REDEFINE

your network management practice.

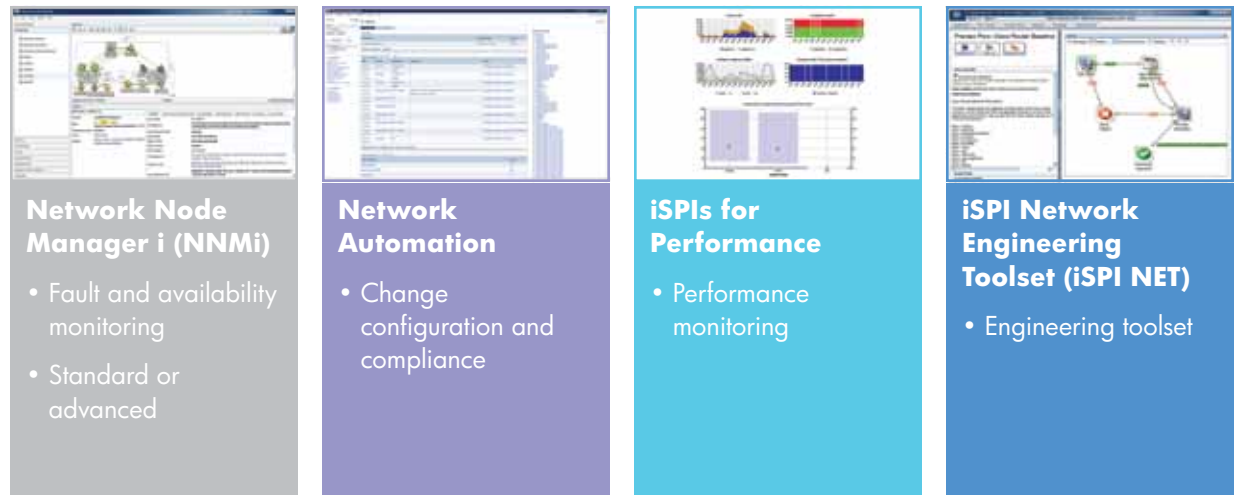## HP Network Management Center

Brochure

HP Network Management Center provides IT organizations with network management solutions that unify fault, availability, and performance capabilities with change, configuration, and compliance while automating the technology process workflow across these capabilities. This integrated approach, called automated network management (ANM), enables companies to securely manage more customers, departments or sites at lower cost, automate root cause analysis, compliance, diagnostics and remediation, and adapt to new initiatives like Cloud Computing.

HP Network Management Center

Efficient | Automated | Secure

Network Node Manager i (NNMi)

• Fault and availability monitoring

• Standard or advanced

Network Automation

• Change configuration and compliance

iSPIs for Performance

• Performance monitoring

iSPI Network Engineering Toolset (iSPI NET)

• Engineering toolset

Meet your network management challenges

As the Internet era has evolved, IP networks have become essential enablers of business. Today's networks support unified communications, including email, traditional IP telephony, as well as Unified Communications and Collaboration, and the media services that support revenue-generating transactions. Due to the strategic reliance on networks, companies cannot afford unplanned network downtime. Consequently, business requirements are now driving the operational objectives for network engineering and operations teams, including:

• Increasing revenue by enhancing network availability and performance

• Reducing expense by improving resource utilization (people and infrastructure) and easily segregate and secure data

• Reducing liability and risk by delivering compliant and secure networks

• Proving accountability by meeting and reporting on SLAs

• Managing change effectively and efficiently without disruption

Network engineering and operations teams face significant challenges in their pursuit of these objectives. First of all, they are tasked with managing a moving target. Today's networks are large, complex, and constantly changing. Networking technology now includes virtualization technologies, such as virtual LANs and router redundancy protocols, but it has also expanded to encompass the discovery and monitoring of virtual servers and the applications they are hosting. New network services are running over today's IP networks, such as IP multicast, Multiprotocol Label Switching (MPLS), IP telephony and now Unified Communications encompassing voice, video and collaborative applications. And, through mergers and acquisitions, a company's network can change substantially—overnight. All of this must be managed effectively, but keeping up with the new technology, controlling incident and fault management, and dealing with a dynamic and constantly changing network can consume valuable time and resources.

