic for the lines in your network that you select	Enabled by default	Fixed	Metrics
Policy Pipes	Presents network traffic for the pipes in your network that you select	Enabled by default	Fixed	Metrics
Policy Virtual Channels	Presents network traffic for the virtual channels in your network that you select	Enabled by default	Fixed	Metrics
Service Plan Usage	Service plan usage metrics (volume, most popular, etc.) over specified time period	Enabled by default	Fixed	Analytics
Session Duration	Details average session duration for specific devices	Disabled by default	Mobile	Analytics
Technology Migration	Provides key data on trends in the use on your network of the various cellular technologies	Disabled by default	Mobile	Analytics

## Table of Subscriber Reports

NAME	DESCRIPTION	Report Administration	Report Mode	License
<b>HEAVY USERS</b>	Presents, in a number of panels, the total bandwidth of the top users as compared to the average user	Enabled by default	Fixed	Metrics
<b>HEAVY USERS TREND</b>	Usage trends of top subscribers (apps, volume, time of day, etc.)	Enabled by default	Fixed	Metrics
<b>USER APP USAGE</b>	Most popular applications per subscriber over specified time period, mapped by various metrics/attributes	Disabled by default	Fixed	Analytics
<b>USER DEVICE USAGE</b>	Subscriber usage volumes per handset or device model	Disabled by default	Fixed	Analytics
<b>USER NETWORK USAGE</b>	Distribution and grouping of subscribers according to the percent of total volume that they consume	Enabled by default	Fixed	Analytics
<b>USER QOE</b>	Various QoE metrics and overall QoE score for video delivery, HTTP browsing and other applications per subscriber	Disabled by default	Fixed	Analytics
<b>USER SEGMENTATION</b>	Divides the users on your network into percentile groups and in-depth provides data per group, such as application and device usage and activity time and volume trends	Enabled by default	Fixed	Analytics
<b>USER TETHERING</b>	Subscriber usage volume via tethering connection per month or specified period of time.	Disabled by default	Mobile	Analytics
<b>USER TOP SITES</b>	Subscriber top sites (URL) per volume, visits, time period and other metrics	Disabled by default	Fixed	Analytics

## Table of Device Reports

NAME	DESCRIPTION	Report Administration	Report Mode	License
DEVICE USAGE TRENDS	Show/compare handset-model usage by various attributes and metrics over a specific time window.	Disabled by default	Fixed	Analytics

## Table of Experience Reports

NAME	DESCRIPTION	Report Administration	Report Mode	License
APPLICATIONS MOVERS	Provides key data on which applications are the biggest movers, measured by bandwidth per user and activity time per user, and by day and week	Enabled by default	Fixed	Analytics
APPLICATIONS RANK	Identifies which applications generate the most volume of network traffic by volume and unique subscribers	Enabled by default	Fixed	Metrics
APPLICATIONS TREND	Identifies the applications responsible for the most traffic by bandwidth or unique users	Enabled by default	Fixed	Metrics
APPLICATION USAGE	Provides consumption metrics broken down by application group, and the most popular applications per group	Enabled by default	Fixed	Metrics
BROWSING QOE	User quality of experience report for HTTP traffic.	Enabled by default	Fixed	Analytics
MOST ACTIVE HTTP DOMAINS	Provides consumption metrics for the most active HTTP domains and for a selected period of time	Enabled by default	Fixed	Metrics
TOP WATCHED VIDEOS	Most watched streaming video content mapped by volume and other metrics/attributes	Disabled by default	Fixed	Analytics

NAME	DESCRIPTION	Report Administration	Report Mode	License
ENCRYPTED VIDEO QOE	Presents the video experience trend by video definition or stalls	Disabled by default	Fixed	Analytics
VIDEO EXPERIENCE	Presents the video experience trend by video definition or stalls	Disabled by default	Fixed	Analytics
VIDEO PUBLISHERS	Most popular publishers of streaming video content mapped by various metrics (volume, time, watched videos, etc.).	Disabled by default	Fixed	Analytics
VIDEO STATS	Video statistics by day or hour, for selected devices and publishers	Disabled by default	Fixed	Analytics
VIDEO TRENDS	Provides key data on video usage trends, both daily and weekly, and statistics, such as top watched videos	Disabled by default	Fixed	Analytics
VIDEO USAGE	Subscribers percentiles by various metrics indicative of video usage, including duration, volume, session etc.	Disabled by default	Fixed	Analytics
WEB EXPERIENCE	Provides key data on Web surfing experience, including server response time and HTPP errors and download time	Enabled by default	Fixed	Analytics

## Table of Security Reports

NAME		DESCRIPTION	Report Administration	NetProtect Deployment Mode	License
NetProtect Statistics	WEB/WAP	Provides key data on the Web/WAP service, focusing on the blocking of subscriber requests for URLs, and on the categories of those URLs	Enabled by default	Enterprise	Metrics
	ADS FREE	Provides key data on the Ads Free service, focusing on the blocking of ads, and on the types of ads blocked		ISP	Metrics
	ANTIVIRUS	Provides key data on the Antivirus service, focusing on the frequency of virus attacks, and on the categories of the content in which the viruses attacked		Enterprise	Metrics
	ANTIPIHISHING	Provides key data on the AntiPhishing service, focusing on the frequency of the phishing attacks, and on the categories of those attacks		Enterprise	Metrics
	ANTISPAM.IN	Provides key data on the AntiSpam.In service, focusing on the blocking of incoming spam, and on the ratio of blocked emails to delivered emails		ISP	Metrics
	ANTISPAM.OUT	Provides key data on the AntiSpam.Out service, focusing on the blocking of outgoing spam, and on the ratio of blocked emails to delivered emails		ISP	Metrics
	CATEGORY ANALYSIS	Enables you to analyze security events by category, as well as by domain	Enabled by default	Enterprise	Metrics
	SECURITY STATISTICS	Presents overall security statistics for your network	Enabled by default	Enterprise	Metrics

NAME	DESCRIPTION	Report Administration	NetProtect Deployment Mode	License
SECURITY TRENDS	Presents security trends over time	Enabled by default	Enterprise	Metrics
SUBSCRIBER ANALYSIS	Presents deep-dive security info for a selected subscriber, as well as trends and top risky categories and URLs	Enabled by default	Enterprise	Metrics
TOP SUBSCRIBER ANALYSIS	Presents data about the top subscribers on your network, and enables you to filter the subscribers by gender and age group as well as others	Enabled by default	Enterprise	Metrics
ANTIPHISHING TEMPLATES	Presents key data about the NetProtect AntiPhishing service	Enabled	ISP	Metrics
ANTISPAM.IN TEMPLATES	Presents key data about the NetProtect AntiSpam.In service	Enabled	Enterprise Extended	Metrics
ANTISPAM.OUT TEMPLATES	Presents key data about the NetProtect AntiSpam.Out service	Enabled	ISP	Metrics
ANTIVIRUS TEMPLATES	Presents key data about the NetProtect Antivirus service	Enabled	Enterprise	Metrics
AUDITING TEMPLATES	Presents data about changes to NetProtect profiles and policies made by administrators and subscribers	Enabled	Enterprise	Metrics
AUTONOTICE TEMPLATES	Presents key data about the NetProtect AutoNotice service	Enabled	Enterprise	Metrics
MONITORING TEMPLATES	Presents data about activity taking place on the NetProtect modules	Enabled	Enterprise	Metrics

NAME	DESCRIPTION	Report Administration	NetProtect Deployment Mode	License
WEB CONTENT FILTER TEMPLATES	Presents key data about the NetProtect Web/WAP service	Enabled	Enterprise	Metrics
WEBFILTER MONITORING	Presents WebFilter monitoring data from 20 minutes back from the present to last month	Disabled	N/A	Metrics
WEBFILTER MONITORING – REAL TIME	Presents WebFilter monitoring data from 2 minutes back from the present to 12 hours back, updating automatically once a minute	Disabled	N/A	Metrics

## Table of Real-Time Monitors

NAME	DESCRIPTION	Report Administration	License
NETWORK MONITOR	Monitor the traffic metrics of an object on your network	On by default	Metrics
POLICY MONITOR	Monitor the traffic metrics of an object on your network	On by default	Metrics
USER MONITOR	Monitor the traffic metrics of your choice of a subscriber on your network	On by default	Metrics
CLIENT IP MONITOR	Monitor the traffic metrics of your choice of a client IP on your network	On by default	Metrics
APPLICATION MONITOR	Monitor the traffic metrics of specific applications on your network that you select	On by default	Metrics
APPLICATION GROUP MONITOR	Monitor the traffic metrics of specific application groups on your network that you select	On by default	Metrics
NETWORK QoE MONITOR	Monitor QoE metrics on your network in real-time	On by default	Metrics
CREATE CUSTOM MONITOR	Monitor the traffic metrics of your choice of policy objects on your network	On by default	Metrics
TOP IP MONITOR	Monitor the traffic metrics of the top client IPs on your network	On by default	Metrics

## Table of Self-Service Reports

Use This Folder > Report:	If You Want to Investigate:	With These Time Granularity Options:	Notes:
<b>Device &gt; Device Usage Trends</b>	Distribution of devices, device types and operation systems.	Daily Hourly Raw	This is an expansion of <b>Network &gt; Network</b> to include mobile device investigation, for when a TAC file is present or Device Awareness is on.
<b>Experience &gt; Web Experience</b>	Video data such as video duration, download and upload time, encryption data and video publisher data.	Daily Hourly Monthly Raw	
<b>Experience &gt; Most Active HTTP Domain</b>	Domains, when you don't need the URLs, and you have the Analytics license, and you want a lighter bucket than Web.	Daily Hourly Raw	If you have the Metrics license, then use this to investigate domains. To investigate URLs, you must use <b>Experience &gt; Web</b> .
<b>Experience &gt; Browsing QOE</b>	HTTP data, such as the number of subscribers for each domain, and the number of pages per publisher.	Daily Hourly Monthly Raw	<b>Raw Web</b> includes also URLs, by default for 12 hours back. Beyond 12 hours, the URL data is aggregated to the domain level.

<b>Use This Folder &gt; Report:</b>	<b>If You Want to Investigate:</b>	<b>With These Time Granularity Options:</b>	<b>Notes:</b>
<b>Network &gt; Network</b>	Network traffic and conversations, such as the top applications, TCP QoE, and the number of unique subscribers.	Daily Hourly Monthly Raw	Attributes are the network attributes (for example, policy, SG, application).
<b>Network &gt; Investigate Peak/Low</b>	Of network metrics: <ul style="list-style-type: none"> <li>• Daily, the peak hourly increment or the lowest hourly increment</li> <li>• Hourly, the peak 5-minute increment or the lowest 5-minute increment</li> </ul>	Daily Hourly	For example, you can determine, in a specified hour, the 5-minute increment with the highest bandwidth.
<b>Network &gt; Minutes of Use</b>	The minutes of use per VoIP or video application.	Raw Minutes of Use	This is a subset of <b>Network &gt; Network</b> , and if you just want the volume of the VoIP application, then just use Network. If you use Network for minutes of use, you must filter out all non-VoIP/video applications, which may be difficult.

Use This Folder > Report:	If You Want to Investigate:	With These Time Granularity Options:	Notes:
<b>Subscriber &gt; CSV Export</b>	Mass numbers of subscribers in a CSV file.	Daily Subscriber Hourly Subscribers Raw	<p>A report cannot have more than 5 million rows. If you want to export more than this, then you can use CSV Export.</p> <p>This is most relevant for subscribers, because many networks have more than 5 million subscribers, but CSV Export can be used for any export.</p> <p>Limitations:</p> <ul style="list-style-type: none"> <li>• Can't export 100 million cells to a spreadsheet (rows x columns)</li> <li>• File can't be larger than 380 MB</li> </ul>
<b>Subscriber &gt; Subscribers</b>	<p>Network metrics of:</p> <ul style="list-style-type: none"> <li>• A specific subscriber</li> <li>• Up to 5,000 top subscribers</li> <li>• A list of subscribers (for example, by SG)</li> </ul>	Daily Hourly Raw	<p>If more than 5 million rows (5 million subscribers, or 6,666 subscribers x 750 applications), then you must use CSV Export.</p> <p>This is an expansion of <b>Network &gt; Network</b>, with additional subscriber data. <b>Network &gt; Network</b> only contains the numbers of subscribers.</p>

<b>Use This Folder &gt; Report:</b>	<b>If You Want to Investigate:</b>	<b>With These Time Granularity Options:</b>	<b>Notes:</b>
<b>Subscriber &gt; Subscriber Video Experience</b>	<p>Video experience metrics of:</p> <ul style="list-style-type: none"> <li>• A specific subscriber</li> <li>• Up to 5,000 top subscribers</li> <li>• A list of subscribers (for example, by SG)</li> </ul>	Daily Hourly Monthly Raw	<p>If more than 5 million rows (5 million subscribers, or 6,666 subscribers x 750 applications), then you must use CSV Export.</p> <p>This is an expansion of <b>Experience &gt; Experience</b>, with additional subscriber data. <b>Experience</b> only contains numbers of subscribers.</p>
<b>Subscriber &gt; Subscriber Web</b>	<p>Web experience metrics of:</p> <ul style="list-style-type: none"> <li>• A specific subscriber</li> <li>• Up to 5,000 top subscribers</li> <li>• A list of subscribers (for example, by SG)</li> </ul>	Daily Hourly Monthly Raw	<p>If more than 5 million rows (5 million subscribers, or 6,666 subscribers x 750 applications), then you must use CSV Export.</p> <p>This is an expansion of <b>Experience &gt; Web Experience</b>, with additional subscriber data. <b>Experience &gt; Web Experience</b> only contains numbers of subscribers.</p>

<b>Use This Folder &gt; Report:</b>	<b>If You Want to Investigate:</b>	<b>With These Time Granularity Options:</b>	<b>Notes:</b>
<b>Subscriber &gt; Sessions</b>	Session info, including sub-session, create/close reason, session duration broken down by network attribute, session rate.	Daily Hourly Raw	
<b>Security &gt; NetProtect Templates &gt; AntiPhishing</b>	Web phishing filtering activity.		<p>Metrics are:</p> <ul style="list-style-type: none"> <li>• <b>Accesses:</b> Requests let through because the content was on the AntiPhishing white list</li> <li>• <b>Blocks:</b> Requests for content that were blocked by AntiPhishing</li> <li>• <b>Requests:</b> All requests for content processed by AntiPhishing, both accessed and blocked</li> <li>• <b>Traffic:</b> Volume of requests for content processed by AntiPhishing, both accessed and blocked</li> </ul>
<b>Security &gt; NetProtect Templates &gt; Antivirus</b>	Antivirus filtering activity.		Metrics are:

<b>Use This Folder &gt; Report:</b>	<b>If You Want to Investigate:</b>	<b>With These Time Granularity Options:</b>	<b>Notes:</b>
			<ul style="list-style-type: none"> <li>• <b>Accesses:</b> Requests let through because the content was on the Antivirus white list</li> <li>• <b>Blocks:</b> Requests for content that were blocked by Antivirus</li> <li>• <b>Requests:</b> All requests for content processed by Antivirus, both accessed and blocked</li> <li>• <b>Traffic:</b> Volume of requests for content processed by Antivirus, both accessed and blocked</li> </ul>
<b>Security &gt; NetProtect Templates &gt; Content Filter</b>	Content filtering activity.		<p>Metrics are:</p> <ul style="list-style-type: none"> <li>• <b>Accesses:</b> Requests for content that were let through by the Content Filter</li> <li>• <b>Blocks:</b> Requests for content that were blocked by the Content Filter</li> <li>• <b>Requests:</b> Requests for content processed by the Content Filter</li> </ul>

<b>Use This Folder &gt; Report:</b>	<b>If You Want to Investigate:</b>	<b>With These Time Granularity Options:</b>	<b>Notes:</b>
			<ul style="list-style-type: none"> <li><b>Traffic:</b> Volume of requests for content processed by the Content Filter</li> </ul>
<b>Security &gt; NetProtect Templates &gt; Logons</b>	Login/logout activity in NetProtect.		<p>Suggested report criteria:</p> <ul style="list-style-type: none"> <li>Attribute: User Name, Date</li> <li>Metrics: Successes, Fails</li> </ul>
<b>Security &gt; NetProtect Templates &gt; Master Entities</b>	Changes in the Master Entities (Policies, Profiles, Source & Destination and Schedules).		<p>Attributes: Entity Type, Admin Name, Action Action is the action that was performed on the entity. Metric: Total</p>
<b>Security &gt; NetProtect Templates &gt; Performance</b>	NetProtect performance.		<p>Attribute: Module or Module Type, but only if Check Performance is selected for the module. Otherwise, Wsp Host. Also you can add Date. Metric: Total Attributes Filter: Resource equals CPUUsage, Resource equals PhysicalMemoryKB Resource equals NetworkReadBytes Resource equals NetworkWriteBytes</p>

Use This Folder > Report:	If You Want to Investigate:	With These Time Granularity Options:	Notes:
<b>Security &gt; NetProtect Templates &gt; User Management</b>	Changes in NetProtect users (new, edited and deleted users).		Attribute: Date, Entity Name (which will be user US or admin AD) Metric: Total
<b>Real Time &gt; PEAK BANDWIDTH OVER 5 MINUTES</b>	The bandwidth of the peak 5-second interval for every 5-minute period and for every day.	5 minutes Day	
<b>Real Time &gt; PEAK BANDWIDTH OVER THE HOUR</b>	The bandwidth of the peak or low 5-second interval for every hour.	Hour	

## Network Folder

In this section, you will find the following:

- **NETWORK METRICS:** The reports that you get in the **Network** folder with GW DataReporter Metrics
- **NETWORK ANALYTICS:** The additional reports that you get in the **Network** folder with GW DataReporter Analytics

### Network Metrics

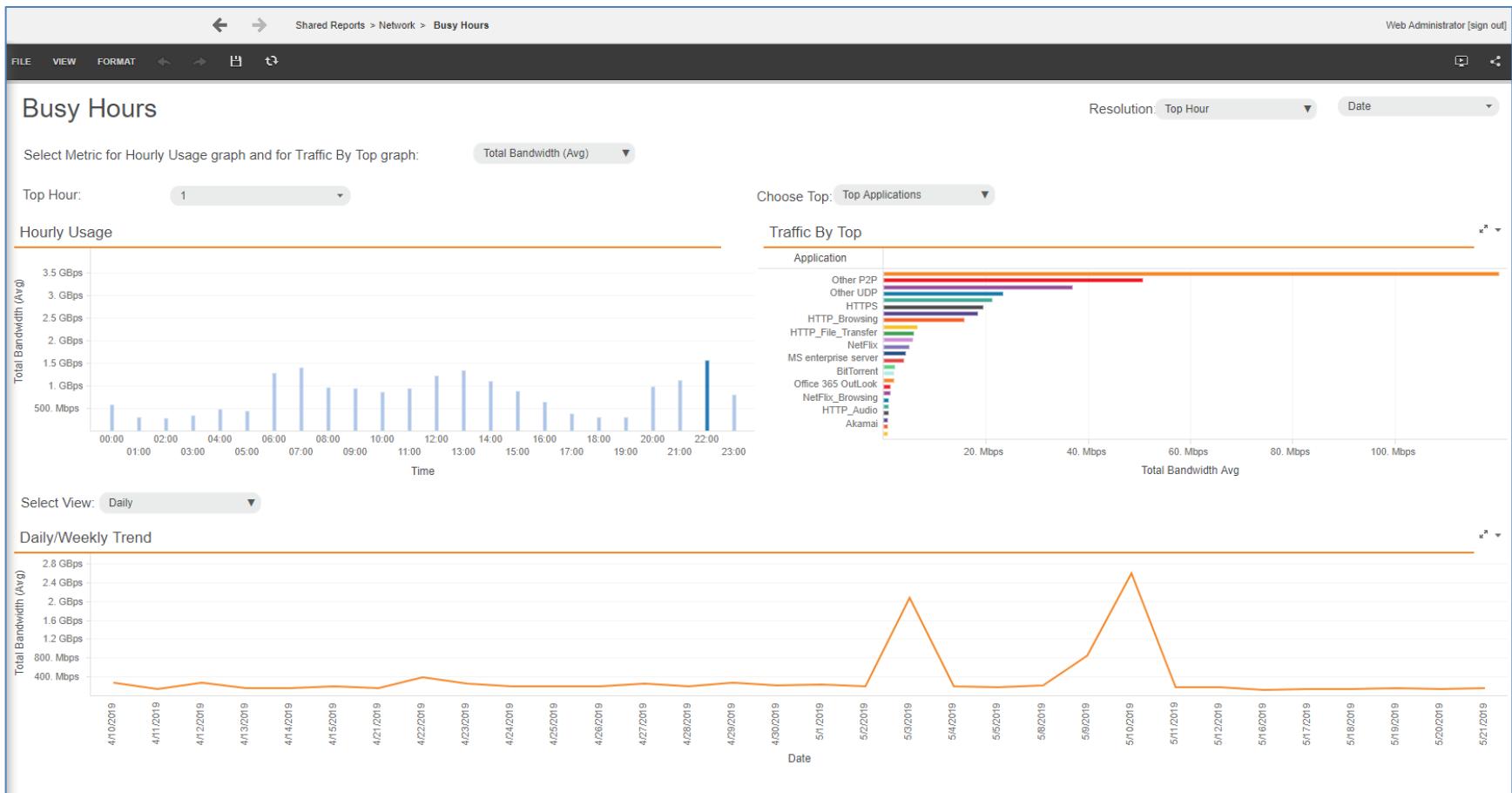
In this section, you'll find the reports that you get in the **Network** folder with GW DataReporter Metrics.

## Busy Hours

The **Busy Hours** report presents the times of day with the heaviest use, in a number of panels. The panels make use of a few busy hour approaches, some of which are defined in the CLI.

The following panels comprise the **Busy Hours** report:

- **Hourly Usage:** This bar graph shows each hour of the previous day, and the metric value for that hour, taking into account the selected busy hour approach.
- **Traffic By Top:** This horizontal bar graph shows the top applications, domains or internal hosts on your network by the selected metric.
- **Daily/Weekly Trend:** This trend graph shows the trend on your network of the selected metric, taking into account the selected busy hour approach.



**Figure 4-1: Busy Hours Report**

To get the most out of the report, follow the **WORKFLOW FOR USING A REPORT**.

**Table 3. What You Can Do in the Busy Hours Report**

<b>From where:</b>	<b>You can do the following:</b>
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
<b>Resolution</b> dropdown list	Affecting all panels in the report, change one of the following busy hour approach: <ul style="list-style-type: none"> <li>• <b>Top Hour:</b> The actual, calculated busiest hours in your network.</li> <li>• <b>Prime Time:</b> The hours of the weekday in your locale when people have the most free time and are likely to spend time online, as defined in GW Controller.</li> <li>• <b>Working Hours:</b> The hours of the weekday in your locale when people are usually at work or school, and therefore are less likely to spend time online, as defined in GW Controller.</li> <li>• <b>Offline Hours:</b> The hours of the weekday in your locale when people are usually off from work or school, and therefore are more likely to spend time online, as defined in GW Controller.</li> </ul>
Select Metric dropdown list	Change the metric by which to view all the panels in the report.
Date dropdown list	Affecting the <b>Hourly Usage</b> and <b>Traffic By Top</b> panels, do one of the following: <ul style="list-style-type: none"> <li>• Select the date for which you want to view the data.</li> <li>• Select <b>Date</b> if you want the panels to include data for the past running month.</li> </ul>

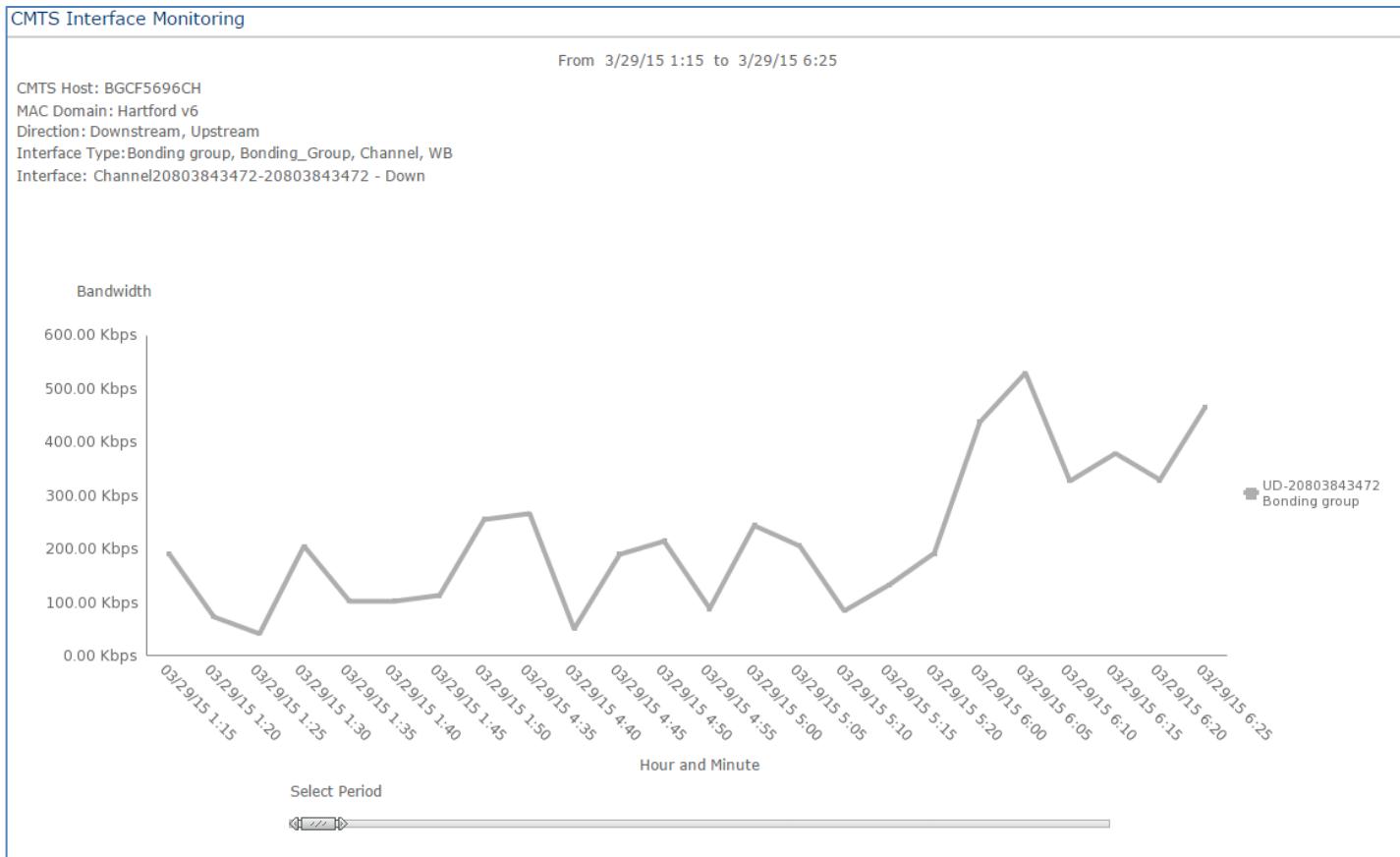
From where:	You can do the following:
Top Hour dropdown list	Affecting the <b>Hourly Usage</b> panel, do one of the following: <ul style="list-style-type: none"><li>Select <b>1</b> to highlight the hour/s with the top metric value.</li><li>Select <b>2</b> to highlight the hours with the top two metric values.</li><li>Select <b>3</b> to highlight the hours with the top three metric values.</li><li>Select <b>4</b> to highlight the hours with the top four metric values.</li><li>Select <b>5</b> to highlight the hours with the top five metric values.</li></ul>
Choose Top dropdown list	Change the attribute that you want the <b>Traffic By Top</b> panel to show.
Any panel in the report area	<b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b>
The graph areas	<ul style="list-style-type: none"><li>Mouse over a point on a trend line to view the application of that line, and the time and the metric value at that point.</li><li>Perform any of the actions described in <b>GRAPH ACTIONS</b>.</li></ul>
File in the menu bar	<ul style="list-style-type: none"><li><a href="#">SAVE A PREPARED REPORT</a></li><li><a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

## CMTS Interface Monitoring

The **CMTS Interface Monitoring** report enables you to select and view the activity of a CMTS interface by bandwidth over a period of time.

To view the report, you must first select the following filter attributes:

- The CMTS host containing the interface's MAC address, and the start and end time
- The MAC domain running the interface
- The direction(s) of the interface
- The type(s) of interface
- Up to 12 interfaces running on the MAC domain



## Filter

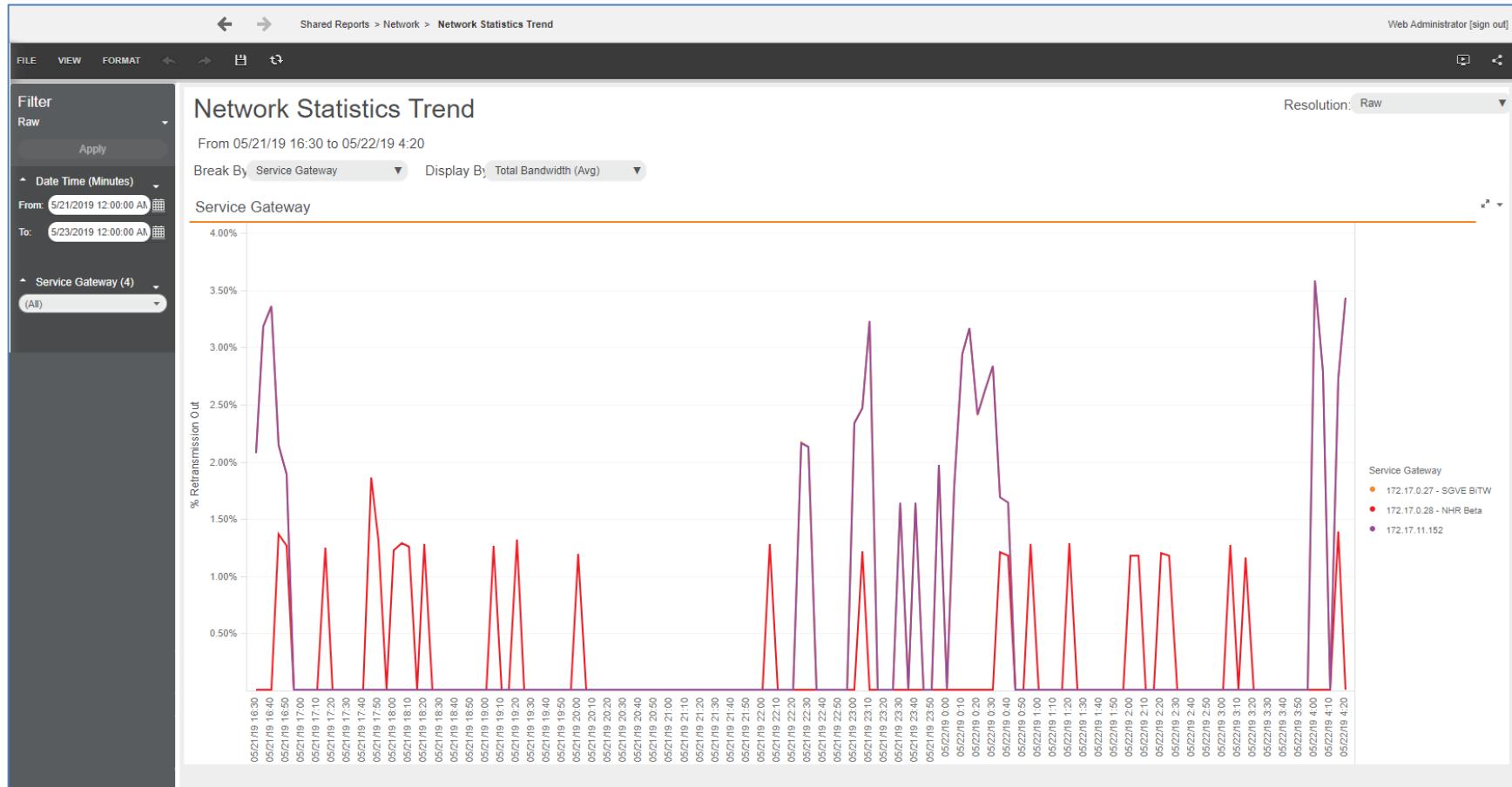
Filter report data by direction, either downstream or upstream.

Use the slider to adjust the time span.

Trend Graph		Tools
Trend line of the CMTS host		Toggle the attribute by which the CMTS hosts appear, <b>bonding group</b> , <b>channel</b> or <b>WB</b> , with the <b>Interface Type</b> dropdown list.
X axis	Time span in which CMTS interface usage is measured	Drill down on a CMTS interface at a specific time to view bandwidth by application, device, users and DOCSIS type.
Y axis	Bandwidth activity (in Mbps or Kbps) of the interface	

## Network Statistics Trend

The **Network Statistics Trend** report presents consumption metrics over time for the policy objects that you select.



**Figure 4-2: Network Status Trend Report**

To get the most out of the report, follow the **WORKFLOW FOR USING A REPORT**.

**Table 4. What You Can Do in the Network Statistics Trend Report**

<b>From where:</b>	<b>You can do the following:</b>
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
<b>Break By</b> dropdown list	Change the policy object, <b>Gateway</b> , <b>Line</b> , <b>Pipe</b> or <b>Virtual Channel</b> , by which you want to view the metric.
<b>Display By</b> dropdown list	Change the metric by which you want to view the report.
Any panel in the report area	<a href="#">EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</a>
<b>Filter</b> panel	Filter by time frame and <b>Gateway</b> , which are described in <a href="#">FILTERING A REPORT</a> .
The graph area	<ul style="list-style-type: none"> <li>• Mouse over a point on a trend line to view the application of that line, and the time and the metric at that point.</li> <li>• Perform any of the actions described in <a href="#">GRAPH ACTIONS</a>.</li> </ul>
<b>File</b> in the menu bar	<ul style="list-style-type: none"> <li>• <a href="#">SAVE A PREPARED REPORT</a></li> <li>• <a href="#">EXPORT THE REPORT TO PDF</a></li> </ul>

## Investigating Policy Objects

This workflow describes how, using the policy object reports, to investigate and zero in on over or under-performing policy object. The workflow is meant to give an idea how the reports are used as a tool, but not to be followed exactly.

To get the most out of the report, follow the [WORKFLOW FOR USING A REPORT](#).

To zero in on over or under-performing policy objects:

1. From the **Network** domain, open the [GATEWAYS & POLICIES](#) report.
2. To investigate the SGs, from the filter, do any of the following:
  - ◆ Filter to view only specific SGs.
  - ◆ Change the time frame.
3. Click an GW that you want to investigate further.

The [GATEWAYS & POLICIES – POLICY LINES](#) report appears in a new tab, presenting only the GW that you selected to investigate.

4. To investigate the lines, from the filter, do any of the following:
  - ◆ Filter to view only specific lines in the GW that you selected.
  - ◆ Change the time frame.
5. Click a line that you want to investigate further.

The [GATEWAYS & POLICIES – POLICY PIPES](#) report appears in a new tab, presenting only the line that you selected to investigate.

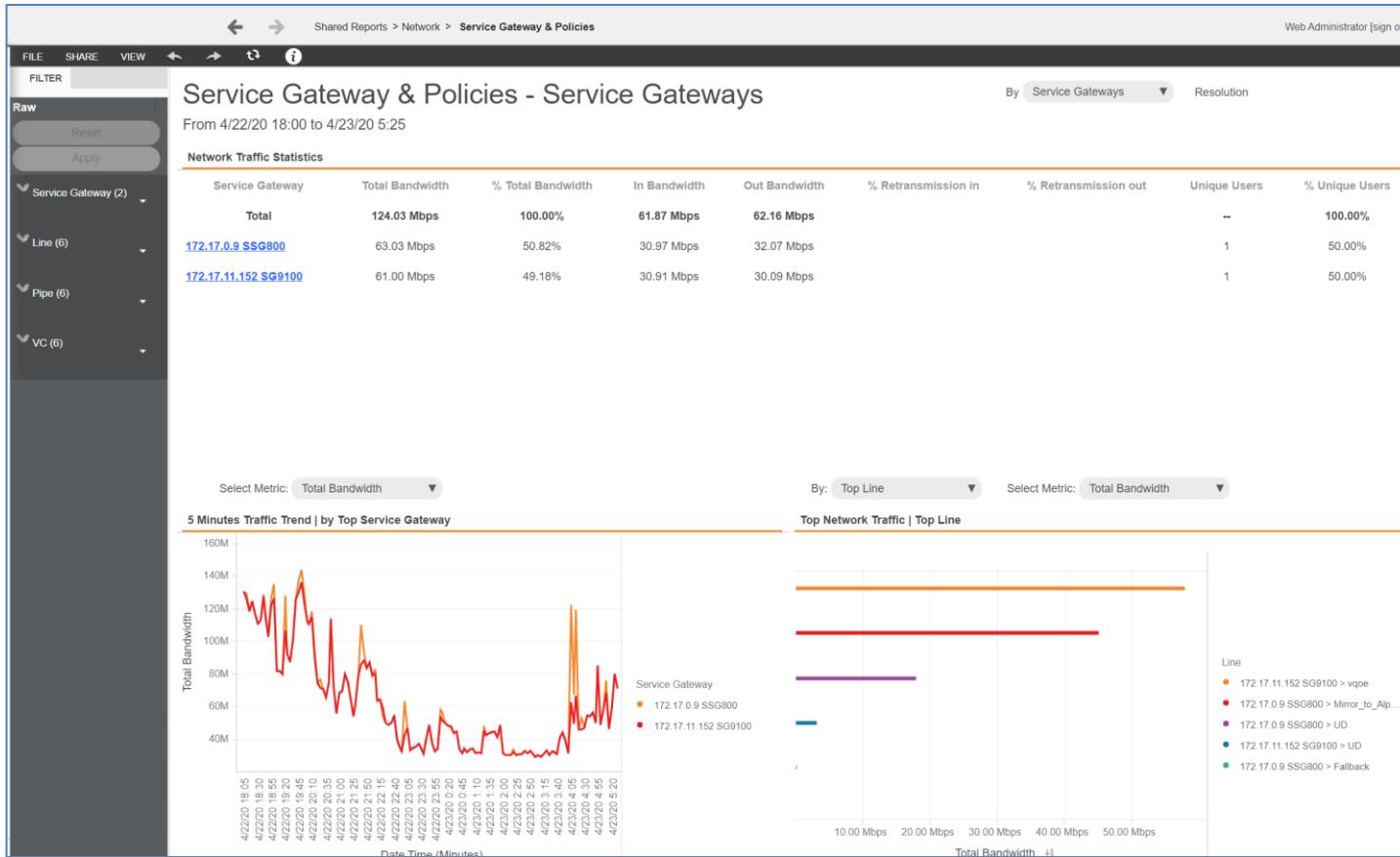
6. To investigate the pipes, from the filter, do any of the following:
  - ◆ Filter to view only specific pipes in the line that you selected.
  - ◆ Change the time frame.
7. Click a pipe that you want to investigate further.

The [GATEWAYS & POLICIES – POLICY VIRTUAL CHANNELS](#) report appears in a new tab, presenting only the pipe that you selected to investigate.

8. To investigate the virtual channels, from the filter, do any of the following:
  - ◆ Filter to view only specific virtual channels in the pipe that you selected.
  - ◆ Change the time frame.

## Gateways & Policies – Gateways

The **Gateways & Policies – Gateways** report presents network traffic for the SGs in your network, and enables you to zero in on over or under-performing policy objects. This report is the gateway to the other **POLICY OBJECT** reports.



**Figure 4-3: Gateways & Policies – Gateways Report**

To get the most out of the report, follow the [WORKFLOW FOR USING A REPORT](#). Also, check out [INVESTIGATING POLICY OBJECTS](#).

**NOTE** Also accessed as the Main report.

To open the **Gateways** report:

1. From the Reporting panel, select Network > Gateways & Policies.

The **Gateways** report appears, containing the following panels:

- ◆ **Network Traffic Statistics:** This grid presents the major metrics for the SGs in your network by default, and otherwise for the SGs that you select.
- ◆ **Network Segment Indicator:** This indicates the percentage that the SGs that you select are from the total network, in terms of bandwidth or unique users, for the selected period of time. By default, all SGs are selected, and the percentage is 100%.
- ◆ **Traffic Trend by Top Gateway:** This trend graph presents traffic metrics over time for the top SGs by default, and otherwise for the SGs that you select.
- ◆ **Network Traffic by Top Attributes:** This horizontal bar graph presents traffic metrics broken down by a variety of network attributes. By default the graph presents the metrics on the network level, and otherwise for the SGs that you select.

2. You can do the following:

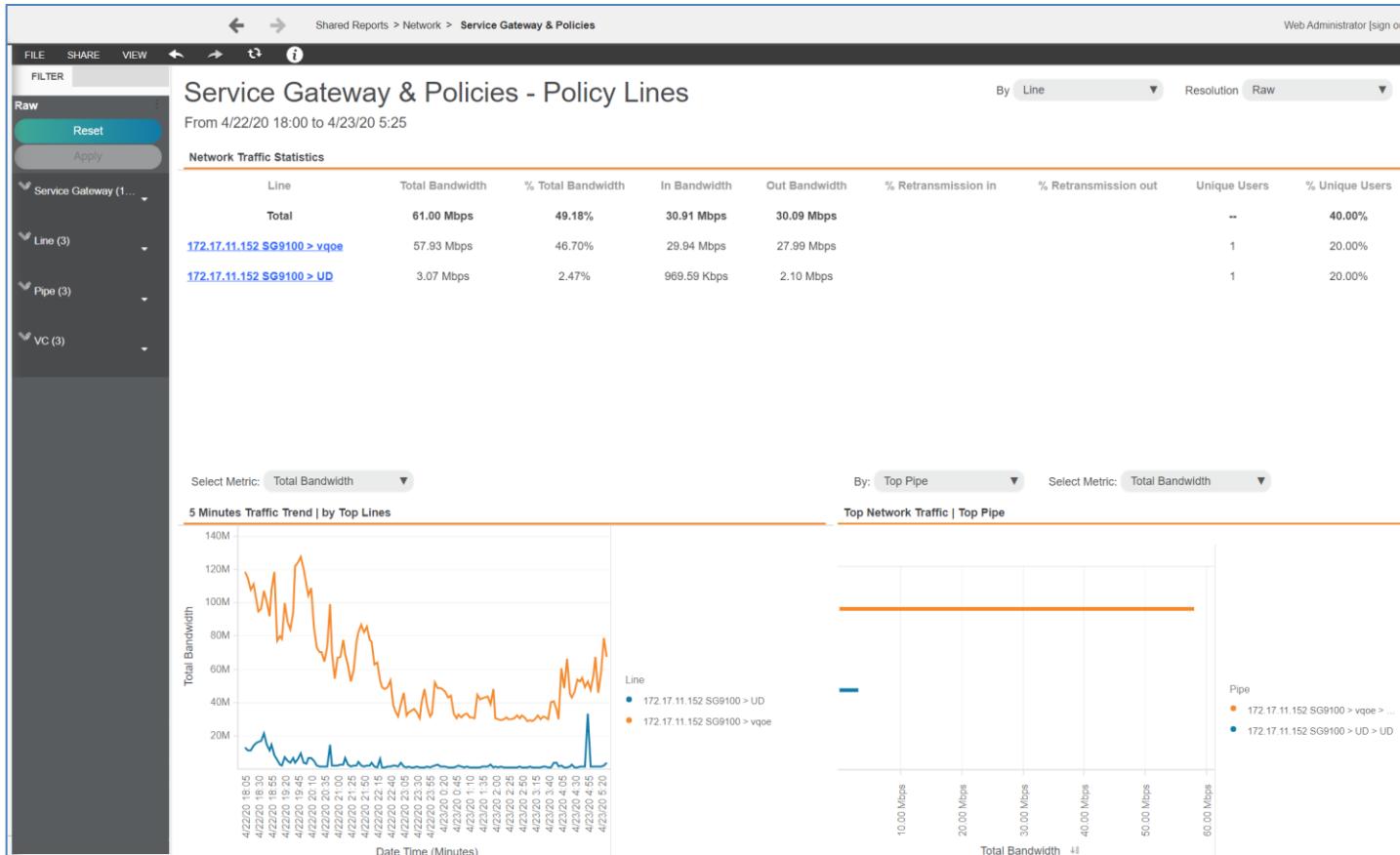
**Table 5. What You Can Do in the Gateways Report**

From where:	You can do the following:
Resolution dropdown list	Change the time resolution by which you want to view the report.
Filter	Filter by time frame and <b>Gateway</b> , which are described in <a href="#">FILTERING A REPORT</a> .
Network Traffic Statistics	<ul style="list-style-type: none"><li>• Click an GW to <a href="#">OPEN THE POLICY LINES REPORT</a> for that SG.</li><li>• Sort the <b>Network Traffic Statistics</b> grid by the contents of the column.</li></ul>

<b>From where:</b>	<b>You can do the following:</b>
Network Segment Indicator	From the <b>By</b> dropdown list, select one of the following: <ul style="list-style-type: none"> <li>• <b>Bandwidth:</b> Present the percentage that the selected SGs are from the total network in terms of bandwidth.</li> <li>• <b>Users:</b> Present the percentage that the selected SGs are from the total network in terms of unique users.</li> </ul>
Traffic Trend by Top Gateway	Mouse over a point on a strip to view a tooltip containing the metric value for the policy object at that time.
Network Traffic by Top Attributes	Mouse over a bar to view a tooltip containing the metric value for the line.
Any panel in the report area	<a href="#"><b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b></a>
Graphs	Perform any of the actions described in <a href="#"><b>GRAPH ACTIONS</b></a> .
<b>File</b> in the menu bar	<ul style="list-style-type: none"> <li>• <a href="#"><b>SAVE A PREPARED REPORT</b></a></li> <li>• <a href="#"><b>EXPORT THE REPORT TO PDF</b></a></li> </ul>

## Gateways & Policies – Policy Lines

The **Gateways & Policies – Policy Lines** report presents network traffic for the lines in your network that you select.



**Figure 4-4: Gateways & Policies – Policy Lines Report**

Get the most out of the report by following the [WORKFLOW FOR USING A REPORT](#). Also, check out [INVESTIGATING POLICY OBJECTS](#).

To open the **Gateways & Policies – Policy Lines** report, select the line or lines from the [GATEWAYS & POLICIES](#) report that you want to investigate.

The **Gateways & Policies – Policy Lines** report contains the following panels:

- **Network Traffic Statistics:** This grid presents the major metrics for the lines that you select.
- **Network Segment Indicator:** This indicates the percentage that the lines that you select are from the total network, in terms of bandwidth or unique users, for the selected period of time.
- **Traffic Trend by Top Line:** This trend graph presents traffic metrics over time for the top lines by default, and otherwise for the lines that you select.
- **Network Traffic by Top Attributes:** This horizontal bar graph presents traffic metrics for a variety of network attributes, for the lines that you select.

You can do the following:

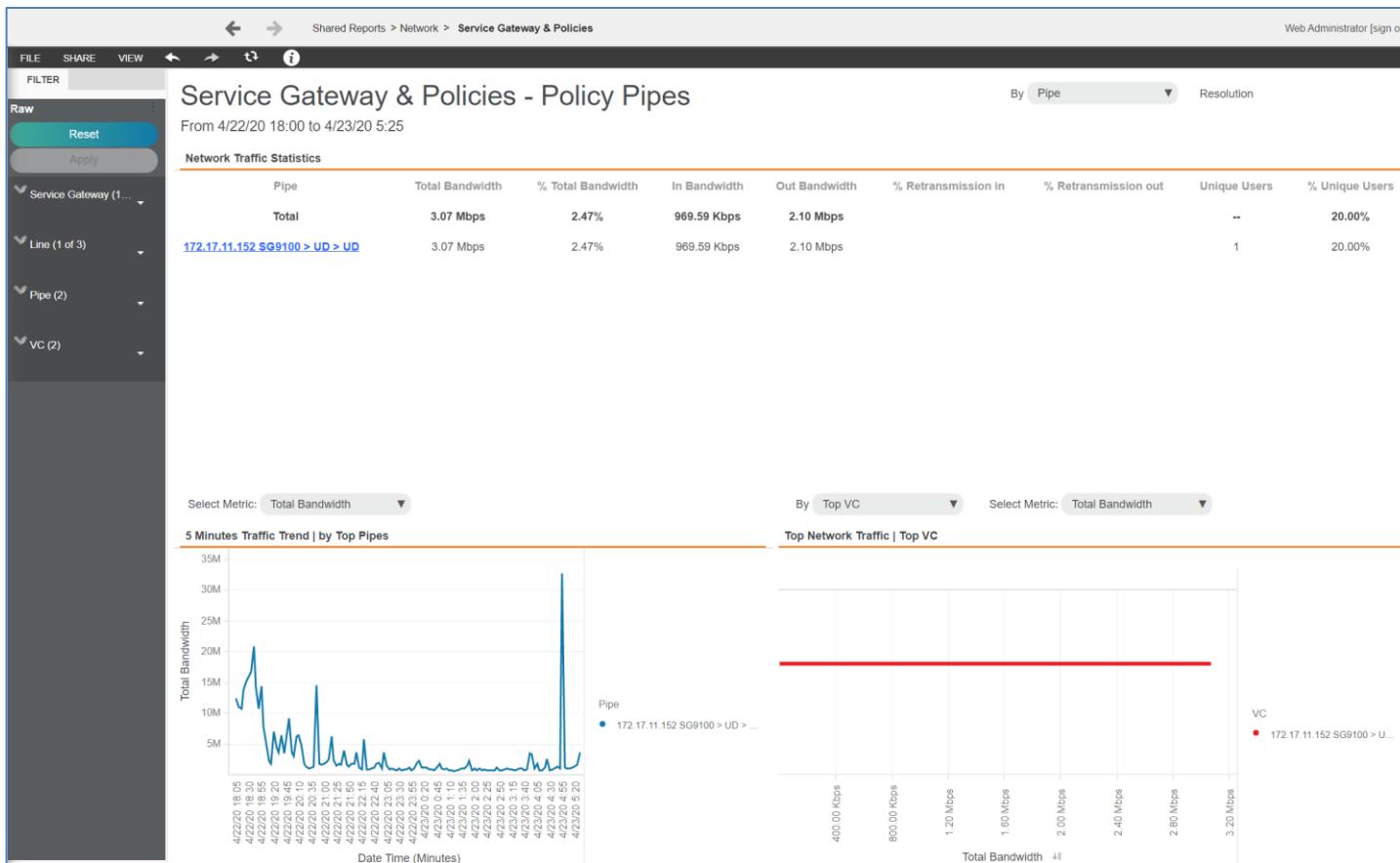
**Table 6. What You Can Do in the Gateways & Policies – Policy Lines Report**

From where:	You can do the following:
Resolution dropdown list	Change the time resolution by which you want to view the report.
Filter	Filter by time frame, <b>Gateway</b> and <b>Line</b> , which are described in <a href="#">FILTERING A REPORT</a> .
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Network Traffic Statistics	<ul style="list-style-type: none"><li>• Click a line to <a href="#">OPEN THE POLICY PIPES REPORT</a> for that line.</li><li>• Sort the <b>Network Traffic Statistics</b> grid by the contents of the column.</li><li>• To get a description of the attribute or metric in a column, mouse over the column's header.</li></ul>

From where:	You can do the following:
Network Segment Indicator	From the <b>By</b> dropdown list, select one of the following: <ul style="list-style-type: none"> <li>• <b>Bandwidth:</b> Present the percentage that the selected lines are from the total network in terms of bandwidth.</li> <li>• <b>Users:</b> Present the percentage that the selected lines are from the total network in terms of unique users.</li> </ul>
Traffic Trend by Top Lines	Mouse over a point on a strip to view a tooltip containing the metric value for the policy object at that time.
Network Traffic by Top Attributes	Mouse over a bar to view a tooltip containing the metric value for the attribute.
Any panel in the report area	<a href="#">EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</a>
Graphs	Perform any of the actions described in <a href="#">GRAPH ACTIONS</a> .
File in the menu bar	<ul style="list-style-type: none"> <li>• <a href="#">SAVE A PREPARED REPORT</a></li> <li>• <a href="#">EXPORT THE REPORT TO PDF</a></li> </ul>

## Gateways & Policies – Policy Pipes

The **Gateways & Policies – Policy Pipes** report presents network traffic for the pipes in your network that you select.



**Figure 4-5: Gateways & Policies – Policy Pipes Report**

Get the most out of the report by following the [WORKFLOW FOR USING A REPORT](#). Also, check out [INVESTIGATING POLICY OBJECTS](#).

To open the **Gateways & Policies – Policy Pipes** report, select the line or lines from the [POLICY LINES](#) report that you want to investigate.

The **Gateways & Policies – Policy Lines** report contains the following panels:

- **Network Traffic Statistics:** This grid presents the major metrics for the pipes that you select.
- **Network Segment Indicator:** This indicates the percentage that the pipes that you select are from the total network, in terms of bandwidth or unique users, for the selected period of time.
- **Traffic Trend by Top Pipe:** This trend graph presents traffic metrics over time for the top pipes by default, and otherwise for the pipes that you select.
- **Network Traffic by Top Attributes:** This horizontal bar graph presents traffic metrics for a variety of network attributes, for the pipes that you select.

You can do the following:

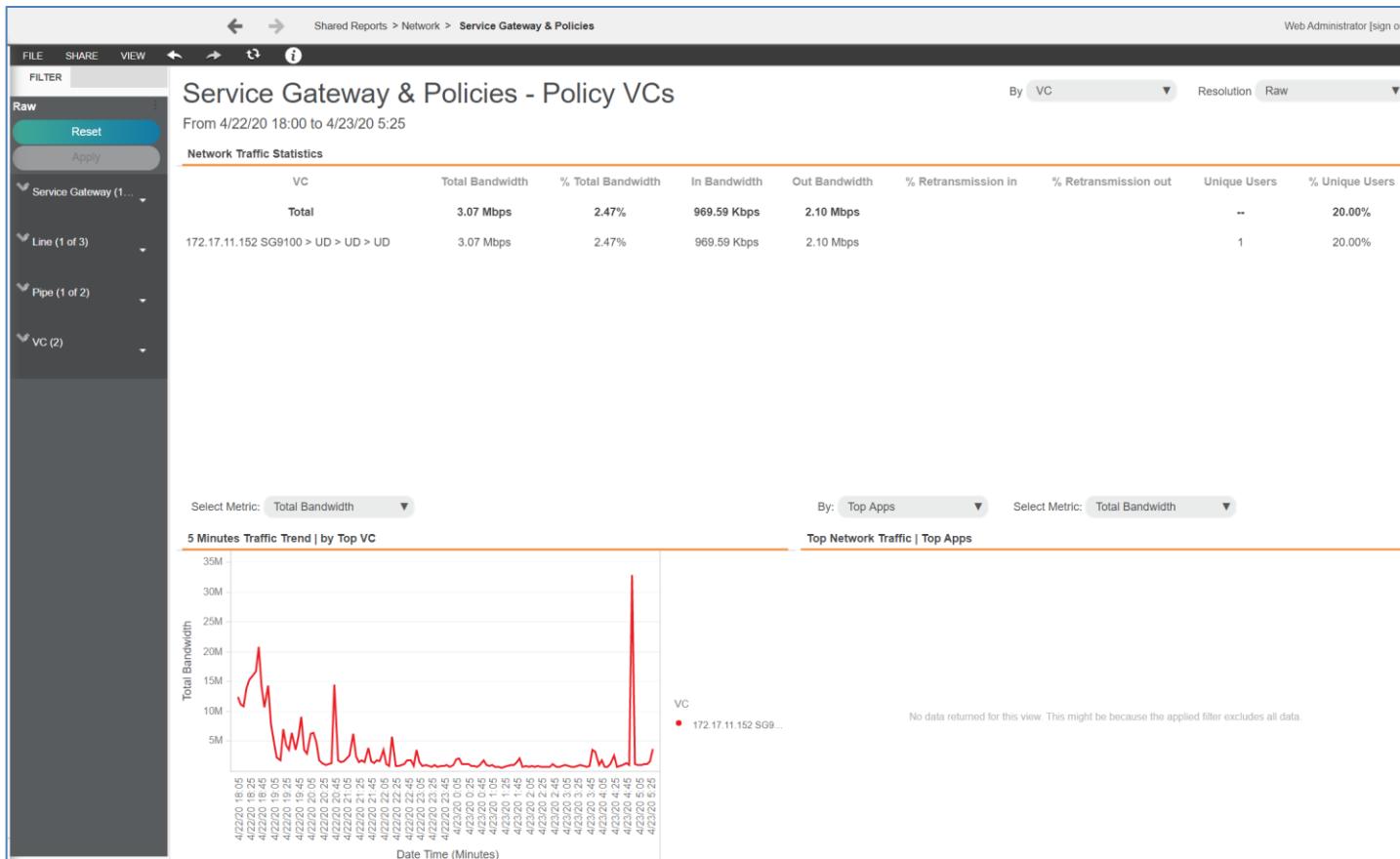
**Table 7. What You Can Do in the Gateways & Policies – Policy Pipes Report**

From where:	You can do the following:
Resolution dropdown list	Change the time resolution by which you want to view the report.
Filter	Filter by time frame, <b>Gateway</b> , <b>Line</b> and <b>Pipe</b> , which are described in <a href="#">FILTERING A REPORT</a> .
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Network Traffic Statistics	<ul style="list-style-type: none"><li>• Click a pipe to <a href="#">OPEN THE POLICY VIRTUAL CHANNELS REPORT</a> for that pipe.</li><li>• Sort the <b>Network Traffic Statistics</b> grid by the contents of the column.</li><li>• To get a description of the attribute or metric in a column, mouse over the column's header.</li></ul>

<b>From where:</b>	<b>You can do the following:</b>
Network Segment Indicator	From the <b>By</b> dropdown list, select one of the following: <ul style="list-style-type: none"> <li>• <b>Bandwidth:</b> Present the percentage that the selected pipes are from the total network in terms of bandwidth.</li> <li>• <b>Users:</b> Present the percentage that the selected pipes are from the total network in terms of unique users.</li> </ul>
Traffic Trend by Top Pipes	Mouse over a point on a strip to view a tooltip containing the metric value for the policy object at that time.
Network Traffic by Top Attributes	Mouse over a bar to view a tooltip containing the metric value for the attribute.
Any panel in the report area	<a href="#"><b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b></a>
Graphs	Perform any of the actions described in <a href="#"><b>GRAPH ACTIONS</b></a> .
File in the menu bar	<ul style="list-style-type: none"> <li>• <a href="#"><b>SAVE A PREPARED REPORT</b></a></li> <li>• <a href="#"><b>EXPORT THE REPORT TO PDF</b></a></li> </ul>

## Gateways & Policies – Policy Virtual Channels

The **Gateways & Policies – Policy Virtual Channels** report presents network traffic for the virtual channels in your network that you select.



**Figure 4-6: Gateways & Policies – Policy Virtual Channels Report**

Get the most out of the report by following the [WORKFLOW FOR USING A REPORT](#). Also, check out [INVESTIGATING POLICY OBJECTS](#).

To open the **Gateways & Policies – Policy Virtual Channels** report, select the line or lines from the [POLICY PIPES](#) report that you want to investigate.

The Gateways & Policies – Policy Virtual Channels contains the following panels:

- **Network Traffic Statistics:** This grid presents the major metrics for the virtual channels that you select.
- **Network Segment Indicator:** This indicates the percentage that the virtual channels that you select are from the total network, in terms of bandwidth or unique users, for the selected period of time.
- **Traffic Trend by Top Virtual Channels:** This trend graph presents traffic metrics over time for the top virtual channels by default, and otherwise for the virtual channels that you select.
- **Network Traffic by Top Attributes:** This horizontal bar graph presents traffic metrics for a variety of network attributes, for the virtual channels that you select.

You can do the following:

**Table 8. What You Can Do in the Gateways & Policies – Policy Virtual Channels Report**

From where:	You can do the following:
Resolution dropdown list	Change the time resolution by which you want to view the report.
Filter	Filter by time frame, <b>Gateway</b> , <b>Line</b> and <b>Pipe</b> , which are described in <a href="#">FILTERING A REPORT</a> .
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Network Traffic Statistics	Sort the <b>Network Traffic Statistics</b> grid by the contents of the column. To get a description of the attribute or metric in a column, mouse over the column's header.

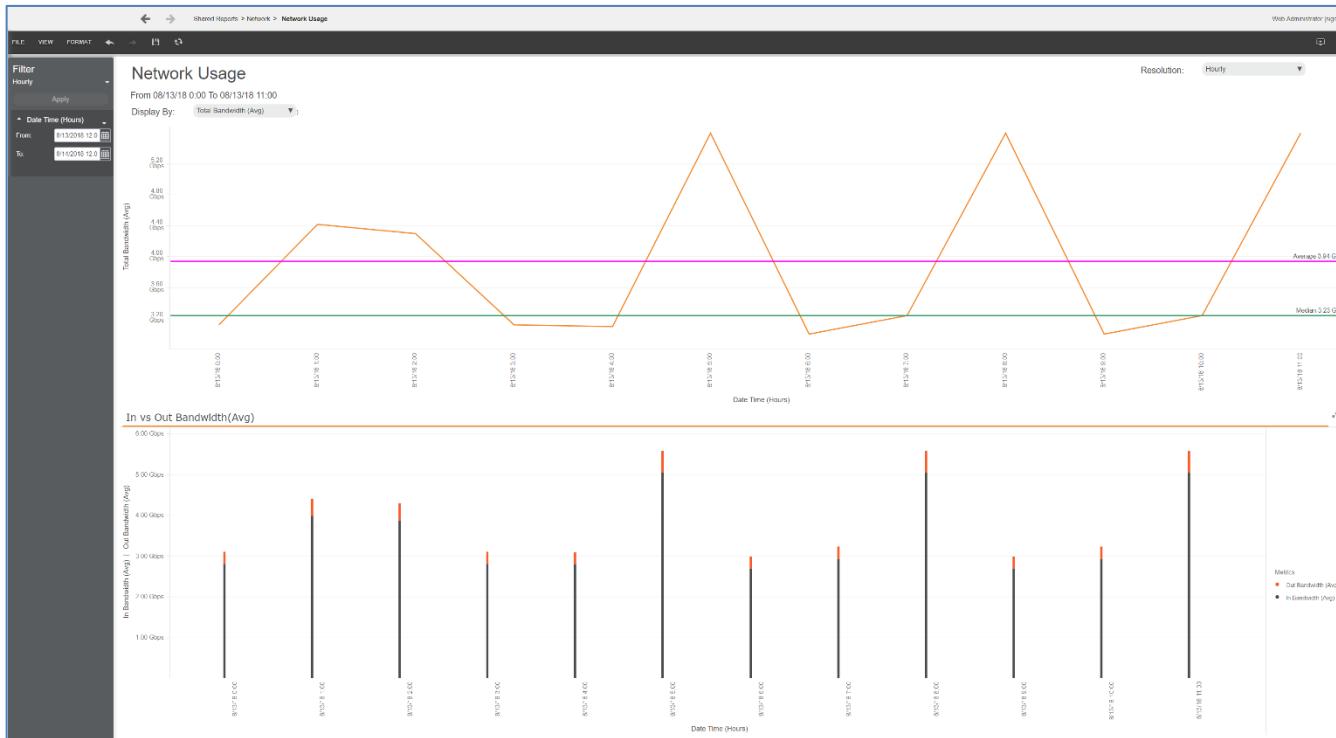
From where:	You can do the following:
Network Segment Indicator	From the <b>By</b> dropdown list, select one of the following: <ul style="list-style-type: none"> <li><b>Bandwidth:</b> Present the percentage that the selected virtual channels are from the total network in terms of bandwidth.</li> <li><b>Users:</b> Present the percentage that the selected virtual channels are from the total network in terms of unique users.</li> </ul>
Traffic Trend by Top Virtual Channels	Mouse over a point on a strip to view a tooltip containing the metric value for the policy object at that time.
Network Traffic by Top Attributes	Mouse over a bar to view a tooltip containing the metric value for the attribute.
Any panel in the report area	<a href="#">EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</a>
Graphs	Perform any of the actions described in <a href="#">GRAPH ACTIONS</a> .
File in the menu bar	<ul style="list-style-type: none"> <li><a href="#">SAVE A PREPARED REPORT</a></li> <li><a href="#">EXPORT THE REPORT TO PDF</a></li> </ul>

## Network Usage

The **Network Usage** report presents **Total Bandwidth (Avg)** or **Total Volume** over time, and is comprised of the following graphs:

- **Top:** A trend graph with the following trend lines:
  - ◆ The blue trend line indicates the selected metric for each period of the selected time frame.
  - ◆ The purple trend line indicates the average of the selected metric for the selected time frame.
  - ◆ The green trend line indicates the median of the selected metric for the selected time frame.

- Bottom:** A trend bar graph of the selected metric, in which each bar is broken down into inbound traffic and outbound traffic



**Figure 4-7: Network Usage Report**

To get the most out of the report, follow the [WORKFLOW FOR USING A REPORT](#).

**Table 9. What You Can Do in the Network Usage Report**

<b>From where:</b>	<b>You can do the following:</b>
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
<b>Resolution</b> dropdown list	Change the time resolution by which you want to view the report.
<b>Display By</b> dropdown list	Change the metric by which you want to view the report.
<b>Filter panel</b>	Filter by <b>Week Number</b> , which is described in <a href="#">FILTERING A REPORT</a> .
Any panel in the report area	<a href="#">EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA</a> .
The graphs	<ul style="list-style-type: none"> <li>• Perform any of the actions described in <a href="#">GRAPH ACTIONS</a>.</li> <li>• In the top graph: <ul style="list-style-type: none"> <li>◆ Mouse over a point on the blue line to view the date, and the metric for that date.</li> <li>◆ Mouse over the purple line to view the average total bandwidth (average) or average total volume over the selected time period.</li> <li>◆ Mouse over the green line to view the median total bandwidth (average) or median total volume over the selected time period.</li> </ul> </li> <li>• In the bottom graph: <ul style="list-style-type: none"> <li>◆ Mouse over the blue line to view the date, and the metric's inbound traffic.</li> <li>◆ Mouse over the red line to view the date, and the metric's outbound traffic.</li> </ul> </li> </ul>

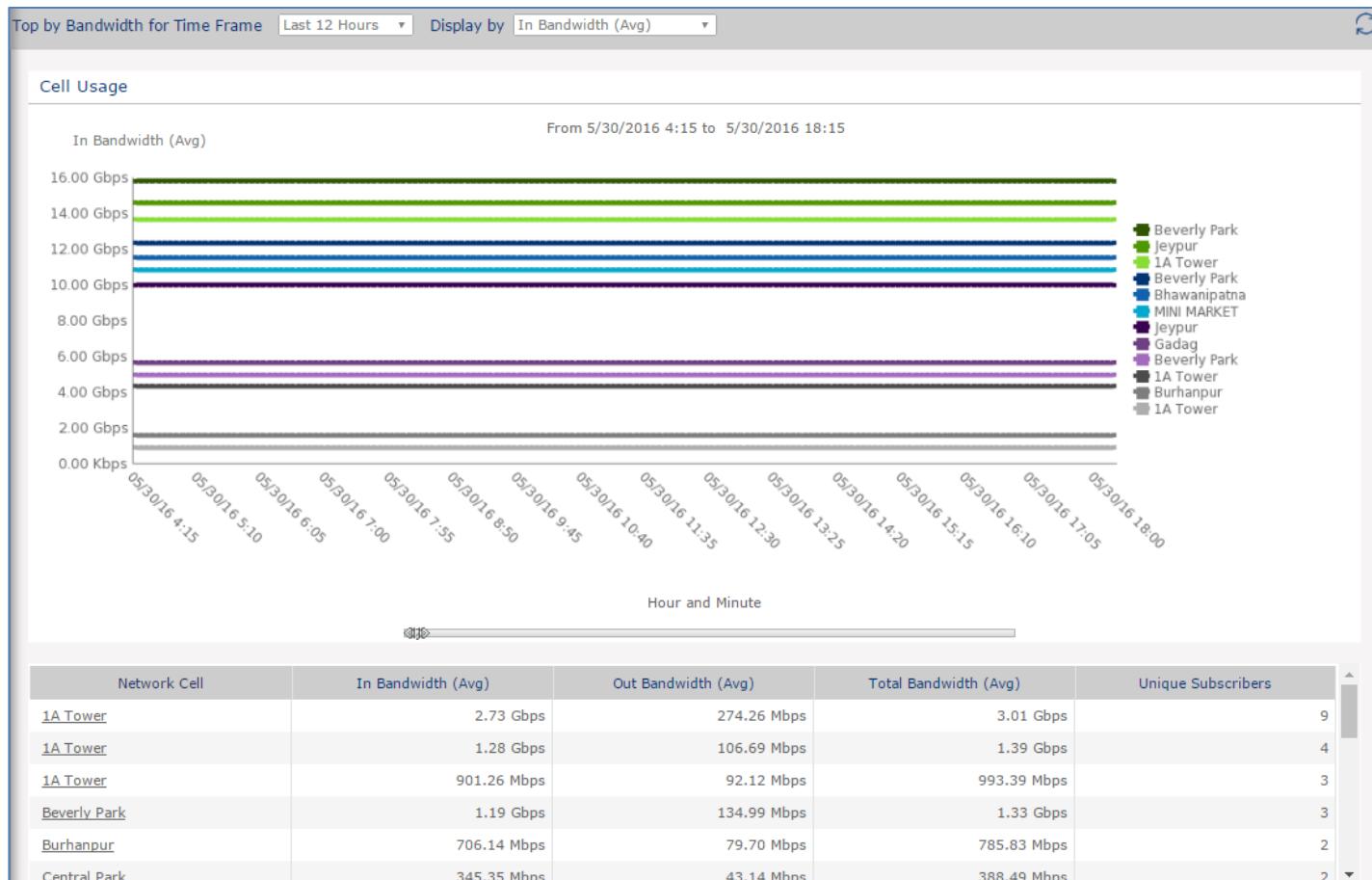
From where:	You can do the following:
File in the menu bar	<ul style="list-style-type: none"><li>• <a href="#">SAVE A PREPARED REPORT</a></li><li>• <a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

## Network Analytics

In this section, you'll find the additional reports that you get in the **Network** folder with GW DataReporter Analytics.

### Cell Usage

The **Cell Usage** report identifies the most active cells by consumption metrics over time, so that you can detect cell congestion in order to define policies to prevent future congestion. In the graph, each line describes the trend of another cell.

**Filter**

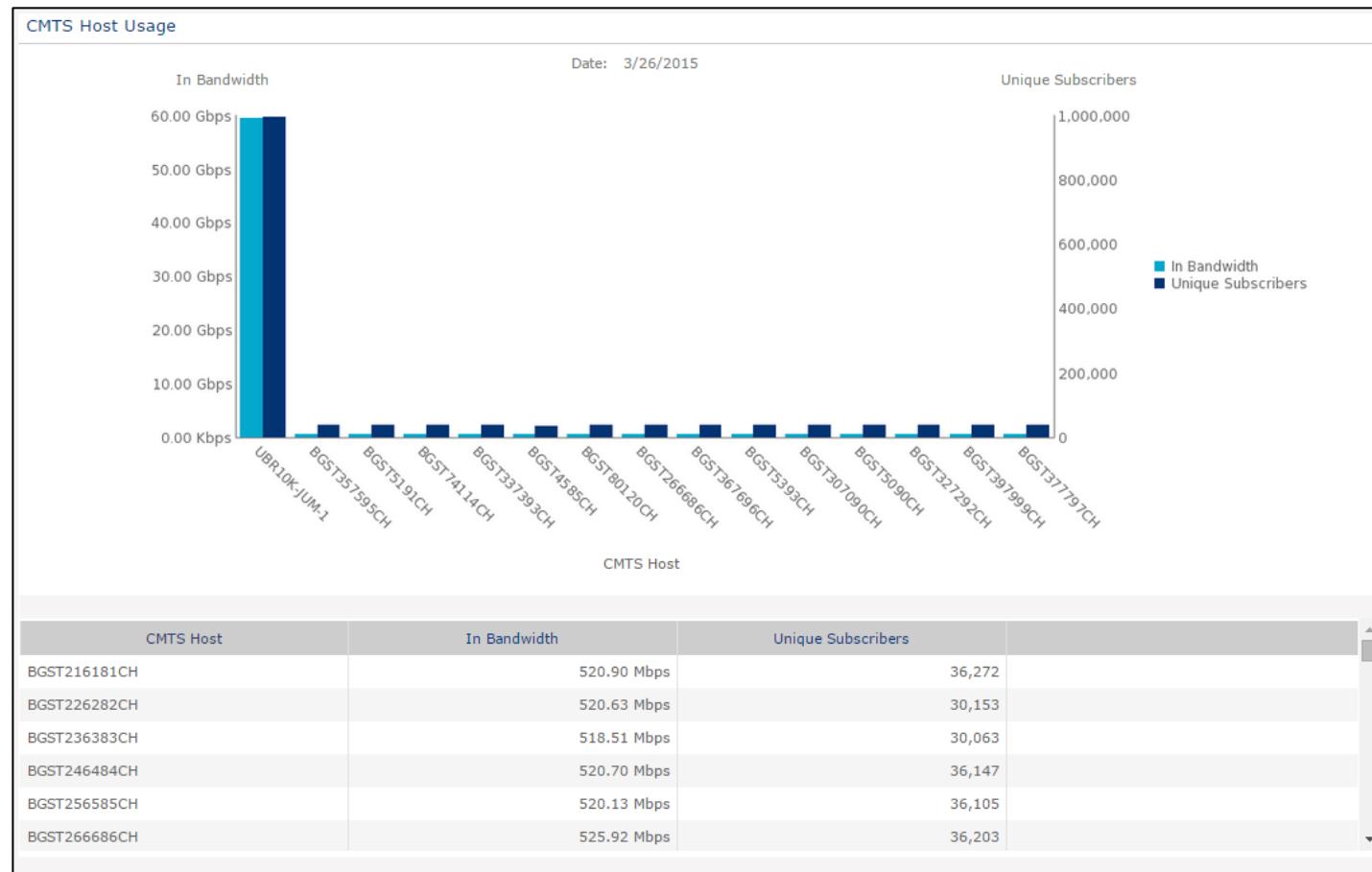
Filter report data by any of the following:

- **Time Frame:** To view the data for the **Last 12 Hours** or for a specific **Day**

<ul style="list-style-type: none"> <li><b>Display By:</b> To view data for any of the following metrics: In Bandwidth (Avg), Total Bandwidth (Avg), Out Bandwidth (Avg), Unique Subscribers</li> </ul>	
<b>Trend Graph</b>	<b>Tools</b>
X axis	The selected time frame
Y axis	Mouse over a line to view a tooltip containing the value of the selected metric. When <b>Last 12 Hours</b> is selected, use the <a href="#">SLIDER</a> to adjust the time span within the last 12 hours. This only affects the graph, not the grid.
<b>Grid Columns</b>	<b>Tools</b>
Network Cell	Sort the grid by the contents of the column.
In Bandwidth (Avg)	The average bandwidth per hour entering your network by way of the cell in the selected time frame
Out Bandwidth (Avg)	The average bandwidth per hour exiting your network by way of the cell in the selected time frame
Total Bandwidth (Avg)	The average bandwidth per hour entering or exiting your network by way of the cell in the selected time frame
Unique Subscribers	The number of unique subscribers on your network by way of the cell in the selected time frame

## CMTS Host Usage

The **CMTS Host Usage** report identifies the top CMTS hosts by bandwidth and unique subscribers over a selected period of time. It's useful for understanding CMTS host capacity and usage, and to identify outliers.



