



Analyze performance, improve efficiency

HP Network Node Manager iSPI Performance for Metrics software

The HP Network Node Manager i Smart Plug-ins (iSPIs) for Performance are add-on modules that extend capabilities of the HP Network Node Manager i (NNMi) software to enable unified fault, availability, and performance management. NNM iSPI Performance for Metrics adds performance management capability to HP NNMi by analyzing, processing, and aggregating a range of standard and advanced metrics collected by HP NNMi. This data is presented through a series of reports, including graphs and charts, to improve the efficiency and productivity of your network operations staff. The main capabilities of NNM iSPI Performance for Metrics are:

- Historical graphs of performance data
- Performance metrics and baseline threshold monitoring
- Baseline performance reports
- Performance forecast reports

NNM iSPI Performance for Metrics contains a component called the Network Performance Server (NPS) that provides the performance reporting foundation for the entire HP Automated Network Management (ANM) suite of products. NPS extends the functionality of HP NNMi by providing a platform for performance data storage, analysis, and reporting. The NPS platform is used by

the NNM iSPI Performance series of products, which includes NNM iSPI Performance for Metrics, Traffic, and Quality Assurance.

NPS provides baseline metrics that define the normal or expected range of values for any given metric. The following baseline metrics enable you to forecast the future value of a metric on the basis of historical data.

Seasonality: Represents a periodic and repetitive pattern in the metrics utilization levels. The repetitive or cyclic nature of this pattern enables NPS to predict the future utilization values for the metric.

Initialization period: Represents the period during which NPS collects data required for calculating the baseline metrics. NPS does not generate any exceptions for this period, considering the data range to be insufficient to calculate a reasonable normal range.

Adaptation parameters: Represents the technique used to smooth the historical data for a given time range and forecast the metrics value. NPS uses intercept, trend, and seasonal adaptation formulas to sort the historical data to calculate the forecast value.

Figure 1. The executive report shows key performance characteristics of interfaces