"Network Management Center is one of the best tools in our tool bag."—Leading US Financial Institution, Senior Manager of IT Operations

Source: Dimensional Research, Customers Validate Value of HP Business Service Management Solutions, February 2011

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> **"Through 2015, 80 percent of mission-critical outages will be caused by people and process issues, and more than 50 percent of those outages are caused by change/configuration/release integration and hands-off issues."**
>
> Gartner, Best Practice: Executing Release Management with Change and Configuration Management, May 2010

Also creating challenges are incomplete and/or ineffective management solutions. For example, many companies still rely on manual processes to accomplish various network engineering and operations tasks (that is, network change and configuration, fault isolation, or root-cause analysis). Furthermore, companies may have cumbersome management frameworks consisting of a conglomeration of disparate point tools. This can contribute to contention between groups. And incomplete and ineffective management frameworks consume technology staff time as they work to plug the holes and fill the gaps in suboptimal systems.

What's needed is a comprehensive network management solution consisting of an integrated set of tools that span the network infrastructure.

Automated network management is more than a strategy—it's a solution to the problems of today's network management organizations, offering complete control of your infrastructure and adaptability to new new initiatives like Cloud Computing.

HP Network Management Center

To address the objectives of enhancing network availability and performance, improving resource utilization, delivering compliant and secure networks, and meeting SLAs, HP provides a complete ANM solution. ANM is focused on automating technology workflow processes across the network infrastructure, which is the foundation for all business services delivered. Through this unique, and fully integrated combination of capabilities, ANM helps network engineering and operations teams overcome their challenges and meet their operational objectives.
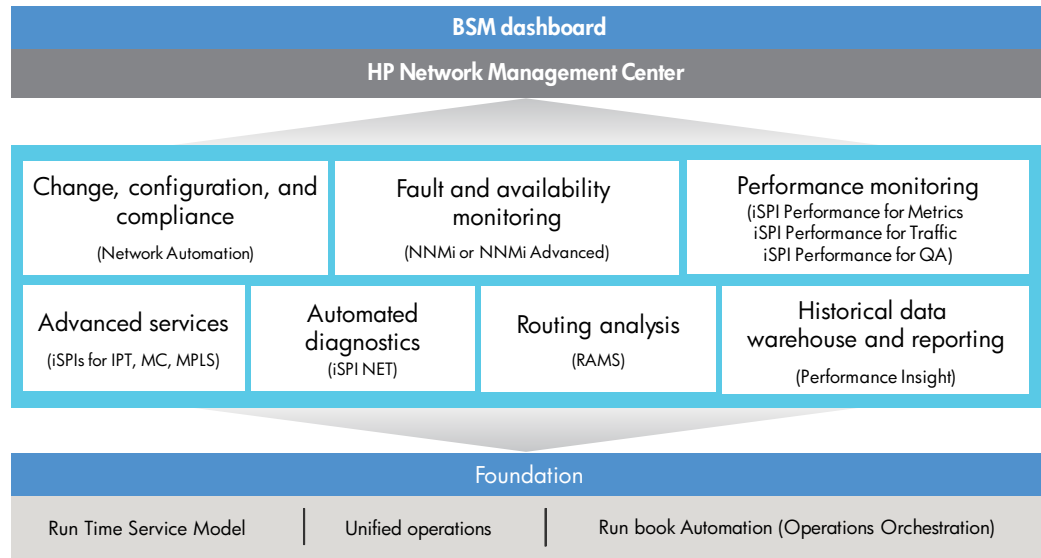
Typical use cases for ANM include rolling out an IP telephony infrastructure, working through a data center consolidation project, managing network traffic at the edge, or just managing the day-to-day churn of a modern network. Here's HP approach to Automated Network Management:

- **First**: We provide unified network fault, availability, performance, configuration, change and compliance as well as diagnostic automation capabilities. This is provided through a single pane of glass for efficient network operations.

