HP Network Node Manager iSPI Performance for Traffic Software

For the Windows ® and Linux operating systems

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Reports Online Help

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Chapter 1

HP Network Node Manager iSPI Performance for Traffic Software Reports

The HP Network Node Manager iSPI Performance for Traffic Software (NNM iSPI Performance for Traffic) extends the capability of NNMi to monitor the performance of the network with respect to the data that is flowing through it. The NNM iSPI Performance for Traffic aggregates and enriches the data from the IP flow records that are exported by the routers. The NNM iSPI Performance for Traffic gives an insight into network traffic and helps you monitor network performance by analyzing the traffic flow.

With the NNM iSPI Performance for Traffic, you can perform the following tasks:

- Generating traffic data performance reports
- Historical traffic analysis of flow records
- Correlation of obtained IP flow records with the NNMi topology for context-based analysis
- Understanding network traffic patterns
- Network application performance management and root cause analysis

Chapter 2

Glossary of Metrics

The NNM iSPI Performance for Traffic provides you with the following metrics to analyze the network traffic:

Period Length

Period Length is the amount of time for which an individual record represents data.

Volume - In Bytes

Volume - In Bytes metric represents the volume of incoming traffic reported by a flow interface measured in bytes.

Volume - Out Bytes

Volume - Out Bytes metric represents the volume of outgoing traffic reported by a flow interface measured in bytes.

Total Volume - Bytes

Total Volume - Bytes metric represents the total volume of incoming and outgoing traffic on a specific interface measured in bytes.

Number of Packets (Incoming)

Number of Packets (Incoming) represents the number of incoming traffic reported by a flow interface specific to the node or component.

Number of Packets (Outgoing)

Number of Packets (Outgoing) represents the number of outgoing traffic reported by a flow interface specific to the node or component.

Number of Flows (Incoming)

Number of Flows (Incoming) represents the number of incoming traffic reported by a flow interface specific to the node or component.

Number of Flows (Outgoing)

Number of Flows (Outgoing) represents the number of outgoing traffic reported by a flow interface specific to the node or component.

Sample Count

Sample Count is the number of flow records in the database.

countDistinct Metrics

Use countDistinct metrics only for the*Grouping By* selection operation. Do not use these metrics as the primary or secondary metrics of the report. You may, however, use one of the countDistinct metrics to diagnose specific problems by using the Top N reports.

Flow Version

The version of the IP flow protocol (Netflow, Sflow, or IPFIX).

IP Protocol

IP protocol used by the IP flow.

Class of Service

Class of Service of the IP flow defined by the user with the help of the NNM iSPI Performance for Traffic Configuration form.

Application Name

Application that is associated with the IP flow.The NNM iSPI Performance for Traffic provides a set of out-of-the-box application definitions; you can also create new application definitions.

Source Port

Port where IP flows originate. This release of the NNM iSPI Performance for Traffic cannot preserve this value; this metric always defaults to 0.

Destination Port

Port on the host where IP flows terminate.

Source Port IP Address

IP address of the host where IP flows originate.

Destination Port IP address

IP address of the host where IP flows terminate.

Source Host Name

Hostname of the node where the IP flows originate. This metric corresponds to the DNS-resolved name for the Source IP address.

Destination Host Name

Hostname of the node where the IP flows terminate.

Source Vlan ID

VLAN ID of the node where the IP flow originates.

Destination Vlan ID

VLAN ID of the node where the IP flow terminates.

Source Vlan

VLAN where the IP flows originate.This metric refers to the VLAN entity in NNMi in certain cases.

Destination Vlan

VLAN where the IP flows terminate.

Collector Name

Name of the flow collector.

Source Site Name

Name of the site where flows originate. To use this metric, you must define Sites with the help of the NNM iSPI Performance for Traffic Configuration form.

Destination Site Name

Name of the site where flows terminate. To use this metric, you must define Sites with the help of the NNM iSPI Performance for Traffic Configuration form.

Type of Service

Type of Service attribute for the flow.

Bandwidth - In Megabits per Second (Average, Maximum, and Minimum)

Volume of traffic flowing in to the selected nodes or interfaces in one second.

Bandwidth - Out Megabits per Second (Average, Maximum, and Minimum)

Volume of traffic flowing out of the selected nodes or interfaces in one second.

Bandwidth Utilization (Average, Maximum, and Minimum)

Volume of incoming and outgoing traffic through the selected nodes or interfaces (calculated based on the configured link speed).

Source Subnet Address

Source network address from where the data packets originate.

Destination Subnet Address

Destination network address to where the packet is destined to.

Chapter 3

Report Categories

The NNM iSPI Performance for Traffic provides you with three major categories of reports based on the age of the data used for report building.

- **Interface Traffic:** This category includes reports built with the raw data available in the NPS database.
- **Interface Traffic_1_min:** The NNM iSPI Performance for Trafficaggregates the data forwarded by the Master Collector at an interval of one minute and stores the data into the NPS database. The aggregated data includes fewer data samples than the raw data, and therefore, can be stored into the database for up to 31 days. The Interface Traffic_1_min category includes reports and reportlets generated from the data aggregated at every minute.
- **Interface Traffic_15_min:** The NNM iSPI Performance for Trafficaggregates the data forwarded by the Master Collector at an interval of 15 minutes and stores the data into the NPS database. The aggregated data includes fewer data samples than the raw data or the data aggregated at every 15 minutes, and therefore, can be stored into the database for up to 400 days. The Interface Traffic_15_min category includes reports and reportlets generated from the data aggregated at every 15 minutes.

Chapter 4

Interface Traffic Report Category

The Interface Traffic report category presents the reports and reportlets that are generated with the raw data available in the NPS database.The reports in this category operate on all the traffic data samples that are collected by the Leaf Collectors. This data is preserved in the NPS database in the following forms:

- Data aggregated at every hour (stored for seven days)
- Data aggregated at every minute (stored for three days)

Use this category of reports to only perform a detailed analysis for traffic for a short time interval and a limited set of days.

Calendar Report

The Calendar report uses a traditional, calendar-style layout to show hourly statistics for two metrics in a single, extended graph spanning over multiple days.

Features and Defaults

The Calendar Report defaults to:

Interfaces (interfaces that are configured to report flow packets) = All

Dates/Times = Last 31 days

Primary Metric (Yellow in the graph) = Period Length (secs) (sum)

Secondary Metric (blue in the graph) = Volume - In Bytes (sum)

The default view shows the data for the current month. Depending on how long the NNM iSPI Performance for Traffic has been collecting data from flow collectors, you may have the option of looking at data for the previous two months as well as the last 31 days.

Use Case

Use this report to observe:

- Gradual trends over time
- Isolated spikes
- Abnormal conditions

This report also reveals:

- Hour of day patterns
- Comparison of two metrics

Chart Detail Report

The Chart Detail report enables you to perform a trend analysis for the network health and performance .

The Chart Detail report displays a comparative analysis of the selected metrics for each time unit.

Using this report, you can:

- Analyze the trend of network health and performance for multiple contributors to network traffic based on one unit of time.
- Detect any persistent problem in the network health and performance.

You can use the following Time Controls parameters:

- Start Date/Time
- Time Range
- Display Grain
- Auto Refresh
- Hours of Day
- Day of Week

Features and Defaults

The graph on this report tracks up to six metrics over the selected time period.

Unless you modify the defaults, Chart Detail defaults to the following:

- Flow collectors = All
- Metric on the Y1 axis = Period Length (secs) (sum)
- Metric on the Y1 axis = Volume - In Bytes (sum)

To add another primary or secondary metric, click **Options** , and then click  .

To remove a primary or secondary metric that you have already added, click **Options** , and then click  .

The Chart Detail report enables you to view the data in the tabular format as well. To view the table, click **Options**, and then select Table. The Table appears instead of the chart. To view both the chart and the table, click **Options**, and then select Chart and Table.

Heat Chart Report

The Heat Chart report provides the hourly or daily performance of a single metric. in a color-coded format. This report cannot operate with a time range of less than 24 hours.

Features and Defaults

The legend at the top of the report maps a range of normalized performance values to a particular color. Beneath the legend, a table represents the normalized values of a performance metric (rows of the table represent hours of the day; columns of the table represent days). Each cell inside the table is color-coded and each cell inside the table indicates a specific value of the metric.

You can move the mouse pointer on the cell to see the raw data for each hour.

The default topology filters for the Heat Chart are as follows:

- Interfaces = All
- Time Period = Last 31 days
- Hour of Day = All
- Day of Week = All
- Metric = Volume – In Byte (sum)

Time range options are any period that is not less than 24 hours.

Managed Inventory

The Managed Inventory report lists the count of unique instances of the available topology attributes that you can use for network traffic analysis. You can use the attributes to filter the data of your interest and create a report that represents only the area of your interest. The report presents the list of attributes in the form of a table; the Count column of the table indicates the number of entries for each attribute.

Most changed Report

This report compares performance the components for two different (consecutive) time periods and ranks network elements by the amount of change. The sort order is most-changed to least-changed.

You can use the following Time Controls parameters:

- Start Date/Time
- Time Range
- Auto Refresh
- Hour of day
- Day of Week

Features and Defaults

You can obtain Most changed report with user-specified metric, applied on the topology filter for the selected time interval.

This report contains one table and provides data for one metric only.

The table presents the following columns:

- Component
- Performance for the previous time period
- Performance for the selected time period
- Growth, expressed as a percentage increase
- Change

The Most Changed report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database

- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Rank Metric = Volume - In Bytes (sum)
- Top N Option = Top 10

Using the Most Changed report, you can identify the network elements that are affected by the change in traffic flow. You can also perform a root cause analysis of the network congestion.

