

HP Network Node Manager iSPI for IP Telephony

For the Windows[®] and Linux operating systems

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Online Help for Microsoft IP Telephony Reports

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Contents

Contents	3
Microsoft IP Telephony Gateway B-Channel Activity Reports	5
Calendar Report	6
Chart Detail Report	7
Heat Chart Report	8
Most Changed Report	9
Peak Period Report	10
Top N Report	10
Top N Chart Report	11
Top N Table Report	12
Microsoft IP Telephony Exchange Server Reports	14
Calendar Report	15
Chart Detail Report	16
Heat Chart Report	17
Most Changed Report	17
Top N Report	18
Top N Chart Report	19
Top N Table Report	20
Microsoft IP Telephony Gateway Statistics Reports	22
Calendar Report	23
Chart Detail Report	24
Heat Chart Report	24
Most Changed Report	25
Top N Report	26
Top N Chart Report	27
Top N Table Report	28
Microsoft IP Telephony Lync Reports	29
Calendar Report	32
Chart Detail Report	33

Heat Chart Report	34
Most Changed Report	34
Top N Report	35
Top N Chart Report	36
Top N Table Report	37
Microsoft IP Telephony Call Reports	39
Calendar Report	40
Chart Detail Report	41
Heat Chart Report	42
Most Changed Report	43
Top N Report	44
Top N Chart Report	44
Top N Table Report	45
We appreciate your feedback!	47

Microsoft IP Telephony Gateway B-Channel Activity Reports

The NNM iSPI for IP Telephony provides the **Gateway BChannel Activity** extension pack to view and analyze the performance data of the Microsoft IP telephony environment. You can use this extension pack to generate reports for the gateway B-Channel usage on your network. These reports allow you to perform capacity planning by helping you to identify the B-Channel usage for each interface included in a gateway. You can use these reports to identify if the channels in the gateway interface are utilized completely or if the channel utilization for the gateway interface is low. If the channel utilization is high, the network can experience call drops due to the lack of availability of free channels to carry calls. If the channel utilization is low, you can re-provision the channels to carry calls where the requirement is high.

You can filter the reports based on the various attributes of the gateway B-Channel such as the gateway IP address, the gateway name, the gateway interface name, the security group UUID, and the Lync site identity, and generate the report based on the number of B-Channels, the number of in-service channels, the number of partially used channels, the number of idle channels, and the gateway interface percentage usage. You can use the reports generated to see the gateway interface usage trends over a time period specified.

You can use the different report formats to view specific metric details across a range of time frames and perform a trend analysis to assist you better in taking decisions for the Microsoft IP telephony gateway utilization.

You can view the following types of reports using this extension pack:

- Calendar
- Chart Detail
- Heat Chart
- Most Changed
- Peak Period
- Top N
- Top N Chart
- Top N Table

Prerequisites for Viewing the Microsoft IP Telephony Gateway B-Channel Activity Reporting

Make sure that the following prerequisites are satisfied to enable the Microsoft IP Telephony Gateway B-Channel Activity reporting:

1. Install the NNM iSPI Performance for Metrics (iSPI Performance for Metrics) in your deployment environment before installing the NNM iSPI for IP Telephony.
2. Verify that the iSPI Performance for Metrics is running before opening the reports provided by the Gateway BChannel Activity extension pack.

Accessing the Microsoft IP Telephony Gateway B-Channel Activity Reports

To access the Microsoft IP Telephony Gateway B-Channel Activity Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **Microsoft IP Telephony > Gateway_BChannel_Activity**. The list of reports that you can launch using this extension pack is displayed.

Calendar Report

The **Calendar** report uses a traditional, calendar-style layout to show hourly statistics for two B-Channel activity metrics in a single, extended graph spanning over multiple days. By default, this report displays the data for the current month.

