Cisco Prime
Unified Management for Next-Generation Internet: Core Routing and Optical

NMTG, Product Marketing Team
Agenda

• What is Cisco Prime
• Cisco Prime Portfolio
• Managing Next Generation IP Network
• Managing Transport Network
• Q and A
What You Will Learn

The Cisco Prime Suite of Applications Is Designed to Address Today’s Service Provider Challenges in Managing Core and Optical Networks

- Cisco has the most comprehensive management portfolio and spans Cisco® architectures.
- Cisco Prime products allow service providers to connect directly from the network services to their subscriber services.
- Cisco Prime differentiators include service presentation and end-to-end network visibility, multivendor support, flexibility to extend capabilities, and the ability to massively reduce the effect of system failures through rapid fault isolation and repair.
Common Service Provider Needs

- Friendly User Interface to Improve Operator Efficiency and Accomplish Common Tasks
- Reduction and Correlation of Network Events in a Consolidated View
- Run-Time System to Monitor Network Health
- Ability to Provide Fast Time to Value for New Hardware Investments
- Troubleshooting Tools to Easily Locate and Fix Network Outages
- Tools to Proactively Identify and Correct Points of Failure in the Network
Introducing Cisco Prime For Service Providers
Cisco Prime for Service Providers
Experience Lifecycle Management

• A modular suite of applications
• A-to-Z management for next-generation packet and transport networks
• Delivering the Cisco® Advantage
Experience Lifecycle Management
Benefits for Service Provider

Design
• Rapid time to revenue
• Differentiated services

Fulfill
• Low-cost operator
• Zero touch
• Lowest cost

Assure
• Improve QoS
• Reduce turnover
• Offer lowest cost

Analyze
• Grow ARPU
• Increase loyalty

Domain Managers
• Provision of core information for devices and technologies
• Automated discovery and configuration management
• Network visibility
# Cisco Prime The Modular Service Provider Portfolio

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Prime for Service Providers

- Mini-Suites focused on customer transitions
- Common look and feel to help customers move across transitions and architectural plays
- Common components
- Automating management to increase value and efficiency
Managing IP Networks
Centralized User Portal

Cisco Prime™ Portal Provides:

- Single point of entry into the network for operator access to all needed information
- Reduced operational costs using an integrated framework for operators and administrators
- Increased efficiency with transparent transition between functional areas
Service Design and Activation

• Accelerate service deployment for MPLS services and tunnels with easy-to-use point-and-click service-creation wizards

• Eliminate manual errors with automation
Network Discovery

• Faster and more cost-effective core router management with automatic discovery of all network components
• Complete end-to-end visibility of all network elements, covering a wide variety of Cisco products from edge to access, aggregation, and core
• Physical and logical topologies
• Multivendor support
Monitor, Inspect, and Diagnose Network Faults

- At-a-glance view of network health for fast fault isolation
- Alarm correlation to rapidly diagnose and remediate faults that span multiple domains
- Affected parties who report on specific fault scenarios (e.g., MPLS black-hole detection, MPLS TE Tunnel Flapping or Repotimized)

50:1 Average Event Reduction
Performance Statistics

• Network health monitoring identifies degraded services or prevents congestion through threshold crossing alerts (TCAs) or performance statistics trend analysis (IP-SLA interface statistics, MPLS TE Tunnel statistics, etc.).