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Peak Period

The Peak Period report ranks the metrics that indicate the network traffic during the busiest time of the selected time range.

You can use the following Time Controls parameters:

- Start Date/Time
- Time Range
- Display Grain
- Auto Refresh
- Hours of Day
- Day of Week

Features and Defaults

The graph on this report tracks up to six primary metrics and six secondary over the selected time period.

Unless you modify the defaults, Chart Detail defaults to the following:

- Flow collectors = All
- Metric on the Y1 axis = Period Length (secs) (sum)
- Metric on the Y1 axis = Volume - In Bytes (sum)

To add another primary or secondary metric, click **Options** , and then click  .

To remove a primary or secondary metric that you have already added, click **Options** , and then click  .

The Chart Detail report enables you to view the data in the tabular format as well. To view the table, click **Options**, and then select Table. The Table appears instead of the chart. To view both the chart and the table, click **Options**, and then select Chart and Table.

Top N Report

This report ranks top contributors to the network traffic by the metric you select.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

This report ranks network elements by the metrics you select. This report shows data in the form of bar charts or time series graphs. In a large environment, NPS can generate the Top N Table report faster than it can generate the Top N report. If you want to view Top N elements in the least possible time, choose the Top N Table report instead of the Top N report.

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Top N Chart

This report ranks network traffic metrics by the top N 'Grouping By' metrics and shows the data in the form of line graphs over time (N different line graphs).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Top N Table

This report ranks network traffic metrics by the top N 'Grouping By' metrics.

This report ranks network elements by the metrics you select. Unlike the Top N report, this report does not show any bar charts or time series graphs. In a large environment, NPS can generate the Top N Table report faster than it can generate the Top N report. If you want to view Top N elements in the least possible time, choose the Top N Table report instead of the Top N report.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N Table report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Chapter 5

Interface Traffic_15_min Report Category

The Interface Traffic_15_min category includes reports and reportlets generated from the data aggregated at every 15 minutes. The data, which is aggregated at every 15 minutes, is stored into the NPS database for up to 400 days.Therefore, you can use this report group to build reports with historical data and view reports on performance metrics for the last one year.

Reports in this category queries the data that has undergone processing and filtering to preserve *only* the top contributors to network traffic collected for every 15 minutes. Data about the less significant contributors to network traffic is displayed as *Anonymous* on these reports. The above processing is done on every flow-enabled interface.

This category of reports enables you to perform the following tasks:

- Display top contributors reports: Reports that enable you to directly inspect top contributors for applications, type of service, sources, destinations, and conversations.
- Perform contextual analysis for a contributor: The top contributors reports enable you to further analyze the data by generating reports by using the contextual navigation feature of the NPS. The top contributors report enables you to select one of the displayed contributors and launch a report that provides drill-down analysis for the selected contributor.

You can launch any of the following report types in this category:

- Headline Report
- Top N Analysis Report
- Top N Chart Analysis Report
- Top N Table Analysis Report

Interface Traffic 15 Minute Headline Report

The Headline Report provides a broad view of traffic performance for the past one hour, using the following graphs:

- Top N Conversations Incoming:[1]
- Top N Conversations Outgoing:[2]
- Top N Destinations Incoming:[3]
- Top N Destinations Outgoing:[4]

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[1]Displays the top N incoming conversations between the selected source and destination hosts.
[2]Displays the top N outgoing conversations between the selected source and destination hosts.
[3] Displays the top N destination hosts that receive the maximum volume of data. Displays the volume of ingress data
[4] Displays the top N destination hosts that send the maximum volume of data. Displays the volume of egress data.

- Top N Sources Incoming:[1]
- Top N Sources Outgoing:[2]
- Top N Applications Incoming:[3]
- Top N Applications Outgoing:[4]
- Top N ToS Incoming:[5]
- Top N ToS Outgoing:[6]

This report enables you to:

- View every aspect of traffic performance at once.
- View trends and verify that the traffic performance is meeting expectations.
- Identify isolated aberration in the graphs and detect any unexpected utilization or performance trend.

To launch this report:

1. In the NPS console, go to the Reports workspace.
2. Select **iSPI Traffic > Interface Traffic_15_min > Headline**.

Features and Defaults

The Headline report defaults to:

- Time Range = Last 1 Day
- Grain = 1 Hour
- Topology group tracking method = SCD Type 1

Tip: HP strongly recommends that you schedule the generation and delivery of the Headline report. Without scheduling, NNM iSPI Performance for Traffic may take considerable amount of time to generate the Headline report.

Interface Traffic 15 Min Top N Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 15 Minute Top N Reports

[1] Displays the top N source hosts that receive the maximum volume of data. Displays the volume of ingress data.
[2] Displays the top N source hosts that send the maximum volume of data. Displays the volume of egress data.
[3]Displays the top N applications receiving the maximum volume of data.
[4]Displays the top N applications sending the maximum volume of data.
[5]Displays the top N types of services receiving the maximum volume of data.
[6]Displays the top N types of services sending the maximum volume of data.

- **Interface Traffic_15_min Top Applications for ToS:** Displays the top applications across the network for the selected ToS value.
- **Interface Traffic_15_min Top Conversations for Application:** Displays the top talkers (source-destination pairs) across the network for the selected application.
- **Interface Traffic_15_min Top Conversations for ToS:** Displays the top talkers (source-destination pairs) across the network for the selected ToS value.
- **Interface Traffic_15_min Top Destinations for Applications:** Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.
- **Interface Traffic_15_min Top Sources for Application:** Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.
- **Interface Traffic_15_min Top Sources for ToS:** Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.

- **Interface Traffic_15_min Top Applications:** Displays the top N applications across the network that contribute to the network traffic.
- **Interface Traffic_15_min Top Conversations:** Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

- **Interface Traffic_15_min Top Destinations:** Displays the top N hosts across the network receiving the largest volume of data packets.
- **Interface Traffic_15_min Top Interfaces:** Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.
- **Interface Traffic_15_min Top Sources:** Displays the top N hosts across the network sending largest volume of data packets to different destinations.
- **Interface Traffic_15_min Top TypeOfService:** Displays the top contributors to traffic based on selected Type of Service (ToS) values.
- **Interface Traffic_15_min Top Destination Ports:** Displays the top N destination ports that are receiving largest volume of data packets across the network.
- **Interface Traffic_15_min Top Sources for Destination Port:** Displays the top source hosts sending data packets to the selected destination port.
- **Interface Traffic_15_min Top Destinations for Destination Port:** Displays the top destinations hosts receiving data packets on the selected destination port.
- **Interface Traffic_15_min Top Conversation for Destination Port:** Displays the top talkers across the network for the selected destination port.

Listing all the available reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Analysis report, that works as the launching point for all the 15 minute Top N reports.

This report ranks network elements by the metrics you select. This report shows data in the form of bar charts or time series graphs. In a large environment, NPS can generate the Top N Table report faster than it can generate the Top N report. If you want to view Top N elements in the least possible time, choose the Top N Table report instead of the Top N report.

To launch the Top N reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface_Traffic > Interface_Traffic_15_min**.
3. Select **Top N Analysis** .
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces. NNM iSPI Performance for Traffic launches the following reports for each option:
   - Top Interfaces: Launches the Interface Traffic_15_min Top Interfaces Report.
   - Top Sources: Launches the Interface Traffic_15_min Top Sources Report
   - Top Destinations: Launches the Interface Traffic_15_min Top Destinations Report.
   - Top Conversations: Launches the Interface Traffic_15_min Top Conversations Report.
   - Top Type of Service: Launches the Interface Traffic_15_min Top TypeOfService Report.
   - Top Destination Ports: Launches the Interface Traffic_15_min Top DestinationPorts Report.

Follow these steps **only** if you have selected any of the following options:

- **Top Applications**
  a. Select **Application Name**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.

  b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
     - Sources for Application: Launches the Interface Traffic_15_min Top Sources for Application Report.
     - Destinations for Application: Launches the Interface Traffic_15_min Top Destinations for Application Report
     - Conversations for Application: Launches the Interface Traffic_15_min Top Conversations for Application Report
  d. Click **Confirm Selection**.
- **Top Type of Service**
  a. Select **Type of Service**.

  > **Note:** NNM iSPI Performance for Trafficsorts the list of type of services alphabetically.

b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.

c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
   - Application for ToS: Launches the Interface Traffic_15_min Top Applications for ToS Report.
   - Sources for ToS: Launches the Interface Traffic_15_min Top Sources for ToS Report.
   - Conversations for ToS: Launches the Interface Traffic_15_min Top Conversations for ToS Report.

d. Click **Confirm Selection**.

- **Top Destination Ports**
  a. Select **Destination Port**.

  Note: NNM iSPI Performance for Trafficsorts the list of destination ports alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected destination port to analyze the report data.

  c. Select any of the following Topology Filters to filter the traffic mapped to the selected destination port:
     - Sources for Destination Port: Launches the Interface Traffic_15_min Top Sources for Destination Port report.
     - Destinations for Destination Port: Launches the Interface Traffic_15_min Top Destinations for Destination Port report.
     - Conversations for Destination Port: Launches the Interface Traffic_15_min Top Conversations for Destination Port report.

  d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Analysis' report is launched next.

You can set the topology filters using Run Prompts link on the Top N Analysis report. Once selected, they can only be removed by the Reset feature. However, the specific filters that you can select for a report depends on the type of data the report displays. For example, even if you have set the topology filter as Application Name,for the Top ToS report, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report launch the Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Run Prompts link.