Use this report to observe:

- Gradual trends over time
- Isolated spikes
- To verify that an abnormal condition has returned to normal
- To make comparisons

This report also reveals:

- Day of week patterns
- Hour of day patterns

Note: You can generate a Calendar Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Calendar** report are as follows:

- Time
- Topology

- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Chart Detail Report

The **Chart Detail** report plots the selected metrics on a chart at each display grain interval within the specified time frame. This report helps you to do a detailed analysis of the trend of aggregated metric values (aggregated at selected display grain interval) over a period of time. Based on your requirements, you can select a pair of metrics for which you want to analyze the data.

Use this report to:

- Analyze the trend of health and performance for media resources
- Detect persistent problems in media resources
- Compare health and performance of multiple media resources

Note: You can generate a Chart Detail Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Chart Detail** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Heat Chart Report

The **Heat Chart** report displays the hourly values of the selected metric in a color-coded tabular format. The report lists the hour of the day vertically and the day of the month horizontally. The report also displays the legend for the color coding on top of the report using which you can identify the color code used to represent the specific value ranges for the metric. Based on your requirement, you can select a metric for which you want to see the value range across a specified time frame.

Use the Heat Chart report to identify the gradual shift in the range of values for a specific metric. The report enables you to:

- Spot an isolated instance (when the metric value was high)
- Spot day-of-the-week patterns
- See when high metric values returned to normal after a period of time

Note: You can generate a Heat Chart Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Heat Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.



See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.

- To change the Report Options defaults, see the *Change Report Options* topic.

Most Changed Report

The **Most Changed** report compares the variation in the metric values for two different (consecutive) time periods for specified grouping of B-Channel attributes and ranks these groups of attributes based on the variation. The sort order lists the attributes from the attributes with the most changed values to the attributes with the least changed values. The report displays the value of the B-Channel metric for the previous time frame and the current time frame along with the difference and the percentage of change in the value. Based on your requirement, you can select a metric, specify the attribute to group by, select the topology filter to scope the report only for certain B-Channel attribute values, and specify the time range before generating the report.

Note: You can select multiple metrics by clicking  (the **Add new grouping** icon) on the **Report Options** page. When you click this icon, it displays another drop-down list of the attributes. You can remove the additional attribute drop-down lists displayed by clicking  (the **Remove grouping** icon).

Note: You can generate a Most Changed Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Most Changed** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Peak Period Report

The **Peak Period** report, by default, displays the top 10 hours based on the **Gateway Interface Percent Use (avg)** metric. You can generate this report for an hour, a day, or a week to analyze the call duration for all the B-Channels on your network. You can select the number of B-Channels that you want the report to display from the options provided by the report template.

Using this report, you can:

- Identify the performance and utilization of the selected metrics during the peak period
- Identify the interfaces that have the highest or lowest performances or utilization levels during the peak period
- Compare the performance for multiple media devices during the peak period using this report

The controls that appear on the **Peak Period** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Report

Based on your selection of the attributes and the metric, the **Top N** report ranks the attribute values in the ascending or descending order of the total raw values of the call metric. The report displays the rank of the B-Channel attribute value along with the B-Channel metric value and the percentage of the B-Channel metric value with respect to all the values listed. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis. You can use this report to identify the B-Channel attribute values that had occurrences at the extremes. You can also use this report to investigate historical sampled data for the call attributes that exhibit unusual occurrence levels in the calls.

Note: You can generate a Top N Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Top N** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Chart Report

Based on your selection of the attributes and the metric, the **Top N Chart** report ranks the attribute values in the ascending or descending order of the total raw values of the metric along with a chart that plots the change of values over the specified time frame. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis.

The controls that appear on the **Top N Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Table Report

The **Top N Table** report ranks the network elements by the attributes that 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 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.

You can use this report to spot the element that performed at the extremes and to analyze historical data for elements that exhibit unusual utilization level. You can also use this report to do the following:

- Detect the attribute that has a health or performance problem.
- Analyze the utilization of the attributes during a specific time range.
- Detect over-utilized and under-utilized attributes.
- Compare the performance of multiple attributes.

Tips:

- Check this report once a day to see which network attribute might need special attention.
- Check this report throughout the day to see which network attributes are performing at the extremes and might need special attention.