<b>Filter</b>	
Filter report data by any of the following:	
<ul style="list-style-type: none"> <li>• <b>Time resolution:</b> To view data for a specific <b>Day or Month</b></li> <li>• <b>Direction:</b> Either downstream or upstream</li> </ul>	
Bar Graph	Tools
Each bar represents a CMTS host.	Drill down on a CMTS host to view bandwidth and unique subscribers by MAC domain, application, device type, users or DOCSIS type.
X axis	
Y axis (left)	
Grid Columns	Tools
CMTS Host	The top 50 CMTS hosts in your network  <a href="#">SORT</a> the grid by the contents of the column.
In/Out Bandwidth	The upstream or downstream bandwidth of the CMTS host within the period defined by the filter
Unique Subscribers	The number of unique subscribers of the CMTS host

## CMTS Interface Usage

The **CMTS Interface Usage** report compares the top CMTS interfaces by bandwidth over a selected period of time. You can select to view interfaces of only a specific type. The report is useful for identifying volume metrics for CMTS interfaces.

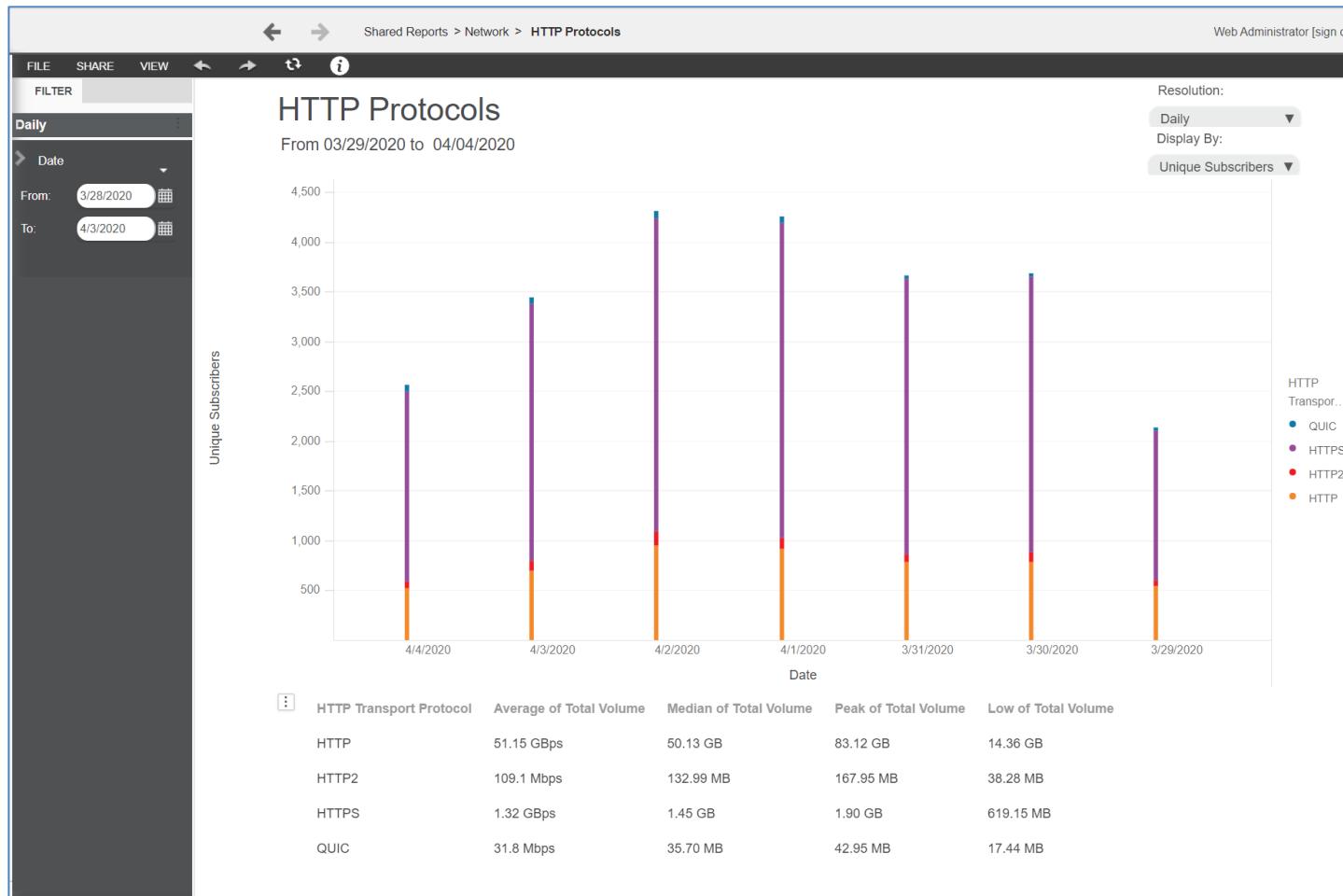


<b>Filter</b>	
<p><b>FILTER</b> report data by any of the following:</p> <ul style="list-style-type: none"> <li>• <b>Time Frame:</b> To view data for a specific <b>Day</b> or <b>Month</b>, or the <b>Last 12 Hours</b></li> <li>• <b>Direction:</b> Either downstream or upstream</li> <li>• <b>CMTS Host:</b> To view the data for the interfaces of a specific CMTS host</li> </ul>	
<b>Trend Graph</b>	
X axis	Time resolution measuring CMTS interfaces
Y axis	<p>Bandwidth activity (in Mbps) of one of the following <b>Interface Types:</b></p> <p><b>All:</b> All interface types  <b>Channel:</b> One channel on your network  <b>Bonding Group:</b> A bonding of channels  <b>WB:</b> White band, a type of bonding group</p>
<b>Bar Graph</b>	
X axis	<p>One of the following <b>Interface Types:</b></p> <p><b>All:</b> All interface types  <b>Channel:</b> One channel on your network  <b>Bonding Group:</b> A bonding of channels  <b>WB:</b> White band, a type of bonding group</p>
Y axis	Bandwidth activity (in Mbps) and average unique subscribers of the interface
<b>Tools</b>	
<p>When <b>Last 12 Hours</b> is selected from the filter, use the slider to adjust the time period in the graph. This does not affect the grid.</p> <p>In the graph:</p> <ul style="list-style-type: none"> <li>• With the <b>Interface Type</b> dropdown list, select the type of CMTS interface.</li> <li>• <b>DRILL DOWN</b> on a CMTS interface to view bandwidth or unique subscribers by application, device, users and DOCSIS type.</li> </ul>	

Grid Columns		Tools
CMTS Host	A top 50 CMTS hosts in your network	Sort the grid by the contents of the column.
MAC Domain	The MAC domain belonging to the CMTS host, on which the interface runs	
Interface Type Down/Up	The type of interface running on the MAC domain	
Interface Down/Up	A specific CMTS interface	
DOCSIS Type	The interface's DOCSIS type	
In/Out Bandwidth	The upstream or downstream bandwidth of the CMTS interface within the period defined by the filter	

## HTTP Protocols

The **HTTP Protocols** report divides the total volume on your network or unique subscribers by the HTTP protocols in use, over time.



<b>Filter</b>	
<p><b>FILTER</b> report data by any of the following:</p> <ul style="list-style-type: none"> <li>• <b>Resolution:</b> To view data for a specific <b>Monthly</b>, <b>Weekly</b> or <b>Daily</b></li> <li>• <b>Display By:</b> To view data for any of the following <b>METRICS:</b> Total Volume, Unique Subscribers</li> </ul>	
<b>Info Box</b>	
<p>From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.</p>	
Trend Graph	Tools
The height of the bar represents the total for the selected metric at a period of time. Each segment of the bar represents the metric for an HTTP protocol.	<p>Mouse over a segment of a bar to view a tooltip containing the value of the selected metric at that period of time and for that HTTP protocol.</p> <p>Drill down on an HTTP protocol at a specific time to view the selected metric by domain or application.</p>
X axis	The selected time frame
Y axis	The selected metric
Grid Columns	Tools
Depending on what is selected from the <b>Resolution:</b>	<p>Sort the grid by the contents of the column.</p> <p>To get a description of the attribute or metric in a column, mouse over the column's header.</p>
• <b>Monthly:</b> Data in the grid is for a month	
• <b>Weekly:</b> Data in the grid is for a week	
• <b>Daily:</b> Data in the grid is per day	
HTTP Transport Protocol	An HTTP protocol transporting data on your network
Average of Total Volume	Average of the total volume for the selected time frame, for example, the average of the total volume on your network for a month

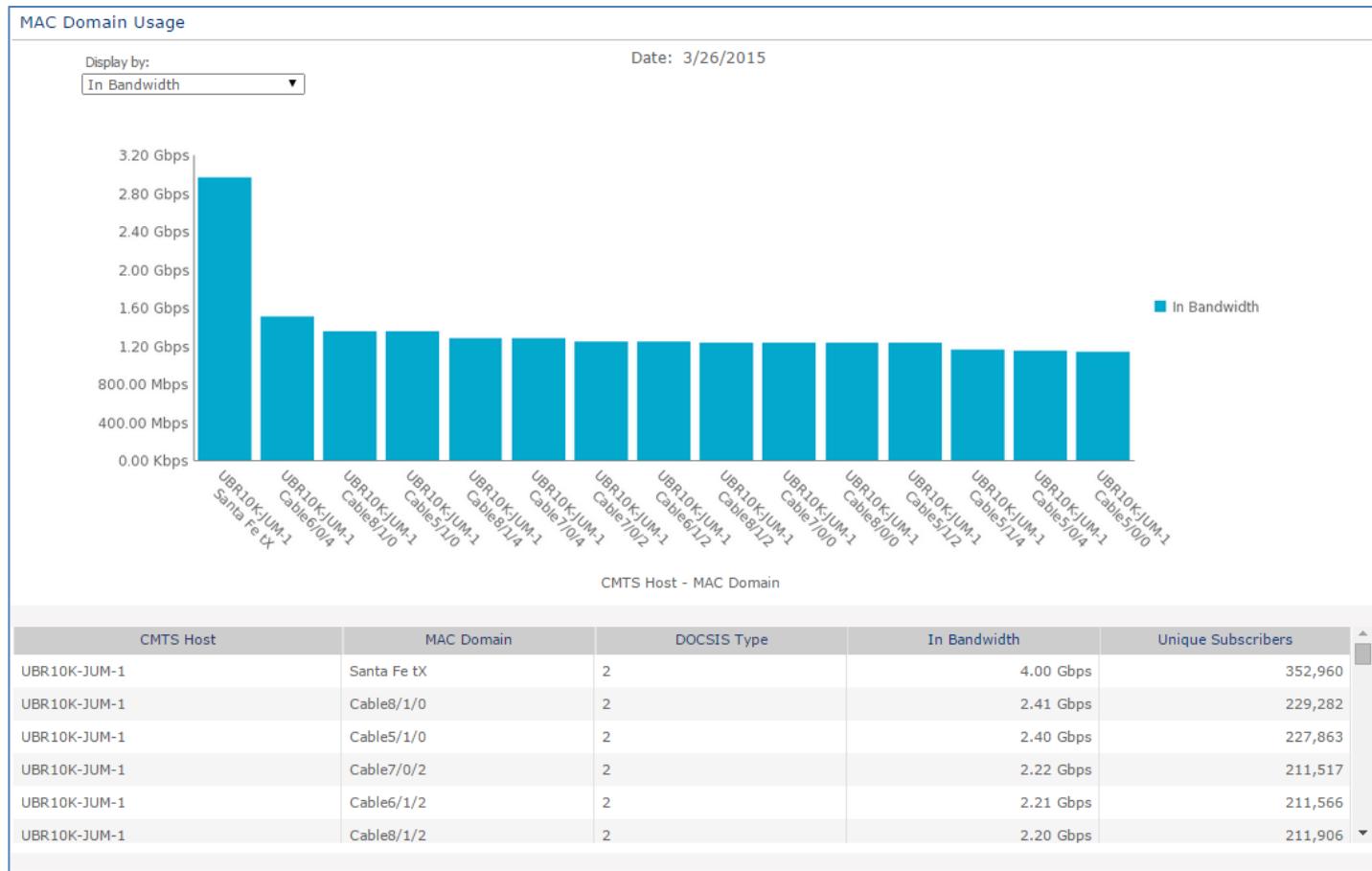
Median of Total Volume	Most frequent total volume for the selected time frame, for example, the most frequent total volume on your network for a week	
Peak of Total Volume	Greatest total volume for the selected time frame, for example, the greatest total volume for a day in the selected month	
Low of Total Volume	Lowest total volume for the selected time frame, for example, the lowest total volume for a day in the selected month	



## MAC Domain Usage

The **MAC Domain Usage** report identifies the top MAC domains, over a selected period of time, by bandwidth or the number of average unique subscribers. It's useful for understanding MAC domain capacity and usage, and to identify outliers.

A MAC domain is a logical DOCSIS entity, used in supplementing high-bandwidth data transfer to an existing cable TV system.



## Filter

**FILTER** report data by any of the following:

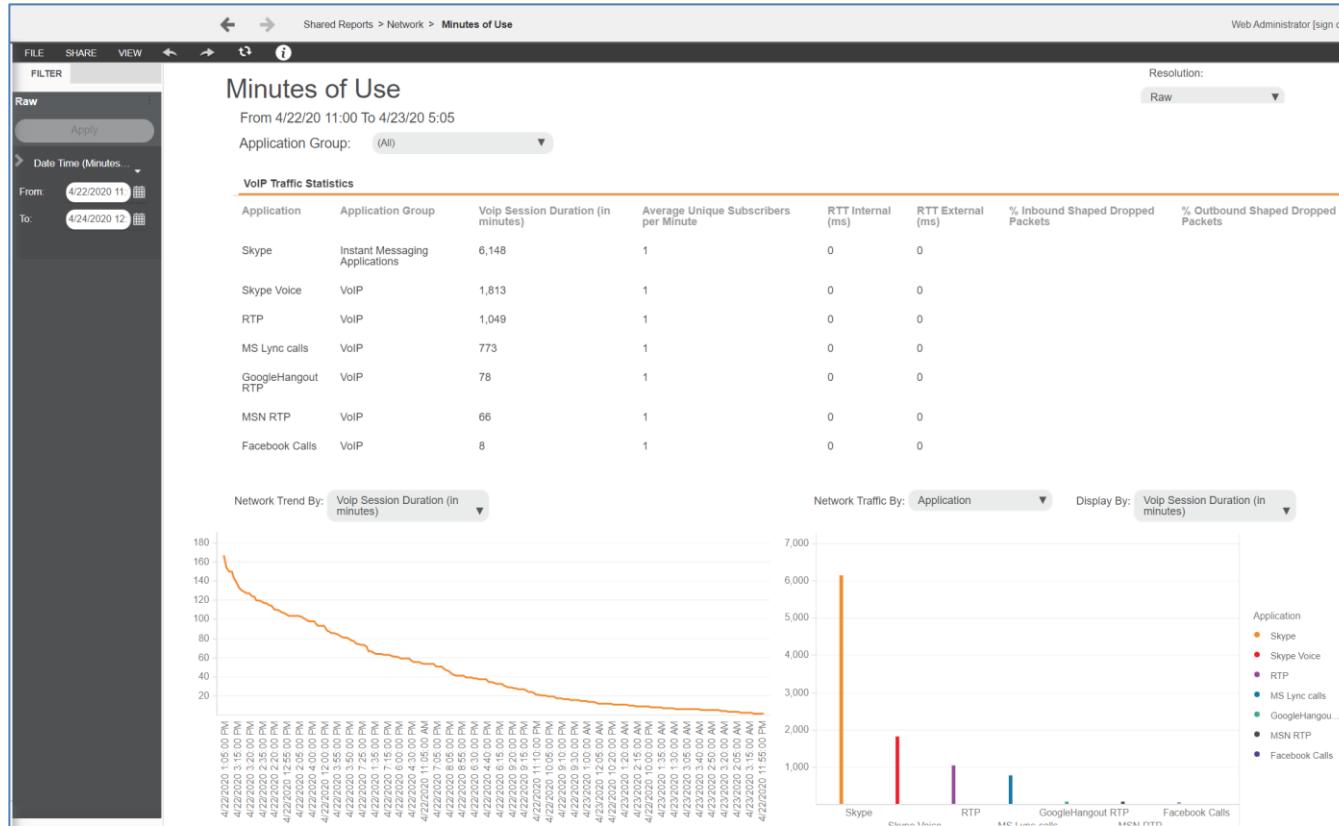
- **Time Frame:** To view data for a specific **Day** or **Month**
- **Direction:** Either downstream or upstream

- **CMTS Host:** To view the data for MAC domains of a specific CMTS host

<b>Bar Graph</b>		<b>Tools</b>
Each bar represents the bandwidth for a MAC domain.		
X axis	The top 15 MAC domains	
Y axis	<p>One of the following:</p> <ul style="list-style-type: none"> <li>• Bandwidth (in Gbps)</li> <li>• Average number of unique subscribers at any given time</li> </ul>	<p>With the <b>Display By</b> dropdown list, toggle the attribute by which the MAC domains appear, <b>Bandwidth</b> or <b>Average Unique Subscribers</b>.</p> <p>Drill down on a MAC domain to view bandwidth or unique subscribers by interface type down, interface down, application, device, users and DOCSIS type.</p> <p>Toggle the view mode.</p>
<b>Grid Columns</b>		<b>Tools</b>
CMTS Host	The CMTS host on your network to which the MAC domain belongs	Sort the grid by the contents of the column.
MAC Domain	A MAC domain in your network	
DOCSIS Type	The DOCSIS type running on the MAC domain	
In/Out Bandwidth	The upstream or downstream bandwidth of the CMTS host within the period defined by the filter	
Unique Subscribers	The number of unique subscribers connected by way of the CMTS host	

## Minutes of Use

The **Minutes of Use** report presents metrics related to minutes of VoIP use. It is useful for identifying overperforming or underperforming VoIP apps, and viewing the VoIP trends on your network.



**Figure 8: Minutes of Use Report**

**Table 10: What You Can Do in the Minutes of Use Report**

<b>From where:</b>	<b>You can do the following:</b>
Filter	From the <b>Filtering</b> toolbar, filter the data of the entire report by <b>Resolution</b> , by selecting <b>Raw</b> , <b>Daily</b> or <b>Monthly</b> , and then selecting the day or week.
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Any panel in the report area	<b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b>
Network Trend	See <b>NETWORK TREND</b> for what you can do in this area.
Network Traffic by Application	See <b>NETWORK TRAFFIC BY APPLICATION</b> for what you can do in this area.
VoIP Traffic Statistics	See <b>VOIP TRAFFIC STATISTICS</b> for what you can do in this area.
<b>File</b> in the menu bar	<ul style="list-style-type: none"> <li>• <a href="#">SAVE A PREPARED REPORT</a></li> <li>• <a href="#">EXPORT THE REPORT TO PDF</a></li> </ul>

### VoIP Traffic Statistics

This grid presents the major metrics for the VoIP applications active on your network.

Application Group: (All) ▾

<b>VoIP Traffic Statistics</b>							
Application	Application Group	Voip Session Duration (in minutes)	Average Unique Subscribers per Hour	RTT Internal (ms)	RTT External (ms)	% Inbound Shaped Dropped Packets	% Outbound Shaped Dropped Packets
Fring	VoIP	384,867	1	465	229	23.88%	533.33%
T.120	VoIP	253,562	2	334	227	124.97%	156.19%
Wirofon RTP	VoIP	171,709	2	211	296	95.36%	149.98%
Scydo	VoIP	152,874	1	259	221	26.06%	1000.00%
VZOchat	VoIP	134,100	1	73	246	102.03%	180.00%
MSRP	VoIP	130,077	1	124	211	77.10%	89.47%

Grid Columns	Description	Tools
<b>Application</b>	All of the VoIP applications that are active on your network	Filter the data of the entire report by <b>Policy</b> and <b>Time Frame</b> .
<b>Application Group</b>	The application group to which the VoIP application belongs. These could be VoIP, but also streaming applications and instant messaging applications.	Drill down on an application to view the application's metrics by policy, system and service plan attributes. Sort the <b>Network Traffic Statistics</b> grid by the contents of the column.
<b>VoIP Session Duration</b>	The length of the average VoIP session (in minutes) opened by the publisher	To get a description of the attribute or metric in a column, mouse over the column's header.
<b>Average Unique Subscribers per Hour</b>	The average number of unique subscribers per hour participating in a VoIP session	

## Network Trend

This trend graph presents VoIP metrics over time on your network.

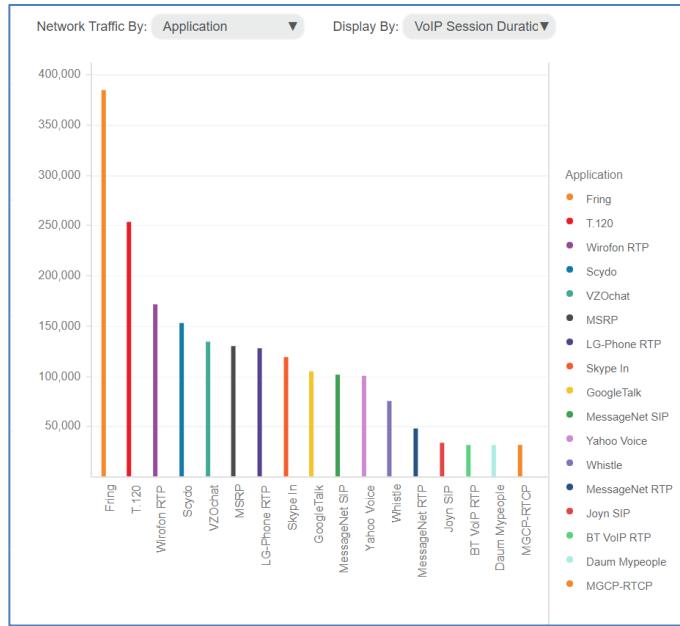
Trend Graph		Tools
X axis	The time span covered in the trend graph.	<p>Filter the data of the entire report by <b>Policy</b> and <b>Time Frame</b>.</p> <p>Use the slider to adjust the time span within the last 12 hours.</p> <p><b>Mouse over</b> a strip to view a tooltip containing the name of the policy object.</p> <p>Toggle the view mode.</p>

RTT In	Otherwise known as RTT Internal: On the in-line platform internal side, the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack.	
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<b>RTT Out</b>	Otherwise known as RTT External: On the in-line platform external side, the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack.	
<b>% Dropped Packets In</b>	As an indication of quality, the percent of incoming packets dropped	
<b>% Dropped Packets Out</b>	As an indication of quality, the percent of outgoing packets dropped	

### Network Traffic by Application

This bar graph presents VoIP metrics broken down by a variety of network attributes. By default, the graph presents the VoIP session duration, by application, on the network level.

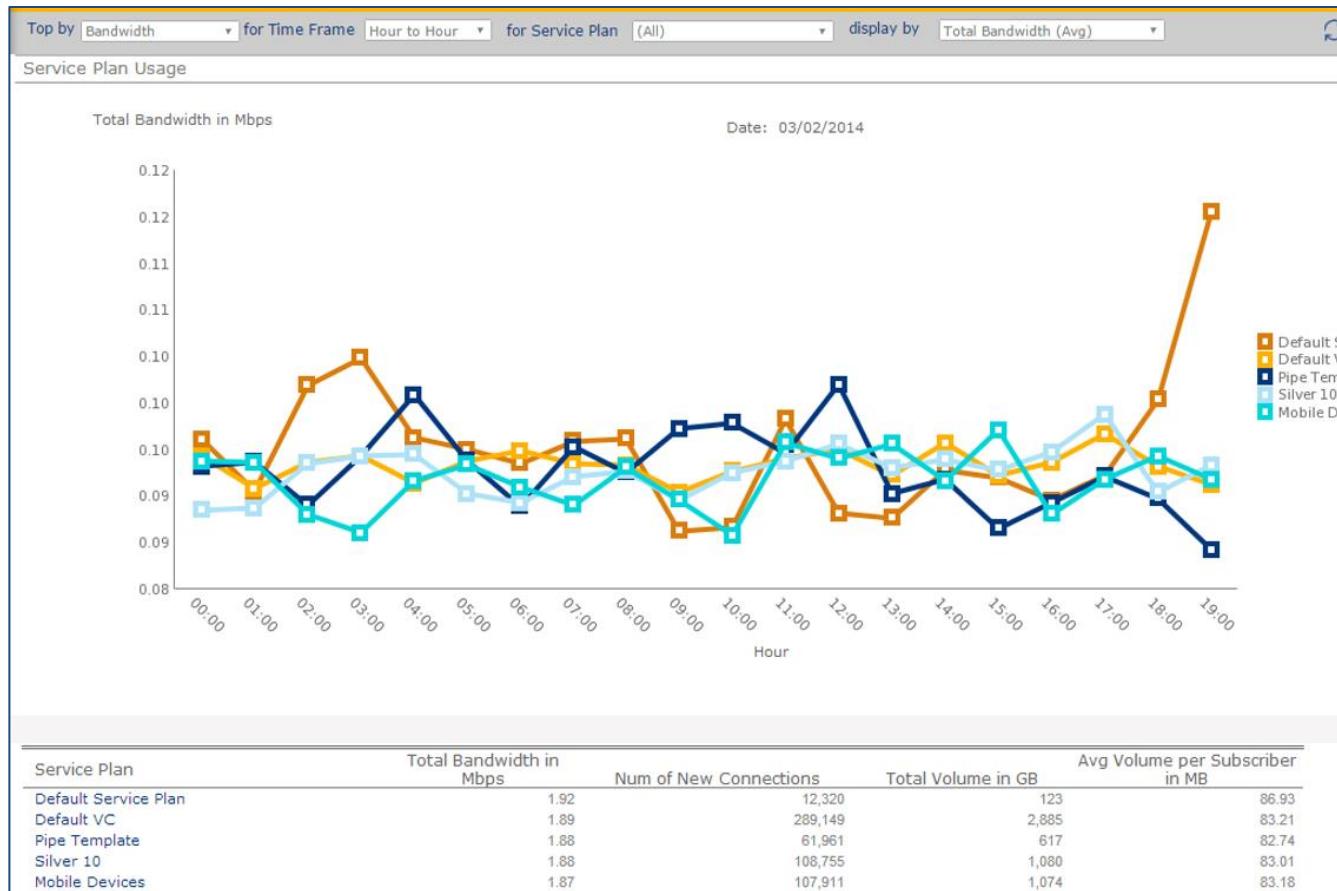


Trend Graph	Tools
X axis  To change the attribute, click the list button in the upper right corner of the panel, and then select one of the following: <ul style="list-style-type: none"><li>• <b>Application:</b> The top VoIP applications in your network by the selected metric</li><li>• <b>Subscriber:</b> The top subscribers in your network by the selected metric</li><li>• <b>Service Plan:</b> The top service plans in your network by the selected metric</li><li>• <b>Gateway:</b> The top in-line platforms in your network by the selected metric</li><li>• <b>Policy:</b> The top policies in your network by the selected metric</li></ul>	Filter the data of the entire report by <b>Policy</b> and <b>Time Frame</b> .  <b>Mouse over</b> a column to view a tooltip containing the value of the selected attribute item.  Toggle the view mode.

Y axis	To change the metric, click the list button in the upper right corner of the panel, and then select one of the following: <ul style="list-style-type: none"><li>• <b>VoIP Session Duration:</b> The average VoIP session duration on your network for the selected attribute</li><li>• <b>Total Volume:</b> The total volume used by the selected attribute on your network</li><li>• <b>Volume In:</b> The volume entering your network used by the selected attribute</li><li>• <b>Volume Out:</b> The volume exiting your network used by the selected attribute</li><li>• <b>In Bandwidth (Avg):</b> The average bandwidth entering your network per hour, for the selected attribute</li><li>• <b>Out Bandwidth (Avg):</b> The average bandwidth exiting your network per hour, for the selected attribute</li><li>• <b>RTT In:</b> On the in-line platform internal side, the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack</li><li>• <b>RTT Out:</b> On the in-line platform external side, the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack</li><li>• <b>% Dropped Packets In:</b> The percent of incoming packets dropped</li><li>• <b>% Dropped Packets Out:</b> The percent of outgoing packets dropped</li></ul>
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## Service Plan Usage

The **Service Plan Usage** report identifies the top service plans or any specific service plan as determined by their bandwidth or unique subscribers, and presents consumption metrics for the service plans.



### Filter

**FILTER** report data by any of the following:

- **Top By:** To view the top service plans as determined by **Bandwidth** or **Unique Subscribers**
- **Time Frame:** To view data for a specific **Month** or **Day**, or from **Hour to Hour** in the last month of days

- **For Service Plan:** To view, in the graph only, the selected metric of a specific service plan or for **All** of the top service plans
- **Display By:** To view data in the bar graph for any of the following metrics: Unique Subscribers, Number of New Connections, Total Volume, Avg Volume per Subscriber, Total Bandwidth (Avg)

When **Hour to Hour** is selected as the **Time Frame**, use the slider to adjust the time period in the graph and in the grid.

<b>Bar Graph</b>		<b>Tools</b>
Trend line for each service plan		<b>Mouse over</b> a point on the line to view a tooltip containing the value of the selected metric for that service plan at that time.
X axis	The selected time frame	Drill down on a service plan at a specific time to view the selected metric by application, device OS, device OS version, device vendor, network access technology or tethered type.
Y axis	The selected metric	
<b>Grid Columns</b>		<b>Tools</b>
Service Plan	The top service plans in your network	Sort the grid by the contents of the column.
Total Bandwidth (Avg)	The average bandwidth of the service plan per second for the selected month, day, or time period	
Avg Unique Subscribers	The average number of unique subscribers on the service plan for the selected month, day, or time period	
Num of New Connections	The number of new connections from the service plan for the selected month, day, or time period	
Total Volume	The total volume of traffic running on the service plan for the selected month, day, or time period	
Avg Volume per Subscriber	The volume for the average subscriber for the selected month, day, or time period	



# Subscriber Folder

In this section, you'll find the following:

- **SUBSCRIBER METRICS:** The reports that you get in the **Subscriber** folder with GW DataReporter Metrics
- **SUBSCRIBER ANALYTICS:** The additional reports that you get in the **Subscriber** folder with GW DataReporter Analytics

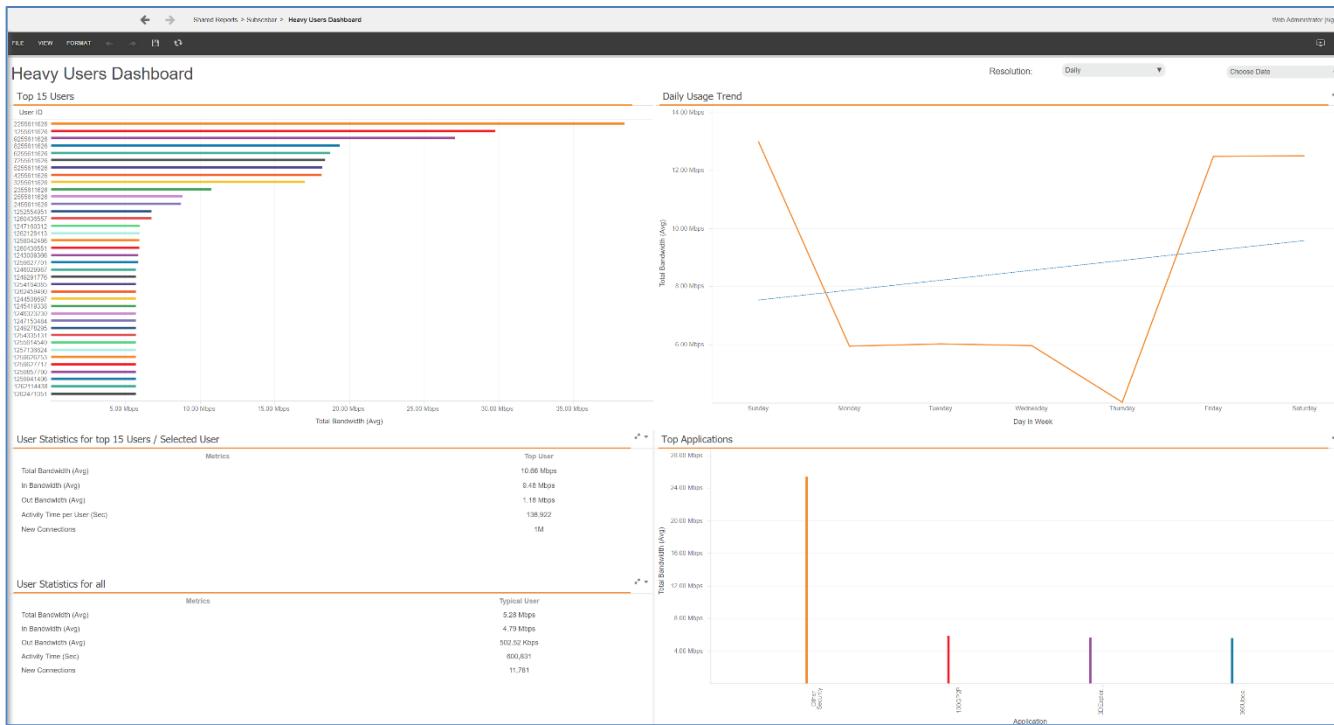
## Subscriber Metrics

In this section, you'll find the reports that you get in the **Subscriber** folder with GW DataReporter Metrics.

### Heavy Users

The **Heavy Users** report presents the total bandwidth of the top users as compared to the average user, in the following panels:

- **Top 15 Users:** This vertical bar graph presents the average total bandwidth consumed by each of the top 15 subscribers on your network for the selected period of time. Each bar is a subscriber.
- **Usage Trend:** This trend graph presents the average total bandwidth over time for all the top 15 users or for the user selected from the **Top 15 Users** graph. The trend lines are as follows:
  - ◆ The thick orange line indicates the average total bandwidth for each hour or day of the selected time frame.
  - ◆ The dotted blue line indicates the average of the average total bandwidth for the selected day or week.
- **User Statistics for Top 15 Users / Selected User:** This grid presents traffic metrics for all the top 15 users or for the user selected from the **Top 15 Users** graph.
- **User Statistics for All:** This grid presents traffic metrics for all the subscribers on your network.
- **Top Applications:** This bar graph presents the average total bandwidth for each of the top applications for all the top 15 users or for the user selected from the **Top 15 Users** graph. The height of a bar indicates the average total bandwidth for that application consumed by the user.



**Figure 4-9: Heavy Users Report**

To get the most out of the report, follow the **WORKFLOW FOR USING A REPORT**.

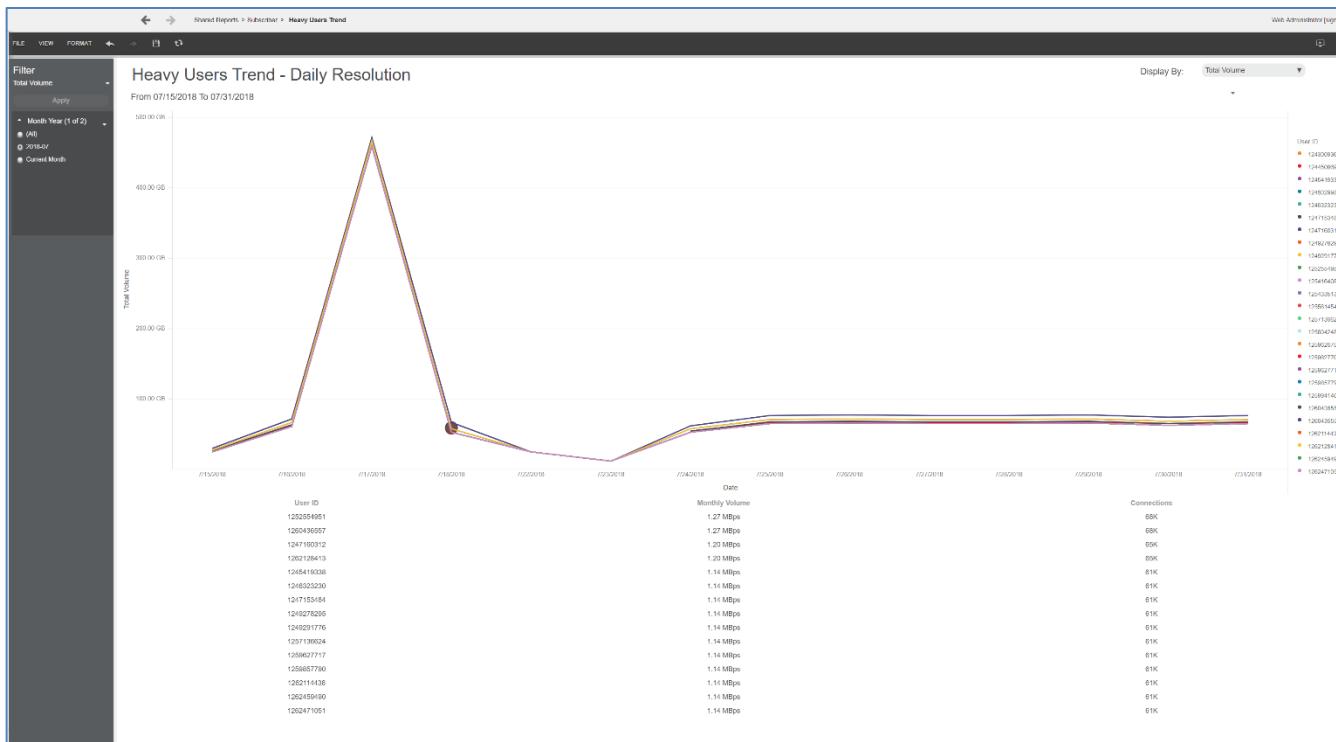
**Table 11. What You Can Do in the Heavy Users Report**

<b>From where:</b>	<b>You can do the following:</b>
Resolution area	Change the time resolution by which you want to view the report, and then do any of the following: <ul style="list-style-type: none"> <li>• If you selected <b>Daily</b>, then select the date for which you want to view data, or select <b>Date</b> if you want the panels to include data for the past running month.</li> <li>• If you selected <b>Weekly</b>, then select the week for which you want to view data, or select <b>Weekly</b> if you want the panels to include data for the past three months.</li> </ul>
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Top 15 Users	Mouse over a bar to view the average total bandwidth consumed by the subscribers.
Weekly Usage Trend	Mouse over a point on the thick blue line to view the average total bandwidth at that time.
Top Applications	Mouse over a bar to view the average total bandwidth consumed by that application
Any panel in the report area	<b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b>
Graphs	Perform any of the actions described in <b>GRAPH ACTIONS</b> . To get a description of the attribute or metric in a column, mouse over the column's header.
File in the menu bar	<ul style="list-style-type: none"> <li>• <b>SAVE A PREPARED REPORT</b></li> <li>• <b>EXPORT THE REPORT TO PDF</b></li> </ul>

## Heavy Users Trend

The **Heavy Users Trend** report presents metrics for the subscribers with the greatest **Total Volume** or most **Connections** over time. The **Heavy Users Trend** report is comprised of the following:

- A trend graph, in which each trend line represents a subscriber
- A grid, in which each row displays the **Monthly Volume** and the **Connections** for a **User ID** over the selected months



**Figure 4-10: Heavy Users Trend**

To get the most out of the report, follow the [WORKFLOW FOR USING A REPORT](#).

## What you can do:

## Table 12. What You Can Do in the Heavy Users Trend Report

From where:	You can do the following:
Display By dropdown list	Change the metric by which you want to view the report.

From where:	You can do the following:
Filter panel	Filter by <b>Month Year</b> , which are described in <a href="#">FILTERING A REPORT</a> .
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Any panel in the report area	<a href="#">EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA</a> .
The graph area	<ul style="list-style-type: none"> <li>• Mouse over a point on a trend line to view the subscriber's ID, and the date and the metric at that point.</li> <li>• Perform any of the actions described in <a href="#">GRAPH ACTIONS</a></li> </ul>
The grid area	<p>Do any of the following:</p> <ul style="list-style-type: none"> <li>• To sort ascending or descending by any of the columns, right-click the column header, and then select <b>Sort Ascending</b> or <b>Descending</b>.</li> <li>• To view the grid metrics of all the selected subscribers by month or date, right-click the <b>Subscriber ID</b> header, and then select <b>Drill &gt; Month-Year or Date</b>.</li> <li>• To view the grid metrics of a specific subscriber by month or date, right-click the subscriber, and then select <b>Drill &gt; Month-Year or Date</b>.</li> <li>• To get a description of the attribute or metric in a column, mouse over the column's header.</li> </ul>
File in the menu bar	<ul style="list-style-type: none"> <li>• <a href="#">SAVE A PREPARED REPORT</a></li> <li>• <a href="#">EXPORT THE REPORT TO PDF</a></li> </ul>

## Subscriber Analytics

In this section, you'll find the additional reports that you get in the **Subscriber** folder with GW DataReporter Analytics.

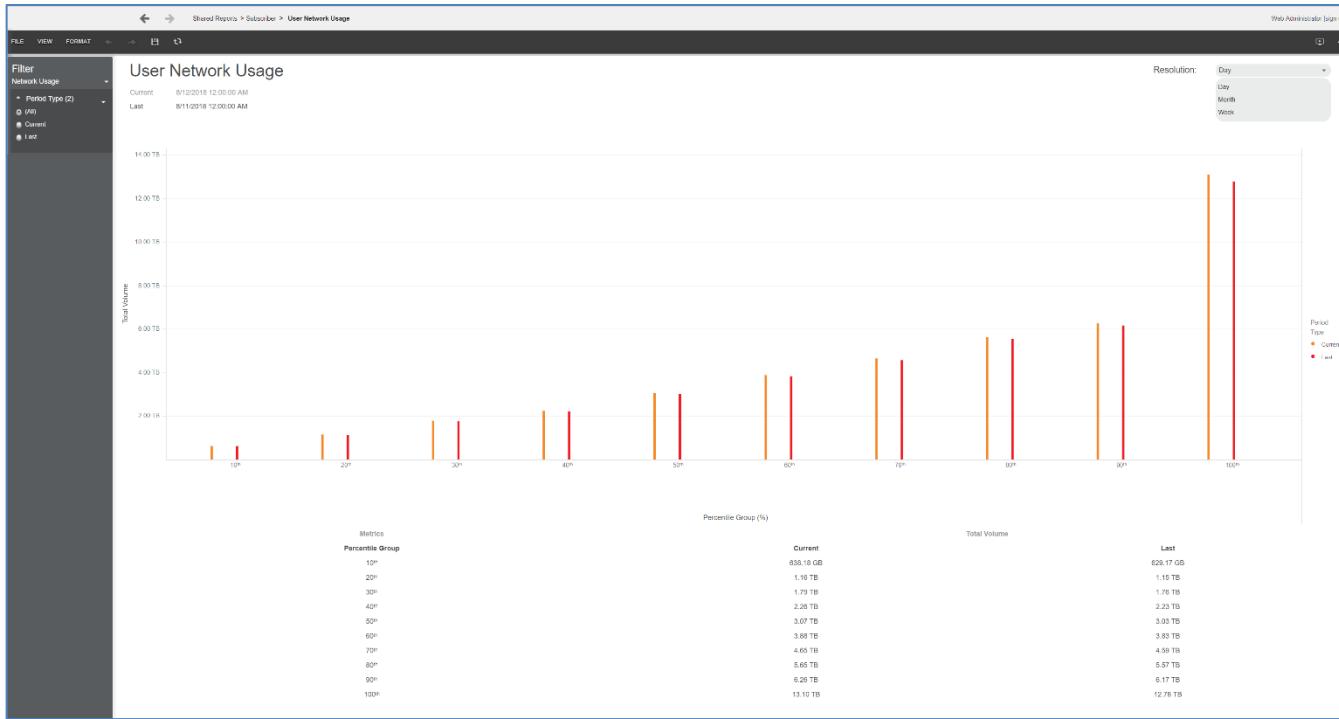
## User Network Usage

The **User Network Usage** report is comprised of a graph and a grid, and it displays total volume in a specified time frame on your network, divided into percentiles of network usage.

Characteristics of the percentile groups are:

- Each percentile group contains the same number of unique users.
- The 100<sup>th</sup> percentile group consumes the most volume.
- The 10<sup>th</sup> percentile group consumes the least volume.

To get the most out of the report, follow the [WORKFLOW FOR USING A REPORT](#).



**Figure 4-11: User Network Usage Report**

What you can do:

**Table 13. What You Can Do in the User Network Usage Report**

<b>From where:</b>	<b>You can do the following:</b>
Time Frame dropdown list	<p>Change the time resolution that you want the report to cover, as follows:</p> <ul style="list-style-type: none"> <li>If you select <b>Day</b>, then, in the graph and the grid, <b>Current</b> is the total volume of the current ongoing day, and <b>Last</b> is the total volume of the last complete day.</li> <li>If you select <b>Month</b>, then, in the graph and the grid, <b>Current</b> is the total volume of the current ongoing month, and <b>Last</b> is the total volume of the last complete month.</li> <li>If you select <b>Week</b>, then, in the graph and the grid, <b>Current</b> is the total volume of the current ongoing week, and <b>Last</b> is the total volume of the last complete week.</li> </ul>
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Filter panel	Filter by <b>Period Type</b> , which is described in <a href="#">FILTERING A REPORT</a> . Select if you want the report to cover <b>Current</b> , <b>Last</b> or <b>(All)</b> , which is both <b>Current and Last</b> .
Any panel in the report area	<a href="#">EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</a>
The graph area	<ul style="list-style-type: none"> <li>Mouse over a bar to view the name of the <b>Period Type</b>, either <b>Current</b> or <b>Last</b>, the <b>Percentile Group</b> and that group's <b>Total Volume</b>.</li> <li>Perform any of the actions described in <a href="#">GRAPH ACTIONS</a>.</li> </ul>
The grid area	<p>To sort ascending or descending by any of the columns, right-click the column header, and then select <b>Sort Ascending</b> or <b>Descending</b>.</p> <p>To get a description of the attribute or metric in a column, mouse over the column's header.</p>

From where:	You can do the following:
File in the menu bar	<ul style="list-style-type: none"><li>• <a href="#">SAVE A PREPARED REPORT</a></li><li>• <a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

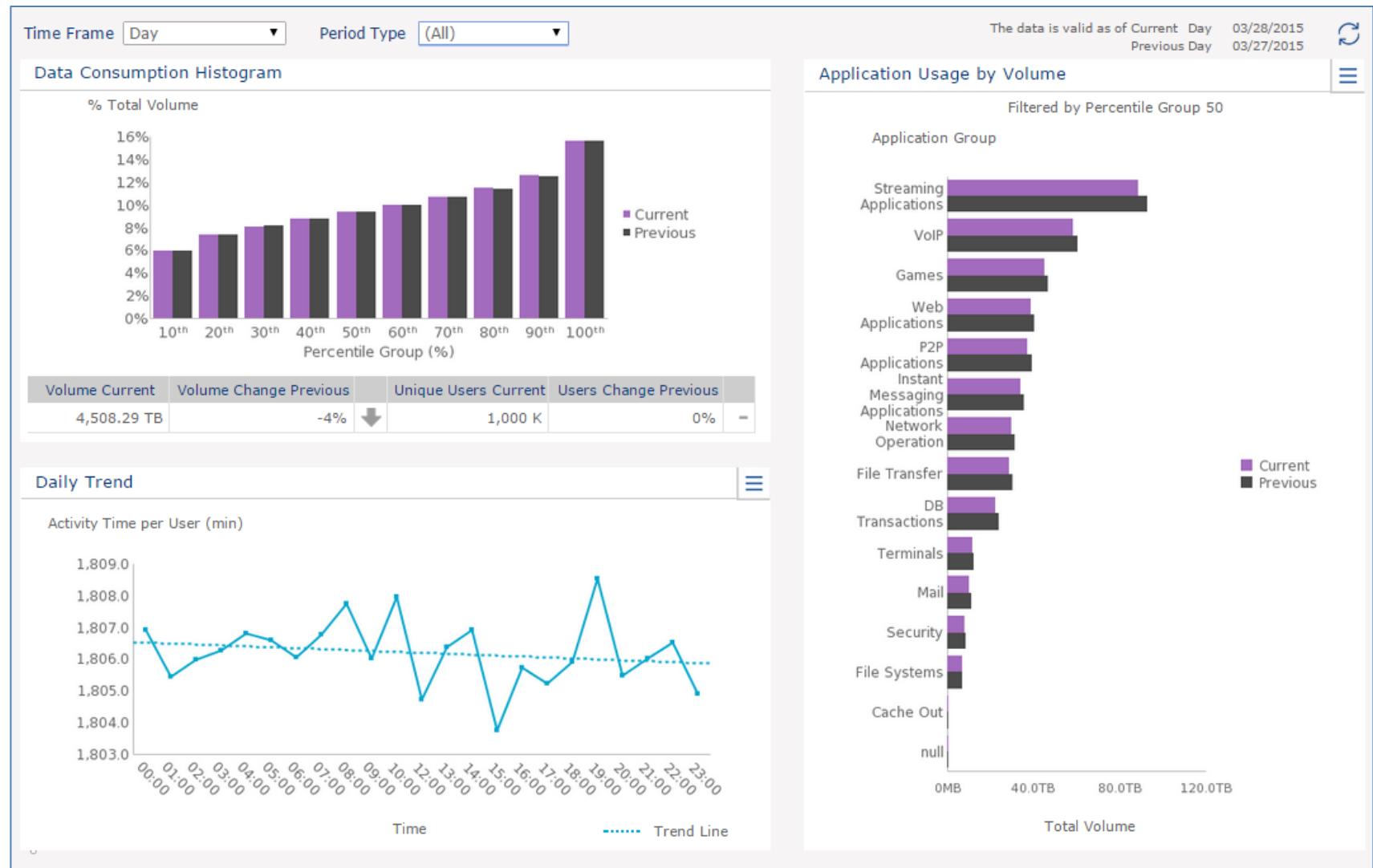
## User Segmentation

The **User Segmentation** report divides the users on your network into percentile groups and provides in-depth data per group, such as application and device usage and activity time and volume trends. It is useful in identifying which segments of subscribers use which devices, access which domains and consume the most bandwidth.

### Filter

From the **Filtering** toolbar, filter the data of the entire report by any of the following:

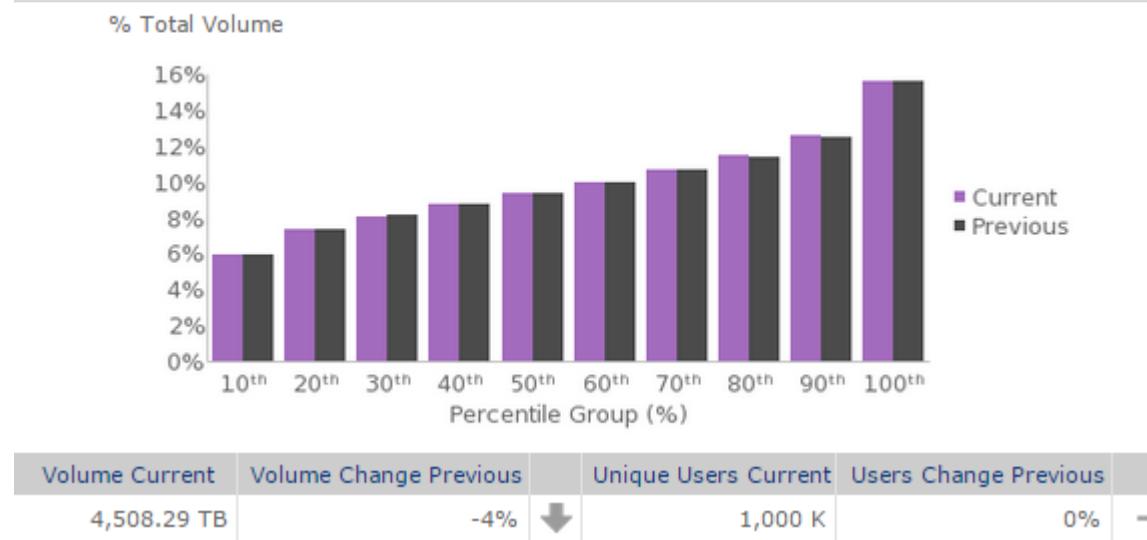
- **Time Frame:** Data for the average **Day**, **Week** or **Month**
- **Period Type:** Data for the **Current** day, week or month, the **Last** day, week or month, or **All**, which is data for the current adjacent to data for the last



## Data Consumption Histogram

The **Data Consumption Histogram** displays data consumption volume in a specified time frame on your network, divided into percentiles, and provides volume trend statistics.

### Data Consumption Histogram



<b>Bar Graph</b>		<b>Tools</b>
X axis	<p>Percentile groups:</p> <ul style="list-style-type: none"> <li>• Each percentile group contains the same number of unique users.</li> <li>• The 100<sup>th</sup> percentile group consumes the most volume.</li> <li>• The 10<sup>th</sup> percentile group consumes the least volume.</li> </ul>	<p>Filter the data of the entire report by <b>Time Frame</b> and <b>Period Type</b>. With <b>All</b> selected from <b>Period Type</b>, you can compare, for example, the consumption of a percentile group yesterday to today.</p>
Y axis	Percent of total volume consumed by the percentile groups in the specified time frame	<p>Click the bar of a percentile group to view data for that percentile in the <b>Usage by Volume</b> graph.</p> <p>Mouse over a column to view a tooltip of the value of the volume consumed by that percentile group.</p> <p>Toggle the view mode.</p>
<b>Grid Columns</b>		
Volume Current	Total volume in your network for the current time period	
Volume Change Previous	The percentage of the change in volume between the previous period and the current period	
Volume Change Trend	Presents whether volume is increasing, decreasing or static	
Unique Users Current	Total unique users for the current time period	
Users Change Previous	The percentage of the change in number of unique users between the previous period and the current period	
Users Change Trend	Presents whether the number of unique users is increasing, decreasing or static	

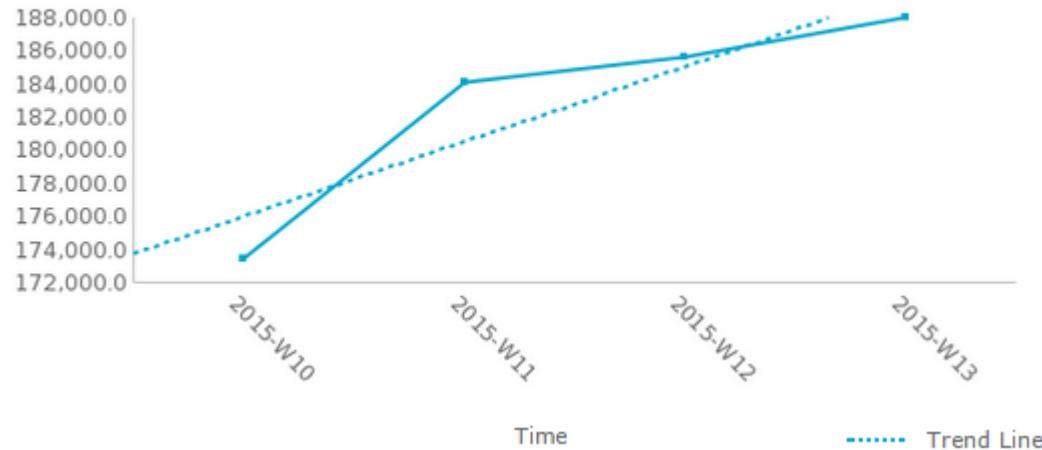
## Trend Graph

The **Trend** graph presents usage trends along a time frame.

Monthly Trend



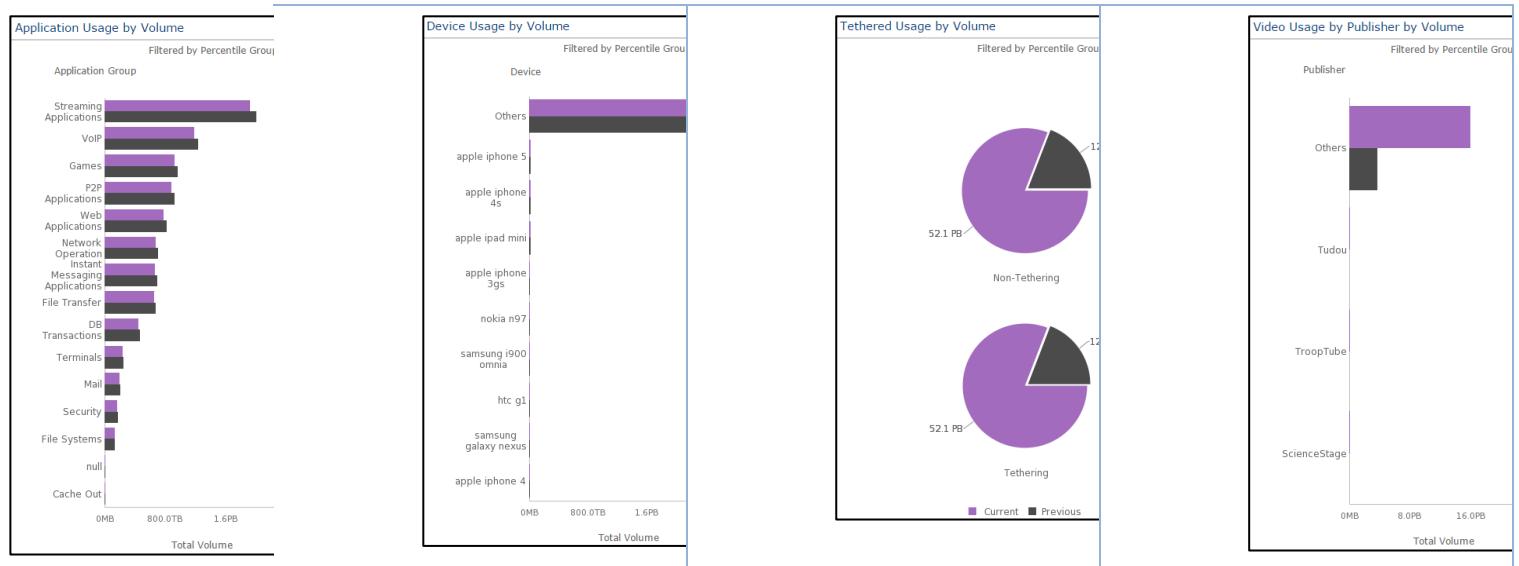
Activity Time per User (min)



Trend Graph		Tools
 The trend for the metric selected from the list button, for every increment on the time frame  The trend line showing the general trend		Filter the data of the entire report by <b>Time Frame</b> and <b>Period Type</b> . Click the list button in the upper right corner of the graph to view the trends of the following metrics: <ul style="list-style-type: none"> <li>• <b>Activity Time per User:</b> Amount of minutes the average user was active online</li> <li>• <b>Volume:</b> Total bandwidth volume on your network</li> <li>• <b>Peak BW:</b> Peak bandwidth on your network</li> </ul> <b>Mouse over</b> a point on the trend graph to view a tooltip containing the value of the selected metric at that time. Toggle the view mode.
X axis	The time frame measuring the trend	
Y axis	The metric selected from the list button	

### Usage by Volume Graph

The **Usage by Volume** graph presents the volume on your network broken down by selected usage attributes, such as the applications used by users and whether users are connecting by way of tethering.

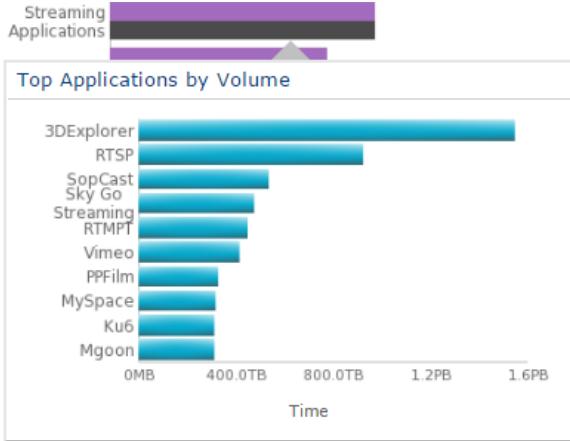


### List-Button Views

Click the list button in the upper right corner of the graph to view the volume on your network broken down by the following:

- **Application Group:** The application groups used by your users
- **Device:** The devices used by your users
- **Tethered:** The number of users connected to your network by tethering compared to the amount connected not by tethering
- **Publisher:** The publishers frequented by your users

Filter the data of the entire report by **Time Frame** and **Period Type**.

Application Group Bar Graph		Tools																								
X axis	Bandwidth volume on your network in the selected time frame	<p>In the <b>Data Consumption Histogram</b>, click the bar of a percentile group to view data for that percentile in the <b>Usage by Volume</b> graph.</p> <p>With <b>All</b> selected from <b>Period Type</b>, you can compare, for example, the bandwidth volume consumed by an application group yesterday to today.</p>																								
Y axis	The top application groups	<p>Toggle the view mode.</p> <p>Mouse over a bar to view a tooltip of the value of the volume consumed by that application group.</p> <p>With <b>Application Group</b> selected, click an application group to open the <b>Top Applications by Volume</b> graph, which presents the top applications in the group by volume.</p>  <table border="1"> <caption>Top Applications by Volume</caption> <thead> <tr> <th>Application</th> <th>Volume</th> </tr> </thead> <tbody> <tr> <td>3DExplorer</td> <td>~1.5PB</td> </tr> <tr> <td>RTSP</td> <td>~1.0PB</td> </tr> <tr> <td>SopCast</td> <td>~0.8PB</td> </tr> <tr> <td>Sky Go</td> <td>~0.6PB</td> </tr> <tr> <td>Streaming</td> <td>~0.5PB</td> </tr> <tr> <td>RTMPT</td> <td>~0.4PB</td> </tr> <tr> <td>Vimeo</td> <td>~0.3PB</td> </tr> <tr> <td>PPFilm</td> <td>~0.2PB</td> </tr> <tr> <td>MySpace</td> <td>~0.1PB</td> </tr> <tr> <td>Ku6</td> <td>~0.05PB</td> </tr> <tr> <td>Mgoon</td> <td>~0.02PB</td> </tr> </tbody> </table> <p>You can mouse over a bar to view a tooltip of the value of the volume consumed by that application.</p>	Application	Volume	3DExplorer	~1.5PB	RTSP	~1.0PB	SopCast	~0.8PB	Sky Go	~0.6PB	Streaming	~0.5PB	RTMPT	~0.4PB	Vimeo	~0.3PB	PPFilm	~0.2PB	MySpace	~0.1PB	Ku6	~0.05PB	Mgoon	~0.02PB
Application	Volume																									
3DExplorer	~1.5PB																									
RTSP	~1.0PB																									
SopCast	~0.8PB																									
Sky Go	~0.6PB																									
Streaming	~0.5PB																									
RTMPT	~0.4PB																									
Vimeo	~0.3PB																									
PPFilm	~0.2PB																									
MySpace	~0.1PB																									
Ku6	~0.05PB																									
Mgoon	~0.02PB																									

<b>Device Bar Graph</b>		<b>Tools</b>	
X axis	Bandwidth volume on your network in the selected time frame	In the <b>Data Consumption Histogram</b> , click the bar of a percentile group to view data for that percentile in the <b>Usage by Volume</b> graph. With <b>All</b> selected from <b>Period Type</b> , you can compare, for example, the bandwidth volume consumed by a device yesterday to today.	
Y axis	The top devices	Toggle the view mode. Mouse over a bar to view a tooltip of the value of the volume consumed by that device.	
<b>Tethered Pie graphs</b>		<b>Tools</b>	
Two pies, one presenting bandwidth consumption without tethering, the other by tethering.		In the <b>Data Consumption Histogram</b> , click the bar of a percentile group to view data for that percentile in the <b>Usage by Volume</b> graph. With <b>All</b> selected from <b>Period Type</b> , you can compare, for example, the bandwidth volume consumed by tethering yesterday to today, or consumed without tethering yesterday to today. Mouse over a pie slice to view a tooltip containing the percentage of volume consumed yesterday or today. For example, if the bandwidth volume consumed by tethering was the same yesterday and today, then the percentage should be 50%. Toggle the view mode.	
<b>Publisher Bar Graph</b>		<b>Tools</b>	
X axis	Bandwidth volume on your network	In the <b>Data Consumption Histogram</b> , click the bar of a percentile group to view data for that percentile in the <b>Usage by Volume</b> graph.	
Y axis	The top publishers	With <b>All</b> selected from <b>Period Type</b> , you can compare, for example, the bandwidth volume consumed by publisher yesterday to today. Toggle the view mode.	

## Experience Folder

In this section, you'll find the following:

- **EXPERIENCE METRICS:** The reports that you get in the **Experience** folder with GW DataReporter Metrics
- **EXPERIENCE ANALYTICS:** The additional reports that you get in the **Experience** folder with GW DataReporter Analytics

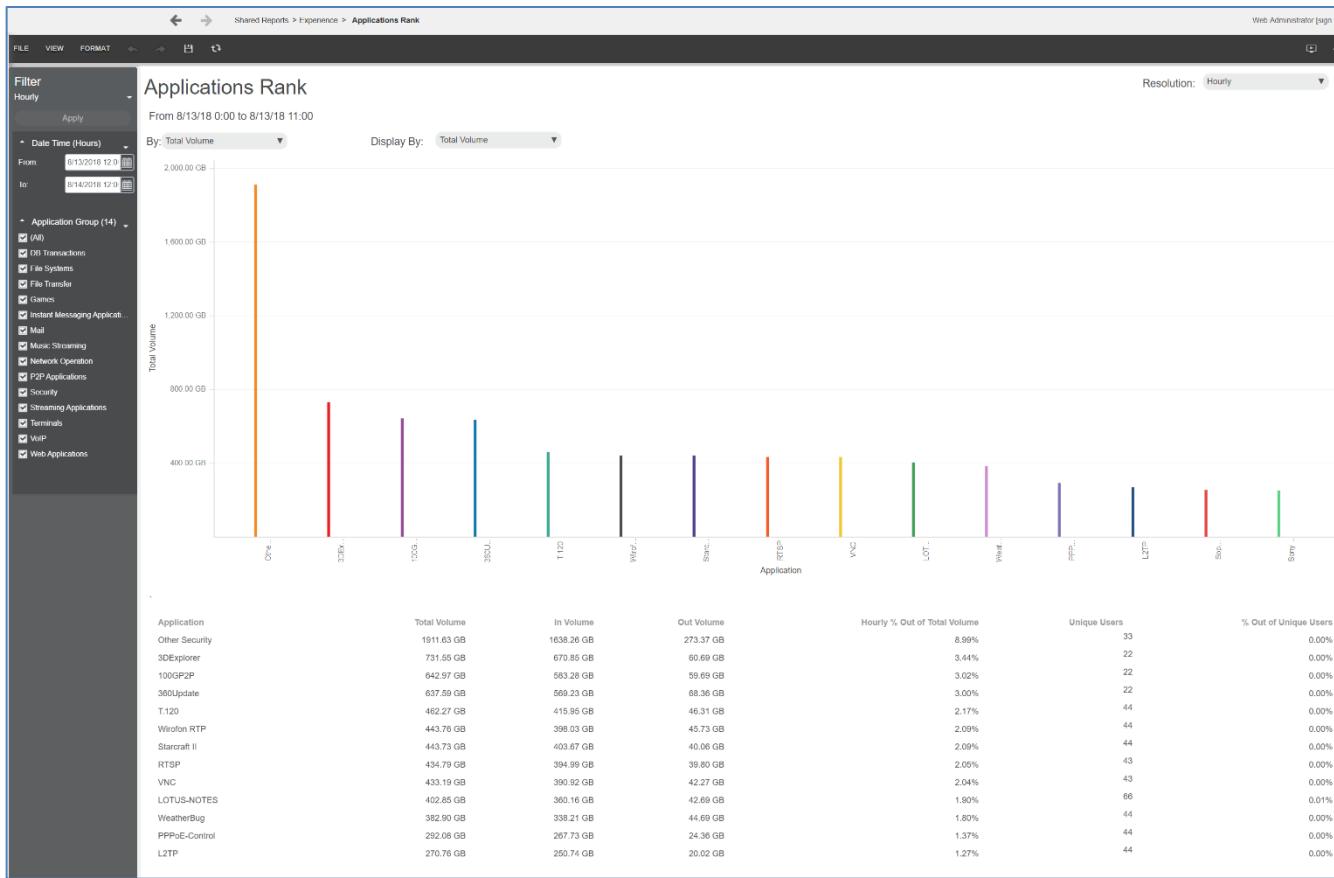
## Experience Metrics

In this section, you'll find the reports that you get in the **Experience** folder with GW DataReporter Metrics.

### Applications Rank

The **Applications Rank** report presents volume and subscriber metrics for the top applications on your network. It's useful for assessing which applications are trending highest, and for understanding which applications are "expensive" in terms of volume per user. The **Applications Rank** report is comprised of the following:

- A bar graph, in which each bar represents an application, and the taller the bar, the greater the metric value for that application
- A grid, in which each row displays volume and subscriber metrics over the selected time period



**Figure 4-12: Applications Rank Report**

To get the most out of the report, follow the **WORKFLOW FOR USING A REPORT**.

What you can do:

**Table 14. What You Can Do in the Applications Rank Report**

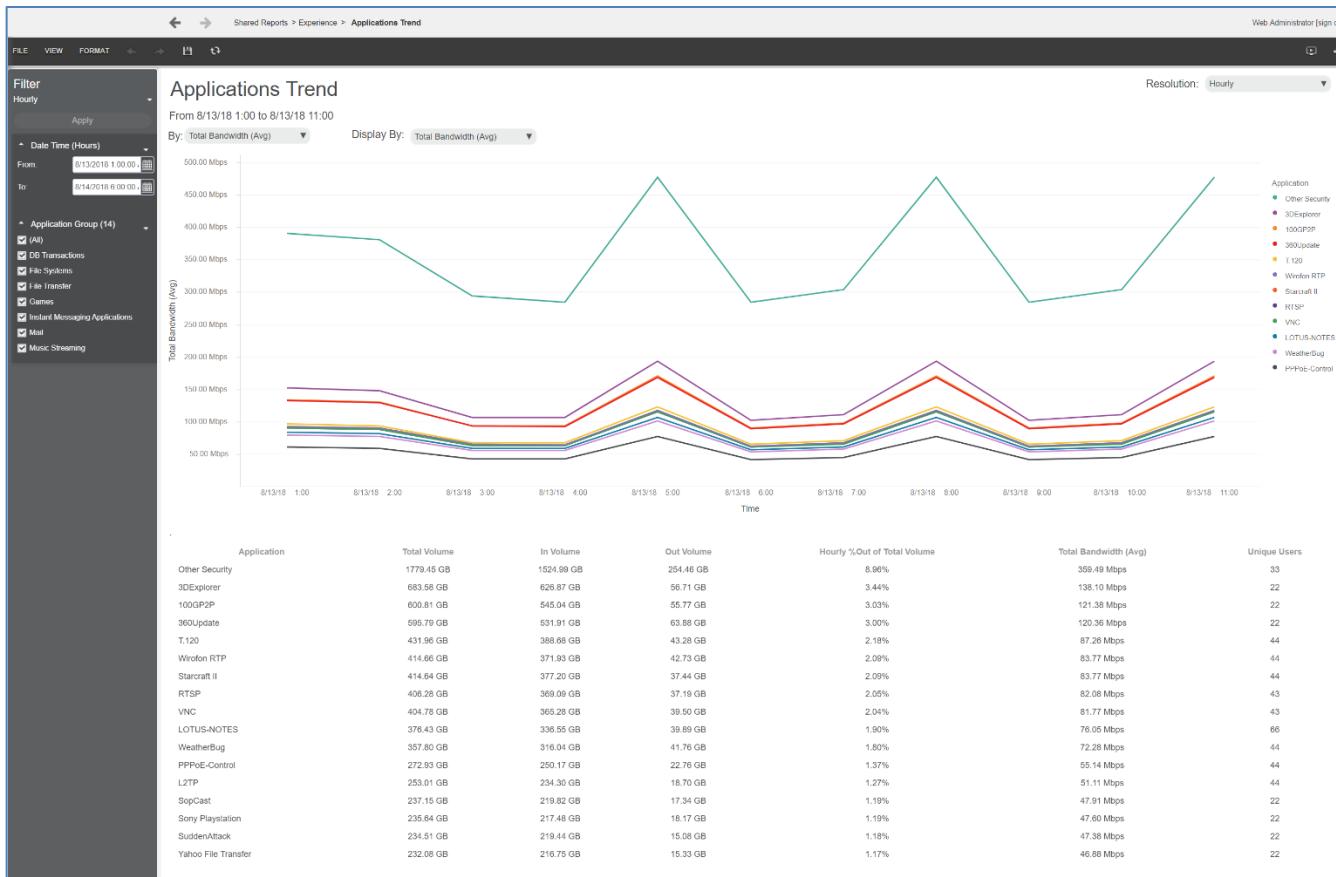
<b>From where:</b>	<b>You can do the following:</b>
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
<b>Resolution</b> dropdown list	Change the time resolution by which you want to view the report.
<b>By</b> dropdown list	Change the metric on which the applications responsible for the most traffic is based.
<b>Display By</b> dropdown list	Change the metric by which you want to view the report.
Any panel in the report area	<b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b>
Filter panel	Filter by <b>Application Group</b> , which is described in <a href="#">FILTERING A REPORT</a> .
The graph area	<ul style="list-style-type: none"><li>• Mouse over a bar to view the application of that bar, and the application's metric value.</li><li>• Perform any of the actions described in <a href="#">GRAPH ACTIONS</a>.</li></ul>

From where:	You can do the following:
The grid area	<p>Do any of the following:</p> <ul style="list-style-type: none"><li>• To sort ascending or descending by any of the columns, right-click the column header, and then select <b>Sort Ascending</b> or <b>Descending</b>.</li><li>• To view the grid metrics of all the selected applications by month or date, right-click the <b>Application</b> header, and then select <b>Drill &gt; Month-Year or Date</b>.</li><li>• To view the grid metrics of a specific application by month or date, right-click the subscriber, and then select <b>Drill &gt; Month-Year or Date</b>.</li><li>• To get a description of the attribute or metric in a column, mouse over the column's header.</li></ul>
File in the menu bar	<ul style="list-style-type: none"><li>• <a href="#">SAVE A PREPARED REPORT</a></li><li>• <a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

## Applications Trend

The **Applications Trend** report identifies the applications responsible for the most traffic based on **Bandwidth**, **Volume** or **Unique Subscribers**, and displays traffic metrics for those applications. The **Applications Trend** report is comprised of the following:

- A trend graph, in which each trend line represents an application
- A grid, in which each row displays the **Bandwidth**, **Volume** or **Unique Subscribers** for an **Application** over the selected time period



**Figure 4-13: Applications Trend Report**

To get the most out of the report, follow the [WORKFLOW FOR USING A REPORT](#).