To list the 15 Minute Top N Reports in the BI Portal:

By default, these reports are hidden in the BI Server Public Folders. That is if you select **BI Server** on the NPS Home Page, select **Public Folders** > **iSPI Traffic**, and then select **Interface_Traffic_15_min** or **Interface_Traffic_1_min** folder, you cannot see these folders listed.

Follow these steps to view these reports in the Public Folders:

1. Click **BI Server** on the NPS Home Page.
2. Click **Portal** to launch HP NNM iSPI Performance BI Portal.
3. Click  **My Area Options** > **My Preferences**.
4. Select the option **Show hidden entries**.
5. Click **OK**.

Interface Traffic_15_min Top Applications by ToS Report

The Interface Traffic_15_min Top Applications by ToS Report is a Top N report. This report shows top applications across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is

provided as an option.

Interface Traffic_15_min Top Conversations for Application Report

The Interface Traffic_15_min Top Conversations for Application Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top Applications report first, select an application, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Conversations by ToS Report

The Interface Traffic_15_min Top Conversations by ToS Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top TypeOfService report first, select a ToS value, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric

Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Destinations by Application Report

The Interface Traffic_15_min Top Destinations by Application Report is a Top N report. This report shows top hosts (which receive data packets from different hosts) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top Applications report first, select an application, and then launch this report. The report shows top destination hosts for the selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Sources by Application Report

The Interface Traffic_15_min Top Sources by Application Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets that are mapped to a specific application; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top Applications report first, select an application, and then launch this report. The report shows top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Sources by ToS Report

The Interface Traffic_15_min Top Sources by ToS Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Applications Report

The Interface Traffic_15_min Top Applications Report is a Top N report. This report shows top N applications across the network that contribute to the network traffic. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)
- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Destinations Report

The Interface Traffic_15_min Top Destinations Report is a Top N report. This report shows top N hosts across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour

- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Interfaces Report

This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Sources Report

The Interface Traffic_15_min Top Sources Report is a Top N report. This report shows top N hosts across the network that send data packets to different destinations. Use the 'Select Metric(s)'

option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top TypeOfService Report

The Interface Traffic_15_min Top TypeOfService Report is a Top N report. This report shows top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Destination Ports Report

The Interface Traffic_15_min Top Destination Ports Report presents a Top N report. These reports show top N destination ports[1] across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, if there are 1500 flow records, and you wish to view the Top 50 Destination Ports Report, the Anonymous row groups the 1450 flow records that do not belong to the Top 50 Top 50 Destination Ports Report.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Port
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

[1] Recipients of data packets

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_15_min Top Sources for Destination Port

The Interface Traffic_15_min Top Sources for Destination Port report presents a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that send flow packets to a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top sources that send data packets to the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.

2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.

2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_15_min Top Destinations for Destination Port

The Interface Traffic_15_min Top Destinations for Destination Port report presents a Top N report. This report shows top destination hosts (hosts that receive data packets) across the network that receive flow packets on a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top destinations that receive data packets to the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
   ```

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
   ```

Interface Traffic_15_min Top Conversations for Destination Port

The Interface Traffic_15_min Top Conversations for Destination Port report presents a Top N report. This report shows top talkers across the network for a specific Destination port. By default, this report shows data grouped by Destination Host Name only. However, if you add Source Host

Name as the 'Grouping By' metric, you can view the Top N values for every conversation. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top talkers that contribute to the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
On Windows

`%TrafficDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
`topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
On Windows

`%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
On Windows

`%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
   ```

Interface Traffic 15 Min Top N Chart Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 15 Minute Top N Chart Reports

- **Interface Traffic_15_min Top Applications for ToS:** Displays the top applications across the network for the selected ToS value.
- **Interface Traffic_15_min Top Conversations for Application:** Displays the top talkers (source-destination pairs) across the network for the selected application.
- **Interface Traffic_15_min Top Conversations for ToS:** Displays the top talkers (source-destination pairs) across the network for the selected ToS value.
- **Interface Traffic_15_min Top Destinations for Applications:** Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.
- **Interface Traffic_15_min Top Sources for Application:** Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.
- **Interface Traffic_15_min Top Sources for ToS:** Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.

- **Interface Traffic_15_min Top Applications:** Displays the top N applications across the network that contribute to the network traffic.
- **Interface Traffic_15_min Top Conversations:** Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

- **Interface Traffic_15_min Top Destinations:** Displays the top N hosts across the network receiving the largest volume of data packets.
- **Interface Traffic_15_min Top Interfaces:** Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.
- **Interface Traffic_15_min Top Sources:** Displays the top N hosts across the network sending largest volume of data packets to different destinations.
- **Interface Traffic_15_min Top TypeOfService:** Displays the top contributors to traffic based on selected Type of Service (ToS) values.
- **Interface Traffic_15_min Top Destination Ports:** Displays the top N destination ports that are receiving largest volume of data packets across the network.
- **Interface Traffic_15_min Top Sources for Destination Port:** Displays the top source hosts sending data packets to the selected destination port.
- **Interface Traffic_15_min Top Destinations for Destination Port:** Displays the top destinations hosts receiving data packets on the selected destination port.
- **Interface Traffic_15_min Top Conversation for Destination Port:** Displays the top talkers across the network for the selected destination port.

Listing all the available reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N Chart reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Chart Analysis report, that works as the launching point for all the 15 minute Top N Chart reports.

To launch the Top N Chart reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface_Traffic > Interface_Traffic_15_min**.
3. Select **Top N Chart Analysis**.
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces that launches Interface Traffic 15 min - Top_ Interfaces - Top N Chart Report. NNM iSPI Performance for Traffic launches the following reports for each option:
   - Top Sources: Launches the Interface Traffic 15 min - Top_Sources - Top N Chart Report.
   - Top Destinations: Launches the Interface Traffic 15 min - Destinations_for_Applications - Top N Chart Report.
   - Top Conversations: Launches the Interface Traffic 15 min - Top_Conversations - Top N Chart Report.
   - Top Type of Services: Launches the Interface Traffic 15 min - Top_TypeOfService - Top N Chart Report.
   - Top Destination Ports: Launches the Interface Traffic_15_min_Top - DestinationPorts Report.

Follow these steps **only** if you have selected any of the following options:

- **Top Applications**
  a. Select **Application Name**.

  > **Note:** NNM iSPI Performance for Trafficsorts the list of applications alphabetically.

  b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.

  c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
     - Sources for Application: Launches the Interface Traffic 15 min - Sources_for_Application - Top N Chart Report.
     - Destinations for Application: Launches the Interface Traffic 15 min - Destinations_for_ Applications - Top N Chart Report
     - Conversations for Application: Launches the Interface Traffic 15 min - Conversations_ for_Application - Top N Chart Report

  d. Click **Confirm Selection**.

- **Top Type of Service**
  a. Select **Type of Service**.

  > **Note:** NNM iSPI Performance for Trafficsorts the list of type of services alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.

c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
   - Application for ToS: Launches the Interface Traffic 15 min - Applications_for_ToS - Top N Chart Report.
   - Sources for ToS: Launches the Interface Traffic 15 min - Sources_for_ToS - Top N Chart Report.
   - Conversations for ToS: Launches the Interface Traffic 15 min - Conversations_for_ToS - Top N Chart Report.

d. Click **Confirm Selection**.

- **Top Destination Ports**
  a. Select **Destination Port**.

  Note: NNM iSPI Performance for Trafficsorts the list of destination ports alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected destination port to analyze the report data.

  c. Select any of the following Topology Filters to filter the traffic mapped to the selected destination port:
     - Sources for Destination Port: Launches the Interface Traffic_15_min Top Sources for Destination Port Chart report.
     - Destinations for Destination Port: Launches the Interface Traffic_15_min Top Destinations for Destination Port Chart report.
     - Conversations for Destination Port: Launches the Interface Traffic_15_min Top Conversations for Destination Port Chart report.

  d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Chart Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Chart Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Chart Analysis' report is launched next

You can set the topology filters using Run Prompts link on the Top N Chart Analysis report. Once selected, they can only be removed by the Reset feature. However, the specific filters that you can select for a report depends on the type of data the report displays. For example, even if you have set the topology filter as Application Name,for the Top ToS report, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report launch the Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Run Prompts link.

To list the 15 Minute Top N Chart Reports in the BI Portal:

By default, these reports are hidden in the BI Server Public Folders. That is if you select **BI Server**

on the NPS Home Page, select **Public Folders** > **iSPI Traffic**, and then select **Interface_Traffic_15_min** or **Interface_Traffic_1_min** folder, you cannot see these folders listed.

Follow these steps to view these reports in the Public Folders:

1. Click **BI Server** on the NPS Home Page.
2. Click **Portal** to launch HP NNM iSPI Performance BI Portal.
3. Click  **My Area Options** > **My Preferences**.
4. Select the option **Show hidden entries**.
5. Click **OK**.

Interface Traffic_15_min Top Applications by ToS Report

The Interface Traffic_15_min Top Applications by ToS Report is a Top N Chart report. This report shows line graphs for top applications across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Conversations for Application Report

The Interface Traffic_15_min Top Conversations for Application Report is a Top N Chart report. This report shows line graphs for top talkers (source-destination pairs) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top Applications report first, select an application, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while

retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Conversations by ToS Report

The Interface Traffic_15_min Top Conversations by ToS Report is a Top N Chart report. This report shows line graphs for top talkers (source-destination pairs) across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top TypeOfService report first, select a ToS value, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Destinations by Application Report

The Interface Traffic_15_min Top Destinations by Application Report is a Top N Chart report. This report shows line graphs for top hosts (which receive data packets from different hosts) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top Applications report first, select an application, and then launch this report. The report shows top destination hosts for the selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Sources by Application Report

The Interface Traffic_15_min Top Sources by Application Report is a Top N Chart report. This report shows line graphs for top source hosts (hosts that send out data packets) across the network that generate flow packets that are mapped to a specific application; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top Applications report first, select an application, and then launch this report. The report shows top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Sources by ToS Report

The Interface Traffic_15_min Top Sources by ToS Report is a Top N Chart report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Applications Report

The Interface Traffic_15_min Top Applications Report is a Top N Chart report. This report shows line graphs for top N applications across the network that contribute to the network traffic. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)
- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows line graphs for top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Destinations Report

The Interface Traffic_15_min Top Destinations Report is a Top N Chart report. This report shows line graphs for top N hosts across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Interfaces Report

This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour

- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Interface Traffic_15_min Top Sources Report

The Interface Traffic_15_min Top Sources Report is a Top N Chart report. This report shows line graphs for top N hosts across the network that send data packets to different destinations. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top TypeOfService Report

The Interface Traffic_15_min Top TypeOfService Report is a Top N Chart report. This report shows line graphs for top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Destination Ports Report

The Interface Traffic_15_min Top Destination Ports Report presents a Top N Chart report. These reports show line graphs for top N destination ports[1] across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, if there are 1500 flow records, and you wish to view the Top 50 Destination Ports Report, the Anonymous row groups the 1450 flow records that do not belong to the Top 50 Top 50 Destination Ports Report.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Port
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Sources for Destination Port

The Interface Traffic_15_min Top Sources for Destination Port Report presents a Top N chart report. This report shows line graphs for top source hosts (hosts that send out data packets) across the network that send flow packets to a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

[1] Recipients of data packets

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top sources that send data packets to the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMDataDir%\nmsas\traffic-leaf\conf
```