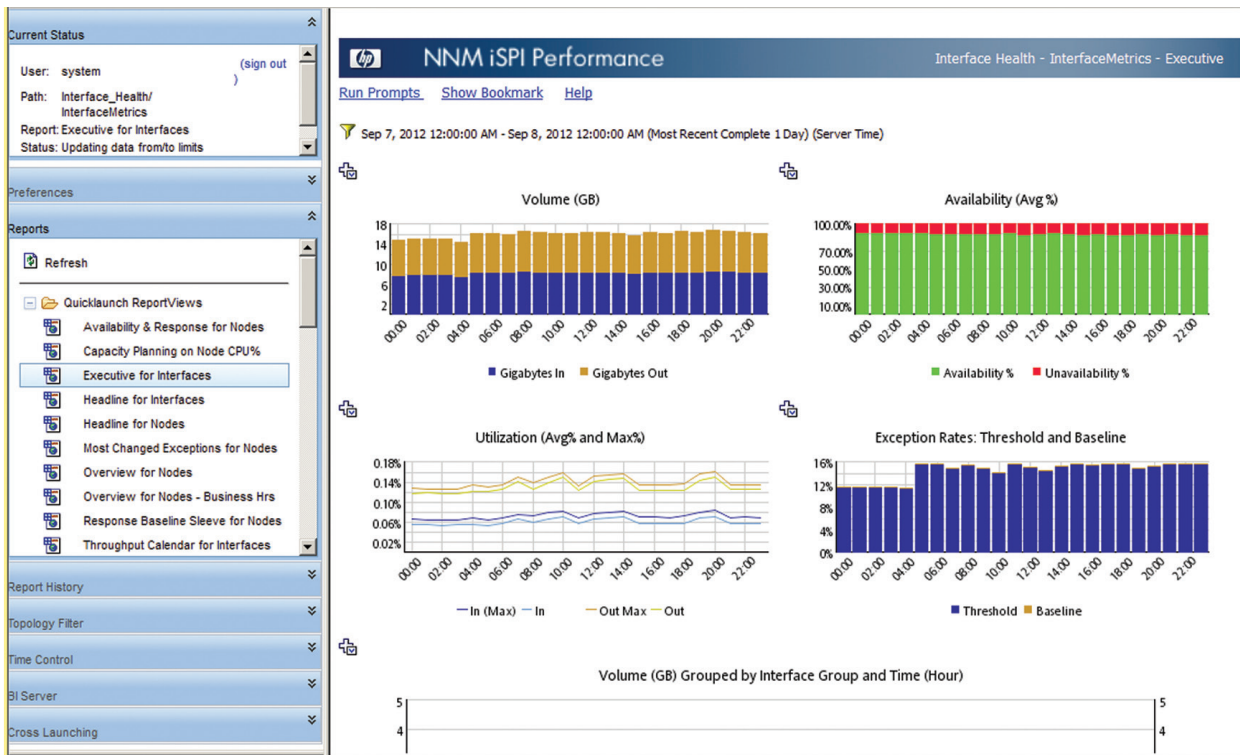
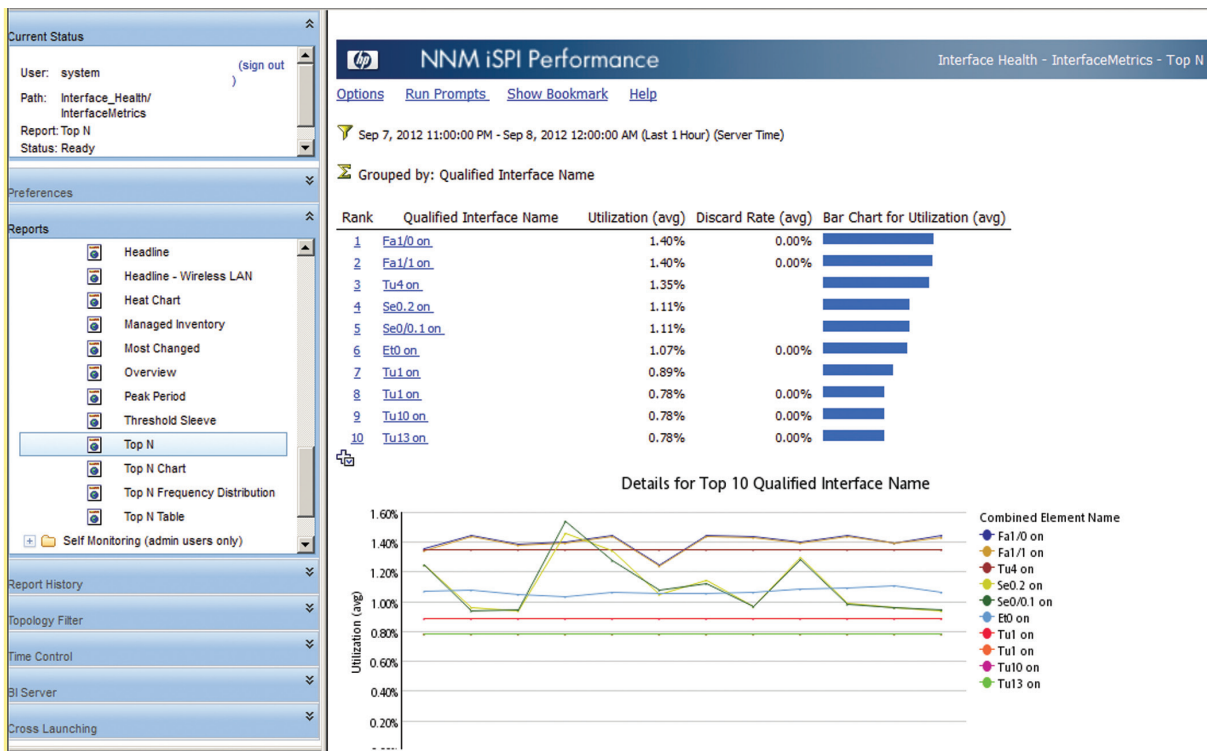


