Welcome

Tech Updates FY10

Network Management Update

Stuart Parham
Today’s Agenda

1. Introduction
2. Management for the Small & Medium Customer
3. CiscoWorks LAN Management Solution
4. Break
5. NAM Overview
6. Roadmaps
7. Q&A
Network Management - Cisco's strategy and vision

Stuart Parham
Agenda

- Strategy & Vision
- 4 Main Initiatives to deliver Strategy
- Questions
Network Management Vision

- Deliver leadership management solutions across commercial, enterprise, and service provider segments
- Accelerate new Cisco technology through automation & improved ROI
- Increase customer satisfaction & positive experience
  - Engineers who manage and deploy Cisco technology
  - End user customers who depend on services using Cisco technology
## Network Management Strategy

<table>
<thead>
<tr>
<th>Vision</th>
<th>Strategy</th>
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<tbody>
<tr>
<td>Deliver leadership management solutions across all market segments</td>
<td>• Go to market around solutions vs. individual products in all market segments</td>
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<tr>
<td>Accelerate new Cisco technology through automation &amp; improved ROI</td>
<td>• Help to ensure success in Unified communication, IP Video, Commercial &amp; Emerging markets</td>
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<td>Increase customer satisfaction &amp; positive experience</td>
<td>• Scaleable &amp; integrated platform</td>
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<td>• Multi-vendor support</td>
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<td>• Common GUI, standard API SDK</td>
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</table>
Four Big Initiatives

1. Solutions Focus
   Addressing specific customer requirements

2. Software Backend Infrastructure
   Maximize selling opportunity and successful delivery

3. Management Sales Specialists
   Account teams accountable for selling management solutions

4. Embedded Network Services Framework
   SONA infrastructure
Summary

We do plan to lead the network management industry

Customers demand solution oriented approaches and we will deliver them

We will build software models that are simple, flexible, and build gradually over time

Our investments now will drive service-oriented networking advancements in the future
Enterprise – Management Focus

Infrastructure Enablement

Data Center Management

Unified Communications Management

Network & Application Performance Management

Security Management

Commercial / SMB Management
NMS positioning

Number of Users

10000's

1000

250

20

100

1000's

Number of Devices

Cisco netManager

LAN Management Solution (LMS)
- RME
- Campus Manager
- Device Fault Manager
- IPM

SMB Products
- CNA, CCA, CCP etc.

Partner delivered
management

Customer self management
Partner delivered remote mgmt
(VPN based)

Customer self management
Management products for small and medium customers

Stuart Parham
What are the Options ?
Introduction to Network Managers

- Network Managers fall into two broad categories
- Embedded Device Managers are web-based configuration, managing & monitoring tools that allow you to configure & monitor features directly on the device (router, switch, firewall etc.). The one thing they all have in common is that they deal with a single device at a time.
- Server Based Managers are web-based configuration, managing & monitoring tools that allow you to configure & monitor several (even hundreds of) devices (routers, switches, firewalls etc.) at a time.
Embedded Device Managers
Embedded Device Managers Introduction

- Embedded Device Managers are web-based configuration, managing & monitoring tools that allow you to configure (typically) LAN and WAN interfaces, routing, Network Admission Control (NAC), Network Address Translation (NAT), firewalls, Intrusion Prevention System (IPS), Virtual Private Networks (VPNs), and other features directly on the device (router, switch, firewall etc.).

- Some, such as CCP Express, ASDM, and SDM Express, are installed in the device flash memory and allow you to give a router, switch or firewall basic LAN, WAN, firewall and NAT configuration.

- Some such as SDM can be installed on a PC, or in router flash, disk, or slot memory. These usually allow you to give a router or firewall more comprehensive device configuration.

- The one thing they all have in common is they deal with a single device at a time.

- Embedded Device Managers are very often used by Server based managers to extend there capabilities for device specific features.
Cisco Configuration Professional Express

Integrated Management of Embedded Services on Cisco ISR Routers
Cisco Configuration Professional Express

Out-of-the-box router configuration

- Cisco Configuration Professional Express is a slimmed down version of the Cisco Configuration Professional GUI tool embedded in the router's flash that helps Cisco partners and customers with out-of-the-box configuration of access router LAN/WAN interfaces and some minimum Cisco IOS Software security features.