In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/var/opt/OV/nmsas/traffic-leaf/conf
```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

```
%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
```

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

```
%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
```

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

```
%TrafficDataDir%\nmsas\traffic-leaf\conf
```

In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_15_min Top Destinations for Destination Port

The Interface Traffic_15_min Top Destinations for Destination Port Report presents a Top N chart report. This report shows line graphs for top destination hosts (hosts that receive data packets) across the network that receive flow packets on a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the Destination port 160 shows top destinations that receive data packets to the Destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.

5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.

5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_15_min Top Conversations for Destination Port

The Interface Traffic_15_min Top Conversations for Destination Port Report presents a Top N chart report. This report shows line graphs for top talkers across the network for a specific Destination port. By default, this report shows data grouped by Destination Host Name only. However, if you add Source Host Name as the 'Grouping By' metric, you can view the Top N values for every conversation. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top talkers that contribute to the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

Interface Traffic 15 Min Top N Table Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods.

This report ranks network elements by the metrics you select. Unlike the Top N report, this report does not show any bar charts or time series graphs. In a large environment, NPS can generate the Top N Table report faster than it can generate the Top N report. If you want to view Top N elements in the least possible time, choose the Top N Table report instead of the Top N report.

The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 15 Minute Top N Table Reports

- **Interface Traffic_15_min Top Applications for ToS:** Displays the top applications across the network for the selected ToS value.
- **Interface Traffic_15_min Top Conversations for Application:** Displays the top talkers (source-destination pairs) across the network for the selected application.
- **Interface Traffic_15_min Top Conversations for ToS:** Displays the top talkers (source-destination pairs) across the network for the selected ToS value.
- **Interface Traffic_15_min Top Destinations for Applications:** Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.
- **Interface Traffic_15_min Top Sources for Application:** Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.
- **Interface Traffic_15_min Top Sources for ToS:** Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.
- **Interface Traffic_15_min Top Applications:** Displays the top N applications across the network that contribute to the network traffic.
- **Interface Traffic_15_min Top Conversations:** Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

- **Interface Traffic_15_min Top Destinations:** Displays the top N hosts across the network receiving the largest volume of data packets.
- **Interface Traffic_15_min Top Interfaces:** Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.
- **Interface Traffic_15_min Top Sources:** Displays the top N hosts across the network sending largest volume of data packets to different destinations.
- **Interface Traffic_15_min Top TypeOfService:** Displays the top contributors to traffic based on selected Type of Service (ToS) values.
- **Interface Traffic_15_min Top Destination Ports:** Displays the top N destination ports that are receiving largest volume of data packets across the network.
- **Interface Traffic_15_min Top Sources for Destination Port:** Displays the top source hosts sending data packets to the selected destination port.
- **Interface Traffic_15_min Top Destinations for Destination Port:** Displays the top destinations hosts receiving data packets on the selected destination port.
- **Interface Traffic_15_min Top Conversation for Destination Port:** Displays the top talkers across the network for the selected destination port.

Listing all the available reports on the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N Table reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Table Analysis report, that works as the launching point for all the 15 minute Top N Table reports.

To launch the Top N Table reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface_Traffic > Interface_Traffic_15_min**.
3. Select **Top N Table Analysis**.
4. In Report Type panel, select the type of the report you want to launch, and then click **Confirm Selection**. The default selection is Top Interfaces that launches Interface Traffic 15 min - Top_ Interfaces - Top N Table Report. NNM iSPI Performance for Traffic launches the following reports for each option:
   - Top Interfaces: Launches the Traffic 15 min - Top_Interfaces - Top N Table Report.
   - Top Applications: Launches the Traffic 15 min - Top_Applications - Top N Table Report.
   - Top Sources: Launches the Interface Traffic 15 min - Top_Sources - Top N Table Report.
   - Top Destinations: Launches the Interface Traffic 15 min - Destinations_for_Applications - Top N Table Report.
   - Top Conversations: Launches the Interface Traffic 15 min - Top_Conversations - Top N Table Report.
   - Top Type of Services: Launches the Interface Traffic 15 min - Top_TypeOfService - Top N Table Report.

- Top Destination Ports: Launches the Interface Traffic_15_min_Top - DestinationPorts Report.

Follow these steps **only** if you have selected any of the following options:

- **Top Applications**
  a. Select **Application Name**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.

  b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
     - Sources for Application: Launches the Interface Traffic 15 min - Sources_for_Application - Top N Table Report.
     - Destinations for Application: Launches the Interface Traffic 15 min - Destinations_for_ Applications - Top N Table Report
     - Conversations for Application: Launches the Interface Traffic 15 min - Conversations_ for_Application - Top N Table Report

  d. Click **Confirm Selection**.
- **Top Type of Service**
  a. Select **Type of Service**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
     - Application for ToS: Launches the Interface Traffic 15 min - Applications_for_ToS - Top N Table Report.
     - Sources for ToS: Launches the Interface Traffic 15 min - Sources_for_ToS - Top N Table Report.
     - Conversations for ToS: Launches the Interface Traffic 15 min - Conversations_for_ToS - Top N Table Report.

  d. Click **Confirm Selection**.
- **Top Destination Ports**
  a. Select **Destination Port**.

  > **Note:** NNM iSPI Performance for Trafficsorts the list of destination ports alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected destination port to analyze the report data.

c. Select any of the following Topology Filters to filter the traffic mapped to the selected destination port:
   - Sources for Destination Port: Launches the Interface Traffic_15_min Top Sources for Destination Port Table report.
   - Destinations for Destination Port: Launches the Interface Traffic_15_min Top Destinations for Destination Port Table report.
   - Conversations for Destination Port: Launches the Interface Traffic_15_min Top Conversations for Destination Port Table report.

d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Table Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Table Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Table Analysis' report is launched next.

You can set the topology filters using Run Prompts link on the Top N Table Analysis report. Once selected, they can only be removed by the Reset feature. However, the specific filters that you can select for a report depends on the type of data the report displays. For example, even if you have set the topology filter as Application Name, for the Top ToS report, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report launch the Topology Selector in the context of that report. Launch that report first and then launch the Topology Selector using the Run Prompts link.

To list the 15 Minute Top N Table Reports in the BI Portal:

By default, these reports are hidden in the BI Server Public Folders. That is if you select **BI Server** on the NPS Home Page, select **Public Folders** > **iSPI Traffic**, and then select **Interface_Traffic_15_min** or **Interface_Traffic_1_min** folder, you cannot see these folders listed.

Follow these steps to view these reports in the Public Folders:

1. Click **BI Server** on the NPS Home Page.
2. Click **Portal** to launch HP NNM iSPI Performance BI Portal.
3. Click  **My Area Options** > **My Preferences**.
4. Select the option **Show hidden entries**.
5. Click **OK**.

Interface Traffic_15_min Top Applications by ToS Report

The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Conversations by ToS Report

By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Conversations for Application Report

By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words,

for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Destinations by Application Report

The report shows top destination hosts for the selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Sources by Application Report

This report shows line graphs for top source hosts (hosts that send out data packets) across the network that generate flow packets that are mapped to a specific application; the report is

generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top Applications report first, select an application, and then launch this report. The report shows top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Sources by ToS Report

This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_15_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Applications Report

This report shows line graphs for top N applications across the network that contribute to the network traffic. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)
- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows line graphs for top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Destinations Report

This report shows line graphs for top N hosts across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Interfaces Report

This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Interface Traffic_15_min Top Sources Report

This report shows line graphs for top N hosts across the network that send data packets to different destinations. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top TypeOfService Report

This report shows line graphs for top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_15_min Top Destination Ports Report

These reports show line graphs for top N destination ports[1] across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, if there are 1500 flow records, and you wish to view the Top 50 Destination Ports Report, the Anonymous row groups the 1450 flow records that do not belong to the Top 50 Top 50 Destination Ports Report.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Table reports default to:

- Grouping by Elements = Destination Port
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

[1] Recipients of data packets

Interface Traffic_15_min Top Sources for Destination Port

The Interface Traffic_15_min Top Sources for Destination Port Report presents a Top N table report. This report shows tabular data for top source hosts (hosts that send out data packets) across the network that send flow packets to a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top sources that send data packets to the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_15_min Top Destinations for Destination Port

The Interface Traffic_15_min Top Destinations for Destination Port Report presents a Top N table report. This report shows tabular data for top destination hosts (hosts that receive data packets) across the network that receive flow packets on a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top destinations that receive data packets on the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.

5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.

5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_15_min Top Conversations for Destination Port

The Interface Traffic_15_min Top Conversations for Destination Port Report presents a Top N table report. This report shows tabular data for top talkers across the network for a specific Destination port. By default, this report shows data grouped by Destination Host Name only. However, if you add Source Host Name as the 'Grouping By' metric, you can view the Top N values for every conversation. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top talkers that contribute to the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
   ```
3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

