

HP Unified Communications and Collaboration Management Solution Standard Edition 2011.05



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Abstract

This white paper provides an overview of the HP Unified Communications and Collaboration Management Solution (UCC) Standard Edition 2011.05. The solution overview provides information about the different HP products that integrate to provide this management solution for monitoring and managing a Microsoft Unified Communications and Collaboration environment.

Audience

This white paper is intended to familiarize you with HP UCC Standard Edition 2011.05. It is assumed that the audience for this white paper is familiar with Microsoft Unified Communications and Collaboration environment. It is also recommended that the audience is familiar with the HP Software suite of products that integrate to provide this solution.

Microsoft Unified Communications

Using the power of Microsoft Exchange and Microsoft Lync Server 2010, Microsoft Unified Communications technologies combine e-mail, instant messaging, presence, voice, audio, video and web conferencing into a single, intuitive system built around the user's requirements. This solution enables the customers to replace conflicting, disparate communication systems with a single, unified communications platform that leverages their existing data and telecommunications infrastructure. Combining software and services, IT departments can deliver more flexible, more secure communications with simplified infrastructure that streamlines management and reduces total cost of ownership. Microsoft Unified Communications manages the following applications to streamline communications for your users and efficient operations for your IT:

- The Microsoft Exchange Server
- Microsoft SharePoint
- The Microsoft Active Directory Server
- The backend SQL Servers
- The edge server pool that acts as a gateway between the internal network and the external network.
- The Microsoft Unified Messaging Server for voicemail

HP UCC Standard Edition

In a large network environment, the network administrator needs to monitor the different aspects of network including the network performance, utilization levels of the various network elements, and persistent network problems. In addition to monitoring the network, the administrator also needs to generate reports based on the monitored data to foresee performance issues (such as network performance, server performance, application performance, and so on) in the network. The data must be collected based on the various performance parameters applicable for the applications and devices on the network.

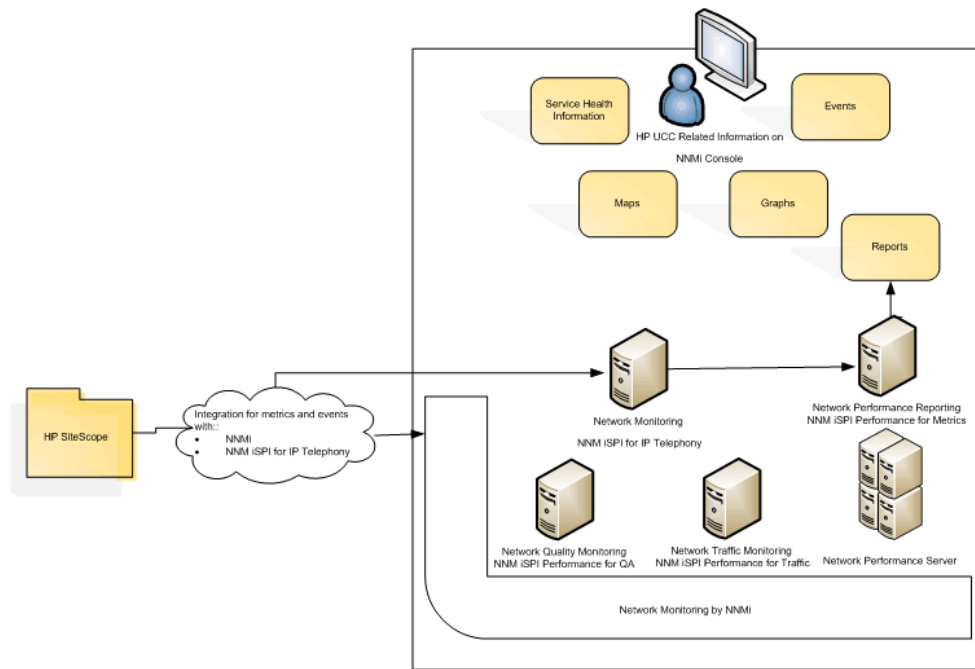
The HP UCC Standard Edition provides a unified management solution to monitor the entire Microsoft Unified Communications and Collaboration infrastructure, voice/video call quality, audio/video conferencing quality, and other capabilities using a single interface embedded to Network Node Manager (NNMi). Some of the main advantages that HP UCC Standard Edition offers are as follows:

- Monitor the network infrastructure for fault and performance
- Enable the users to manage events generated from different aspects of the network using a single interface

- Monitor unified messaging services (a common message store for voicemail, email, faxes, and IP Telephony) to reduce the real estate space usage
- Lower costs for managing the Microsoft Unified Communications and Collaboration environment
- Monitor and report on the call quality, audio, video, and web conferencing
- Monitor instant messaging and presence

A sample HP UCC Standard Edition deployment in an enterprise is shown in the following figure, highlighting the integrated applications

Figure 1: High Level Architecture



As shown in the figure above, HP UCC Standard Edition provides a unified management console through the HP Network Node Manager i Software (NNMi) console. Network Performance Server (NPS) stores the metric information related to HP UCC and NNM iSPI Performance for Metrics generates the reports based on the following extension packs:

- SiteScope extension pack to generate reports based on the HP SiteScope specific metrics stored in NPS.
- NNM iSPI for IP Telephony Microsoft Exchange Server extension pack to generate reports for the performance metrics collected using SiteScope from the Microsoft Exchange servers that are part of the Lync site monitored.
- NNM iSPI for IP Telephony Microsoft Lync extension pack to generate reports for the performance metrics collected using SiteScope from the audio-video conferencing, archiving, director, edge, frontend, mediation, monitoring, and registrar servers that are part of the monitored Lync site.
- NNM iSPI for IP Telephony Call Reports extension pack to generate reports based on the Call Details Record (CDR) collected from the Microsoft IP Telephony network.
- NNM iSPI for IP Telephony Gateway Statistics extension pack to generate reports for the performance of the gateways discovered and monitored on the network.

This solution is aimed at large enterprises and small and medium business units that plan to use the single NNMi console for unified Microsoft Unified Communications and Collaboration management

HP Management Solution-Products that Integrate

HP Software provides a wide array of products that help you manage your applications and the network. The following table provides a brief overview on the products that integrate to provide this solution.

| HP Product and Version | Monitored Area/Feature Provided | Description |
|---|--|---|
| HP SiteScope 11.10 | Agentless network monitoring that provides real-time network performance information | <p>HP SiteScope is an agentless monitoring solution that enables you to:</p> <ul style="list-style-type: none"> • Monitor the availability and performance of distributed IT infrastructures (servers, operating systems, network devices, network services, applications, and application components). • Generate various alerts to communicate and record event information in a variety of media. • Use the licensing feature to scale a SiteScope deployment to meet the needs of your organization and the requirements of your infrastructure. |
| Network Node Manager (NNMi) 9.10 | Layer 2 and Layer 3 devices on the network | <p>NNMi discovers and monitors the layer 2 and layer 3 devices in the network infrastructure. NNMi enables you to quickly detect, isolate, and troubleshoot abnormal network behavior. Using NNMi, you can also record what has been done to date to troubleshoot or resolve a problem. NNMi helps you to do the following:</p> <ul style="list-style-type: none"> • Rapidly detect, isolate, and correct the problem • Annotate information for future diagnosis • Look for historical information to proactively monitor the network • View an inventory of what is being managed <p>You can integrate NNMi with the NNMi Smart Plug-ins to utilize additional monitoring and reporting features provided by the NNMi Smart Plug-ins.</p> |
| HP Network Node Manager iSPI for IP Telephony Software and Extension Packs 9.10 | Monitors and manages the IP telephony infrastructure in your network environment | <p>Enables you to discover and monitor the IP Telephony infrastructure in your NNMi managed network and Microsoft Unified Communications and Collaboration environment.</p> <p>Using this product, you can also generate</p> |