The controls that appear on the **Top N Table** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Microsoft IP Telephony Exchange Server Reports

The NNM iSPI for IP Telephony provides the **Exchange Server** extension pack to view and analyze the performance data of the Microsoft IP telephony environment. You can use this extension pack to generate reports for the performance metrics collected using SiteScope from the Microsoft Exchange servers that are part of the monitored Lync site.

You can view the following types of reports using this extension pack:

- Calendar
- Chart Detail
- Heat Chart
- Most Changed
- Top N
- Top N Chart
- Top N Table

Prerequisites for Viewing the Microsoft IP Telephony Exchange Server Reporting

Make sure that the following prerequisites are satisfied to enable the Microsoft IP Telephony Exchange Server reporting:

1. Install the NNM iSPI Performance for Metrics (iSPI Performance for Metrics) in your deployment environment before installing the NNM iSPI for IP Telephony.
2. Install and configure SiteScope to collect performance metrics from the Microsoft Exchange servers that you want to monitor.
3. Create a data integration point between NNMi and SiteScope according to the details specified in the *SiteScope Online Help*.
4. Enable performance monitoring for the Microsoft Unified Communications and Collaboration Manager using the HP SiteScope IP Telephony link under the **Integration Module Configuration** workspace.
5. Verify that the iSPI Performance for Metrics is running before opening the reports provided by the Exchange Server extension pack.

Accessing the Microsoft IP Telephony Exchange Server Reports

To access the Microsoft IP Telephony Exchange Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft_Exchange > Exchange_UM**. The list of reports that you can launch using this extension pack is displayed.

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. By default, this report displays the data for the current month.

Use this report to observe:

- Gradual trends over time
- Isolated spikes
- To verify that an abnormal condition has returned to normal
- To make comparisons

This report also reveals:

- Day of week patterns
- Hour of day patterns

Note: You can generate a Calendar Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Calendar** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Chart Detail Report

The **Chart Detail** report plots the selected server metrics on a chart at each display grain interval within the specified time frame. This report helps you to do a detailed analysis of the trend of aggregated metric values (aggregated at selected display grain interval) over a period of time. Based on your requirements, you can select a pair of metrics for which you want to analyze the data.

Use this report to:

- Analyze the trend of health and performance for media resources
- Detect persistent problems in media resources
- Compare health and performance of multiple media resources

Note: You can generate a Chart Detail Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Chart Detail** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Heat Chart Report

The **Heat Chart** report displays the hourly values of the selected server metric in a color-coded tabular format. The report lists the hour of the day vertically and the day of the month horizontally. The report also displays the legend for the color coding on top of the report using which you can identify the color code used to represent the specific value ranges for the metric. Based on your requirement, you can select a metric for which you want to see the value range across a specified time frame.

Use the Heat Chart report to identify the gradual shift in the range of values for a specific metric. The report enables you to:

- Spot an isolated instance (when the metric value was high)
- Spot day-of-the-week patterns
- See when high metric values returned to normal after a period of time

Note: You can generate a Heat Chart Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Heat Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.



See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Most Changed Report

The **Most Changed** report compares the variation in the metric values for two different (consecutive) time periods for specified grouping of server attributes and ranks these groups of attributes based on the variation. The sort order lists the attributes from the attributes with the most

changed values to the attributes with the least changed values. The report displays the value of the metric for the previous time frame and the current time frame along with the difference and the percentage of change in the value. Based on your requirement, you can select a metric, specify the attribute to group by, select the topology filter to scope the report only for certain attribute values, and specify the time range before generating the report.

Note: You can select multiple metrics by clicking  (the **Add new grouping** icon) on the **Report Options** page. When you click this icon, it displays another drop-down list of the attributes. You can remove the additional attribute drop-down lists displayed by clicking  (the **Remove grouping** icon).

Use this report to spot objects at selected grouping level that saw significant growth from the previous selected time period to the selected time period. Significant growth could point to a developing problem you need to know about. You can change the ranking metric and also the number of elements that are listed.