Chapter 6

Interface Traffic_1_min Report Category

The Interface Traffic_1_min category includes reports and reportlets generated from the data aggregated at every 1 minutes. The data, which is aggregated at every 1 minute, is stored into the NPS database for up to 31 days.Therefore, you can use this report group to build reports with historical data and view reports on performance metrics for the last one year.

Reports in this category queries the data that has undergone processing and filtering to preserve *only* the top contributors to network traffic collected for every 1 minute. Data about the less significant contributors to network traffic is displayed as *Anonymous* on these reports. The above processing is done on every flow-enabled interface.

This category of reports enables you to perform the following tasks:

- Display top contributors reports: Reports that enable you to directly inspect top contributors for applications, type of service, sources, destinations, and conversations.
- Perform contextual analysis for a contributor: The top contributors reports enable you to further analyze the data by generating reports by using the contextual navigation feature of the NPS. The top contributors report enables you to select one of the displayed contributors and launch a report that provides drill-down analysis for the selected contributor.

You can launch any of the following report types in this category:

- Headline Report
- Top N Analysis Report
- Top N Chart Analysis Report
- Top N Table Analysis Report

Interface Traffic 1 Minute Headline Report

The Headline Report provides a broad view of traffic performance for the past one hour, using the following graphs:

- Top N Conversations Incoming:[1]
- Top N Conversations Outgoing:[2]
- Top N Destinations Incoming:[3]
- Top N Destinations Outgoing:[4]

---

[1]Displays the top N incoming conversations between the selected source and destination hosts.
[2]Displays the top N outgoing conversations between the selected source and destination hosts.
[3] Displays the top N destination hosts that receive the maximum volume of data. Displays the volume of ingress data
[4] Displays the top N destination hosts that send the maximum volume of data. Displays the volume of egress data.

- Top N Sources Incoming:[1]
- Top N Sources Outgoing:[2]
- Top N Applications Incoming:[3]
- Top N Applications Outgoing:[4]
- Top N ToS Incoming:[5]
- Top N ToS Outgoing:[6]

This report enables you to:

- View every aspect of traffic performance at once.
- View trends and verify that the traffic performance is meeting expectations.
- Identify isolated aberration in the graphs and detect any unexpected utilization or performance trend.

Features and Defaults

The Headline report defaults to:

- Time Range = Last 1 Day
- Grain = 1 Hour
- Topology group tracking method = SCD Type 1

Tip: HP strongly recommends that you schedule the generation and delivery of the Headline report. Without scheduling, NNM iSPI Performance for Traffic may take considerable amount of time to generate the Headline report.

Interface Traffic 1 Min Top N Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 1 Minute Top N Reports

- **Interface Traffic_1_min Top Applications for ToS:** Displays the top applications across the network for the selected ToS value.

[1] Displays the top N source hosts that receive the maximum volume of data. Displays the volume of ingress data.
[2] Displays the top N source hosts that send the maximum volume of data. Displays the volume of egress data.
[3]Displays the top N applications receiving the maximum volume of data.
[4]Displays the top N applications sending the maximum volume of data.
[5]Displays the top N types of services receiving the maximum volume of data.
[6]Displays the top N types of services sending the maximum volume of data.

- **Interface Traffic_1_min Top Conversations for Application:** Displays the top talkers (source-destination pairs) across the network for the selected application.
- **Interface Traffic_1_min Top Conversations for ToS:** Displays the top talkers (source-destination pairs) across the network for the selected ToS value.
- **Interface Traffic_1_min Top Destinations for Applications:** Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.
- **Interface Traffic_1_min Top Sources for Application:** Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.
- **Interface Traffic_1_min Top Sources for ToS:** Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.
- **Interface Traffic_1_min Top Applications:** Displays the top N applications across the network that contribute to the network traffic.
- **Interface Traffic_1_min Top Conversations:** Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.

- **Interface Traffic_1_min Top Destinations:** Displays the top N hosts across the network receiving the largest volume of data packets.
- **Interface Traffic_1_min Top Interfaces:** Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.
- **Interface Traffic_1_min Top Sources:** Displays the top N hosts across the network sending largest volume of data packets to different destinations.
- **Interface Traffic_1_min Top TypeOfService:** Displays the top contributors to traffic based on selected Type of Service (ToS) values.
- **Interface Traffic_1_min_Top - Destination Ports:** Displays the top N destination ports that are receiving largest volume of data packets across the network.
- **Interface Traffic_1_min Top Sources for Destination Port:** Displays the top source hosts sending data packets to the selected destination port.
- **Interface Traffic_1_min Top Destinations for Destination Port:** Displays the top destinations hosts receiving data packets on the selected destination port.
- **Interface Traffic_1_min Top Conversation for Destination Port:** Displays the top talkers across the network for the selected destination port.

Listing all the available reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Analysis report, that works as the launching point for all the 1 minute Top N reports.

This report ranks network elements by the metrics you select. This report shows data in the form of bar charts or time series graphs. In a large environment, NPS can generate the Top N Table report faster than it can generate the Top N report. If you want to view Top N elements in the least possible time, choose the Top N Table report instead of the Top N report.

To launch the Top N reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface_Traffic > Interface_Traffic_1_min**.
3. Select **Top N Analysis** .
4. Under the Select Report Type section, select the type of the report you want to launch, and then click **Confirm Selection**. The default selection is Top Interfaces that launches Interface Traffic_1_min Top Interfaces Report. NNM iSPI Performance for Traffic launches the following reports for each option:
   - Top Sources: Launches the Interface Traffic_1_min Top Sources Report
   - Top Destinations: Launches the Interface Traffic_1_min Top Destinations Report
   - Top Conversations: Launches the Interface Traffic_1_min Top Conversations Report.
   - Top Types of Services: Launches the Interface Interface Traffic_1_min Top TypeOfService Report.
   - Top Destination Ports: Launches the Interface Traffic_1_min_Top - DestinationPorts Report.

Follow these steps **only** if you have selected any of the following options:

- **Top Applications**
  a. Select **Application Name**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.

  b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
     - Sources for Application: Launches the Interface Traffic_1_min Top Sources for Application Report.
     - Destinations for Application: Launches the Interface Traffic_1_min Top Destinations for Application Report
     - Conversations for Application: Launches the Interface Traffic_1_min Top Conversations for Application Report
  d. Click **Confirm Selection**.
- **Top Type of Service**
  a. Select **Type of Service**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:

- Application for ToS: Launches the Interface Traffic_1_min Top Applications for ToS Report.
- Sources for ToS: Launches the Interface Traffic_1_min Top Sources for ToS Report.
- Conversations for ToS: Launches the Interface Traffic_1_min Top Conversations for ToS Report.

d. Click **Confirm Selection**.

- **Top Destination Ports**

a. Select **Destination Port**.

> **Note:** NNM iSPI Performance for Trafficsorts the list of destination ports alphabetically.

b. NNM iSPI Performance for Traffic sets the selected destination port to analyze the report data.

c. Select any of the following Topology Filters to filter the traffic mapped to the selected destination port:
   - Sources for Destination Port: Launches the Interface Traffic_1_min Top Sources for Destination Port report.
   - Destinations for Destination Port: Launches the Interface Traffic_1_min Top Destinations for Destination Port report.
   - Conversations for Destination Port: Launches the Interface Traffic_1_min Top Conversations for Destination Port report.

d. Click **Confirm Selection**.

Top Interfaces is the default option for the Top N Analysis report. The NNM iSPI Performance for Traffic selects this option automatically every time the Top N Analysis menu is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Analysis' report is launched next

You can set the topology filters using Run Prompts link on the Top N Analysis report. Once selected, they can only be removed by the Reset feature. However, the specific filters that you can select for a report depends on the type of data the report displays. For example, even if you have set the topology filter as Application Name,for the Top ToS report, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report launch the Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Run Prompts link.

To list the 1 Minute Top N Reports in the BI Portal:

By default, these reports are hidden in the BI Server Public Folders. That is if you select **BI Server** on the NPS Home Page, select **Public Folders** > **iSPI Traffic**, and then select **Interface_Traffic_15_min** or **Interface_Traffic_1_min** folder, you cannot see these folders listed.

Follow these steps to view these reports in the Public Folders:

1. Click **BI Server** on the NPS Home Page.
2. Click **Portal** to launch HP NNM iSPI Performance BI Portal.
3. Click  **My Area Options** > **My Preferences**.
4. Select the option **Show hidden entries**.
5. Click **OK**.