| HP Product and Version | Monitored Area/Feature Provided | Description |
|---|---|---|
| | | reports on call quality and the states related to fault and usage of various IP Telephony components. |
| NNM iSPI Performance for Quality Assurance and extension packs 9.10 | Discovers and monitors the QA probes configured on the network | <p>NNM iSPI Performance for QA extends the capability of NNMi to monitor the quality of traffic flow in the network. Pre-configured QA probes on the selected network elements ensure that the data packets traversing through the network are treated consistently by these elements. NNM iSPI Performance for QA, in conjunction with NNMi, performs the following tasks:</p> <ul style="list-style-type: none"> • Discover the pre-configured QA probes defined for various network elements. • Run these QA probes on the network elements to ascertain any performance inconsistency. • Display the QA probe results on the NNM iSPI Performance for QA views. |
| NNM iSPI Performance for Traffic and extension packs 9.10 | Enriches the flow attributes gathered from the traffic flow data on the network for analysis and reporting. | <p>The HP Network Node Manager (NNMi) iSPI Performance for Traffic Software extends the capability of NNMi to monitor the performance of the network. The HP NNM iSPI Performance for Traffic (NNM iSPI for Traffic) facilitates enrichment of the obtained data from the IP flow records that are exported by the routers. The iSPI Performance for Traffic performs the following tasks:</p> <ul style="list-style-type: none"> • Aggregates the IP flow records. • Enriches the IP flow records by providing the ability to add or update the available fields in the flow records. • Correlates the obtained IP flow records with NNMi for context based analysis. • Generates performance reports by exporting data to the Network Performance Server (NPS). • Generates maps to view the traffic flow information on your network. |
| NNM iSPI Performance for Metrics 9.10 | Infrastructure for data aggregation and reporting based on the performance metrics for the network. | The Network Performance Server (NPS) provides the infrastructure that you can use in conjunction with NNMi to analyze performance characteristics of your network. |