- Offers a quick graphical summary of router hardware, software, and primary router services such as VPN, firewall, quality of service (QoS), and so on.

- Offers wizard-based deployment of router features.

- Offers quick and easy router deployment for basic WAN access configurations.

- Ideal router deployment tool for non expert users.
Cisco CP Express Launch Page

CPEXpress for 10.10.10.1 will open in another window. Do not close this window until you exit CPEXpress.

Applet com.cisco.nm util.sg2.loader started
Cisco CP Express Overview Window
Cisco CP Wizard Pages

Welcome to the Cisco CP Express Wizard

The Cisco CP Express wizard will help you connect your router to the local network and to the Internet. After you complete the wizard screens, you can review your settings and return to any screen to change settings before delivering the settings.

If you use Cisco Network Services (CNS) to configure routers in your network, you can specify the CNS parameters that will enable the router to contact the CNS.
Cisco Adaptive Security Device Manager (ASDM)

Integrated Management of Embedded Services on Cisco Firewalls
Cisco Adaptive Security Device Manager (ASDM) Overview

- Cisco ASDM is the integrated graphical interface of the Cisco ASA and PIX Security Appliances
- ASDM delivers full device management including:
  - **Rapid Configuration** enabled by an intuitive graphical user interface, wizards, and the ASDM Assistant
  - **Powerful Diagnostics** including Real-Time Log viewer, Packet Tracer, and Packet Capture.
  - **Real-time Monitoring** provided by dynamic Dashboards, Table Views, and Traffic Graphing.

- **Startup Wizard**
- **IPsec VPN Wizard**
- **SSL VPN Wizard**
- **High Availability & Scalability Wizard**
- **Packet Capture Wizard**
- **Software upgrade Wizard**
Cisco ASDM Feature Highlights

Device Dashboard

In-place and drag-and-drop rule editing
Other Cisco Embedded Managers

Integrated Management of Embedded Services on other Cisco products
Cisco Router and Security Device Manager (SDM) Express

Routers that ship with just SDM Express (and the SDM CD) show this SDM Express home page.

Similar features to CCP-Express.

Being replaced over time by Cisco Configuration Professional Express (CCP-E)
Other Embedded Managers you may come across

- **Cisco Switch Device Manager**
  Managing Cisco Catalyst Switches – from the Express 500 series to the 4500 series.
  Very similar to CCP/SDM, but designed for our Switches

- **Cisco Unity Express Manager.**

- **Quick Configuration Tool (QCT)**
  Managing CME and CUE.

- **Cisco Cluster Management Suite (CMS)**
  Managing Cisco Catalyst switch clusters
Server Based Managers
Server Based Managers Introduction

- Server Based Managers are web-based configuration, managing & monitoring tools that allow you to configure & monitor several (even hundreds of) devices (routers, switches, firewalls etc.) at a time.

- Some, such as CCP, are designed for very small “communities” of devices (typically 5 or so).

- Some, such as Network Assistant and netManager, are designed for much larger “communities” of devices (typically 20 to 100 plus). These usually also have a wider range of managing & monitoring features.
Cisco Small Business Network Management

Cisco Network Assistant
Cisco Configuration Assistant
Cisco Configuration Professional
Introduction


- Today's businesses depend more than ever on network-based applications and communications tools. However, modern business networks can encompass a wide range of wired and wireless networking, security features, and voice technologies.

- Making sure the network is configured and operating properly is a complex, costly, and time-consuming task.

- For value-added resellers that support small business customers or smaller organizations with limited IT resources, configuring all of the routing, switching, wireless, and voice solutions in the network for optimal security and performance can be especially challenging.

- Cisco has created a set of comprehensive, easy-to-use network configuration tools that address these challenges.
Cisco Network Assistant

Centralized Management of Embedded Services on Cisco Catalyst Switches
Cisco Network Assistant Product Positioning

- Software based solution (Win 2003, Win-XP or Vista Ultimate) to configure & monitor Cisco Catalyst Intelligent switches & via Embedded managers a wide range of Small Business class deployments.
Cisco Network Assistant Introduction

- Cisco Network Assistant is a PC-based network management application optimized for LANs of small and medium-sized businesses with up to 250 users.