Interface Traffic_1_min Top Applications for ToS Report

The Interface Traffic_1_min Top Applications for ToS Report is a Top N report. This report shows top applications across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Conversations for Application Report

The Interface Traffic_1_min Top Conversations for Application Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific application and is

generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Conversations for ToS Report

The Interface Traffic_1_min Top Conversations for ToS Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Destinations for Applications Report

The Interface Traffic_1_min Top Destinations for Application Report is a Top N report. This report shows top hosts (which receive data packets from different hosts) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. The report shows top destination hosts for the selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Sources for Applications Report

The Interface Traffic_1_min Top Sources for Application Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets that are mapped to a specific application; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. The report shows top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Sources for ToS Report

The Interface Traffic_1_min Top Sources for ToS Report is a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Applications Report

The Interface Traffic_1_min Top Applications Report is a Top N report. This report shows top N applications across the network that contribute to the network traffic. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)
- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Destinations Report

The Interface Traffic_1_min Top Destinations Report is a Top N report. This report shows top N hosts across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Interfaces Report

This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Sources Report

The Interface Traffic_1_min Top Sources Report is a Top N report. This report shows top N hosts across the network that send data packets to different destinations. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top TypeOfService Report

The Interface Traffic_1_min Top TypeOfService Report is a Top N report. This report shows top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Destination Ports Report

The Interface Traffic_1_min Top Destination Ports Report presents a Top N report. These reports show top N destination ports[1] across the network that receive data packets. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.For example, if there are 1500 flow records, and you wish to view the Top 50 Destination Ports Report, the Anonymous row groups the 1450 flow records that do not belong to the Top 50 Top 50 Destination Ports Report.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Port
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Interface Traffic_1_min Top Sources for Destination Port

The Interface Traffic_1_min Top Sources for Destination Port Report presents a Top N report. This report shows top source hosts (hosts that send out data packets) across the network that send flow packets to a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

[1] Recipients of data packets

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top sources that send data packets to the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
   ```

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
   ```

Interface Traffic_1_min Top Destinations for Destination Port

The Interface Traffic_1_min Top Destinations for Destination Port Report presents a Top N report. This report shows top destination hosts (hosts that receive data packets) across the network that receive flow packets on a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the Destination port 160 shows top destinations that receive data packets on the network traffic on Destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
   ```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_1_min Top Conversations for Destination Port

The Interface Traffic_1_min Top Conversations for Destination Port Report presents a Top N report. This report shows top talkers across the network for a specific Destination port. By default, this report shows data grouped by Destination Host Name only. However, if you add Source Host Name as the 'Grouping By' metric, you can view the Top N values for every conversation. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top talkers that contribute to the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Display Time Series Chart

This option is available only for the Top N report. It shows the variation of the metric for the different entries in the bar graph over the selected period as a stacked chart graph.

Note: The Display Time Series Chart option executes a time-consuming query; therefore, it is provided as an option.

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
`topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
On Windows

`%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
On Windows

`%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
On Windows

`%TrafficDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

`%NNMDataDir%\nmsas\traffic-leaf\conf`

In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

`/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic 1 Min Top N Chart Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods. The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 1 Minute Top N Chart Reports

- **Interface Traffic_1_min Top Applications for ToS:** Displays the top applications across the network for the selected ToS value.
- **Interface Traffic_1_min Top Conversations for Application:** Displays the top talkers (source-destination pairs) across the network for the selected application.
- **Interface Traffic_1_min Top Conversations for ToS:** Displays the top talkers (source-destination pairs) across the network for the selected ToS value.
- **Interface Traffic_1_min Top Destinations for Applications:** Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.

- **Interface Traffic_1_min Top Sources for Application:** Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.
- **Interface Traffic_1_min Top Sources for ToS:** Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.
- **Interface Traffic_1_min Top Applications:** Displays the top N applications across the network that contribute to the network traffic.
- **Interface Traffic_1_min Top Conversations:** Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.
- **Interface Traffic_1_min Top Destinations:** Displays the top N hosts across the network receiving the largest volume of data packets.
- **Interface Traffic_1_min Top Interfaces:** Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.
- **Interface Traffic_1_min Top Sources:** Displays the top N hosts across the network sending largest volume of data packets to different destinations.
- **Interface Traffic_1_min Top TypeOfService:** Displays the top contributors to traffic based on selected Type of Service (ToS) values.
- **Interface Traffic_1_min_Top - Destination Ports:** Displays the top N destination ports that are receiving largest volume of data packets across the network.
- **Interface Traffic_1_min Top Sources for Destination Port:** Displays the top source hosts sending data packets to the selected destination port.
- **Interface Traffic_1_min Top Destinations for Destination Port:** Displays the top destinations hosts receiving data packets on the selected destination port.
- **Interface Traffic_1_min Top Conversation for Destination Port:** Displays the top talkers across the network for the selected destination port.

Listing all the available reports in the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N Chart reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Chart Analysis report, that works as the launching point for all the 1 minute Top N Chart reports.

To launch the Top N Chart reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface_Traffic > Interface_Traffic_1_min**.
3. Select **Top N Chart Analysis** .
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces. NNM iSPI Performance for Traffic launches the following reports for each option:

- Top Sources: Launches the Interface Traffic 1 min - Top_Sources - Top N Chart Report.
- Top Destinations: Launches the Interface Traffic 1 min - Top_Destinations - Top N Chart Report.
- Top Conversations: Launches the Interface Traffic 1 min - Top_Conversations - Top N Chart Report.
- Top Types of Services: Launches the Interface Traffic 1 min - Top_TypeOfService - Top N Chart Report.
- Destination Ports: Launches the Interface Traffic 1 min - Top_DestinationPorts - Top N Chart Report.

Follow these steps **only** if you have selected any of the following options:

- **Top Applications**
  a. Select **Application Name**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.

  b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
     - Sources for Application: Launches the Interface Traffic 1 min - Sources_for_Application - Top N Chart Report.
     - Destinations for Application: Launches the Interface Traffic 1 min - Destinations_for_ Applications - Top N Chart Report
     - Conversations for Application: Launches the Interface Traffic 1 min - Conversations_for_ Application - Top N Chart Report

  d. Click **Confirm Selection**.

- **Top Type of Service**
  a. Select **Type of Service**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
     - Application for ToS: Launches the Interface Traffic 1 min - Applications_for_ToS - Top N Chart Report.
     - Sources for ToS: Launches the Interface Traffic 1 min - Sources_for_ToS - Top N Chart Report.
     - Conversations for ToS: Launches the Interface Traffic 1 min - Conversations_for_ToS - Top N Chart Report.

  d. Click **Confirm Selection**.

- **Top Destination Ports**

  a. Select **Destination Port**.

  > **Note:** NNM iSPI Performance for Trafficsorts the list of destination ports alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected destination port to analyze the report data.

  c. Select any of the following Topology Filters to filter the traffic mapped to the selected destination port:
     - Sources for Destination Port: Launches the Interface Traffic_1_min Top Sources for Destination Port Chart report.
     - Destinations for Destination Port: Launches the Interface Traffic_1_min Top Destinations for Destination Port Chart report.
     - Conversations for Destination Port: Launches the Interface Traffic_1_min Top Conversations for Destination Port Chart report.

  d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Chart Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Chart Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Chart Analysis' report is launched next

You can set the topology filters using Run Prompts link on the Top N Chart Analysis report. Once selected, they can only be removed by the Reset feature. However, the specific filters that you can select for a report depends on the type of data the report displays. For example, even if you have set the topology filter as Application Name,for the Top ToS report, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report launch the Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Run Prompts link.

To list the 1 Minute Top N Chart Reports in the BI Portal:

By default, these reports are hidden in the BI Server Public Folders. That is if you select **BI Server** on the NPS Home Page, select **Public Folders** > **iSPI Traffic**, and then select **Interface_Traffic_15_min** or **Interface_Traffic_1_min** folder, you cannot see these folders listed.

Follow these steps to view these reports in the Public Folders:

1. Click **BI Server** on the NPS Home Page.
2. Click **Portal** to launch HP NNM iSPI Performance BI Portal.
3. Click  **My Area Options** > **My Preferences**.

4. Select the option **Show hidden entries**.
5. Click **OK**.

Interface Traffic_1_min Top Applications for ToS Report

The Interface Traffic_1_min Top Applications for ToS Report is a Top N Chart report. This report shows line graphs for top applications across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Conversations for Application Report

The Interface Traffic_1_min Top Conversations for Application Report is a Top N Chart report. This report shows line graphs for top talkers (source-destination pairs) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Conversations for ToS Report

The Interface Traffic_1_min Top Conversations for ToS Report is a Top N report. This report shows top talkers (source-destination pairs) across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Destinations for Applications Report

The Interface Traffic_1_min Top Destinations for Application Report is a Top N Chart report. This report shows line graphs for top hosts (which receive data packets from different hosts) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. The report shows top destination hosts for the

selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Sources for Applications Report

The Interface Traffic_1_min Top Sources for Application Report is a Top N Chart report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets that are mapped to a specific application; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. The report shows line graphs for top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Sources for ToS Report

The Interface Traffic_1_min Top Sources for ToS Report is a Top N Chart report. This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows line graphs for top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Applications Report

The Interface Traffic_1_min Top Applications Report is a Top N Chart report. This report shows top N applications across the network that contribute to the network traffic in the form of line graphs. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)
- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics in the form of line graphs. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Destinations Report

The Interface Traffic_1_min Top Destinations Report is a Top N Chart report. This report shows top N hosts across the network that receive data packets in the form of line graphs. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Interfaces Report

This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Interface Traffic_1_min Top Sources Report

The Interface Traffic_1_min Top Sources Report is a Top N Chart report. This report shows top N hosts (in the form of line graphs) across the network that send data packets to different destinations. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top TypeOfService Report

The Interface Traffic_1_min Top TypeOfService Report is a Top N report. This report shows top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Destination Ports Report

The Interface Traffic_1_min Top Destination Ports Report presents a Top N Chart report. These reports show top N destination ports[1] across the network that receive data packets in the form of line graphs. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.For example, if there are 1500 flow records, and you wish to view the Top 50 Destination Ports Report, the Anonymous row groups the 1450 flow records that do not belong to the Top 50 Top 50 Destination Ports Report.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Port
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Sources for Destination Port

The Interface Traffic_1_min Top Sources for Destination Port Report presents a Top N chart report. This report shows line graphs for top source hosts (hosts that send out data packets) across the network that send flow packets to a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top sources that send data packets to the destination port 160.

[1] Recipients of data packets

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.

5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.

5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_1_min Top Destinations for Destination Port

The Interface Traffic_1_min Top Destinations for Destination Port Report presents a Top N chart report. This report shows line graphs for top destination hosts (hosts that receive data packets) across the network that receive flow packets on a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top destinations that receive data packets on the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
   ```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