- **Second**: We drive increased network service levels and performance via a comprehensive network monitoring solution with integrated remediation and change automation. This is a proactive approach that ties network performance data to topology with baselining and threshold capabilities.

- **Finally**: We provide a solution that enforces compliance and security by making sure that change is process against policy on an ongoing basis. By enforcing ongoing compliance, we can help our customers reduce compliance audit times.

All of this is done in a secure fashion with the use of security groups and Multi-tenancy capabilities. Multi-tenancy features including tenant user-level map and incident security allowing you to manage more customers, departments or sites from one console—providing lower cost-of-ownership.

HP Automated Network Management is a complete solution for all customers from SMB to Enterprise and MSP.

BSM dashboard
HP Network Management Center

Change, configuration, and compliance (Network Automation)	Fault and availability monitoring (NNMi or NNMi Advanced)	Performance monitoring (iSPI Performance for Metrics iSPI Performance for Traffic iSPI Performance for QA)
Advanced services (iSPIs for IPT, MC, MPLS)	Automated diagnostics (iSPI NET) / Routing analysis (RAMS)	Historical data warehouse and reporting (Performance Insight)

Foundation		
Run Time Service Model	Unified operations	Run book Automation (Operations Orchestration)

One tool unifies fault, availability, and performance monitoring

HP Network Node Manager i software (NNMi) is your single solution for managing fault, availability, performance, and advanced network services for your physical and virtualized network infrastructure.

NNMi software offers scalability to meet all customer environments, unified fault and performance polling and a single configuration point to reduce costs and promote efficient operations. NNMi supports a very flexible deployment architecture—Global and Regional distribution supporting Multi-Tenancy allows discovery and monitoring of multiple customers, departments or sites from a single NNMi instance. Continuous Spiral Discovery and monitoring of the environment allow NNMi to adapt to virtualized environments and support Cloud Computing initiatives—NNMi is Cloud ready.

HP enables you to unify fault, availability, and performance monitoring with:

• NNMi and NNMi Advanced

• NNM iSPI Performance for Metrics

• NNM iSPI Performance for Traffic

• NNM iSPI Performance for Quality Assurance (QA)

Focused information specialized for your network

NNMi software provides unmatched insight into advanced network services through NNMi Smart Plug-Ins (iSPIs).

NNM iSPIs for Advanced Network Services deliver consistent presentation of IP telephony, MPLS, and IP multicast information in the context of your network topology. Presenting this type of information in the context of topology allows for easy association of network faults to interruption in advanced services, improved service quality, and end-to-end performance monitoring of the infrastructure used for service delivery.

NNMi software for advanced network services consists of:

• NNM iSPI for IP Telephony

• NNM iSPI for IP Multicast

• NNM iSPI for MPLS

"With Network Management Center, we eliminated the need to have multiple network monitoring tools, which reduced effort and headcount."—Global Top 5 Telecommunications Company, Executive VP of Operations

Source: Dimensional Research, Customers Validate Value of HP Business Service Management Solutions, February 2011

Complete control of your network infrastructure

When you factor in HP Network Automation, you gain even more capabilities with network change and configuration management, the ability to implement both small and large scale changes automatically, and to enforce best practices and compliance with corporate and/or industry standards.

The main goal of our approach to automated network management is to make sure that the desired state of the network—the foundation for all business services—is continuously maintained. To help achieve this desired state, we provide unified network fault, availability, performance, configuration, change, and compliance as well as diagnostic automation capabilities. This is provided through a single pane of glass for network operations. We then drive increased network service levels and performance through a comprehensive network-monitoring solution with integrated remediation and change automation. Finally, we provide a solution that enforces compliance and security by making sure that changes are checked for policy compliance on an ongoing basis.