Note: You can generate a Most Changed Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Most Changed** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Report

Based on your selection metrics, the **Top N** report ranks the attribute values in the ascending or descending order of the total raw values of the metric. The report displays the rank of the metric value along with the metric value and the percentage of the metric value with respect to all the values listed. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis. You can use this

report to identify the metric values that had occurrences at the extremes. You can also use this report to investigate historical sampled data for the metrics that exhibit unusual occurrence levels.

Note: You can generate a Top N Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Top N** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Chart Report

Based on your selection of the attributes and the metric, the **Top N Chart** report ranks the attribute values in the ascending or descending order of the total raw values of the metric along with a chart that plots the change of values over the specified time frame. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis.

The controls that appear on the **Top N Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Table Report

The **Top N Table** report ranks the network elements by the attributes that 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 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.

You can use this report to spot the element that performed at the extremes and to analyze historical data for elements that exhibit unusual utilization level. You can also use this report to do the following:

- Detect the attribute that has a health or performance problem.
- Analyze the utilization of the attributes during a specific time range.
- Detect over-utilized and under-utilized attributes.
- Compare the performance of multiple attributes.

Tips:

- Check this report once a day to see which network attribute might need special attention.
- Check this report throughout the day to see which network attributes are performing at the extremes and might need special attention.

The controls that appear on the **Top N Table** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Microsoft IP Telephony Gateway Statistics Reports

The NNM iSPI for IP Telephony provides the **Gateway Statistics** extension pack to view and analyze the performance data of the Microsoft IP telephony environment. You can use this extension pack to generate reports for the gateways discovered and monitored on the network.

You can filter the reports based on the various attributes of the gateway such as the total inbound calls carried by the gateway, the total outbound calls carried by the gateway and so on and generate the report based on the gateway statistics metrics such as the total inbound calls carried, the inbound calls blocked, and so on. You can use the reports generated to see the performance of the gateway over a time period specified. You can use the different report formats to view specific metric details across a range of time frames and perform a trend analysis to assist you better in taking decisions for your gateway utilization.

You can view the following types of reports using this extension pack:

- Calendar
- Chart Detail
- Heat Chart
- Most Changed
- Top N
- Top N Chart

Prerequisites for Viewing the Microsoft IP Telephony Gateway Statistics Reporting

Make sure that the following prerequisites are satisfied to enable the Microsoft IP Telephony Gateway Statistics reporting:

- Install the NNM iSPI Performance for Metrics (iSPI Performance for Metrics) in your deployment environment before installing the NNM iSPI for IP Telephony.
- Verify that the iSPI Performance for Metrics is running before opening the reports provided by the Gateway Statistics extension pack.

Accessing the Cisco IP Telephony Duration Volume by Details Reports for the Extension Pack

To access the Cisco IP Telephony Duration Volume by Details Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.

3. Click **Microsoft IP Telephony > Gateway_Statistics > Gateway_Statistics_Metrics**. The list of reports that you can launch using this report format is displayed.

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. By default, this report displays the data for the current month.

Use this report to observe:

- Gradual trends over time
- Isolated spikes
- To verify that an abnormal condition has returned to normal
- To make comparisons

This report also reveals:

- Day of week patterns
- Hour of day patterns

Note: You can generate a Calendar Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Calendar** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Chart Detail Report

The **Chart Detail** report plots the selected metrics on a chart at each display grain interval within the specified time frame. This report helps you to do a detailed analysis of the trend of aggregated metric values (aggregated at selected display grain interval) over a period of time. Based on your requirements, you can select a pair of metrics for which you want to analyze the data.

Use this report to:

- Analyze the trend of health and performance for media resources
- Detect persistent problems in media resources
- Compare health and performance of multiple media resources

Note: You can generate a Chart Detail Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Chart Detail** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Heat Chart Report

The **Heat Chart** report displays the hourly values of the selected metric in a color-coded tabular format. The report lists the hour of the day vertically and the day of the month horizontally. The report also displays the legend for the color coding on top of the report using which you can identify the color code used to represent the specific value ranges for the metric. Based on your requirement, you can select a metric for which you want to see the value range across a specified time frame.