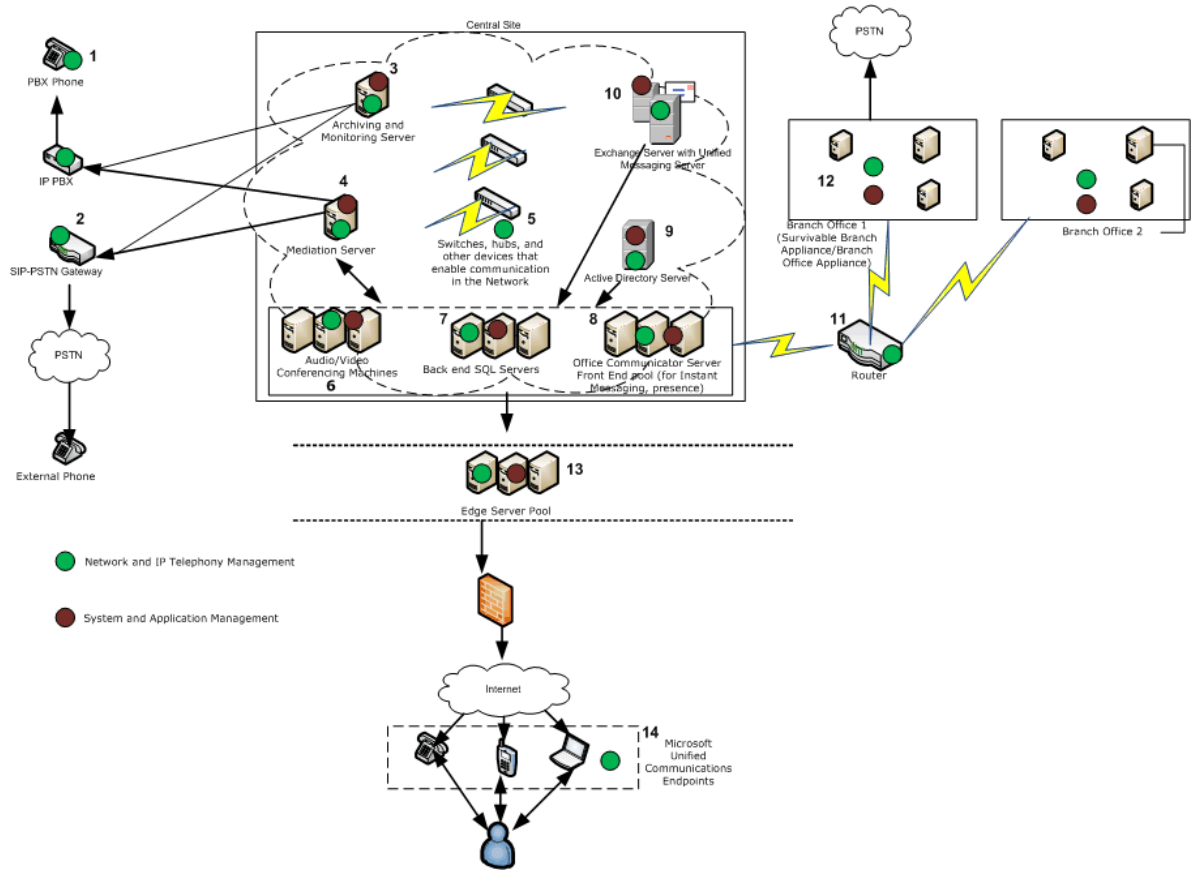
| HP Product and Version | Monitored Area/Feature Provided | Description |
|------------------------|---------------------------------|--|
| | | <p>With the performance data collected by different HP Network Node Manager i Software Smart Plug-ins (NNM iSPIs), the NPS builds data tables, runs queries in response to user selections, and displays query results in web-based reports that help you diagnose and troubleshoot problems in your network environment.</p> <p>The NPS media offers you the option to install the HP Network Node Manager iSPI Performance for Metrics Software (NNM iSPI Performance for Metrics), which provides the core performance management capability to NNMi by gathering and monitoring the metric data polled by NNMi from different network elements.</p> <p>With the combination of NNMi and the NNM iSPI Performance for Metrics, you can monitor the operational performance of the network infrastructure.</p> <p>You can use this product with the other NNM iSPIs listed to generate reports on the various metrics collected and monitored.</p> |

Note: The extension packs mentioned along with some of the products provide the feature to generate reports based on the performance metrics applicable to the entity that product monitors.

Unified Management

The HP Unified Communications and Collaboration Management Solution Standard Edition 2011.05, when deployed in a Microsoft Unified Communications and Collaboration environment, provides you a single console to manage and monitor the applications, interfaces, attributes, infrastructure, and the network devices on your network. See the following figure and table to identify where each HP product helps a network administrator to easily manage a Microsoft Unified Communications deployment environment.

Figure 2: HP Communications and Collaboration Management Suite Deployment



The numbers in the figure provide a mapping to the HP Software products in this management solution and the area the product monitors in a Microsoft Unified Communications and Collaboration environment.

| Number | Monitored Device/Application/Service | HP Software Products for Monitoring |
|--------|--------------------------------------|---|
| 1 | IP PBX Phones | <ul style="list-style-type: none"> NNM iSPI for IP Telephony |
| 2 | SIP-PSTN Gateway | <ul style="list-style-type: none"> NNMi NNM iSPI for IP Telephony |
| 3 | Archiving and Monitoring Server | <ul style="list-style-type: none"> NNMi SiteScope NNM iSPI for IP Telephony |
| 4 | Mediation Server | <ul style="list-style-type: none"> NNMi SiteScope NNM iSPI for IP Telephony |
| 5 | Switches | <ul style="list-style-type: none"> NNMi NNM iSPI Performance for QA NNM iSPI Performance for Traffic |
| 6 | Audio/Video Conferencing Machines | <ul style="list-style-type: none"> NNMi SiteScope |