HP offers a complete set of capabilities to make sure that the desired state of the network is maintained. These capabilities include:

- **Fault and availability monitoring:** Improve network availability with a model-based network-management solution using NNMi or NNMi Advanced

- **Change, configuration, and compliance:** Experience comprehensive network automation spanning all tasks from provisioning and change management to compliance enforcement and reporting

- **Performance monitoring:** Increase operator productivity and efficiency and reduce mean time to recovery (MTTR) using NNM iSPI Performance for Metrics, Traffic, and QA

- **Engineering toolset:** Automate common network engineering and network tool administrators tasks using the NNMi iSPI Network Engineering Toolset

- **Expand the capabilities of the HP automated network management solution with:**
  – Real-time layer-3 WAN optimization management using HP Route Analytics Management software (RAMS)
  – Historical data warehousing and reporting using HP Performance Insight
  – Run book automation using HP Operations Orchestration

Center components

The HP Network Management Center is an integrated solution designed to support ANM.

The core of the Network Management Center is composed of products that provide coverage across network fault, availability, performance, configuration, change, and compliance as well as diagnostic automation capabilities. The solution is integrated to provide greater operator efficiency and effectiveness. Lastly, the products can be extended through add-on modules called Smart Plug-ins for managing advanced services such as IP telephony, MPLS, and IP multicast.

The foundation components of the Network Management Center allow for integration with element management systems, third-party applications, and the HP Universal Configuration Management Database (CMDB)—all of which extend the value and reach of this center.

The products that make up the HP Network Management Center include:

- HP Network Node Manager i software
- HP Network Node Manager Smart Plug-ins
- HP Network Automation software
- HP Route Analytics Management software
- HP Performance Insight

"HP Network Automation downloads rules and standards so our network is always up to date with industry standards. To a bank this is incredibly valuable. Without satisfying these requirements, we would go out of business."—Leading US Bank, Director of Branch Operations

Source: Dimensional Research, Customers Validate Value of HP Business Service Management Solutions, February 2011

"On the whole, HP Route Analytics Management has delivered a high return on investment for Orion. We have enhanced network availability and performance, and moved away from a culture of reactiveness to proactiveness. Plus, we have improved resource utilization and improved productivity. The outcome is that our healthy, optimized network is able to assist us greatly to deliver on our 99.99 percent supply promise to clients—not just today, but well into the future."

—Stephen Hirsch, Control and Protection Systems Development Manager, Orion New Zealand Limited

A complete solution

Comprehensive training

HP provides a comprehensive curriculum of HP software and IT Service Management courses. These offerings provide the training you need to realize the full potential of your HP solutions, increase your network optimization and responsiveness, and achieve better return on your IT investments.

With more than 30 years of experience in meeting complex education challenges worldwide, HP knows training. This experience, coupled with unique insights into HP Software & Solutions products, positions HP to deliver an outstanding training experience. For more information about these and other educational courses, visit **www.hp.com/learn**.

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HP Services

Get the most from your software investment

HP provides high-quality software services that address all aspects of your software application lifecycle needs. With HP, you have access to standards-based, modular, multi-platform software coupled with global services and support. The wide range of HP service offerings—from online self-solve support to proactive mission-critical services—enables you to choose the services that best match your business needs.

For an overview of HP software services, visit **www.managementsoftware.hp.com/service**.

To access technical interactive support, visit Software Support Online at **www.hp.com/managementsoftware/services**.

To learn more about HP Software Customer Connection, a one-stop information and learning portal for software products and services, visit **www.hp.com/go/swcustomerconnection**.

Global citizenship at HP

At HP, global citizenship is our commitment to hold ourselves to high standards of integrity, contribution, and accountability in balancing our business goals with our impact on society and the planet. To learn more, visit **www.hp.com/hpinfo/globalcitizenship**, and for information about the HP Eco solutions program, go to **www.hp.com/ecosolutions**.