- Cisco Network Assistant offers centralized management of Cisco switches, routers, and WLAN access points. It supports a wide range of Cisco Catalyst Intelligent switches from Cisco Catalyst 2950 through Cisco Catalyst 4506.

- Through a user-friendly GUI, users can configure and manage a wide array of switch functions and cross-launch individual device managers such as Cisco Configuration Professional Express on Cisco routers or the Cisco wireless access points device manager.

- Cisco Network Assistant supports 40 devices in any combination. The number of access points and IP phones is limited by the number of switch ports in your network.

- Point and Click Software Upgrade the Cisco IOS Software on Cisco Catalyst switches

- Cisco Network Assistant is available for download at no cost.

- Cisco Network Assistant manages only Cisco devices.
Cisco Network Assistant features:

- **Configuration**
  
  Intuitive GUI, designed to simplify complicated and repetitive network management tasks. Configuration tools and interactive mode make configuring port settings, quality of service (QoS), security, and access control lists (ACLs) on switches easy.

  Front panel view, where ports can be selected across multiple switches, and parameters (such as virtual LAN) can be applied in a few mouse clicks.

- **Monitoring**
  
  Automatically discovers devices (switches, routers, wireless access points, IP phones) that are in the local network and displays them with their interconnections. This physical topology also provides status and detailed information about device behaviour and connections, giving the administrator a full view of the network.

  Front panel view displays the state, duplex, and speed of switch ports.

  Provides detailed reports on switch inventory, ports, QoS, and ACL statistics.

  Graphically represents bandwidth, link, and QoS utilization.
Cisco Network Assistant

1) Member devices
2) Check boxes to show devices
3) Settings popup window
Cisco Network Assistant

Managed and Supported Devices

- Cisco Catalyst 2350 Series
- Cisco Catalyst 2940, 2950, 2955 Series
- Cisco Catalyst 2900XL & 3500XL Series
- Cisco Catalyst 2970, 2975 & 2960 LAN Lite Series
- Cisco Catalyst 3550, 3560 & 3560-E Series
- Catalyst 3750 & 3750-E Series
- Cisco Catalyst 4500 Series and 4500 E-Series
- Catalyst Express 500 & 520 Series
- Industrial Ethernet Switches
- Cisco Catalyst 30X0 Switches for HP, Dell, Fujitsu Siemens & IBM Blade Centers
- Stratix 8300 switches
Cisco Network Assistant

Devices Supported via their own embedded managers

- Routers
  - Cisco 800 Series Routers (for small offices and home offices)
  - Cisco 1700 Series Modular Access Routers
  - Cisco 1800, 1900 Series Integrated Services Routers
  - Cisco 2600 Series Multiservice Platforms
  - Cisco 2800, 2900 Series Integrated Services Routers
  - Cisco 3700 Series Multiservice Access Routers
  - Cisco 3800, 3900 Series Integrated Services Routers
  - Cisco EtherSwitch Modules for Integrated Services Routers

- Additional Devices
  - Cisco PIX 515E Security Appliance
  - Cisco ASA 5505 and ASA 5510 Adaptive Security Appliances
  - All Cisco Aironet 1100 Series
  - All Cisco Aironet 1200 Series
Cisco Network Assistant is available in six additional languages:
- German
- Spanish
- French
- Italian
- Japanese
- simplified Chinese

All portions of Cisco Network Assistant are translated; Cisco IOS Software commands to and from a remote device will remain in English.

Localized versions of Cisco Network Assistant are available for download at www.cisco.com/go/cna.
Cisco Configuration Assistant

Cisco Configuration Assistant Product Positioning

- Software based solution (Win-XP or Vista Ultimate) to configure & monitor Cisco Smart Business Communications System (SBCS) class deployments

CCA | netManager | LMS

SMB | Mid-Market | Enterprise

250 users | 1500 users

Target market < 25 devices.
Cisco Configuration Assistant

- Cisco Configuration Assistant is an integral component of the Cisco Smart Business Communications System (SBCS). This integrated system of voice, security, and wireless networking products provides an affordable, comprehensive communications solution that is easy to deploy and use while allowing for business growth.

- With the Cisco Smart Business Communications System, even smaller organizations can provide employees and customers with highly secure anywhere, anytime access to the information they need to communicate and interact more effectively.

