Cisco Prime for Evolved Programmable Networks

Cisco Prime for Evolved Programmable Networks automates and streamlines the lifecycle management of Carrier Ethernet, Unified Multiprotocol Label Switching (MPLS), packet optical transport and broadband cable access networks.

Features and Benefits

Cisco Prime for EPN provides the following benefits:

- **Accelerated time-to-market of services**: Quickly deploy services through automated network configuration and point-and-click services provisioning.
- **Lower costs**: Get the most out of your existing and ongoing investment in network infrastructure through optimized use of its capacity and resources.
- **Increase operational efficiencies**: Seamlessly execute network and service lifecycle management tasks including design, fulfillment, assurance, and analysis - through integrated operator workflows.
- **Improved quality of service (QoS)**: Enhance customer experience and meet stringent service-level agreements (SLAs) through rapid fault isolation and repair of network issues.

Figure 1. Components of Cisco Prime for EPN
A Comprehensive Network Management Solution for Evolved Programmable Networks

Cisco Prime for EPN brings together intelligence, automation and real-time network visibility - to drastically simplify the process of service fulfillment and assurance across the Cisco Evolved Programmable Network. Its capabilities enable a network that can effectively respond to the the dynamic changes in service requirements.

Key capabilities include:

- **Automatic discovery and granular network visibility**: Quickly and easily find and map network devices and services for an accurate inventory of the entire network, supporting both virtual and physical network elements as well as multivendor devices. Cisco Prime for EPN provides granular visibility of the network including device-specific attributes and alarms and circuit information.

- **Intelligent service provisioning**: Execute A-to-Z provisioning of services based on predefined policies and templates utilizing the point-and-click service-creation wizards. Cisco Prime for EPN automates and simplifies the deployment of complex services and technologies including:
  - **Carrier Ethernet**: Ethernet over Multiprotocol Label Switching (EoMPLS), virtual private LAN service (VPLS), and Ethernet virtual circuits (EVCs).
  - **Unified MPLS**: End-to-end packet transport spanning the core, aggregation, and access domains designed for high resiliency and network scalability.
  - **Packet optical transport**: Time-division multiplexing (TDM) and dense wavelength division multiplexing (DWDM).

- **Change and configuration management**: Easily identify all network changes and automate their validation and restore configurations to the desired state.

- **Automated service assurance**: Effectively perform a consolidated, cross-domain event management and root-cause analysis to quickly detect, isolate, and troubleshoot the specific points of failure. Cisco Prime for EPN also provides service assurance for cable operators, supporting Cisco Cable Modem Termination Systems (CMTS) and RF Gateway solutions.

Components of Cisco Prime for EPN

The Cisco Prime for EPN suite (see Figure 1) includes:

- **Cisco Prime Central**: Provides centralized access to all components of Cisco Prime with a single view of integrated operator workflows, common inventory and event/alarm management, and standard interfaces for easy OSS integration.

- **Cisco Prime Provisioning**: Accelerates service deployments by providing automated resource management and rapid, profile-based provisioning capabilities. It provides a powerful workflow-based diagnostic tool for service validation and troubleshooting.

- **Cisco Prime Performance Manager**: Gathers detailed performance statistics for Cisco and multivendor network devices, providing actionable information for the entire network, from access all the way to the core.

- **Cisco Prime Optical**: Provides best-in-class and highly scalable assurance and fulfillment capabilities for the optical network domain with GUI-based device configuration.

- **Cisco Prime Network**: Offers comprehensive service assurance and device management for the packet/IP domain with advanced capabilities including virtual connectivity discovery, root-cause
identification, topology-driven troubleshooting, alarm reduction through topology-based correlation, and de-
duplication.

Services and Support
Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco services help you to protect your network investment, optimize network operations, and prepare the network for new applications to extend network intelligence and the power of your business. For more information please visit the Cisco Services page on Cisco.com.

About Cisco Prime
The Cisco Prime portfolio of IT and service provider management offerings empowers organizations to more effectively manage their networks and the services they deliver. Built on a service-centered foundation, Cisco Prime supports integrated lifecycle management through an intuitive workflow-oriented user experience - providing A-to-Z management for evolved programmable networks, mobility, video, cloud, and managed services.

For More Information
For more information on Cisco Prime products for carrier-grade networks, email ask-prime-sp@cisco.com.