Figure 2. The Top N report presents the tabular data with a line graph for easy analysis



NPS allows you to easily and intuitively adjust the granularity, time range, topology filtering, and displayed metric of any follow-on NNM iSPI Performance for Metrics or other iSPI reports. It allows you to carry selections from report to report, and when appropriate, across reporting domains. You can choose to filter reports to only show activity during business hours on week days, or group data by various grouping criteria, for example nodes, interfaces, sites, etc. When you've set the time range and topology filters to your own preferred configuration, NPS allows you to schedule the iSPI reports as defined for automatic generation and delivery. You can have your favorite reports delivered by email and waiting in your inbox every morning, or saved to disk for long-term archival.

NNM iSPI Performance for Metrics and HP NNMi are tightly coupled products. Here are some examples of this integration.

- Network polling is unified with HP NNMi fault polling which minimizes polling overhead on devices in your infrastructure. It continuously collects, stores, and manages performance related metrics from across your network and includes multiple pre-built reports for exploring that data.
- Executive reports provide an aggregated view of overall network performance and allow cross comparisons of specified groups, (organization, geographic, specific data centers, etc.) enabling a deeper understanding of the factors impacting network degradation, utilization, and availability.

- The HP NNMi analysis panel now displays graphs and other performance data provided by NNM iSPI Performance for Metrics about connections, nodes, and interfaces in your network.
- A particularly powerful example of unified fault and performance management is illustrated by the "Path Health" performance report. HP NNMi software is able to calculate and visualize the layer-2 and layer-3 path between any two endpoints within the network. Then in concert, HP NNM iSPI Performance for Metrics produces the Path Health performance report for all devices and interfaces along that defined path.

This tight integration between the HP NNMi operator console and the reporting interface provides operators with seamless transitions from fault data to performance reports and back. For example, select a node in HP NNMi and launch directly to the historical performance of all its interfaces, ordered by the metric of your choice and grouped in the way you prefer. Do you see something interesting on one interface? Drill down for more detail or launch the HP NNMi configuration screen for that interface directly from the report. This allows a unified workflow to troubleshoot performance problems between endpoints, sites, and application pairs.



Some of the capabilities provided by HP NNM iSPI Performance for Metrics:

- Data collection and thresholding of network device ports (any that support MIB-II, including virtual interfaces)**
- Bytes in
 - Bytes out
 - Discards
 - Errors
 - Network delay

- Data collection and thresholding of network devices**
- CPU
 - Memory
 - Buffers
 - Component statistic

- A variety of reports summarizing the data; here are just a few:**
- Executive
 - Overview
 - Heat chart
 - Headline
 - Dashboard
 - Managed inventory report
 - Reporting on NNMi custom polling and NNM iSPIs
 - Top ten
 - Most changed

Key benefits of the HP NNMi/HP NNM iSPI Performance for Metrics solution

- Reduce Mean Time To Repair (MTTR) by empowering operators with near real-time and historical performance management capabilities
- Drive increased operator efficiency and productivity
- Troubleshoot problems more quickly through unified fault, availability, and performance management
- Reduce network and device loads with unified performance polling, relative to disparate collection processes; HP NNMi collects fault, availability, and performance data through the same polling process
- Establish the status of network devices and interfaces with unified status calculation and visualization
- Enable efficient workflows using contextual navigation between reports and rich interactive report configuration capabilities

The Performance and other iSPIs add powerful reporting capabilities to HP NNMi and HP NNMi Advanced that enable your network operations team to efficiently manage a network of any size, reduce the business risk of downtime, and increase network service levels. These are key components of the HP ANM suite which provides a holistic, automated approach across the network management domain of fault, availability, performance, and change, configuration, compliance, and process automation.

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For more information

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