• This monitoring allows service providers to deliver outstanding quality, exceed service-level agreements (SLAs), and better differentiate their offerings.
Manage Your Configurations

- Increased operational productivity with automatic archive, view of change history, and comparison of device configurations with colour coding.
Third-Party Device Support

Out-of-the-Box Support for:
- Alcatel-Lucent
- Huawei
- Juniper

- Multivendor-ready
- Easy integration of other third-party devices

- Basic logical and physical discovery for third-party devices supporting the standard MIB2
Managing Transport Networks
Managing Transport Networks

- Cisco Prime™ for IP-NGN manages the entire Cisco® Optical product line, supporting:
  - Dense wavelength-division multiplexing (DWDM)
  - Traditional transport technologies (SONET and SDH)
  - The latest transport technology, Multiprotocol Label Switching Transport Profile (MPLS-TP)
- A single domain manager providing assurance, fulfillment, and performance monitoring functions

Increases Productivity, Accelerating the Deployment of New Services
Increased Operational Productivity

- Powerful GUI-based management system with point-and-click circuit provisioning
- Customizable map and explorer views
- Alarm severity display with detailed views for rapid fault localization
- Cisco Prime™ Optical Dashboard for entire domain
- Extensive performance monitoring and statistics collection for all interfaces
- End-to-end integrated circuit management and Layer 2 provisioning
Accelerate Service Delivery

• Offers simplicity of point-and-click provisioning DWDM, SONET, and SDH network services

• Provides graphical circuit trace to help ensure and troubleshoot services

Medium-Sized North American Service Provider Used Cisco Prime™ Optical to Reduce Circuit Build Time by 50%.
Optical Fault Management

Real-Time Visual and Audible Alarm and Event Management

• See status of all network elements in one place
• Current and historical alarms
  – Alarm-aware displays, alarm browser and log, network maps, network element explorers, domain explorer, subnetwork explorer, and summary dashboard
• Manage alarm acknowledgement

Cisco Prime™ Optical Reduces Time Needed to Isolate Problems by More Than 50% on Large Networks.
Optical Performance Management

- Configurable automatic collection of near- and far-end 5-minute, 10-minute, 15-minute, to 1-day performance monitoring data
- Robust performance monitoring collection option to recover performance monitoring data missed during communication downtime
- Real-time display with 10-second polling

Cisco Prime™ Optical Reduces Time Needed to Isolate Problems by More Than 50% on Large Networks.
Cisco Wavelength Switched Optical Networks

- Impairment-aware DWDM wavelength provisioning
- Multiple optical validation levels
- Manual wavelength reroute
- Upgrade of traditional non-GMPLS optical network connections
IP Transport over DWDM

- Integrated maintenance
- Easier and faster service deployment
- Easier maintenance
- Faster troubleshooting
Cisco Prime Architecture
A Closer Look

Cisco Prime™ Central – Cross-Domain Correlation and Dashboard
MTOSI – Northbound Mediation Layer

Experience Lifecycle Management
- Design
- Fulfill
- Assure
- Analyze

Cisco Prime Service Bus
Cisco Prime Adapter Layer
Domain Managers
Cisco Prime Southbound Mediation Layer

Cisco Prime Portfolio
Cisco Prime Data Model
Device Instrumentation
Optical
Switches
Routers
Mobile

Cisco Prime SDKs
Cisco Prime™ IP NGN Modules
Core and Optical Network Support

Cisco Prime™ Central
- Centralized user portal, correlation engine, and common data model

Cisco Prime Network
- Assurance, change, and configuration management of packet networks
- Visualization of physical and virtual service topologies

Cisco Prime Provisioning
- Flexible, automated network service provisioning
- Zero-touch deployment

Cisco Prime Performance Manager
- Fast, easy, actionable information across devices and services
- Metrics gathering and performance reporting for MPLS connections, per service, per geography

Cisco Prime Optical
- Fulfilment, configuration, and assurance for Cisco® transport networks
Summary

Accelerated Service Deployment

Increased Operational Productivity

Improved Subscriber Experience with Rapid Fault Isolation

Ensuring Service Levels with Performance Management

Multidomain Management with Cisco Prime for IP NGN

Cisco Prime™ Portfolio for Managing Core and Optical Networks
Find Out More

Public

- Cisco Prime™ portfolio: www.cisco.com/go/prime-sp
- Cisco Prime for IP NGN: www.cisco.com/go/prime-ipngn
Q and A