What you can do:

**Table 15. What You Can Do in the Applications Trend Report**

<b>From where:</b>	<b>You can do the following:</b>
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
<b>Resolution</b> dropdown list	Change the time resolution by which you want to view the report.
<b>By</b> dropdown list	Change the metric on which the applications responsible for the most traffic is based.
<b>Display By</b> dropdown list	Change the metric by which you want to view the report.
Any panel in the report area	<b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b>
Filter panel	Filter by <b>Application Group</b> , which is described in <a href="#">FILTERING A REPORT</a> .
The graph area	<ul style="list-style-type: none"> <li>Mouse over a point on a trend line to view the application of that line, and the time and the metric at that point.</li> <li>Perform any of the actions described in <a href="#">GRAPH ACTIONS</a>.</li> </ul>
The grid area	<p>Do any of the following:</p> <ul style="list-style-type: none"> <li>To sort ascending or descending by any of the columns, right-click the column header, and then select <b>Sort Ascending</b> or <b>Descending</b>.</li> <li>With <b>Resolution</b> as <b>Daily</b> or <b>Monthly</b>, to view the grid metrics of all the selected applications by month or date, right-click the <b>Application</b> header, and then select <b>Drill &gt; Month-Year or Date</b>.</li> <li>To view the grid metrics of a specific application by month or date, right-click the application, and then select <b>Drill &gt; Month-Year or Date</b>.</li> <li>To get a description of the attribute or metric in a column, mouse over the column's header.</li> </ul>

From where:	You can do the following:
File in the menu bar	<ul style="list-style-type: none"><li>● <a href="#">SAVE A PREPARED REPORT</a></li><li>● <a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

## Application Usage

The **Application Usage** report provides consumption metrics broken down by application group, and the most popular applications per group.

**Table 16: What You Can Do in the Application Usage Report**

From where:	You can do the following:
Filter	From the <b>Filtering</b> toolbar, filter the data of the entire report by <b>Resolution</b> , by selecting <b>Daily</b> or <b>Weekly</b> , and then selecting the day or week.
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Any panel in the report area	<b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b>
Application Groups area	See <a href="#">APPLICATION GROUPS</a> for what you can do in the area with the pie graphs.
Table area	See <a href="#">NETWORK ACTIVITY AND TRAFFIC BY APPLICATION FOR ALL APPLICATION GROUPS</a> for what you can do in the area with the table.
File in the menu bar	<ul style="list-style-type: none"><li>• <a href="#">SAVE A PREPARED REPORT</a></li><li>• <a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

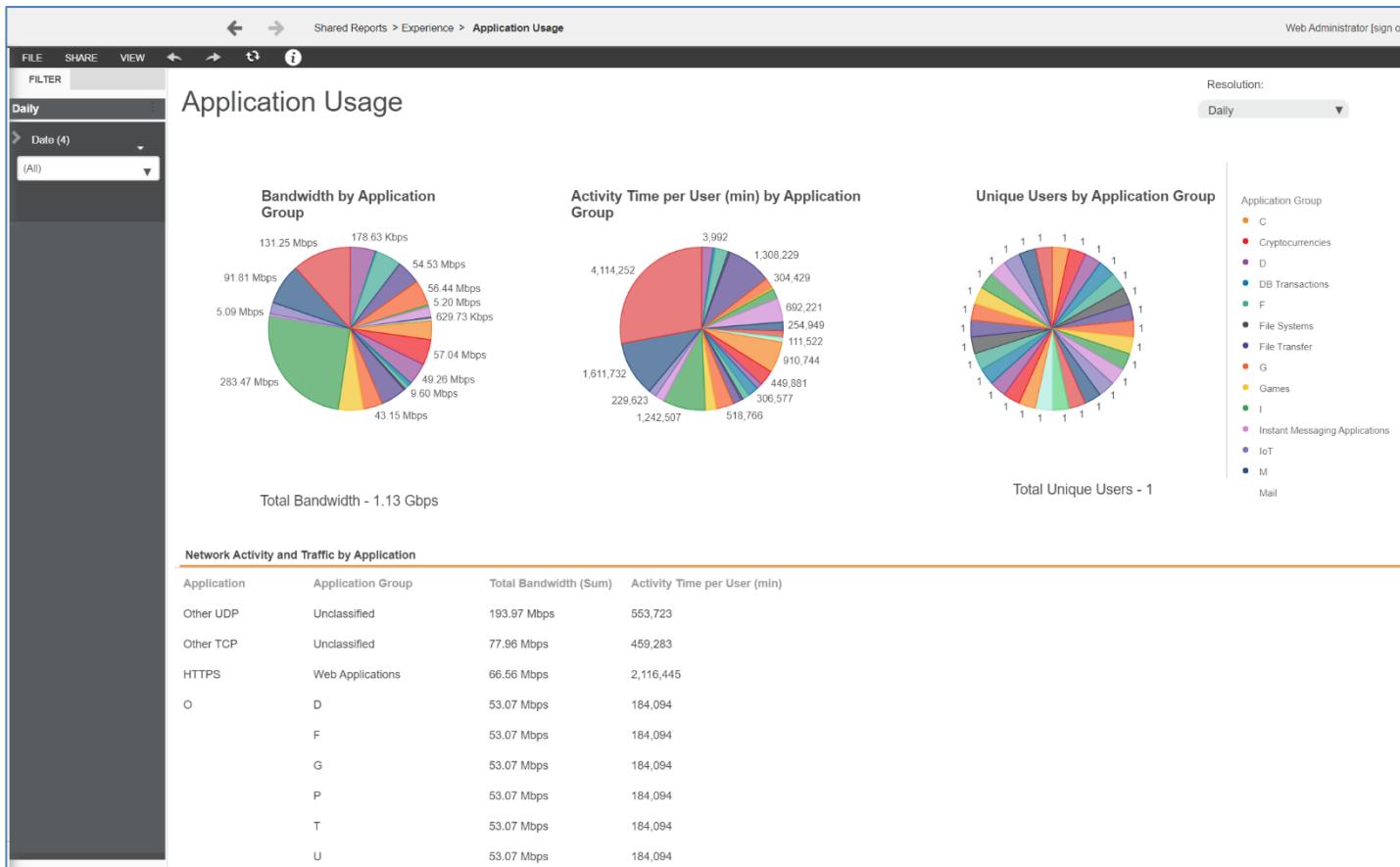
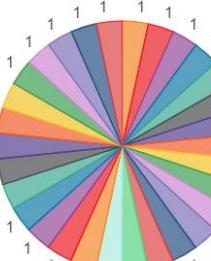


Figure 14: Application Usage Report

## Application Groups

In these pie graphs, a slice is an application group. Each of these charts describes how the most popular application groups break down a different **METRIC**, as follows:

Pie graph		Description	Tools																														
<b>Bandwidth by Application Group</b>	<p><b>Bandwidth by Application Group</b></p> <table border="1"> <caption>Bandwidth by Application Group</caption> <thead> <tr> <th>Application Group</th> <th>Bandwidth</th> </tr> </thead> <tbody> <tr><td>Group 1</td><td>283.47 Mbps</td></tr> <tr><td>Group 2</td><td>131.25 Mbps</td></tr> <tr><td>Group 3</td><td>91.81 Mbps</td></tr> <tr><td>Group 4</td><td>5.09 Mbps</td></tr> <tr><td>Group 5</td><td>178.63 Kbps</td></tr> <tr><td>Group 6</td><td>54.53 Mbps</td></tr> <tr><td>Group 7</td><td>56.44 Mbps</td></tr> <tr><td>Group 8</td><td>5.20 Mbps</td></tr> <tr><td>Group 9</td><td>629.73 Kbps</td></tr> <tr><td>Group 10</td><td>57.04 Mbps</td></tr> <tr><td>Group 11</td><td>49.26 Mbps</td></tr> <tr><td>Group 12</td><td>9.60 Mbps</td></tr> <tr><td>Group 13</td><td>43.15 Mbps</td></tr> </tbody> </table>	Application Group	Bandwidth	Group 1	283.47 Mbps	Group 2	131.25 Mbps	Group 3	91.81 Mbps	Group 4	5.09 Mbps	Group 5	178.63 Kbps	Group 6	54.53 Mbps	Group 7	56.44 Mbps	Group 8	5.20 Mbps	Group 9	629.73 Kbps	Group 10	57.04 Mbps	Group 11	49.26 Mbps	Group 12	9.60 Mbps	Group 13	43.15 Mbps	Describes how the total bandwidth on your network is broken down by application group.	<b>Mouse over</b> a pie slice to view a tooltip containing the percentage of bandwidth consumed by the application group. Toggle the view mode.		
Application Group	Bandwidth																																
Group 1	283.47 Mbps																																
Group 2	131.25 Mbps																																
Group 3	91.81 Mbps																																
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<b>Activity Time per User by Application Group</b>	<p><b>Activity Time per User (min) by Application Group</b></p> <table border="1"> <caption>Activity Time per User (min) by Application Group</caption> <thead> <tr> <th>Application Group</th> <th>Activity Time (min)</th> </tr> </thead> <tbody> <tr><td>Group 1</td><td>4,114,252</td></tr> <tr><td>Group 2</td><td>1,611,732</td></tr> <tr><td>Group 3</td><td>229,623</td></tr> <tr><td>Group 4</td><td>1,242,507</td></tr> <tr><td>Group 5</td><td>3,992</td></tr> <tr><td>Group 6</td><td>1,308,229</td></tr> <tr><td>Group 7</td><td>304,429</td></tr> <tr><td>Group 8</td><td>692,221</td></tr> <tr><td>Group 9</td><td>254,949</td></tr> <tr><td>Group 10</td><td>111,522</td></tr> <tr><td>Group 11</td><td>910,744</td></tr> <tr><td>Group 12</td><td>449,881</td></tr> <tr><td>Group 13</td><td>306,577</td></tr> <tr><td>Group 14</td><td>518,766</td></tr> </tbody> </table>	Application Group	Activity Time (min)	Group 1	4,114,252	Group 2	1,611,732	Group 3	229,623	Group 4	1,242,507	Group 5	3,992	Group 6	1,308,229	Group 7	304,429	Group 8	692,221	Group 9	254,949	Group 10	111,522	Group 11	910,744	Group 12	449,881	Group 13	306,577	Group 14	518,766	Describes how the average user's time online is broken down by application group.	<b>Mouse over</b> a pie slice to view a tooltip containing the percentage of activity time consumed by the average user on the application group. Toggle the view mode.
Application Group	Activity Time (min)																																
Group 1	4,114,252																																
Group 2	1,611,732																																
Group 3	229,623																																
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Group 11	910,744																																
Group 12	449,881																																
Group 13	306,577																																
Group 14	518,766																																

<b>Unique Users by Application Group</b>	<b>Unique Users by Application Group</b> 	Describes the breakdown of unique users by application group.	<b>Mouse over</b> a pie slice to view a tooltip containing the percentage of unique users occupied by applications in that application group. Toggle the view mode.
------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Network Activity and Traffic by Application for All Application Groups

This table breaks down your network by application, showing each applications Total Bandwidth, Activity Time per User and **Rank by Total Bandwidth**.

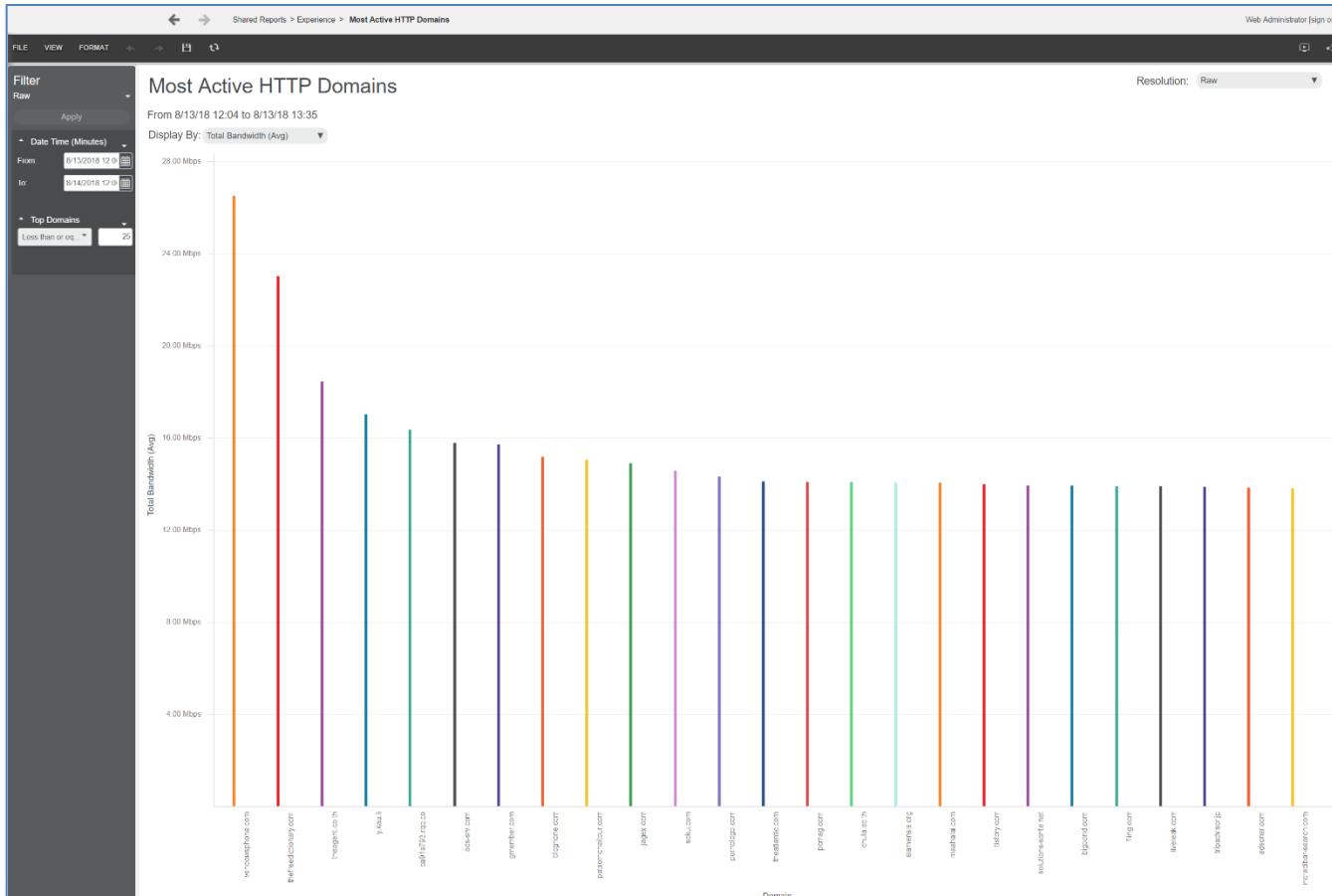
What you can do:

**Table 17. What You Can Do in the Applications Trend Report**

From where:	You can do the following:
The grid area	<p>Do any of the following:</p> <ul style="list-style-type: none"><li>• To sort ascending or descending by any of the columns, right-click the column header, and then select <b>Sort Ascending</b> or <b>Descending</b>.</li><li>• To get a description of the attribute or metric in a column, mouse over the column's header.</li><li>• With <b>Resolution</b> as <b>Daily</b> or <b>Monthly</b>, to view the grid metrics of all the selected applications by month or date, right-click the <b>Application</b> header, and then select <b>Drill &gt; Month-Year or Date</b>.</li><li>• To view the grid metrics of a specific application by month or date, right-click the application, and then select <b>Drill &gt; Month-Year or Date</b>.</li></ul>

## Most Active HTTP Domains

The **Most Active HTTP Domains** report provides consumption metrics for the most active HTTP domains and for a selected period of time. The report contains a bar graph, in which each vertical bar represents one of the most active HTTP domains on your network. The taller the bar, the greater the domain rates in terms of the selected consumption metric.



**Figure 4-15: Most Active HTTP Domains Report**

To get the most out of the report, follow the **WORKFLOW FOR USING A REPORT**.

What you can do:

**Table 18. What You Can Do in the Most Active HTTP Domains Report**

<b>From where:</b>	<b>You can do the following:</b>
<b>Resolution</b> dropdown list	Change the time resolution by which you want to view the report.
<b>Display By</b> dropdown list	Change the consumption metric by which you want to view the report.
Any panel in the report area	<a href="#">EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</a>
<b>Filter</b> panel	Filter by time frame, which is described in <a href="#">FILTERING A REPORT</a> .
The graph area	<ul style="list-style-type: none"><li>• Mouse over a bar to view the name of the domain and the selected consumption metric.</li><li>• Perform any of the actions described in <a href="#">GRAPH ACTIONS</a>.</li></ul>
<b>File</b> in the menu bar	<ul style="list-style-type: none"><li>• <a href="#">SAVE A PREPARED REPORT</a></li><li>• <a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

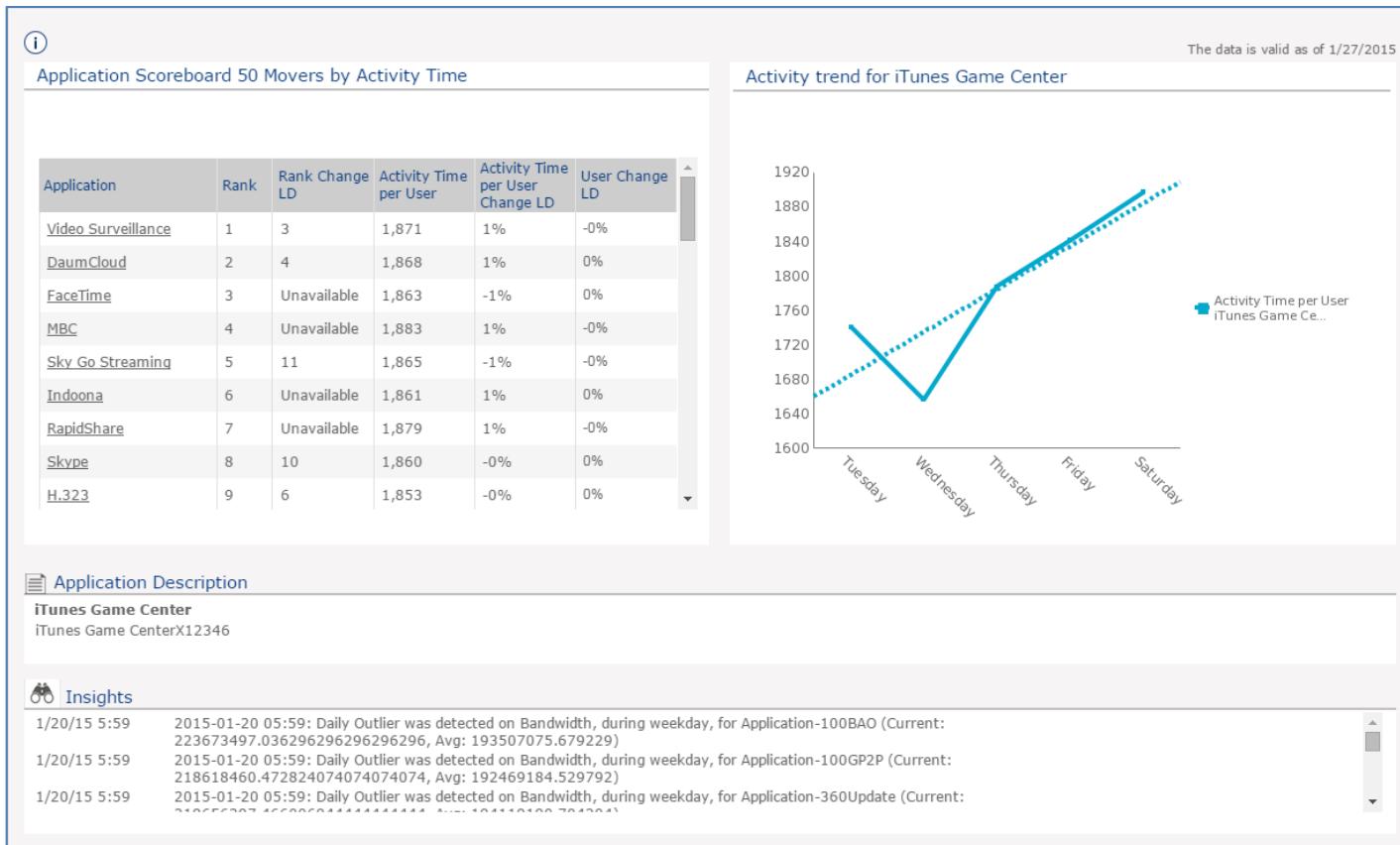
## Experience Analytics

In this section, you'll find the reports that you get in the **Experience** folder with GW DataReporter Metrics.

### Application Movers

The **Application Movers** report provides key data on which applications are the biggest movers, measured by bandwidth per user and activity time per user, and by day and week. The report draws attention to those applications that measured the most changes, whether positively or negatively.

Activity time refers to the length of time the application is active on a user's device. Sometimes, applications continue running long after the user has finished using them.



Some applications tend to burst, rapidly expanding to consume greater amounts of bandwidth and remain active for longer periods of time. The purpose of this report is to enable you to monitor these bursts, as they can undermine the performance of applications that are more urgent, waste users' bandwidth limits and drain device batteries.

## Application Scoreboard

This grid is the main component of the report. It presents the 50 applications, by rank, recording the largest bursts in bandwidth.

Application Scoreboard 50 Movers by Activity Time					
Application	Rank	Rank Change LD	Activity Time per User	Activity Time per User Change LD	User Change LD
<a href="#">3DExplorer</a>	New	Unavailable	1,255	Unavailable	Unavailable
<a href="#">ADrive</a>	New	Unavailable	1,253	Unavailable	Unavailable
<a href="#">Adult Streaming</a>	New	Unavailable	1,260	Unavailable	Unavailable
<a href="#">AliceZone</a>	New	Unavailable	1,253	Unavailable	Unavailable
<a href="#">AOL File Transfer</a>	New	Unavailable	1,255	Unavailable	Unavailable
<a href="#">BITS</a>	New	Unavailable	1,259	Unavailable	Unavailable
<a href="#">BitTorrent Live</a>	New	Unavailable	1,255	Unavailable	Unavailable
<a href="#">ClubBox</a>	New	Unavailable	1,251	Unavailable	Unavailable
<a href="#">CMD</a>	New	Unavailable	1,241	Unavailable	Unavailable

### Filter

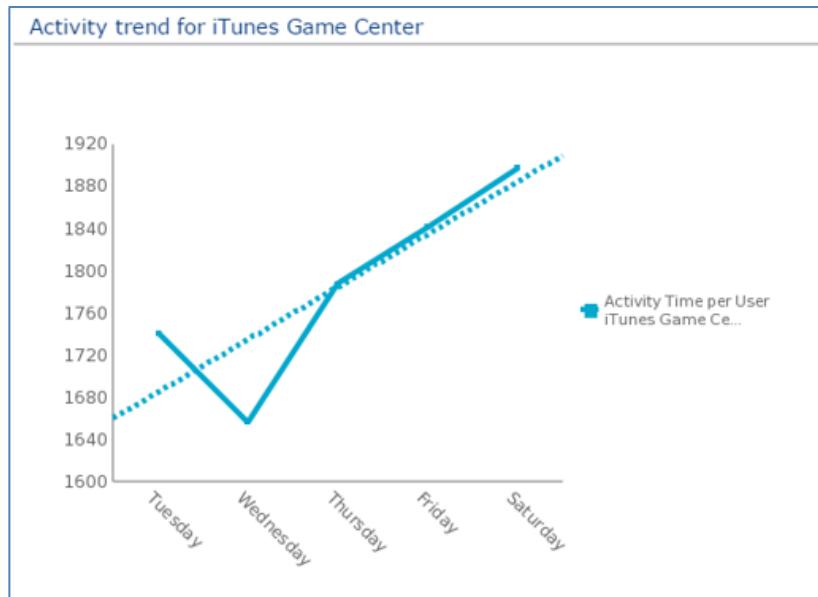
**FILTER** the Application Scorecard data by any of the following:

- **Top 50 Application Movers By:** To view the top 50 application movers by **Bandwidth** or by **Activity Time**
- **Time Frame:** To view data for the previous **Day** or **Week**

Grid Columns	Description	Tools
Application	The top 50 application movers	
Rank	Ranks the top 50 applications with the greatest movement in bandwidth or activity time per user, whether positive or negative	Sort the <b>Application Scorecard</b> by the contents of the column.  Click on an application in the <b>Application</b> column of the <b>Application Scorecard</b> to view, in the <b>Trends</b> graph, how the application is trending.
Rank Change Trend	Presents whether the application's rank is increasing, decreasing or static	
Rank Change LD	The change in the application's rank from the previous day	
Bandwidth / Activity Time per User	The average total per user	
Bandwidth / Activity Time per User Change LD	The percent of the change per user from the previous day	
User Change LD	The percent of the change in the amount of users from the previous day	

### Trends Graph

This graph drills down from the **Application Scoreboard** to a single application from the **Application** column. Use this graph to view the general trend of the total consumption by users on average of an application.



Trend Graph		Tools
X axis	The time frame measuring the trend, either day of the week or weekly	View how a specific application is trending in the <b>Trends</b> graph by clicking on the application in the <b>Application</b> column of the <b>Application Scorecard</b> .
Y axis	<ul style="list-style-type: none"> <li>One of the trends as selected from the filter, either bandwidth or activity time</li> <li>The trend line showing the general trend</li> </ul>	Using the <b>FILTER</b> resets your selection of application in the <b>Trends</b> graph.

### Application Description Area

This area provides a description of the application to which the **Trends** graph drills down.

Application	Description
iTunes Game Center	iTunes Game CenterX12346

## Insights on Application Movers

This area provides insights related to the applications in the Application Scorecard.

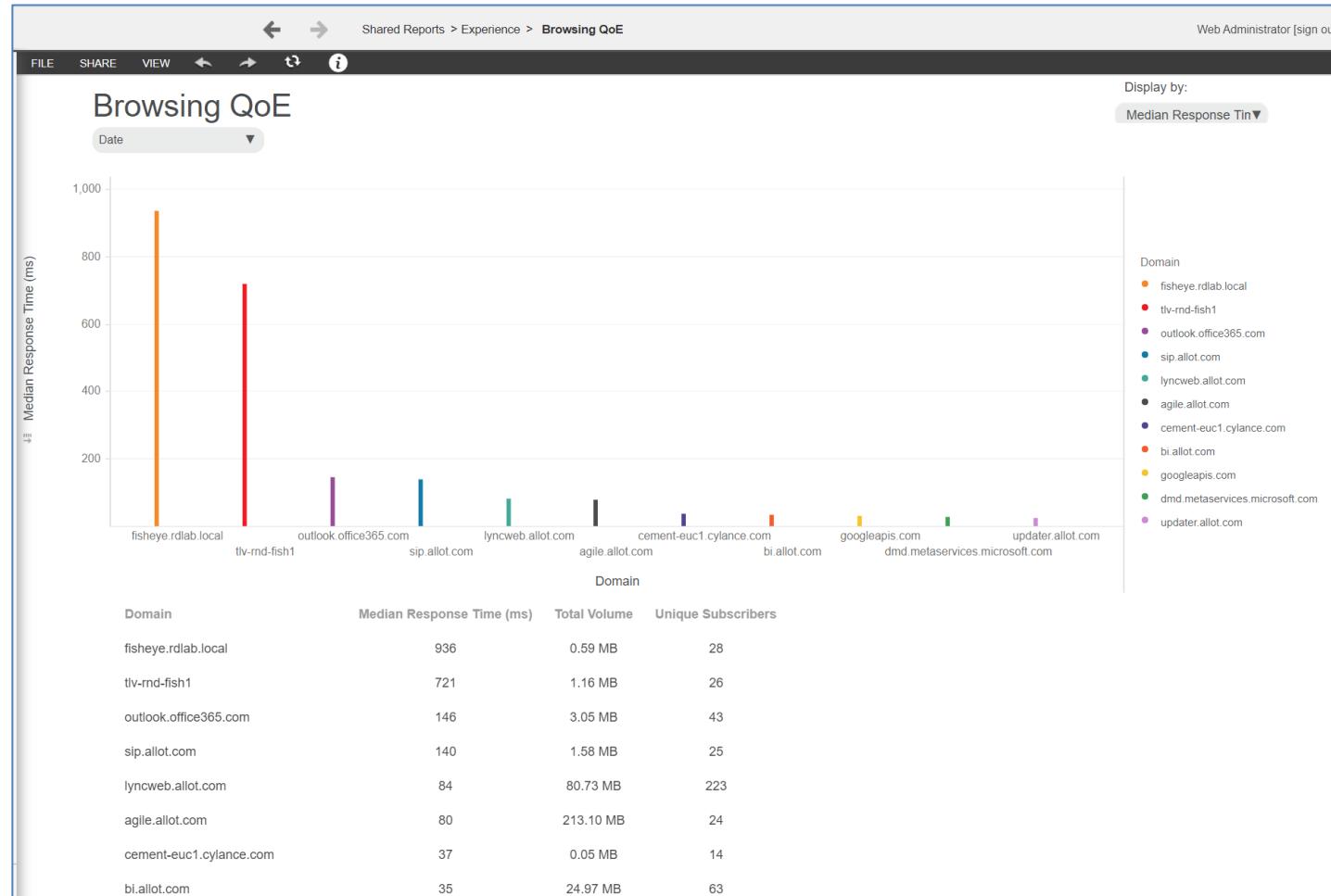
 Insights
1/20/15 5:59 2015-01-20 05:59: Daily Outlier was detected on Bandwidth, during weekday, for Application-100BAO (Current: 223673497.036296296296296, Avg: 193507075.679229)
1/20/15 5:59 2015-01-20 05:59: Daily Outlier was detected on Bandwidth, during weekday, for Application-100GP2P (Current: 218618460.472824074074074, Avg: 192469184.529792)
1/20/15 5:59 2015-01-20 05:59: Daily Outlier was detected on Bandwidth, during weekday, for Application-360Update (Current: 218618460.472824074074074, Avg: 192469184.529792)

## Description

See [HERE](#) for more information on insights.

## Browsing QoE

The Browsing QoE report presents metrics for the top domains on your network.



<b>Filter</b>	
<p><b>FILTER</b> report data by any of the following:</p> <ul style="list-style-type: none"> <li>• <b>Time Frame:</b> To view data for a specific day</li> <li>• Display By: To view data for any of the following <b>METRICS:</b> Median Response Time (ms), Total Volume, Unique Subscribers</li> </ul>	
<b>Info Box</b>	
From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.	
Bar Graph	Tools
Each bar represents a domain on your network.	<p><b>Mouse over</b> a bar to view a tooltip containing the value of the selected metric for the domain.</p> <p>Drill down on a domain to view the selected metric by protocol or HTTP content type.</p>
X axis	The top domains on your network
Y axis	The selected metric
Grid Columns	Tools
Domain	The top domains on your network
Median Response Time	The median time, in milliseconds, for a domain to respond to a query in the selected time frame
Total Volume	The total volume for the domain in the selected time frame
Unique Subscribers	The number of unique subscribers for the domain in the selected time frame

## Web Experience

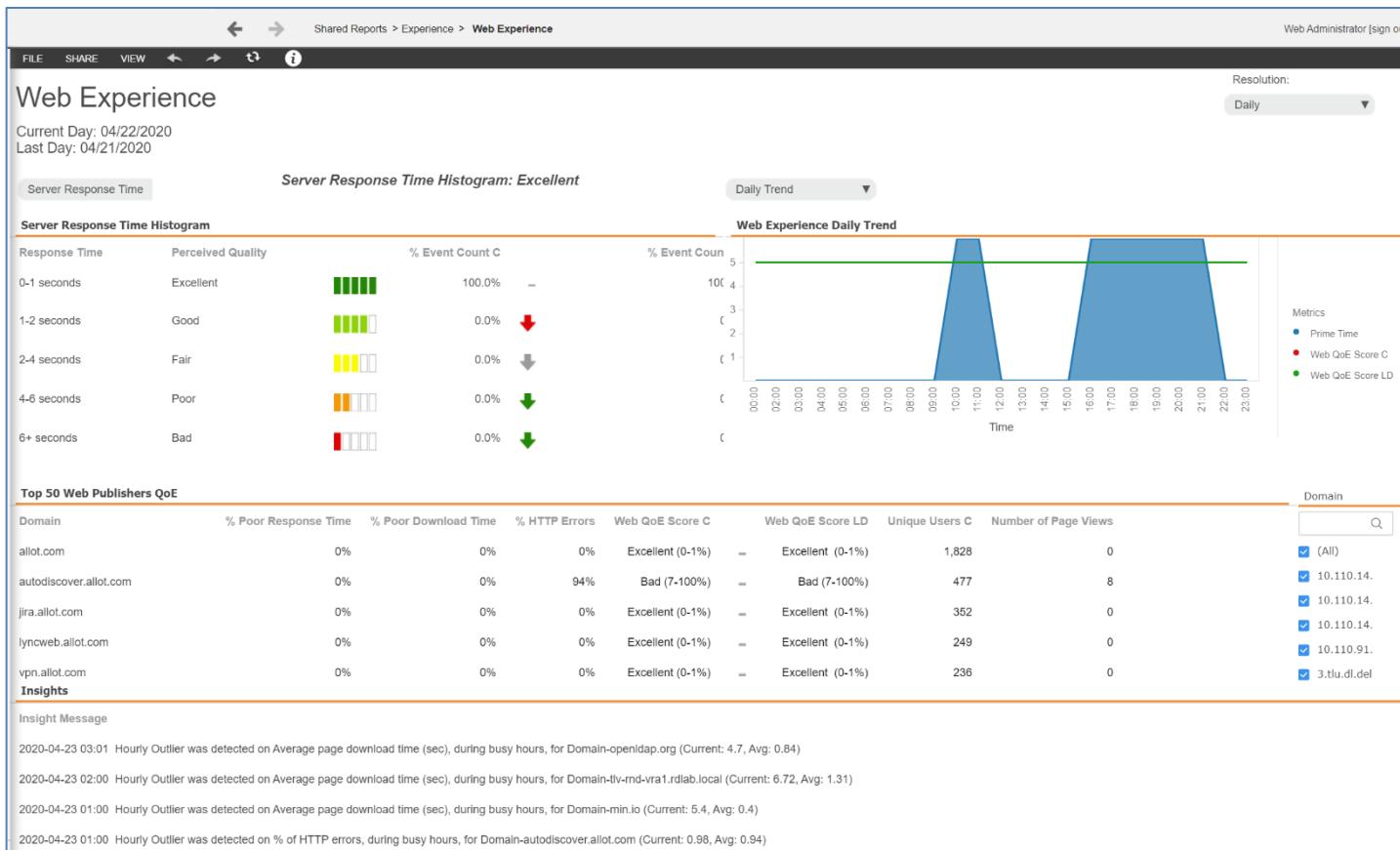
The **Web Experience** report provides key data on Web surfing experience, including server response time and HTPP errors and download time, enabling you to view the general trend and inspect individual applications. The report draws attention to those applications that provide the worst Web surfing performance.

Negative Web surfing experience is a major factor in subscriber churn. The purpose of this report is to enable you to monitor the user experience of surfing on your network, so that you can mitigate negative experiences and accentuate positive ones.

**Table 19: What You Can Do in the Web Experience Report**

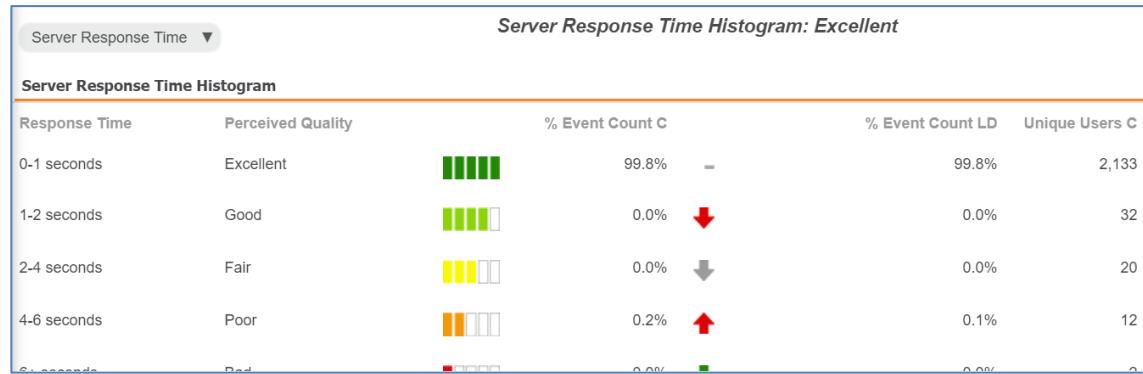
From where:	You can do the following:
Filter	From the <b>Filtering</b> toolbar, filter the data of the entire report by <b>Resolution</b> , by selecting <b>Daily</b> or <b>Weekly</b> , and then selecting the day or week.
Info Box	From the toolbar, click the Info Box to get descriptions of all the metrics and attributes in the report.
Any panel in the report area	<b>EXPAND THE PANEL TO COVER THE ENTIRE REPORT AREA.</b>
Server Response Time Histogram	See <a href="#">SERVER RESPONSE TIME HISTOGRAM</a> for what you can do in this area.
Web Experience Trend	See <a href="#">WEB EXPERIENCE TREND</a> for what you can do in this area.
Top 50 Web Publishers QoE	See <a href="#">TOP 50 WEB PUBLISHERS QoE</a> for what you can do in this area.
Insights	See <a href="#">INSIGHTS ON WEB EXPERIENCE</a> for what you can do in this area.

From where:	You can do the following:
File in the menu bar	<ul style="list-style-type: none"><li>● <a href="#">SAVE A PREPARED REPORT</a></li><li>● <a href="#">EXPORT THE REPORT TO PDF</a></li></ul>

**Figure 16: Web Experience Report**

## Server Response Time Histogram

This grid presents the average quality of experience for Web surfing by server response time, HTTP errors, and HTTP download time.

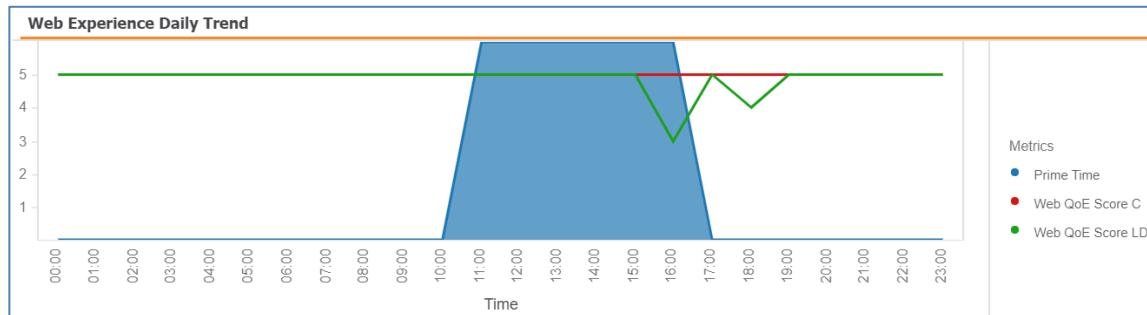


Grid				Tools
Grid Columns	Filter			
	Server Response Time	HTTP Errors	HTTP Download Time	
Response Time / % HTTP Errors / HTTP Download Time	The time it takes for a server to respond to a user's query	The percentage of HTTP events returned with errors	The time it takes to download	Filter the entire report by <b>Time Frame</b> , either <b>Daily</b> or <b>Weekly</b> . From the options above the grid, select whether you want the grid to present quality of experience by <b>Server Response Time</b> , <b>HTTP Errors</b> or <b>HTTP Download Time</b> . Sort the grid by the contents of the column. To get a description of the attribute or metric in a column, mouse over the column's header.
Perceived Quality	The perceived quality of the Web experience with the server response time	The perceived quality of the Web experience with the amount of HTTP errors	The perceived quality of the Web experience at the HTTP download time	
Quality Bars	The perceived quality			
% Events Count C	The percentage of HTTP events completed at the perceived quality			
Definition/Stalls Trend	Presents whether the percentage of HTTP events completed at the level of definition is increasing, decreasing or static			
% Event Count LD	The percentage of HTTP events completed the previous day at the level of definition			
Unique Users	The number of unique users completing HTTP events at the level of definition			

## Web Experience Trend Graph

This trend graph tracks the Web QoE score, which is a combination of the metrics in the **Web Surfing Experience** grid and describes the overall trend.

The graph enables you to view the overall Web QoE score over time, and compare it to the overall trend.



Trend Graph		Tools
X axis	The previous entire day, broken down into hours	Filter the entire report by <b>Time Frame</b> , either <b>Daily</b> or <b>Weekly</b> .
Y axis	The Web QoE score of the previous day	To select the time period that the graph displays:
Y axis	The Web QoE score of the day before last	<ul style="list-style-type: none"> <li>• Weekly trend from week to week: From the panel, select Weekly Trend.</li> <li>• Daily trend of the previous calendar week: From the Filter select Weekly, and from the panel select Daily Trend.</li> <li>• Hourly trend of the previous full day: From the Filter select Daily, and from the panel select Daily Trend.</li> </ul>
Y axis	Busy hours, if designated	

### Top 50 Web Publishers QoE Grid

This grid presents Web surfing QoE metrics for all of the top 50 Web publishers, including the **Web QoE Score**, which is a combination of the metrics in the **Web Surfing Experience** grid.

Top 50 Web Publishers QoE								Domain
Domain	% Poor Response Time	% Poor Download Time	% HTTP Errors	Web QoE Score C	Web QoE Score LD	Unique Users C	Number of Page Views	
allot.com	0%	0%	0%	Unavailable	—	Unavailable	1,193	0
jira.allot.com	0%	0%	0%	Excellent (0-1%)	—	Unavailable	306	0
autodiscover.allot.com	0%	0%	94%	Bad (7-100%)	—	Bad (7-100%)	258	0
vpn.allot.com	0%	0%	0%	Unavailable	⬇	Excellent (0-1%)	140	0
lyncweb.allot.com	1%	0%	0%	Excellent (0-1%)	—	Unavailable	92	0
ctld.windowsupdate.com	0%	0%	0%	Unavailable	—	Unavailable	86	0

Grid Columns		Tools
Domain	One of the top 50 Web publishers, current for the previous day	Filter the entire report by <b>Time Frame</b> , either <b>Daily</b> or <b>Weekly</b> .
% Poor Response Time	The percentage of HTTP events returned in poor response time	Sort the <b>Top 50 Web Publishers QoE</b> grid by the contents of the column.
% Poor Download Time	The percentage of HTTP downloads making poor time	To view only specific publishers in the grid, from the list on the right side select the publishers.
% HTTP Errors	The percentage of HTTP events returned with errors	
Web QoE Score C	The Web QoE score from the previous day	
Web QoE Score Trend	Presents whether the <b>Web QoE Score</b> since two days ago is:  ⬆ increasing ⬇ decreasing	To get a description of the attribute or metric in a column, mouse over the column's header.
Web QoE Score LD	The Web QoE score from two days ago	
Unique Users C	The number of unique users downloading from the Web publisher	

## Insights on Web Experience

This area provides insights related to the metrics and publishers on the Web Experience report. An example of an activity on which there may be an insight is average bitrate per download.

### Insights

#### Insight Message

2020-04-05 02:00 Hourly Outlier was detected on Average page download time (sec), during weekend, for Domain-173.243.138.108 (Current: 3.78, Avg: 2.14)

2020-04-05 00:00 Hourly Outlier was detected on % of HTTP errors, during weekend, for Domain-collector.onsignage.com (Current: 0.12, Avg: 0.01)

2020-04-04 23:00 Hourly Outlier was detected on Average page download time (sec), during weekend, for Domain-zwyr157wwiu6elor.com (Current: 3.94, Avg: 0.75)

2020-04-04 22:00 Hourly Outlier was detected on Average page download time (sec), during weekend, for Domain-173.243.138.108 (Current: 4.01, Avg: 2.07)

### Description

See [HERE](#) for more information on insights.

# Security Folder

In this section, you'll find the following:

- [STATISTICS AND ANALYSIS REPORTS](#): Reports that analyze different security facets of your network
- [NETPROTECT REPORTS](#): Templates that report on the NetProtect activity in your deployment and are arranged according to service
- [NETPROTECT STATISTICS](#): Comprised of sub-reports for each of the NetProtect services, presenting the last 24 hours of that service's data
- [WEBFILTER REPORTS](#): Comprised of reports present monitoring data on the requests that WebFilter handles

## Statistics and Analysis Reports

The **Statistics and Analysis** reports analyze different security facets of your network, and are comprised of the following:

- [CATEGORY ANALYSIS](#)
- [SECURITY STATISTICS](#)
- [SECURITY TRENDS](#)
- [SUBSCRIBER ANALYSIS](#)
- [TOP SUBSCRIBER ANALYSIS](#)

### Category Analysis

The **Category Analysis** report enables you to analyze security events by category, as well as by domain. You can filter the report to view by time frame, category and event.

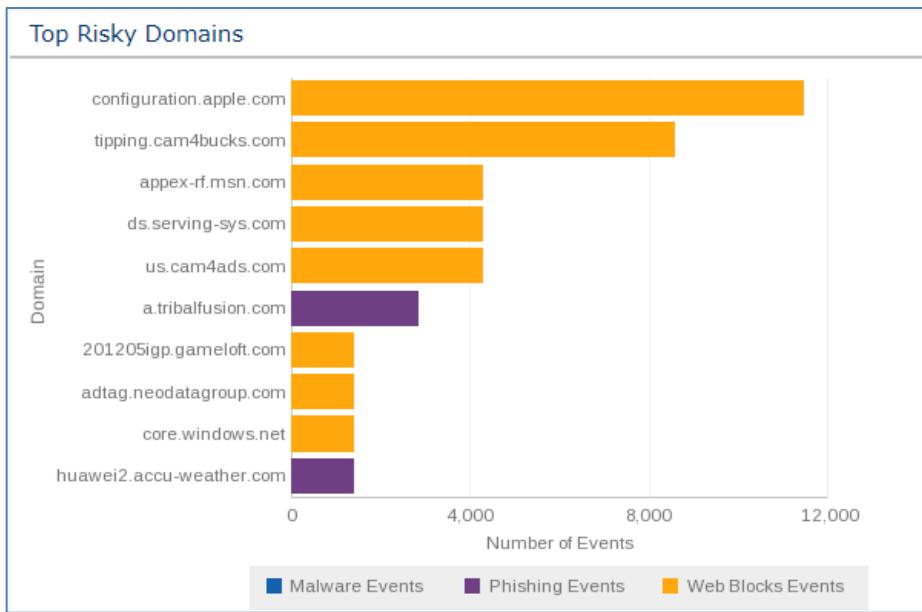
### Trend Analysis Trend Graph

This trend graph tracks the security events over time.

<b>Filter</b>	
Filtering the entire report affects this trend graph as follows:	
<ul style="list-style-type: none"><li>• <b>Time Frame:</b> To view the data by different time frames</li><li>• <b>Filter by Category:</b> To view the data for only a specific category</li><li>• <b>Filter by Event:</b> To view the trend line of only a specific security event type</li></ul>	
<b>Trend Graph</b>	
X axis	The time frame measuring the trend, as selected in the Filter
Y axis	Trend lines for each security event type, as selected in the Filter
<b>Tools</b>	
Mouse over a line to view a tooltip containing the number of security events at that time.	
Toggle the view mode.	

## Top Risky Domains

This bar graph presents the domains that NetProtect has blocked the most for security events.



### Filter

**FILTERING** the entire report affects the bar graph as follows:

- **Time Frame:** To view the data by different time frames
- **Filter by Category:** To view the security events trend for only a specific category
- **Filter by Event:** To view the trend line of only a specific security event type

### Vertical Bar Graph

Each bar is a top risky domain. The longer the bar, the more risky.

### Tools

X axis

The number of events in the selected time frame

Y axis

The top risky domains in the selected time frame

Mouse over a line to view a tooltip containing the number of security events at that time.  
Toggle the view mode.

## Hourly Statistics

This grid presents metrics about the security categories that NetProtect has blocked the most per hour. The metrics are hourly averages in the selected time frame.

<b>Filter</b>		
Filtering the entire report affects this grid as follows:		
<ul style="list-style-type: none"> <li>• <b>Time Frame:</b> To view data by different time frames. As the metrics are per hour, larger time frames do not necessarily yield more security events.</li> </ul>		
<b>Grid Columns</b>		<b>Tools</b>
Domain Main Category	In the selected time frame, the categories that NetProtect has blocked the most for security events	Sort the columns in ascending or descending order.
Unique Clients	In the selected time frame, the number of unique subscribers per hour that were the object of security events	
Web Blocks Events	In the selected time frame, the number of Web block events per hour	
Malware Events	In the selected time frame, the number of malware events per hour	
Phishing Events	In the selected time frame, the number of phishing events per hour	
Total Security Events	In the selected time frame, the number per hour of Web block events, malware events and phishing events	
Total Events	In the selected time frame, the number per hour of events, both security events and otherwise	
Security Events Percentage	The percentage of security events out of the total events	

Unique Clients	The number of unique subscribers that were the object of security events in the last hour	
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## Security Statistics

The **Security Statistics** report presents overall security statistics for your network.

### Security Statistics Gauges

These gauges present, in a simple form, overall security statistics for your network.

Filter
<b>FILTERING</b> the entire report affects the Security Statistic gauges as follows:
<ul style="list-style-type: none"> <li><b>Time Frame:</b> To view the gauges by different time frames. The gauges present statistics only in the selected time frame.</li> </ul>

Gauge	Description	0% Definition	100% Definition
<b>Secured Subscribers</b>	The percentage of subscribers that are registered in NetProtect, regardless of whether NetProtect has blocked anything for them, out of total subscribers	No subscribers have registered in NetProtect.	All subscribers have registered in NetProtect.
<b>Protected Subscribers</b>	The percentage of subscribers that have had at least one security event out of total subscribers that are registered in NetProtect	No subscribers that have registered in NetProtect have had any security events.	All subscribers that have registered in NetProtect have had at least one security event.
<b>Total Security Events</b>	The percentage of security events out of total events	None of the events are security events.	All of the events are security events.

<b>Average Security Events per User</b>	The percentage of security events out of total events per subscriber	On average, each subscriber	
<b>Web Block Events / Events</b>	The percentage of Web blocks out of total security events	None of the security events are Web blocks.	All of the security events are Web blocks.
<b>Malware Events / Events</b>	The percentage of malware blocks out of total security events	None of the security events are malware blocks.	All of the security events are malware blocks.
<b>Spyware Events / Events</b>	The percentage of spyware blocks out of total security events	None of the security events are spyware blocks.	All of the security events are spyware blocks.
<b>Phishing Events / Events</b>	The percentage of phishing blocks out of total security events	None of the security events are phishing blocks.	All of the security events are phishing blocks.
<b>Secured Subscriber / Protected Subscriber</b>	<ul style="list-style-type: none"> <li>• <b>Protected subscribers:</b> The percentage of subscribers that have had at least one security event</li> <li>• <b>Secured subscribers not yet protected:</b> The percentage of subscribers that are registered in NetProtect and have not had any security events</li> </ul>		

## Top Risky Categories

This horizontal bar graph breaks down the total security events by risky category. You can further filter by the time frame and the type of security events.

<b>Filter</b>	
Filter the graph by the following:	
<ul style="list-style-type: none"> <li>• From the top:           <ul style="list-style-type: none"> <li>◆ <b>Time Frame:</b> To view the risky categories by different time frames</li> </ul> </li> <li>• From below:           <ul style="list-style-type: none"> <li>◆ <b>Filter Event Type:</b> To view the risky categories of only a specific security event</li> </ul> </li> </ul>	
Vertical Bar Graph	Tools
Each bar is a top risky category. The longer the bar, the more risky.	<p>Mouse over a bar to view a tooltip containing the number of security events in the category at that time.</p> <p>Toggle the view mode.</p>
X axis	The number of security events in the selected time frame
Y axis	The top risky categories in the selected time frame

## Top Risky Domains

This horizontal bar graph breaks down the total security events by risky domain. You can further filter by the time frame and the type of security events.

<b>Filter</b>	
<b>FILTER</b> the graph by the following:	
<ul style="list-style-type: none"> <li>• From the top:           <ul style="list-style-type: none"> <li>◆ <b>Time Frame:</b> To view the risky domains by different time frames</li> </ul> </li> <li>• From below:           <ul style="list-style-type: none"> <li>◆ <b>Filter Event Type:</b> To view the risky domains of only a specific security event</li> </ul> </li> </ul>	

Vertical Bar Graph		Tools
Each bar is a top risky domain. The longer the bar, the more risky.		Mouse over a bar to view a tooltip containing the number of security events in the domain at that time.
X axis	The number of security events in the selected time frame	Toggle the view mode.
Y axis	The top risky domains in the selected time frame	

## Security Trends

The **Security Trends** report presents security trends over time.

### Selecting the Trend

To select the trend, filter the report as follows:

1. From the **Time Frame** dropdown list, select the time frame in which you want to view the trend.
2. From the **Filter by Trend Type** dropdown list, select the trend you want to view.

Trend	Description	Tooltip
Secured/Unsecured Users	A pie graph comparing the number of secured subscribers to that of unsecured subscribers	Number of secured or unsecured subscribers
Protected Users	Trend line for each type of security event, showing the average number, per subscriber, of that type of security event	Average number of that type of security event per subscriber, at that point on the trend line
Clean Users	Trend line for each type of security event, showing the number of subscribers with none of that type of security event	Number of subscribers with none of that type of security event, at that point on the trend line
Number of Events	Trend line for each type of security event, showing the amount of that type of security event	Amount of that type of security event, at that point on the trend line
Average Number of Events	Trend line for each type of security event, showing the average number of that type of security event per subscriber	Amount of that type of security event, at that point on the trend line
Top Risky Categories	Trend line for each of the categories most likely to cause a security event, showing the amount of security events for that category	Number of security events for that category, at that point on the trend line

## Subscriber Analysis

The **Subscriber Analysis** report presents deep-dive security info for a selected subscriber, as well as trends and top risky categories and URLs. You can also view the categories and domains that are most risky for the subscriber.

To view the report, you must first select the subscriber from the [FILTER ATTRIBUTES](#).

## General Statistics

This pair of grids present data and metrics for the subscriber that you selected.

<b>Filter</b>		
<b>FILTER</b> this grid by <b>Time Frame</b> , to view the metrics for the subscriber that you selected by different time frames.		
<b>Grid Columns</b>	<b>Description</b>	<b>Tools</b>
Data (above, horizontal)		
Subscriber ID	The subscriber's name	
Subscriber Alias Name	The subscriber's alias, if any	
Age	The subscriber's age	
Subscriber Gender	The subscriber's gender	
Subscriber Location	The subscriber's address	
Metrics (below, vertical)		
Total Security Events	In the selected time frame, the total number of security events occurring to the subscriber	<a href="#">SORT</a> the grid by the contents of the column.
Web Block Events	In the selected time frame, the number of Web/WAP events occurring to the subscriber	To view more data about a subscriber in the <b>Top Risky Categories</b> and <b>Top Risky Domains</b> , click on that subscriber's name.
Malware Events	In the selected time frame, the number of malware events occurring to the subscriber	
Phishing Events	In the selected time frame, the number of phishing events occurring to the subscriber	

Total Bandwidth (Avg)	The average of the total bandwidth per second over the selected time frame	
In Bandwidth (Avg)	The average of the in bandwidth per second over the selected time frame	
Out Bandwidth (Avg)	The average of the out bandwidth per second over the selected time frame	
Activity Time (sec)	The total connected time in the selected time frame of the subscriber that you selected as compared to the typical subscriber	

## Security Trends by Event Type

This graph presents a trend line for security events in the selected time period. You can change the type of security event to appear in the graph.

Filter		
<b>FILTER</b> this graph by <b>Time Frame</b> , to view the trend line for the subscriber that you selected by different time frames.		
Trend Graph	Tools	
Trend line of the selected type of security event		
X axis	Time span in which the trend is measured	
Y axis	Number of security events at each point in the trend	

## Top Risky Categories

This graph presents the categories for which the subscriber you selected is most likely to be subject to security events. You can filter by event type.

Filter	
<p><a href="#">FILTER</a> this graph by <b>Time Frame</b>, to view the risky categories for the subscriber that you selected by different time frames.</p>	
<b>Vertical Bar Graph</b>	
Each bar is a top risky category. The longer the bar, the more risky.	<b>Tools</b>  You can view the subscriber's top risky categories for each of the types of security events. To change the type of security event, select it from the dropdown list.  Mouse over a bar to view a tooltip containing the number of security events for that category at that time.  Toggle the view mode.

## Top Risky URLs

This graph presents the URLs for which the subscriber you selected is most likely to be subject to security events. You can filter by event type.

Filter	
<p>Filter this graph by <b>Time Frame</b>, to view the risky URLs for the subscriber that you selected by different time frames.</p>	

<b>Vertical Bar Graph</b>		<b>Tools</b>
Each bar is a top risky URL. The longer the bar, the more risky.		
X axis	The number of events in the selected time frame	
Y axis	The top risky URLs in the selected time frame	<p>You can view the subscriber's top risky URLs for each of the types of security events. To change the type of security event, select it from the dropdown list.</p> <p>Mouse over a bar to view a tooltip containing the number of security events for that URL at that time.</p> <p>Toggle the view mode.</p>

## Top Subscribers Analysis

The **Top Subscribers Analysis** report presents data about the top subscribers on your network, and enables you to filter the subscribers by gender and age group as well as others. You can also view the categories and domains that are most risky for a selected subscriber.

### Top Subscribers Analysis Grid

This grid is the main component of the report. It presents data and metrics for the subscribers with the most security events.

<b>Filter</b>
<p><b>FILTER</b> this grid by any of the following:</p> <ul style="list-style-type: none"> <li>• <b>Time Frame:</b> To view the data and metrics for the top subscribers by different time frames</li> <li>• <b>Top By:</b> To view the data and metrics for the subscribers with the most events of a specific type. If you select <b>Total Security Events</b>, then the subscribers with the most <b>Total Security Events</b> are presented.</li> </ul>

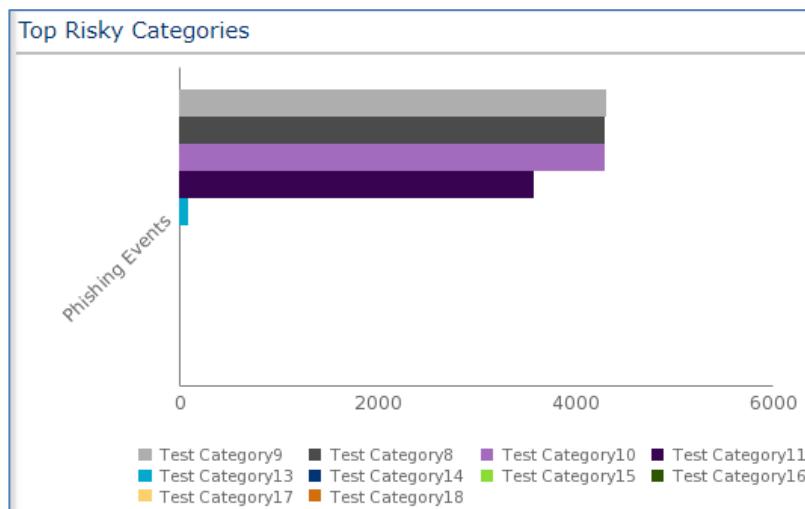
- **Filter Category:** To view the data and metrics for the subscribers with the most security events in only a specific category. If you select **All**, then the subscribers with the most security events, regardless of category, are presented.
- **Filter Gender:** To view the data and metrics for the top subscribers of only a specific gender. If you select **All**, then the subscribers with the most security events, both male and female, are presented.
- **Filter Age Group:** To view the data and metrics for the top subscribers of only a specific age group. If you select **All**, then the subscribers with the most security events, regardless of age group, are presented.

Grid Columns	Description	Tools
Name	The subscriber's name	Sort the grid by the contents of the column.
Gender	The subscriber's gender	To view more data about a subscriber in the <b>Top Risky Categories</b> and <b>Top Risky Domains</b> , click on that subscriber's name.
Address	The subscriber's address	
Age	The subscriber's age	
Total Security Events	In the selected time frame, the total number of security events occurring to the subscriber	
Average Number of Events		
Web Block Events	In the selected time frame, the number of Web/WAP events occurring to the subscriber	
Malware Events	In the selected time frame, the number of malware events occurring to the subscriber	
Phishing Events	In the selected time frame, the number of phishing events occurring to the subscriber	
Total Bandwidth (Sum)		

Total Bandwidth (Avg)	The average of the total bandwidth per second over the selected time frame	
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## Top Risky Categories

This graph drills down from the **Top Subscribers Analysis** grid to the categories for which a subscriber is most likely to be subject to security events. You can filter by event type.



## Filter

Filter the graph by the following:

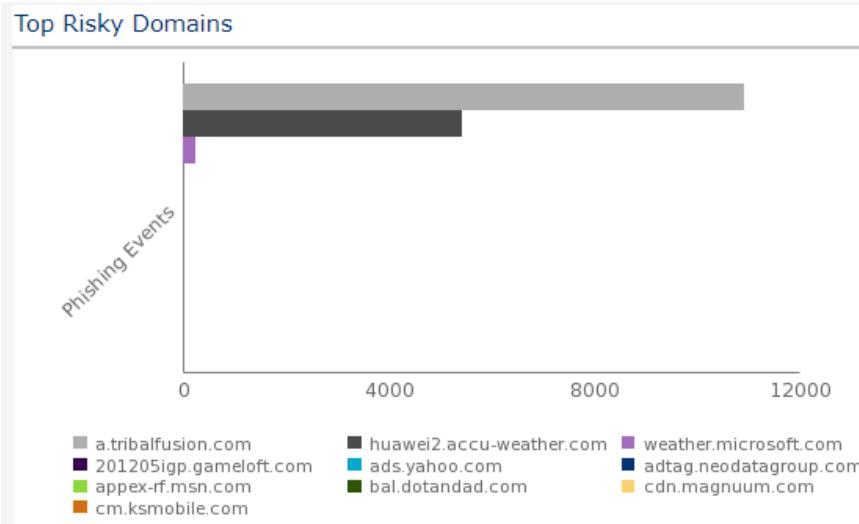
- From the top:
  - ◆ **Time Frame:** To view the risky categories for the top subscribers by different time frames
  - ◆ **Filter Gender:** To view the risky categories for the top subscribers of only a specific gender. If you select **All**, then the risky categories for the top subscribers, both male and female, are presented.

- ◆ **Filter Age Group:** To view the risky categories for the top subscribers of only a specific age group. If you select **All**, then the risky categories for the top subscribers, regardless of age group, are presented.
- From below:
  - ◆ **Filter Event Type,** to view the top risky categories of only a specific security event.

<b>Vertical Bar Graph</b>		<b>Tools</b>
Each bar is a top risky category. The longer the bar, the more risky.		You can filter the top risky categories using the filter, or you can view a specific subscriber's top risky categories by clicking that subscriber from the <b>Top Subscriber Analysis</b> grid.
X axis	The number of events in the selected time frame	Mouse over a bar to view a tooltip containing the number of security events for that category at that time.
Y axis	The top risky categories in the selected time frame	Toggle the view mode.

## Top Risky Domain

This graph drills down from the **Top Subscribers Analysis** grid to the domains for which a subscriber is most likely to be subject to security events. You can filter by event type.



### Filter

Filter the graph by the following:

- From the top:
  - ◆ **Time Frame:** To view the risky domains for the top subscribers by different time frames
  - ◆ **Filter Gender:** To view the risky domains for the top subscribers of only a specific gender. If you select **All**, then the risky domains for the top subscribers, both male and female, are presented.
  - ◆ **Filter Age Group:** To view the risky domains for the top subscribers of only a specific age group. If you select **All**, then the risky domains for the top subscribers, regardless of age group, are presented.
- From below:
  - ◆ **Filter Event Type,** to view the top risky domains of only a specific security event.

### Vertical Bar Graph

Each bar is a top risky domain. The longer the bar, the riskier the domain.

### Tools

X axis	The number of events in the selected time frame	
Y axis	The top risky domains in the selected time frame	<p>You can filter the top risky domains using the filter, or you can view a specific subscriber's top risky domains by clicking that subscriber from the <b>Top Subscriber Analysis</b> grid.</p> <p>Mouse over a bar to view a tooltip containing the number of security events for that domain at that time.</p> <p>Toggle the view mode.</p>

## NetProtect Statistics

The **NetProtect Statistics** report is actually comprised of similar sub-reports for each of the NetProtect services. Each sub-report presents the last 24 hours of that service's data.

To open the sub-reports, see [HERE](#). For a description of each sub-report, see the following:

- [WEB/WAP SUB-REPORT](#)
- [ADS FREE SUB-REPORT](#)
- [ANTIVIRUS SUB-REPORT](#)
- [ANTIPIHISHING SUB-REPORT](#)
- [ANTI~~SPAM~~.IN SUB-REPORT](#)
- [ANTI~~SPAM~~.OUT SUB-REPORT](#)

## Opening a NetProtect Sub-Report

This procedure describes how to open any of the NetProtect sub-reports.

To open a NetProtect sub-report:

1. From the Reporting panel, select Security > NetProtect Statistics.  
**NetProtect Statistics** opens, on the **Web/WAP** sub-report.
2. From the **Filtering** toolbar, from the **Last 24 Hours By** dropdown list, select the NetProtect service whose data you want to view.  
The sub-report appears, presenting that service's data from the last 24 hours.

## Web/WAP Sub-Report

The **Web/WAP** report provides key data on the Web/WAP service, focusing on the blocking of subscriber requests for URLs, and on the categories of those URLs.

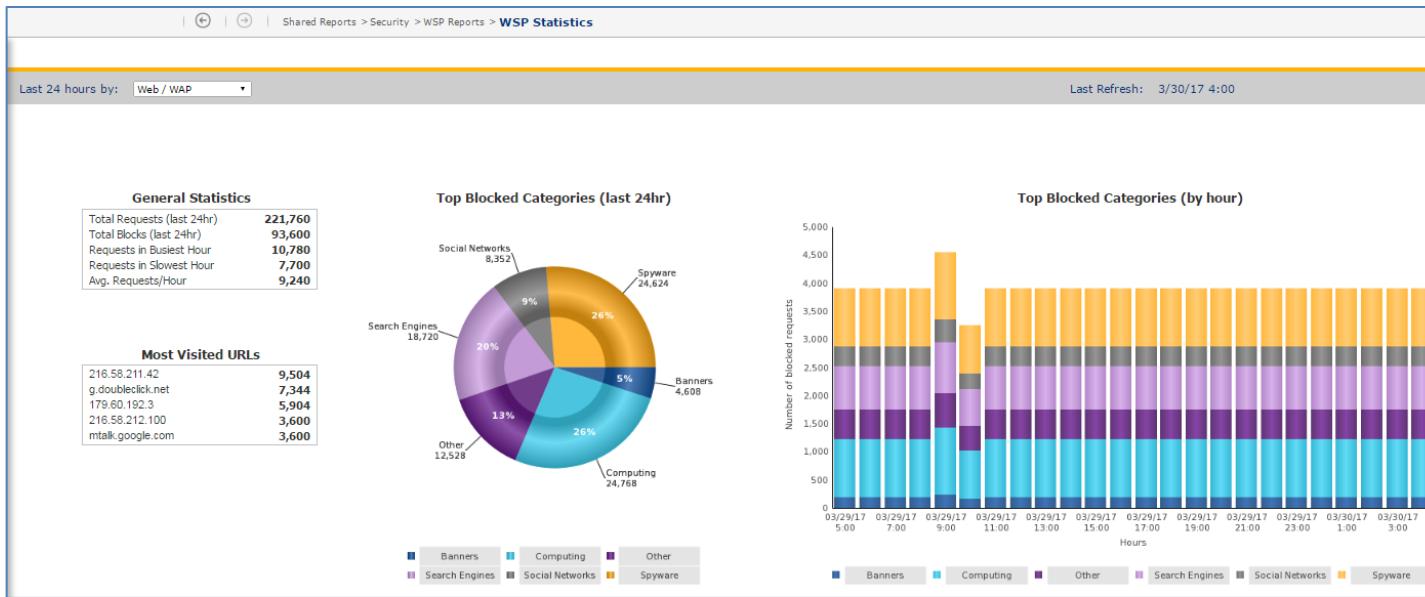


Figure 4-17: Web/WAP Sub-Report

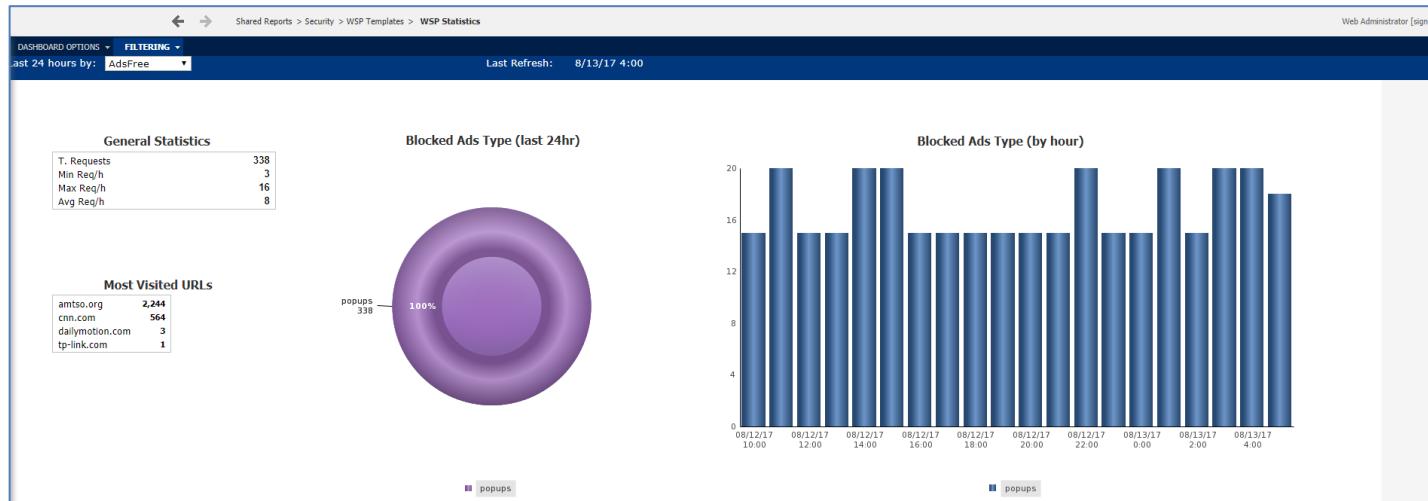
The **Web/WAP** report is comprised of the following panels:

- **General Statistics:** In a table, the following statistics:
  - ◆ **Total Requests (last 24 hr):** In the last 24 hours, the total requests by subscribers for URLs, both those that were blocked and those that were allowed
  - ◆ **Total Blocks (last 24 hr):** In the last 24 hours, the total requests by subscribers that were blocked
  - ◆ **Requests in Busiest Hour:** Out of the last 24 hours, the total requests in the hour with the most requests
  - ◆ **Requests in Slowest Hour:** Out of the last 24 hours, the total requests in the hour with the fewest requests
  - ◆ **Avg. Requests/Hour:** In the last 24 hours, the average number of requests per hour
- **Most Visited URLs:** In a table, the most visited URLs in the last 24 hours, and number of times those URLs were visited.

- **Top Blocked Categories (last 24hr):** In a pie graph, the categories that were blocked the most in the last 24 hours. Each slice is a category.
- **Top Blocked Categories (by hour):** In a bar graph, for each of the last few hour, the top blocked categories. Each vertical bar is an hour. The bar is broken up by the top blocked categories for that hour.

## Ads Free Sub-Report

The **Ads Free** report provides key data on the Ads Free service, focusing on the blocking of ads, and on the types of ads blocked.



**Figure 4-18: Ads Free Sub-Report**

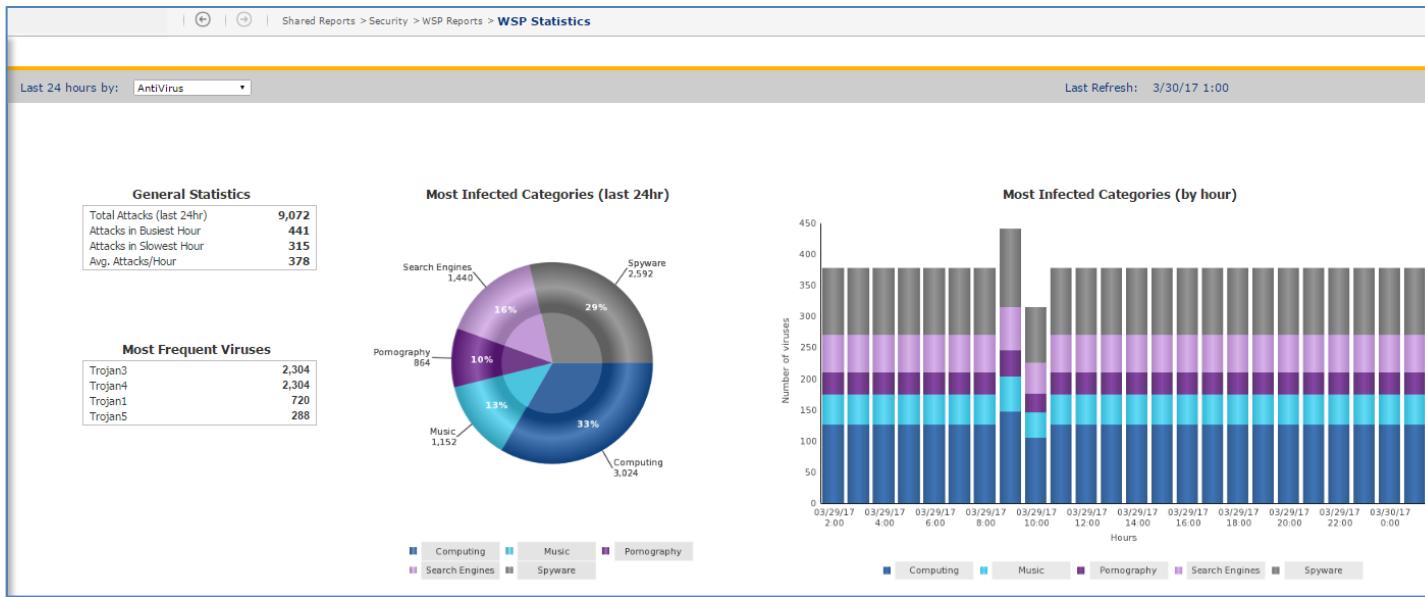
The **Ads Free** report is comprised of the following panels:

- **General Statistics:** In a table, the following statistics:
  - ◆ **Total Requests (last 24 hr):** In the last 24 hours, the total requests by subscribers for ads, both those that were blocked and those that were allowed

- ◆ **Requests in Slowest Hour:** Out of the last 24 hours, the total ad requests in the hour with the fewest requests
- ◆ **Requests in Busiest Hour:** Out of the last 24 hours, the total ad requests in the hour with the most requests
- ◆ **Avg. Requests/Hour:** In the last 24 hours, the average number of ad requests per hour
- **Most Visited URLs:** In a table, the most visited ad URLs in the last 24 hours, and number of times those URLs were visited.
- **Top Blocked Categories (last 24hr):** In a pie graph, the types of ads that were blocked the most in the last 24 hours. Each slice is a type of ad.
- **Top Blocked Categories (by hour):** In a bar graph, for each of the last few hour, the top blocked ad types. Each vertical bar is an hour. The bar is broken up by the top blocked ad types for that hour.

