HP Network Management

For a complete element-to-business view of your network

Jean-François Muller / September 18, 2013
Agenda:

Network Management Challenges

The Solutions: HP Network Management

ANM Solution Components

Customer results

Closing
Challenges overview
What is Network Management?

You need to:

MANAGE  DELIVER  CONFIGURE  SCALE
PROVISION  STANDARDIZE  TRANSFORM  MONITOR
MANAGE

STRATEGICALLY & PROACTIVELY at the lowest cost possible...

... to continue business growth & increase profitability in the face of these challenges.

...your network from Day 1!
The Network is Becoming More Complex

- Virtualization
- Cloud Initiatives
- Datacenter Modernization
- Converged Networks

Increasing Complexity

More devices
More distributed
Compliance Requirements
Security Mandates
M&A
Wifi / WiMax
VolP
SOA
Video
Traffic
SAN
MPLS
Virtualization
IPv6
Cloud Computing

Traffic

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Business outage?

Blame IT!

- App issue?
- DB issue?
- Server issue?
- Network issue?

The network is the backbone of any IT organization. It is always the first suspect & often the most complex to diagnose and solve.

Who to Blame in IT?

Not sure? It must be the network!

- App issue?
- DB issue?
- Server issue?
- Network issue?
The HP Solution
# The HP Network Management Center

**Unified, integrated, and scalable**

## Strategy, planning and governance

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<th>Executive scorecard</th>
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<td>IT financial management</td>
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<td>Project and portfolio management</td>
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<td>Application portfolio management</td>
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<td>Workforce and vendor management</td>
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## Cloud & hybrid delivery

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<th>Application lifecycle management</th>
<th>IT operations</th>
<th>Security</th>
<th>Information</th>
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<td>Application quality management</td>
<td>Data center automation</td>
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<td>Application governance</td>
<td>Application performance management</td>
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<td>Performance validation</td>
<td>IT service management</td>
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<tr>
<td>System management</td>
<td>Security information and event management</td>
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<td>Asset management</td>
<td>Real-time loading and querying</td>
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<td>Network management</td>
<td>Data protection</td>
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## Security

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<th>Security and risk management</th>
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<td>Software security assurance</td>
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<td>Network security</td>
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## Information

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<th>Big data</th>
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<td>Information lifecycle management</td>
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## Foundation

| Extensibility, orchestration, collaboration and mobility |

## Services and support
Network Management Center

Ensure the health of the network you depend on

Integrated Fault, Performance, Configuration and Compliance

Automated Network Management 9.20 Solution

- **Network Node Manager i**
  - Fault & availability monitoring, standard or advanced

- **Network Automation**
  - Change, configuration & compliance

- **Performance SPIs**
  - Performance monitoring and Trending

- **NET**
  - Engineering Toolset

- More than just Fault Monitoring

- Unique Spiral Discovery and Causal Engine

- Performance and Trending

- Gartner NCCM MQ leader
- EMA Radar – Value Leader
HP Automated Network Management

Unified solution to help meet your business demands

• KPIs for Network Persona
• NM to BSM & ITSM

Run-time Service Model
Comprehensive, automated & up-to-date model for dynamic services

• NOC + SOC
• Unified fault/performance
Overview of ANM’s 4 pillars
Top-Down: KPI’s for Network Personas

ANM integration with HP ITPS Executive Scorecard VP of Operations v. 9.03 provides visibility of:

- Network Devices with Reachability
- Network Devices with Availability
- Utilization of Network Devices
- Average Throughput of Network Devices
- Network Latency
- % of Compliant Data Center Network Devices
Top-Down: ANM integration with HP BSM

• ANM: network infrastructure for HP BSM
• RTSM integrates bottom-up infrastructure & top-down application views
• Operational view of service: key to managing a cloud environment
• ANM: part of RTSM operational database - HP BSM differentiator.
Bottoms-UP: Bringing NOC & SOC Together

• HP ANM integrates NNMi & ArcSight Logger:
  – Correlated & consolidated security and network events
  – Visualization in the service tree
  – Visualization of network performance in context of security events
Bottoms-UP: Unified NM: Security & Scalability

- Enterprise-class secure, automated & efficient heterogeneous management; more departments, sites, customers
- Unified management of cloud, virtual, physical, advanced network services
- Single fault, availability, performance solution
- Automated change, configuration, compliance
- Listen to our customers...

Network Node Manager i
HP Automated Network Management

Network Node Manager i (NNMi)
Fault & availability monitoring, standard or advanced

Network Automation
Change, config and compliance

iSPIs for Performance
Performance monitoring

iSPI Network Engineering Toolset (iSPI NET)
Engineering Toolset

ANM
ANM Advanced

Individual Products/Solutions
HP ANM Standard Solution

Complete control of your network infrastructure

- Single tool for holistic network management
- Improved network availability with a multi-tenant network management solution
- Common view & context for security and network issues
- Increased operator productivity & efficiency; reduced MTTR
- Manage more customers, departments or sites at lower cost

- What is ANM Standard?
  - NNMi 9.20 standard
  - Network Automation 9.20
  - iSPI Performance for Metrics
  - iSPI NET 9.20
  - 100 points for iSPIs

ANM Standard

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HP ANM Advanced Solution

Complete control of your virtualised infrastructure

What is ANM Advanced?