| | | |
|----|---|---|
| | | <ul style="list-style-type: none"> • NNM iSPI for IP Telephony |
| 7 | SQL Servers | <ul style="list-style-type: none"> • NNMi • SiteScope • NNM iSPI for IP Telephony |
| 8 | Microsoft Lync Servers 2010 | <ul style="list-style-type: none"> • NNMi • SiteScope • NNM iSPI for IP Telephony |
| 9 | Microsoft Active Directory Server | <ul style="list-style-type: none"> • NNMi • SiteScope • NNM iSPI for IP Telephony |
| 10 | Microsoft Exchange Server with Unified Messaging | <ul style="list-style-type: none"> • NNMi • SiteScope • NNM iSPI for IP Telephony |
| 11 | Router | <ul style="list-style-type: none"> • NNMi • NNM iSPI Performance for QA • NNM iSPI Performance for Traffic |
| 12 | Survivable Branch Appliance/Branch Office Appliance | <ul style="list-style-type: none"> • NNMi • SiteScope • NNM iSPI for IP Telephony |
| 13 | Edge Server Pool | <ul style="list-style-type: none"> • SiteScope • NNM iSPI for IP Telephony |
| 14 | Microsoft Unified Communications Endpoints | <ul style="list-style-type: none"> • NNM iSPI for IP Telephony |

Key Benefits of the Solution

This section provides a summary of the key benefits offered by the HP Unified Communications and Collaboration Management Solution Standard Edition 2011.05.

Easy to Install and Configure

HP UCC Standard Edition 2011.05 provides you with a solution that is easy to install and easy to configure and deploy.

Note: To use HP Unified Communications and Collaboration Management Solution Advanced Edition, you must install the Advanced Edition directly.

Agentless Monitoring Capabilities

HP UCC Standard Edition, with the help of HP SiteScope, enables you to monitor the network without deploying agent software on the servers to monitor; thus making the deployment and maintenance of your network monitoring solution simpler than agent-based network monitoring solutions.

Cost Reduction

- Single console to consolidate events from different domain managers, thus resulting in reducing the labor, licensing, and training costs.
- Eliminate duplicate silos (application support team or network support team) working on overlapping problems.

Improved Service Quality

Reduce time to repair by more quickly identifying root causes of the quality issues.

Unified Network and Application Performance Management

A unified management solution that helps you manage entities in a Microsoft Unified Communications and Collaboration deployment environment such as network devices, network attributes, system performance, network performance, applications and servers, and so on. In addition, you can also generate reports on the performance of specific Microsoft Unified Communications and Collaboration entities or attributes that are monitored and managed.

Unified Cross Domain Event Consolidation

In a Microsoft Unified Communications and Collaboration deployment environment, where the network administrator has to manage notifications (events) from different entities such as the network devices, systems, applications, and so on, a consolidated event management console helps in simplifying the management tasks. The solution also alerts you based on threshold violations specified for the monitored Microsoft Unified Communications and Collaboration entities.

Near Real-Time Entity Status

The topology map view provides a near real-time status of Microsoft Unified Communications and Collaboration entities in the deployment environment.

Automatic Updates About the Availability and Non Availability of Microsoft Unified Communications Entities

Automatic discovery and monitoring to alert about the availability and non availability of Microsoft Unified Communications and Collaboration entities on a periodic basis helps you distinguish when an entity is not available or when the entity is available.

Installing and Configuring the Solution

See *HP Unified Communications and Collaboration Management Solution Standard Edition Installation and Configuration Guide* to identify the main tasks to be completed to install and configure the solution pack. See the individual product documentation listed in the Installation and Configuration Guide for detailed instructions for installation, configuration, best practices, and troubleshooting. The latest documentation for all the products listed is available at the following location: <http://support.openview.hp.com/selfsolve/manuals>

Note: After installing each product, follow the post installation configuration steps listed in the respective product documentation to enable management and monitoring using that product.

References

For more information about the products that integrate to provide this solution, see the individual product documentation from the following location: <http://support.openview.hp.com/selfsolve/manuals>

Feedback

We appreciate any feedback that you may have on this document. You can send your feedback for this document to <mailto:docfeedback@hp.com>

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