## Antivirus Sub-Report

The Antivirus report provides key data on the Antivirus service, focusing on the frequency of virus attacks, and on the categories of the content in which the viruses attacked.



**Figure 4-19: Antivirus Sub-Report**

The **Antivirus** report is comprised of the following panels:

- **General Statistics:** In a table, the following statistics:
  - ◆ **Total Attacks (last 24 hr):** In the last 24 hours, the total number of virus attacks upon subscribers
  - ◆ **Attacks in Busiest Hour:** Out of the last 24 hours, the total attacks in the hour with the most attacks
  - ◆ **Attacks in Slowest Hour:** Out of the last 24 hours, the total attacks in the hour with the fewest attacks
  - ◆ **Avg. Attacks/Hour:** In the last 24 hours, the average number of attacks per hour
- **Most Frequent Viruses:** In a table, the most frequent viruses in the last 24 hours, and number of times those viruses attacked.
- **Most Infected Categories (last 24hr):** In a pie graph, the categories of the content most under attack by viruses in the last 24 hours. Each slice is a category.

- **Top Blocked Categories (by hour):** In a bar graph, for each of the last few hour, the categories of the content most under attack by viruses. Each vertical bar is an hour. The bar is broken up by the most attacked categories for that hour.

## AntiPhishing Sub-Report

The AntiPhishing report provides key data on the AntiPhishing service, focusing on the frequency of the phishing attacks, and on the categories of those attacks.

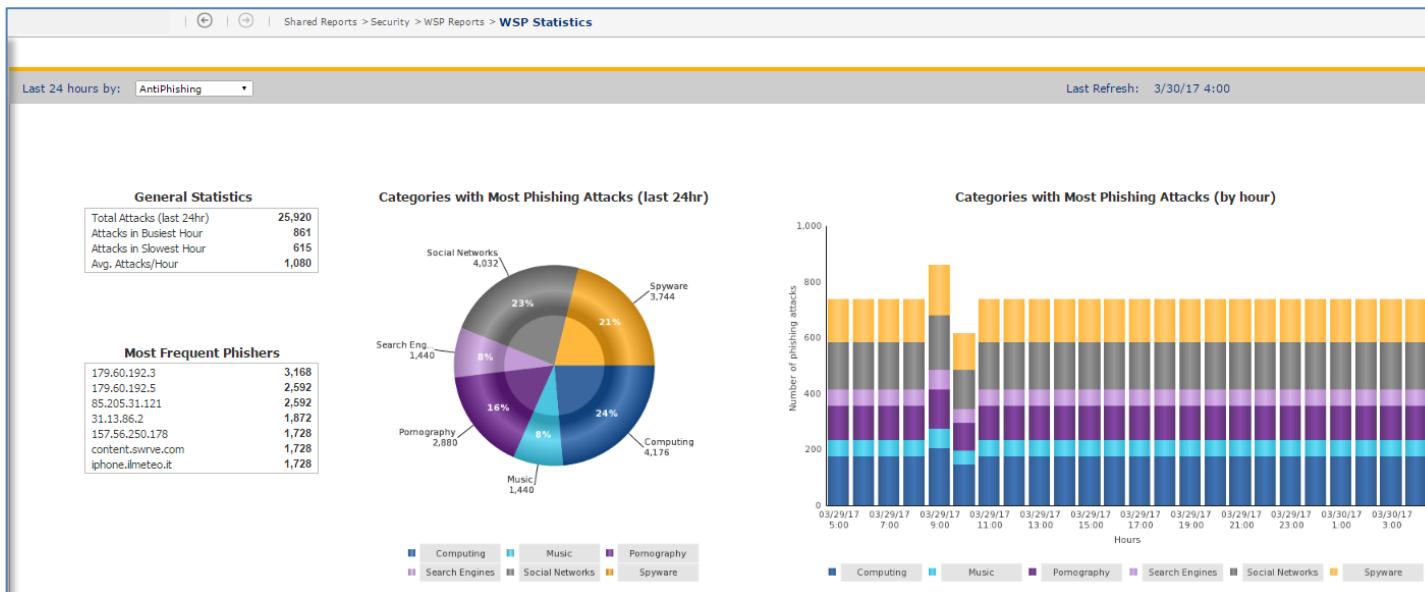


Figure 4-20: AntiPhishing Sub-Report

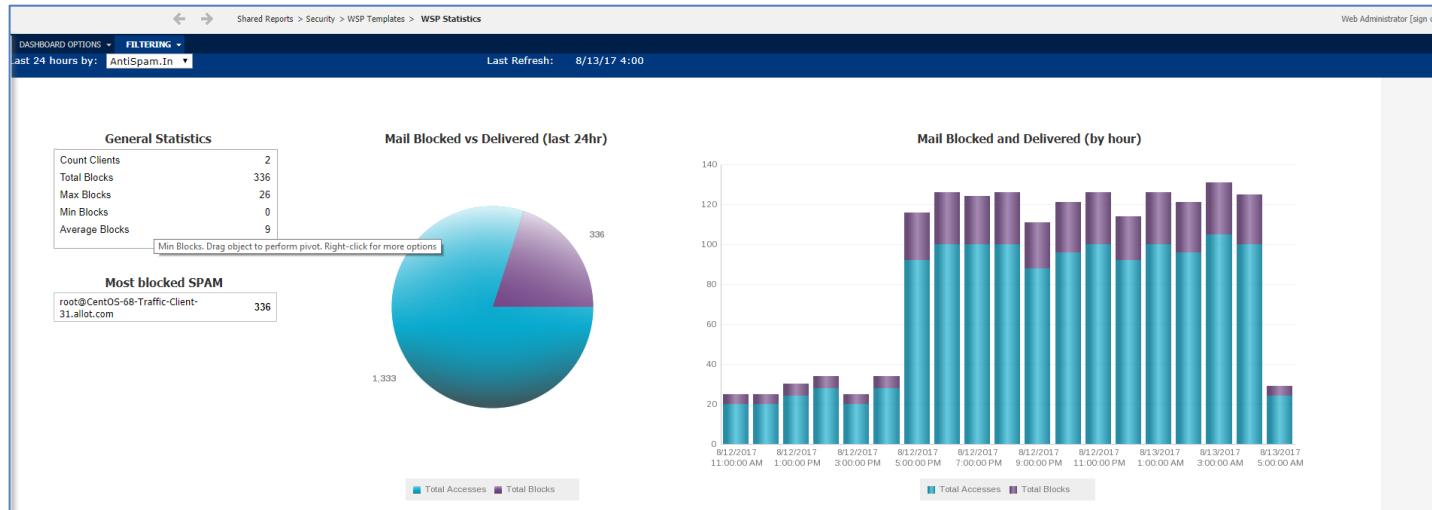
The AntiPhishing report is comprised of the following panels:

- **General Statistics:** In a table, the following statistics:
  - ◆ **Total Attacks (last 24 hr):** In the last 24 hours, the total phishing attacks upon subscribers
  - ◆ **Attacks in Busiest Hour:** Out of the last 24 hours, the total attacks in the hour with the most attacks

- ◆ **Attacks in Slowest Hour:** Out of the last 24 hours, the total attacks in the hour with the fewest attacks
- ◆ **Avg. Attacks/Hour:** In the last 24 hours, the average number of attacks per hour
- **Most Frequent Phishers:** In a table, the most frequent phishers in the last 24 hours, and number of times those phishers performed phishing attacks.
- **Categories with the Most Phishing Attacks (last 24hr):** In a pie graph, the categories upon which phishing attacks were most based in the last 24 hours. Each slice is a category.
- **Top Blocked Categories (by hour):** In a bar graph, for each of the last few hour, the categories upon which phishing attacks were most based. Each vertical bar is an hour. The bar is broken up by the top phishing categories for that hour.

## AntiSpam.In Sub-Report

The **AntiSpam.In** report provides key data on the AntiSpam.In service, focusing on the blocking of incoming spam, and on the ratio of blocked emails to delivered emails.



### Figure 4-21: AntiSpam.In Sub-Report

The **AntiSpam.In** report is comprised of the following panels:

- ◆ **Avg. Clients/Hour:** In the last 24 hours, the average number of clients with incoming spam events per hour
- ◆ **Total Blocks (last 24 hr):** In the last 24 hours, the total of incoming emails that were blocked for being spam
- ◆ **Blocks in Busiest Hour:** Out of the last 24 hours, the total blocks of incoming emails in the hour with the most blocks of incoming emails
- ◆ **Blocks in Slowest Hour:** Out of the last 24 hours, the total blocks of incoming emails in the hour with the fewest blocks of incoming emails
- ◆ **Avg. Blocks/Hour:** In the last 24 hours, the average number of blocks of incoming emails per hour
- **Most Blocked Spam:** In a table, the most blocked incoming spam in the last 24 hours, and number of times spam events occurred because of them.
- **Blocked vs. Delivered Emails (last 24hr):** In a pie graph, the ratio between incoming emails that were blocked against incoming emails that were delivered.
- **Top Blocked Categories (by hour):** In a bar graph, for each of the last few hour, the ratio between incoming emails that were blocked against incoming emails that were delivered. Each vertical bar is an hour. The bar is broken into a segment of incoming emails that were blocked and a segment of incoming emails that were delivered.

### AntiSpam.Out Sub-Report

The **AntiSpam.In** report provides key data on the AntiSpam.Out service, focusing on the blocking of outgoing spam, and on the ratio of blocked emails to delivered emails.



**Figure 4-22: AntiSpam.In Sub-Report**

The **AntiSpam.Out** report is comprised of the following panels:

- **General Statistics:** In a table, the following statistics:
  - ◆ **Avg. Blocks/Hour:** In the last 24 hours, the average number of blocks of outgoing emails per hour
  - ◆ **Avg. Clients/Hour:** In the last 24 hours, the average number of clients with outgoing spam events per hour
  - ◆ **Blocks in Busiest Hour:** Out of the last 24 hours, the total blocks of outgoing emails in the hour with the most blocks of outgoing emails
  - ◆ **Blocks in Slowest Hour:** Out of the last 24 hours, the total blocks of outgoing emails in the hour with the fewest blocks of outgoing emails
  - ◆ **Total Blocks (last 24 hr):** In the last 24 hours, the total of outgoing emails that were blocked for being spam
- **Most Blocked Spam:** In a table, the most blocked outgoing spam in the last 24 hours, and number of times spam events occurred because of them.

- **Blocked vs. Delivered Emails (last 24hr):** In a pie graph, the ratio between outgoing emails that were blocked against outgoing emails that were delivered.
- **Top Blocked Categories (by hour):** In a bar graph, for each of the last few hour, the ratio between outgoing emails that were blocked against outgoing emails that were delivered. Each vertical bar is an hour. The bar is broken into a segment of outgoing emails that were blocked and a segment of outgoing emails that were delivered.

## NetProtect Reports

The **NetProtect Reports** are templates that you can edit similar to reports created using Self-Service. These templates report on the NetProtect activity in your deployment and, unless otherwise specified, the time period is always the last full day (yesterday). **NetProtect Reports** are arranged according to service, such as **Anti-Phishing**, **Antivirus**, Auditing and **Web Content Filter**.

To get started, see [OPENING A NETPROTECT TEMPLATE](#). You can do the following actions in **NetProtect Reports**:

- [SORTING IN TEMPLATE GRIDS](#)
- [FILTERING IN TEMPLATE GRIDS](#)

Following are the services into which the **NetProtect Reports** are arranged:

- [ANTIPIHISHING TEMPLATES](#)
- [ANTISPAM.IN TEMPLATES](#)
- [ANTISPAM.OUT TEMPLATES](#)
- [ANTIVIRUS TEMPLATES](#)
- [AUDITING TEMPLATES](#)
- [AUTONOTICE TEMPLATES](#)
- [MONITORING TEMPLATES](#)
- [WEB CONTENT FILTER TEMPLATES](#)

### Opening a NetProtect Template

This procedure describes how to open a template in **NetProtect Reports**.

To open a NetProtect template:

1. From the **Reporting** panel, click **Security > NetProtect Reports**, and then select the service containing the NetProtect template.
2. Click the NetProtect template you want to open.

The NetProtect template opens.

3. If you want to change the time period that the template presents, or the metrics or attributes, from the toolbar, do the following:
    - a. Select Refresh .
- Report Criteria appears.

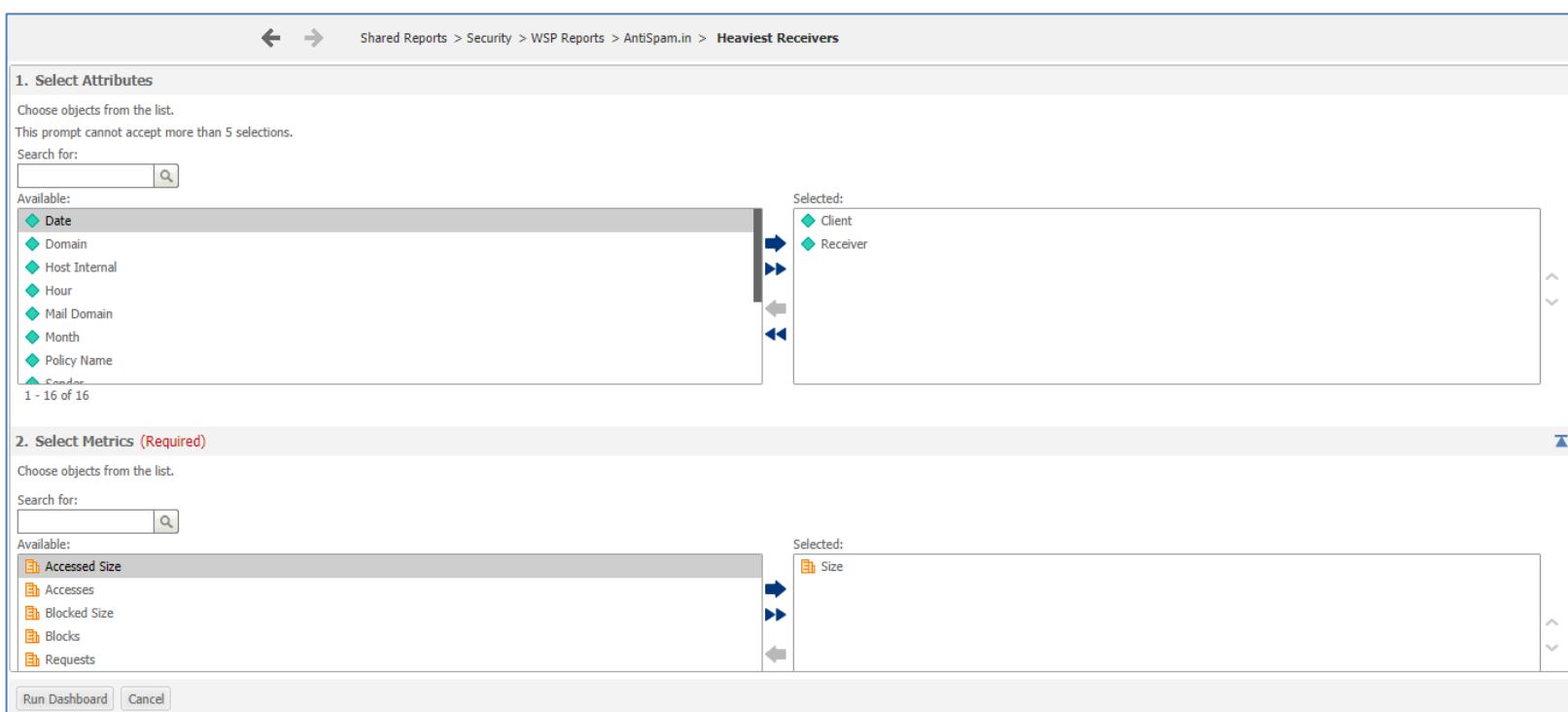


Figure 4-23: Security Template Report Criteria

- b. Continue with **SELECTING REPORT CRITERIA**.

## Sorting in Template Grids

This procedure describes how to sort rows in a template grid by the contents of a column in ascending or descending order.

To sort a template grid by the contents of a column:

1. Hover over the header of the column by which you want to sort the rows in the grid, so that the menu button  appears.
2. Click the menu button, and then, from the menu, do one of the following:
  - ◆ Select **Sort Ascending** if you want the rows of the grid to be sorted in ascending order, so that the lowest value is on top.
  - ◆ Select **Sort Descending** if you want the rows of the grid to be sorted in descending order, so that the highest value is on top.

## Filtering in Template Grids

This procedure describes how to filter a template grid by an attribute item.

To filter a template grid by an attribute item:

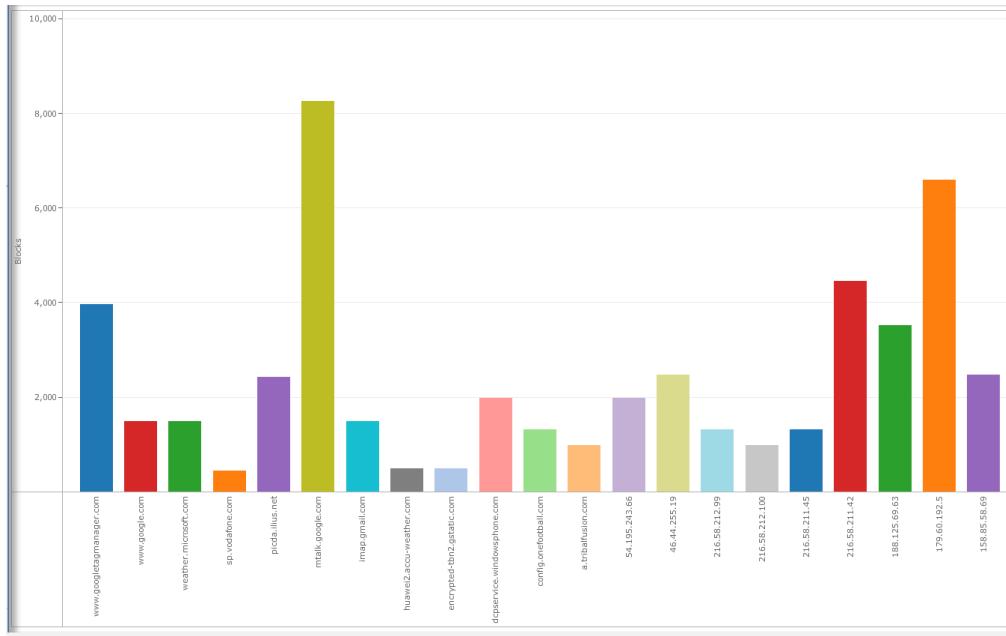
1. Right-click the cell of the attribute item by which you want to filter the grid, and then do one of the following:
  - ◆ Select **Keep Only** if you want only rows to appear that contain that attribute.
  - ◆ Select **Exclude** if you want all rows to appear except those containing that attribute.
2. To remove a filter, do the following:
  - a. Hover over the graph, so that the menu button  appears.
  - b. Click the menu button, and then, from the menu, and then do one of the following:
    - Select **Clear All** if you want to clear all filters that you have implemented.
    - Select the filter you specifically want to clear.

The filter is removed.

## AntiPhishing Templates

### AntiPhishing by Site

This template presents the domains that yesterday were blocked the most for phishing attempts.



The **AntiPhishing by Site** template is comprised of a graph, which presents the domains most blocked yesterday for phishing attempts. Each bar is a domain.

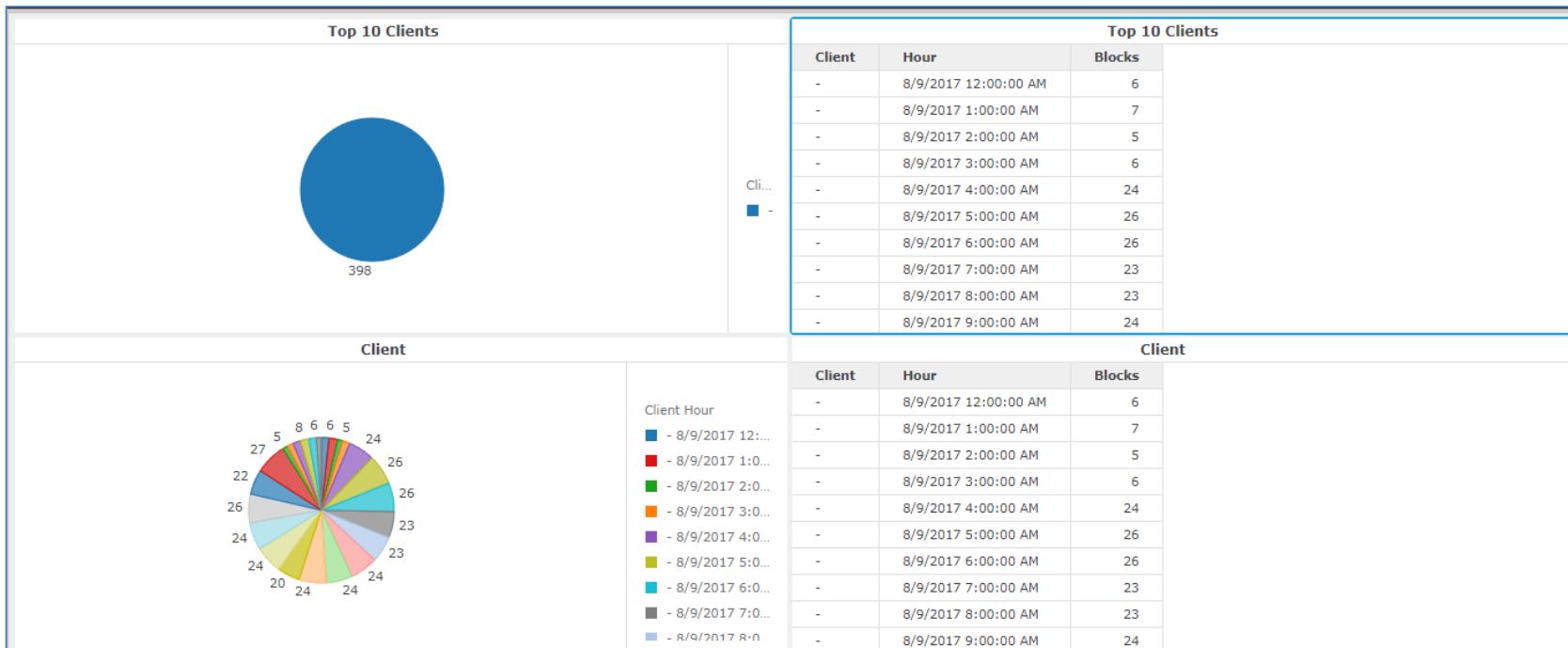
What you can do:

- Hover over a bar for a tooltip showing the domain name and the number of phishing blocks caused on the domain.

## AntiSpam.In Templates

### Blocking Action

This template presents the number of times yesterday that AntiSpam.In blocked incoming emails.



The **Blocked Action** template is comprised of the following panels:

- **Graph (top left):** In a pie graph, the 10 subscribers whose incoming emails were blocked the most as spam, in which each slice is a subscriber, and the size of the slice depends on the amount of blocked emails
- **Grid (top right):** In a grid, the 10 subscribers whose incoming emails were blocked the most as spam, and the number of times their emails were blocked

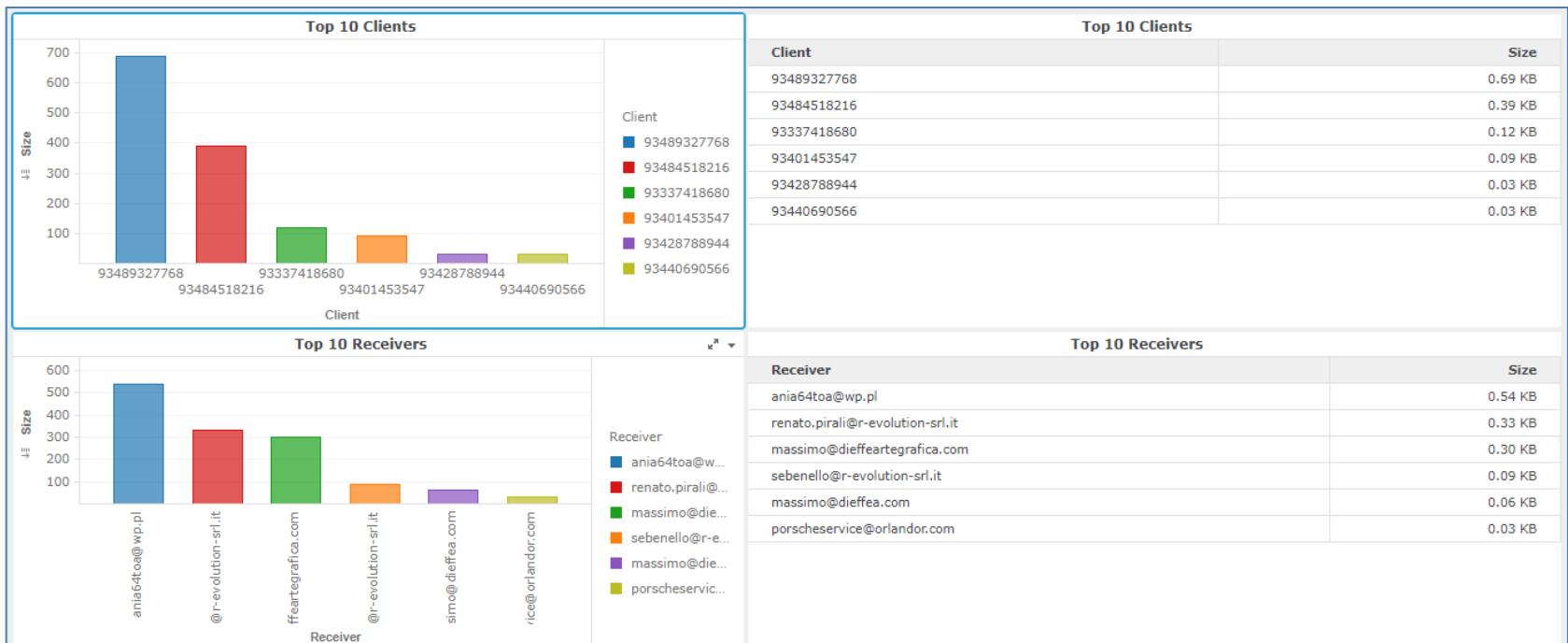
- **Graph (bottom left):** In a pie graph, the day broken down by hour, in which each slice is an hour.
- **Grid (bottom right):** In a grid, each subscriber broken down by hour of the day, and the number of times the subscriber's incoming emails were blocked as spam in that hour

What you can do:

- In the graphs, hover over a slice for a tooltip showing the subscriber name, the number of spam blocks and the percentage that slice is of the whole.
- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients or domains.

## Heaviest Receivers

This template presents the subscribers who yesterday received the most emails in terms of file size.



The **Heaviest Receivers** template is comprised of the following panels:

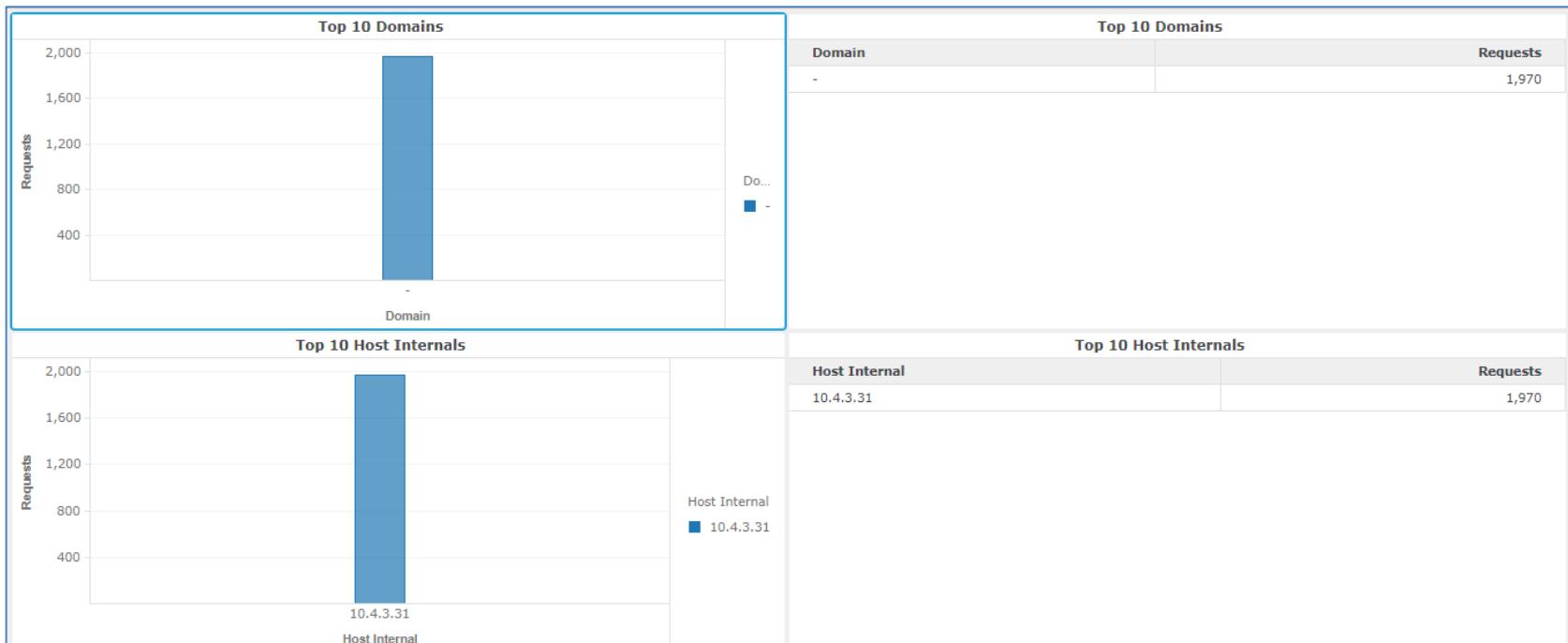
- **Graph (top left):** In a bar graph, the 10 subscribers who received the most email in terms of file size, in which each bar is a subscriber, and the height of the bar depends on the file size of the emails in total
- **Grid (top right):** In a grid, the 10 subscribers who received the most email in terms of file size, and the file size of the emails in total
- **Graph (bottom left):** In a bar graph, the 10 email addresses that received the most email in terms of file size, in which each bar is an email address, and the height of the bar depends on the file size of the emails in total
- **Grid (bottom right):** In a grid, the 10 email addresses that received the most email in terms of file size, and the file size of the emails in total

What you can do:

- In the graphs, hover over a bar for a tooltip showing the subscriber or email address name, and the file size of the emails in total.
- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients or domains.

## Most Active Spammers

This template presents the domains and internal hosts that yesterday spammed the subscribers on your network the most, as detected by AntiSpam.In.



The **Most Active Spammers** template is comprised of the following panels:

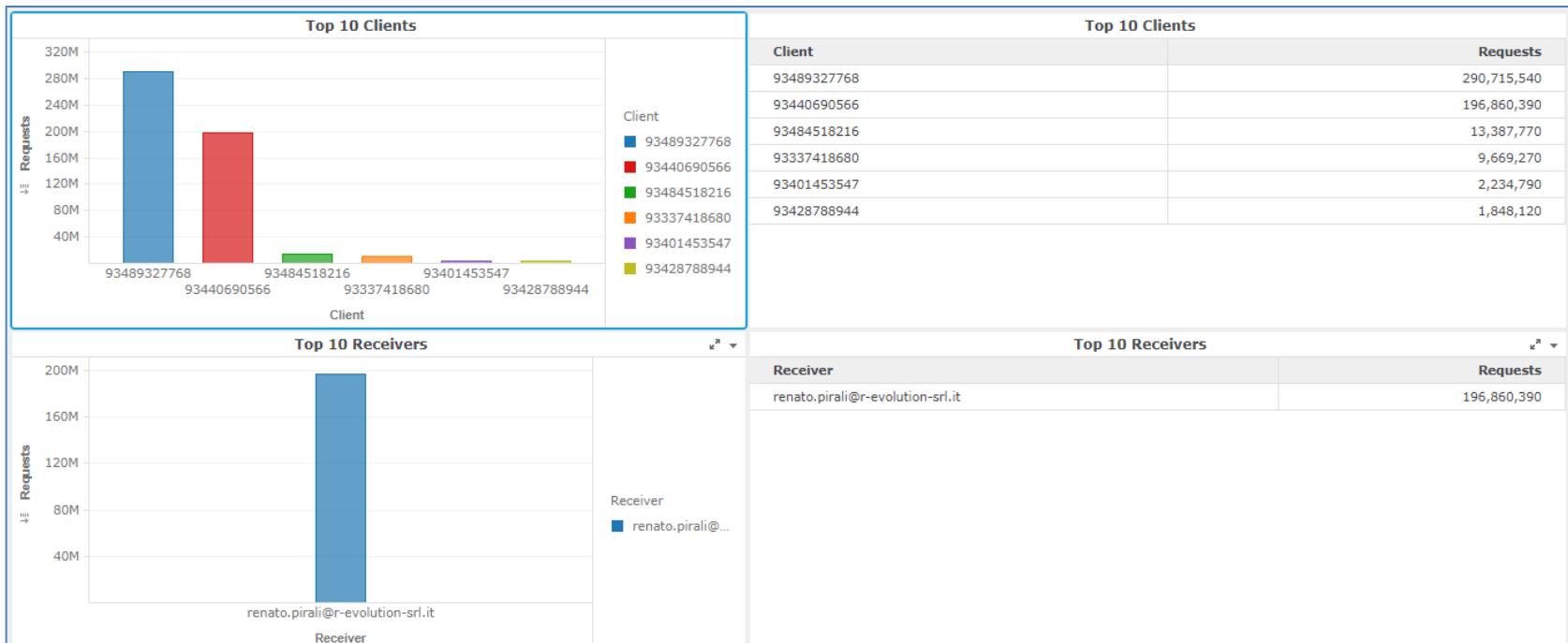
- **Graph (top left)**: In a bar graph, the 10 domains that have most spammed your subscribers, in which each bar is a domain, and the height of the bar depends on how much the domain has spammed your subscribers
- **Grid (top right)**: In a grid, the 10 domains that have most spammed your subscribers, and how much the domain has spammed your subscribers
- **Graph (bottom left)**: In a bar graph, the 10 internal hosts that have most spammed your subscribers, in which each bar is an internal host, and the height of the bar depends on how much the internal host has spammed your subscribers
- **Grid (bottom right)**: In a grid, the 10 internal hosts that have most spammed your subscribers, and how much the internal host has spammed your subscribers

What you can do:

- In the graphs, hover over a bar for a tooltip showing the domain or internal host name, and the number of spam events.
- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients or domains.

## Most Frequent Receivers

This template presents the subscribers who yesterday had the most email events.



The **Most Frequent Receivers** template is comprised of the following panels:

- **Graph (top left):** In a bar graph, the 10 subscribers with the most email events, in which each bar is a subscriber, and the height of the bar depends on the number of email events
- **Grid (top right):** In a grid, the 10 subscribers with the most email events, and the number of email events
- **Graph (bottom left):** In a bar graph, the 10 subscribers with the most email events, in which each bar is an email address, and the height of the bar depends on the number of email events
- **Grid (bottom right):** In a grid, the 10 email addresses that received the most email events, and the number of email events

What you can do:

- In the graphs, hover over a bar for a tooltip showing the subscriber or email address name, and the number of email events.
- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients or domains.

## Most Frequent Receivers of Spam

This template presents the subscribers who yesterday had the most spam events.

The **Most Frequent Receivers** template is comprised of the following panels:

- **Graph (top left)**: In a bar graph, the 10 subscribers who had the most spam events, in which each bar is a subscriber, and the height of the bar depends on the number of spam events
- **Grid (top right)**: In a grid, the 10 subscribers who had the most spam events, and the number of spam events
- **Graph (bottom left)**: In a bar graph, the 10 email addresses who had the most spam events, in which each bar is an email address, and the height of the bar depends on the number of spam events
- **Grid (bottom right)**: In a grid, the 10 email addresses that had the most spam events, and the number of spam events

What you can do:

- In the graphs, hover over a bar for a tooltip showing the subscriber or email address name, and the number of spam events.
- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients or domains.

## AntiSpam.Out Templates

### Blocking Action

This template presents the number of times yesterday that AntiSpam.In blocked outgoing emails.

The **Blocked Action** template is comprised of the following panels:

- **Graph (top left):** In a pie graph, the 10 subscribers whose outgoing emails were blocked the most as spam, in which each slice is a subscriber, and the size of the slice depends on the amount of blocked emails
- **Grid (top right):** In a grid, the 10 subscribers whose outgoing emails were blocked the most as spam, and the number of times their emails were blocked
- **Graph (bottom left):** In a pie graph, the day broken down by hour, in which each slice is an hour.
- **Grid (bottom right):** In a grid, each subscriber broken down by hour of the day, and the number of times the subscriber's outgoing emails were blocked as spam in that hour

What you can do:

- In the graphs, hover over a slice for a tooltip showing the subscriber name, the number of spam blocks and the percentage that slice is of the whole.
- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients or domains.

## Frequent Senders

This template presents the subscribers that yesterday sent the largest number of emails.

The **Frequent Senders** template is comprised of the following panels:

- **Graph (top left):** In a bar graph, the 10 subscribers who sent the most emails, in which each bar is a subscriber, and the height of the bar depends on the number of emails
- **Grid (top right):** In a grid, the 10 subscribers who sent the most emails, and the number of emails
- **Graph (bottom left):** In a bar graph, the 10 subscribers who sent the most emails, in which each bar is an email address, and the height of the bar depends on the number of emails

- **Grid (bottom right):** In a grid, the 10 email addresses that sent the most emails, and the number of emails

What you can do:

- In the graphs, hover over a bar for a tooltip showing the subscriber or email address name, and the number of emails.
- In the grids, [SORT](#) any of the columns in ascending or descending order.
- In the grids, [FILTER](#) by any of the clients or domains.

## Heaviest Senders

This template presents the subscribers that yesterday sent the most emails in terms of file size.

The **Heaviest Senders** template is comprised of the following panels:

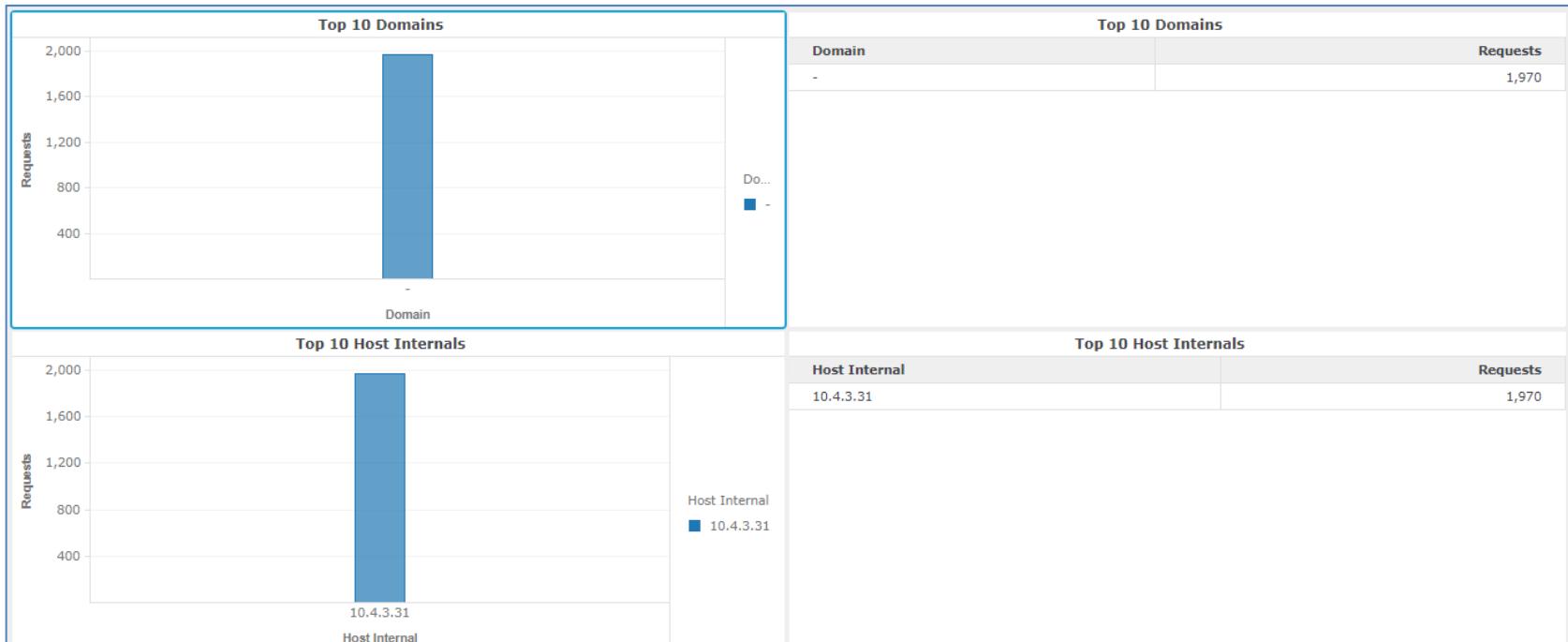
- **Graph (top left):** In a bar graph, the 10 subscribers who sent the most email in terms of file size, in which each bar is a subscriber, and the height of the bar depends on the file size of the emails in total
- **Grid (top right):** In a grid, the 10 subscribers who sent the most email in terms of file size, and the file size of the emails in total
- **Graph (bottom left):** In a bar graph, the 10 email addresses that sent the most email in terms of file size, in which each bar is an email address, and the height of the bar depends on the file size of the emails in total
- **Grid (bottom right):** In a grid, the 10 email addresses that sent the most email in terms of file size, and the file size of the emails in total

What you can do:

- In the graphs, hover over a bar for a tooltip showing the subscriber or email address name, and the file size of the emails in total.
- In the grids, [SORT](#) any of the columns in ascending or descending order.
- In the grids, [FILTER](#) by any of the clients or domains.

## Most Active Senders

This template presents the internal domains and hosts that yesterday sent the most emails, as detected by AntiSpam.Out.



The **Most Active Senders** template is comprised of the following panels:

- **Graph (top left):** In a bar graph, the 10 domains within your network that have sent the most emails, in which each bar is a domain, and the height of the bar depends on how many emails the domain has sent

- **Grid (top right):** In a grid, the 10 domains within your network that have sent the most emails, and how many emails the domain has sent
- **Graph (bottom left):** In a bar graph, the 10 hosts within your network that have sent the most emails, in which each bar is a host, and the height of the bar depends on how many emails the domain has sent
- **Grid (bottom right):** In a grid, the 10 hosts within your network that have sent the most emails, and how many emails the host has sent

What you can do:

- In the graphs, hover over a bar for a tooltip showing the domain or host name, and the number of email events.
- In the grids, [SORT](#) any of the columns in ascending or descending order.
- In the grids, [FILTER](#) by any of the clients or domains.

## Antivirus Templates

### Weekly Antivirus Web Report

The **Weekly Antivirus Web Report** lists the viruses most blocked by NetProtect Antivirus in the last week, and the number of times each was blocked in that time period.

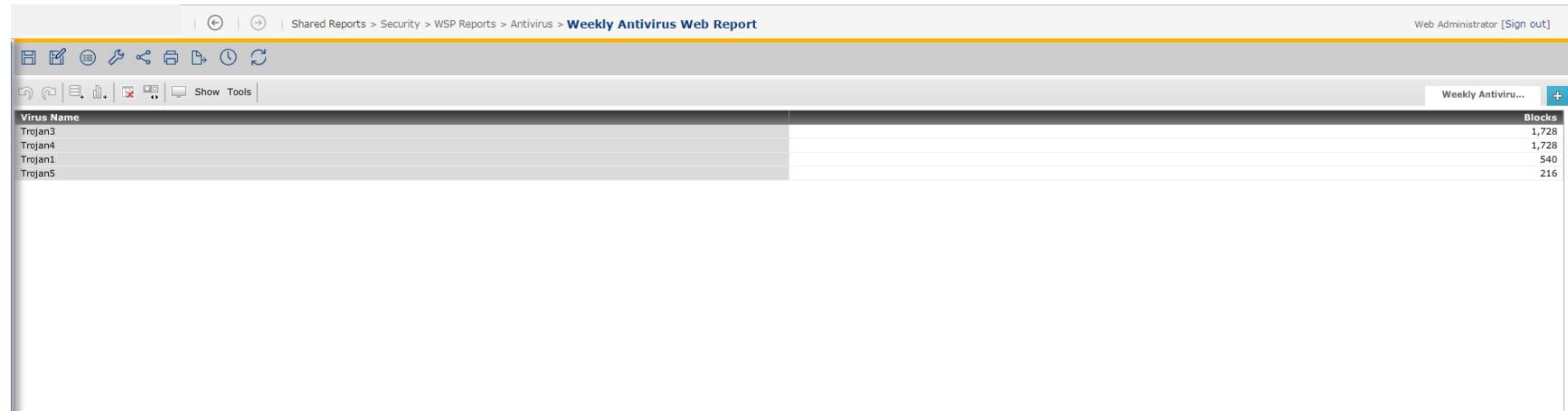


Figure 4-24: Weekly Antivirus Web Report

What you can do:

- **SORT** any of the columns in ascending or descending order.

### Monthly Antivirus Web Report

The **Monthly Antivirus Web Report** lists the viruses most blocked by NetProtect Antivirus in the last complete calendar month, and the number of times each was blocked in that time period.

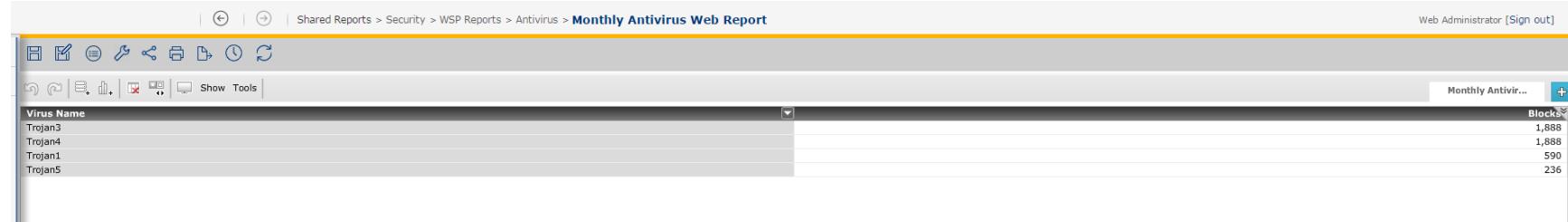


Figure 4-25: Monthly Antivirus Web Report

What you can do:

- **SORT** any of the columns in ascending or descending order.

## Auditing Templates

### Change in Administrators (Last Week)

The **Change in Administrators (Last Week)** template lists the administrators that were changed in the last week and, for each change, the administrator who made the change.

What you can do:

- **SORT** any of the columns in ascending or descending order.

### Change in Policies (Last Week)

The **Change in Policies (Last Week)** template lists the policies that were changed in the last week and, for each change, the administrator who made the change.

What you can do:

- **SORT** any of the columns in ascending or descending order.

### Change in Profiles (Last Week)

The **Change in Profiles (Last Week)** template lists the profiles that were changed in the last week and, for each change, the administrator who made the change.

What you can do:

- **SORT** any of the columns in ascending or descending order.

### Change in Schedules (Last Week)

The **Change in Schedules (Last Week)** template lists the schedules that were changed in the last week and, for each change, the administrator who made the change.

What you can do:

- **SORT** any of the columns in ascending or descending order.

### Change in Source & Destination (Last 7 Days)

The **Change in Source & Destination (Last 7 Days)** template lists the source & destination that were changed in the last seven days and, for each change, the administrator who made the change.

What you can do:

- **SORT** any of the columns in ascending or descending order.

### Change in Users

The **Change in Users (Last Week)** template lists the users that were changed in the last week and, for each change, the administrator who made the change.

What you can do:

- **SORT** any of the columns in ascending or descending order.

### Logon by Roles (Last 7 Days)

The **Logon by Roles (Last 7 Days)** template lists the roles by which logins were made in the last seven days, each date on which logins were successful under the roles, and the number of successful logins on that date under that role.

Logon by Roles (Last 7 Days)		
Role	Date	Successes
128	8/3/2017	4
2048	8/3/2017	2
128	8/4/2017	1
128	8/6/2017	3

What you can do:

- **SORT** any of the columns in ascending or descending order.

## Login Summary (Last Month)

The **Login Summary (Last Month)** template lists all the subscribers that logged in to NetProtect in the last month, each date on which they successfully logged in to NetProtect, and the number of successful logins on that date from the subscriber.

Logon Summary (Last 30 Days)			
User Name	Date	Successes	
user_sys	8/3/2017	6	
user_sys	8/4/2017	1	
user_sys	8/6/2017	3	
user_sys	8/7/2017	5	
user_sys	8/8/2017	2	
user_sys	8/9/2017	4	

What you can do:

- **SORT** any of the columns in ascending or descending order.
- **FILTER** by any of the user names or dates.

## AutoNotice Templates

### Notice by URL

The **Notice by URL** template lists by URL all the AutoNotice notices that appeared for subscribers yesterday, and the number of times each notice appeared.

What you can do:

- **SORT** any of the columns in ascending or descending order.
- **FILTER** by any of the notice URLs or names.

## Number of Notices by Client

The **Number of Notices by Client** template lists all the AutoNotice notices that appeared for customers yesterday, as well as the number of times each notice appeared and the subscribers for which each notice appeared.

What you can do:

- **SORT** any of the columns in ascending or descending order.
- **FILTER** by any of the notice names or the subscribers for which they appeared.

## Top 10 Notices

The **Top 10 Notices** template lists the 10 AutoNotice notices that appeared the most times for subscribers yesterday, and the number of times each notice appeared.

What you can do:

- **SORT** any of the columns in ascending or descending order.

## Monitoring Templates

### AntiSpam Template

The **AntiSpam** Monitoring template presents a trend graph for yesterday with the number of rows in the internal AntiSpam.In and AntiSpam.Out buckets, per hour.

What you can do:

- Hover over the graph for the number of rows in the AntiSpam buckets in that hour.

### CCOTTA Template

The **CCOTTA** Monitoring template presents a trend graph for yesterday with the number of rows in the internal CCOTTA bucket, per hour.

What you can do:

- Hover over the graph for the number of rows in the CCOTTA bucket in that hour.

## Central Manager Template

The **Central Manager** Monitoring template presents a trend graph for yesterday with the number of rows in the internal Central Manager bucket, per hour.

What you can do:

- Hover over the graph for the number of rows in the Central Manager bucket in that hour.

## Process Monitor Template

The **Process Monitor** Monitoring template presents a trend graph for yesterday with the number of rows in the internal Process Monitor bucket, per hour.

What you can do:

- Hover over the graph for the number of rows in the Process Monitor bucket in that hour.

## Quarantine Template

The **Quarantine** Monitoring template presents a trend graph for yesterday with the number of rows in the internal Quarantine bucket, per hour.

What you can do:

- Hover over the graph for the number of rows in the Quarantine bucket in that hour.

## Reporter Template

The **Reporter** Monitoring template presents a trend graph for yesterday with the number of rows in the internal Reporter bucket, per hour.

What you can do:

- Hover over the graph for the number of rows in the Reporter bucket in that hour.

## Web Filter Template

The **Web Filter** Monitoring template presents a trend graph for yesterday with the number of rows in the internal Web Filter bucket, per hour.

What you can do:

- Hover over the graph for the number of rows in the Web Filter bucket in that hour.

## WebServer Template

The **WebServer** Monitoring template presents a trend bar graph for yesterday with the number of rows in the internal WebServer buckets, per hour. Each bar represents one hour.

What you can do:

- Hover over a bar for the number of rows in the WebServer buckets in that hour.

## Web Content Filter Templates

### Accessed Files by Category

This template presents the categories that the most accessed files fall under, and file types of these most accessed files.

Category	File Type	Accesses
computing	html	7,040
	Total	7,040
music	html	2,915
	Total	2,915
search_engines	html	7,590
	jpeg	2,970
	Total	10,560
spyware	html	5,170
	javascript	3,245
	png	2,860
	Total	11,275

Figure 4-26: Template – Accessed Files by Category

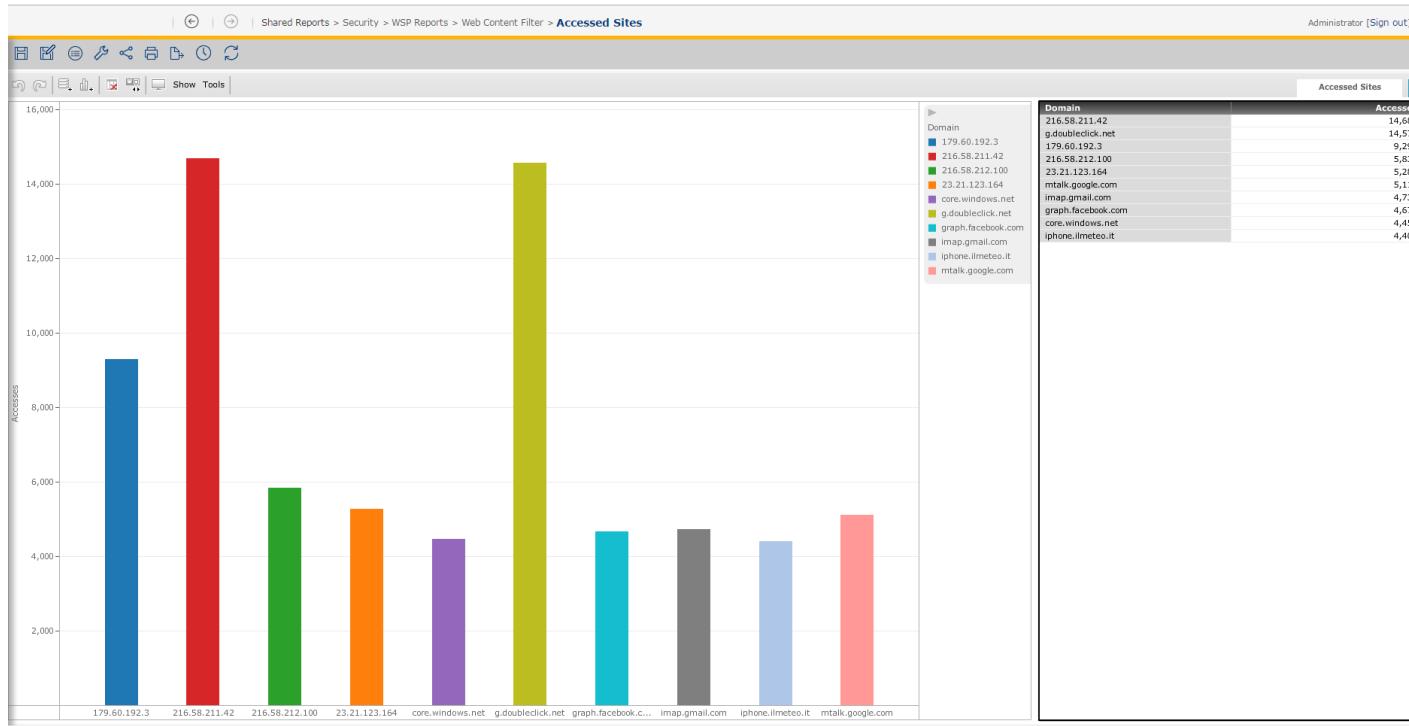
The **Accessed Files by Category** template is comprised of a grid containing the most accessed file types. For each file type, its category is presented, as well as the number of times it was accessed.

What you can do:

- **SORT** any of the columns in ascending or descending order.
- **FILTER** by any of the categories or file types.

### Accessed Sites

This template presents the most accessed domains, and the number of times these domains were accessed.



**Figure 4-27: Template – Accessed Sites**

The **Accessed Sites** template is comprised of the following panels:

- **Graph (left):** In a graph, the 10 most accessed domains
- **Grid (right):** In a grid, the 10 most accessed domains, and the number of times they were accessed

What you can do:

- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients or domains.

## Blocked and Monitored Attempts by Category in the Last Month

This template presents the number of blocks by category in the last month.

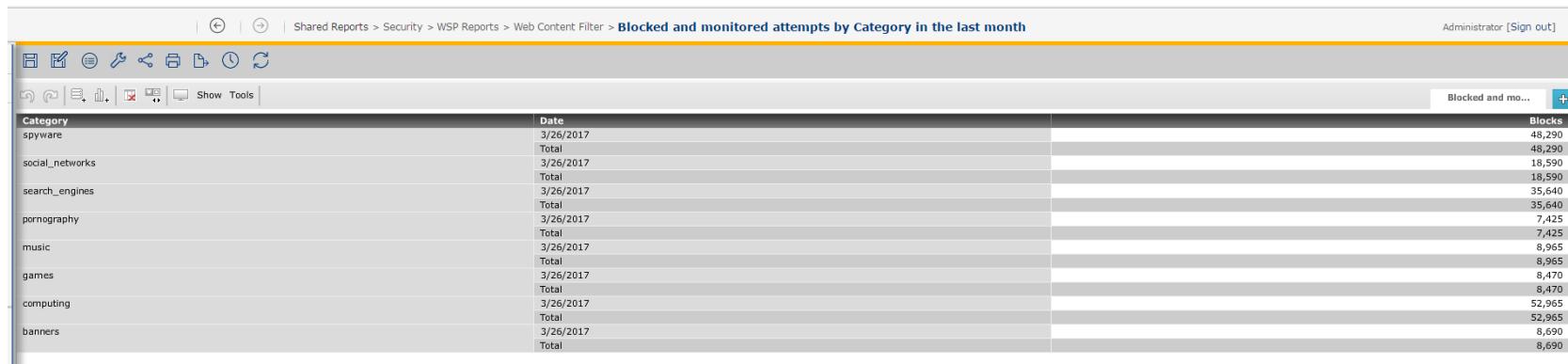
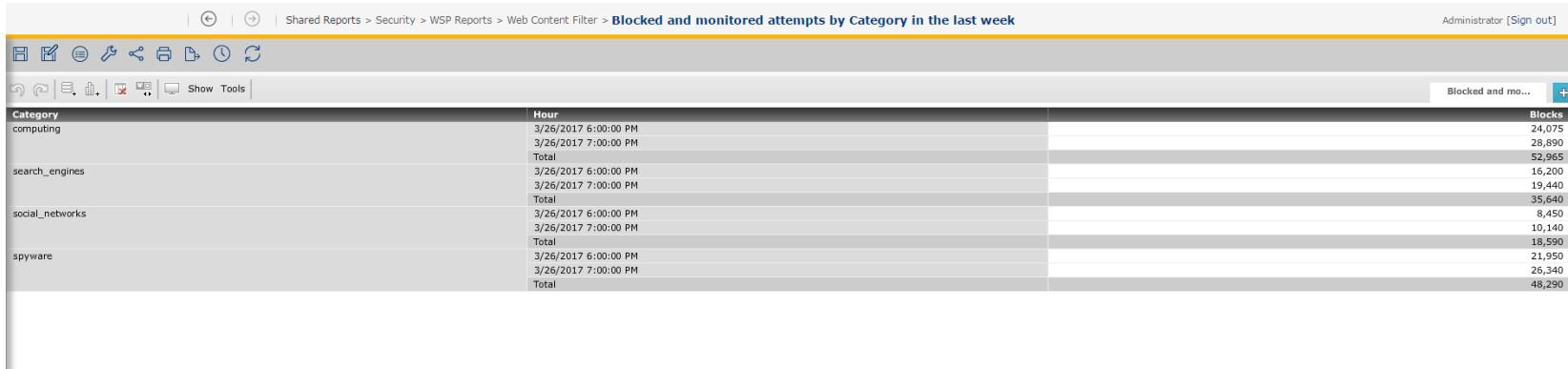


Figure 4-28: Template – Blocked and Monitored Attempts by Category in the Last Month

The **Blocked and Monitored Attempts by Category in the Last Month** template is comprised of a grid containing the number of blocks for each of the top blocked categories on each date in the last month.

## Blocked and Monitored Attempts by Category in the Last Week

This template presents the number of blocks by category in the last week.

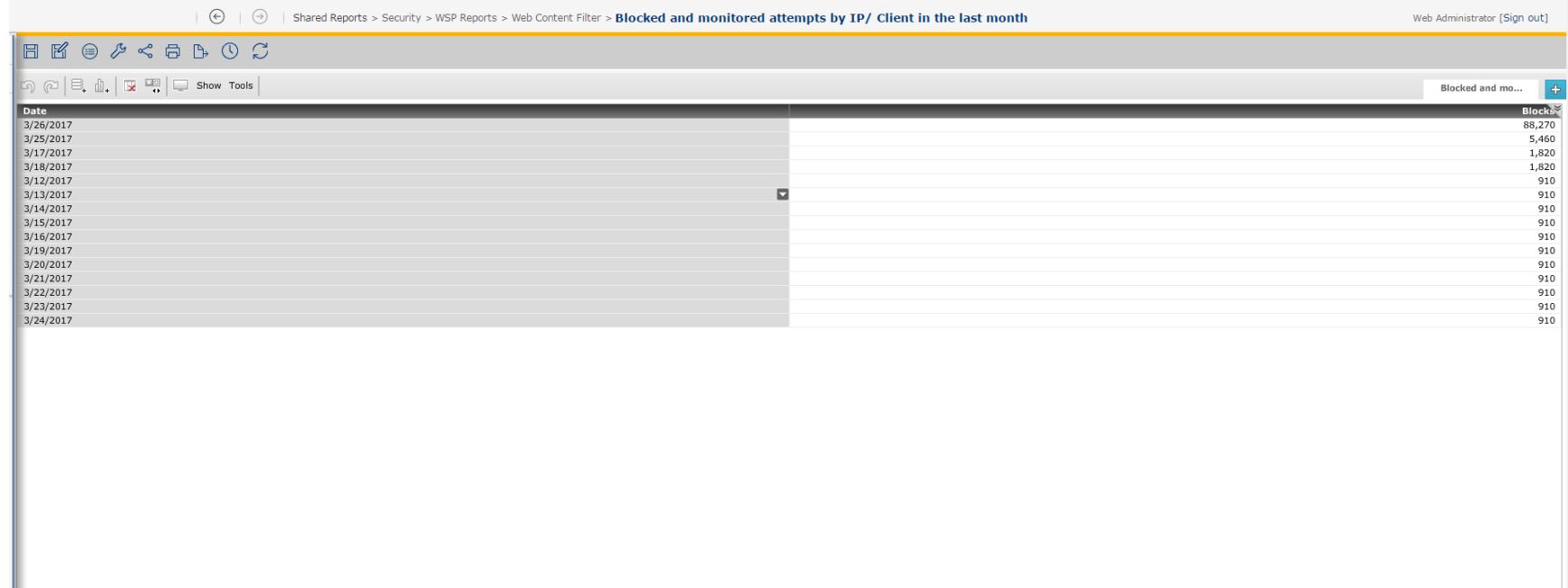


**Figure 4-29: Template – Blocked and Monitored Attempts by Category in the Last Week**

The **Blocked and Monitored Attempts by Category in the Last Week** template is comprised of a grid containing the number of blocks for each of the top blocked categories on each date in the last week.

### Blocked and Monitored Attempts by IP/Client in the Last Month

This template presents the number of blocks by IP/client in the last month.

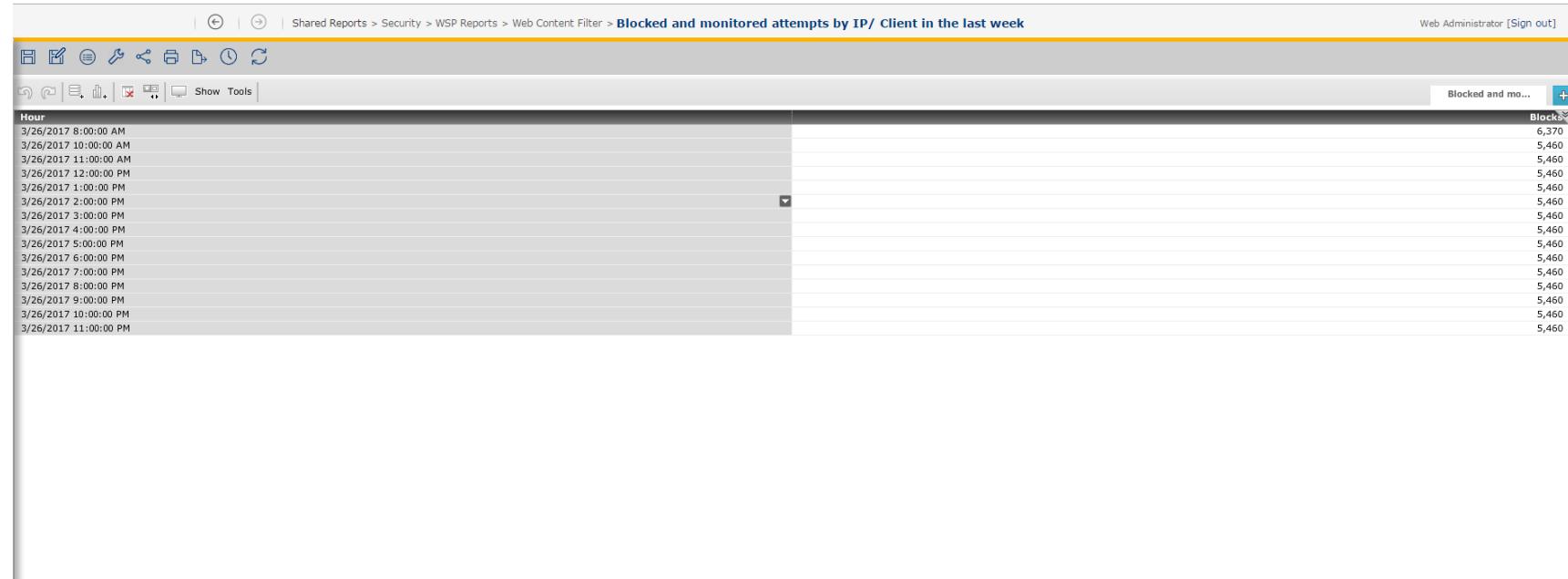


**Figure 4-30: Template – Blocked and Monitored Attempts by IP/Client in the Last Month**

The **Blocked and Monitored Attempts by IP/Client in the Last Month** template is comprised of a grid containing the number of blocks for each of the top blocked categories on each date in the last month.

### **Blocked and Monitored Attempts by IP/Category in the Last Week**

This template presents the number of blocks by IP/client in the last week.



**Figure 4-31: Template – Blocked and Monitored Attempts by IP/Client in the Last Week**

The **Blocked and Monitored Attempts by IP/Client in the Last Week** template is comprised of a grid containing the number of blocks for each of the top blocked categories on each date in the last week.

### Blocked Files by Category

This template presents the file types of the most blocked files, and their categories.

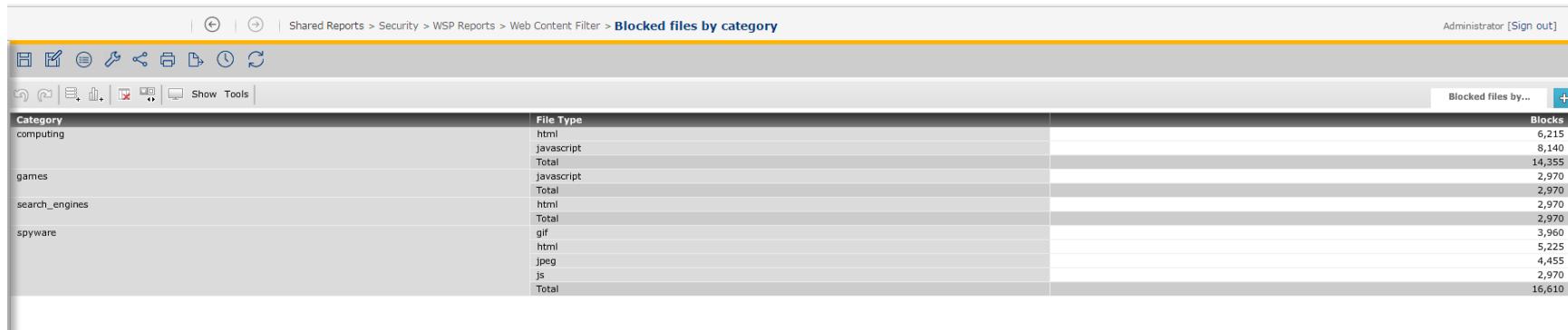


Figure 4-32: Template – Blocked Files by Category

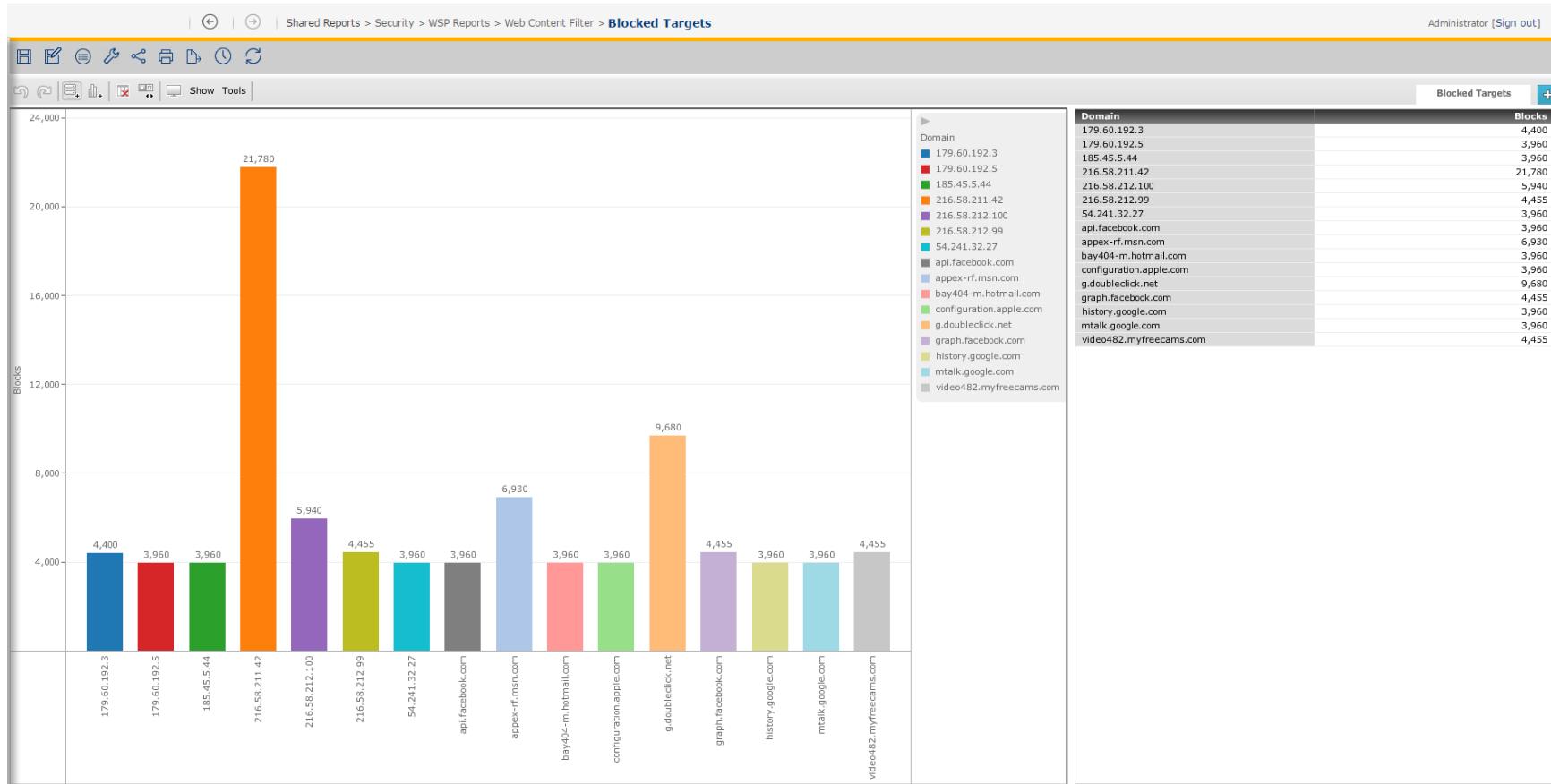
The **Blocked Files by Category** template is comprised of a grid containing the most blocked file types and the number of times each file type was blocked. The files are sorted by the categories under which they fall.

What you can do:

- **SORT** any of the columns in ascending or descending order.
- **FILTER** by any of the categories or file types.

### Blocked Targets

This template presents the most blocked domains, and the number of times each domain was blocked.



**Figure 4-33: Template – Blocked Targets**

The **Blocked Targets** template is comprised of the following panels:

- **Graph (left):** The domains that were blocked the most
- **Grid (right):** The domains that were blocked the most, and the number of times they were blocked

What you can do:

- In the grid, **SORT** any of the columns in ascending or descending order.
- In the grid, **FILTER** by any of the clients or domains.

## Blocking Action

This template presents the most blocked subscribers, and when they were most recently blocked.