- Cisco Configuration Assistant provides comprehensive configuration, deployment, and ongoing network management support for the entire line of products in the Cisco Smart Business Communications System.

- Cisco Configuration Assistant is available for download at no cost.
Cisco Configuration Assistant

- Cisco Configuration Assistant simplifies the task of configuring, deploying, and administering Cisco small business network solutions.

- Designed specifically for small business networks serving up to 100 users, this PC-based application with a simple graphical user interface (GUI) discovers all devices in the network and can help configure Cisco small business routers, switches, and wireless access points and controllers as well as Cisco Unified Communications call-routing and voicemail systems.

- After the network is deployed, Cisco Configuration Assistant can generate status reports, synchronize passwords, and upgrade software across all of the Cisco small business network devices.

- Together, these capabilities improve the security and performance of the network and substantially reduce the time the administrator must devote to deploying and configuring the network.
Cisco Configuration Assistant

- **Switch configuration**: Cisco Configuration Assistant provides a quick and easy way to configure ports on switch devices. The tool enables dynamic virtual LAN (VLAN) assignment of voice and data traffic and simplifies activation of quality of service (QoS), security, and Power over Ethernet (PoE) features. The Smartports feature in Cisco Configuration Assistant allows each switch port to be customized to match the device that is connected, whether it is an IP phone, PC, access point, router, or LAN switch.

- **Voice configuration**: Cisco Configuration Assistant can interact with and configure key voice applications and devices. Simply access the telephony services through the phone icon on the Cisco Configuration Assistant dashboard to easily set up and configure the phone system users and phones. Cisco Configuration Assistant supports phone system features such as analog and digital ISDN interface, Session Initiation Protocol (SIP) trunk, dial plans, auto attendant, and hunt groups.

- **Security configuration**: Cisco Configuration Assistant allows users to activate the most commonly used Cisco IOS Software security features, including Network Address Translation (NAT), firewalls, and VPNs. The tool guides users to select appropriate parameters that meet the security needs of their network, based on Cisco best practices for network security.
Cisco Configuration Assistant

System Dashboard in Cisco Configuration Assistant
Cisco Configuration Assistant

The Topology View graphically represents the types of devices in the network and provides detailed information about device status and physical connections.
CCA Feature Highlights

- Multiple network views:
- Dynamic discovery:
- VLAN highlighting:
- Improved network visibility with continual monitoring:
- Simplified network reporting:
- Enhanced security for configuration and monitoring activities:
- Drag-and-drop upgrades:
- Dynamic application updates:
- Notification of issues:
- Internet access for partners and guests:
- Simplified troubleshooting:
- Intelligent port configuration:
- Simplified network security settings:
- Cisco Configuration Assistant manages only Cisco devices:
Cisco Configuration Assistant

Cisco Smartports Advisor allows roles to be assigned to specific ports and automatically optimizes performance for the attached Cisco device.
Cisco Configuration Assistant

Maximum Supported Devices
- Cisco Configuration Assistant supports up to 25 devices in a small office network, including:
  - Twenty Catalyst Switches
  - Combination of five Cisco Unified Communications 500 Series or Secure Router 500 Series
  - Ten autonomous wireless access points
  - Two wireless controllers
  - Multiple Cisco Unified IP Phones (number limited to the number of Unified Communications 500 Series user licenses and switch ports in the network)

Cisco Configuration Assistant Managed and Supported Devices
- Cisco Unified Communications 500 Series for Small Business
- Cisco 520 Series Secure Router
- Cisco 8x0 Series Integrated Services Routers
- Cisco 521 Wireless Express Access Point
- Cisco 526 Wireless Express Mobility Controller
- Cisco Catalyst Express 520 Series Switches – all models
- Cisco ESW 500 Series switches – all models
CCA Localization

- Cisco Configuration Assistant is available in seven additional languages:
  - German
  - Spanish
  - French
  - Italian
  - Japanese
  - Simplified Chinese
  - Russian

- All portions of Cisco Configuration Assistant are translated; Cisco IOS Software commands to and from a remote device will remain in English.

