CiscoWorks2000 Solutions Update
Session 2600
Agenda

- Product Strategy
- Product Update
- Futures

Enterprise Management Strategy

Building the Management Intranet

Broad Range of Network and Policy Management Solutions

Partnerships
Management Intranet

Heterogeneous Management Servers

xmlCIM

Device ID

Cisco Management Solutions

Service Management

Security

Quality of Service

Service Monitoring

Network Management

CiscoWorks 2000

Policy Management

Content Aware Networking

Core Networking Services

Cisco IOS Software

IP Addressing

Directory Services

Infrastructure
CiscoWorks2000

A Family of Internet-Powered Network Management Products

Management Intranet

- LAN Mgmt
  - Apr '00

- Routed WAN
  - Nov '99
  - Frame Relay
  - Internet

- Service Management
  - June '00

- Voice Management
  - Mar '00

Partners

Network Instrumentation
CW2000 Routed WAN Management Solution

- Comprehensive solution for WAN and routed infrastructure
- Includes:

<table>
<thead>
<tr>
<th>Now</th>
<th>CY '00</th>
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<tbody>
<tr>
<td>RME 3.1</td>
<td>3.2</td>
</tr>
<tr>
<td>CV/Web 5.1</td>
<td>5.2</td>
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<tr>
<td>ACL Manager 1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>IPM 2.1</td>
<td>2.2, 2.3</td>
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<tr>
<td>Traffic Director 5.7</td>
<td>TrafficMonitor 1.0</td>
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Resource Manager Essentials

- Inventory Manager
  Complete Cisco asset management with flexible reporting
- Software Image Manager
  Software lifecycle management for most Cisco products
- Configuration Manager
  Version control, archival, and reporting
  Network-wide changes and config editor
- Change Audit Services
  Single interface for all hardware, software, and configuration changes
Resource Manager Essentials

- **Syslog Analyzer**
  Distributed collection, flexible reporting, and action scripts to pinpoint network incidents

- **Availability Manager**
  Basic monitoring of devices

- **Diagnostics and tools**
  Troubleshoot device connectivity
  Desktop integration of partner and customer applications
  User customizable network-wide show command tool

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CiscoView/Web

- Web-based browser interface for all Cisco platforms
- Distributed and multi-user enabling collaborative management
- Web integration into Network Management systems (e.g. HP OV, Tivoli Netview, etc.) through Network Management Integration Module (NMIM)
Internetwork Performance Monitor

- **WAN troubleshooting**
  Measures hop-by-hop response time, availability, jitter, and drops
  Provides real-time and historical reports

- **Utilizes Service Assurance Agent embedded in Cisco IOS**
  Validates and measures TCP, UDP, HTTP, VoIP, DNS, ICMP with QoS awareness

ACL Manager 1.1

- **Web-based application for all Cisco IOS platforms**
- **Extremely scalable, network-wide operations**
- **Dramatically reduce the time to design, implement, and deploy**
- **Templates for consistent deployment of services, addresses, and access policy**
TrafficDirector

- Wide range of probes to instrument the wide area network including:
  - Fractional T1 up to T3 support
  - T1/D and E1/D for integrated CSU devices
  - Channelized T1/E1
  - DS3 ATM

- Application monitoring with RMON2 and ART MIB support

CW2000 Service Management Solution

- Extensible solution for service level management of VPNs, VoIP, etc.

- Includes:
  - Service Level Manager 1.0
  - SLM XML-based SDK for 3rd party partners
  - Partner program with interop lab
Service Level Manager
End to End Scenario

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<tr>
<th>SC#</th>
<th>Verified By</th>
<th>Source Destination</th>
<th>How Tested</th>
<th>SLAM SLA Type</th>
<th>Comments</th>
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<td>LAN-Users to wwwin-HR</td>
<td>HTTP</td>
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<td>PING</td>
<td>ICMP</td>
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<td>VPN-Gwy-SFO—RTP, Irvine, Mass</td>
<td>Jitter</td>
<td>VolP</td>
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Complete Service Management

CONFIGURE

VERIFICATION

TROUBLESHOOT

QPM

CW2000-SMS

CW2000-IPM

Device

Network Wide

QoS Network Policy Configuration

Cisco IOS—QDM

Per-Device Traffic Class Configuration

Service Level Troubleshooting

Cisco IOS—QDM

Per-Device Traffic Class Monitoring
CiscoWorks2000 Service Level Management Partners

- Developing integration using web-based XML interfaces

- Provides customers with total end-to-end service management environment

CW2000 LAN Management Solution

- Comprehensive solution for multi-layer switching
- Includes core mgmt:
  - RME
  - CiscoView
  - Traffic director
- Includes campus manager:
  - Topology
  - User tracking
  - ATM management
  - VLAN manager
  - PathAnalysis
- Includes content flow monitor