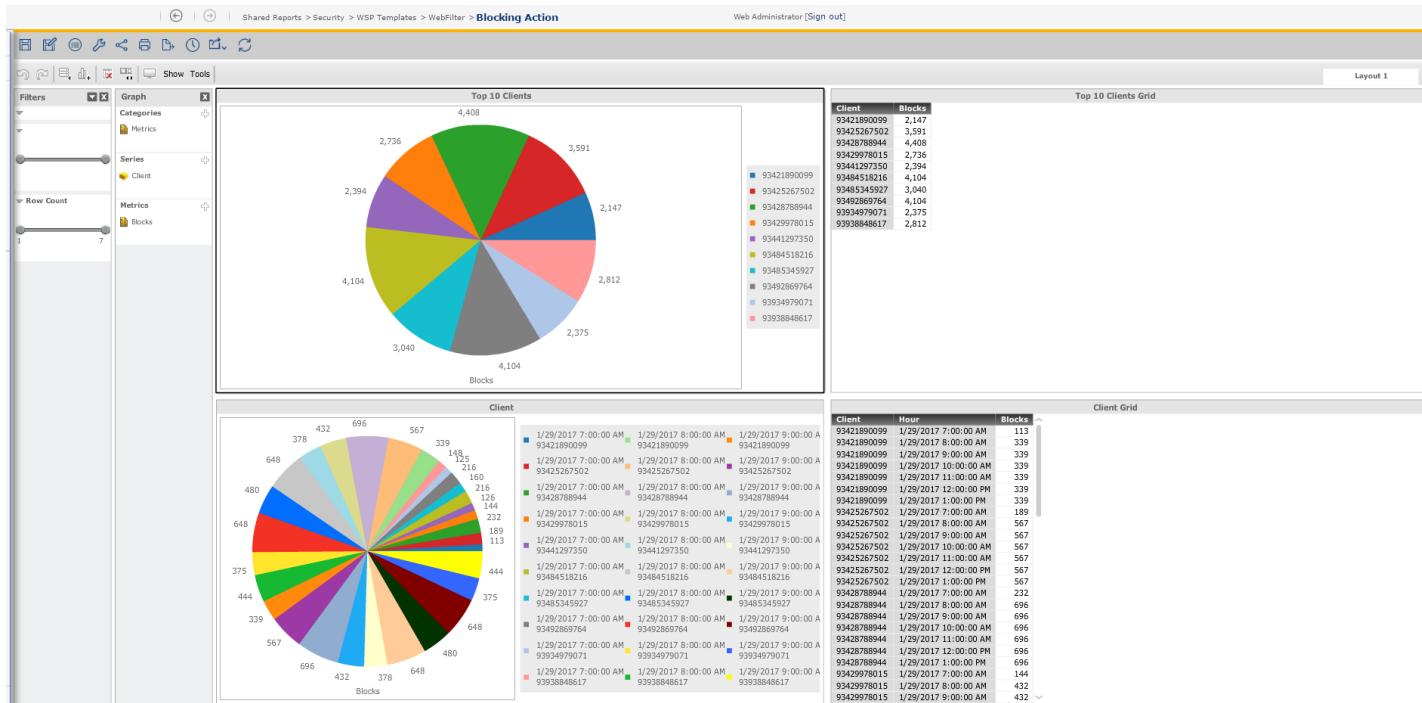


Figure 4-34: Template – Blocking Action

The **Blocking Action** template is comprised of the following panels:

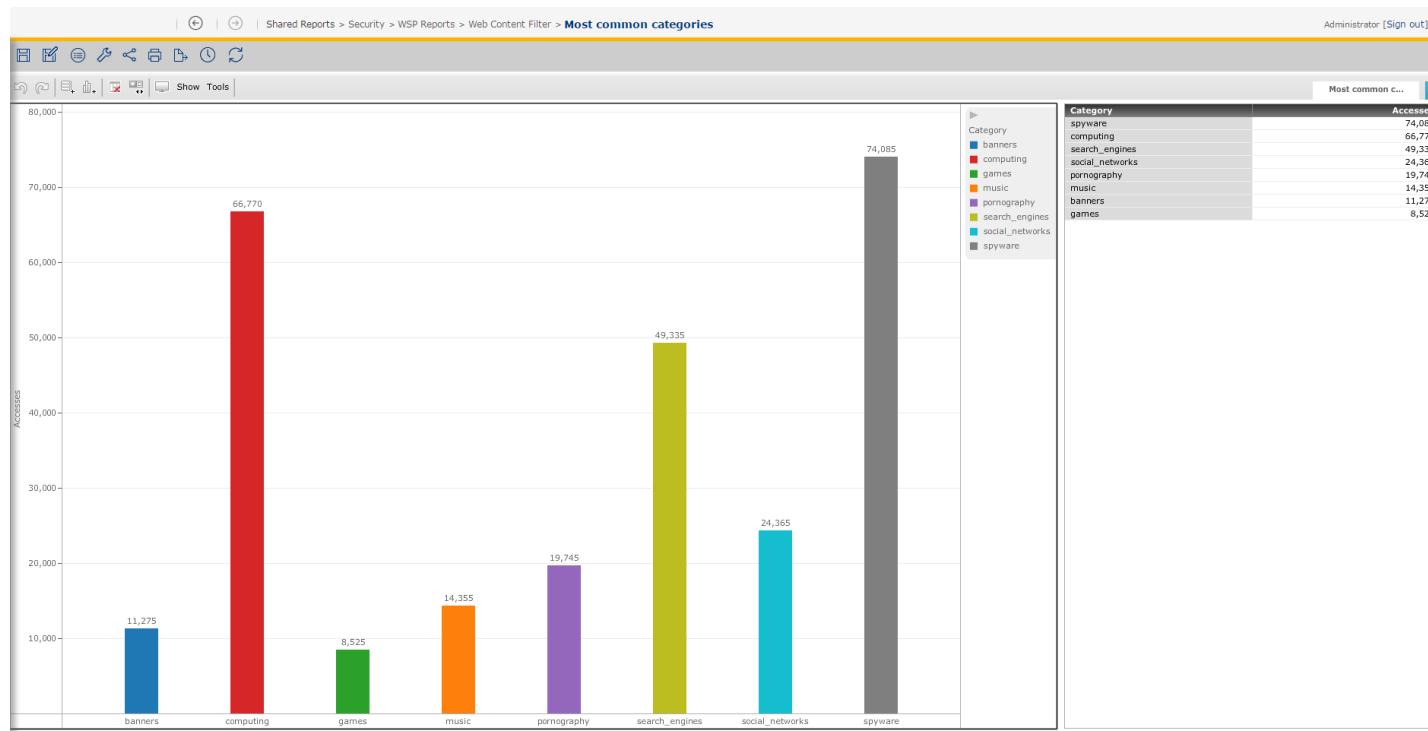
- **Top 10 Clients:** In a pie graph, the 10 subscribers that were blocked the most
- **Top 10 Clients Grid:** In a grid, the 10 subscribers that were blocked the most
- **Top 10 Domains:** In a pie graph, the number of blocks in each hour in the last 24 hours for the subscribers
- **Domains Grid:** In a grid, the number of blocks in each hour in the last 24 hours for the subscribers

What you can do:

- From the **Top 10 Clients** graph, select a subscriber to view the number of times the subscriber was blocked in each hour in the last 24 hours.
- In the grids, **SORT** any of the columns in ascending or descending order.
- In the grids, **FILTER** by any of the clients.

## Most Common Categories

This template displays the most commonly-accessed categories.



**Figure 4-35: Template – Most Common Categories**

The **Most Common Categories** template is comprised of the following panels:

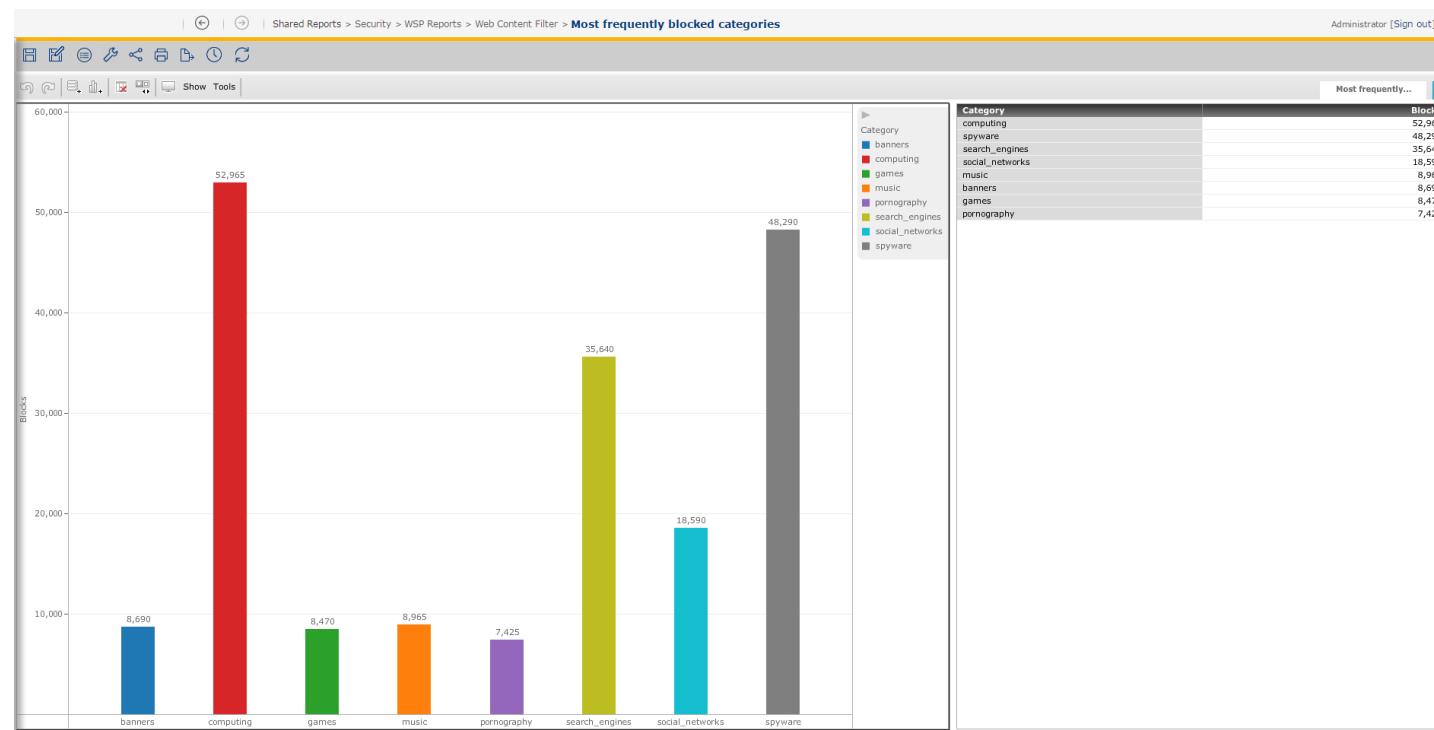
- **Graph (left):** The categories that were accessed the most
- **Grid (right):** The categories that were accessed the most, and the number of times they were accessed

What you can do:

- In the grid, **SORT** any of the columns in ascending or descending order.
- In the grid, **FILTER** by any of the categories.

## Most Frequently Blocked Categories

This template displays the most frequently blocked categories.



**Figure 4-36: Template – Most Frequently Blocked Categories**

The **Most Frequently Blocked Categories** template is comprised of the following panels:

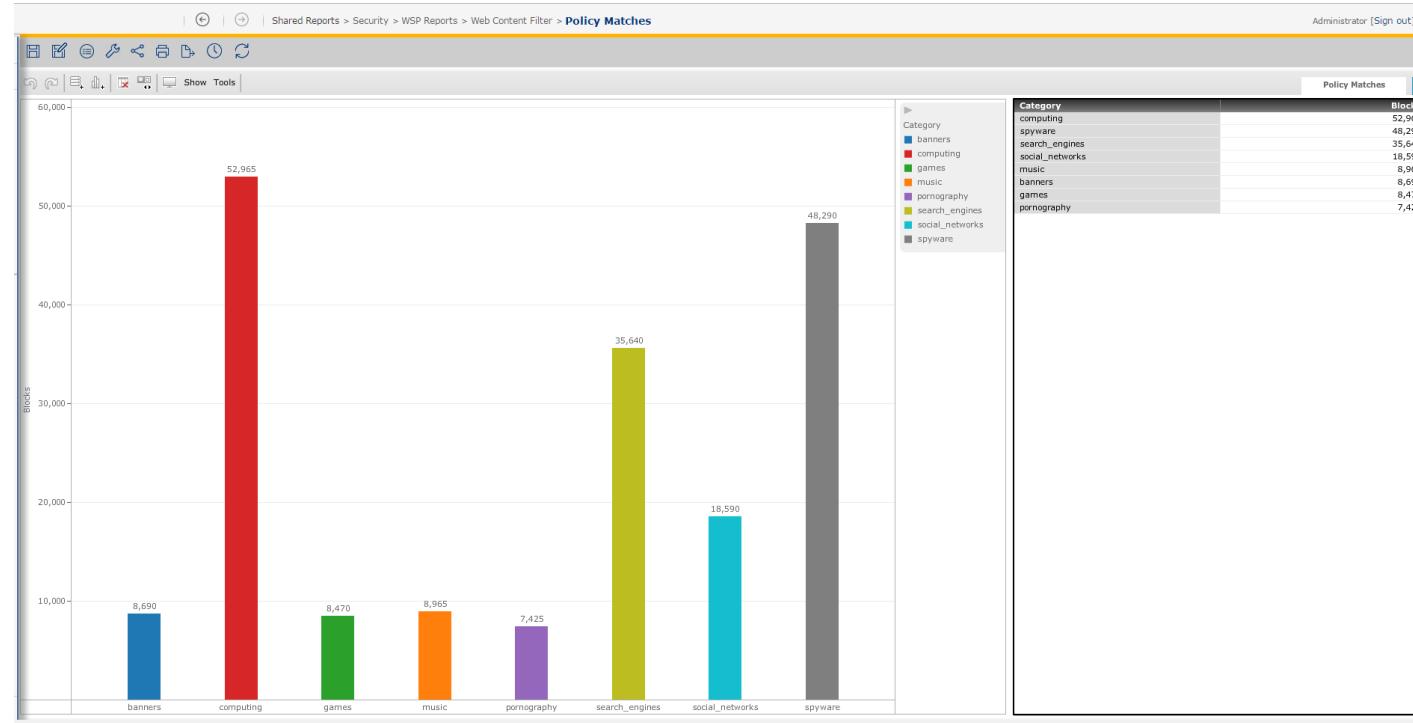
- **Graph (left):** The categories that were blocked most frequently
- **Grid (right):** The categories that were blocked most frequently, and the number of times they were blocked

What you can do:

- In the grid, **SORT** any of the columns in ascending or descending order.
- In the grid, **FILTER** by any of the categories.

## Policy Matches

This template displays the most commonly-blocked categories.



**Figure 4-37: Template – Policy Matches**

The **Most Common Categories** template is comprised of the following panels:

- **Graph (left):** The categories that were blocked the most
- **Grid (right):** The categories that were blocked the most, and the number of times they were blocked

What you can do:

- In the grid, **SORT** any of the columns in ascending or descending order.
- In the grid, **FILTER** by any of the categories.

## WebFilter Reports

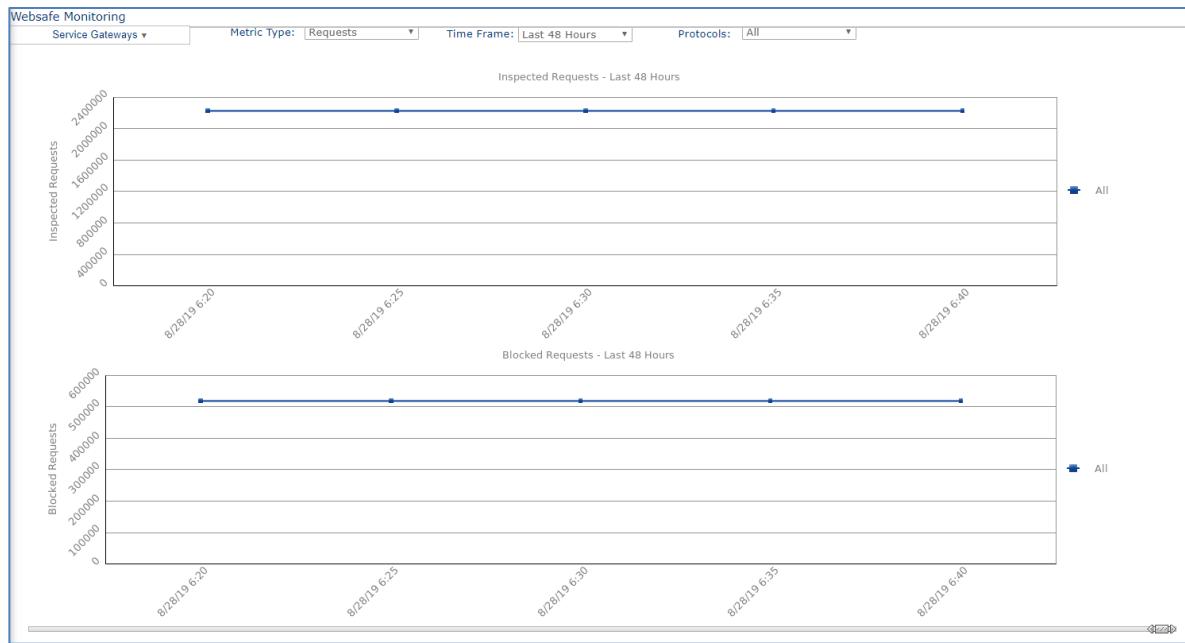
The WebFilter reports present monitoring data on the requests that WebFilter handles. They're helpful for ensuring that WebFilter is working, and for monitoring any uptick or downtick in requests on your network.

The WebFilter reports are [WEBFILTER MONITORING](#) and [WEBFILTER MONITORING – REAL TIME](#).

### WebFilter Monitoring

The **WebFilter Monitoring** report presents WebFilter monitoring data from 20 minutes back from the present to last month. The report is comprised of the following trend graphs:

- **Inspected Requests:** Presents data on the number or rate of inspected requests, whether blocked or not
- **Blocked Requests:** Presents data on the number or rate of inspected requests that were blocked



**Figure 4-38: WebFilter Monitoring Report**

Filter data in the trend graphs by any of the following dropdown lists:

- **Gateways:** To view data for specific Gateways in your network
- **Metric Type:** To view data for one of the following types of metrics:
  - ◆ **Requests:** With this option selected, the trend graphs present the number of requests
  - ◆ **Requests Rate:** With this option selected, the trend graphs present the rate of requests, which is the average number of requests every 5 minutes
- **Time Frame:** To view the data for one of the following:

Select this option	If you want the report to present:	Each increment represents:
--------------------	------------------------------------	----------------------------

<b>Last 48 Hours</b>	20 minutes back from the present	By default, 5 minutes
<b>Yesterday</b>	The last complete calendar day	1 hour
<b>Last 7 Days</b>	The last seven days, up to the last complete calendar day	1 day
<b>Previous Week</b>	The last complete calendar week	1 day
<b>Previous Month</b>	The last complete calendar month	1 day

- **Protocols:** To view data for one of the following:
  - ◆ **All:** Both HTTP and HTTPS traffic
  - ◆ **HTTP:** Only HTTP traffic
  - ◆ **HTTPS:** Only HTTPS traffic

Other things you can do on the report:

- With **Last 48 Hours** selected from **Time Frame**, a slider appears at the bottom of the report.



**Figure 4-39: The Slider**

You can use this slider to adjust the length of the tick and the number of ticks appearing in the report:

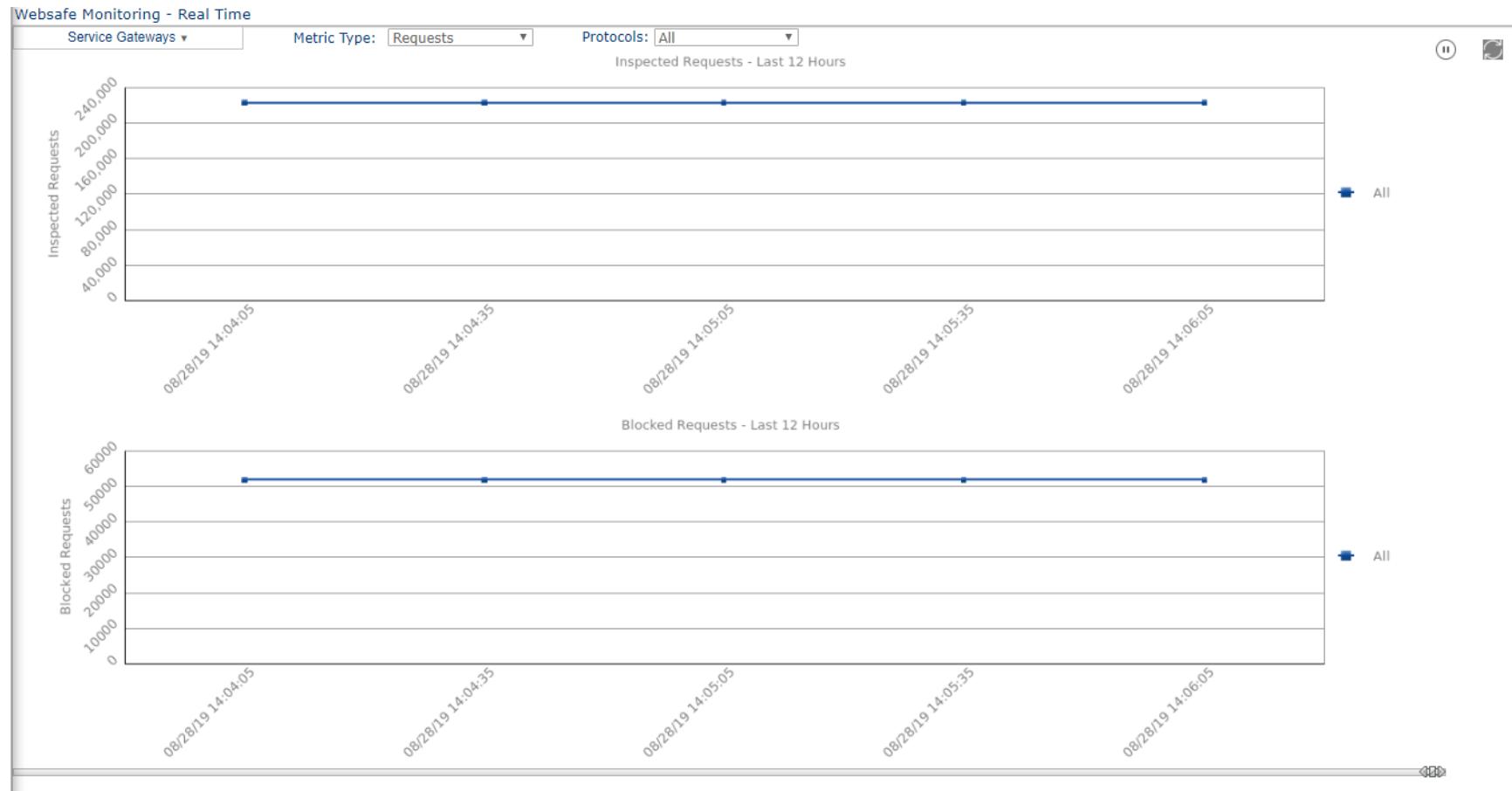
- ◆ With the slider slid all the way to the right, the trend graphs present the last 20 minutes back from the present, with 5-minute increments.
- ◆ With the slider slid all the way to the left, the trend graphs present 20 minutes starting from 48 hours ago, with 5-minute increments.
- ◆ With the slider expanded all the way in both directions, the trend graph covers the entire 48-hour period, with 2-hour increments.
- Mouse over a tick to view a tooltip containing the value of the selected metric at that increment.

## WebFilter Monitoring – Real Time

The **WebFilter Monitoring – Real Time** report presents WebFilter monitoring data from 2 minutes back from the present to 12 hours back. The report updates automatically once a minute. The report is comprised of the following trend graphs:

- **Inspected Requests:** Presents data on the number or rate of inspected requests, whether blocked or not
- **Blocked Requests:** Presents data on the number or rate of inspected requests that were blocked

By default, each increment in the trend graphs is 30 seconds.



**Figure 4-40: WebFilter Monitoring Report – Real Time**

Filter data in the trend graphs by any of the following dropdown lists:

- **Gateways:** To view data for specific Gateways in your network
- **Metric Type:** To view data for one of the following types of metrics:

- ◆ **Requests:** With this option selected, the trend graphs present the number of requests
- ◆ **Requests Rate:** With this option selected, the trend graphs present the rate of requests, which is the average number of requests every 5 minutes
- **Protocols:** To view data for one of the following:
  - ◆ **All:** Both HTTP and HTTPS traffic
  - ◆ **HTTP:** Only HTTP traffic
  - ◆ **HTTPS:** Only HTTPS traffic

Other things you can do on the report:

- You can pause the report, preventing it from updating, by clicking the pause button .
- A slider appears at the bottom of the report.



#### Figure 4-41: The Slider

You can use this slider to adjust the length of the tick and the number of ticks appearing in the report:

- ◆ With the slider slid all the way to the right, the trend graphs present the last 2 minutes back from the present, with 30-second increments.
- ◆ With the slider slid all the way to the left, the trend graphs present 2 minutes starting from 12 hours ago, with 30-second increments.
- ◆ With the slider expanded all the way in both directions, the trend graph covers the entire 12-hour period, with 2-hour increments.
- Mouse over a tick to view a tooltip containing the value of the selected metric at that increment.

## Real-Time Folder

In this section, you'll find the reports that you get in the **Real-Time** folder.

In the Real-Time monitors, metrics are tracked in 15-second increments. All graphs are horizontal bar graphs, in which the bars are the attributes breaking down the metric. The measure of an attribute at any given time is the absolute height of the bar from 0 (zero), not from the bottom of the bar.

### NOTES

- The default refresh rate of the Real-Time monitors is 15 seconds.
- For the monitors to work, the RT t options must be enabled. Additionally, for the solicited monitors to work, the GW DataReporter server IP must be added to the GW Controller allowed hosts, and the conv\_export buckets should be enabled. Find these options in the DataTransform software.

Keep current with what's happening on your network with the following:

- [USING THE NETWORK MONITOR](#)
- [USING THE POLICY MONITOR](#)
- [USING THE USER MONITOR](#)
- [USING THE CLIENT IP MONITOR](#)
- [USING THE APPLICATION MONITOR](#)
- [USING THE APPLICATION GROUP MONITOR](#)
- [USING THE NETWORK QoE MONITOR](#)
- [USING THE TOP IP MONITOR](#)

You can also create your own monitor to monitor the traffic metrics of your choice, as described in [CREATING A CUSTOM MONITOR](#).

There are a few helpful actions that you can perform in all of the Real-Time Monitors. These are described in [REAL TIME MONITOR ACTIONS](#).

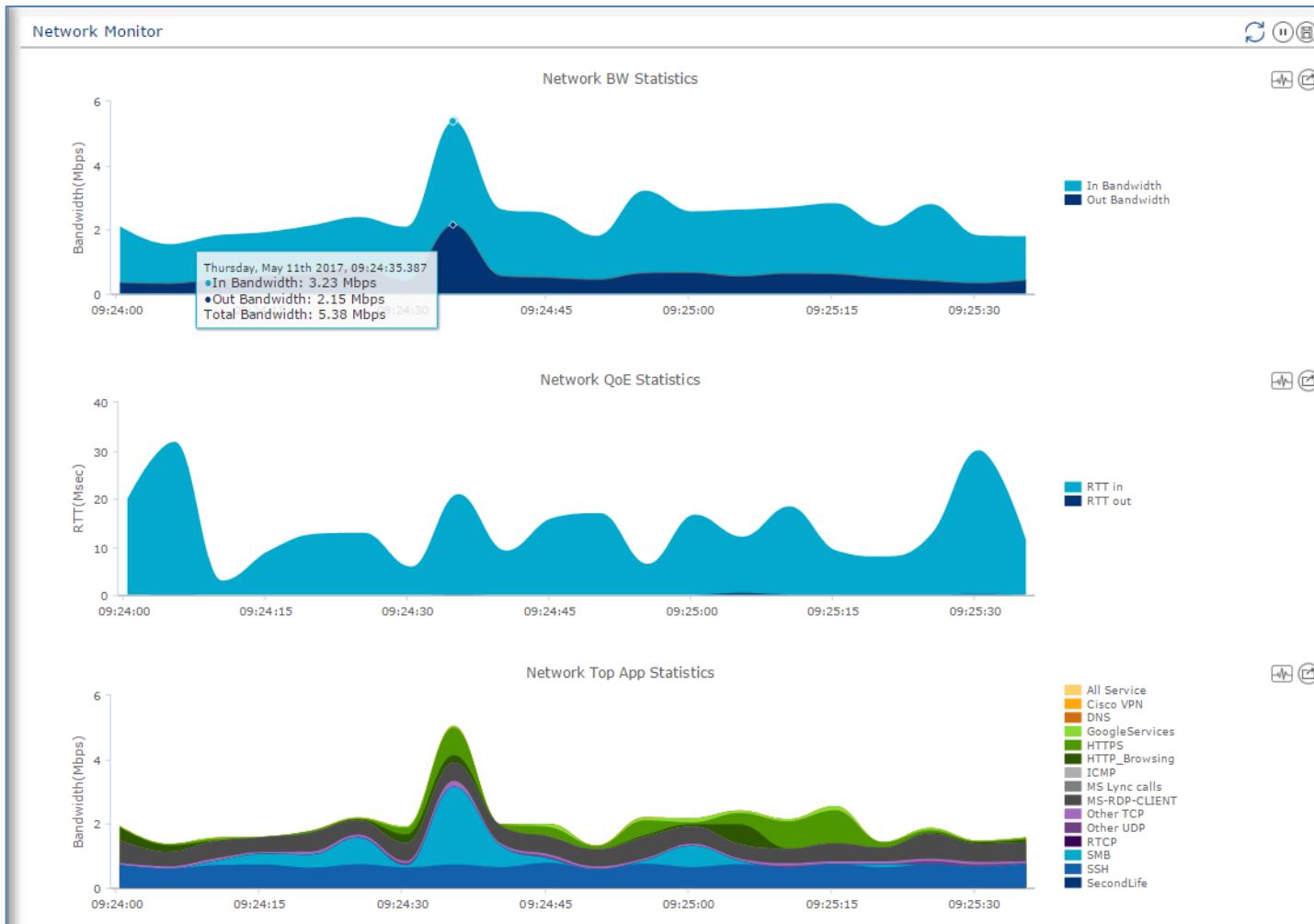
## Using the Network Monitor

This procedure describes how, with the **Network Monitor**, to monitor traffic metrics on your network in real-time.

To use the Network Monitor:

1. From the Reporting panel, select Real-Time Monitor > Network Monitor.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.



**Figure 4-42: Network Monitor**

The panels and METRICS are as follows:

Panel	Y Axis	Description of the Horizontal Bar/s
<b>Network BW Statistics</b>	Bandwidth	<b>In Bandwidth:</b> Monitor of the bandwidth entering your network
		<b>Out Bandwidth:</b> Monitor of the bandwidth exiting your network
<b>Network QoE Statistics</b>	RTT	<b>RTT In:</b> Otherwise known as RTT Internal, on the in-line platform internal side, monitor of the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack.
		<b>RTT Out:</b> Otherwise known as RTT External, on the in-line platform external side, monitor of the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack.
<b>Network Top App Statistics</b>	Bandwidth	Monitor of the bandwidth of each of the top applications on your network at the time that the monitor is opened

2. Do any of the **REAL-TIME MONITOR ACTIONS**.
3. Close the monitor, and stop the monitor from rolling, by closing the tab.

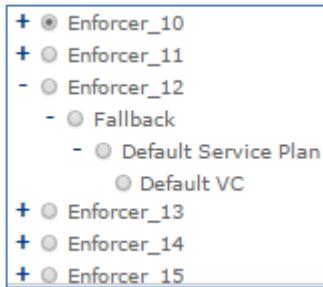
## Using the Policy Monitor

This procedure describes how, with the **Policy Monitor**, to monitor the traffic metrics of an object on your network.

To use the Policy Monitor:

1. From the Reporting panel, select Real-Time Monitor > Policy Monitor.  
The **Report Criteria** page appears.
2. From the **Select Network Element** tree, do one of the following:
  - ◆ If you want to monitor an in-line platform, then select it.

- ♦ If you want to monitor a policy object within an in-line platform, then click the plus sign to drill down to the in-line platform > line > pipe > virtual channel.

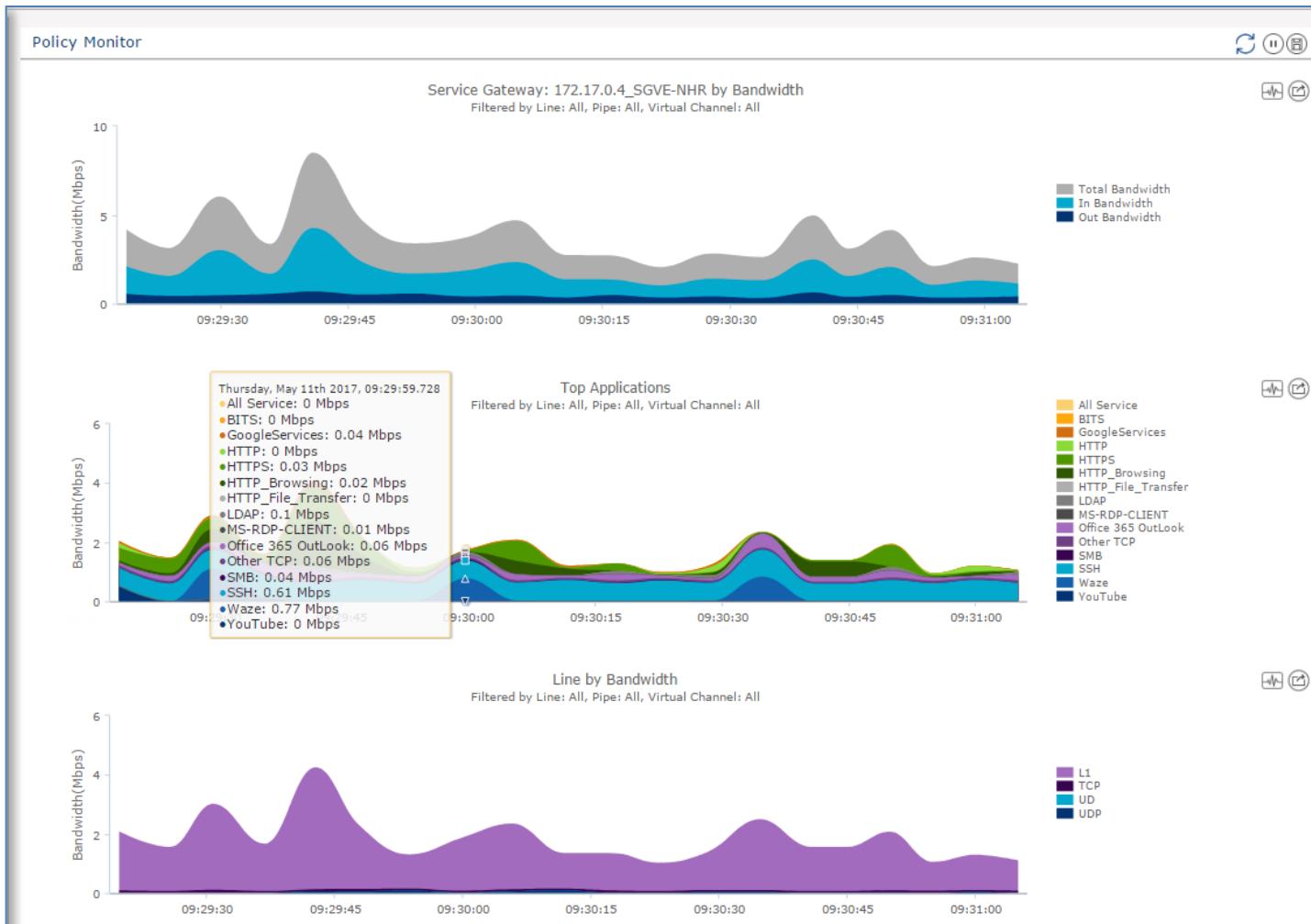


**Figure 4-43: Drilling Down to the Virtual Channel**

**NOTE** Refer to [SELECTING REPORT CRITERIA](#) for more options with the Select Network Element list.

3. Scroll down and click **Run Report**.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.



**Figure 4-44: Policy Monitor**

The panels and METRICS are as follows:

Panels	Y Axis	Description of the Real-Time Bar/s
<b>Policy Object by Bandwidth</b>	Bandwidth	Monitor of the bandwidth entering the selected policy object
		Monitor of the bandwidth exiting the selected policy object
		Monitor of both <b>In</b> and <b>Out Bandwidth</b> together
<b>Top Applications</b>	Bandwidth	Monitor of the bandwidth consumed by each of the top applications running on the selected policy object at the time that the monitor is opened
<b>Object by Bandwidth</b>	Bandwidth	<p>One of the following:</p> <ul style="list-style-type: none"> <li>• If you selected an in-line platform, then a monitor of the bandwidth of each of the top lines comprising the platform</li> <li>• If you selected a line, then a monitor of the bandwidth of each of the top pipes comprising the platform</li> <li>• If you selected a pipe, then a monitor of the bandwidth of each of the top virtual channels comprising the platform</li> </ul> <p><b>NOTE:</b> If you selected a virtual channel, then the report does not appear.</p>

4. Do any of the **REAL-TIME MONITOR ACTIONS**.
5. Close the monitor, and stop the monitor from rolling, by closing the tab.

## Using the User Monitor

This procedure describes how, with the **User Monitor**, to monitor the traffic metrics of your choice of a subscriber on your network.

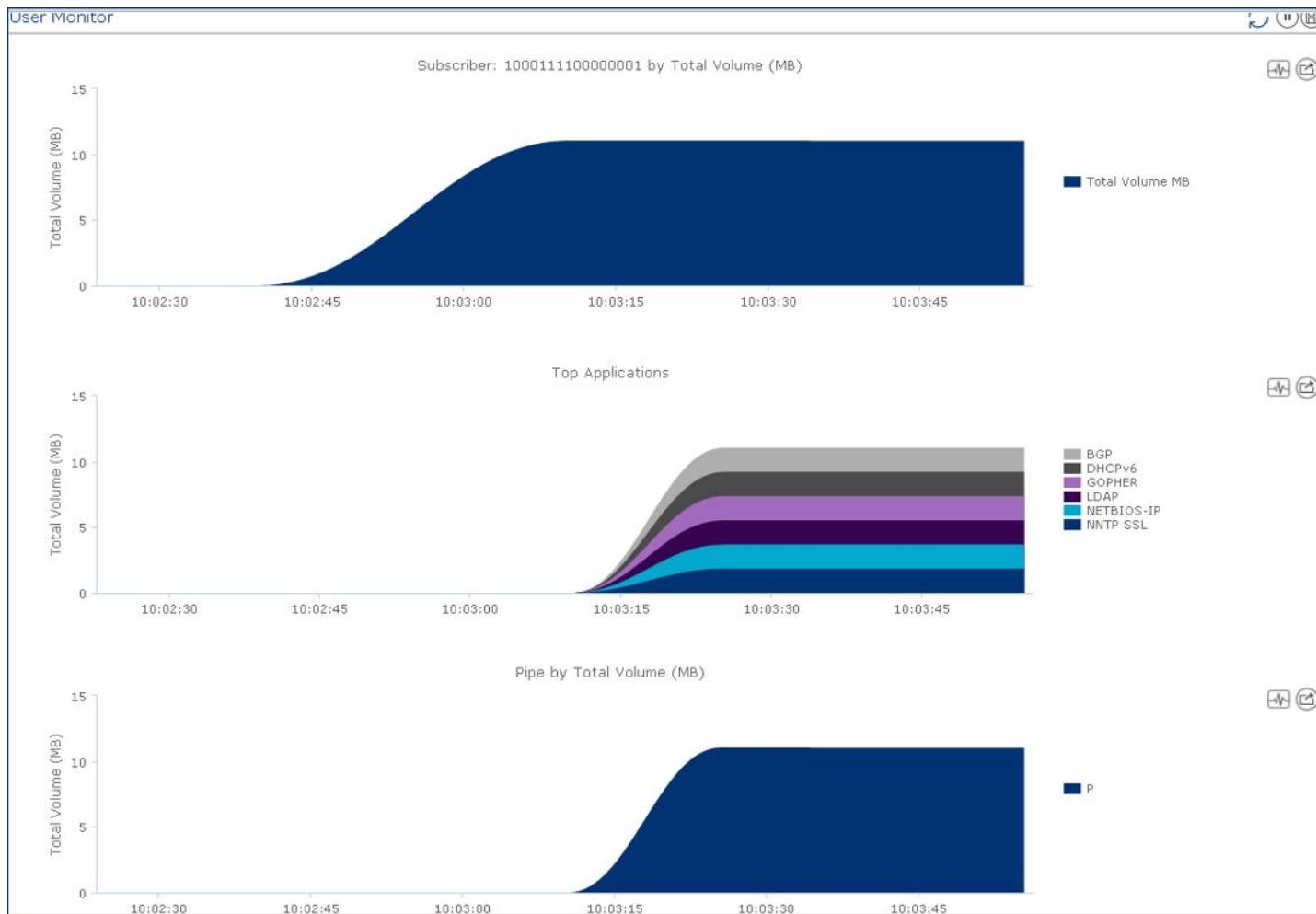
To use the **User Monitor**:

1. From the Reporting panel, select Real-Time Monitor > User Monitor.  
The **Report Criteria** page appears.

**NOTE** Refer to [SELECTING REPORT CRITERIA](#) for full options on this page.

2. Do the following:
  - ◆ From the **Select Subscriber** list, select the subscriber you want to monitor.
  - ◆ From the **Select Secondary** list, select, for a secondary report, a policy object to logically break down the data from the subscriber.
  - ◆ From the **Select Metric** list, select the metric you want to monitor of the subscriber.
3. Scroll down and click **Run Report**.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.



**Figure 4-45: User Monitor**

The panels and **METRICS** are as follows:

Panels	Y Axis	Description of the Real-Time Bar/s
<b>Subscriber</b>	The selected metric	Monitor of the subscriber in real time
<b>Top Applications</b>	The selected metric	Monitor of each of the top applications accessed by the subscriber at the time that the monitor is opened
<b>Secondary Report</b>	The selected metric	Monitor of the selected subscriber broken down by the selected secondary policy object

4. Do any of the **REAL-TIME MONITOR ACTIONS**.
5. Close the monitor, and stop the monitor from rolling, by closing the tab.

## Using the Client IP Monitor

This procedure describes how, with the **Client IP Monitor**, to monitor the traffic metrics of your choice of a client IP on your network.

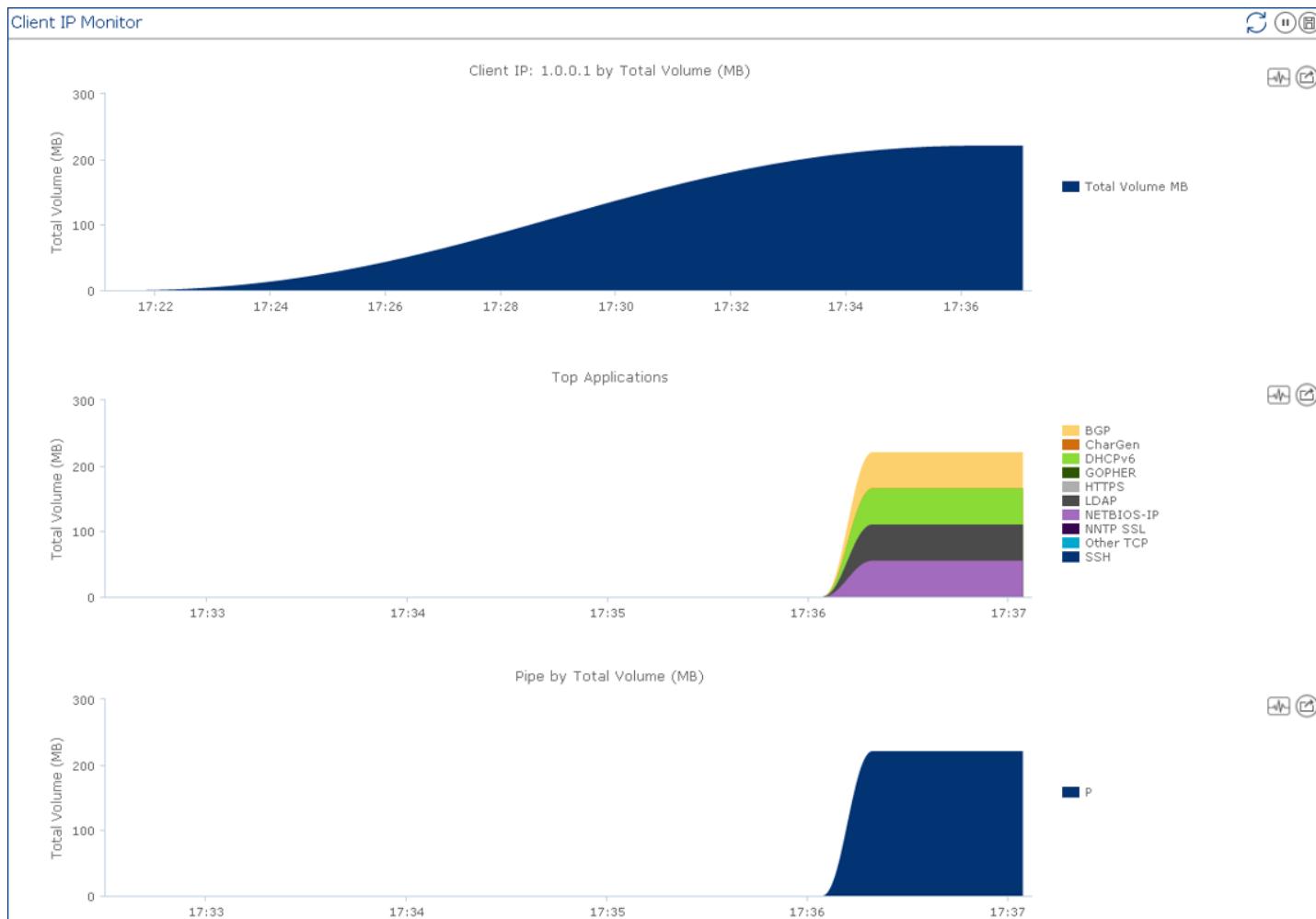
To use the Client IP Monitor:

1. From the Reporting panel, select Real-Time Monitor > Client IP Monitor.  
The **Report Criteria** page appears.

**NOTE** Refer to [SELECTING REPORT CRITERIA](#) for full options on this page.

2. Do the following:
  - ◆ From the **Select Client IP** list, select the client IP you want to monitor.
  - ◆ From the **Select Secondary** list, select, for a secondary report, a policy object to logically break down the data from the client IP.
  - ◆ From the **Select Metric** list, select the metric you want to monitor of the client IP.
3. Scroll down and click **Run Report**.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.



**Figure 4-46: Client IP Monitor**

The panels and **METRICS** are as follows:

Panels	Y Axis	Description of the Real-Time Bar/s
<b>Client IP</b>	Selected metric	Monitor of the selected client IP in real time
<b>Top Applications</b>	Selected metric	Monitor of each of the top applications accessed by way of the client IP at the time that the monitor is opened
<b>Secondary Report</b>	Selected metric	Monitor of the selected client IP broken down by the selected secondary policy object

4. Do any of the **REAL-TIME MONITOR ACTIONS**.
5. Close the monitor, and stop the monitor from rolling, by closing the tab.

## Using the Application Monitor

This procedure describes how, with the **Application Monitor**, to monitor the traffic metrics of specific applications on your network that you select.

To use the Application Monitor:

1. From the Reporting panel, select Real-Time Monitor > Application Monitor.  
The **Report Criteria** page appears.

**NOTE** Refer to [SELECTING REPORT CRITERIA](#) for full options on this page.

The screenshot shows a user interface for selecting report criteria. At the top, a note says "NOTE Refer to [SELECTING REPORT CRITERIA](#) for full options on this page." Below this, there are two main sections:

- 1. Select Primary**: A dropdown menu with the following options:
  - Application
    - Top N Applications by In Bandwidth
    - Top N Applications by Out Bandwidth
    - Top N Applications by Total Bandwidth
- 3. Select Metric**: A dropdown menu for selecting multiple metrics of the same type:
  - In Bandwidth (Mbps)
  - Out Bandwidth (Mbps)
  - Total Bandwidth (Mbps)
  - In Volume (MB)
  - Out Volume (MB)
  - Total Volume (MB)
  - RTT External (msec)

**Figure 4-47: Report Criteria for Application Monitor**

2. From the **Select Primary** list, do one of the following:
  - ♦ If you want to monitor the traffic metrics of a specific application, then do the following:
    - i. Select Application.

The **Select Application** list appears.

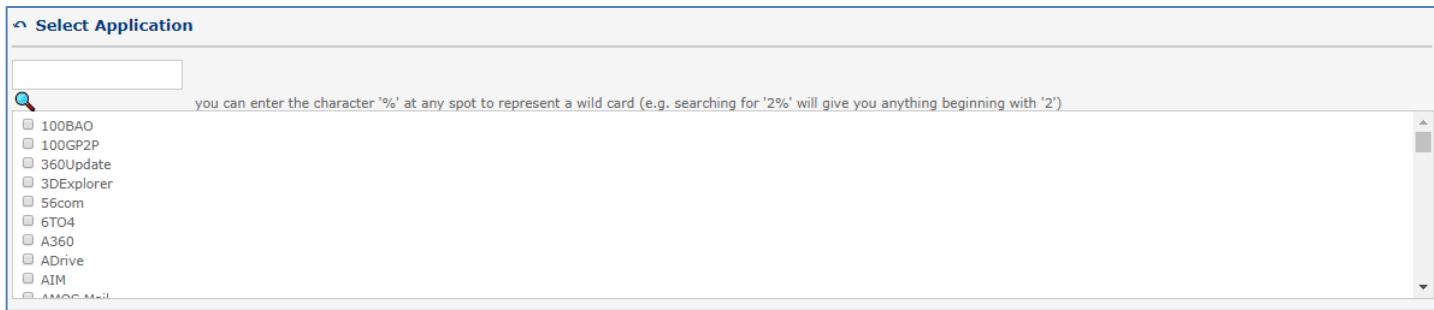


Figure 4-48: Select Application for Application Monitor

- ii. Select the application or applications that you want to appear in the **Application Monitor**.

**NOTE** After selecting an option from the Select Primary list, if you want to change and select a different option from the list, then click the Back button from the list.

- ◆ If you want to monitor the top applications by **In Bandwidth**, **Out Bandwidth** or **Total Bandwidth**, then do the following:
  - iii. Select Top N Applications by In Bandwidth, Out Bandwidth or Total Bandwidth.

The Select Top N Applications by In Bandwidth, Out Bandwidth or Total Bandwidth area appears.



Figure 4-49: Select Top N Applications by In Bandwidth for Application Monitor

- iv. Select the number of top applications you want to appear, from the top **1** to the top **15** applications.
3. From the **Select Metric** list, select the metric or metrics you want to monitor of the application or applications.
4. Scroll down and click **Run Report**.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.

Within the monitor, for each of the metrics you selected, a panel appears containing a graph of the metric, with a trend line for each of the applications that you selected or the top applications by **In Bandwidth**, **Out Bandwidth** or **Total Bandwidth**.

5. Do any of the [REAL-TIME MONITOR ACTIONS](#).
6. Close the monitor, and stop the monitor from rolling, by closing the tab.

## Using the Application Group Monitor

This procedure describes how, with the **Application Group Monitor**, to monitor the traffic metrics of specific application groups on your network that you select.

To use the Application Group Monitor:

1. From the Reporting panel, select Real-Time Monitor > Application Group Monitor.
  - i. The **Report Criteria** page appears.

**NOTE** Refer to [SELECTING REPORT CRITERIA](#) for full options on this page.

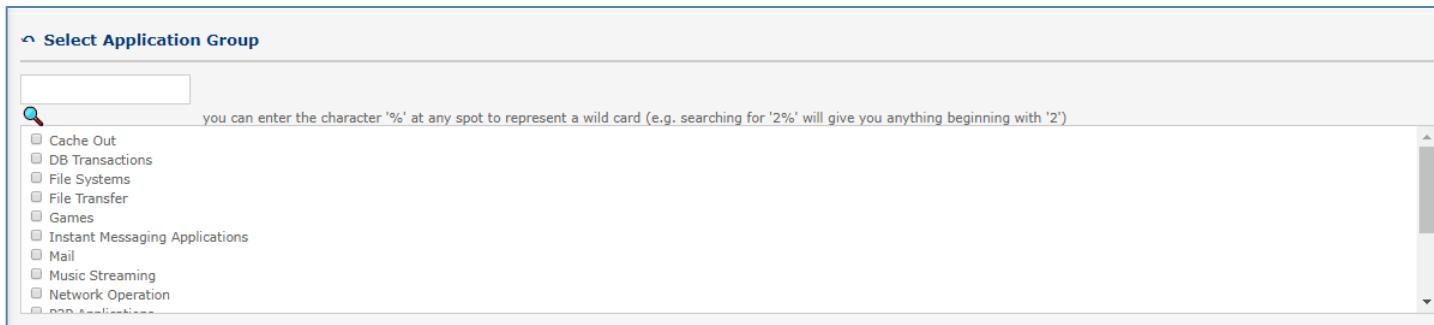
The screenshot shows a user interface for selecting report criteria. At the top, a note says "NOTE Refer to [SELECTING REPORT CRITERIA](#) for full options on this page." Below this, there are two main sections:

- 1. Select Primary**: A list of options:
  - Application Group
  - Top N Application Groups by In Bandwidth
  - Top N Application Groups by Out Bandwidth
  - Top N Application Groups by Total Bandwidth
- 3. Select Metric**: A note stating "for multiple metrics, select metrics of the same type" followed by a list of metrics:
  - In Bandwidth (Mbps)
  - Out Bandwidth (Mbps)
  - Total Bandwidth (Mbps)
  - In Volume (MB)
  - Out Volume (MB)
  - Total Volume (MB)
  - RTT External (msec)

**Figure 4-50: Report Criteria for Application Group Monitor**

2. From the **Select Primary** list, do one of the following:
  - ♦ If you want to monitor the traffic metrics of a specific application group, then do the following:
    - i. Select Application Group.

The Select Application Group list appears.



**Figure 4-51: Select Application Group for Application Monitor**

- ii. Select the application or application groups that you want to appear in the **Application Group Monitor**.

**NOTE** After selecting an option from the Select Primary list, if you want to change and select a different option from the list, then click the Back button from the list.

- ◆ If you want to monitor the top application groups by **In Bandwidth**, **Out Bandwidth** or **Total Bandwidth**, then do the following:

  - iii. Select Top N Application Groups by In Bandwidth, Out Bandwidth or Total Bandwidth.

The Select Top N Application Groups by In Bandwidth, Out Bandwidth or Total Bandwidth area appears.



**Figure 4-52: Select Top N Application Groups by In Bandwidth for Application Monitor**

- iv. Select the number of top application groups you want to appear, from the top **1** to the top **11** applications.
3. From the **Select Metric** list, select the metric or metrics you want to monitor of the application group or groups.
4. Scroll down and click **Run Report**.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.

Within the monitor, for each of the metrics you selected, a panel appears containing a graph of the metric, with a trend line for each of the application groups that you selected or the top applications by **In Bandwidth**, **Out Bandwidth** or **Total Bandwidth**.

5. Do any of the [REAL-TIME MONITOR ACTIONS](#).
6. Close the monitor, and stop the monitor from rolling, by closing the tab.

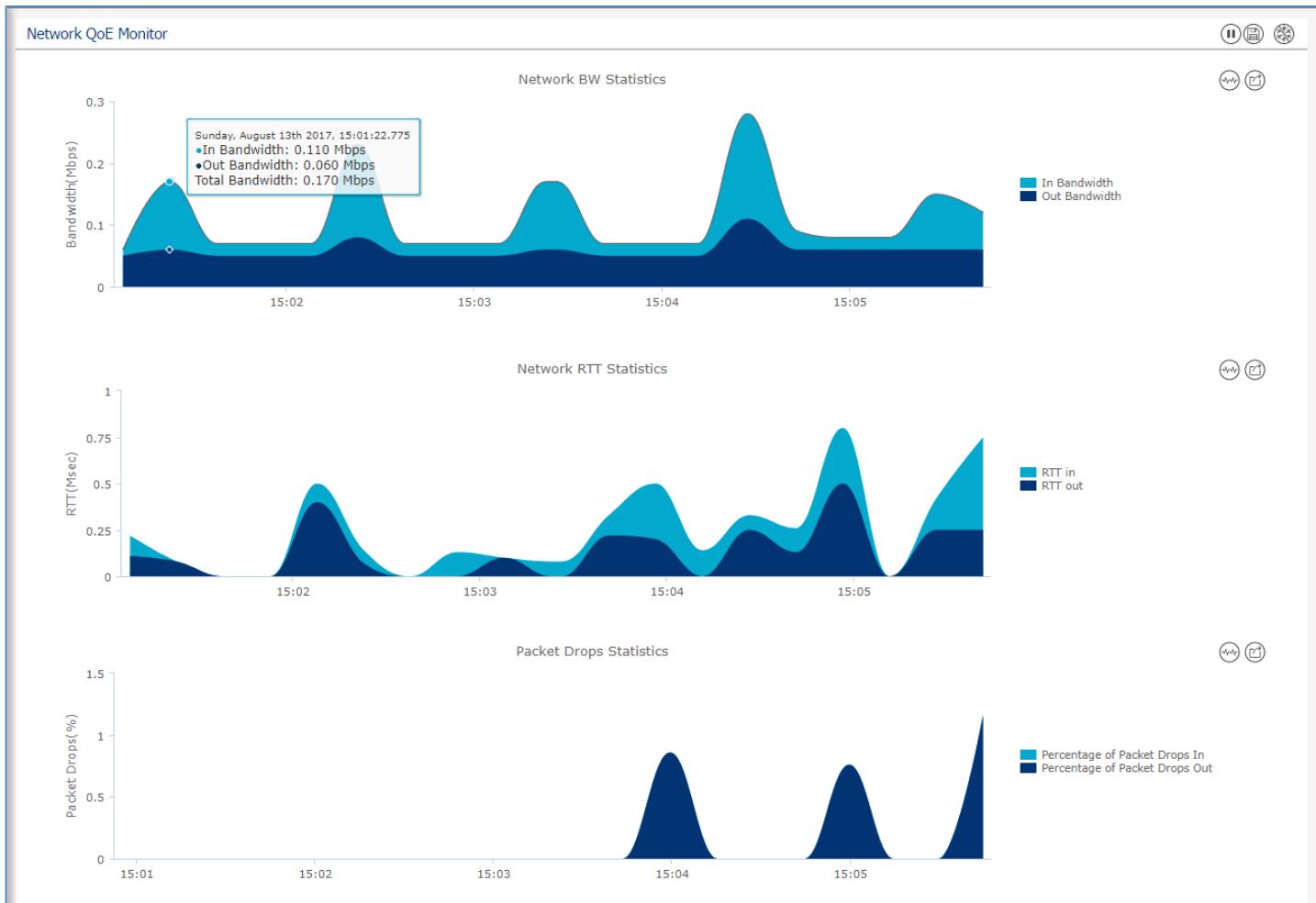
## Using the Network QoE Monitor

This procedure describes how, with the **Network QoE Monitor**, to monitor QoE metrics on your network in real-time.

To use the Network QoE Monitor:

1. From the Reporting panel, select Real-Time Monitor > Network QoE Monitor.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.



**Figure 4-53: Network QoE Monitor**

The panels and **METRICS** are as follows:

Panel	Y Axis	Description of the Horizontal Bar/s
<b>Network BW Statistics</b>	Bandwidth	<b>In Bandwidth:</b> Monitor of the bandwidth entering your network
		<b>Out Bandwidth:</b> Monitor of the bandwidth exiting your network
<b>Network RTT Statistics</b>	RTT	<b>RTT In:</b> Otherwise known as RTT Internal, on the in-line platform internal side, monitor of the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack.
		<b>RTT Out:</b> Otherwise known as RTT External, on the in-line platform external side, monitor of the average length of time (in milliseconds) between forwarding the Syn to receiving the respective Ack.
<b>Packet Drop Statistics</b>	Packet Drops (%)	<b>Percentage of Packet Drops In:</b> Monitor of the percentage of the incoming packets dropped
		<b>Percentage of Packet Drops Out:</b> Monitor of the percentage of the outgoing packets dropped

2. Do any of the [REAL-TIME MONITOR ACTIONS](#).

Close the monitor, and stop the monitor from rolling, by closing the tab.

## Creating a Custom Monitor

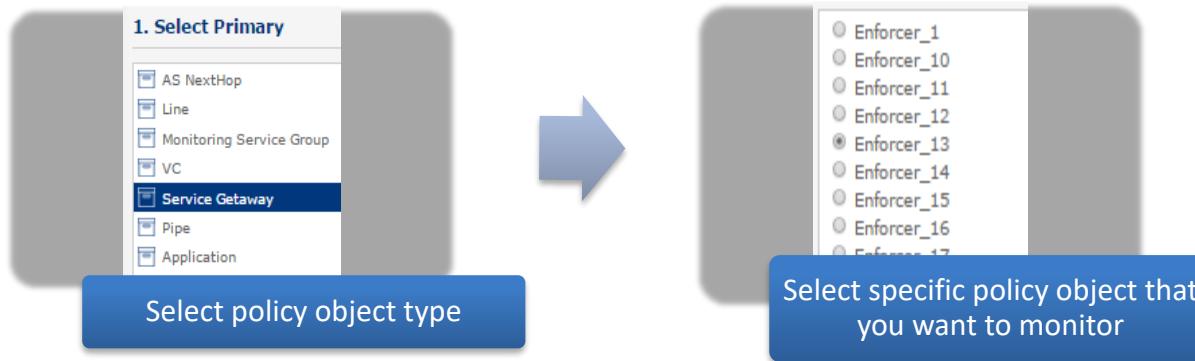
This procedure describes how, with the **Custom Monitor**, to monitor the traffic metrics of your choice by the policy objects on your network.

To use the Custom Monitor:

- From the Reporting panel, select Real-Time Monitor > Create Custom Monitor.  
The **Report Criteria** page appears.

**NOTE** Refer to [SELECTING REPORT CRITERIA](#) for full options on this page.

2. From the **Select Primary** tree, select the policy object type and then the specific policy object that you want to monitor.



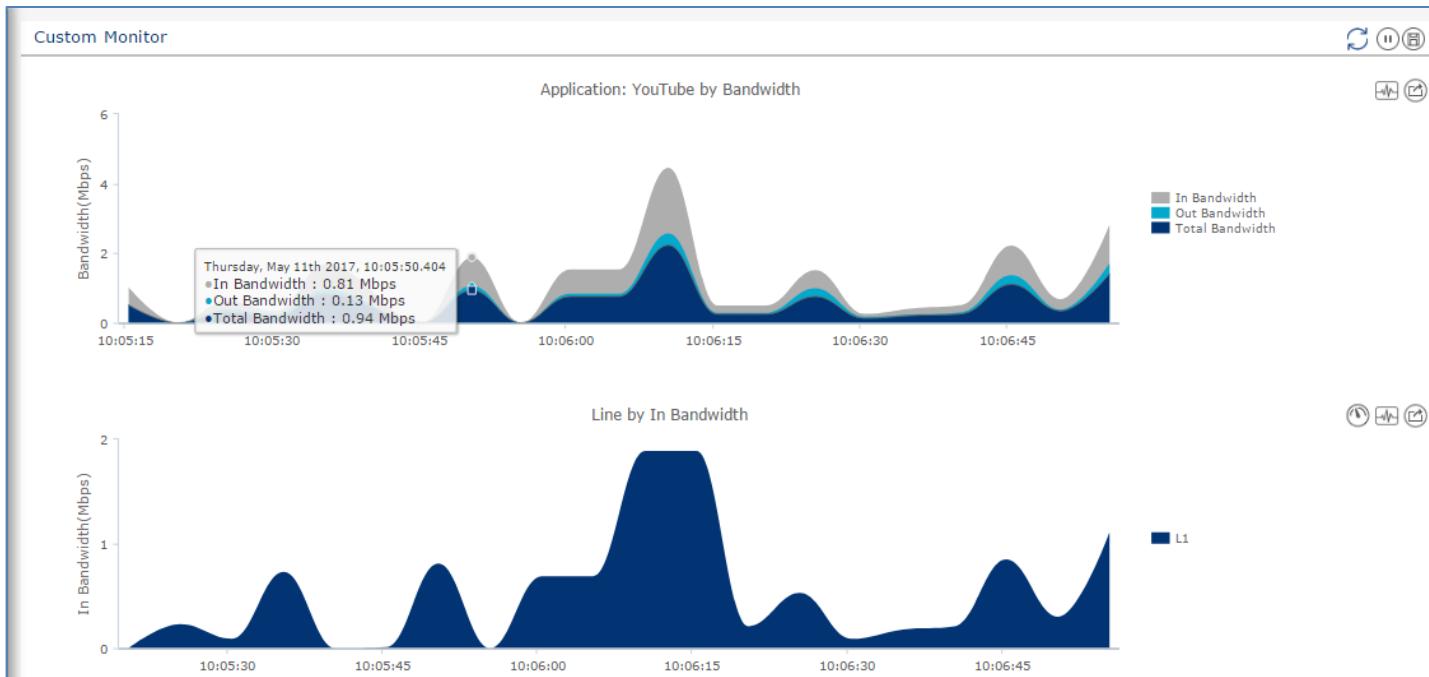
**Figure 4-54: Selection of Specific Policy Object**

3. Do the following:
  - ◆ From the **Select Secondary** list, select, for a secondary report, a second policy object to logically break down the data from the first policy object.
  - ◆ From the **Select Metric** list, select the metric or metrics you want to monitor of the specific policy object and the policy object type.

**NOTE** You can select more than one metric to monitor so long as the metrics use the same unit of measure, for example Mbps.

4. Scroll down and click **Run Report**.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.



**Figure 4-55: Custom Monitor**

The panels and **METRICS** are as follows:

Panels	Y Axis	Description of the Real-Time Bar/s
<b>Policy Object</b>	The selected metric	Monitor of the selected policy object in real time

<b>Secondary Report</b>	If more than one metric was selected, the metric first in alphabetic order	Monitor of the selected policy object broken down by the selected secondary policy object.
-------------------------	----------------------------------------------------------------------------	--------------------------------------------------------------------------------------------

5. Do any of the **REAL-TIME MONITOR ACTIONS**. In the **Secondary Report**, you can change the metric by clicking the **Choose Metric** button , and then selecting another metric.

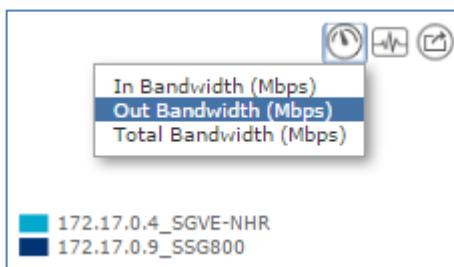


Figure 4-56: Selecting Another Metric in the Secondary Report

6. Close the monitor, and stop the monitor from rolling, by closing the tab.

## Using the Top IP Monitor

This procedure describes how, with the **Top IP Monitor**, to monitor the traffic metrics of the top client IPs on your network.

To use the Top IP Monitor:

- From the Reporting panel, select Real-Time Monitor > Top IP Monitor.  
The **Report Criteria** page appears.

**NOTE** Refer to [SELECTING REPORT CRITERIA](#) for full options on this page.

The screenshot shows a web-based reporting interface. At the top, there are navigation arrows and the path: Shared Reports > Real Time Monitors > Top IP Monitor. Below this, a section titled "Select Top N Client IPs" has a dropdown menu set to "Top 1 Client IPs (1-25)". A note below says "2. Select Metric for multiple metrics, select metrics of the same type". A scrollable list of metrics is shown, including: In Bandwidth (Mbps), Out Bandwidth (Mbps), Total Bandwidth (Mbps), In Volume (MB), Out Volume (MB), Total Volume (MB), and RTT External (msec). A vertical scrollbar is visible on the right side of the list.

**Figure 4-57: Report Criteria for Top IP Monitor**

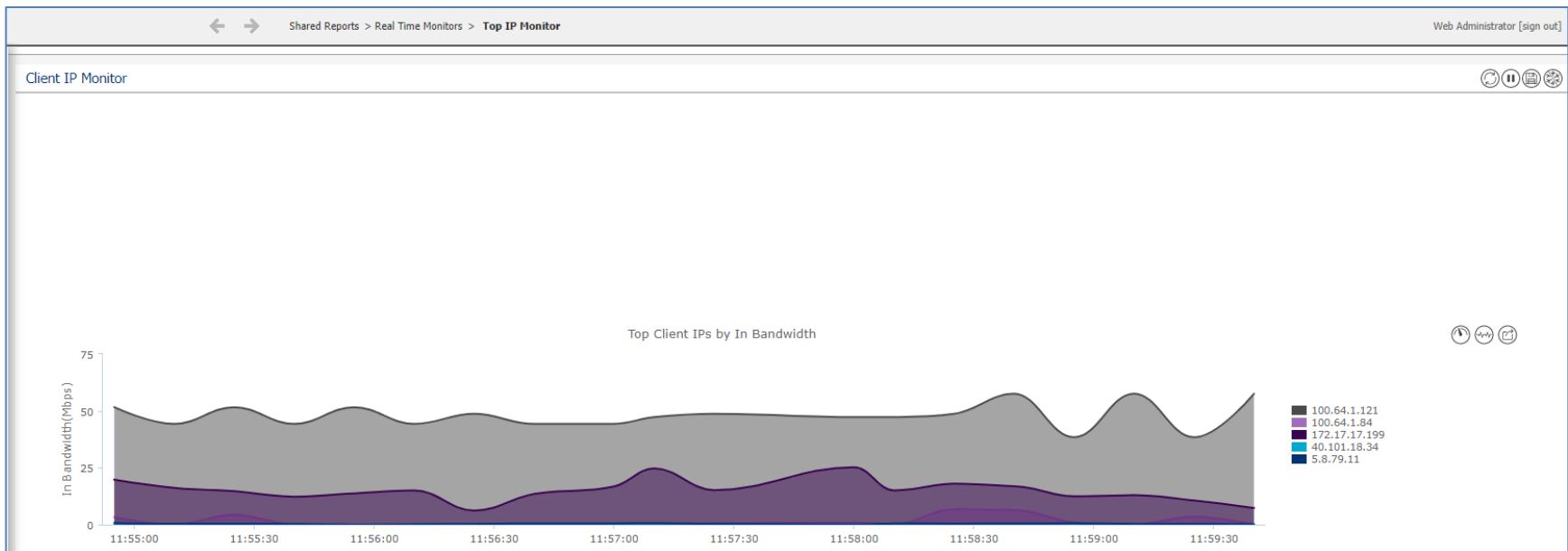
2. From the **Top N Client IPs** list, select the number of top client IPs you want to appear, from the top **1** to the top **25** IPs.
3. From the **Select Metric** list, select the metric or metrics you want to monitor of the application or applications.

**NOTE** You can only select more than one metric if those metrics are all of the same type, for example, In Bandwidth and Total Bandwidth.

4. Click Run Report.

A new tab opens in your browser for the monitor. It may take a minute for the monitor to commence rolling, and it continues rolling even if you move to another tab or open another monitor.

Within the monitor, for each of the metrics you selected, a panel appears containing a graph of the metric, with a trend line for each of the top client IPs.



5. Do any of the **REAL-TIME MONITOR ACTIONS**.
6. Close the monitor, and stop the monitor from rolling, by closing the tab.

## Real-Time Monitor Actions

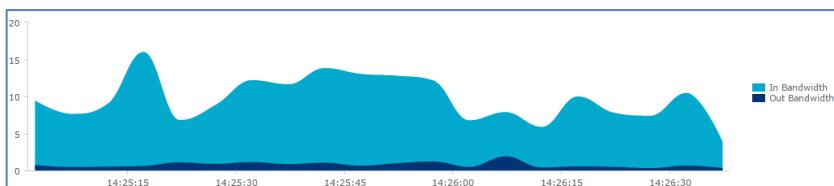
After opening a Real-Time monitor, you can perform the following actions:

- Read a tooltip of the measure of an attribute by mousing over the bar at any given time. The measure is the absolute height of the bar from 0 (zero), not from the bottom of the bar.



**Figure 4-58: Tool-Tip in a Real-Time Report**

- From the upper toolbar, you can do the following:
  - ◆ Refresh the reports by clicking the refresh button . This is helpful for reports monitoring the top applications. The actual top applications may change after opening the monitor, but only the original top applications appear unless you refresh.
  - ◆ Pause the reports in the monitor by clicking the pause button on the upper right. When paused, the pause button becomes the play button .
  - ◆ Un-pause the reports by clicking the play button. When un-paused, the button reverts to the pause button, and the monitor accelerates to the present.
  - ◆ Save the report by clicking the save button . This is helpful after creating a custom report.
- From the toolbar of an individual panel, you can do the following:
  - ◆ Change the type of Real-Time Monitor graph by clicking the **Choose Graph Type** button . The options are as follows:
    - **Stacked Area:**



**Figure 4-59: Stacked Area Type of Real-Time Monitor Graph**

- **Line:**

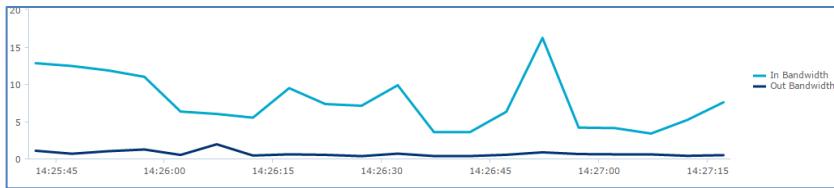


Figure 4-60: Line Type of Real-Time Monitor Graph

- ♦ Export a report in the monitor by clicking the **Export Graph**  on the upper right of the report, and then selecting one of the following:
  - **Export to CSV**
  - **Export to XLS**

**NOTE** When exporting to Excel, there is a limit of 200,000 points. For the Real-Time monitors, this is equivalent to about one month of data if the refresh is set to every 15 seconds, and about one week if set to every 5 seconds.