NNMi 9.20 Advanced
• Global Network Management
• IPv6, PaGP, HSRP support
• RAMS integration

Network Automation 9.20
iSPI Performance for Metrics
iSPI NET 9.20
300 points for iSPIs
HP Network Node Manager i \textit{(NNMi)}
Unify fault, availability, and performance monitoring with one application

- Unified monitoring from a single operations console
- Continuous Spiral Discovery guarantees up to date accurate topology & RCA
- Consolidated UI & analysis pane for object drilldown
- Customizable node, user & security groups
- Workflow-based navigation and filtering
HP Network Automation

Drive efficient change, automated configuration and secure compliance

- Automate time-consuming manual processes
- Proactive policy enforcement & audit/compliance reporting
- Improve network security
- Increase network stability & uptime
- Use process-powered automation
HP NNM iSPI Performance for Metrics
Performance reporting foundation for Network Node Manager

- NNMi's secure grouping & multi-tenancy
- Unrivaled scalability
- Workflow-based navigation
- Tightly integrated performance reports
- Schedule key reports
- Extreme scale, unified polling & single configuration point reduces your costs
- Consistent presentation of fault & performance data
HP NNM iSPI Performance for Quality Assurance
Monitor service level quality across your network

- Pre-configured SLA probes for various network elements
- Monitor probes for performance inconsistency
- Display results & exceptions on the NNM console
- Provide trending reports
HP NNM iSPI Performance for Traffic
Detailed insight into application traffic over the network

• Aggregate IP flow records
• Correlates IP flow records with NNMi
• Generates maps to view the traffic flow
• Generates performance reports
HP NNM iSPI Network Engineering Toolset (iSPI NET)

Automate common data collection tasks

- Trap Analytics detect issues
- Save engineering effort
- Export NNMi topology to Visio
- With Operations Orchestration (OO), design custom diagnostics
- Predefined Operations Orchestration flows capture diagnostic detail
HP NNM iSPI for MPLS
Keeping your VPN down time to a minimum

- Manage Multi Protocol Label Switching service entities
- Discover MPLS topologies
- Monitoring of MPLS entities done continuously
- Provide accurate performance trending
- Integrates with NNM iSPI for QA
  - Site-to-site connectivity monitoring & reporting
- Integrated with NNM iSPI for IP Multicast
  - Monitor MVPNs
HP NNM iSPI for IP Telephony
Manage Multivendor deployment of IP Telephony & Unified Communications

- Monitors health, availability, usage, & utilization
- Reports on the usage or utilization & health or availability
- Reports based on Call Detail Records (CDR)
- Monitors Quality of Experience (QoE)
- Built-in multi-tenancy, distribution, & scalability
HP NNM iSPI for IP Multicast
Manage the health of your Multicast network

- Enables NNMi to manage multicast services
- Automatically discovers & monitors multicast enabled nodes, interfaces
- Graphical representation of multicast flow
- Identifies & alerts operators of

HP Route Analytics Management *(RAMS)*
Identify routing & traffic problems at the speed of the network

- Unified monitoring & analysis of IP networks
- Real-time layer 3 network visibility
- Reduce time & effort to analyze IP network problems
- Historical data
- What-if analysis on the as-running network
- RIB comparison
- Comprehensive reports
- Alerts
Integ. Use Case: NNMi Logger

Enhanced problem detection and security event data collection

Problem:
Syslog info from network devices not available in NNMi
Logger cannot receive SNMP v3 traps

Solution:
Logger forwards select set of syslogs to NNMi
NNMi forwards SNMP v3 traps to Logger

Benefits:
Quicker search of archival data
Expand NNMi’s event collection capabilities
NNMi as additional event source for security threats from systems using SNMP v3 protocol
Customer results
analyst kudos
<table>
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<tr>
<th>Challenge</th>
<th>Solution</th>
<th>Benefits</th>
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<tr>
<td>Multiple vendor &amp; in-house network management tools are expensive &amp; not scaling with business</td>
<td>HP Automated Network Management</td>
<td>• Single tool, easy to maintain &amp; easy to use with set of new features</td>
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<td></td>
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<td>• Ability to reach SLAs</td>
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<td>• Maintenance savings up to 70%</td>
</tr>
<tr>
<td>Low network visibility &amp; long MTT, expensive &amp; service-intensive integrated multiple tools</td>
<td>HP Automated Network Management</td>
<td>• Single tool is cost efficient &amp; simple to train/operate</td>
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<tr>
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<td>• Return on investment in just six months</td>
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<td>• Gained real-time network visibility</td>
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“Like most companies, we need a secure network management software offering that will help ensure the maximum network health in support of our critical business service applications which directly enable our medical staff to provide superior patient care. HP Automated Network Management 9 is helping us achieve our converged infrastructure goals & better manage our ever expanding environment with a single network management solution.”

Jason Siegrist  
Technical Manager, Enterprise Management Systems  
Sentara Healthcare
The Analysts Retrospective

Gartner MarketScope for Network Configuration & Change Management, October 2011, Debra Curtis, Jonah Kowall

ANM Rating: STRONG POSITIVE


Only Vendor With NO CONS’
In closing
Why HP Automated Network Management?

The difference

Your network: essential enabler for business
- Increase revenues & reduce expenses
- Reduce liability & risk
- Deliver on SLAs & manage change

ANM: Blueprint for the data center of the future
- Modern, scalable, secure, & integrated
- Model driven analytics
- Automation
- Unified fault & performance
- Heterogeneous & dynamic
- Business aligned
- Integrated NOC-SOC

Delivering an efficient, automated & secure network
Thank you