Use the Heat Chart report to identify the gradual shift in the range of values for a specific metric. The report enables you to:

- Spot an isolated instance (when the metric value was high)
- Spot day-of-the-week patterns
- See when high metric values returned to normal after a period of time

Note: You can generate a Heat Chart Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Heat Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help


You can use these controls to view and modify the report details.


See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Most Changed Report

The **Most Changed** report compares the variation in the metric values for two different (consecutive) time periods for specified grouping of attributes and ranks these groups of attributes based on the variation. The sort order lists the attributes from the attributes with the most changed values to the attributes with the least changed values. The report displays the value of the metric for the previous time frame and the current time frame along with the difference and the percentage of change in the value. Based on your requirement, you can select a metric, specify the attribute to group by, select the topology filter to scope the report only for certain attribute values, and specify the time range before generating the report.

Note: You can select multiple metrics by clicking  (the **Add new grouping** icon) on the **Report Options** page. When you click this icon, it displays another drop-down list of the attributes. You can remove the additional attribute drop-down lists displayed by clicking

 (the **Remove grouping** icon).

Use this report to spot objects at selected grouping level that saw significant growth from the previous selected time period to the selected time period. Significant growth could point to a developing problem you need to know about. You can change the ranking metric and also the number of elements that are listed.

Note: You can generate a Most Changed Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Most Changed** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Report

Based on your selection metrics, the **Top N** report ranks the attribute values in the ascending or descending order of the total raw values of the metric. The report displays the rank of the metric value along with the metric value and the percentage of the metric value with respect to all the values listed. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis. You can use this report to identify the metric values that had occurrences at the extremes. You can also use this report to investigate historical sampled data for the metrics that exhibit unusual occurrence levels.

Note: You can generate a Top N Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Top N** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Chart Report

Based on your selection of the attributes and the metric, the **Top N Chart** report ranks the attribute values in the ascending or descending order of the total raw values of the metric along with a chart that plots the change of values over the specified time frame. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis.

The controls that appear on the **Top N Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Table Report

The **Top N Table** report ranks the network elements by the attributes that 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 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.

You can use this report to spot the element that performed at the extremes and to analyze historical data for elements that exhibit unusual utilization level. You can also use this report to do the following:

- Detect the attribute that has a health or performance problem.
- Analyze the utilization of the attributes during a specific time range.
- Detect over-utilized and under-utilized attributes.
- Compare the performance of multiple attributes.

Tips:

- Check this report once a day to see which network attribute might need special attention.
- Check this report throughout the day to see which network attributes are performing at the extremes and might need special attention.

The controls that appear on the **Top N Table** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Microsoft IP Telephony Lync Reports

The NNM iSPI for IP Telephony provides the **Microsoft Lync** extension pack to view and analyze the performance data of the Microsoft IP telephony environment.

You can use this extension pack to generate reports for the performance metrics collected using SiteScope from the following Microsoft servers that are part of the monitored Lync site:

- Audio-video conferencing Server
- Archiving Server
- Director Server
- Edge Server
- Frontend Server
- Mediation Server
- Monitoring Server
- Registrar Server

You can view the following types of reports using this extension pack:

- Calendar
- Chart Detail
- Heat Chart
- Most Changed
- Top N
- Top N Chart
- Top N Table

Prerequisites for Viewing the Microsoft IP Telephony Lync Reporting

Make sure that the following prerequisites are satisfied to enable the Microsoft IP Telephony Lync reporting:

1. Install the NNM iSPI Performance for Metrics/Network Performance Server (iSPI Performance for Metrics) in your deployment environment before installing the NNM iSPI for IP Telephony.
2. Install and configure SiteScope to collect performance metrics from the Microsoft Lync site for which you want to monitor and generate reports.

3. Create a data integration point between NNMi and SiteScope according to the details specified in the *SiteScope Online Help*
4. Enable performance monitoring for Microsoft Unified Communications and Collaboration Manager using the HP SiteScope IP Telephony link under the **Integration Module Configuration** workspace.
5. Verify that the iSPI Performance for Metrics is running before opening the reports provided by the Microsoft Lync extension pack.