# 5 Report Mapping

Every Report generated by GW DataReporter uses multiple types of data. GW DataTransform is sent the information that DataReporter utilizes from a variety of sources. That raw information is sifted, sorted, and tagged as Data Records (DRs) by DataTransform. DataReporter then accesses DataTransform's DRs to formulate its reports. Each type of DataReporter report needs access to specific DRs from DataTransform.

This chapter begins by describing the different general sorts of values the DataReporter reports might look for, and then continues by outlining what DRs are needed for which DataReporter reports. For a description of each of the DRs, see [DR TYPES](#). This assists in verifying that the DRs required for your DataReporter installation are enabled, as described in [VERIFYING THAT ALL REQUIRED DRs ARE ENABLED](#). The cells in the DR columns may be filled out as follows:

- **R = Required:** The DR is required.
- **P = Partially required:** The DR is non-essential. Without, the report will be missing some functionality.
- **Blank:** If the cell is blank, the DR does not contribute to the report. Without the DR, functionality remains unaffected.

**NOTE** Subscriber uniqueness is an attribute that enables you to drill down in reports to view metrics of individual subscribers. The GW SubscriberMgr (SMGR) is required for subscriber uniqueness. If there is no SMGR, then reports appear as follows:

- Those requiring CONV do work, but without the ability to drill down by subscriber.
- Those requiring CMDR (in addition to CONV) do not work, as lacking the SMP, CMTS is empty.

CDR Types	Description
CONV	Volume per conversation/application
CONV_RTU	Volume of all conversations summarized by GW Controller static policy elements – 15 second resolution (Real-Time)
CONV_RTS	Volume conversation/application for specifically selected user/IP – 15 second resolution (Real-Time)

<b>SDR</b>	<ul style="list-style-type: none"> <li>Information about the session, as extracted from the RADIUS message</li> <li>Maps Subscriber (MSISDN) to IP/service plan/IMEI (Equipment Identity) /IMSI (SIM Identity)</li> </ul>
<b>UDR</b>	Volume per subscriber and per application (for example, YouTube, Skype, FTP, P2P)
<b>HTTP</b>	Volume for each HTTP domain
<b>HDR</b>	Web activity volume usage per subscriber, plus HTTP site URL, application, mobile device type and L5 Transport Protocol (HTTP/HTTPS/SPDY)
<b>VDR</b>	Volume per subscriber for each video viewing, plus other video statistics (response time, HTTP site URL, and content-provider such as DailyMotion or YouTube)
<b>VC</b>	Volume per policy element (not currently used by GW DataReporter)
<b>MOU</b>	VOIP Minutes Of Use per service plan (for example, gold) and per service (for example, Skype)
<b>CMDR</b>	<ul style="list-style-type: none"> <li>Information about the cable session, as extracted from CMTS (via SNMP+ IPDRs)</li> <li>Maps Subscriber (CM-MAC) to CMTS, MAC domain, upstream channels, downstream channels, service plan</li> </ul>
<b>Security DRs</b>	Information about the Content Filter, AntiPhishing and Antivirus services, as well as auditing information about NetProtect

This chapter provides mapping for each report in a table for each folder. We define which DRs (data records) are required for the functionality of the report. For a description of each of the DRs, see [DR TYPES](#). This assists in verifying that the DRs required for your GW DataReporter installation are enabled, as described in [VERIFYING THAT ALL REQUIRED DRs ARE ENABLED](#). The cells in the DR columns may be filled out as follows:

- R = Required:** The DR is required.
- P = Partially required:** The DR is non-essential. Without, the report will be missing some functionality.
- Blank:** If the cell is blank, the DR does not contribute to the report. Without the DR, functionality remains unaffected.

**NOTE** Subscriber uniqueness is an attribute that enables you to drill down in reports to view metrics of individual subscribers. The SMGR is required for subscriber uniqueness. If there is no SMGR, then reports appear as follows:

Those requiring CONV do work, but without the ability to drill down by subscriber.

Those requiring CMDR (in addition to CONV) do not work, as lacking the SMGR, CMTS is empty.

## DR Types

GW DataReporter reports on the key types of data flowing through the service network. These DRs are:

DR	Full Name	Description
CONV	Conversation	Includes bandwidth per connection
CONV_RTU	Real-Time Unsolicited	Real-time information per policy with drill-down applications
CONV_RTS	Real-Time Solicited	Real-time information of a specific conversation/application for a specific user/IP
SDR	Session Detail Record	Information extracted from the RADIUS message
UDR	Usage Detail Record	Volume per subscriber and per application within a session (for example, YouTube, Skype, FTP, P2P)
HTTP	HTTP Domain	Web traffic information (the number of connections/subscribers/BW) for each HTTP domain
HDR	HTTP Detail Record	Includes Web activity usage for each subscriber
VDR	Video Data Record	Video session (response time, hourly volume, resolution)
VC	Virtual Channel	Include bandwidth for each policy element (Line/Pipe/VC)
MOU	Minutes of Use	VoIP usage information (session duration, start and end times)
CMDR	Cable Modem Data Record	Traffic compiled via a CMTS connection by the SMGR, including congestion and usage distribution as well as subscriber information
NetProtect	NetProtect Records	Group of buckets generated by subscriber activity in NetProtect

## Verifying that All Required DRs Are Enabled

This procedure describes how to verify that all of the DRs required for the reports that you need are enabled, making use the DR mapping tables appearing in the following sections.

To verify that all required DRs are enabled:

1. In the DR mapping tables, find the reports that you need, and check if the DRs required for the report are enabled, as follows:
  - ◆ [DR MAPPING FOR THE NETWORK FOLDER](#)
  - ◆ [DR MAPPING FOR THE EXPERIENCE FOLDER](#)
  - ◆ [DR MAPPING FOR THE DEVICE FOLDER](#)
  - ◆ [DR MAPPING FOR THE SUBSCRIBER FOLDER](#)
  - ◆ [DR MAPPING FOR THE REAL TIME MONITORS](#)
  - ◆ [DR MAPPING FOR SECURITY FOLDER](#)
2. As required, enable the DRs in GW DataTransform. Use the following table as a quick reference:

DR Type	Location	Area on Tab
HTTP	Network Configuration, Integrated Service tab	WebFilter Service Specific Configuration
RT Solicited, Unsolicited	Network Configuration, Servers tab	Allowed Hosts
HDR	Service Activation tab	HTTP CDR
MOU		VOIP Reports
VDR		Video Data Records

## DR Mapping for Network Folder

The following table maps the DRs contributing to the Network folder.

Reports in Network Folder	CONV	SDR	HDR	MOU	VDR	CMDR	HTTP	UDR
Gateways & Policies	R						P	
Policy Lines	R							
Policy Pipes	R							
Policy Virtual Channels	R							
Network Statistics Trend	R							
Network Usage	R							
Busy Hours	R						P	
HTTP Protocols			R					
IP Versions	R							
Cell Usage	R							
Session Duration		R						R
Service Plan Usage	R							
CMTS Host Usage	R					R		
MAC Domain Usage	R					R		
CMTS Interface Usage	R					R		
CMTS Interface Monitoring	R					R		
Technology Migration Report	R	R						
AS Next Hop	R							
AS Destinations	R							

Minutes of Use	R							
----------------	---	--	--	--	--	--	--	--

## DR Mapping for Experience Folder

The following table maps the DRs contributing to the Experience folder.

Reports in Experience Folder	CONV	SDR	HDR	MOU	VDR	HTTP	CMDR
Application Rank	R						
Applications Trend	R						
Applications Usage	R						
Most Active HTTP Domains						R	
Applications Movers Report	R						
Video Trends Report					R		
Video Experience Report					R		
Encrypted Video QoE					R		
Web Experience		R					
Video Usage					R		
Video Publishers					R		
Top Watched Videos					R		
Browsing QoE		R					
Video Stats					R		

## DR Mapping for Device Folder

The following table maps the DRs contributing to the Device folder.

Reports in Device Folder	CONV	SDR	HDR	MOU	VDR	CMDR	HTTP
Device Usage Trends	R	P					

## DR Mapping for Subscriber Folder

The following table maps the DRs contributing to the Subscriber folder. In this folder, SMGR is required, as subscriber uniqueness is essential.

Reports in Subscriber Folder	CONV	SDR	HDR	MOU	VDR	CMDR
Heavy Users	R					
Heavy Users Trend	R					
User Network Usage	R					
User App Usage	R					
User Top Sites			R			
User Device Usage	R	P				
User Tethering	R					
User QoE					R	
User Segmentation	R					

## DR Mapping for the Real-Time Monitors

The following table maps the DRs contributing to the Real-Time Monitor. The reports in the Real-Time Monitor appear regardless of the SP profile selected by the service provider.

Reports in Real-Time Monitor	CONV	SDR	HDR	MOU	VDR	CMDR	RT Solicited	RT Unsolicited
Network Monitor	R							R
Policy Monitor	R							R
User Monitor	R						R	
Client IP Monitor	R						R	
Create Custom Monitor	R							R
Application Monitor	R							R
Application Group Monitor	R							R
Network QoE Monitor	R							R
Top IP Monitor	R						R	

## DR Mapping for Security Folder

The following describes which DRs are required for the Security folder:

- For **NetProtect Statistics**, the **NetProtectRequests** DR is required.
- For the reports in the **Statistics & Analysis** folder, the following DRs are required:

Name	NetProtectRequest	NetProtectServiceactivation	CONV	Subscriber.csv
Category Analysis	R			
Security Statistics	R	R		
Security Trends	R	R		
Subscriber Analysis	R	R	R	P
Top Subscriber Analysis	R	R	R	P

- For the templates in NetProtect Templates, the following DRs are required:

Name	NetProtectRequest	NetProtectAuditLogin	NetProtectAuditmaster tables	NetProtectMail	NetProtectRedirection	NetProtectInternal
Templates in the <b>Web Content Filters</b> folder	R					
Templates in the <b>AntiPhishing</b> folder	R					
Templates in the <b>Antivirus</b> folder	R					
Templates in the <b>Auditin g</b> folder	Last month Logon Summary		R			
	Last week Changes in Profiles			R		
	Last week Changes in Policies			R		

	All other <b>Auditin</b> g templates						R
	Templates in the <b>AntiSpam.In</b> and <b>AntiSpam.Out</b> folders				R		
	Templates in the <b>AutoNotice</b> folder					R	
	Templates in the <b>Monitoring</b> folder						R

- For the WebFilter reports, the WebFilter bucket is required.

# 6 Preferences

This chapter contains procedures regarding preferences that you are able to customize in GW DataReporter.

After **OPENING PREFERENCES**, you can do the following:

- **CHANGE THE EXCEL VERSION FOR EXPORT**, which you should carry out if your Excel exports are empty after opening.
- **CHANGE THE GW DATAREPORTER HOME PAGE** to another report.
- **CHANGE THE USER PASSWORD**, which you may have to do upon opening GW DataReporter for the first time, or at any point subsequently.

From **PREFERENCES** you can also maintain your **Personal List**, which makes **SUBSCRIPTION MANAGEMENT** easier. These procedures are in **PERSONAL LIST PREFERENCES**.

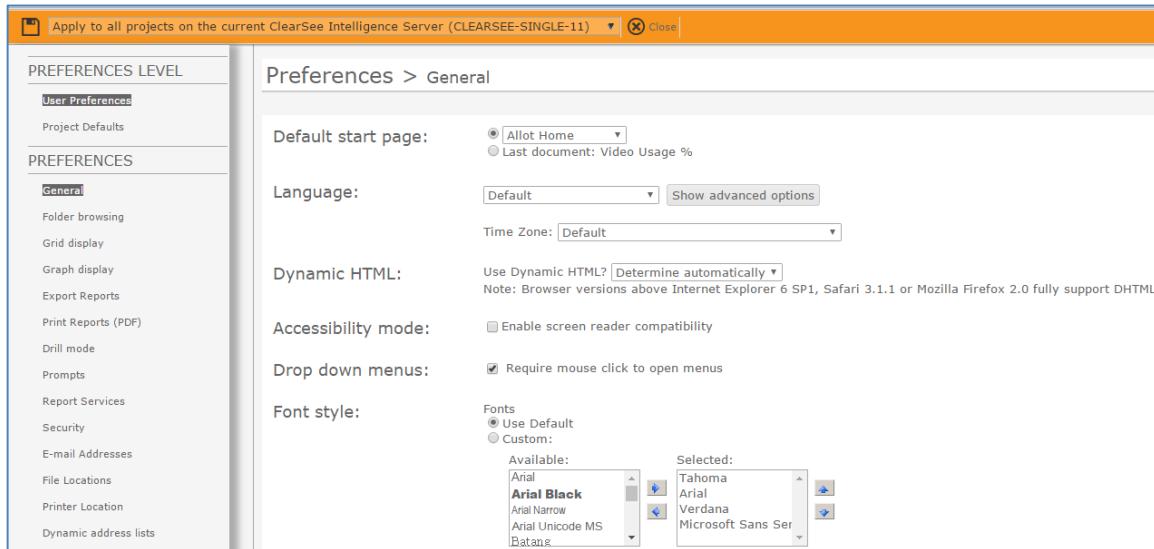
In addition to the above, there are many other preferences that may or may not be available to you.

## Opening Preferences

This procedure describes how to open **Preferences**, in order to view or edit them.

To open Preferences:

- From the **Reporting** panel, click **Preferences**.  
**Preferences** appears.



**Figure 6-1: GW DataReporter Preferences**

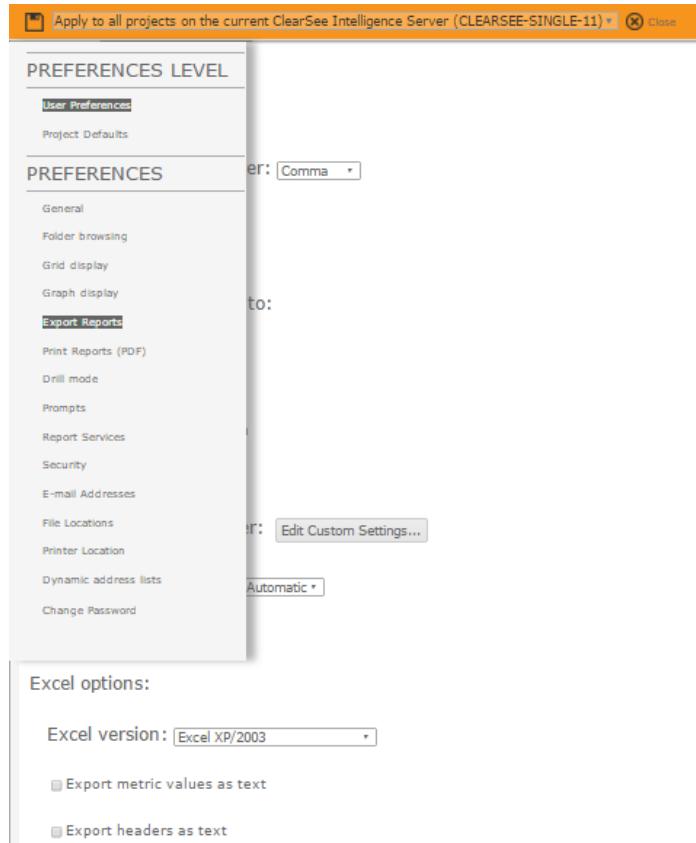
## Changing Excel Version for Export

This procedure describes how to change the Excel version when exporting a report to Excel. This is the solution that you should carry out if your Excel exports are empty after opening.

To change Excel version for export:

1. **OPEN PREFERENCES**, and then, from the menu, under **Preferences**, select **Export Reports**.
2. Under **Excel Options**, from the **Excel Version** dropdown list, select **Excel XP/2003**.

**NOTE** If the options are not visible, then you may need to zoom in to about 50%. **Excel Options** is toward the bottom of the page.



**Figure 6-2: Preferences Zoomed In to 67% in Chrome**

3. Click **Apply**.

Indicating that your preferences have been saved, confirmation appears.

#### **Update Confirmation**

Your personal preferences have been saved.

**Figure 6-3: Preferences Saved Confirmation**

When you export to Excel, the export should contain the report.

## Changing the GW DataReporter Home Page

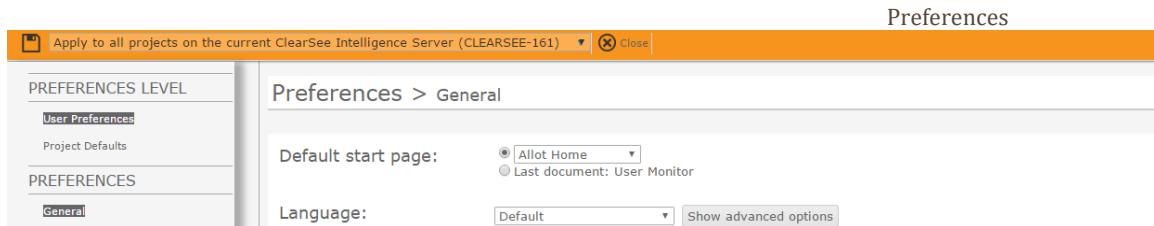
This procedure describes how you can enter GW DataReporter Preferences in order to change the GW DataReporter Home page from the default.

To change the GW DataReporter home page, do one of the following:

- If the home page you have in mind not a report:
  - a. [OPEN PREFERENCES](#).
  - b. Under **Preferences > General**, in the **Default Start Page** area, from the dropdown list, select any of the options for the home page, in which the **Home** option is the **Gateways** report.
  - c. At the bottom of the page, click **Apply**.

Indicating that your preferences have been saved, confirmation appears.
- If the home page you have in mind is a report:
  - a. Go to the report you want to be the home page.
  - b. [OPEN PREFERENCES](#).
  - c. Under Preferences > General, in the Default Start Page area, select the Last Document option.
  - d. At the bottom of the page, click **Apply**.

Indicating that your preferences have been saved, confirmation appears.



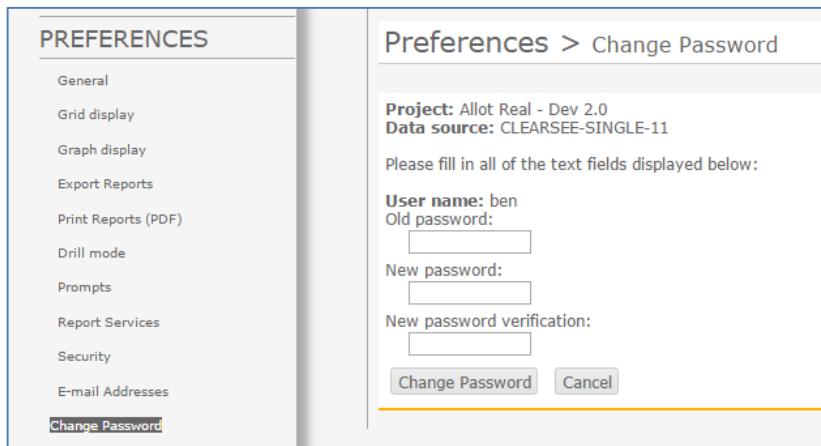
**Figure 6-4: Preferences Default Start Page Area**

## Changing the User Password

This procedure describes how to change the password entered by the user to open GW DataReporter. This includes the password of the administrator, web\_admin. You may have to do this the first time you open GW DataReporter, or at any point subsequently.

To change your user password:

4. **OPEN PREFERENCES**, and then open the **Change Password** tab.



**Figure 6-5: Change Password Tab**

5. Complete the Old Password, New Password and New Password Verification fields, and then click Change Password.  
You have changed your password.

## Changing GW DataReporter's Language to English

This procedure describes how to change GW DataReporter's language to English, which we recommend doing before first using GW DataReporter.

## Preferences

Changing the language to another language or leaving it as default can cause viewing problems.

To change GW DataReporter's language to English:

1. [OPEN PREFERENCES](#), and then, on the **General** tab, in the **Language** area, from the top dropdown list, select **English (United States)**.
2. From the bottom of the page, click **Apply**.

Indicating that your preferences have been saved, confirmation appears.

## Personal List Preferences

This section contains procedures regarding the **Personal List**. The **Personal List** is a list that you can maintain of email addresses to which you often add to subscriptions to reports, for ease of access. Email subscriptions are described in [SUBSCRIPTION MANAGEMENT](#).

You can do the following to maintain your **Personal List**:

- [ADDING AN EMAIL ADDRESS TO THE PERSONAL LIST](#): Adding an email address to the **Personal List** for ease of access
- [SELECTING A DEFAULT RECIPIENT FROM THE PERSONAL LIST](#): Selecting a default recipient to automatically appear in the email's **To** field
- [EDITING A PERSONAL LIST RECIPIENT](#): Editing the details of a recipient on the **Personal List**
- [DELETING A PERSONAL LIST RECIPIENT](#): Deleting a recipient from off the **Personal List**

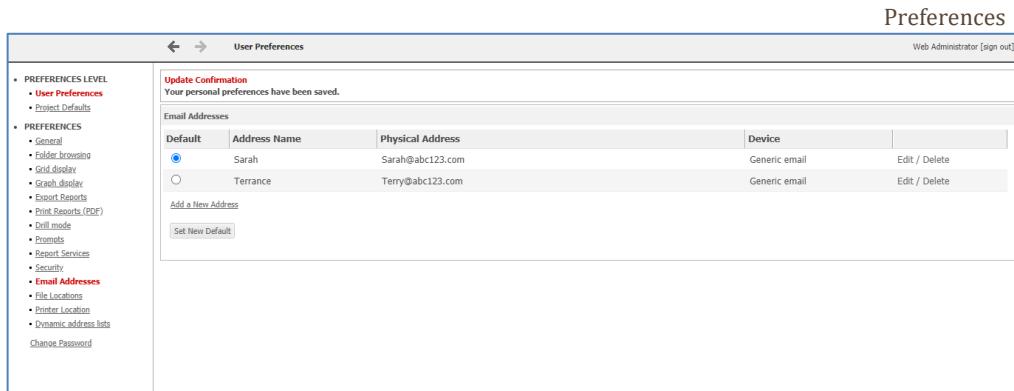
### Adding an Email Address to the Personal List

This procedure describes how to add an email address to your **Email Addresses Personal List**, for ease of selection when [ADDING AN EMAIL SUBSCRIPTION](#).

**NOTE** When you manually add an email address as a recipient to a subscription, the email address is also added to your Personal List.

To add an email address to the **Email Addresses Personal List**:

1. [OPEN PREFERENCES](#), and then select the **Email Addresses** tab.



**Figure 6-6: Email Addresses Tab**

2. Do one of the following:
  - ◆ If there are currently no email addresses in your **Personal List**, then continue with the next step.
  - ◆ If there are currently email addresses already in your **Personal List**, then click **Add a New Address**, and then continue with the next step.

Email Addresses				
Default	Address Name	Physical Address	Device	
✓	Sarah	Sarah@abc123.com	Generic email	Edit / Delete
	Terrance	Terry@abc123.com	Generic email	Edit / Delete
<input type="text"/> <input type="text"/> <input type="button" value="Generic email"/>				<input type="button" value="Save"/> <input type="button" value="Cancel"/>

**Figure 6-7: Fields for Adding a New Address**

3. Do the following:
  - ◆ In the **Address Name** field, add the display name of the email address.
  - ◆ In the **Physical Address** field, add the email address.
  - ◆ In the dropdown list in the **Device** column, leave it as **Generic Email**.
4. Click **Save**.

The address is added to the **Email Addresses Personal List**.

## Selecting a Default Recipient from the Personal List

This procedure describes how to select a default recipient from the **EMAIL ADDRESS Personal List**. When working with **SUBSCRIPTIONS**, in the

**Recipient Browser**, the default recipient automatically appears in the **To** field.

To select a default recipient from a **Personal List**:

1. **OPEN PREFERENCES**, and then select the **Email Addresses** tab.
2. In the row of the recipient that you want to be the default, in the **Default** column, select the radio button.

The default destination has been changed.

## Editing a Personal List Recipient

This procedure describes how to edit a recipient's details in the **EMAIL ADDRESS Personal List**.

To edit a **Personal List** recipient:

1. **OPEN PREFERENCES**, and then select the **Email Addresses** tab.
2. In the row of the recipient, click **Edit**, and then edit the fields.
3. Click **Save**.

The changes are saved.

## Deleting a Personal List Recipient

This procedure describes how to delete a recipient from the **EMAIL ADDRESS Personal List**.

To delete a **Personal List** recipient:

1. **OPEN PREFERENCES**, and then select the **Email Addresses** tab.
2. In the row of the recipient, click **Delete**, and then confirm.

The recipient has been deleted.

## 7

# Advanced Reporting (Self-Service)

GW DataReporter provides a Self-Service Reporting interface for generating ad-hoc reports based on any attribute or measures available in the semantic layer definition. This interface enables an investigative approach with advanced slicing and dicing capabilities that provide the flexibility for ad-hoc filtering, reporting and modifications to previously created reports.

**NOTE** **Self-service reports are limited to an intake of a maximum of 5,000,000 records (rows) or up to 99,999,999 cells (multiple of rows and columns).**  
**For example, GW DataReporter Self-Service would be able to handle 4 million subscribers (records) with 20 attributes and metrics, as the 4m records is less than the maximum 5m, while the total cells (80m) is less than the maximum 99,999,999. Breaching either of these two limits is not possible.**

To create your own Self-Service report, see the [RUNNING A SELF-SERVICE REPORT](#) workflow. This workflow contains the following procedures:

- [DATASET TIME GRANULARITY](#): Describes how dataset time granularity options work
- [FILTERING THE REPORT CRITERIA BY ATTRIBUTE](#): Describes how to filter the Self-Service report on the **Report Criteria** page by attribute, prior to report generation, to sharpen the data
- [FILTERING THE REPORT CRITERIA BY METRIC](#): Describes how to filter the Self-Service report on the **Report Criteria** page by metric, prior to report generation, to sharpen the data
- [SELF-SERVICE INTERFACE NAVIGATION](#): Describes the parts of the Self-Service interface and their relation to one another
- [SELECTING THE REPORT VISUALIZATION](#): Describes how to select the right report visualization for your report's needs.
- [BUILDING A FREE-LANGUAGE VISUALIZATION](#): Describes how to build Self-Service report using **Free-Language Visualization**. With this functionality, there is a search field where you can type your query, and then GW DataReporter shows you that.
- [FILTERING THE SELF-SERVICE REPORT](#): Describes how to filter the data in your Self-Service report
- [SELF-SERVICE REPORT ACTIONS](#): Describes Self-Service report actions you can perform after creating the report
- [SAVING THE SELF-SERVICE REPORT](#): Describes how to save a Self-Service report to **Custom Reports** or **My Reports**, so that you can open it again at a later date and view current data with the same filters

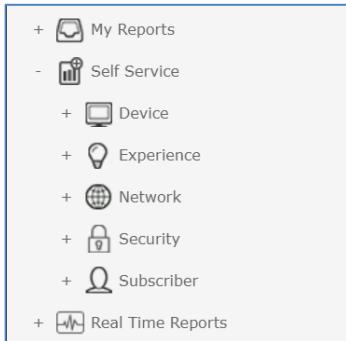
For templates to serve as examples when creating Self-Service reports, see [SELF SERVICE REPORT EXAMPLES](#).

# Running a Self-Service Report

This procedure describes how to run a Self-Service report. Much of this procedure occurs on the **Report Criteria** page, which is described in [SELECTING REPORT CRITERIA](#).

To run a Self-Service report:

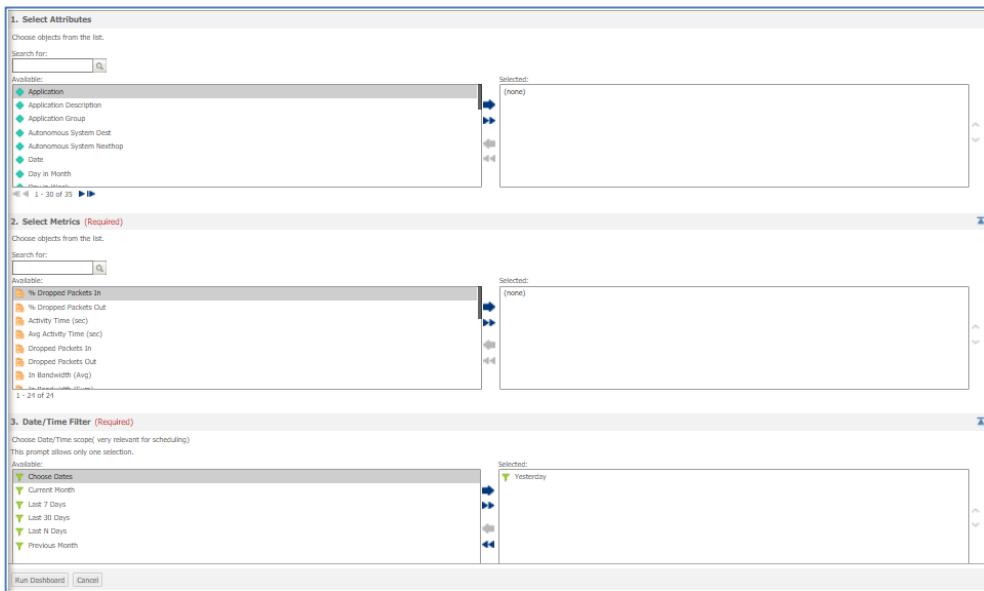
- From the **Reporting** panel, select **Self-Service**.



**Figure 7-1: Self-Service Datasets on the Reporting Panel**

- Select the right Self-Service report for your needs, as follows:
  - To determine the right granularity, refer to [DATASET TIME GRANULARITY](#).
  - To determine the type of report, refer to the table in the [SELF-SERVICE REPORTS](#) section.

After selecting the report, the **Report Criteria** page appears.



**Figure 7-2: Self-Service Report Criteria Page**

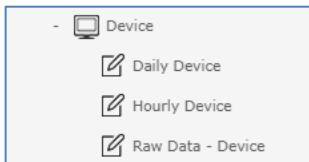
- On the **Report Criteria** page, do the following:
  - From the **Select Attributes** list, select up to 5 attributes that the report should cover.

- ♦ From the **Select Metrics** list, select up to 3 metrics that the report should measure.
  - ♦ Do one of the following:
    - If you did not select a raw data report, then, from the **Date/Time Filter** list, select one filter to define the length of time that the report should cover.
    - If you did select a raw data report, then, from **Start Time** and **End Time**, define the length of time that the report should cover.
  - ♦ From the **Attribute Filter** list, [FILTER THE REPORT CRITERIA BY ATTRIBUTE](#).
  - ♦ From the **Metric Filter** list, [FILTER THE REPORT CRITERIA BY METRIC](#).
  - ♦ From the **Top By Filter** list, select **Top By Filter** for the option to present only the top items of the selected attribute.
4. Click Run Dossier.
- The Self-Service interface appears, as described in [SELF-SERVICE INTERFACE NAVIGATION](#).
5. You can now build your Self-Service report, as follows:
- a. From the **Visualization Gallery**, select the visualization, as described in [SELECTING THE REPORT VISUALIZATION](#).
  - b. From the **Datasets** area, drag attributes and metrics into the fields in the **Editor** tab. See the [SELF-SERVICE REPORT EXAMPLES](#) for examples of completing the **Editor** fields.

As you add more attributes and metrics, the report takes shape.
  - c. From the Filters area, [FILTER THE REPORT](#).
  - d. From the Report area, do any of the actions described in [SELF-SERVICE REPORT ACTIONS](#).
- Alternatively, you can build the report using **Free-Language Visualization**, as described in [BUILDING A FREE-LANGUAGE VISUALIZATION REPORT](#).
6. Do any of the following:
- ♦ By selecting the relevant option from the **Dashboard Options** toolbar, [SAVE THE REPORT](#) and [SHARE](#), [PRINT](#) or [EXPORT](#) the report as needed.
  - ♦ To refresh the report, from the **Dashboard Options** toolbar, click the refresh button  as described in [REFRESHING A REPORT](#).
  - ♦ To return to the **Report Criteria** page so that you can make changes to the report, from the **Dashboard Options** toolbar, click the re-prompt button .

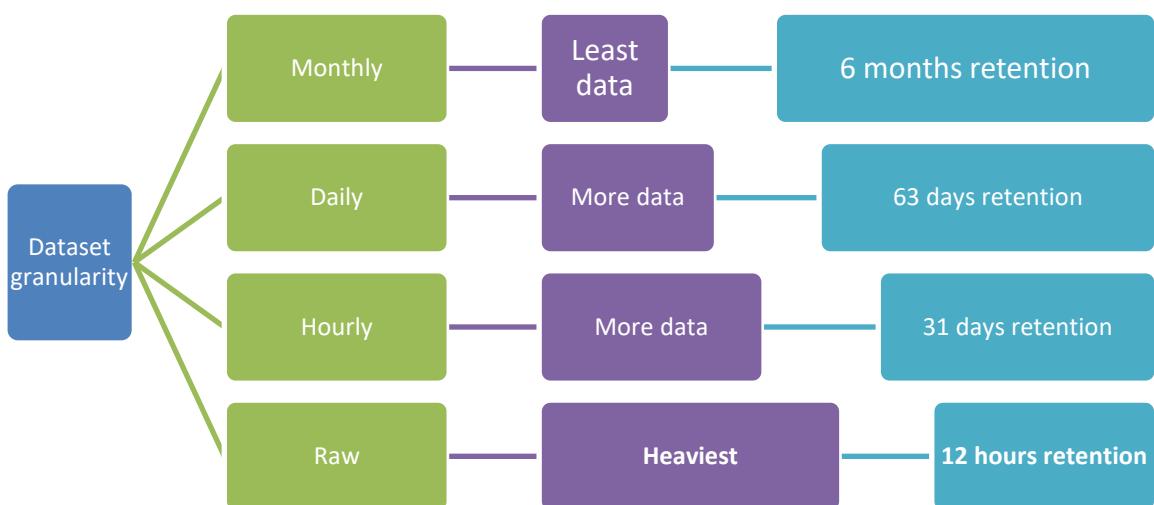
## Dataset Time Granularity

Each of the datasets you can select from the dataset folders is further divided by time granularity. When you select a dataset, you are not only selecting the dataset but also the time granularity of the data within the dataset.



**Figure 7-3: Self-Service Report Granularity Options**

The time granularity options monthly, daily, hourly and raw. The coarser the granularity, the less the data load and the longer the data retention. This relationship is illustrated as follows:



When creating a report, be sure to use the coarsest granularity possible for your purposes. For example:

- To investigate monthly data, do not select an hourly dataset.
- After selecting the monthly dataset, you cannot investigate hourly data.

## Filtering the Report Criteria by Attribute

This procedure describes how to filter the Self-Service report on the **Report Criteria** page by attribute, prior to report generation, to sharpen the data. You can also filter by attribute after report generation, as described [HERE](#), but that method retains the non-used data, resulting in a heavier report.

Much of this procedure occurs on the **Report Criteria** page, which is described in [SELECTING REPORT CRITERIA](#).

This is part of [CREATING A SELF-SERVICE REPORT](#).

To filter the report criteria of a Self-Service report by attribute:

1. On the **Report Criteria** page, from the **Attributes Filter** area, select the attribute from the **Available** list, and then click the arrow to add it to the **Selected** list.

In the **Selected** list, the attribute appears in a row as follows:



**Figure 7-4: Selected Attribute in the Attributes Filter**

2. From the row, click **Qualify** and then, from the dropdown list, select **Select**, so that a list of all the attribute items will be presented.

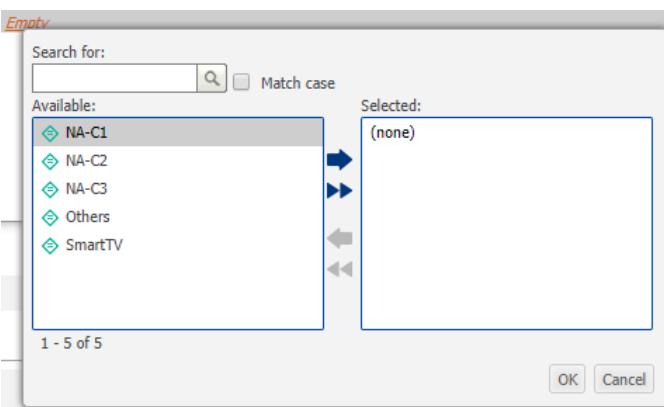


**Figure 7-5: Select Option in Attribute Filter**

In the row, after **Select**, **In List** and **Empty** appear.

3. From the row, click **In List**, and then do one of the following:
  - ♦ If you want to select the attribute items to appear in the report, then, from the dropdown list, select **In List**.
  - ♦ If you want to select the attribute items that should not appear in the report, then, from the dropdown list, select **Not In List**.
4. From the row, click **Empty**.

A dialog box appears containing all the available attribute items.



**Figure 7-6: Attribute Item Dialog Box**

5. For each item you want to add, do one of the following:
  - ♦ From the **Available** list, select the item, and then click the arrow to add it to the **Selected** list.

- ♦ To narrow down the items in the **Available** list, in the **Search** field, enter search criteria, selecting **Match Case** if needed, and then click the magnifying glass.
6. Click **OK**.
- The attribute filter has been added.
- NOTE** To remove the attribute filter, select the attribute filter from the **Selected** list and then, from above the **Selected** list, click .
7. Repeat the above steps for each attribute filter.
  8. If you have added more than one filter, then, from the options to the right of the **Selected** list, do one of the following:
    - ♦ Select **All Selections** if the metric data should only appear if it fits the criteria of all filters.
    - ♦ Select **Any Selection** if the metric data may appear even if it fits the criteria of only one filter.
  9. Return to [CREATING A SELF-SERVICE REPORT](#).

## Filtering the Report Criteria by Metric

This procedure describes how to filter the Self-Service report on the **Report Criteria** page by metric, prior to report generation, to sharpen the data. You can also filter by metric after report generation, as described [HERE](#), but that method retains the non-used data, resulting in a heavier report.

Much of this procedure occurs on the **Report Criteria** page, which is described in [SELECTING REPORT CRITERIA](#).

This is part of [CREATING A SELF-SERVICE REPORT](#).

To filter the report criteria of a Self-Service report by metric, then for each metric filter:

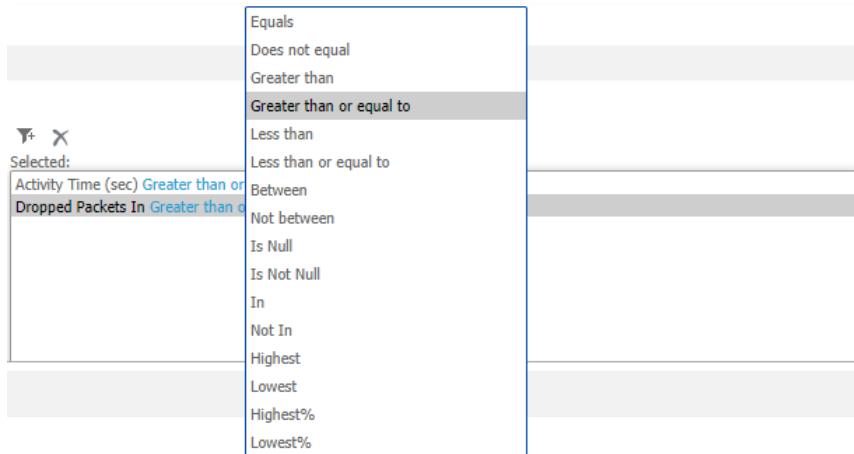
1. On the **Report Criteria** page, from the **Metric Filter** area, select the metric from the **Available** list, and then click the arrow to add it to the **Selected** list.

In the **Selected** list, the metric appears in a row as follows:



Figure 7-7: Selected Metric in the Metrics Filter

2. From the row, click **Greater than or Equal to** and then, from the dropdown list, select the operator.



**Figure 7-8: Operator Selection in the Metric Filter**

3. From the row, click **Value** and then, from the dialog box, enter the value by which to filter the metric.

The metric filter has been added.

**NOTE To remove the metric filter, select the metric filter from the Selected list and then, from above the Selected list, click .**

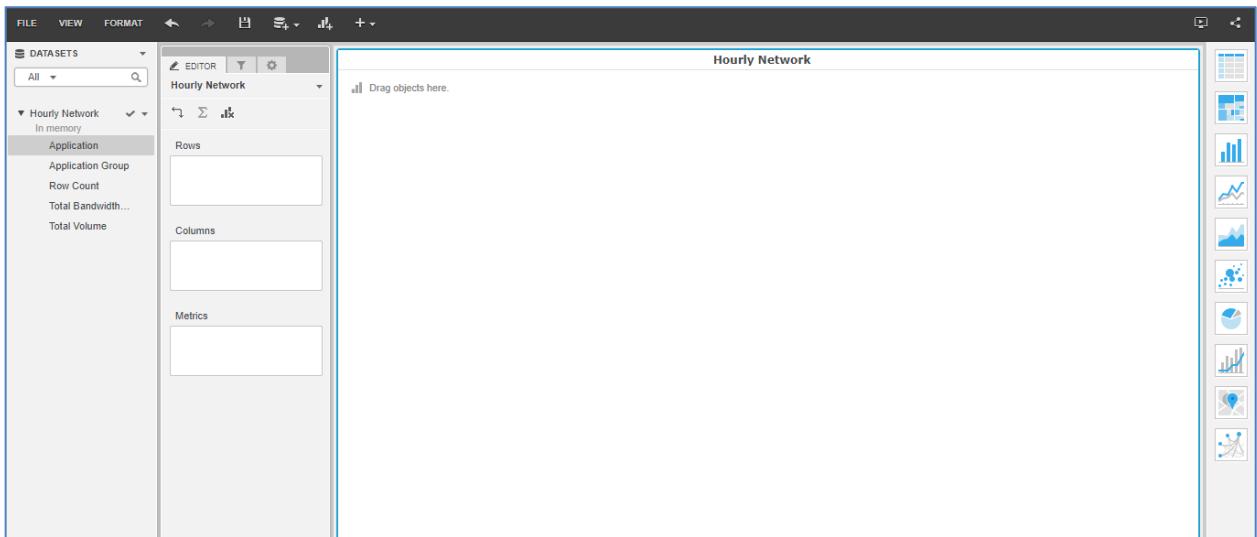
4. Repeat the above steps for each metric filter.
5. If you have added more than one filter, then, from the options to the right of the **Selected** list, do one of the following:
  - ◆ Select **All Selections** if the metric data should only appear if it fits the criteria of all filters.
  - ◆ Select **Any Selection** if the metric data may appear even if it fits the criteria of only one filter.
6. Return to [CREATING A SELF-SERVICE REPORT](#).

## Self-Service Interface Navigation

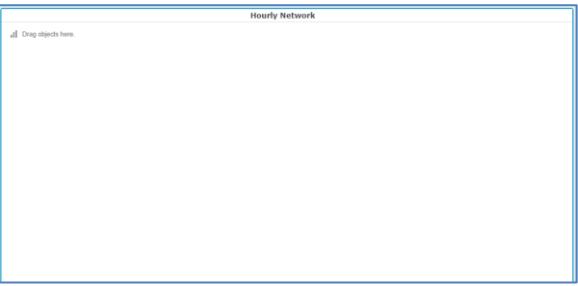
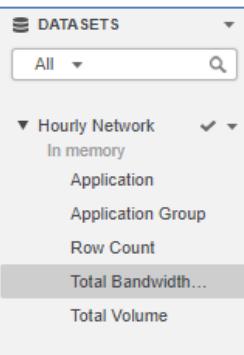
In this section, we describe the parts of the Self-Service interface and their relation to one another.

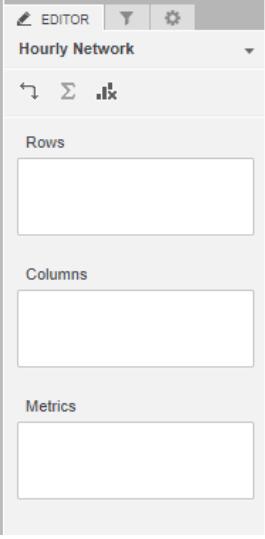
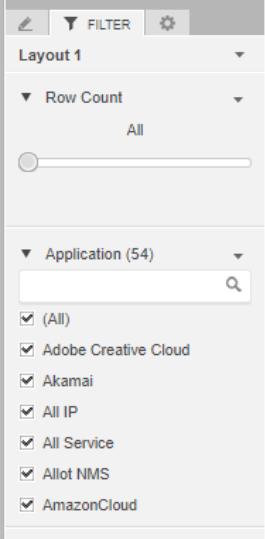
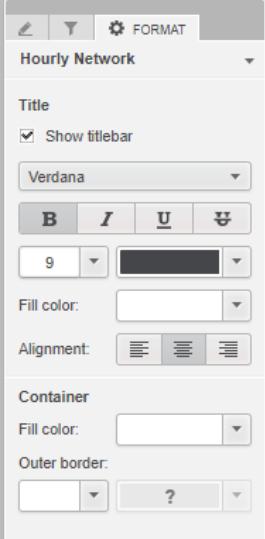
This is part of [CREATING A SELF-SERVICE REPORT](#).

After you click **Run Dashboard** from the **Report Criteria** page, the Self-Service interface appears, but as yet you see no report, as follows:



The areas of the Self-Service interface are as follows:

Area	Picture	Description
Visualization Gallery	 <p>The Visualization Gallery is a grid of icons representing different types of data visualizations. It includes categories like 'Built-in' (containing icons for tables, bar charts, line graphs, pie charts, and network diagrams) and 'Custom' (containing icons for cloud storage and data integration).</p>	<p>From this area, on the far right of the interface, you can select a visualization type, such as a table or a bar graph.</p>
Report Area	 <p>The Report Area is a large, empty rectangular space with a blue border. At the top, it displays the title 'Hourly Network' and a placeholder message 'Drag objects here.'</p>	<p>This area, in the center of the interface, is where the report appears.</p>
Datasets Area	 <p>The Datasets Area is a sidebar on the left containing a list of selected attributes and metrics. The list includes 'Hourly Network' (selected), 'In memory', 'Application', 'Application Group', 'Row Count', 'Total Bandwidth...', and 'Total Volume'. The 'Total Bandwidth...' item is highlighted with a gray background.</p>	<p>This area, on the far left of the interface, contains all of the attributes and metrics you selected on the <b>Report Criteria</b> page. You use these to create your report.</p>

Editor Tab		<p>In this area, to the left of the <b>Report</b> area, you define the appearance of your report, by dragging into the fields the attributes and metrics appearing in the <b>Datasets</b> area. The fields in the <b>Editor</b> tab change based on the visualization you selected from the <b>Visualization</b> area.</p>
Filter Tab		<p>In this area, to the left of the <b>Report</b> area, you can filter the data that goes into the report. You add filters by dragging into the area the attributes and metrics appearing in the <b>Datasets</b> area.</p>
Format Tab		<p>In this area, to the left of the <b>Report</b> area, you can edit the format of your report, such as changing the font or the fill color.</p>

Toolbar		The toolbar provides helpful options such as undo, save, insert and send.
---------	--	---------------------------------------------------------------------------

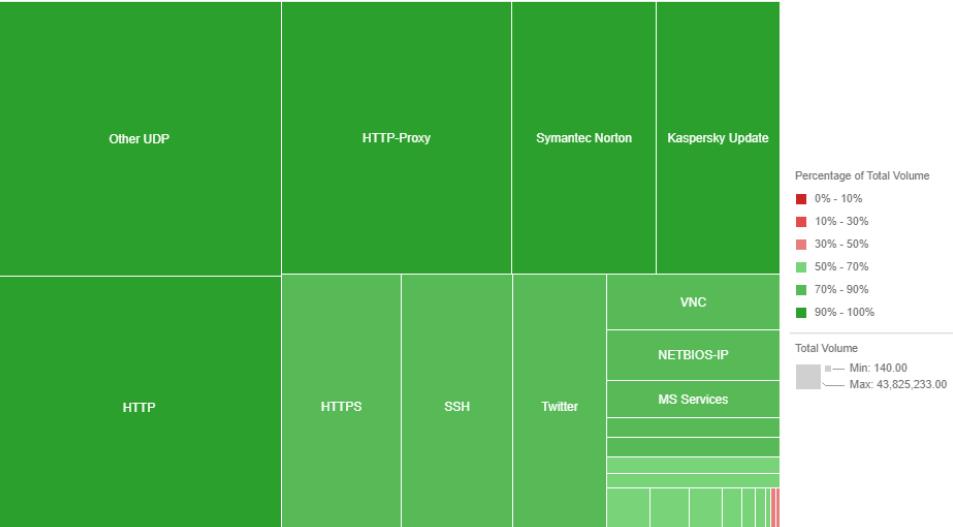
Return to [CREATING A SELF-SERVICE REPORT](#).

## Selecting the Report Visualization

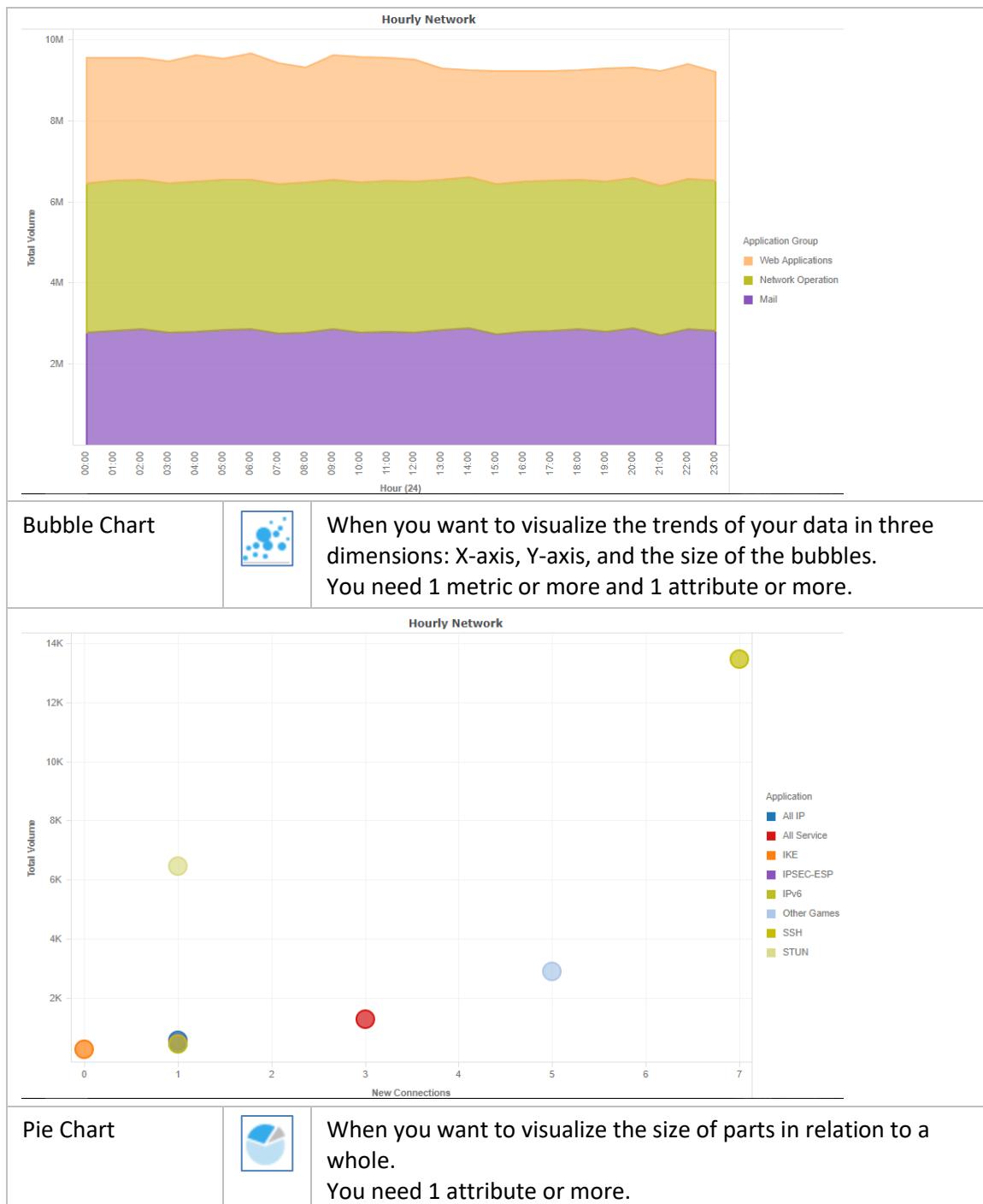
This procedure describes how to select the right report visualization for your report's needs. This is not just for aesthetic reasons, as, often, only a specific visualization may portray the report's data correctly. The wrong visualization is misleading and may not permit you to present all the data.

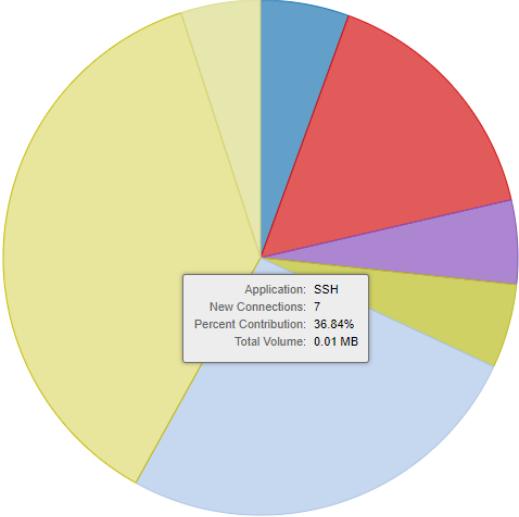
This is part of [CREATING A SELF-SERVICE REPORT](#).

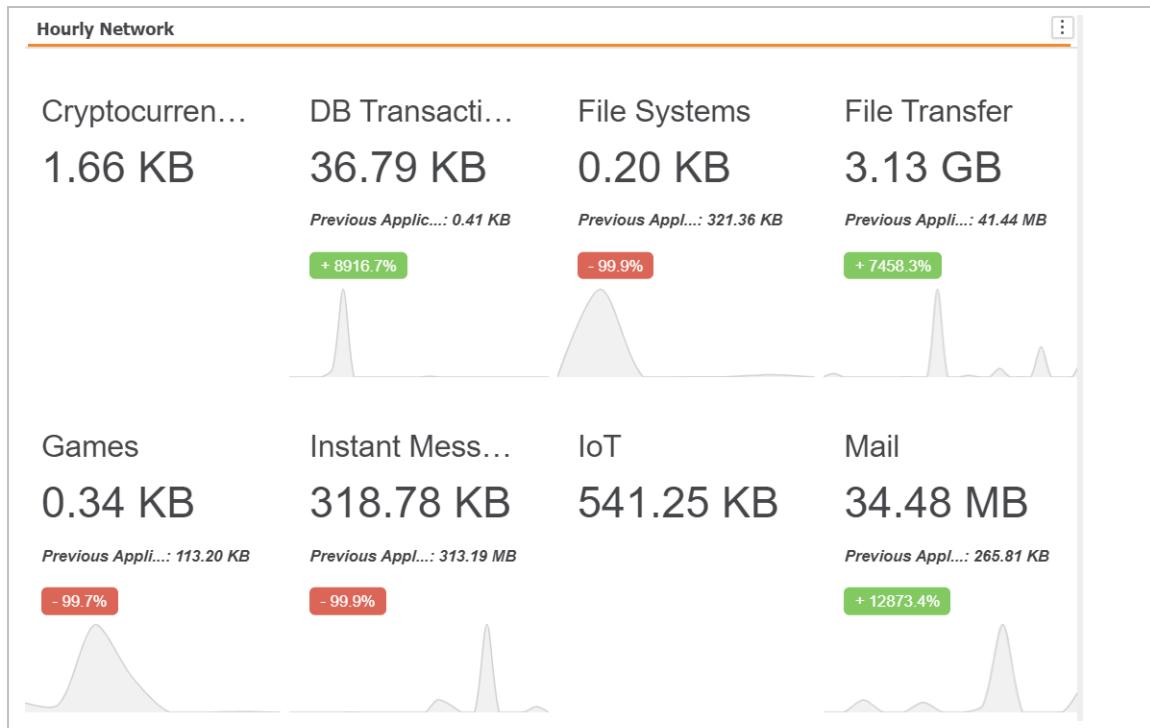
To select the report visualization, in the **Visualization Gallery**, select one of the following:

Visualization	Icon	When to Use																																												
Grid		When you want to display data in an interactive table. You need 1 metric or more and 1 attribute or more.																																												
<b>Hourly Network</b>																																														
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Application</th> <th style="text-align: left;">Application Group</th> <th style="text-align: left;">Total Bandwidth (Sum)</th> <th style="text-align: left;">Total Volume</th> </tr> </thead> <tbody> <tr><td>Adobe Creative Cloud</td><td>Web Applications</td><td>4.17 Kbps</td><td>1.88 MB</td></tr> <tr><td>Akamai</td><td>Web Applications</td><td>0.01 Kbps</td><td>0.01 MB</td></tr> <tr><td>All IP</td><td>Unclassified</td><td>0.01 Kbps</td><td>0.01 MB</td></tr> <tr><td>All Service</td><td>Unclassified</td><td>0.18 Kbps</td><td>0.08 MB</td></tr> <tr><td>Allot NMS</td><td>Network Operation</td><td>2.46 Kbps</td><td>1.11 MB</td></tr> <tr><td>AmazonCloud</td><td>File Transfer</td><td>0.3 Kbps</td><td>0.14 MB</td></tr> <tr><td>ARP</td><td>Network Operation</td><td>2.49 Mbps</td><td>1.12 GB</td></tr> <tr><td>Bing</td><td>Web Applications</td><td>0.1 Kbps</td><td>0.05 MB</td></tr> <tr><td>BITS</td><td>File Transfer</td><td>149.29 Kbps</td><td>67.18 MB</td></tr> <tr><td>Cisco VPN</td><td>Network Operation</td><td>0 Kbps</td><td>0.00 MB</td></tr> </tbody> </table>	Application	Application Group	Total Bandwidth (Sum)	Total Volume	Adobe Creative Cloud	Web Applications	4.17 Kbps	1.88 MB	Akamai	Web Applications	0.01 Kbps	0.01 MB	All IP	Unclassified	0.01 Kbps	0.01 MB	All Service	Unclassified	0.18 Kbps	0.08 MB	Allot NMS	Network Operation	2.46 Kbps	1.11 MB	AmazonCloud	File Transfer	0.3 Kbps	0.14 MB	ARP	Network Operation	2.49 Mbps	1.12 GB	Bing	Web Applications	0.1 Kbps	0.05 MB	BITS	File Transfer	149.29 Kbps	67.18 MB	Cisco VPN	Network Operation	0 Kbps	0.00 MB
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Compound Grid		When you want to display different column groups relating to the same attributes. You need 1 metric or more and 1 attribute or more.																																												
Heat Map		When you want to grasp the state and impact of many variables at once. Information about your data is shown through the size and color of nested rectangles. You need 1 metric or more and 1 attribute or more.																																												
<b>Hourly Network</b>																																														
		 <p>The visualization displays the distribution of network traffic across different applications and protocols. The legend indicates the percentage of total volume:</p> <ul style="list-style-type: none"> <li>0% - 10%</li> <li>10% - 30%</li> <li>30% - 50%</li> <li>50% - 70%</li> <li>70% - 90%</li> <li>90% - 100%</li> </ul> <p>Below the main chart, there is a legend for Total Volume:</p> <ul style="list-style-type: none"> <li>Min: 140.00</li> <li>Max: 43,825,233.00</li> </ul>																																												
Bar Chart		When you want to display data in horizontal or vertical bars that show comparisons among groups of data. You need 1 metric or more and 1 attribute or more.																																												

		<p><b>Line Chart (trend graph)</b></p> <p>When you want to display your data in horizontal or vertical lines that show comparisons among groups of data. This is usually used for comparisons through time, or trend lines. You need 1 metric or more and 2 or more attribute, one of which must be a time attribute.</p>
		<p><b>Area Chart</b></p> <p>Similar to the line chart, when you want to emphasize the areas of difference between the lines displaying your data. You need 1 metric or more and 1 attribute or more.</p>



 <p><b>Hourly Network</b></p> <table border="1"> <thead> <tr> <th>Application</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>All IP</td> <td>~10%</td> </tr> <tr> <td>All Service</td> <td>~25%</td> </tr> <tr> <td>IKE</td> <td>~5%</td> </tr> <tr> <td>IPSEC-ESP</td> <td>~5%</td> </tr> <tr> <td>IPv6</td> <td>~5%</td> </tr> <tr> <td>Other Games</td> <td>~25%</td> </tr> <tr> <td>SSH</td> <td>~5%</td> </tr> <tr> <td>STUN</td> <td>~5%</td> </tr> </tbody> </table>			Application	Value	All IP	~10%	All Service	~25%	IKE	~5%	IPSEC-ESP	~5%	IPv6	~5%	Other Games	~25%	SSH	~5%	STUN	~5%
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IPSEC-ESP	~5%																			
IPv6	~5%																			
Other Games	~25%																			
SSH	~5%																			
STUN	~5%																			
Combo Chart		When you want to display data in bars that show comparisons among groups of data by different metrics. You need 2 metrics or more and 1 attribute or more.																		
Map		When you want to display geographical data as colored regions, markers, or color gradients on an interactive map. <small>If you have questions about this feature, contact Customer Support.</small>																		
Network		When you want to identify relationships between items. Data values are displayed as nodes, and lines between the nodes represent relationships between values. You need 1 attribute or more.																		
Histogram		When you want to use the length of bars in a bar chart to display the frequency of values within metric ranges. Use 1 metric and 1 or more attributes.																		
Box Plot		When you want to visualize means, medians, ranges and outliers of attribute items, for a metric. Use 1 metric or more and 1 attribute or more.																		
KPI		When you want to show quick key performance indications (KPIs) for a single metric. Use 1 metric and 1 attribute or more.																		



[Return to CREATING A SELF-SERVICE REPORT.](#)

## Building a Free-Language Visualization Report

This procedure describes how to build Self-Service report using the **Free-Language Visualization** functionality. With this functionality, there is a search field where you can type your query, and then GW DataReporter shows you that.

To use the functionality, you must already have clicked **Run Dossier** from the **Report Criteria** page.

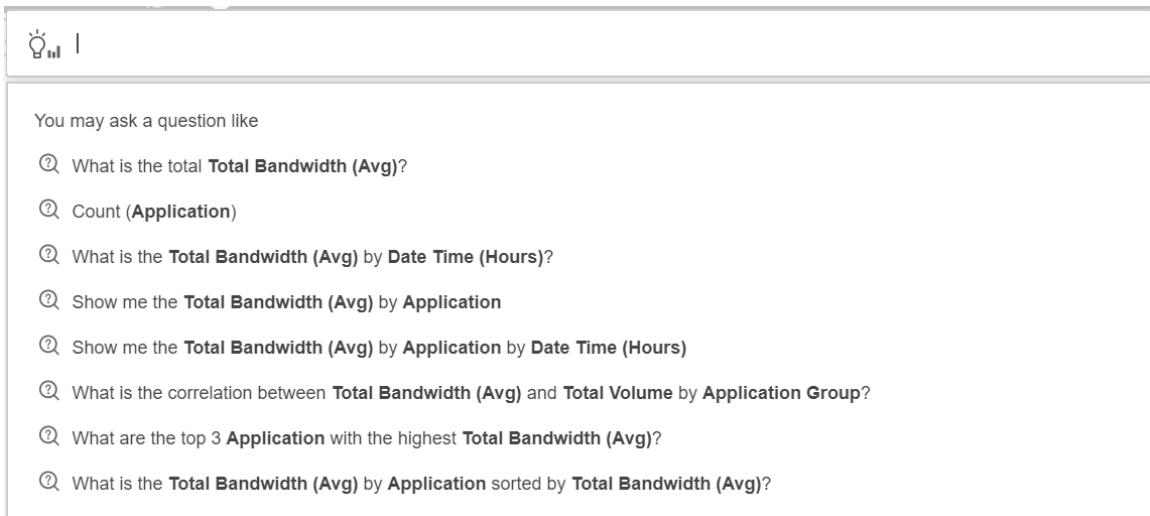
You can use **Free-Language Visualization** as an alternative to or in addition to selecting a visualization and dragging attributes and metrics into the fields in the **Editor** tab.

This is part of [CREATING A SELF-SERVICE REPORT](#).

To build a Free Language Visualization report:

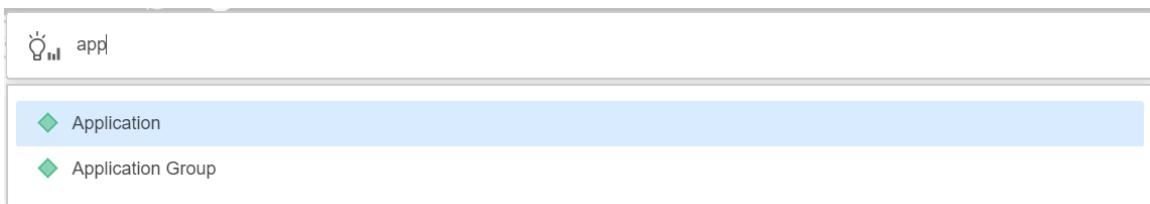
1. From the menu, click and then select **Free-language Vis.**

Similar to the following appears:



**Figure 9: Free-Language Visualization Field**

2. Review the suggested queries from the dropdown list.
3. Select one of the suggested queries, or, in the **Search** field, start typing according to the following guidelines:
  - ◆ You do not need to add the question words like “What are” or “Show me.”
  - ◆ Keep it in the following structures:
    - <METRIC> by <ATTRIBUTE> (for example, **Date Time (Hours)**)
    - Top 3 <ATTRIBUTE> with the highest <METRIC>
    - Correlation between <METRIC> and <METRIC> by <ATTRIBUTE>
    - <METRIC> by <ATTRIBUTE> sorted by <METRIC>
  - ◆ When you start typing a metric or attribute, it appears in full below:

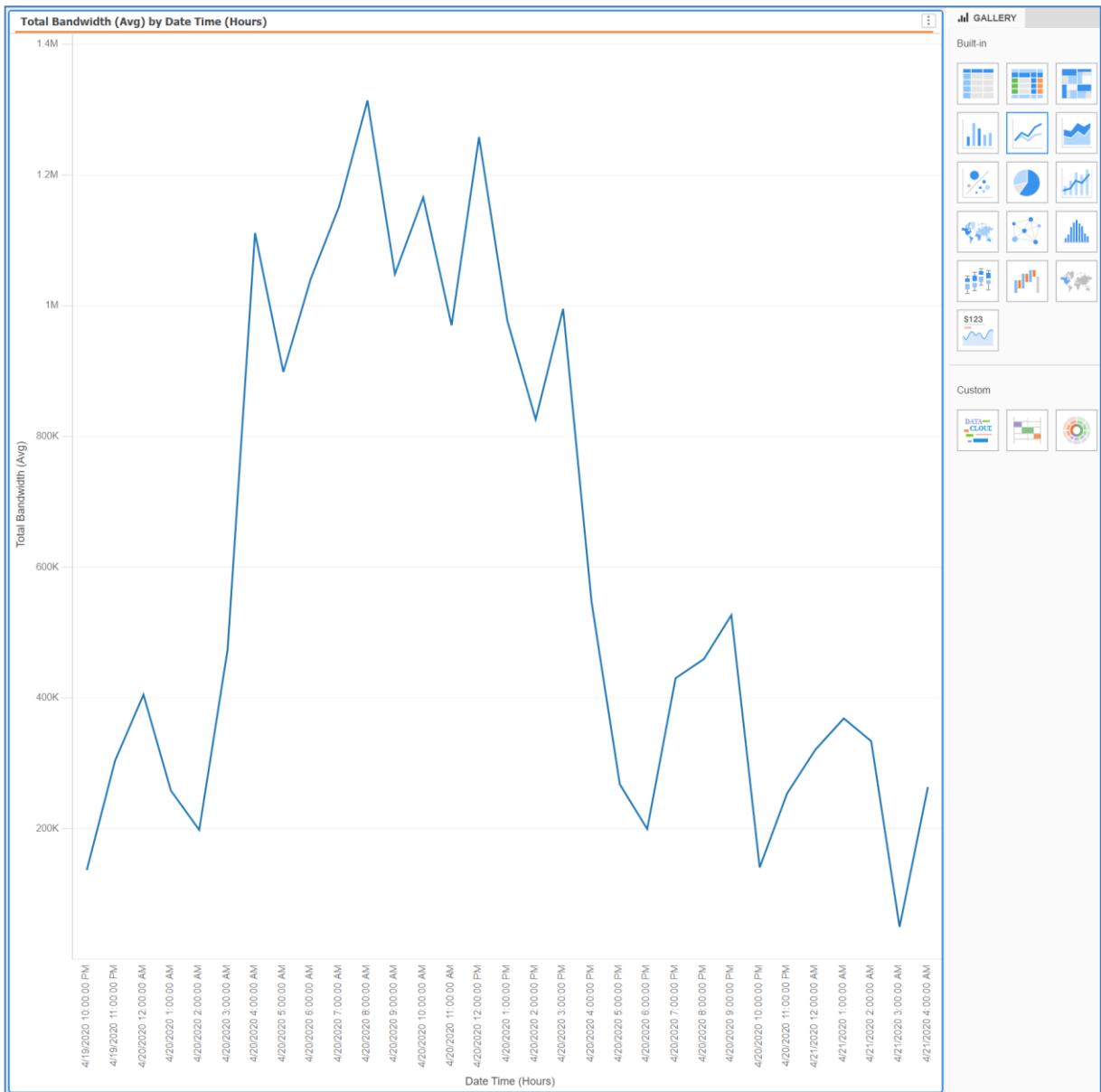


Select the metric or attribute from the dropdown list, and then do not change it. For example, do not change it to plural.

After selecting a suggested query or entering your own query, it looks similar to the following:



4. Press **ENTER** to view the visualization.



**Figure 10: Free Language Visualization**

## 5. Return to [CREATING A SELF-SERVICE REPORT](#).

## Filtering the Self-Service Report

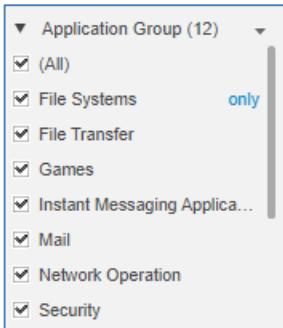
This procedure describes how to filter the data in your Self-Service report. The **Filters** area is made up of the attributes and metrics by which you can filter.

This is part of [CREATING A SELF-SERVICE REPORT](#).

To filter in the Self-Service interface:

1. Open the **Filter** tab.
2. For an attribute by which you want to filter the report, from the **Datasets** area, drag the attribute to the **Filter** tab.

An area for the attribute appears, with checkboxes for each of the attribute items.



**Figure 7-11: Self-Service Attribute Filter**

To filter, do any of the following:

- ◆ Select or clear any of the attribute items.
- ◆ Select **All** to select all items, and select **All** again to clear all items.
- ◆ If you want only one item to appear, then hover over the item, and then click **only**.
- ◆ In the search bar, enter a string by which to narrow down the items. Only those items appear that contain the string. To clear the search, in the search bar click **\***.

3. For a metric by which want to filter the report, from the **Datasets** area, drag the metric to the **Filter** tab.

An area for the metric appears, with a slider filter representing the range of the metric.

To filter, do any of the following:

- ◆ If you want only those attribute items to appear that have the highest metric value, then, from the dropdown, select **Highest**, and then adjust the slider to define the number of attribute items to appear.
- ◆ If you want only those attribute items to appear that have the lowest metric value, then, from the dropdown, select **Lowest**, and then adjust the slider to define the number of attribute items to appear.
- ◆ If you want only a percentage of attribute items to appear that have the highest metric value, then, from the dropdown, select **Highest**, and then adjust the slider to define the percentage of attribute items to appear.
- ◆ If you want only a percentage of attribute items to appear that have the lowest metric value, then, from the dropdown, select **Lowest**, and then adjust the slider to define the percentage of attribute items to appear.

**NOTE** At any time, you can do any of the following:

- To clear a filter, click the menu button to the right of the metric name  , and then, from the menu, click **Unset Filter**.
- To clear all filters, click the menu button on the top right of the Filter tab  , and then, from the menu, click **Unset All Filter**.
- To delete and clear a filter, click the menu button to the right of the metric name  , and then, from the menu, click **Delete**.

4. Return to [CREATING A SELF-SERVICE REPORT](#).

## Self-Service Report Actions

This is part of [CREATING A SELF-SERVICE REPORT](#).

After creating a Self-Service report, from the **Report** area you can do the following actions:

- Zoom in to an area of the report:
  - Select the area into which you want to zoom by dragging the mouse over the area.

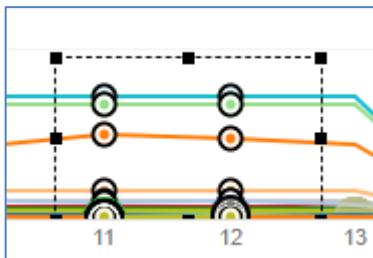


Figure 7-12: Selecting an Area in a Self-Service Report

- Right click, and then, from the menu, select **Keep Only**.
  - To return to the previous view, from the menu bar, click the back arrow .
- Exclude the data from a specific area of the report:
    - Select the area whose data you want to exclude by dragging the mouse over the area.
    - Right click, and then, from the menu, select **Keep Only**.
    - To return to the previous view, from the menu bar, click the back arrow .
  - Drill down to view the data of a specific area of the report by another attribute:
    - Select the area whose data you want to view by another attribute by dragging the mouse over the area.
    - Right click, and then, from the menu, select **Drill to** the attribute.

Return to [CREATING A SELF-SERVICE REPORT](#).

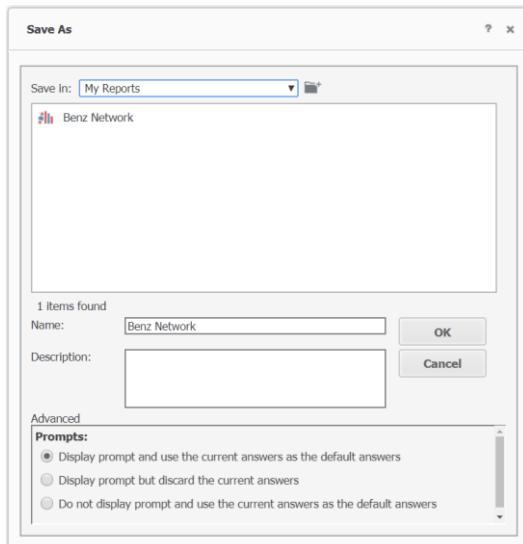
## Saving the Self-Service Report

This procedure describes how to save a Self-Service report to **Custom Reports** or **My Reports**, so that you can open it again at a later date and view current data with the same filters.