LAN Management Apr '00
CW2000 Campus Manager
Version 3.0

- Web-based applications
- Launch from CW2000 desktop with security
- Current CWSI functionality
  Topology, VLAN management, ATM management, User tracking, RMON management
- New functions
  Real time path trace
  Topology map containers
  VLAN access port configuration

Topology

- Cisco discovery and Layer 2/3 topology view
- Large topologies collapsed into containers (router boundary, VTP, ATM, fabric, etc.)
- Pop up links reports
- Topology services selector
  User chooses views and functions and interface launches devices in context with map
Topography Discrepancy Checks

- Inclusion of more topology checks focused on Layer 2 configuration issues
- User configurable
- Physical and logical errors in map
- Report of duplicate addresses

Path Trace Analysis

- On-demand path analysis and representation
- User tracking integration for end point location
- L3 path optimized (NetFlow) path displays
- L3 trace route across routers
- L2 path from topology discovery
- Tabular or graphic display of results
User Tracking

- Identify end-user stations and connection to the network
- Log-in names identified for MS and Novell environments
- Supports up to 30,000 end-users
- Dynamic export utility to extract data

Content Flow Monitor

- Web-based application for monitoring local director and Catalyst 6000 flow management
- Provides core fault monitoring and performance management
CiscoWorks2000 Voice Manager Solution

- VoIP, VoFR and VoATM dial plan management
- Supports Cisco 1750, 3600, 2600, MC3810, 5300, 7200 and gatekeeper support
- Enhanced reporting through Telemate partnership
- Scalability/performance improvements over 1.0

Network Instrumentation

- LAN probes
- Catalyst network analysis module
- WAN probes
LAN Switchprobes

- Shared LAN: Ethernet, Token Ring, FDDI
- Switched LAN: Fast Ethernet, Fast EtherChannel, Gigabit
- Gigabit Ethernet
  - Provides wire-rate RMON1
  - 2-port, single bus master architecture
  - Performance acceptable for most Gig links

Catalyst Series Network Analysis Module

- Dedicated traffic analysis module for any catalyst 5000 and 6000 series chassis
- Full RMON1 and RMON2
  - Host and conversation tables for the link, network and application layers
  - Filter/capture, protocol distribution and address mapping
  - Provides independent RMON/RMON2 groups for each SPAN source
- NetFlow monitor
  - NetFlow data export-to-RMON2 proxy for a NFFC in same chassis
- VLAN monitoring for ISL and 802.1Q
  - Provides individual RMON/RMON2 statistics for each VLAN on a trunk link
WAN SwitchProbes

- Frame Relay
- T1/E1
- T1D/E1D
- Channelized T1/E1
- HSSI—T3/E3
- DS3 ATM

Policy Management

- Advanced management of intelligent network services
- Products:
  - QoS Policy Manager
  - Cisco Secure Policy Manager
  - User Registration Tool

Cisco Intelligent Network
CiscoSecure Policy Manager

- Policy-based configuration management system for network perimeter security and site-to-site IPSec VPNs
- Supports PIX and Cisco IOS platforms
- Firewall and VPN configuration management
- Windows-based system with Web reporting

Policy-Based Security

QoS Policy Manager

- Policy-based QoS management
  - Data, voice and video applications
  - Policy wizards/templates with rules-based validation
- Comprehensive device support
  - Cisco IOS routers: 2500–7500
  - Catalyst switches: 5500, 6500, 8500
  - Extensive QoS features: classification, queuing, shaping, congestion avoidance, VoIP, fragmentation, NBAR, RSVP
- Reliable deployment
  - CLI preview, job control and audit

QPM 1.1

Reliable deployment

CLI preview, job control and audit
User Registration Tool

- Offers campus mobility
- Links login names to VLANs
- Complimentary with DHCP
- Downloads policies per port
- Controls access by user, not station (walk-up computing)

Future Directions
Internet Management Appliances

Net Management Platform

Management Intranet

Web-Appliances

DEN and WBEM
Unified Standards

Common Information Model

XMLCIM Encoding over http

Directory LDAP Operations
Cisco’s DEN Support

- **Products**
  - CiscoWorks2000 User Registration Tool (URT)
  - Cisco Network Registrar (CNR)
  - Cisco QoS Policy Manager (QPM)
  - Cisco AVVID Call Manager

- **Standards efforts**
  - Leadership in DMTF and IETF

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CiscoWorks2000 Solution Roadmap

- route WAN Solution
- Service Management Solution
- IPM
- ACL
- TD
- RME
- CView
- VoIP Mgmt Solution
- CM
- TD
- RME
- CVM
- CView
- CM
- TD
- RME
- CVM
- CView
- Cisco Management Server

Present '00

CY Q2 '00

CY Q3 '00
Conclusion

Building the Management Intranet

Broad Range of Network and Policy Management Solutions

Partnerships

CiscoWorks2000 Solutions Update

Session 2600
Please Complete Your Evaluation Form

Session 2600