Accessing the Microsoft Lync Audio Video Conferencing Server Reports

To access the Microsoft Lync Audio Video Conferencing Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > AV_Conferencing_Server**. The list of reports that you can launch using this extension pack is displayed.

Accessing the Microsoft Archiving Server Reports

To access the Microsoft Archiving Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > Archiving_Server**. The list of reports that you can launch using this extension pack is displayed.

Accessing the Microsoft Director Server Reports

To access the Microsoft Director Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > Director_Server**. The list of reports that you can launch using this extension pack is displayed.

Accessing the Microsoft Edge Server Reports

To access the Microsoft Edge Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > Edge_Server**. The list of reports that you can launch using this extension pack is displayed.

Accessing the Microsoft Frontend Server Reports

To access the Microsoft Frontend Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > Front_End_Server**. The list of reports that you can launch using this extension pack is displayed.

Accessing the Microsoft Mediation Server Reports

To access the Microsoft Mediation Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > Mediation_Server**. The list of reports that you can launch using this extension pack is displayed.

Accessing the Microsoft Monitoring Server Reports

To access the Microsoft Monitoring Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > Monitoring_Server**. The list of reports that you can launch using this extension pack is displayed.

Accessing the Microsoft Registrar Server Reports

To access the Microsoft Registrar Server Reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **UCC Applications > Microsoft Lync > Registrar_Server**. The list of reports that you can launch using this extension pack is displayed.

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. By default, this report displays the data for the current month.

Use this report to observe:

- Gradual trends over time
- Isolated spikes
- To verify that an abnormal condition has returned to normal
- To make comparisons

This report also reveals:

- Day of week patterns
- Hour of day patterns

Note: You can generate a Calendar Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Calendar** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Chart Detail Report

The **Chart Detail** report plots the selected metrics on a chart at each display grain interval within the specified time frame. This report helps you to do a detailed analysis of the trend of aggregated metric values (aggregated at selected display grain interval) over a period of time. Based on your requirements, you can select a pair of metrics for which you want to analyze the data.

Use this report to:

- Analyze the trend of health and performance for media resources
- Detect persistent problems in media resources
- Compare health and performance of multiple media resources

Note: You can generate a Chart Detail Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Chart Detail** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Heat Chart Report

The **Heat Chart** report displays the hourly values of the selected metric in a color-coded tabular format. The report lists the hour of the day vertically and the day of the month horizontally. The report also displays the legend for the color coding on top of the report using which you can identify the color code used to represent the specific value ranges for the metric. Based on your requirement, you can select a metric for which you want to see the value range across a specified time frame.

Use the Heat Chart report to identify the gradual shift in the range of values for a specific metric. The report enables you to:

- Spot an isolated instance (when the metric value was high)
- Spot day-of-the-week patterns
- See when high metric values returned to normal after a period of time

Note: You can generate a Heat Chart Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Heat Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.



See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Most Changed Report

The **Most Changed** report compares the variation in the metric values for two different (consecutive) time periods for specified grouping of attributes and ranks these groups of attributes based on the variation. The sort order lists the attributes from the attributes with the most changed

values to the attributes with the least changed values. The report displays the value of the metric for the previous time frame and the current time frame along with the difference and the percentage of change in the value. Based on your requirement, you can select a metric, specify the attribute to group by, select the topology filter to scope the report only for certain attribute values, and specify the time range before generating the report.

Note: You can select multiple metrics by clicking  (the **Add new grouping** icon) on the **Report Options** page. When you click this icon, it displays another drop-down list of the attributes. You can remove the additional attribute drop-down lists displayed by clicking  (the **Remove grouping** icon).

Use this report to spot objects at selected grouping level that saw significant growth from the previous selected time period to the selected time period. Significant growth could point to a developing problem you need to know about. You can change the ranking metric and also the number of elements that are listed.