To know how HP Network Management Center can help meet your network management challenges, visit **www.hp.com/go/nmc**.
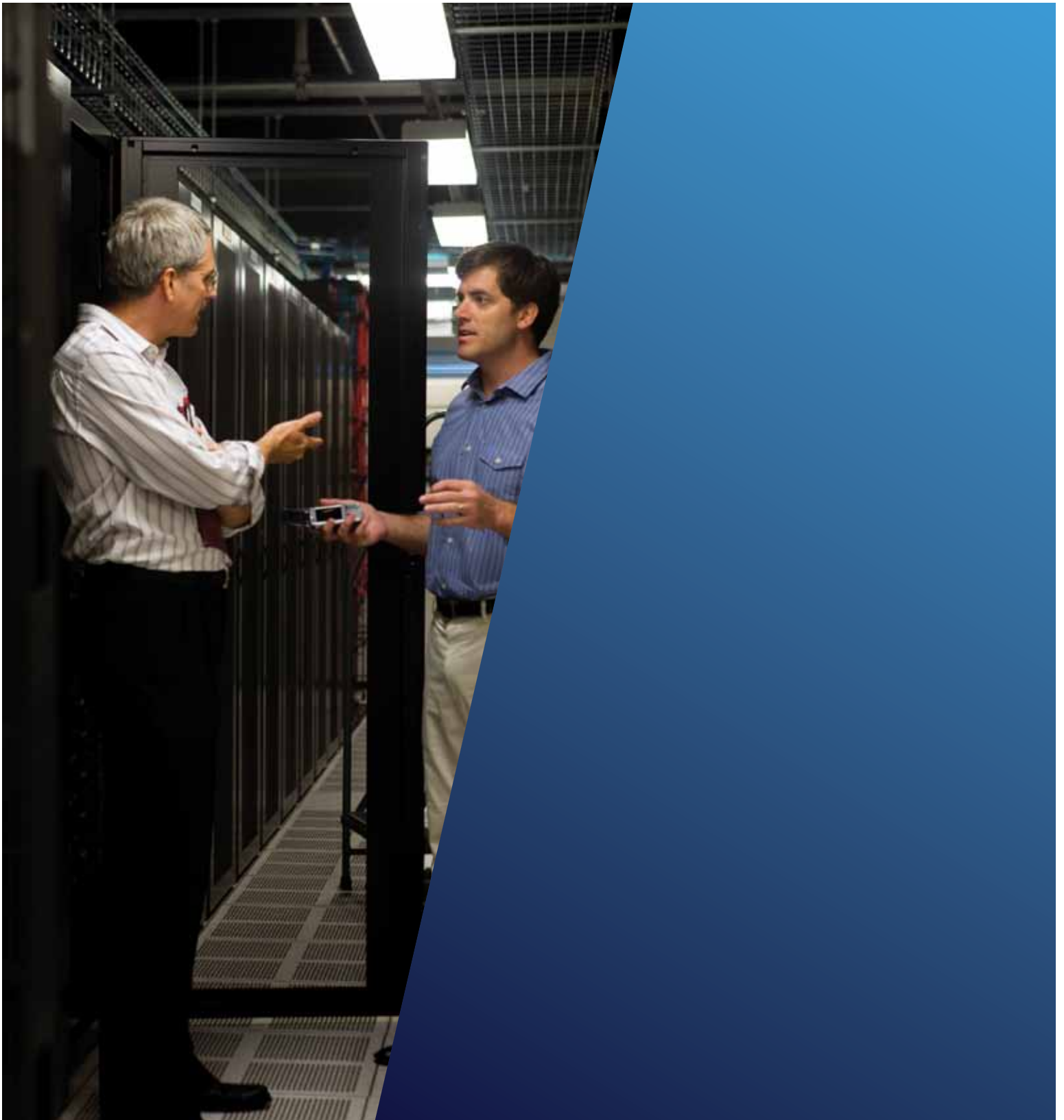
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