To save a report:

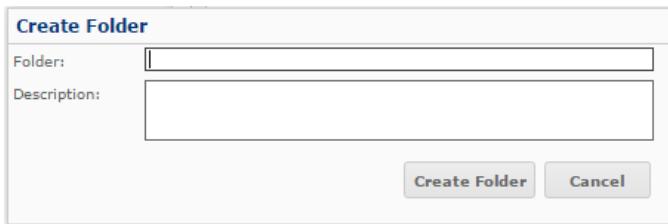
1. **CREATE THE SELF-SERVICE REPORT** and prepare the report how you want it to appear when run at a later date.
2. From the menu, do one of the following:
  - ◆ Click **File > Save** if this is the first time you are saving the report.
  - ◆ Click **File > Save As** if you want to save the report under a different name.

The **Save As** dialog box appears, as follows:



**Figure 7-13: Save As Dialog Box**

3. From the dropdown list, select whether you want to save the report in **Custom Reports** or **My Reports**.
4. If you want to save the report in an existing folder, then, in **Custom Reports** or **My Reports**, select the folder.
5. If you want to create a folder in which to save the report, then do the following:
  - a. Click, next to the dropdown list, **Create New Folder**



**Figure 7-14: Create Folder Dialog Box**

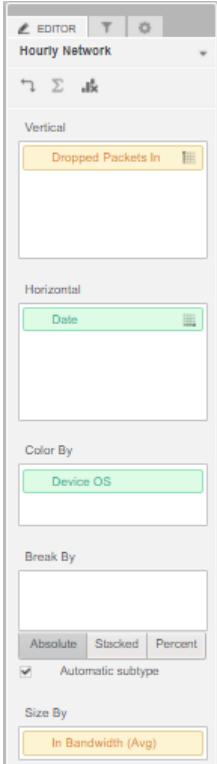
- b. In the **Create Folder** dialog box, name the folder and provide an optional description, and then click **Create Folder**.  
The folder is saved and is selected from the dropdown list.
  6. Select one of the following:
    - ◆ **Display prompt and use the current answers as the default answers:** Select this option if you want the user to have the option of changing the report criteria before running the report.
    - ◆ **Display prompt but discard the current answers:** Select this option if you do not want the prior report criteria.
    - ◆ **Do not display prompt and use the current answers as the default answers:** Select this option if you want both the prior report criteria and the post-run filters saved. This option should be selected for **SUBSCRIPTIONS**.
  7. Type a name for the report and an optional description, and then click **OK**.  
The report is available in the location that you saved it. The default is **MY REPORTS**.
- NOTE** For every report in which the *Do Not Display Prompt and Use the Current Answers as the Default Answers* option was selected, after upgrading GW DataReporter, you must run and save the report with the **Save As** option, overwriting the old report.

## Self-Service Report Examples

You can create reports based on the following examples:

- [TREND GRAPH](#)
- [BAR GRAPH](#)
- [HEAT MAP](#)
- [PIE GRAPH](#)

## Trend Graph

Essentials to Creating a Trend Graph	
Report Criteria	
<ul style="list-style-type: none"> <li><b>Select Attributes:</b> Select a date attribute, which determines the time granularity, as well as the attribute by which you want to view the trend of the metric. If you select another attribute, then you'll be able to drill down by this attribute.</li> <li><b>Select Metrics:</b> Select up to 3 metrics that the report should measure.</li> <li><b>Date/Time Filter:</b> Select one filter to define the length of time that the report should cover.</li> </ul>	
Visualization Gallery	
Line Chart	
Editor	
<ul style="list-style-type: none"> <li><b>Vertical:</b> Metric that the report should measure</li> <li><b>Horizontal:</b> Date attribute</li> <li><b>Color By:</b> Attribute by which you want to view the trend of the metric</li> <li><b>Size By:</b> Secondary metric, reflected in the weight of the lines</li> </ul>	

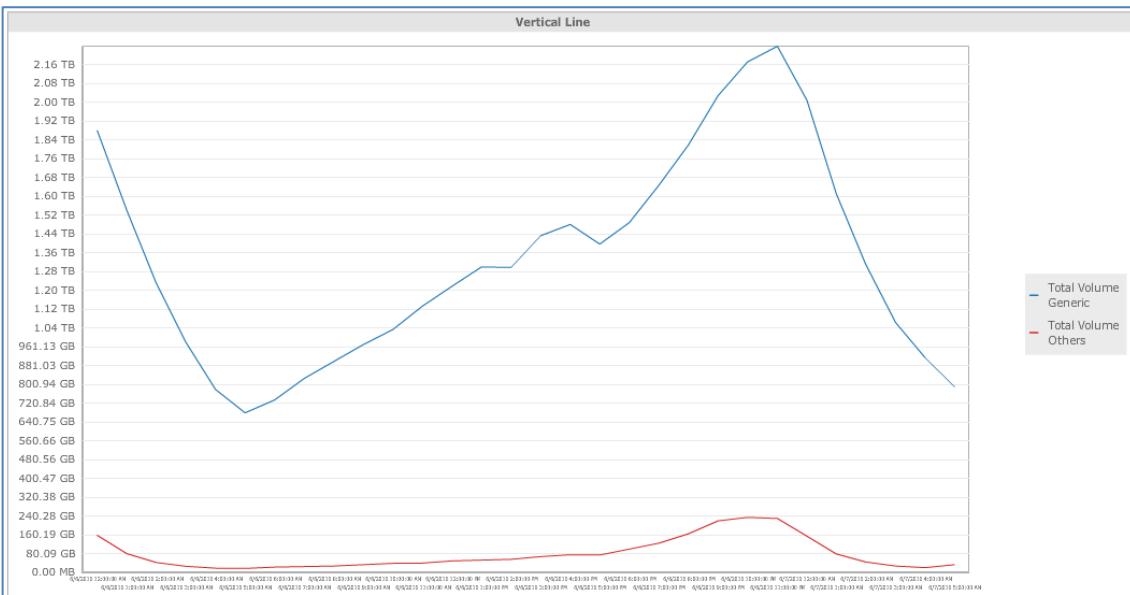


Figure 7-15: Self-Service Trend Graph Example

## Bar Graph

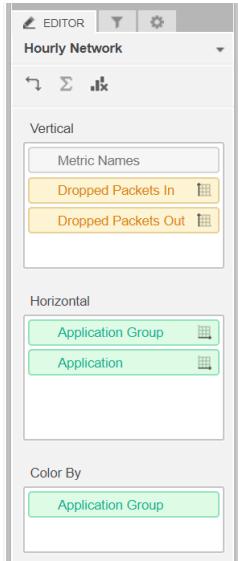
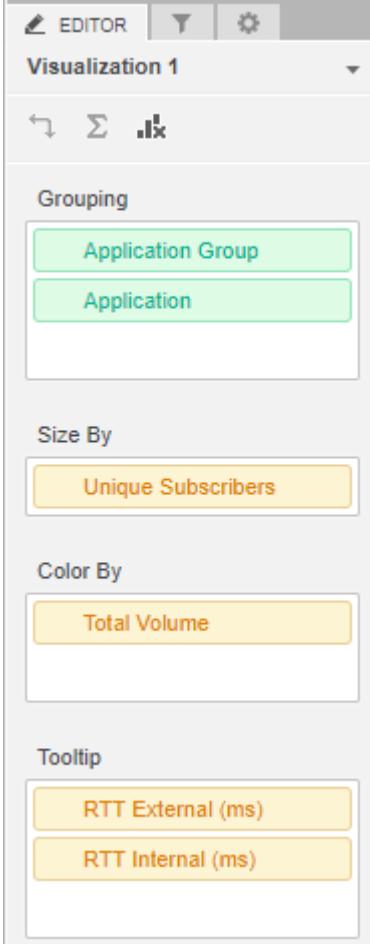
<b>Essentials to Creating a Bar Graph</b>	
<b>Report Criteria</b>	
<ul style="list-style-type: none"> <li><b>Select Attributes:</b> Select the attributes by which you want to present the metric. In this example, one attribute further divides the other attribute.</li> <li><b>Select Metrics:</b> Select the metrics that the report should measure. In this example, the report is divided into two, and each report measures one metric.</li> <li><b>Date/Time Filter:</b> Select one filter to define the length of time that the report should cover.</li> </ul>	
<b>Select Visualization</b>	
Bar Chart	
<b>Edit Visualization</b>	
<ul style="list-style-type: none"> <li><b>Vertical:</b> Metrics that the report should measure</li> <li><b>Horizontal:</b> Attributes by which you want to view the metric</li> <li><b>Color By:</b> Attribute by which to divide the attribute items by color</li> </ul>	



Figure 7-16: Self-Service Bar Graph Example

## Heat Map

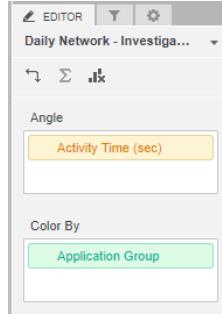
<b>Essentials to Creating a Heat Map</b>	
<b>Report Criteria</b>	
<ul style="list-style-type: none"> <li><b>Select Attributes:</b> Select the attributes by which to break down the squares. If you select more than one attribute, you can break the primary attribute by a secondary or even tertiary attribute.</li> <li><b>Select Metrics:</b> Select two metrics that the report should measure.</li> <li><b>Date/Time Filter:</b> Select one filter to define the length of time that the report should cover.</li> </ul>	
<b>Select Visualization</b>	
Heat Map	
<b>Edit Visualization</b>	
<ul style="list-style-type: none"> <li><b>Grouping:</b> The attribute by which to break down the squares. Note: <b>If you selected more than one attribute, place the primary attribute on top.</b></li> <li><b>Size By:</b> The metric by which to determine the size of the squares</li> <li><b>Color By:</b> The metrics by which to determine the color of the squares</li> <li><b>Tooltip:</b> Any additional metrics</li> </ul>	 <p>The screenshot shows the 'Edit Visualization' interface with the following settings:</p> <ul style="list-style-type: none"> <li><b>Grouping:</b> Application Group, Application</li> <li><b>Size By:</b> Unique Subscribers</li> <li><b>Color By:</b> Total Volume</li> <li><b>Tooltip:</b> RTT External (ms), RTT Internal (ms)</li> </ul>
<b>What You Can Do</b>	

- From Filters, select the attribute objects that you want to appear in the heat map.
- If you want to remove an attribute object from the heat map, then, on the heat map, right-click the attribute object, and then select **Exclude**.



Figure 7-17: Self-Service Heat Map Example

## Pie Graph

Essentials to Creating a Pie graph	
<b>Report Criteria</b>	
<ul style="list-style-type: none"> <li><b>Select Attributes:</b> Select the attribute by which you want to present the metric. This is what slices the pie into sections.</li> <li><b>Select Metrics:</b> Select the metric that the report should measure. This is the pie itself.</li> <li><b>Date/Time Filter:</b> Select one filter to define the length of time that the report should cover.</li> </ul>	
<b>Select Visualization</b>	
Pie Chart	
<b>Edit Visualization</b>	
<ul style="list-style-type: none"> <li><b>Angle:</b> The metric that you selected</li> <li><b>Series:</b> The attribute by which you want to slice the pie</li> </ul>	

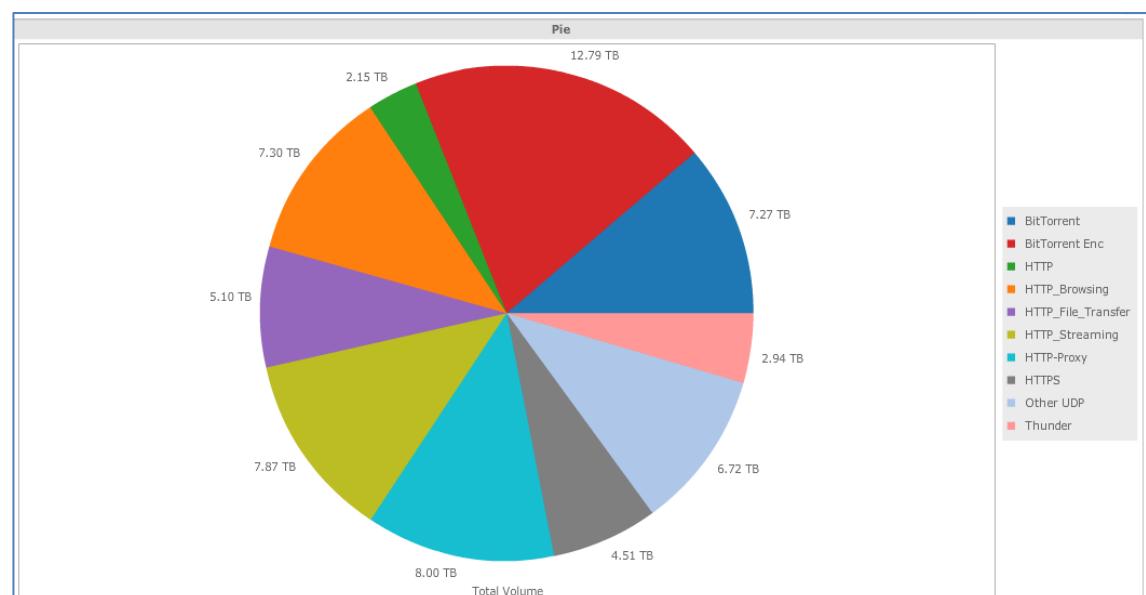


Figure 7-18: Self-Service Pie Graph Example

# Self-Service Peak Reports

The Self-Service **Peak Reports** are located in Self-Service's **Real Time** folder. The Peak Bandwidth metrics show the bandwidth of the 5-second interval with the highest bandwidth (avg.), while the Low Bandwidth metrics show the bandwidth of the 5-second interval with the lowest bandwidth (avg.).

You can run the following Self-Service **Peak Reports**:

- **PEAK BANDWIDTH OVER 5 MINUTES:** In this report, you can view the bandwidth of the peak 5-second interval for every 5-minute period and for every day.
- **PEAK BANDWIDTH OVER THE HOUR:** In this report, you can view the bandwidth of the peak or low 5-second interval for every hour.

## Running Peak Bandwidth over 5 Minutes

This procedure describes how to run Self Service's **Peak Bandwidth over 5 Minutes**. In this report, you can view the bandwidth of the peak 5-second interval for every 5-minute period and for every day.

To run the Peak Bandwidth over 5 Minutes report:

1. From the Reporting panel, select Self-Service > Real Time > Peak Bandwidth over 5 Minutes.

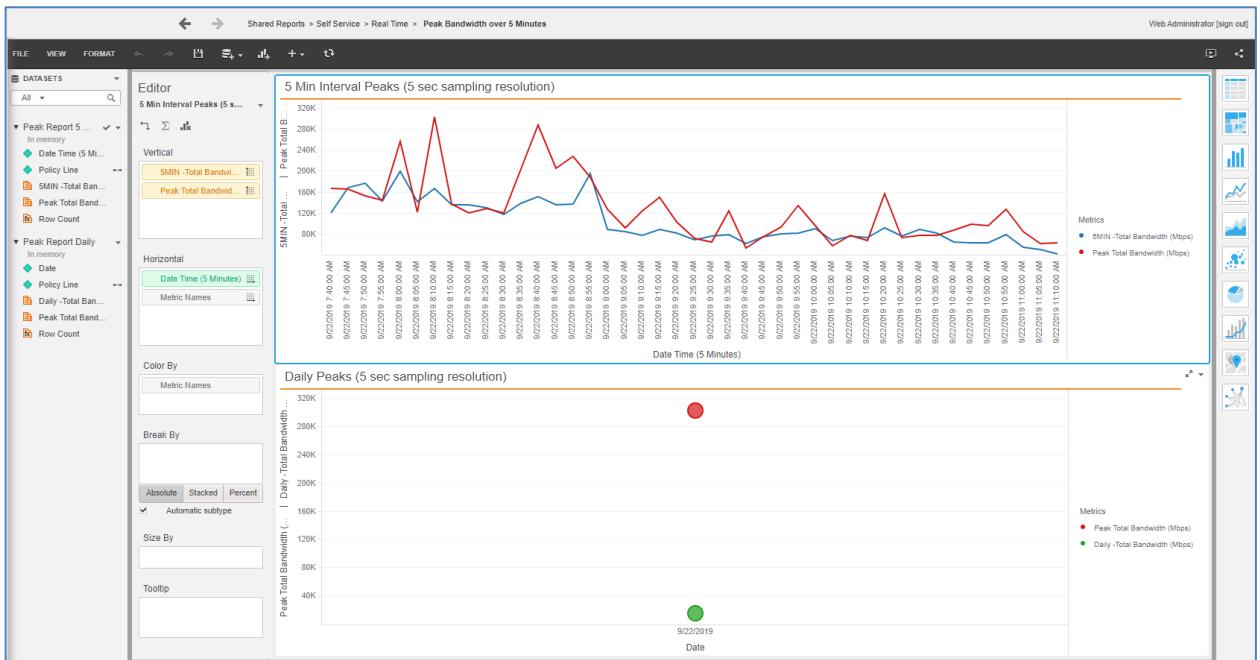
The **Report Criteria** page appears.

**Figure 7-19: Report Criteria Page for Peak Report over 5 Minutes**

2. Do the following:
  - a. From panel **1. Select Attributes for Peak Bandwidth over 5 Minutes** or **6. Select Attributes for Daily Peaks**, if you want to view the peaks by a network object, then select any combination of **Service Gateway**, **Policy Line**, **Policy Pipe** or **Policy VC**.
  - b. From panel **2. Select Metrics for Peak Bandwidth over 5 Minutes** or **7. Select Metrics for Daily Peaks**, select any metrics, such as:

- **5MIN – Total Bandwidth (Mbps):** The total of the inbound and outbound bandwidth (avg.) for each attribute item over a 5-minute period, in Mbps
  - **5MIN – In Bandwidth (Mbps):** The total of the inbound bandwidth (avg.) for each attribute item over a 5-minute period, in Mbps
  - **5MIN – Out Bandwidth (Mbps):** The outbound bandwidth (avg.) for each attribute item over a 5-minute period, in Mbps
  - **Peak In Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the highest inbound bandwidth (avg.), in Mbps
  - **Peak Out Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the highest outbound bandwidth (avg.), in Mbps
  - **Peak Total Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the highest total of inbound and outbound bandwidth (avg.), in Mbps
- c. From panel **3. Date/Time Filter for Peak Bandwidth over 5 Minutes** or **8. Date/Time Filter for Daily Peaks**, select one filter to define the length of time that the report should cover.
  - d. From panel **4. Attribute Filter for Peak Bandwidth over 5 Minutes** or **9. Attribute Filter for Daily Peaks**, **FILTER THE REPORT CRITERIA BY ATTRIBUTE**.
  - e. From panel **5. Metrics Filter for Peak Bandwidth over 5 Minutes** or **10. Metrics Filter for Daily Peaks**, **FILTER THE REPORT CRITERIA BY METRIC**.
  - f. Click **Run Dossier**.

The Self-Service interface appears, with a panel above showing the peak bandwidth over 5 minutes and a panel below showing the daily peak, as follows:



**Figure 7-20: Peak Report over 5 Minutes**

**NOTE** Do not drag metrics or attributes from **Peak over 5 Minutes** into **Daily Peak**, or vice-versa.

3. From the **Filters** area, [FILTER THE REPORT](#).
4. From the **Report** area, do any of the actions described in [SELF-SERVICE REPORT ACTIONS](#).
5. By selecting the relevant icon from the **Dashboard Options** toolbar, [SAVE THE REPORT](#) and [SHARE, PRINT](#) or [EXPORT](#) the report as needed.

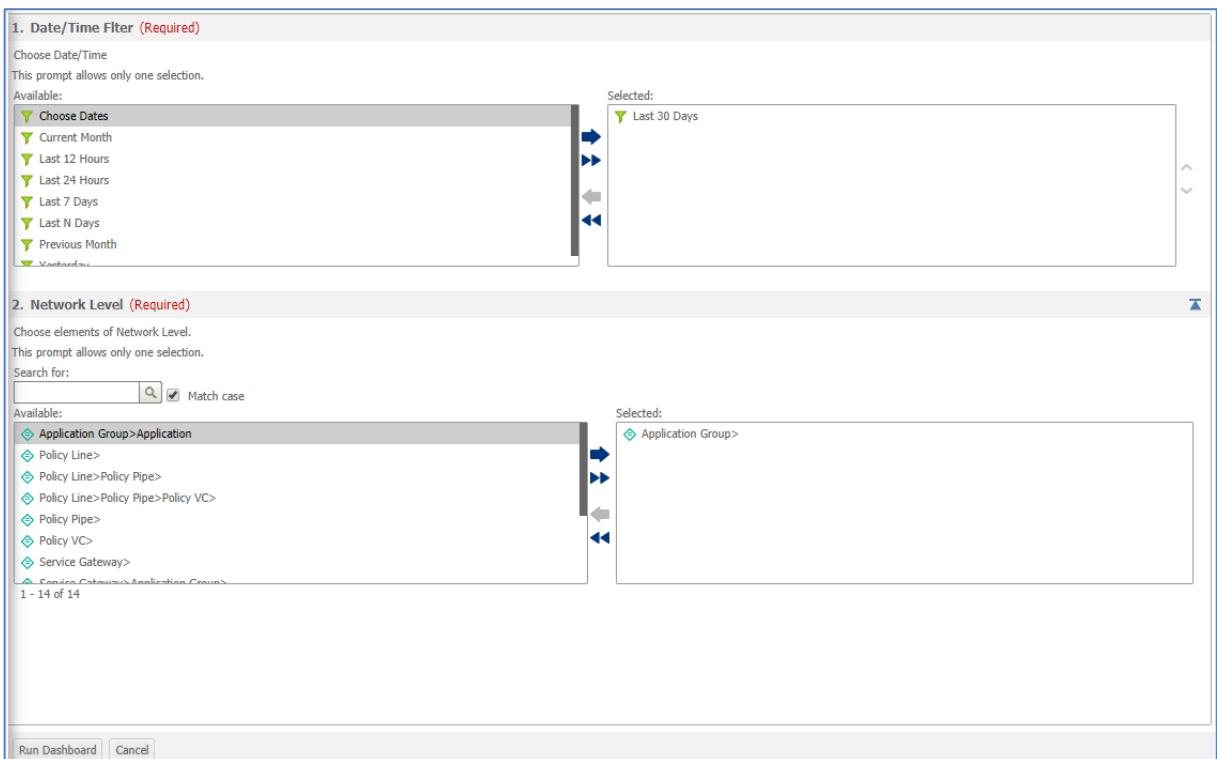
## Running Peak Bandwidth over the Hour

This procedure describes how to run Self-Service's **Peak Bandwidth over the Hour** report. In this report, you can view the bandwidth of the peak or low 5-second interval for every hour.

To run the Peak Bandwidth over the Hour report:

1. From the **Reporting** panel, select **Self-Service > Real Time > Peak Bandwidth over the Hour**.

The **Report Criteria** page appears.



**Figure 7-21: Peak Bandwidth over the Hour Report Criteria Page**

2. Do the following:
  - ◆ From the **Date/Time Filter** list, select one filter to define the length of time that the report should cover.
  - ◆ From the **Network Level** list, select one of the following:

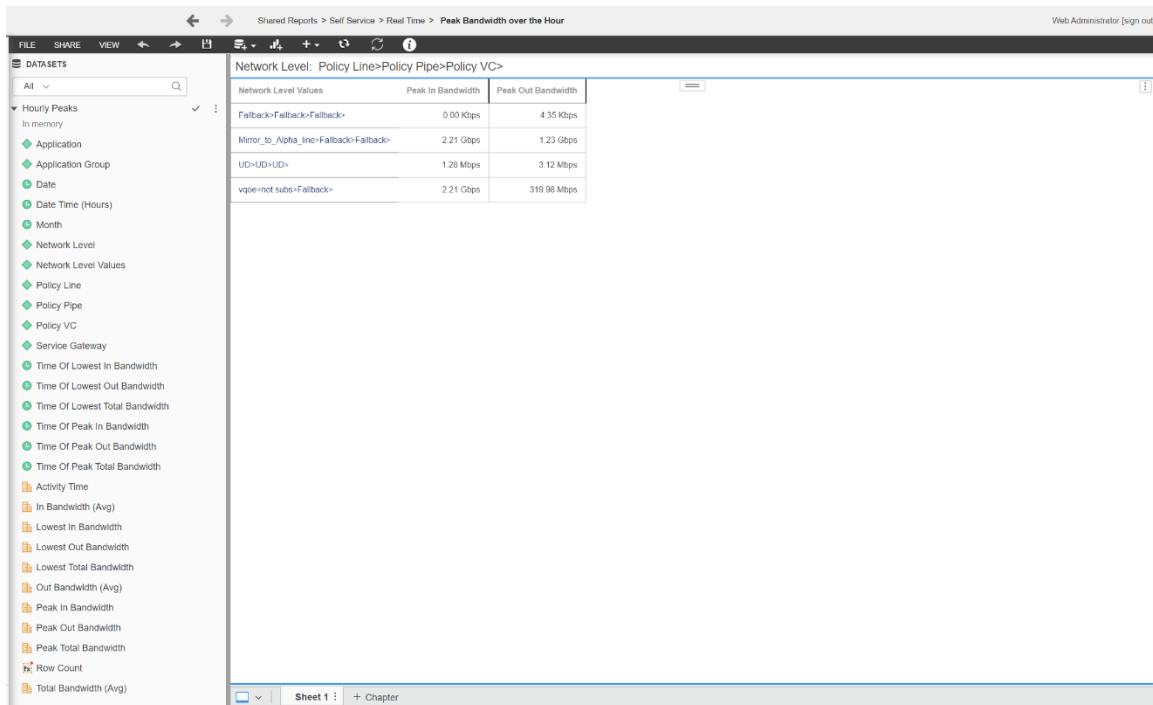
Select This Network Level Option:	For These Hourly Peaks and Lows:
<b>Application Group&gt;</b>	Those of each application group
<b>Application Group&gt;Application</b>	Those of each application on your network, and the application group to which the application belongs
<b>Policy Line&gt;</b>	Those of each Policy Line on your network, regardless of Gateway
<b>Policy Line&gt;Policy Pipe&gt;</b>	Those of each Policy Pipe on your network, broken down by Policy Line
<b>Policy Line&gt;Policy Pipe&gt;Policy VC&gt;</b>	Those of each Policy VC on your network, broken down by Policy Line and Policy Pipe
<b>Policy Pipe&gt;</b>	Those of each Policy Pipe on your network, regardless of Gateway or Policy Line

<b>Policy VC&gt;</b>	Those of each Policy VC on your network, regardless of Gateway, Policy Line or Policy Pipe
<b>Gateway&gt;</b>	Those of each Gateway on your network
<b>Gateway&gt;Application Group</b>	Those of each application group on your network, broken down by Gateway
<b>Gateway&gt;Application Group&gt;Application</b>	Those of each application on your network, broken down by Gateway and application group
<b>Gateway&gt;Policy Line&gt;</b>	Those of each Policy Line on your network, broken down by Gateway
<b>Gateway&gt;Policy Line&gt;Policy Pipe</b>	Those of each Policy Pipe on your network, broken down by Gateway and Policy Line
<b>Gateway&gt;Policy Line&gt;Policy Pipe&gt;Policy VC</b>	Those of each Policy Pipe on your network, broken down by Gateway, Policy Line and Policy Pipe
<b>Total Network</b>	Those of your total network, not broken down by any attribute item

3. Click **Run Dossier**.

The Self-Service interface appears, as follows:

- ♦ The **Report** and **Datasets** areas appear by default, as described in [SELF-SERVICE INTERFACE NAVIGATION](#).
- ♦ By default, each row presents, for the attribute item, within the length of time that you defined on the report criteria page, the **Peak In Bandwidth**, which is the inbound bandwidth of the 5-second interval with the highest inbound bandwidth (avg.).



**Figure 7-22: Peak Bandwidth over the Hour with Application Group as Network Level**

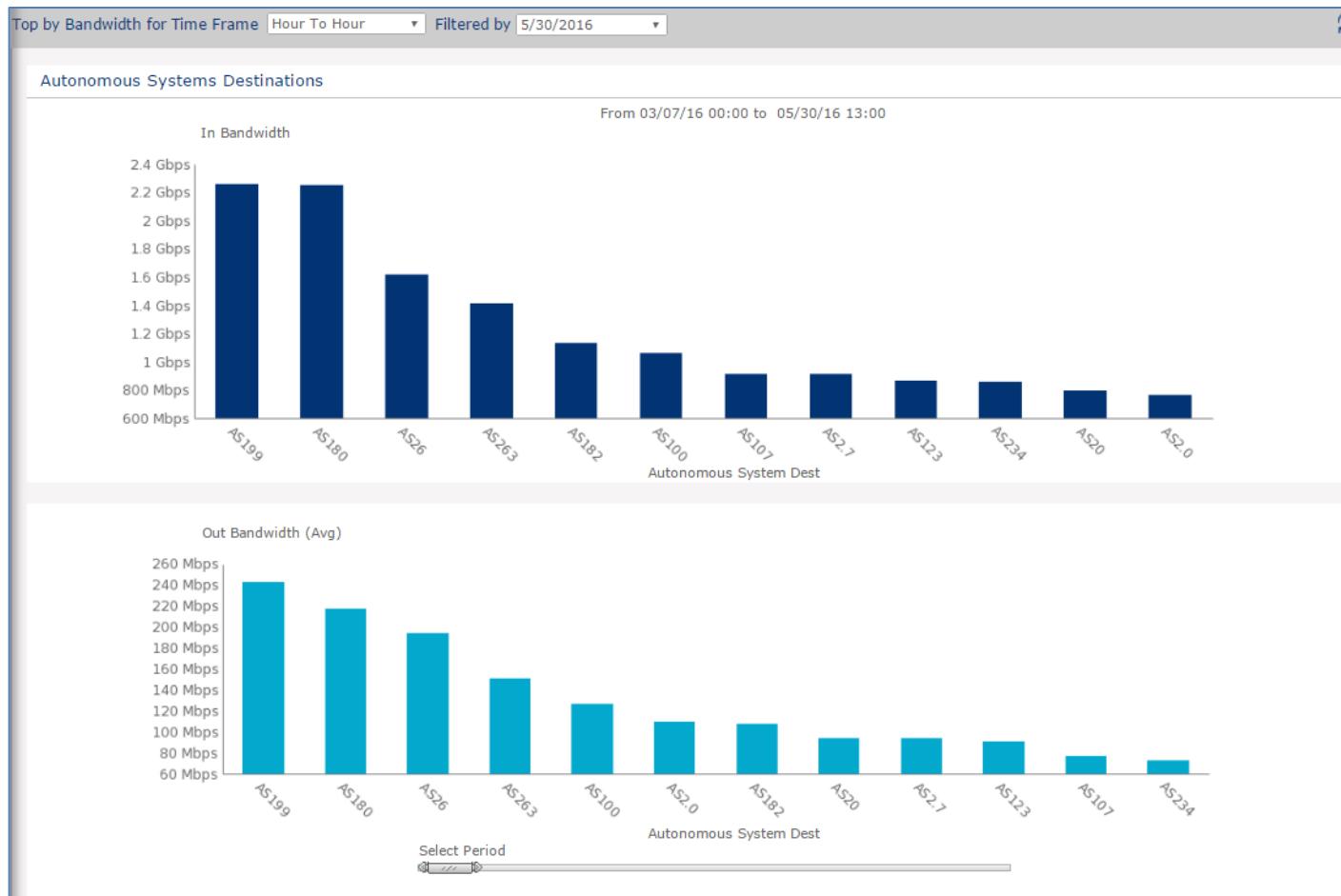
4. You can now edit your Self-Service report, as follows:
    - ◆ From the **Datasets** area, only add those attributes to the report that you included in the **Network Level**.  
For example, if you selected **Policy VC>** as the **Network Level**, then do not add **Application** or **Policy Line** to the report.
    - ◆ From the **Datasets** area, add **Date**, **Date Time (Hours)** or **Month** if you want to view the greatest hourly peak or low for each date, hour or month within the length of time that you defined on the report criteria page.
    - ◆ From the **Datasets** area, after adding **Date Time (Hours)**, add any of the **Time Of** attributes to view the peak or low for each hour.
    - ◆ From the **Datasets** area, add any of the metrics, as follows:
      - **Lowest In Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the lowest inbound bandwidth (avg.), in Mbps
      - **Lowest Out Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the lowest outbound bandwidth (avg.), in Mbps
      - **Lowest Total Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the lowest total of inbound and outbound bandwidth (avg.), in Mbps
      - **Peak In Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the highest inbound bandwidth (avg.), in Mbps
      - **Peak Out Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the highest outbound bandwidth (avg.), in Mbps

- **Peak Total Bandwidth:** For each attribute item, the bandwidth of the 5-second interval with the highest total of inbound and outbound bandwidth (avg.), in Mbps
    - ◆ From the **Filters** area, [FILTER THE REPORT](#).
    - ◆ From the **Report** area, do any of the actions described in [SELF-SERVICE REPORT ACTIONS](#).
5. By selecting the relevant icon from the **Dashboard Options** toolbar, [SAVE THE REPORT](#) and [SHARE](#), [PRINT](#) or [EXPORT](#) the report as needed.

## 8 Appendix: Reports that Are Disabled by Default

### AS Destinations

The **AS Destinations** report presents the top Autonomous Systems destinations by both inbound bandwidth and outbound bandwidth. It is useful for assessing which Autonomous Systems destinations are most used by subscribers.



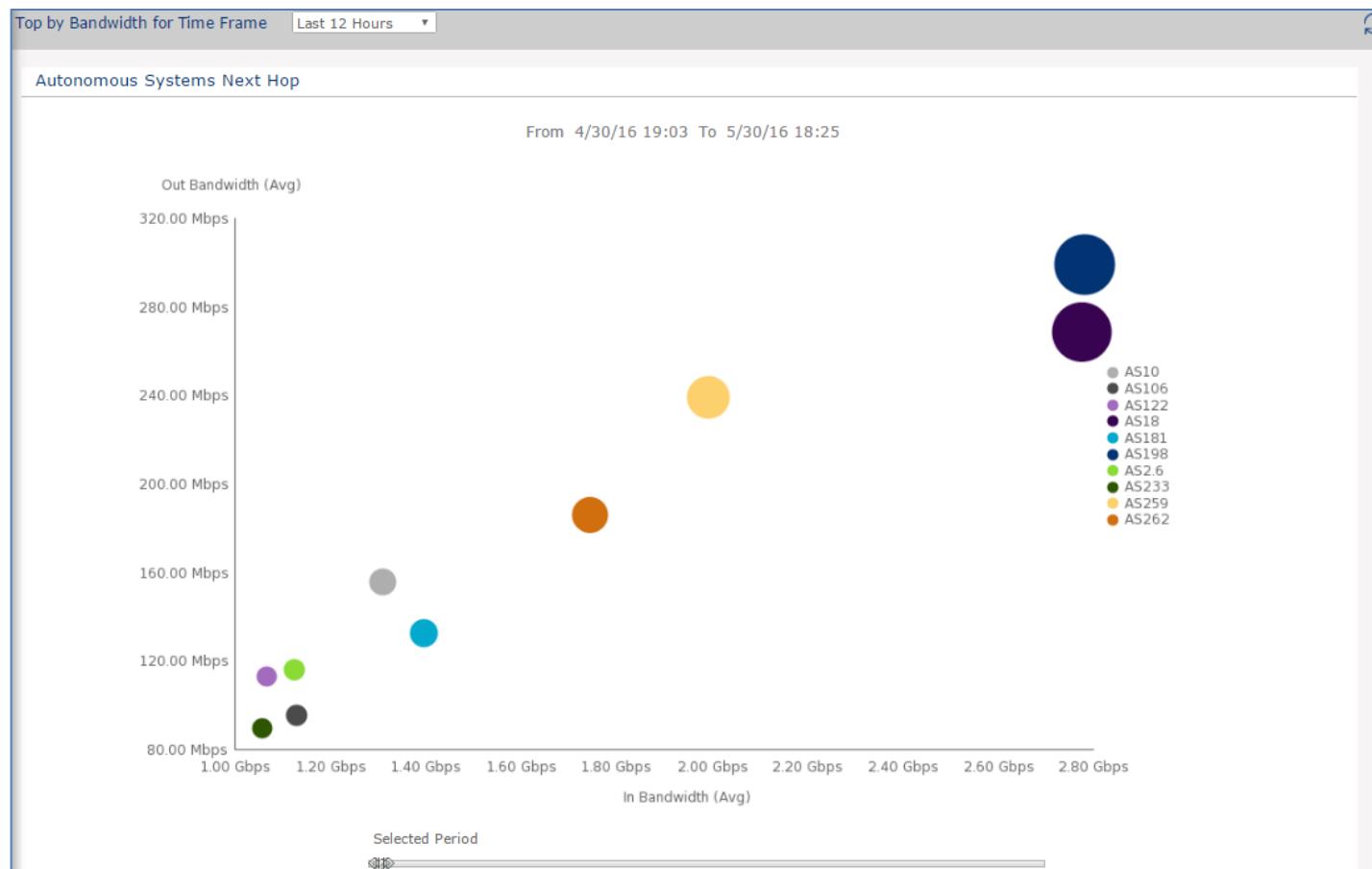
## Filter

Filter report data by **Time Frame**, to view the data by **Month, Week or Day** or for the **Last 12 Hours**. If you selected **Last 12 Hours** or **Hour to Hour**, then from the slider range, adjust the time range.

<b>Bar Graph</b>		<b>Tools</b>
<ul style="list-style-type: none"><li>• In Bandwidth: In graph above, each bar represents the bandwidth of one of the top Autonomous System destinations by inbound bandwidth</li><li>• Out Bandwidth: In graph below, each bar represents the bandwidth of one of the top Autonomous System destinations by outbound bandwidth</li></ul>		<b>Mouse over</b> a bar to view a tooltip containing the bandwidth of the Autonomous System destination. Drill down on an Autonomous System destination to view bandwidth by application, internal host or subscriber.
X axis	Autonomous System destination	
Y axis	Average bandwidth per second	

## AS Next Hop

The **AS Next Hop** data visualization is a bubble graph identifies the autonomous systems (AS) that are most used by subscribers on your network. It **DEPICTS** traffic to and from the Next-hop Autonomous System (AS), which is also referred to as the routing domain.



<b>Filter</b>	
<b>FILTER</b> report data by <b>Time Frame</b> , to view the data by <b>Month</b> , <b>Week</b> or <b>Day</b> or for the <b>Last 12 Hours</b> .	
Bubble Graph	Tools
Each bubble is an Autonomous System, and the size of a bubble depends on the total bandwidth of both inbound and outbound traffic together.	<p>When <b>Last 12 Hours</b> is selected, use the slider to adjust the time span.</p> <p><b>Mouse over</b> a strip to view a tooltip containing the name of the Autonomous System, and the inbound and outbound traffic.</p> <p>Drill down on an Autonomous System to view bandwidth by application, internal host, subscriber or Autonomous System destination.</p> <p>Toggle the view mode.</p>

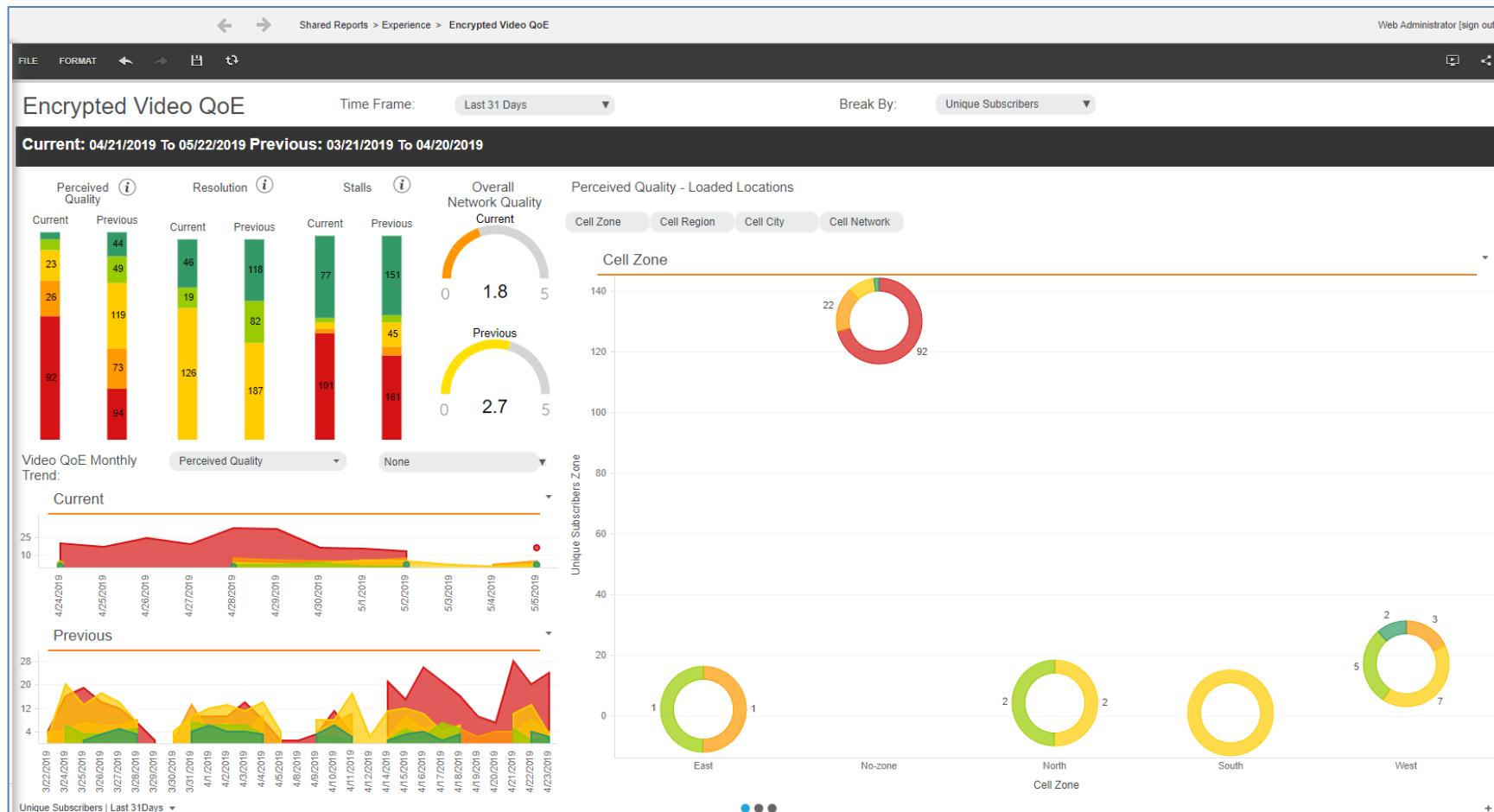
## Encrypted Video QoE

The Encrypted Video QoE report presents metrics regarding encrypted QoE on your network.

**NOTE** The **Encrypted Video QoE** report functionality requires AOS 16.x or higher, or earlier AOS project versions that support Video QoE VDRs for encrypted videos.

To view the **Encrypted Video QoE** report:

1. From the **Experience** folder, open the report.



**Figure 8-1: Encrypted Video QoE Report**

1. **FILTER THE REPORT.**
2. You can now view the panels, as follows:
  - ◆ Stacked bar graphs showing video experience score metrics, as follows:
    - **PERCEIVED QUALITY**

- **RESOLUTION**
- **STALLS**
- ♦ **OVERALL NETWORK QUALITY**, consisting of two dialed gauges
- ♦ **VIDEO QoE TREND** graphs, one for each video experience metric
- ♦ **PERCEIVED QUALITY – LOADED LOCATIONS**, a heat map

## Filtering the Encrypted Video QoE Report

Following is the filter in the **Encrypted Video QoE** report, containing all the report-wide filters:



You can filter the **Encrypted Video QoE** report using these report-wide filters:

- **Time Frame:** View the data in the report by one of the following time resolutions:

If you select from the dropdown:	Then wherever you see Current, it means:	And wherever you see Previous, it means:
Last 24 Hours	The last 24 hours for which there is data	The 24 hours prior to the last 24 hours for which there is data
Last 7 Hours	The last 7 days for which there is data	The 7 days prior to the last 7 days for which there is data
Last 31 Hours	The last 31 days for which there is data	The 31 days prior to the last 31 days for which there is data

- **Break By:** View data in the report for one of the following metrics:

If you select from the dropdown:	Then wherever you see Perceived Quality, it means:	And wherever you see Resolution, it means:	And wherever you see Stalls, it means:
<b>Avg Video Duration</b>	The average video duration at each perceived quality score (MOS)	The average video duration at each resolution score	The average video duration at each stalls score
<b>Unique Subscribers</b>	The number of unique subscribers at each perceived quality score (MOS)	The number of unique subscribers at each resolution score	The number of unique subscribers at each stalls score
<b>Unique Video Watch</b>	The number of unique video watches at each perceived quality score (MOS)	The number of unique video watches at each resolution score	The number of unique video watches at each stalls score

If from the **Time Frame** dropdown list you selected **Last 24 Hours**, then the following dropdown lists appear:

- **Busy Hours:** View the data in the **VIDEO QOE TREND** panel for the ranked busiest or least busy hour in the day, as follows:
  - ◆ If you select **All** or **24** from the **Busy Hours** dropdown list, then the report presents data for all the last 24 hours for which there is data.
  - ◆ If you select **1** from the **Busy Hours** dropdown list, then the report presents data for the hour, in the last 24 hours for which there is data, that was most busy.
  - ◆ If you select **2** from the **Busy Hours** dropdown list, then the report presents data for the two hours, in the last 24 hours for which there is data, that were most busy.

**Note:** You will not always see numbers in the dropdown list for all 24 hours, for the following reasons:

- There may not be data for all of the hours, so if there is data for only 23 hours, then the highest number in the dropdown will be 23.

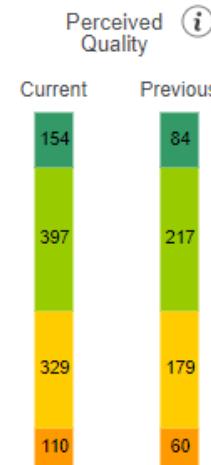
- Some hours may be tied with the same rank, so if there are only 17 ranks in a 24 hour period, then the highest number in the dropdown will be 17.
- **Prime Time:** View the data in the report for Prime Time, which are the hours in your locale when people have the most free time and are likely to spend time online. These are defined in the CLI. You can select one of the following:
  - ◆ If you select **All**, then the report presents data for all the last 24 hours for which there is data.
  - ◆ If you select **no**, then the report presents data for the non-Prime Time hours in the last 24 hours for which there is data.
  - ◆ If you select **yes**, then the report presents data for the Prime Time hours in the last 24 hours for which there is data.

## Perceived Quality

The **Perceived Quality** panel shows, in stacked bar graphs, at each perceived quality score (MOS), the number of unique subscribers, the average video duration or the number of unique video watches, as **FILTERED**.

In each bar graph, each segment represents, at each MOS, the number of unique subscribers or other selected metric, as **FILTERED**, as follows:

- The color of the segment indicates the perceived quality score, as follows:
  - ◆ Green is equivalent to an average MOS of 4-5.
  - ◆ Light green is equivalent to an average MOS of 3-4.
  - ◆ Yellow is equivalent to an average MOS of 2-3.
  - ◆ Orange is equivalent to an average MOS of 1-2.
  - ◆ Red is equivalent to an average MOS of 0-1.
- The size of the segment indicates, at each perceived quality score, the number of subscribers or other selected metric, as **FILTERED**.



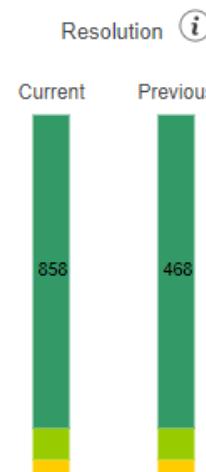
**Figure 8-2: Perceived Quality Panel**

## Resolution

The **Resolution** panel shows, in stacked bar graphs, at each resolution score, the number of unique subscribers, the average video duration or the number of unique subscribers, as **FILTERED**.

In each bar graph, each segment represents, at each resolution score, the number of unique video watches or other selected metric, as **FILTERED**, as follows:

- The color of the segment indicates the resolution score, as follows:
  - ◆ Green indicates videos watched at an average resolution of 720p and above.
  - ◆ Light green indicates videos watched at an average resolution of 480p.
  - ◆ Yellow indicates videos watched at an average resolution of 360p or less.
- The size of the segment indicates, at each resolution score, the number of unique video watches or other selected metric, as **FILTERED**.



**Figure 8-3: Resolution Panel**

## Stalls

The **Stalls** panel shows, in stacked bar graphs, at each stalls score, the number of unique subscribers, the average video duration or the number of unique subscribers, as **FILTERED**. The stall score is based on an estimation of the stall duration over the video watch period.

In each bar graph, each segment represents, at each stalls score, the number of unique video watches or other selected metric, as **FILTERED**, as follows:

- The color of the segment indicates the stalls score, as follows:
  - ◆ Green indicates that there were no stalls during the watched video.
  - ◆ Light green indicates that there were stalls in less than 2% of the watched video.
  - ◆ Yellow indicates that there were stalls in 2–5% of the watched video.
  - ◆ Orange indicates that there were stalls in 5–10% of the watched video.
  - ◆ Red indicates that there were stalls in more than 10% of the watched video.
- The size of the segment indicates, at each stalls score, the number of unique video watches or other selected metric, as **FILTERED**.



**Figure 8-4: Stalls Panel**

## Overall Network Quality

The **Overall Network Quality** panel shows, in dialed gauges, the overall average quality score for videos watched on the network, as **FILTERED**.

In each gauge, the colored segment represents the overall quality score of unique video watches.

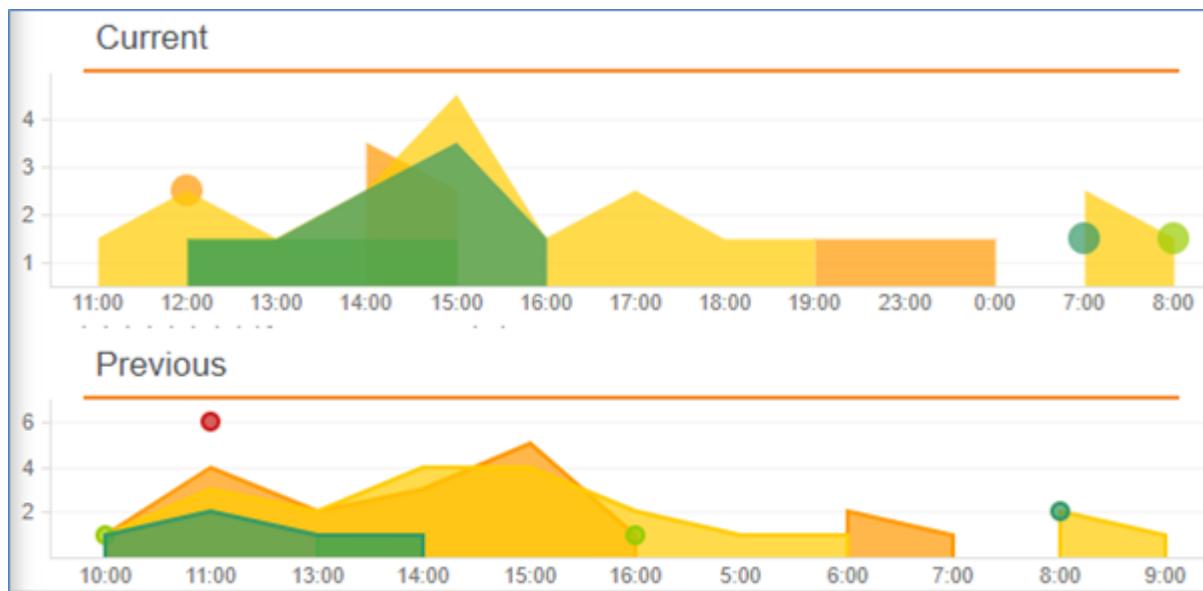
- The color and arc size of the segment indicates the overall quality score, as follows:
  - ◆ Green indicates an overall quality score of 4-5.
  - ◆ Light green indicates an overall quality score of MOS of 3-4.
  - ◆ Yellow indicates an overall quality score of 2-3.
  - ◆ Orange indicates an overall quality score of 1-2.
  - ◆ Red indicates an overall quality score of 0-1.



Figure 8-5: Overall Network Quality Panel

## Video QoE Trend

The **Video QoE Trend** panel shows video experience metrics in stacked trend graphs, one for the **Current** time period and one for the **Previous** time period, as [FILTERED](#).



**Figure 8-6: Video QoE Trend Panel**

To view the **Video QoE Trend** panel, use the following filters:

- On the left, the score metric by which to break the number of unique subscriber or other selected metric, as [FILTERED](#):

Select from the dropdown on the left:	To view stacked trend graphs showing:
<b>Perceived Quality</b>	The number of unique subscriber or other selected metric, as <b>FILTERED</b> , experiencing on average the displayed MOS: <ul style="list-style-type: none"><li>• Green is equivalent to an average MOS of 4-5.</li><li>• Light green is equivalent to an average MOS of 3-4.</li><li>• Yellow is equivalent to an average MOS of 2-3.</li><li>• Orange is equivalent to an average MOS of 1-2.</li><li>• Red is equivalent to an average MOS of 0-1.</li></ul>
<b>Resolution</b>	The number of unique video watches or other selected metric, as <b>FILTERED</b> , at each resolution score: <ul style="list-style-type: none"><li>• Green, which is a score of 5, indicates videos watched at an average resolution of 720p and above.</li><li>• Light green, which is a score of 4, indicates videos watched at an average resolution of 480p.</li><li>• Yellow, which is a score of 2, indicates videos watched at an average resolution of 360p or less.</li></ul>

Select from the dropdown on the left:	To view stacked trend graphs showing:
<b>Stalls</b>	<p>The number of unique video watches or other selected metric, as <b>FILTERED</b>, at each stalls score:</p> <ul style="list-style-type: none"><li>• Green, which is a score of 5, indicates that there were no stalls during the watched video.</li><li>• Light green, which is a score of 4, indicates that there were stalls in less than 2% of the watched video.</li><li>• Yellow, which is a score of 3, indicates that there were stalls in 2–5% of the watched video.</li><li>• Orange, which is a score of 2, indicates that there were stalls in 5–10% of the watched video.</li><li>• Red, which is a score of 1, indicates that there were stalls in more than 10% of the watched video.</li></ul>

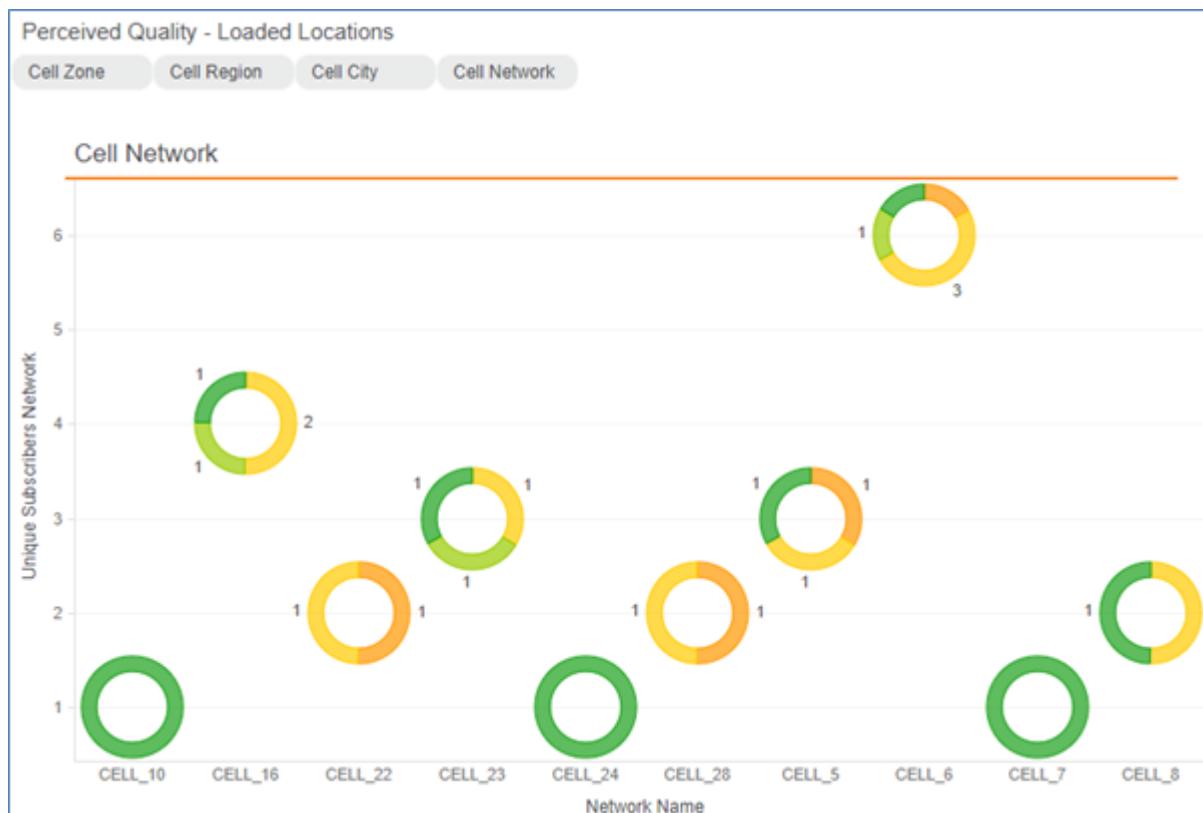
- On the right, an additional metric:

Select from the dropdown on the right:	To view line trend graphs showing:
RTT	<p><b>The following trend lines:</b></p> <ul style="list-style-type: none"> <li>• The average RTT on the network not including streaming, for the time period that you selected from the <a href="#">FILTER</a>.</li> <li>• The average RTT on the network for only streaming, for the time period that you selected from the <a href="#">FILTER</a>.</li> </ul> <p>RTT is Round-Trip Time, which is the length of time, in milliseconds, it takes for data to be sent plus the length of time it takes for an acknowledgment of that data to be received.</p>
% Dropped Packets	<p><b>The following trend lines:</b></p> <ul style="list-style-type: none"> <li>• The % dropped packets on the network not including streaming, for the time period that you selected from the <a href="#">FILTER</a>.</li> <li>• The % dropped packets on the network for only streaming, for the time period that you selected from the <a href="#">FILTER</a>.</li> </ul> <p><b>% dropped packets</b> is the number of packets dropped while entering or exiting your network.</p>

## Perceived Quality – Loaded Locations

The **Perceived Quality – Loaded Locations** panel shows the perceived quality score for the videos watched by location, as [FILTERED](#). The panel is comprised of a ring graph, with a ring for each location at a single location level.

The location levels vary depending on the network.



**Figure 8-7: Perceived Quality – Loaded Locations Panel**

To view the ring graph in the **Perceived Quality – Loaded Locations** panel:

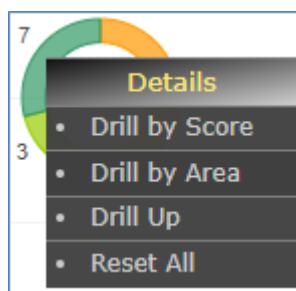
<b>The height of a ring on the Y axis indicates the number of unique subscribers or other selected metric, as <a href="#">FILTERED</a>, at the location.</b>	
Within a ring, the color of a ring segment indicates the overall quality score, as follows:	<ul style="list-style-type: none"> <li>Green indicates an overall quality score of 4-5.</li> <li>Light green indicates an overall quality score of 3-4.</li> <li>Yellow indicates an overall quality score of 2-3.</li> <li>Orange indicates an overall quality score of 1-2.</li> <li>Red indicates an overall quality score of 0-1.</li> </ul>
<b>Within a ring, the size of the ring segment indicates, at each perceived quality score, the number of unique subscribers or other selected metric, as <a href="#">FILTERED</a>, in the location.</b>	

In Perceived Quality – Loaded Locations, you can do the following:

- To drill to a specific location level, click the location level bubble.



- In the graph, right-click on a ring for expanded drill options:
  - ♦ **Drill by Score:** On a segment, to drill across location levels at the segment's Perceived Quality Score



- ♦ **Drill by Area:** To drill to a specific location level



- ♦ **Reset:** To reset to the default selection

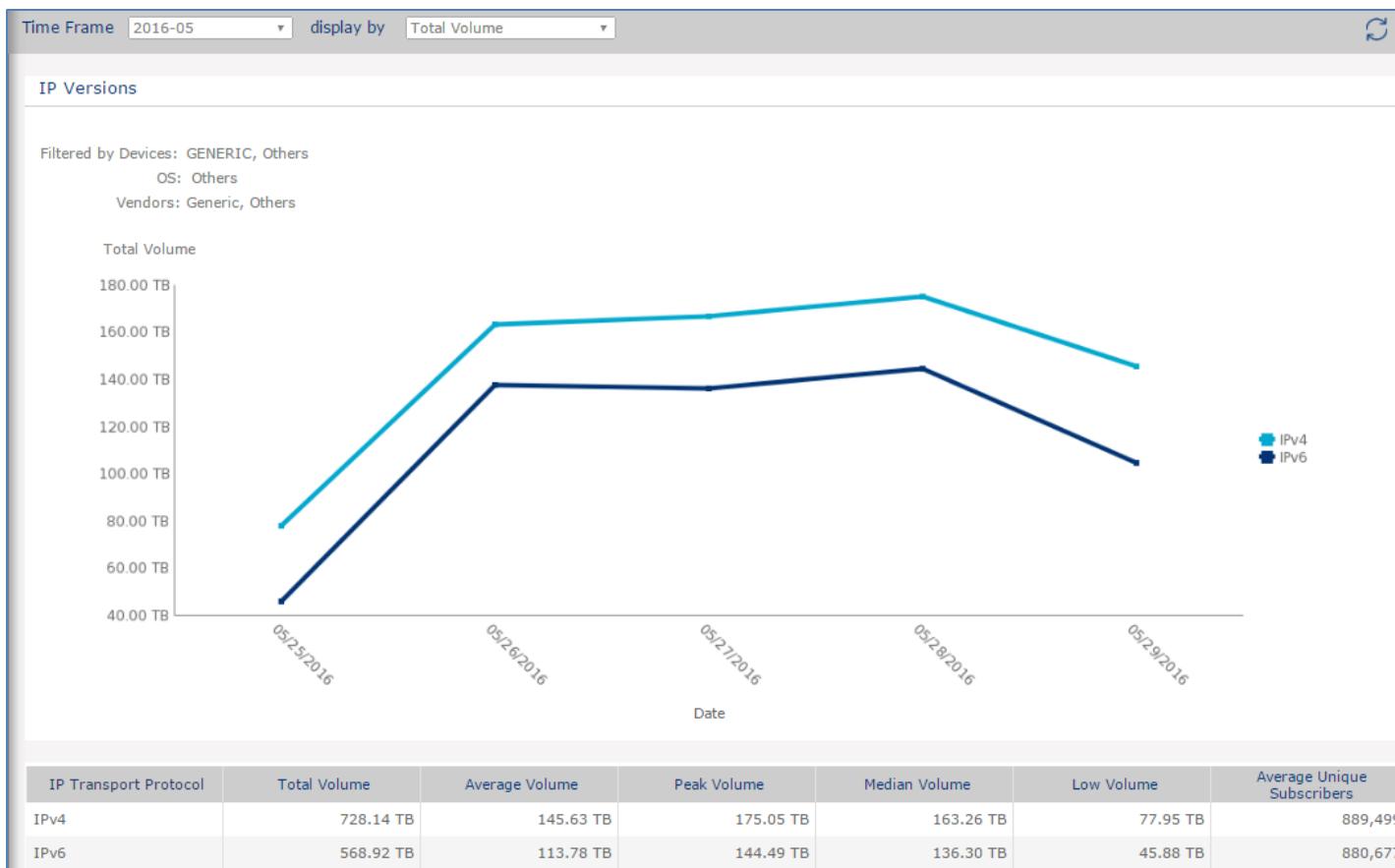
## IP Versions

The **IP Versions** report presents IP transport trends of selected devices, device operating systems and device vendors in your network.

To open the **IP Versions** report:

1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, select any of the following:
  - ◆ **Device OS**: Select operating systems running on the devices in your network, to view their IP transport trends. The more you select, the more IP versions appear in the report.
  - ◆ **Device Vendor**: Select the device vendors to view their IP transport trends. The more you select, the more IP versions appear in the report.
  - ◆ **Device**: Select the devices to view their IP transport trends. The more you select, the more trends of IP versions appear in the report.
2. Click Run Document.

The **IP Versions** report appears.



## Filter

**FILTER** report data by any of the following:

- **Time Frame:** To view data for a specific Month

Display By: To view data in the bar graph for any of the following **METRICS**: Total Volume, Unique Subscribers

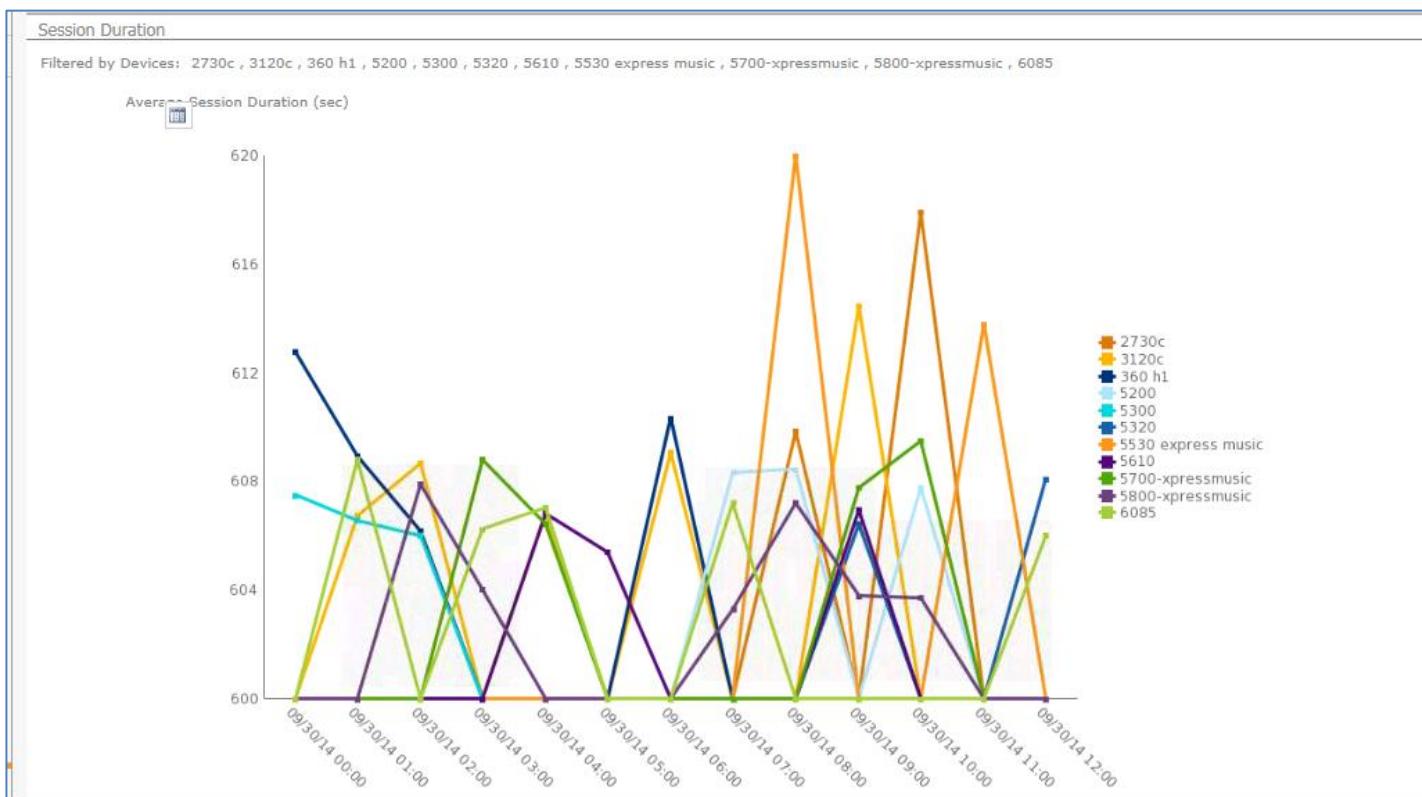
<b>Trend Graph</b>		<b>Tools</b>
Trend line for each IP version filtered by device, device OS and device vendor		<b>Mouse over</b> a point on the line of an IP version to view a tooltip containing the value of the selected metric.
X axis	The selected time frame	Drill down on an IP version at a specific time to view the selected metric by application, application group or device.
Y axis	The selected metric	
<b>Grid Columns</b>		<b>Tools</b>
IP Transport Protocol	The IP version of the selected device OS, device vendor and device	Sort the grid by the contents of the column.
Total Volume	The total volume of traffic running by way of the IP version for the selected month	
Average Volume	The average volume per day running by way of the IP version in the selected month	
Peak Volume	The volume of the day in the selected month with the greatest volume running by way of the IP version	
Median Volume	The volume of the day in the selected month whose volume running by way of the IP version is the median	
Low Volume	The volume of the day in the selected month with the lowest volume running by way of the IP version	
Avg Unique Subscribers	The average number of unique subscribers connected by way of the IP version for the selected month	

## Session Duration

The Session Duration report presents the average session duration of selected devices in your network.

To open the **Session Duration** report:

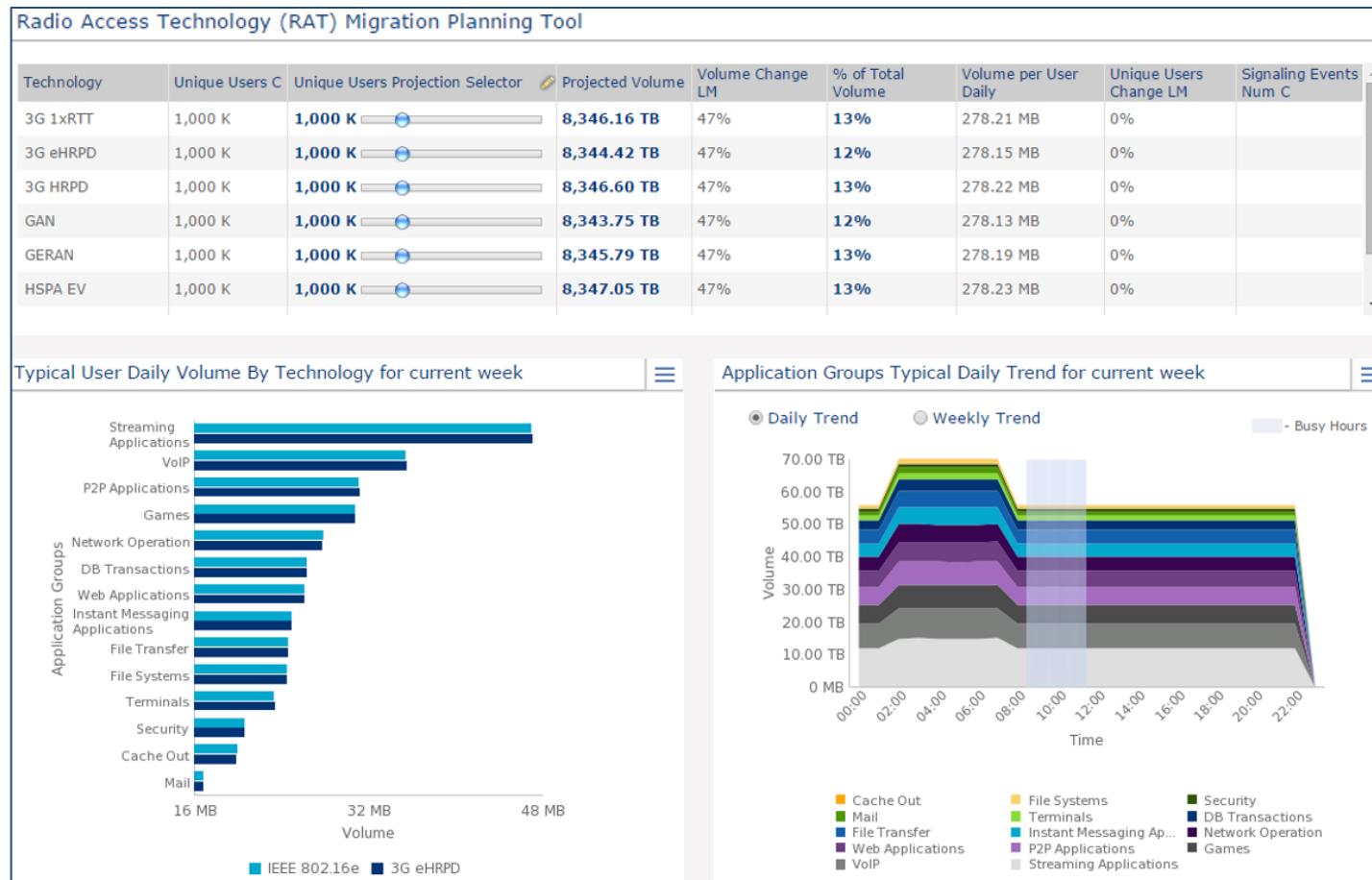
1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, from the **Device** area, select the devices to view their IP transport trends.
2. Click Run Document.  
The **Session Duration** report appears.



<b>Filter</b>	
<b>FILTER</b> report data by any of the following:	
• <b>Time Frame:</b> To view the data by <b>Hour or Day</b>	
Trend Graph	<b>Tools</b>
Trend line for each device	
<b>X axis</b>	The selected time frame
<b>Y axis</b>	The average session duration for the device
	<b>Mouse over</b> a point on a line to view a tooltip containing the average session duration for that device at that time.
	Toggle the view mode.

# Technology Migration Dashboard

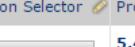
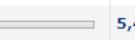
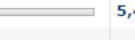
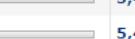
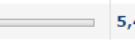
The **Technology Migration** dashboard provides key data on trends in the use on your network of the various cellular technologies. Migration from one technology to another by large numbers of users can cause problems in service. To prepare for these problems, use this dashboard to view trends and project changes in bandwidth volume.



Reports are as follows:

## Technology Migration Planning Tool

The **Technology Migration Planning Tool** enables you to predict volume trends of various cellular technologies.