Note: You can generate a Most Changed Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Most Changed** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Report

Based on your selection metrics, the **Top N** report ranks the attribute values in the ascending or descending order of the total raw values of the metric. The report displays the rank of the metric value along with the metric value and the percentage of the metric value with respect to all the values listed. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis. You can use this

report to identify the metric values that had occurrences at the extremes. You can also use this report to investigate historical sampled data for the metrics that exhibit unusual occurrence levels

Note: You can generate a Top N Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Top N** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Chart Report

Based on your selection of the attributes and the metric, the **Top N Chart** report ranks the attribute values in the ascending or descending order of the total raw values of the metric along with a chart that plots the change of values over the specified time frame. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis.

The controls that appear on the **Top N Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Table Report

The **Top N Table** report ranks the network elements by the attributes that 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 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.

You can use this report to spot the element that performed at the extremes and to analyze historical data for elements that exhibit unusual utilization level. You can also use this report to do the following:

- Detect the attribute that has a health or performance problem.
- Analyze the utilization of the attributes during a specific time range.
- Detect over-utilized and under-utilized attributes.
- Compare the performance of multiple attributes.

Tips:

- Check this report once a day to see which network attribute might need special attention.
- Check this report throughout the day to see which network attributes are performing at the extremes and might need special attention.

The controls that appear on the **Top N Table** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Microsoft IP Telephony Call Reports

The NNM iSPI for IP Telephony provides you the **Call Reports** extension pack to view and analyze the performance data of the Microsoft IP telephony environment. You can use this extension pack to generate reports for the Call Detail and Call Quality of Microsoft IP Telephony— based on the attributes such as session sequence, call controller, call type, mediation server, and gateway. You can use these reports to identify the trends for the calls of Microsoft IP Telephony during a specific time frame.

You can view the following types of Call Detail and Call Quality reports using this extension pack:

- Calendar
- Chart Detail
- Heat Chart
- Most Changed
- Top N
- Top N Chart
- Top N Table

Prerequisites for Viewing the Microsoft IP Telephony Call Reporting

Make sure that the following prerequisites are satisfied to enable the Microsoft IP Telephony Call reporting:

1. Install the NNM iSPI Performance for Metrics (iSPI Performance for Metrics) in your deployment environment before installing the iSPI for IP Telephony.
2. Enable the monitoring of Call Detail and Call Quality.
3. Configure the Call Detail and Call Quality settings.
4. Verify that the iSPI Performance for Metrics is running before opening the reports provided by the Microsoft IP Telephony Call Reports extension pack.

Note: For more information about enabling the monitoring of the Call Quality and Call Details and configuring the settings, see the related topics of the *HP NNM iSPI for IP Telephony Online Help*.

Accessing the Microsoft IP Telephony Call Detail Reports

To access the Microsoft IP Telephony Call Detail reports from the NNMI console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **Microsoft IP Telephony > Call Reports > Call_Detail_Metrics** to see the list of reports that you can launch using this extension pack.

Accessing the Microsoft IP Telephony Call Quality Reports

To access the Microsoft IP Telephony Call Quality reports from the NNMi console, follow these steps:

1. Log on to the NNMi console.
2. Click **Actions > NNM iSPI Performance > Reporting-Report Menu** from the menu bar. This launches the NNM iSPI Performance Report Menu page.
3. Click **Microsoft IP Telephony > Call Reports > Call_Quality_Metrics** to see the list of reports that you can launch using this extension pack.

Calendar Report

The **Calendar** report uses a traditional, calendar-style layout to show hourly statistics for the call detail and call quality metrics in a single, extended graph spanning over multiple days. By default, this report displays the data for the current month.

Use this report to observe:

- Gradual trends over time
- Isolated spikes
- To verify that an abnormal condition has returned to normal
- To make comparisons

This report also reveals:

- Day of week patterns
- Hour of day patterns

Note: You can generate a Calendar Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Calendar** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Chart Detail Report

The **Chart Detail** report plots the selected call metrics on a chart at each display grain interval within the specified time frame. This report helps you to do a detailed analysis of the trend of aggregated metric values (aggregated at selected display grain interval) over a period of time. Based on your requirements, you can select a pair of metrics for which you want to analyze the data.