Interface Traffic_1_min Top Conversations for Destination Port

The Interface Traffic_1_min Top Conversations for Destination Port Report presents a Top N chart report. This report shows line graphs for top talkers across the network for a specific Destination port. By default, this report shows data grouped by Destination Host Name only. However, if you add Source Host Name as the 'Grouping By' metric, you can view the Top N values for every conversation. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top talkers that contribute to the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
   ```

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

```
%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
```

3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMDataDir%\nmsas\traffic-leaf\conf
   ```

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
   ```

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
   ```

Interface Traffic 1 Min Top N Table Analysis Report

NNM iSPI Performance for Traffic categorizes the traffic data stored in NPS to effectively serve queries and retain larger volume of data for longer time periods.

This report ranks network elements by the metrics you select. Unlike the Top N report, this report does not show any bar charts or time series graphs. In a large environment, NPS can generate the Top N Table report faster than it can generate the Top N report. If you want to view Top N elements in the least possible time, choose the Top N Table report instead of the Top N report.

The following reports enable you to analyze the categorized traffic data based on data retention period, traffic type (traffic mapped to application, ToS, conversations, etc), and the source or destination for the traffic flow:

Available 1 Minute Top N Table Reports

- **Interface Traffic_1_min Top Applications for ToS:** Displays the top applications across the network for the selected ToS value.
- **Interface Traffic_1_min Top Conversations for Application:** Displays the top talkers (source-destination pairs) across the network for the selected application.
- **Interface Traffic_1_min Top Conversations for ToS:** Displays the top talkers (source-destination pairs) across the network for the selected ToS value.
- **Interface Traffic_1_min Top Destinations for Applications:** Displays the top destination hosts receiving data packets from different hosts across the network for the selected application.
- **Interface Traffic_1_min Top Sources for Application:** Displays the top hosts (hosts that send out data packets) across the network generating flow packets mapped to the selected application.
- **Interface Traffic_1_min Top Sources for ToS:** Displays the top source hosts (hosts that send out data packets) across the network generating flow packets with the selected ToS value.
- **Interface Traffic_1_min Top Applications:** Displays the top N applications across the network that contribute to the network traffic.
- **Interface Traffic_1_min Top Conversations:** Displays the top talkers (source-destination pairs) across the network. You can use this report to monitor the flow of data between two hosts.
- **Interface Traffic_1_min Top Destinations:** Displays the top N hosts across the network receiving the largest volume of data packets.
- **Interface Traffic_1_min Top Interfaces:** Displays the top N interfaces across the network with largest incoming and outgoing traffic volume.
- **Interface Traffic_1_min Top Sources:** Displays the top N hosts across the network sending largest volume of data packets to different destinations.
- **Interface Traffic_1_min Top TypeOfService:** Displays the top contributors to traffic based on selected Type of Service (ToS) values.
- **Interface Traffic_1_min_Top - Destination Ports:** Displays the top N destination ports that are receiving largest volume of data packets across the network.
- **Interface Traffic_1_min Top Sources for Destination Port:** Displays the top source hosts sending data packets to the selected destination port.

- **Interface Traffic_1_min Top Destinations for Destination Port:** Displays the top destinations hosts receiving data packets on the selected destination port.
- **Interface Traffic_1_min Top Conversation for Destination Port:** Displays the top talkers across the network for the selected destination port.

Listing all the available reports on the NPS Home Page may cause considerable usability problem. Selecting between various types of Top N Table reports may prove to be a time consuming and repetitive process. To overcome this problem, NNM iSPI Performance for Traffic enables you to select the Top N Table Analysis report, that works as the launching point for all the 1 minute Top N Table reports.

To launch the Top N Table reports:

1. In the NPS console, go to the Reports workspace.
2. Click **iSPI Traffic > Interface_Traffic > Interface_Traffic_1_min**.
3. Select **Top N Table Analysis** .
4. In Report Type panel, select the type of the report you want to launch. and then click **Confirm Selection**. The default selection is Top Interfaces. NNM iSPI Performance for Traffic launches the following reports for each option:
   - Top Sources: Launches the Interface Traffic 1 min - Top_Sources - Top N Table Report.
   - Top Destinations: Launches the Interface Traffic 1 min - Top_Destinations - Top N Table Report.
   - Top Conversations: Launches the Interface Traffic 1 min - Top_Conversations - Top N Table Report.
   - Top Types of Services: Launches the Interface Traffic 1 min - Top_TypeOfService - Top N Table Report.
   - Destination Ports: Launches the Interface Traffic 1 min - Top_DestinationPorts - Top N Table Report.

Follow these steps **only** if you have selected any of the following options:

- **Top Applications**
  a. Select **Application Name**.

  > **Note:** NNM iSPI Performance for Traffic sorts the list of applications alphabetically.

  b. NNM iSPI Performance for Traffic sets the application name to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected application:
     - Sources for Application: Launches the Interface Traffic 1 min - Sources_for_Application - Top N Table Report.
     - Destinations for Application: Launches the Interface Traffic 1 min - Destinations_for_ Applications - Top N Table Report

- Conversations for Application: Launches the Interface Traffic 1 min - Conversations_for_ Application - Top N Table Report

d. Click **Confirm Selection**.

- **Top Type of Service**
  a. Select **Type of Service**.

> **Note:** NNM iSPI Performance for Traffic sorts the list of type of services alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected type of service to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected type of service:
     - Application for ToS: Launches the Interface Traffic 1 min - Applications_for_ToS - Top N Table Report.
     - Sources for ToS: Launches the Interface Traffic 1 min - Sources_for_ToS - Top N Table Report.
     - Conversations for ToS: Launches the Interface Traffic 1 min - Conversations_for_ToS - Top N Table Report.
  d. Click **Confirm Selection**.

- **Top Destination Ports**
  a. Select **Destination Port**.

> **Note:** NNM iSPI Performance for Trafficsorts the list of destination ports alphabetically.

  b. NNM iSPI Performance for Traffic sets the selected destination port to analyze the report data.
  c. Select any of the following Topology Filters to filter the traffic mapped to the selected destination port:
     - Sources for Destination Port: Launches the Interface Traffic_1_min Top Sources for Destination Port Table report.
     - Destinations for Destination Port: Launches the Interface Traffic_1_min Top Destinations for Destination Port Table report.
     - Conversations for Destination Port: Launches the Interface Traffic_1_min Top Conversations for Destination Port Table report.
  d. Click **Confirm Selection**.

Usually Top Interfaces is the default option for the Top N Table Analysis report. NNM iSPI Performance for Traffic selects this option automatically every time the Top N Table Analysis Report is launched. If you select the topology filter as either Application Name or Type of Service (either using the Topology Filter tab or using the drill-down option), then NNM iSPI Performance for Traffic automatically selects the corresponding report-type (Top Application or Top ToS), when 'Top N Table Analysis' report is launched next

You can set the topology filters using Run Prompts link on the Top N Table Analysis report. Once selected, they can only be removed by the Reset feature. However, the specific filters that you can select for a report depends on the type of data the report displays. For example, even if you have set the topology filter as Application Name,for the Top ToS report, NNM iSPI Performance for Traffic does not use the filter you have set, as Application Name is not included in the Topology Selector of the Top ToS report.

To check which are the applicable fields to filter on a particular report launch the Topology Selector in the context of that report. That is, first launch that report and then launch the Topology Selector using the Run Prompts link.

To list the 1 Minute Top N Table Reports in the BI Portal:

By default, these reports are hidden in the BI Server Public Folders. That is if you select **BI Server** on the NPS Home Page, select **Public Folders** > **iSPI Traffic**, and then select **Interface_Traffic_15_min** or **Interface_Traffic_1_min** folder, you cannot see these folders listed.

Follow these steps to view these reports in the Public Folders:

1. Click **BI Server** on the NPS Home Page.
2. Click **Portal** to launch HP NNM iSPI Performance BI Portal.
3. Click  **My Area Options** > **My Preferences**.
4. Select the option **Show hidden entries**.
5. Click **OK**.