- Localized versions of Cisco Configuration Assistant are available for download at [www.cisco.com/go/configassist](http://www.cisco.com/go/configassist).
Cisco Configuration Professional

Centralized Management of Embedded Services on Cisco Integrated Services Routers and WAN Edge Routers.
Cisco Configuration Professional Product Positioning

- Software based solution (Win-XP or Vista Business and Ultimate Edition) to configure & monitor Cisco Integrated Services Routers in small business class deployments
Cisco Configuration Professional Overview

- Cisco Configuration Professional simplifies router, security, Unified Communications, wireless, WAN and basic LAN configuration through GUI-based easy-to-use wizards.

- The workflows in Cisco Configuration Professional help small to medium-sized business customers and Cisco partners to quickly and easily deploy, configure, and monitor a Cisco router without requiring knowledge of the command-line interface (CLI).

- Cisco Configuration Professional configurations have been approved by the Cisco Technical Assistance Center (TAC), which means that configuration checks built into Cisco Configuration Professional reduce errors.

- Cisco Configuration Professional also helps customers avoid potential network issues by proactively monitoring router performance statistics, system logs, and security logs in real time.

- Cisco Configuration Professional offers smart wizards and advanced configuration support for Cisco LAN and WAN interfaces, Network Address Translation (NAT), stateful and application firewall policy, IPS, IPSec VPN, QoS, and NAC policy features.

- Cisco Configuration Professional is available for download at no cost.
What can Cisco Configuration Professional do?

Configuration support for

1. Routing
2. Security
3. Voice
4. Switching

Can handle up to 40 devices

Supported Devices:
ISR 8xx, 1800, 2800, 3800. ISR G2 1900, 2900, 3900
7204VXR, 7206VXR, and 7301 Routers

Supported IOS version => 12.4(9)T
CCP Feature Highlights

- Comprehensive remote management
- At-a-glance router status views
- Router security audit
- One-step router lockdown
- Smart wizards for most frequent router and security configuration tasks
- WAN and VPN troubleshooting
- QoS policy and Network-based application recognition (NBAR)
- Real-time monitoring and logging
- Real-time network and router resource monitoring
- Role-based access
- Secure Sockets Layer (SSL) and Secure Shell (SSH) remote access
- Cisco Configuration Professional can manage 5 devices per community.
- A community is a group of devices that are managed together.
- Cisco Configuration Professional manages only Cisco devices.
CCP Integrated Security Configuration

- When deploying a new router, Cisco Configuration Professional users can configure a Cisco IOS Software firewall quickly using the best practices recommended by the International Computer Security Association (ICSA) and the Cisco Technical Assistance Center (TAC).

- An advanced firewall wizard allows a single-step deployment of high, medium, or low application firewall policy settings. Cisco Configuration Professional users can configure the strongest VPN defaults and automatically perform security audits.

- In addition, Cisco Configuration Professional users can perform one-step router lockdown for firewalls and one-step VPN for quick deployment of secure site-to-site connections.
Zone Based Firewall

- Create, edit and delete “zones”
- Applies firewall policies across “zones”
- Support deep packet (protocol and application) inspection
- Associate URL filter to policies
- Supports monitoring of policies
CCP Integrated Voice Configuration

- Cisco Configuration Professional can easily setup your Cisco IP telephony system by configuring the Cisco Unified Communications Manager Express call processing and Cisco Unity Express voicemail applications embedded in your Cisco integrated services router.

- The customer can quickly configure features required for an initial telephony deployment including users, phones, extensions, dial-plans, analog and digital trunks, or Survivable Remote Site Telephony. The user can also configure several voice system features such as paging groups, pickup groups, adhoc conferencing and night service.

- When invoked on an already configured router, Cisco Configuration Professional allows an administrator to easily make day-2 changes such as moves, adds and changes of phone users on the deployed configuration.