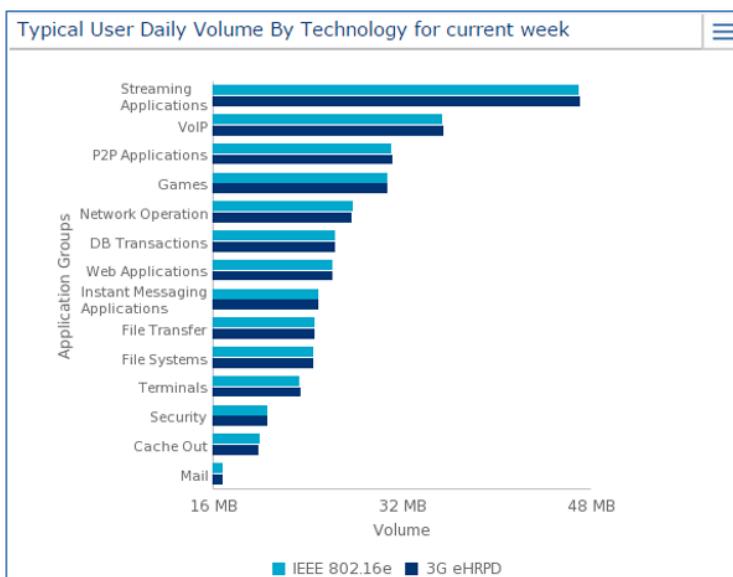
Technology Migration Planning Tool									
Technology	Unique Users C	Unique Users Projection Selector	Projected Volume	Volume Change LM	% of Total Volume	Volume per User Daily	Unique Users Change LM	Signaling Events Num C	
3G 1xRTT	1,000 K	1,000 K 	5,489.63 TB	-23%	12%	182.99 MB	0%		
3G eHRPD	1,000 K	1,000 K 	5,491.14 TB	-23%	13%	183.04 MB	0%		
3G HRPD	1,000 K	1,000 K 	5,491.42 TB	-23%	13%	183.05 MB	0%		
GAN	1,000 K	1,000 K 	5,490.07 TB	-23%	12%	183 MB	0%		
GERAN	1,000 K	1,000 K 	5,489.56 TB	-23%	12%	182.99 MB	0%		
HSPA EV	1,000 K	1,000 K 	5,490.64 TB	-23%	13%	183.02 MB	0%		
		-							

Grid Column	Tools
Technology	The most popular cellular technologies on your network
Unique Users C	The number of unique users of the technology in the last month of days
Unique Users Projection Selector	<p>A slider that enables you to set the projected number of unique users of the technology in a month, in order to make volume projections</p> <p>The number of unique users (in thousands) in a month appears to the left of the slider.</p>
Projected Volume	The projected bandwidth volume (in TB) for the number of unique users of the technology in a month, set by the <b>Unique Users Projection Selector</b>
Volume Change LM	<p>The percentage of change in volume between the last month of days and the month of days before that, as follows:</p> <ul style="list-style-type: none"> <li>• <b>Positive number:</b> Increase in volume</li> <li>• <b>Negative number:</b> Decrease in volume</li> </ul>
% of Total Volume	The projected percentage of the number of unique users of the technology out of the total bandwidth volume for a month
Volume per User Daily	The average bandwidth volume of a single user in a day

Unique Users Change LM	The percentage of change in the number of unique users between the last month of days and the month of days before that, as follows: <ul style="list-style-type: none"><li>• <b>Positive number:</b> Increase in number</li><li>• <b>Negative number:</b> Decrease in number</li></ul>	
Signaling Events Num C	Logging in to and logging out from the mobile data network, whether by the user or the operator	

## Typical User Daily Volume by Technology Graph

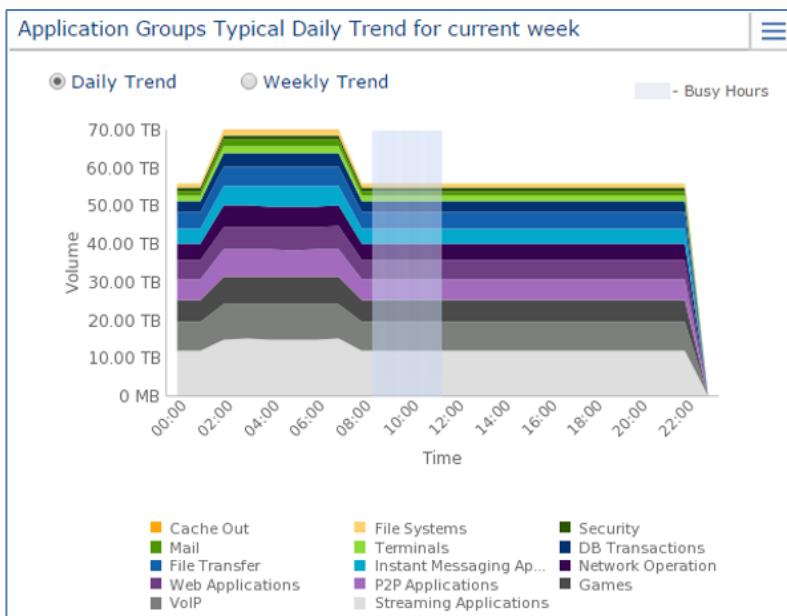
This graph enables you to compare technology usage by each application group, to see which application groups are using specific technologies.



<b>Vertical Bar Graph</b>		<b>Tools</b>
Each bar represents the cellular technology running an application group		Click the list button in the upper right corner of the graph for the following options:
X axis	The total bandwidth volume for the current week	<ul style="list-style-type: none"> <li>• To view technology usage for a specific device class, such as smartphone or tablet, select the device class.</li> <li>• Select the cellular technologies that you want to appear in the graph. The recommended number of technologies to show at a time is 2–3.</li> </ul> <p><b>Mouse over</b> a horizontal bar to view a tooltip containing the daily volume of a typical user of that application group or cellular technology.</p> <p>Toggle the view mode.</p>
Y axis	<ul style="list-style-type: none"> <li>• Application groups, for example, Streaming Applications, VoIP</li> <li>• Cellular technology running the application</li> </ul>	

## Application Groups Typical Daily Trend

This graph tracks the total bandwidth usage trend by application group, and enables you to notice how these trend by day or week.



Stacked Trend Graph		Tools
X axis	Either a whole day or a whole week	To select the time period that the graph displays:
Y axis	The total bandwidth usage trend for each application group	<ul style="list-style-type: none"> <li>Select <b>Daily Trend</b> to view a day divided by hours</li> <li>Select <b>Weekly Trend</b> to view a week divided by days</li> </ul> <p>To view the trend by application group for a specific device class, such as smartphone or tablet, select the device class.</p>
<p>Throughout the time period, the top line in the graph represents total bandwidth usage. The fluctuations that the graph displays is an average, as follows:</p> <ul style="list-style-type: none"> <li>When Daily Trend is selected, fluctuations are derived from the average of usage for the previous week of days.</li> <li>When Weekly Trend is selected, fluctuations are derived from the average of usage for the previous month of days.</li> </ul>		

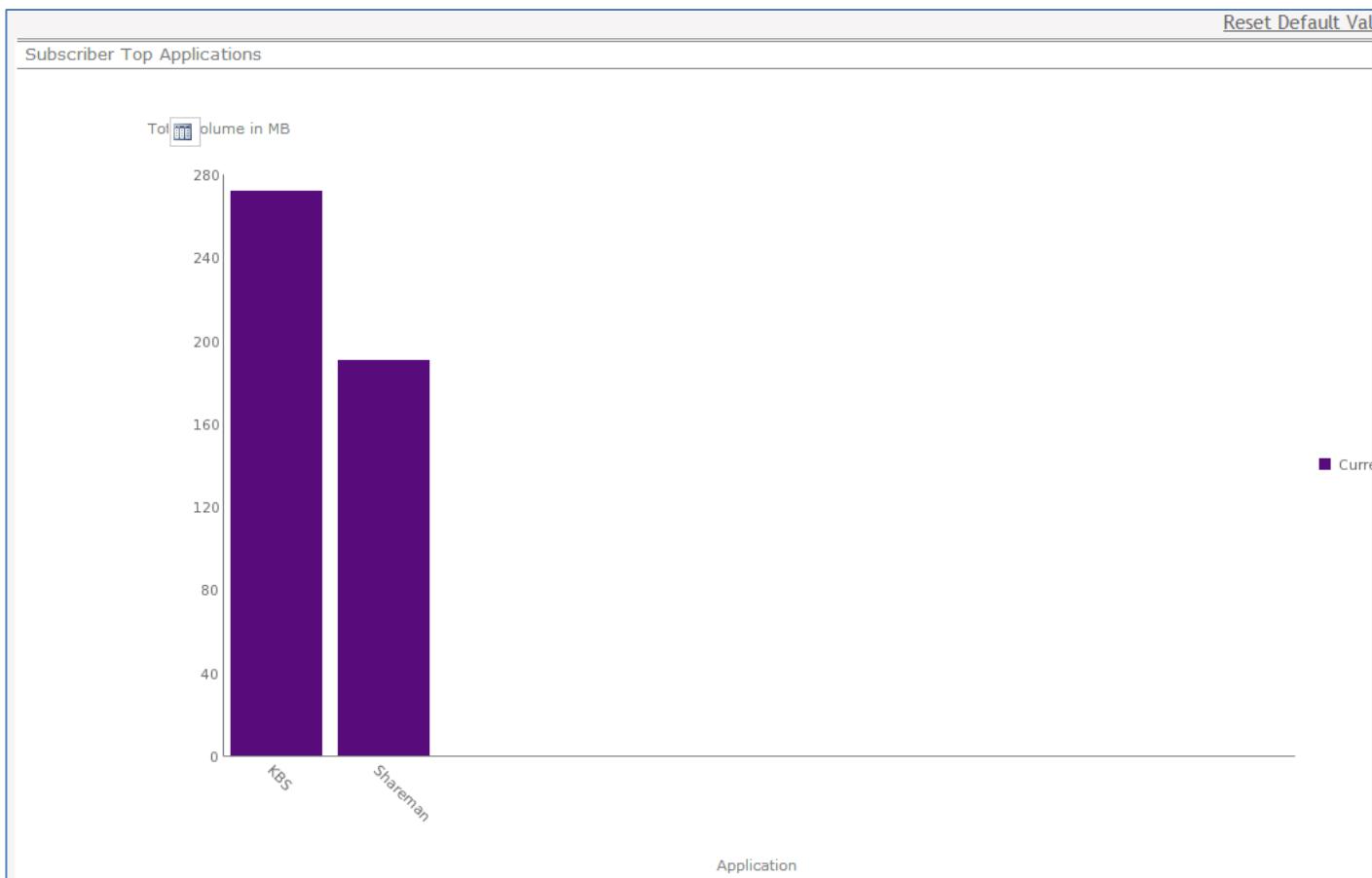
## User App Usage

The **User App Usage** report presents the total volume of a selected subscriber's top applications. It's useful for customizing the right service plan for a customer and assessing typical use patterns by analyzing those of a random customer.

To open the **User App Usage** report:

1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, from the **Subscriber** area, select the subscriber whose data you want to view.
2. Click Run Document.

The **User App Usage** report appears.

**Bar Graph**

Each bar represents an application.

X axis

The selected subscriber's top applications

Y axis

Total volume used by each application

**Tools**

**Mouse over** a bar to view a tooltip containing the total volume used by the subscriber for that application.

Toggle the view mode.



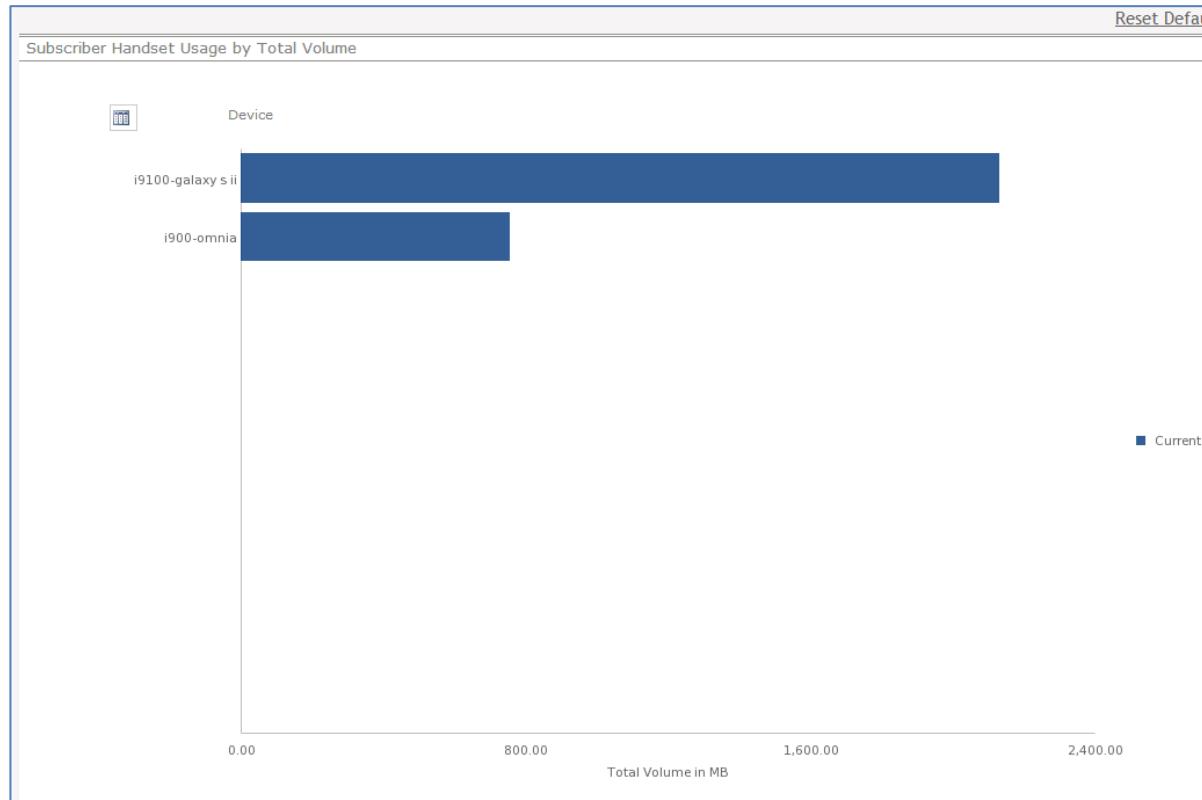
## User Device Usage

The **User Device Usage** report presents the total volume for each of a selected subscriber's devices. It's useful for customizing the right service plan for a customer and assessing typical use patterns by analyzing those of a random customer.

To open the **User Device Usage** report:

1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, from the **Subscriber** area, select the subscriber whose data you want to view.
2. Click Run Document.

The **User Device Usage** report appears.



<b>Horizontal Bar Graph</b>		<b>Tools</b>
Each bar represents a device.		<b>Mouse over</b> a bar to view a tooltip containing the total volume used by the subscriber on the device. Toggle the view mode.
X axis	Total volume used by the subscriber on the device	
Y axis	The selected subscriber's devices	

## User QoE

The **User QoE** (quality of experience) report assesses an individual subscriber's QoE in four dimensions: **Video Experience**, **Browsing Experience**, **Low Quality Videos**, and **High Quality Videos**. It's useful for responding to individual complaints about quality of service/experience complaint with specific information.

To open the **User QoE** report:

1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, from the **Subscriber** area, select the subscriber whose data you want to view.
2. Click Run Document.

The **User QoE** report appears.

The screenshot shows a report interface for a subscriber with ID 1244581087. The interface is divided into four main sections:

- Video QoE**: Displays statistics for the current month:

	Current Month
Watched Videos	12
Avg Stall in sec	881
Videos Duration in sec	45,720
Avg Video Duration in sec	3,810
- Low quality videos**: Displays statistics for the current month:

	Current Month
Watched Videos	
Avg Stall in sec	
Videos Duration in sec	
- Browsing QoE**: Displays statistics for the current month:

	Current Month
Avg Session Duration in sec	3,540
Response Time in ms	141,516
HTTP Errors	12
- High quality videos**: Displays statistics for the current month:

	Current Month
Watched Videos	
Avg Stall in sec	
Videos Duration in sec	

<b>Tools</b>	
<b>SORT</b> the grid by the contents of the column.	
<b>Video QoE</b>	
Watched Videos	Number of videos watched by the subscriber
Avg Stall in Seconds	The average length of a stall in videos watched by the subscriber
Video Duration in Seconds	The total length of all the videos watched by the subscriber
Avg Video Duration in Seconds	The average length of a video watched by the subscriber
<b>Browsing QoE</b>	
Avg Session Duration in Seconds	The average length of a session by the subscriber
Response Time in MS	The response time after a request by a subscriber, in milliseconds
HTTP Errors	Number of HTTP errors in a session
<b>Low Quality Videos</b>	
Watched Videos	Number of low-quality videos watched by the subscriber
Avg Stall in Seconds	The average length of a stall in low-quality videos watched by the subscriber
Video Duration in Seconds	The total length of all the low-quality videos watched by the subscriber
<b>High Quality Videos</b>	
Watched Videos	Number of high-quality videos watched by the subscriber
Avg Stall in Seconds	The average length of a stall in high-quality videos watched by the subscriber
Video Duration in Seconds	The total length of all the high-quality videos watched by the subscriber

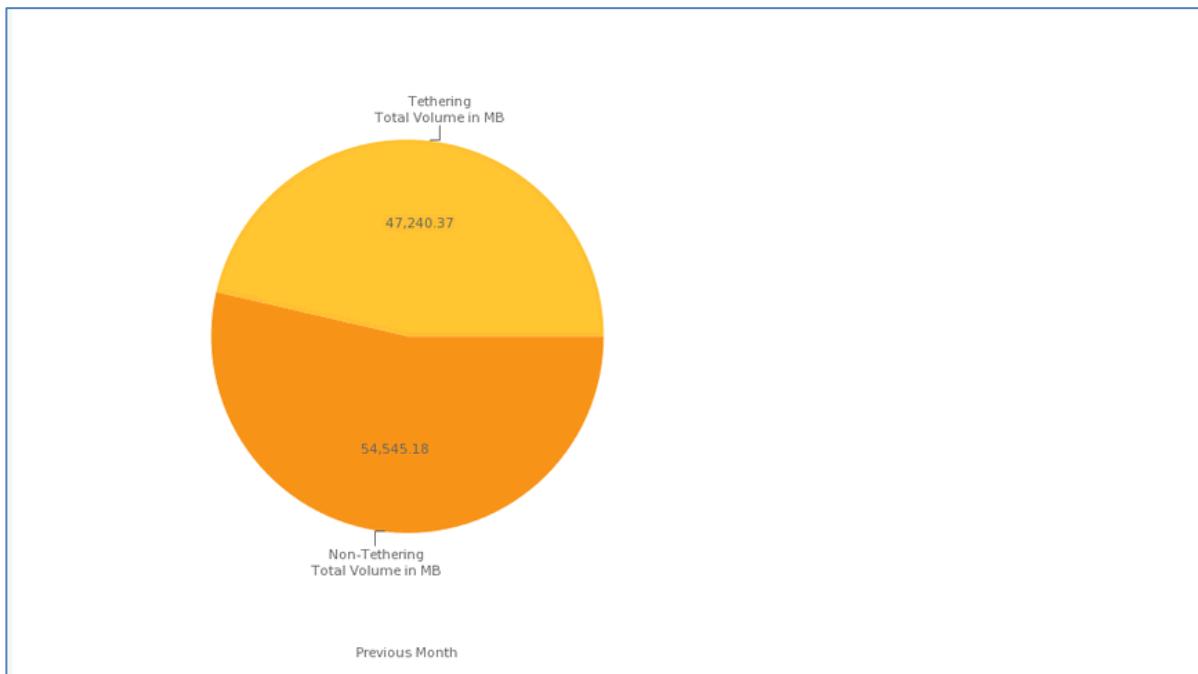
## User Tethering

The **User Tethering** report presents the tethered usage of the cellular network by a selected subscriber. Tethered usage is when the cellular device acts as a modem for connecting one or more laptops or other computing devices.

To open the **User Tethering** report:

1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, from the **Subscriber** area, select the subscriber whose data you want to view.
2. Click Run Document.

The **User Tethering** report appears.



Pie graph	Tools
<ul style="list-style-type: none"><li>• One slice of the pie is the percentage of usage of the cellular network by the selected subscriber that is tethered.</li><li>• The other slice is the percentage of usage that which is not tethered.</li></ul>	<p>Drill down on the tethered or untethered slice by subscriber, daily, policy, system, raw, service plan, application or hourly.</p> <p>Toggle the view mode.</p>

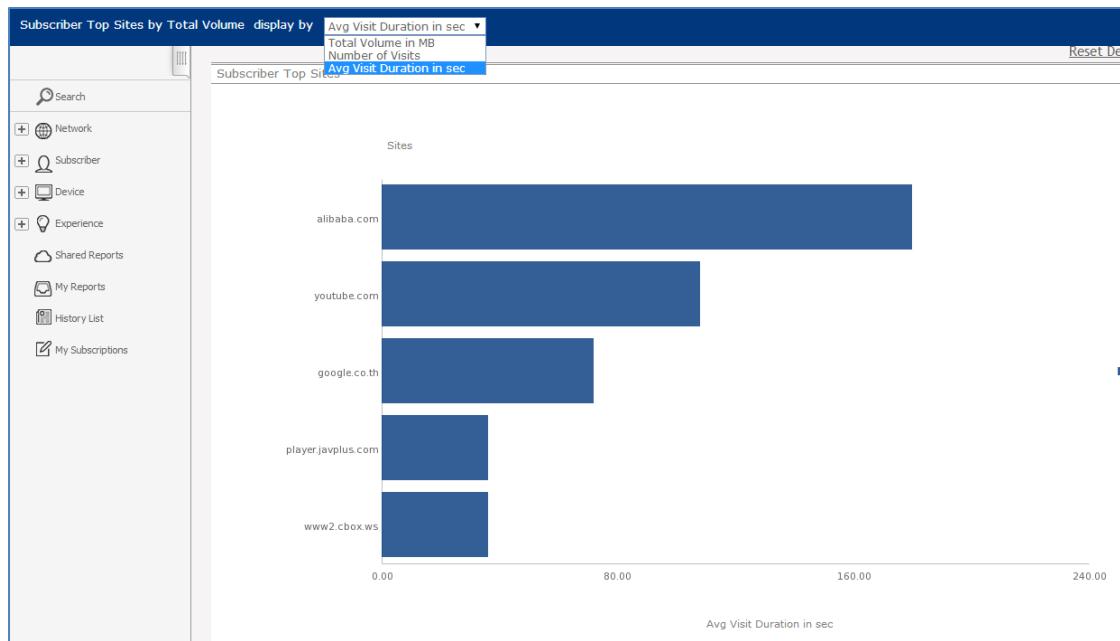
## User Top Sites

The **User Top Sites** report presents the top sites of a selected subscriber by a variety of metrics. It's useful for customizing the right service plan for a customer and assessing typical use patterns by analyzing those of a random customer. When **Avg Visit Duration** is selected, it can be used to understand the "stickiness" of visited website.

To open the **User Top Sites** report:

1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, from the **Subscriber** area, select the subscriber whose data you want to view.
2. Click Run Document.

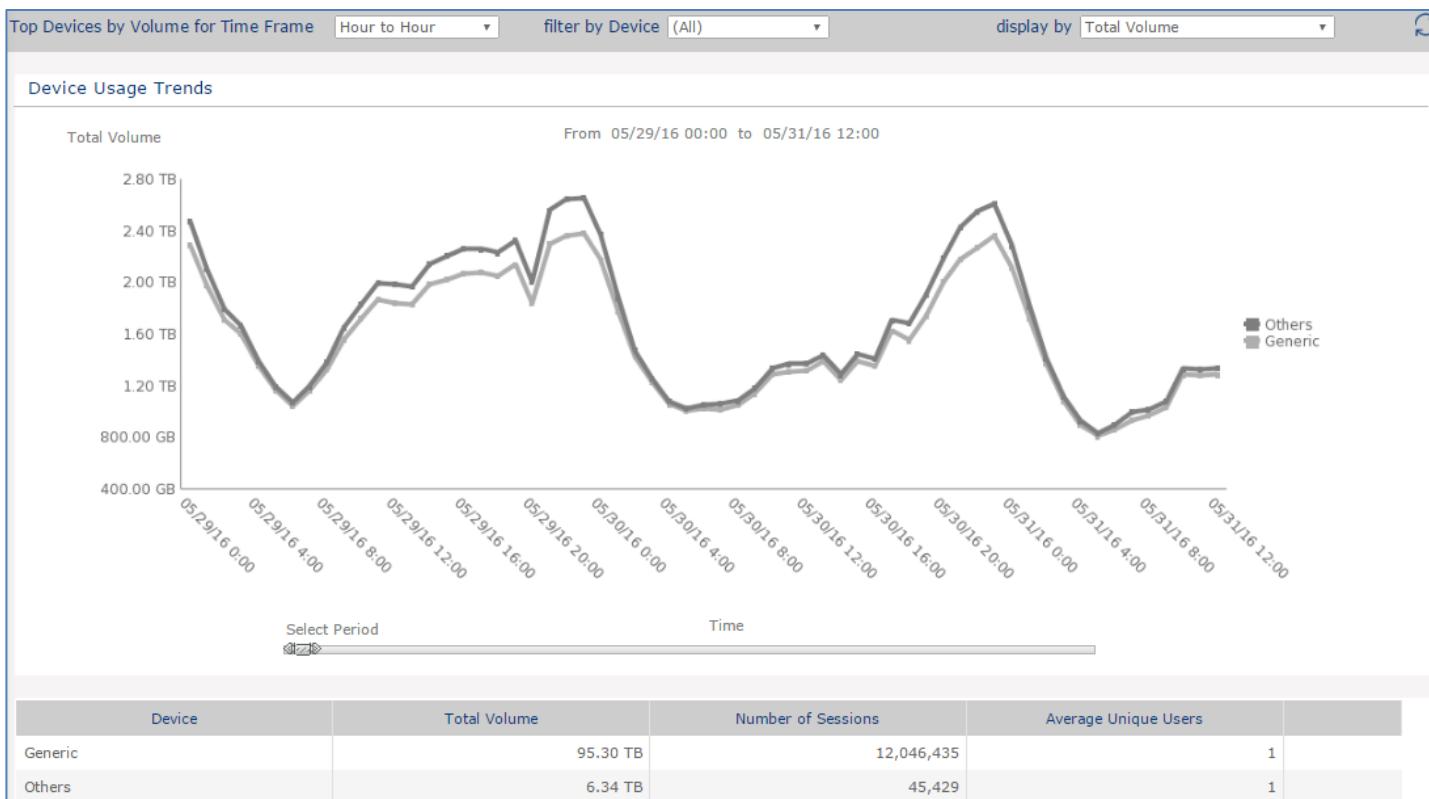
The **User Top Sites** report appears.



Filter	
<b>FILTER</b> report data by <b>Display By</b> , to view the selected subscriber's top sites by <b>Total Volume</b> , <b>Number of Visits</b> or <b>Avg Visit Duration</b> , which are also the <b>METRICS</b> by which to view the sites.	
Horizontal Bar Graph	Tools
Each bar represents a site.	<b>Mouse over</b> a bar to view a tooltip containing the value of the metric for that top site. Toggle the view mode.
X axis	The selected metric
Y axis	The selected subscriber's top sites

## Device Usage Trends

The **Device Usage Trends** report presents metrics for the major mobile devices over time.



## Filter

**FILTER** report data by any of the following:

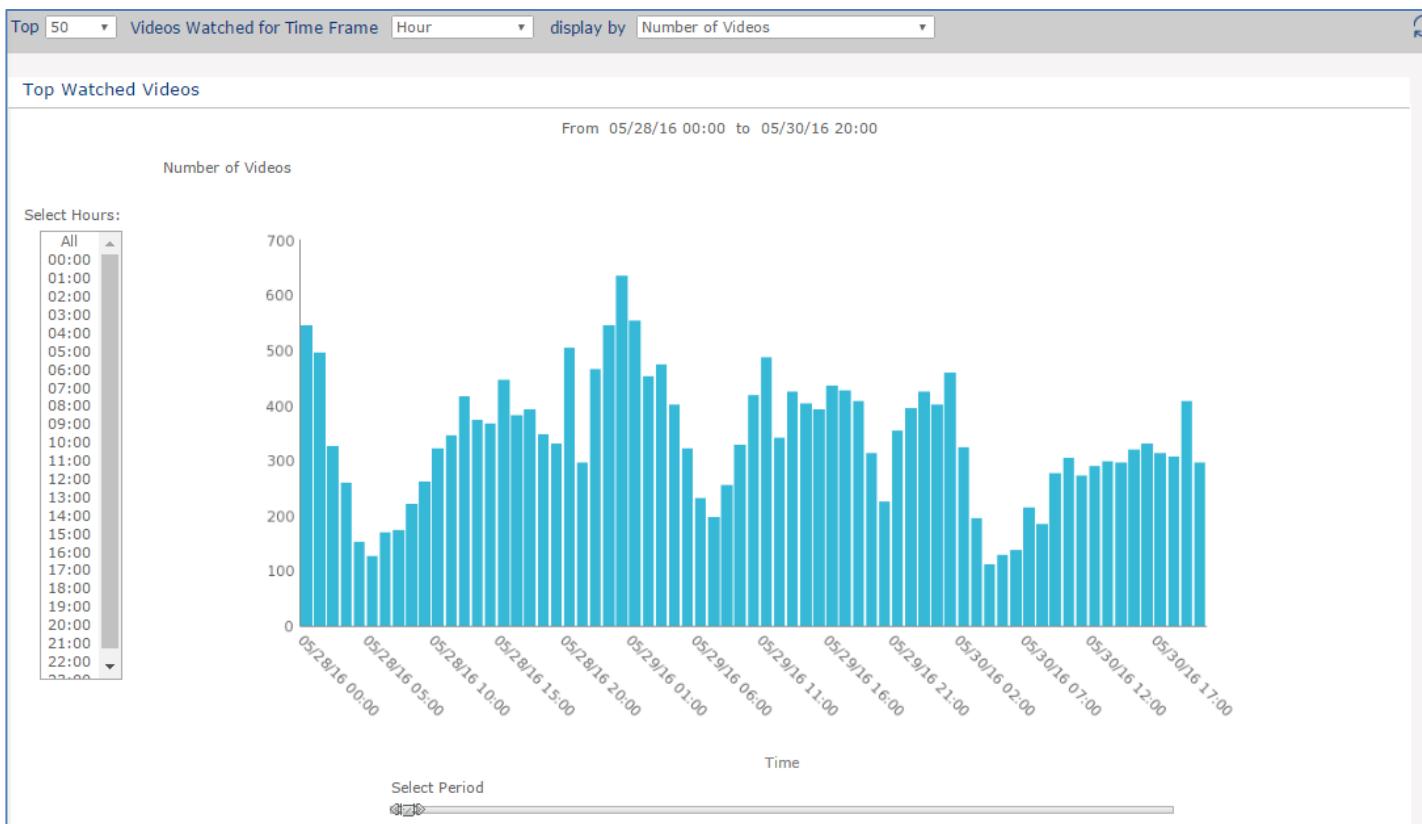
- **Time Frame:** To view data for a specific **Day** or **Month**, or **Hour to Hour**
- **Filter by Device:** To view data for a specific mobile device or all devices
- Display By: To view data for any of the following **METRICS**: Number of Sessions, Unique Users, Total Volume

If from the **Time Frame** filter you selected **Hour to Hour** or **Month**, then you can use the **SLIDER** to adjust the time frame in the report.

<b>Trend Graph</b>		<b>Tools</b>
Trend line for each of the top devices by volume		<b>Mouse over</b> a point on the line to view a tooltip containing the value of the selected metric for that device at that time. Drill down on a device at a specific time to view the selected metric by application, device OS, device OS version, device vendor, network access technology or tethered type.
X axis	The selected time frame	
Y axis	The selected metric	Toggle the view mode.
<b>Grid Columns</b>		<b>Tools</b>
Device	The name of the device on your network	Sort the grid by the contents of the column.
Total Volume	The total volume of all subscribers on your network using the device	
Number of Sessions	The total number of sessions opened by all subscribers on your network using the device	
Average Unique Users	The average number of subscribers on your network using the device	

## Top Watched Videos

The **Top Watched Videos** report presents metrics for the top watched videos over time, or for specific hours of the day.

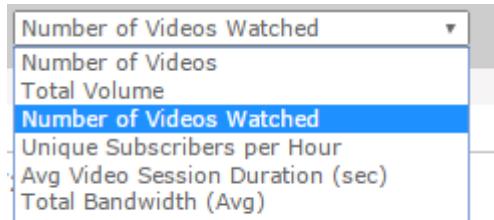


## Filter

Filter report data by any of the following:

- **Top**: To view data for the top **10, 50 or 100** videos
- **Time Frame**: To view data for a specific **Month, Week, Day or Hour**
- **Display By**: To view data for any of the following **METRICS**: Number of Videos, Total Volume, Number of Videos Watched, Unique Subscribers per Hour, Avg Video Session Duration (sec), Total Bandwidth (Avg)

Trend Graph		Tools
<p>Depending on the time frame that you select from the Time Frame filter:</p> <ul style="list-style-type: none"> <li>• Hour: Bar graph, and each bar is an hour</li> <li>• Day: Trend line, and each point on the trend line is a day</li> <li>• Week: Bar graph, and each bar is a week</li> <li>• Month: Bar graph, and each bar is a month</li> </ul>		<p>If from the <b>Time Frame</b> filter you selected:</p> <ul style="list-style-type: none"> <li>• <b>Hour, Day or Week</b>: You can use the slider to adjust the time frame in the report.</li> <li>• <b>Day</b>: The <b>Select Hours</b> area appears, in which you can select a specific hour for which to view data</li> </ul> <p><b>Mouse over</b> a point on the line to view a tooltip containing the name of the publisher.</p> <p>Drill down on a bar or point at a specific time to view the selected metric by video object, format, publisher, service plan or video name.</p> <p>Toggle the view mode.</p>
X axis	The selected time frame	
Y axis	The selected metric	

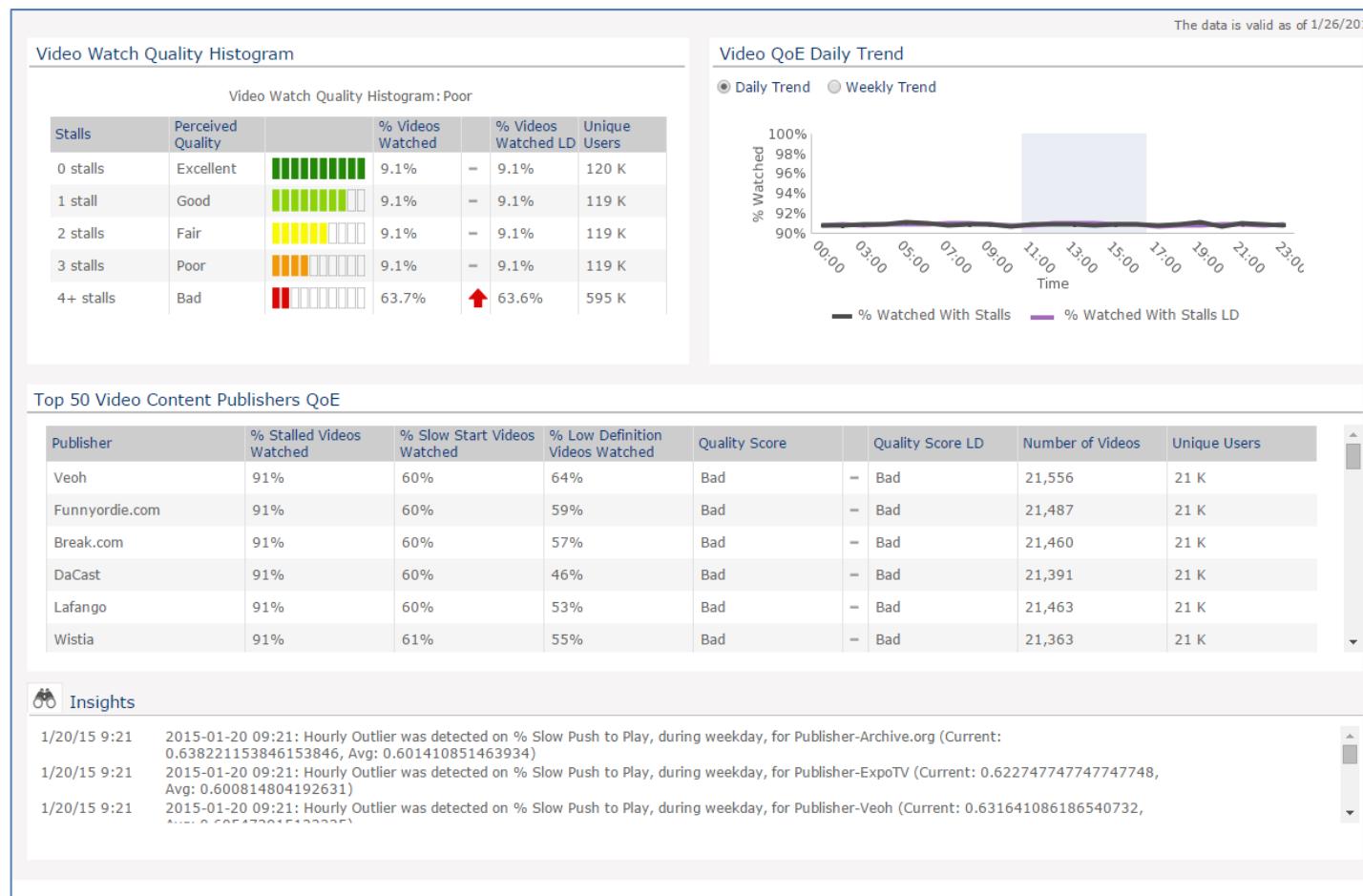




## Video Experience Dashboard

The **Video Experience** dashboard provides key data on video experience, including video definition and video stalls, enabling you to view the general trend and inspect individual applications. The dashboard draws attention to those applications that provide the worst video performance.

Negative video experience is a major factor in subscriber churn, and positive video experience can be a major selling point. The purpose of this dashboard is to enable you to monitor the user experience of watching OTT videos on your network, so that you can mitigate negative experiences and accentuate positive ones.



## Video Watch Quality Histogram

This grid presents the video experience trend by video definition or stalls.

### Video Watch Quality Histogram

Video Watch Quality Histogram Poor

Stalls	Perceived Quality		% Videos Watched	% Videos Watched LD	Unique Users
0 stalls	Excellent		9.2% <span style="color: red;">↓</span>	0.0%	49 K
1 stall	Good		9.1% <span style="color: red;">↓</span>	0.0%	48 K
2 stalls	Fair		9.0% <span style="color: gray;">↓</span>	0.0%	48 K
3 stalls	Poor		9.1% <span style="color: green;">↓</span>	0.0%	48 K
4+ stalls	Bad		63.7% <span style="color: green;">↓</span>	0.0%	296 K

**FILTER**

**Filter** the data of the entire dashboard by any of the following:

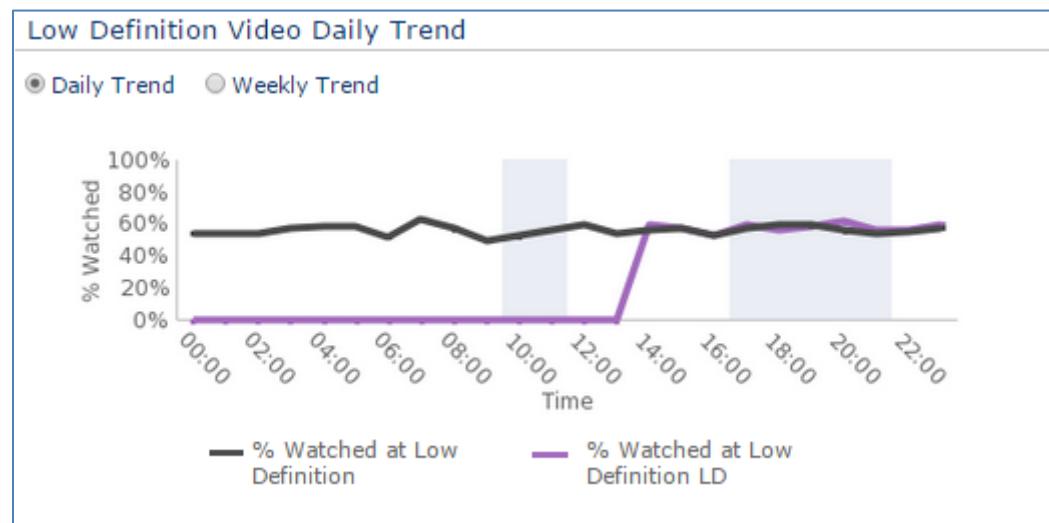
- **Video Experience By:** To view data for **Video Definition** or **Video Stalls**
- **Time Frame:** To view data **Daily** or **Weekly**

GRID			TOOLS
Grid Columns	Filtered by Definition	Filtered by Stalls	Sort the <b>Video Watch Quality</b> grid by the contents of the column.
Definition/Stalls	Levels of definition quality	Number of stalls per video, from 0 to 4+	
Perceived Quality	The perceived quality of the video experience at the level of definition	The perceived quality of the video experience with the number of stalls	
Quality Bars	The perceived quality		
% Videos Watched	The percentage of videos completely watched at the perceived quality		
Definition/Stalls Trend	Presents whether the perceived quality is increasing, decreasing or static		
% Videos Watched LD	The percentage from the previous day or week of videos completely watched at the perceived quality		

<b>Unique Users</b>	The number of unique users watching videos at the perceived quality	
---------------------	---------------------------------------------------------------------	--

## Video QoE Trend Graph

This trend graph tracks video QoE over time, and enables you to view the trend of videos watched with stalls or in low definition, and compare to the previous day or week



### FILTER

**Filter** the data of the entire dashboard by any of the following:

- **Video Experience By:** To view data for **Video Definition** or **Video Stalls**
- **Time Frame:** To view data Daily or Weekly

### TREND GRAPH

### TOOLS

Filtered by Definition

Filtered by Stalls

<p>When <b>Video Definition</b> is selected, this graph tracks the percentage of videos watched with poor or bad video definition for one of the following:</p> <ul style="list-style-type: none"> <li>• When <b>Daily Trend</b> is selected, the previous day, as well as two days ago</li> <li>• When <b>Weekly Trend</b> is selected, the previous week, as well as two weeks ago.</li> </ul> <p>If busy hours have been designated, these are displayed on the graph by a shaded column.</p>	<p>When <b>Stalls</b> is selected, this graph tracks the percentage of videos watched with stalls for one of the following:</p> <ul style="list-style-type: none"> <li>• When <b>Daily Trend</b> is selected, the previous day, as well as two days ago</li> <li>• When <b>Weekly Trend</b> is selected, the previous week, as well as two weeks ago.</li> </ul> <p>If busy hours have been designated, these are displayed on the graph by a shaded column.</p>	<p>To select the time period that the graph displays:</p> <ul style="list-style-type: none"> <li>• <b>Weekly trend from week to week:</b> From the panel, select <b>Weekly Trend</b>.</li> <li>• <b>Daily trend of the previous calendar week:</b> From the <b>Filter</b> select <b>Weekly</b>, and from the panel select <b>Daily Trend</b>.</li> <li>• <b>Hourly trend of the previous full day:</b> From the <b>Filter</b> select <b>Daily</b>, and from the panel select <b>Daily Trend</b>.</li> </ul>
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## Top 50 Video Content Publishers QoE Grid

This grid presents video content QoE metrics for all of the top 50 video content publishers, including the **Quality Score**, which is a combination of the metrics in the **Video Watch Quality** grid.

Top 50 Video Content Publishers QoE

Publisher	% Stalled Videos Watched	% Slow Start Videos Watched	% Low Definition Videos Watched	Quality Score	Quality Score LD	Number of Videos	Unique Users
Flickr	91%	60%	60%	Bad	-	Unavailable	8,444
Sapo Videos	91%	60%	66%	Bad	-	Unavailable	8,435
LeTV	91%	58%	71%	Bad	-	Unavailable	8,388
Dailymotion	91%	59%	55%	Bad	-	Unavailable	8,351
Vimeo	91%	60%	46%	Bad	-	Unavailable	8,326
Vzaar	91%	60%	49%	Bad	-	Unavailable	8,306

### FILTER

**Filter** the data of the entire dashboard by any of the following:

- **Video Experience By:** To view data for **Video Definition** or **Video Stalls**
- **Time Frame:** To view data **Daily** or **Weekly**

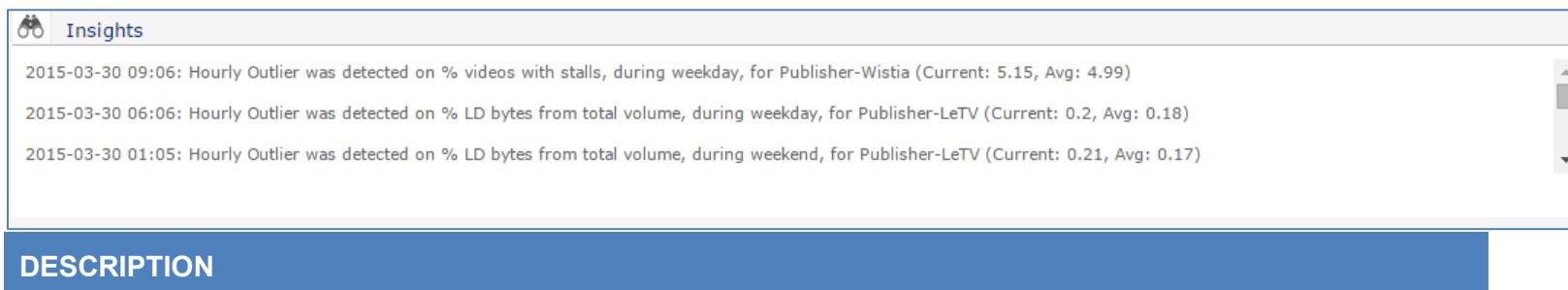
### GRID COLUMNS

### TOOLS

<b>Publisher</b>	One of the top 50 Web publishers, current for the previous day	<b>Sort the Top 50 Video Content Publishers</b> <b>QoE</b> grid by the contents of the column.
<b>% Stalled Videos Watched</b>	The percentage watched of videos with stalls	
<b>% Slow Start Videos Watched</b>	The percentage watched of videos that started after a stall	
<b>% Low Definition Videos Watched</b>	The percentage watched of low-definition videos	
<b>Quality Score</b>	The quality score from the previous day	
<b>Quality Score Trend</b>	Presents whether the <b>Quality Score</b> since two days ago is:  ↑ increasing ↓ decreasing	
<b>Quality Score LD</b>	The quality score from two days ago	
<b>Number of Videos</b>	The number watched of videos published by the publisher	
<b>Unique Users</b>	The number of unique users watching videos published by the publisher	

## Insights on Video Experience

This area provides insights related to the metrics and publishers on the Video Experience dashboard. An example of an activity on which there may be insights is the percent of videos with stalls.

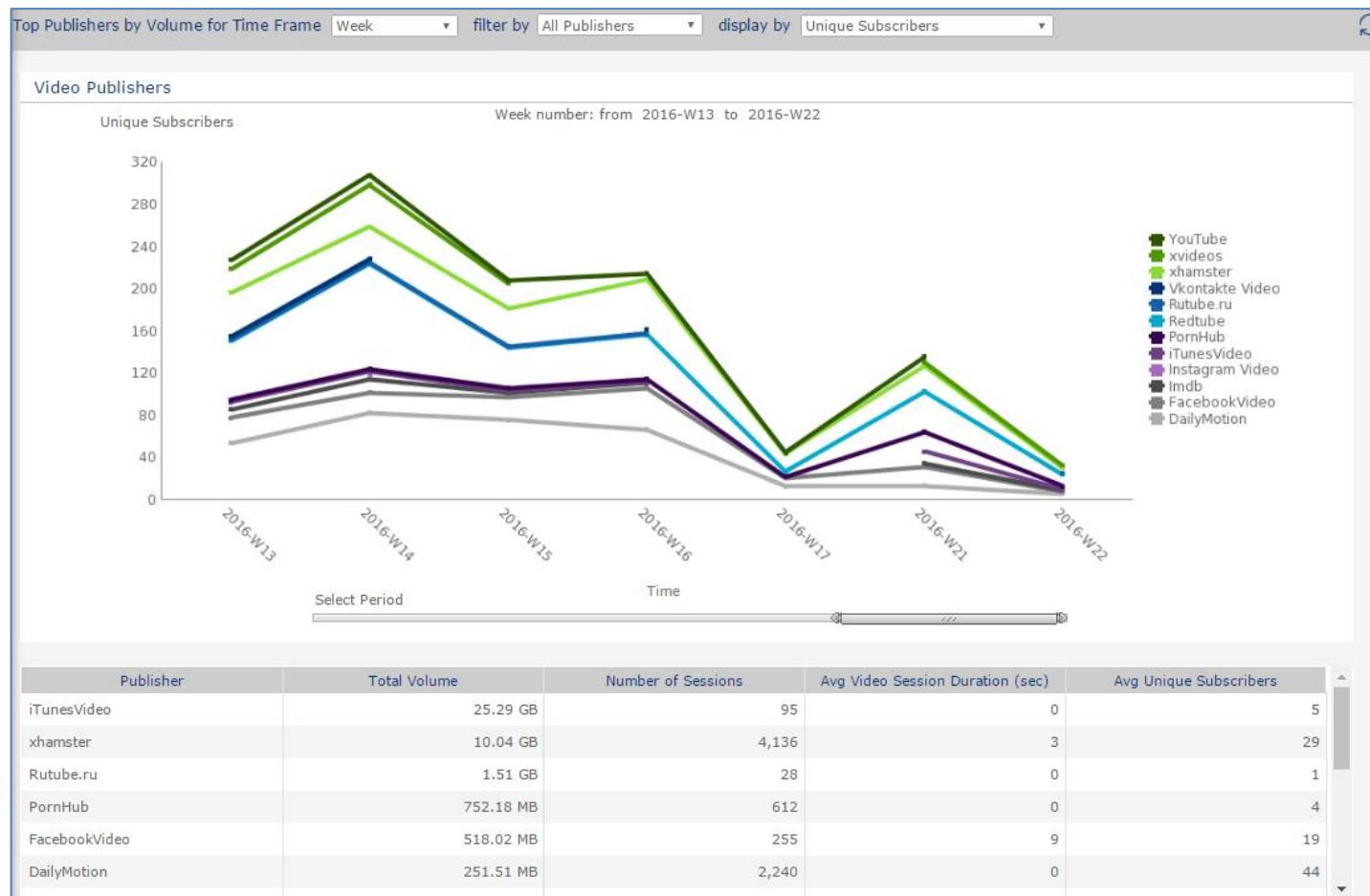


**DESCRIPTION**

See [here](#) for more information on insights.

# Video Publishers

The **Video Publishers** report presents metrics for the top video publishers over time.



<b>Filter</b>	
Filter report data by any of the following:	
<ul style="list-style-type: none"> <li>• <b>Time Frame:</b> To view data for a specific <b>Month, Week or Day</b></li> <li>• <b>Filter By:</b> To select the publishers for which you want to view the selected metrics</li> <li>• Display By: To view data for any of the following <b>METRICS:</b> Total Volume, Number of Sessions, Avg Video Session Duration (sec), Unique Subscribers</li> </ul>	
Trend Graph	Tools
Trend line for each of the top 12 publishers	<p>If from the <b>Time Frame</b> filter you selected <b>Day</b> or <b>Week</b>, then you can use the slider to adjust the time frame in the report.</p> <p><b>Mouse over</b> a point on the line to view a tooltip containing the name of the publisher.</p> <p>Drill down on a publisher at a specific time to view the selected metric by format, device or service plan.</p>
Grid Columns	Tools
Publisher	Top 1000 publishers
Total Volume	The total volume for the publisher in the selected time frame
Number of Sessions	The number of sessions opened by the publisher in the selected time frame
Avg Video Session Duration	The length of the average video session opened by the publisher in the selected time frame
Average Unique Subscribers	The average unique subscribers in the selected time frame

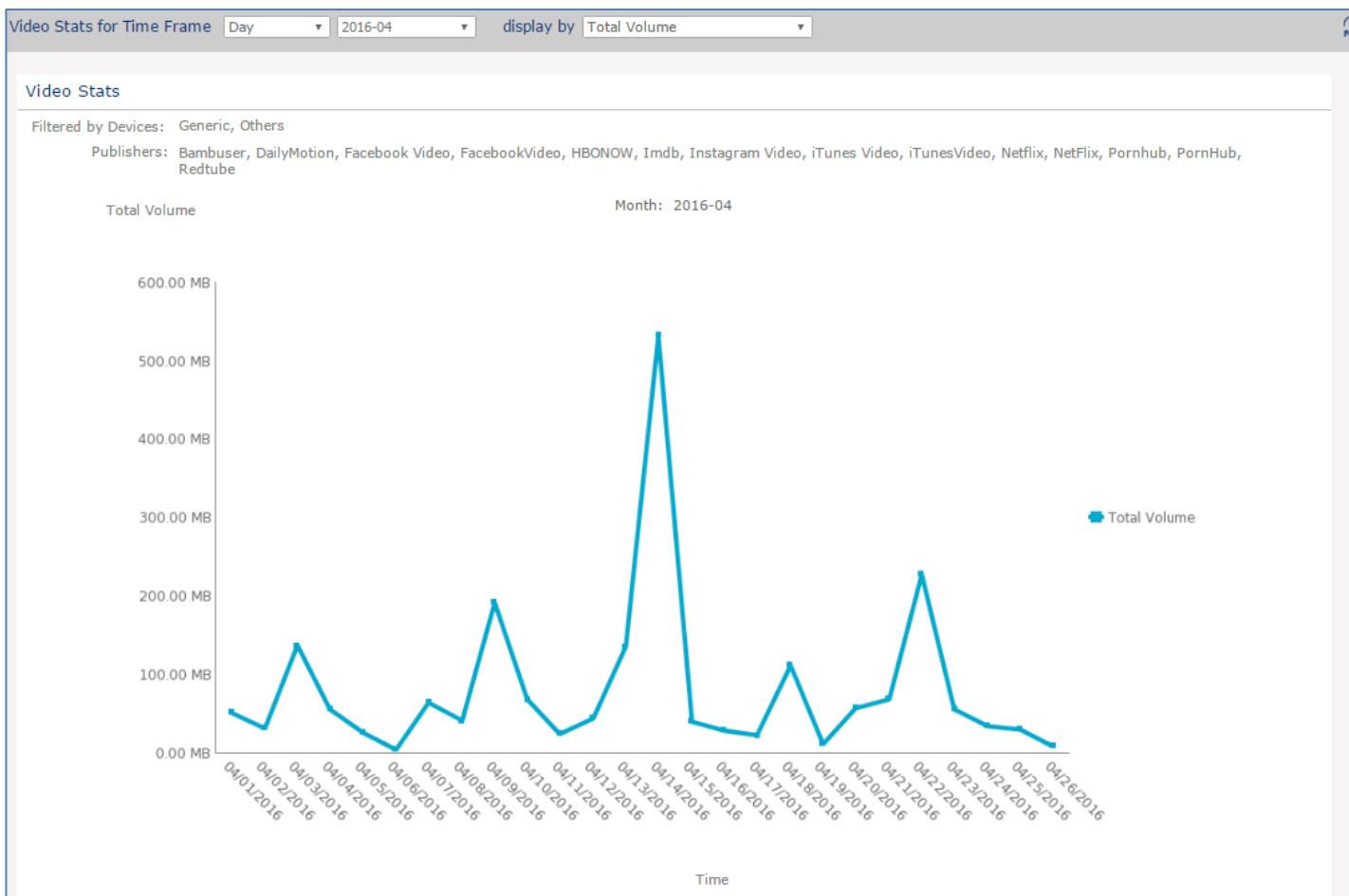


## Video Stats

The Video Stats report provides metrics for devices on your network or by video publisher.

To open the **Video Stats** report:

1. Click the report from the **Reporting Pane**, and then, from the **Report Criteria** page, select any of the following:
  - ◆ **Device**: Select the devices to view metrics by device.
  - ◆ **Publisher**: Select publishers to view metrics by video publisher.
2. Click Run Document.  
The **Video Stats** report appears.

**Filter**

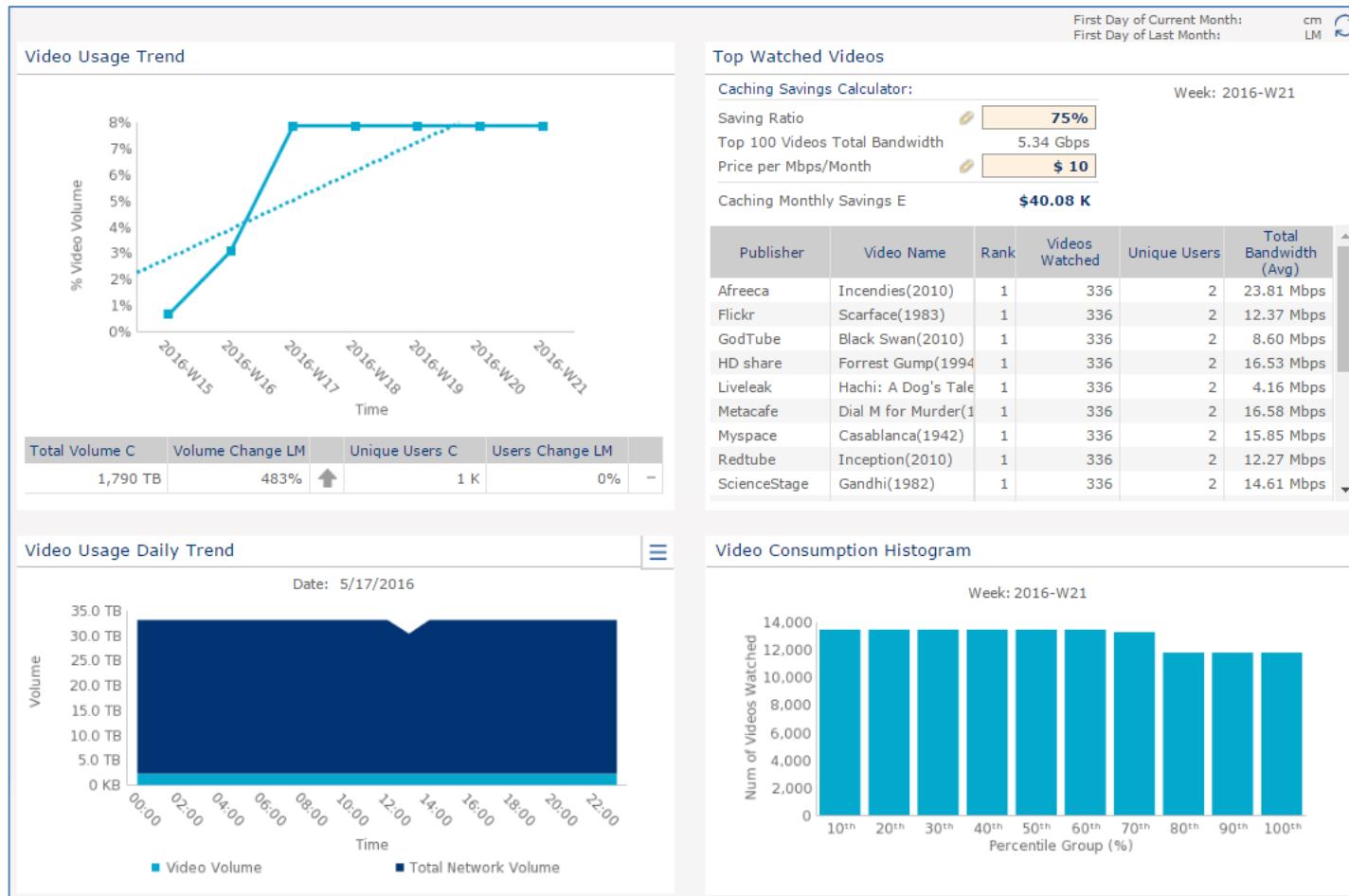
**FILTER** report data by any of the following:

- **Time Frame:** To view the data by **Day** for a specific month, or by **Hour** for a specific day
- **Display By:** To view data for any of the following metrics: Total Volume, Unique Subscribers, Number of Sessions, Average Session Duration (sec)

<b>Trend Graph</b>		<b>Tools</b>
The trend line is of the selected metric filtered by devices and video publishers.		Mouse over a line to view a tooltip containing the value of the selected metric.
X axis	The selected time frame	Drill down on the trend line at a specific time to view the selected metric by device, publisher or service plan.
Y axis	The selected metric	Toggle the view mode.

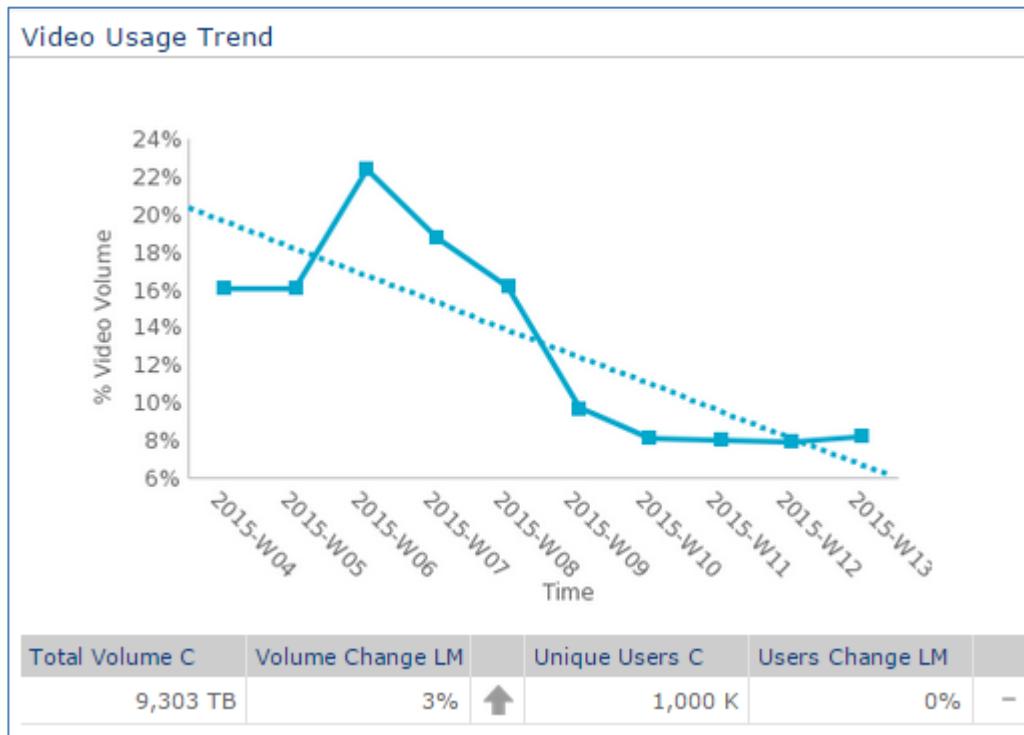
# Video Trends Dashboard

The **Video Trends** dashboard provides key data on video usage trends, both daily and weekly, and statistics, such as top watched videos.



## Video Usage Trend Graph

The graph presents the percentage of your total bandwidth volume that was video, and the grid presents the total bandwidth volume for video and compares it to unique users.



<b>Bar Graph</b>	
X axis	The last 10 weeks
Y axis 	Weekly percentage of your total bandwidth volume that was video
Y axis 	Overall video bandwidth trend from the beginning of the period to the present
<b>Grid Columns</b>	
Total Volume C	Total current bandwidth volume for video
Volume Change LM	Change in total bandwidth volume for video since the last month
Volume Change Trend	Presents whether the total bandwidth volume for video since the last month is:  ↑ increasing ↓ decreasing
Unique Users C	Total current unique users of video
User Change LM	Change in total unique users of video since the last month
User Change Trend	The total unique users of video since the last month is:  ↑ increasing ↓ decreasing

## Top Watched Videos Grids

The top grid is a tool for calculating your savings per month by taking advantage of video caching. The bottom grid presents the top watched videos on your network.

### Top Watched Videos

Week: 2015-W12

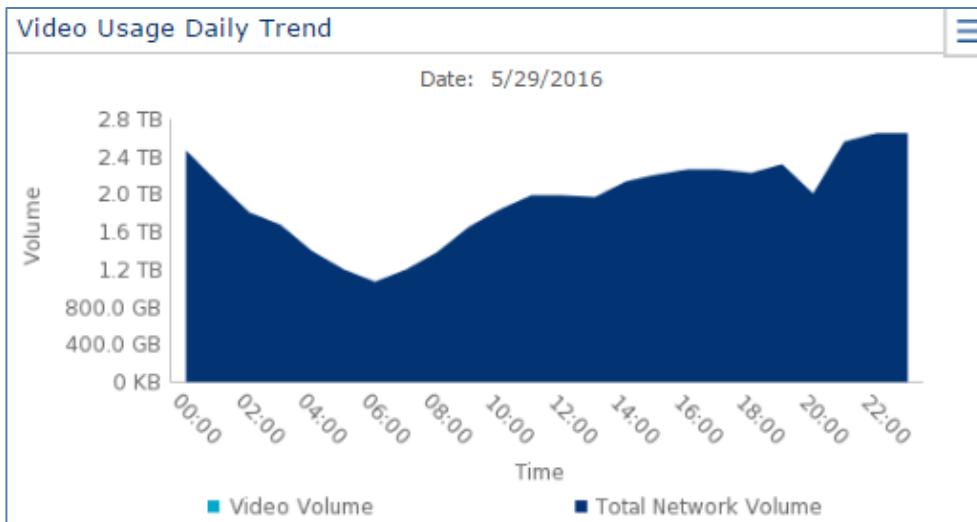
<b>Top 10 Videos Total Bandwidth</b>	<b>2.59 Gbps</b>
<b>Saving Ratio</b>	<b>75%</b>
<b>Price per Mbps/Month</b>	<b>\$ 10</b>
<b>Caching Monthly Savings E</b>	<b>\$19.43 K</b>

Publisher	Video Name	Rank	Videos Watched	Unique Users	Total Bandwidth
Hulu	Memento(2000)	1	K	K	2.69 Mbps
Openfilm	Memento(2000)	2	K	K	2.35 Mbps
Rambler Vision	Memento(2000)	3	K	K	2.47 Mbps
Buzznet	Memento(2000)	4	K	K	2.24 Mbps
Dailymotion	Memento(2000)	5	K	K	2.63 Mbps
SmugMug	Memento(2000)	5	K	K	2.21 Mbps
Facebook	Memento(2000)	7	K	K	2.35 Mbps
MaYoMo	Memento(2000)	7	K	K	2.22 Mbps
Sevenload	Memento(2000)	7	K	K	2.15 Mbps
DaCast	Memento(2000)	10	K	K	2.49 Mbps
Funnyordie.com	Memento(2000)	10	K	K	2.44 Mbps

<b>Top Grid Rows (savings tool)</b>		<b>Tools</b>
Top 10 Videos Total Bandwidth	The total bandwidth on your network occupied by the top 10 videos for the week listed above the grid	To calculate your savings per month: Vary the <b>Saving Ratio</b> and <b>Price per Mbps/Month</b> fields by clicking the fields and typing new amounts. The <b>Caching Monthly Savings E</b> automatically updates accordingly. The calculation is as follows: $\text{Top 10 Videos Total Bandwidth} \times \text{Price per Mbps/Month} \times \text{Saving Ratio} = \text{Caching Monthly Savings E}$
Saving Ratio	The rate by which you cache videos, as follows: 100% is completely cached, 100% savings 0% is no caching, 0% savings	
Price per Mbps/Month	Your expenses per month per Mbps	
Caching Monthly Savings E	The amount of money you save by caching videos	
<b>Bottom Grid Columns</b>		
Video Name	The name of the video	
Rank	The video's rank by number of times watched	
Videos Watched	The number of times the video was watched	
Unique Users	The number of unique users to watch the video	
Total Bandwidth	The total bandwidth used for watching the video	

## Video Usage Daily Trend Graph

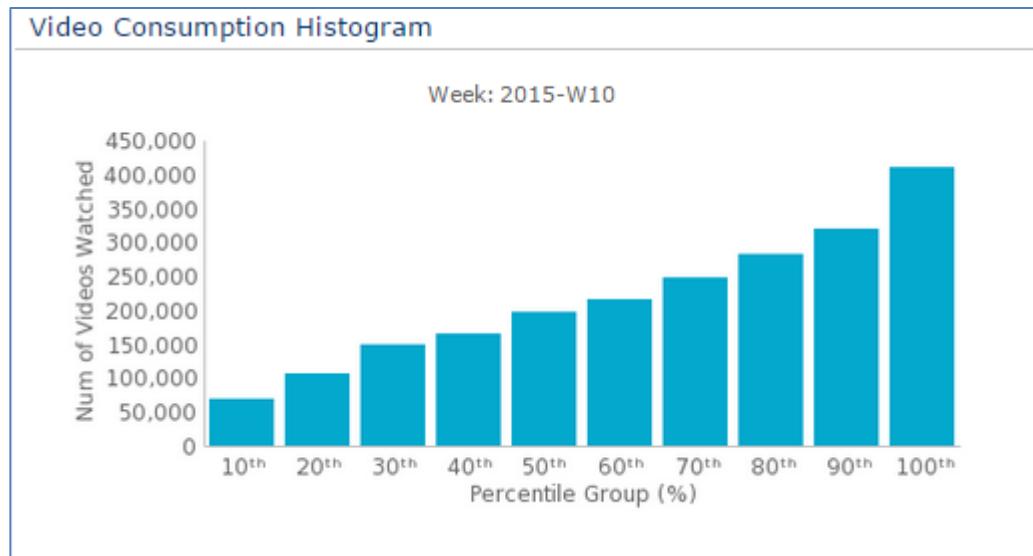
This graph tracks video volume on your network.



Stacked Trend Graph		Tools
X axis	<ul style="list-style-type: none"> <li><b>Upper line</b> (dark blue): Indicates total network volume</li> <li><b>Lower line</b> (light blue): Indicates video volume.</li> </ul>	Click the list button in the upper right corner of the graph to select the date of the data to present. Toggle the view mode.
Y axis	The time range, as determined by the slider range	

## Video Consumption Graph

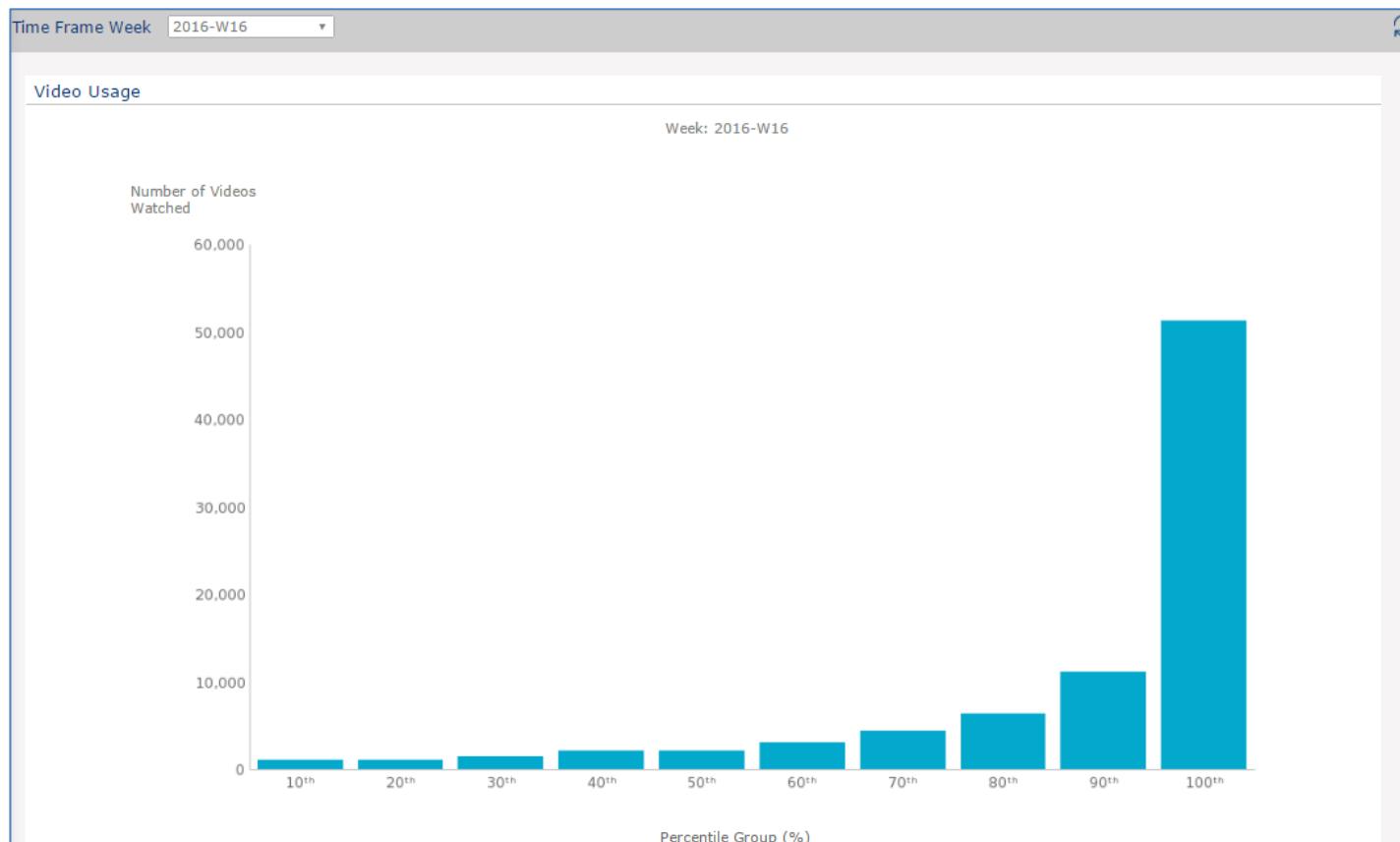
This bar graph describes the number of videos watched by subscribers on your network per percentile group.



<b>Histogram Bar Graph</b>		<b>Tools</b>
X axis	<p>Percentile groups:</p> <ul style="list-style-type: none"> <li>Each percentile group contains the same number of unique users.</li> <li>The 100<sup>th</sup> percentile group watches the most videos.</li> <li>The 10<sup>th</sup> percentile group watches the least videos.</li> </ul>	Mouse over a bar to view a tooltip containing the number of the videos watched in that percentile group.
Y axis	Number of videos watched in the previous week.	

## Video Usage

The **Video Usage** report displays the number of videos watched by subscribers on your network by week, per percentile group.



### Filter

**FILTER** report data by **Time Frame**, to view data for a specific week

<b>Histogram Bar Graph</b>		<b>Tools</b>
X axis	<p>Percentile groups:</p> <ul style="list-style-type: none"><li>• Each percentile group contains the same number of unique users.</li><li>• The 100<sup>th</sup> percentile group watches the most videos.</li><li>• The 10<sup>th</sup> percentile group watches the least videos.</li></ul>	Mouse over a bar to view a tooltip containing the number of the videos watched in that percentile group.
Y axis	Number of videos watched in the selected week.	