Interface Traffic_1_min Top Applications for ToS Report

This report shows line graphs for top applications across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows top applications for the selected ToS value. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top applications that contributed with the maximum amount of data to the network traffic characterized by the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes

- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Conversations for ToS Report

This report shows top talkers (source-destination pairs) across the network for a specific ToS value and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top talkers contributing to network traffic with the ToS value 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Conversations for Application Report

This report shows line graphs for top talkers (source-destination pairs) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. By default, this report shows data grouped by only destination hosts. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By' metric Source Host Name), you can view the Top N values of for every source-destination pair, or in other words, for every conversation. You can use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top talkers that contribute to the SNMP network traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Destinations for Applications Report

This report shows line graphs for top hosts (which receive data packets from different hosts) across the network for a specific application and is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. The report shows top destination hosts for the selected application. You can use the 'Select Metric(s)' option to rank the destination hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows the hosts that received the maximum amount of data (in bytes) for SNMP.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Sources for Applications Report

This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets that are mapped to a specific application; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top Applications report first, select an application, and then launch this report. The report shows line graphs for top source hosts for the selected application. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the application SNMP shows top hosts that sent the maximum amount of the SNMP traffic.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Sources for ToS Report

This report shows top source hosts (hosts that send out data packets) across the network that generate flow packets with a specific ToS value; the report is generated by using the contextual navigation feature of the NPS. Therefore, it is recommended that you launch the Traffic_1_min Top TypeOfService report first, select a ToS value, and then launch this report. The report shows line graphs for top source hosts for the selected ToS value. You can use the 'Select Metric(s)' option to rank the source hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the ToS value 25 shows top hosts that sent the maximum amount of data (in bytes) for the flow packets with the ToS value of 25.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Applications Report

This report shows top N applications across the network that contribute to the network traffic in the form of line graphs. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

The NNM iSPI Performance for Traffic provides you with predefined application definitions. You can use the NNM iSPI Performance for Traffic Configuration form to modify the existing application definitions or create new application definitions.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top Applications report enables you to choose the following additional bandwidth metrics that are not available with other reports:

- Bandwidth - In Mbps (min)
- Bandwidth - In Mbps (max)
- Bandwidth - In Mbps (avg)
- Bandwidth - Out Mbps (min)
- Bandwidth - Out Mbps (max)
- Bandwidth - Out Mbps (avg)
- Bandwidth Utilization (min)
- Bandwidth Utilization (max)
- Bandwidth Utilization (avg)

The Top N report defaults to:

- Grouping by Elements = Application Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Conversations Report

A **conversation** means the flow of data between two hosts. You can use NNM iSPI Performance for Traffic Top Conversations reports to monitor the top talkers in the environment.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

By default, this report shows top N hosts across the network that receive data packets. However, if you add Source Host Name as the 'Grouping By' metric (while retaining the original 'Grouping By'

metric Source Host Name), you can view the Top N values of traffic performance indicators for every source-destination pair, or in other words, for every conversation.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics in the form of line graphs. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Destinations Report

The Interface Traffic_1_min Top Destinations Report is a Top N Table report. This report shows top N hosts across the network that receive data packets in the form of line graphs. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (recipients of data packets) that received the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Interfaces Report

This report ranks flow-enabled interfaces or nodes by the metric you select. Use this report to spot the interface or node that performed at the extremes. You can use this report to analyze the historical data for elements that are exhibiting unusual utilization levels.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics.

The Top N report defaults to:

- Grouping by Elements = Qualified Interface Name
- Start Date/Time = Depends on default Time Range and data available in the database
- Time Range = Last 1 hour
- Hour of Day = All
- Day of Week = All
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

By default, the report groups data by Qualified Interface Name. You can select multiple grouping attributes by using the  (**Add New Grouping**) button. Use the  (**Remove Grouping**) button to remove a grouping attribute.

Interface Traffic_1_min Top Sources Report

This report shows top N hosts (in the form of line graphs) across the network that send data packets to different destinations. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows hostnames of Top N hosts (senders of data packets) that sent maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top TypeOfService Report

This report shows top contributors to traffic based on Type of Service (ToS) values across the network. Use the 'Select Metric(s)' option to rank ToS values against different metrics. You can further set a filter by clicking on a top Type of Service value, and then analyze further.

The *Anonymous* row on the report represents the combined effect of contributors that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics shows ToS values of flow packets (ingress and egress) with the maximum amount of data (in bytes).

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, and 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N report defaults to:

- Grouping by Elements = Type of Service
- Time Range = Last 1 hour
- Grain = 5 minutes
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Interface Traffic_1_min Top Destination Ports Report

These reports show top N destination ports[1] across the network that receive data packets in the form of line graphs. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.For example, if there are 1500 flow records, and you wish to view the Top 50 Destination Ports Report, the Anonymous row groups the 1450 flow records that do not belong to the Top 50 Top 50 Destination Ports Report.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Table reports default to:

- Grouping by Elements = Destination Port
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

[1] Recipients of data packets

Interface Traffic_1_min Top Sources for Destination Port

The Interface Traffic_1_min Top Sources for Destination Port Report presents a Top N table report. This report shows tabular data for top source hosts (hosts that send out data packets) across the network that send flow packets to a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top sources that send data packets to the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Source Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`

3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`

4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
5. Do one of the following:
   - Remove the following line of code:
     `topn.subtypes.dstport=true`
   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

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   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_1_min Top Destinations for Destination Port

The Interface Traffic_1_min Top Destinations for Destination Port Report presents a Top N table report. This report shows tabular data for top destination hosts (hosts that receive data packets) across the network that receive flow packets on a specific Destination port. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the Destination port 160 shows top destinations that receive data packets on the network traffic on Destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

   `%NNMDataDir%\nmsas\traffic-leaf\conf`

   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/var/opt/OV/nmsas/traffic-leaf/conf`
4. Open the `nms-traffic-leaf.address.properties` file with a text editor.

5. Add the following line of code:
   `topn.subtypes.dstport=true`
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

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   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

To disable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
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   On Windows

   `%TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl`

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

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   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
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   - Remove the following line of code:
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   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl`

Interface Traffic_1_min Top Conversations for Destination Port

The Interface Traffic_1_min Top Conversations for Destination Port Report presents a Top N table report. This report shows tabular data for top talkers across the network for a specific Destination port. By default, this report shows data grouped by Destination Host Name only. However, if you add Source Host Name as the 'Grouping By' metric, you can view the Top N values for every conversation. Use the 'Select Metric(s)' option to rank the hosts against different metrics.

The NNM iSPI Performance for Traffic Master Collector aggregates all the flow records that do not belong to the top N Group in the *Anonymous* group.

Hence, the *Anonymous* row on the report represents the combined data that do not belong to the Top N group.

For example, the report drawn with the Volume - In Bytes (sum) and Volume - Out Bytes (sum) metrics for the destination port 160 shows top talkers that contribute to the network traffic on the destination port 160.

Features and Defaults

You can choose a rank number of 5, 10, 25, 50, or 100. The report enables you to see Top N or Bottom N report of the selected metrics. For the bottom N selection, the report shows the bottom N records from the top contributors data retained by the NNM iSPI Performance for Traffic.

The Top N and Top N Chart reports default to:

- Grouping by Elements = Destination Host Name
- Time Range = Last 1 day
- Grain = 1 hour
- Metrics = Volume - In Bytes (sum), Volume - Out Bytes (sum)
- Top N Option = Top 10

Data Collection

Data collection for this report is disabled by default.

To enable data collection for this report:

1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

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   On Linux

   `/opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl`
3. Navigate to the following directory:
   On Windows

   `%TrafficDataDir%\nmsas\traffic-leaf\conf`

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   On Windows

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   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

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1. Log on to the Leaf Collector system as an administrator on Windows and as root on Linux.
2. Stop the Leaf Collector by running the following command:
   On Windows

   ```
   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

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   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstop.ovpl
   ```

   In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /opt/OV/traffic-leaf/bin/nmstrafficleafstop.ovpl
   ```
3. Navigate to the following directory:
   On Windows

   ```
   %TrafficDataDir%\nmsas\traffic-leaf\conf
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   In this instance, `%TrafficDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is not installed on the same system as NNMi.

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   %NNMDataDir%\nmsas\traffic-leaf\conf
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   In this instance, `%NNMDataDir%` is the NNM iSPI Performance for Traffic data directory when the Leaf Collector is installed on the same system as NNMi.

   On Linux

   ```
   /var/opt/OV/nmsas/traffic-leaf/conf
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4. Open the `nms-traffic-leaf.address.properties` file with a text editor.
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   - Remove the following line of code:
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   - Set the property `topn.subtypes.dstport` to `false`.
6. Save and close the `nms-traffic-leaf.address.properties` file.
7. Restart the Leaf Collector by running the following command:
   On Windows

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   %TrafficInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
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   In this instance, `%TrafficInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is not installed on the same system as NNMi.

   ```
   %NNMInstallDir%\traffic-leaf\bin\nmstrafficleafstart.ovpl
   ```

In this instance, `%NNMInstallDir%` is the NNM iSPI Performance for Traffic install directory when the Leaf Collector is installed on the same system as NNMi.

On Linux

```
/opt/OV/traffic-leaf/bin/nmstrafficleafstart.ovpl
```

Glossary

B

bandwidth

The aggregated data, for the selected protocols, that is transferred from the router or switch to the leaf collector.

O

ODBID

ODBID is a custom attribute that the HP Network Node Manager i-Series Software(NNMi) topology uses to integrate the NNMi topology with Business Service Management(BSM) software suite. The Smart Plug-Ins (SPIs) get this attribute from NNMi during the discovery and keep a reference. You can use ODBID as a report toplogy filter.

We appreciate your feedback!

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Product name and version: NNM iSPI Performance for Traffic, 9.21

Document title: Reports Online Help

Feedback:


Java
COMPATIBLE