- Cisco Configuration Professional uses the best practices recommended by the Cisco Technical Assistance Center (TAC) while generating all configurations. Simply access the voice services on the Cisco Configuration Professional dashboard to easily set up and configure the system.
Communications Manager Express

- Configure the Cisco Unified Communications Manager Express call processing and Cisco Unity Express voicemail applications.
- Quickly configure features required for an initial telephony deployment including users, phones, extensions, dial-plans, analog and digital trunks, or Survivable Remote Site Telephony
- Easily make day-2 changes such as moves, adds and changes of phone users on the deployed configuration.
- Uses the best practices recommended by the Cisco Technical Assistance Center (TAC). Simply access the voice services on the Cisco Configuration Professional dashboard to easily set up and configure the system.
Monitor Mode

- **Overview**
  Real-time router resources and service status

- **Interface Status**
  LAN/WAN traffic, bandwidth usage charts

- **Firewall Status**
  Log messages regarding connections denied by the firewall

- **VPN Status**
  Detailed statistics about VPN connections

- **QoS, NBAR**
  Application traffic monitoring and QoS policy usage

- **Logging**
  Contains a log of events categorized by severity level, like a UNIX syslog service
CCP v2.0 Localization

- Following language support is available for CCP v2.0:
  - English
  - Japanese

- All other languages will be supported via localization toolkit. Contact ccp-feedback@cisco.com for more information on toolkit availability.
Cisco Router and Security Device Manager (SDM)

Integrated Management of Embedded Services on Cisco Routers
Cisco SDM: Combining Ease of Use and Application Intelligence

Cisco SDM is an intuitive, Web-based tool for easy and reliable deployment and management of services on Cisco IOS routers.

- **Ease of use**: Smart wizards, built-in tutorials
- **Application intelligence**: Knowledgebase of TAC-approved IOS configurations
- **Integrated services management**: Routing, switching, security, wireless, QoS
- **Cisco SDM** is a tool for configuring, managing, and monitoring a single Cisco router.

**Being replaced over time by Cisco Configuration Professional (CCP)**
# Cisco Routers and IOS Release Support

## SDM Supported Platforms and Minimum Supported IOS Versions

<table>
<thead>
<tr>
<th>SDM Supported Platforms</th>
<th>Minimum Supported IOS Versions</th>
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<tbody>
<tr>
<td>SB 101, SB 106, SB 107</td>
<td>12.3(8)YG</td>
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<tr>
<td>831, 836, 837</td>
<td>12.2(13)ZH, 12.3.2XA, 12.3(2)T</td>
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<td>851, 857, 871, 876, 877, 878</td>
<td>12.3(8)YI</td>
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<td>12.2(15)ZL, 12.3.2XA, 12.2(13)T3</td>
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<td>1801, 1802, 1803, 1811, 1812, 1841</td>
<td>12.3(8)YI, 12.3(8)T4</td>
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<td>2610XM, 2611XM, 2620XM, 2621XM, 2650XM, 2651XM, 2691</td>
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<td>3825, 3845</td>
<td>12.3(11)T</td>
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<tr>
<td>7204VXR, 7206VXR, 7301</td>
<td>12.3(2)T, 12.3(3)M</td>
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Cisco Medium Business Network Management

Cisco netManager
CiscoWorks
LAN Management Solution
CNM Product Positioning

- Software based solution (Win 2003 or Win-XP) to monitor data and (optionally) voice elements of commercial class deployments

![Diagram showing product positioning]

Target market up to 100 devices, 100 AP’s & 1000 IP Phones
Cisco netManager Solution

- Solution provides end to end network management capability for *Data, Voice, Wireless and Security*
- Tightly integrated approach to network management
- Customers can mix and match technologies in solution
- Currently two products in Cisco netManager solution

*Cisco netManager – IP Infrastructure (Manage Data Networks)*

*Cisco netManager – Unified Communications (Manage Voice & Data Networks)*
Cisco netManager –
IP Infrastructure
(CNM-IP)
Cisco netManager - IP Infrastructure
Manage your network proactively and efficiently

<table>
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<tr>
<th>Discovery &amp; Visualization</th>
<th>Monitoring</th>
<th>Alerting and troubleshooting</th>
<th>Analyze network trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Discover the network and collect detailed device inventory</td>
<td>• Monitor network status using a customizable dashboard</td>
<td>• Proactive and reactive alerts sent via: email, SMS, SNMP Traps, windows pop-ups, launching programs, etc</td>
<td>• Extensive, out of the box pre-configured reports, including various top 10 reports</td>
</tr>
<tr>
<td>• Support for broad range of Cisco devices (routers, switches, PIX firewalls, IDS, ASA and Access Points)</td>
<td>• Get real-time visibility into key performance metrics such as CPU, interface, and response time for network devices</td>
<td>• Rapid troubleshooting using contextual diagnostics (ping, traceroute, DNS lookup)</td>
<td>• Analyze short-term and long-term historical network trends</td>
</tr>
<tr>
<td>• Get visibility into servers, workstations, printers and network devices</td>
<td>• Flexible monitoring, users select monitoring parameters</td>
<td></td>
<td>• Easily extend reports to meet specific network needs</td>
</tr>
<tr>
<td>• Visualize the network using physical and service level* view</td>
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</table>