Use this report to:

- Analyze the trend of health and performance for media resources
- Detect persistent problems in media resources
- Compare health and performance of multiple media resources

Note: You can generate a Chart Detail Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Chart Detail** report are as follows:

- Time
- Topology
- Options

- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Heat Chart Report

The **Heat Chart** report displays the hourly values of the selected call metric in a color-coded tabular format. The report lists the hour of the day vertically and the day of the month horizontally. The report also displays the legend for the color coding on top of the report using which you can identify the color code used to represent the specific value ranges for the metric. Based on your requirement, you can select a metric for which you want to see the value range across a specified time frame.

Use the Heat Chart report to identify the gradual shift in the range of values for a specific metric. The report enables you to:

- Spot an isolated instance (when the metric value was high)
- Spot day-of-the-week patterns
- See when high metric values returned to normal after a period of time

Note: You can generate a Heat Chart Report on a Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Heat Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help



You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Most Changed Report

The **Most Changed** report compares the variation in the metric values for two different (consecutive) time periods for specified grouping of call attributes and ranks these groups of attributes based on the variation. The sort order lists the attributes from the attributes with the most changed values to the attributes with the least changed values. The report displays the value of the metric for the previous time frame and the current time frame along with the difference and the percentage of change in the value.

Note: You can select multiple metrics by clicking  (the **Add new grouping** icon) on the **Report Options** page. When you click this icon, it displays another drop-down list of the call attributes. You can remove the additional attribute drop-down lists displayed by clicking  (the **Remove grouping** icon).

Use this report to spot objects at selected grouping level that saw significant growth from the previous selected time period to the selected time period. Significant growth could point to a developing problem you need to know about. You can change the ranking metric and also the number of elements that are listed.

Note: You can generate a Most Changed Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Most Changed** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Report

Based on your selection metrics, the **Top N** report ranks the attribute values in the ascending or descending order of the total raw values of the metric. The report displays the rank of the metric value along with the metric value and the percentage of the metric value with respect to all the values listed. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology Filter** link to fine tune the analysis. You can use this report to identify the metric values that had occurrences at the extremes. You can also use this report to investigate historical sampled data for the metrics that exhibit unusual occurrence levels.

Note: You can generate a Top N Report on an Hourly (**H**), Daily (**D**), Weekly (**W**), or a Monthly (**M**) basis.

The controls that appear on the **Top N** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Chart Report

Based on your selection of the attributes and the metric, the **Top N Chart** report ranks the attribute values in the ascending or descending order of the total raw values of the metric along with a chart that plots the change of values over the specified time frame. Based on your requirement, you can select a metric using the **Options** link and specify the topology filter using the **Topology** link to fine tune the analysis.

The controls that appear on the **Top N Chart** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

Top N Table Report

The **Top N Table** report ranks the network elements by the attributes that 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 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.

You can use this report to spot the element that performed at the extremes and to analyze historical data for elements that exhibit unusual utilization level. You can also use this report to do the following:

- Detect the attribute that has a health or performance problem.
- Analyze the utilization of the attributes during a specific time range.
- Detect over-utilized and under-utilized attributes.
- Compare the performance of multiple attributes.

Tips:

- Check this report once a day to see which network attribute might need special attention.
- Check this report throughout the day to see which network attributes are performing at the extremes and might need special attention.

The controls that appear on the **Top N Table** report are as follows:

- Time
- Topology
- Options
- Show Bookmark
- Help

You can use these controls to view and modify the report details.

See the following topics in the *Using Reports > Change Default Settings* section in the *Network Performance Server/NNM iSPI Performance for Metrics Online Help*:

- To change the Time Controls defaults, see the *Change Time Controls* topic.
- To change the Topology Filters defaults, see the *Set Topology Filters* topic.
- To change the Report Options defaults, see the *Change Report Options* topic.

We appreciate your feedback!

If you have comments about this document, you can [contact the documentation team](#) by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Online Help for Microsoft IP Telephony Reports (Network Node Manager iSPI for IP Telephony 10.00)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to docfeedback@hp.com.