*Service level view provides a visual representation of network performance and resource utilization at a high level of abstraction.
CNM-IP Overview

- Software based solution (Win 2003 or Win-XP) to monitor data elements of Medium Business class deployments
- Auto discovery of detailed inventory and capability (up to 10 branches)
- Actionable network level views in topology
- Contextual performance monitoring, alerting, reporting and trending
- Notification services: email, SMS and SNMP traps.
- Basic diagnostics like ping, trace route, telnet etc
- Support for broad range of Cisco platforms
CNM-IP Overview (Cont)

- Multi-vendor devices and Small Business office devices (workstation, server, printers) monitoring, (optional) Cisco Unified Communication devices
- Licensed as “Data only” or “Data + Voice”
- Built on top of Ipswitch “WhatsUp Gold V11”
- Replacement to CiscoWorks SNMS (Small Network Management Solution)
- Self-management only. No Reseller interface. Reseller may use for remote management (VPN based).
- Available with "Limited" License up to 50 devices & 50 Wireless AP’s or “Standard” License up to 100 devices & 100 Wireless AP’s
Cisco netManager-IP Home Page

- Web based real-time (auto refresh) portal
- Default layout out of box: Customizable by user
- High level overview of network operational status

Cisco netManager

Monitoring Dashboard

Device Summary

Device Type

CPU Utilization - over 80%

Interface Bandwidth Utilization - over 80%

Memory Utilization - over 80%

Ping: Availability - under 50%

Ping: Response time - over 500ms
CNM-IP Physical Network Level Views

- Actionable, real-time network level view with physical connectivity and link up/down status
- Current operational status of devices
- Context sensitive drill down details and diagnostic tools
- Device search, event summary and scroll window for latest event details
Cisco netManager – Unified Communications (CNM-UC)
Cisco netManager – Unified Communications

netManager – UC includes all features in netManager – IP, and in addition, provides support for Unified Communications

- Real-time portals for network status/UC status
- Support for both data and UC applications*
- Actionable service level view for UC deployments (Cluster views, gateway and application operational status)
- Phone and device inventory reports: phone status, phone search
  - SCCP and SIP Phones
  - Phone status change reports
- Available with Licenses as CnM-IP plus up to 250 phones, with 250 phone increments to 1000 phones

* UC support includes Cisco Unified Communications Manager, Cisco Unified Communications Manager Business Edition, Cisco Unified Communications Manager Express, Cisco Unity, Cisco Unity Express, Cisco Unity Connection, Cisco Unified Contact Center Express, Cisco Unified Presence Server, Cisco Unified MeetingPlace Express and IP phones
Cisco netManager - UC Home Page

- Web based real-time (auto refresh) portal
- Similar to netManager-IP, but with addition of Service Level Info
Service Level View

Cisco netManager

Service Level View as of Mon Oct 15 15:14:12 PDT 2007

Showing: Unified Communications Devices > H2CCM42Cluster1

Recent Events

Device Status

Phone Status

Phone Search
CiscoWorks
LAN Management Solution
LMS Product Positioning

- Software based solution (Win 2003) to monitor data elements of commercial class deployments
Additional Resources

- Adaptive Security Device Manager
- Router and Security Device Manager
  - http://www.cisco.com/go/sdm
- Cisco Network Assistant
  - http://www.cisco.com/go/cna
- Cisco Configuration Professional / Cisco Configuration Assistant
  - http://www.cisco.com/go/ciscocp
  - http://www.cisco.com/go/configassist
- netManager
  - www.cisco.com/go/netmanager
  - www.cisco.com/go/cnmuc
- CiscoWorks LMS
  - http://www.cisco.com/go/lms
- Evaluation Downloads
  - http://www.cisco.com/go/nmsevals
Q and A