

Cisco Prime Fulfillment

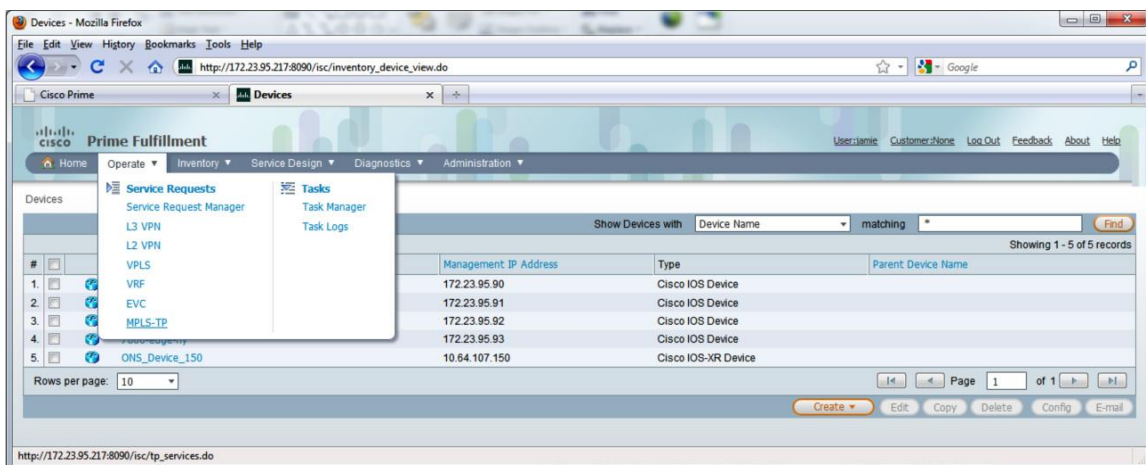
Cisco Prime™ Fulfillment is a management solution for network provisioning and diagnostics that automates complex tasks using policy-driven workflows to produce consistent and reliable service deployments. Cisco Prime Fulfillment does this by planning, provisioning, and auditing services across core, aggregation, access, and edge devices.

Product Overview

Cisco Prime Fulfillment facilitates fast deployment and time-to-market of Multiprotocol Label Switching (MPLS) and Carrier Ethernet technologies. In addition, Cisco Prime Fulfillment provides unique capabilities for planning and provisioning for Cisco MPLS Traffic Engineering (MPLS TE) enabled routers. Cisco Prime Fulfillment includes Cisco Prime™ Diagnostics, an automated, decision-tree, analysis-based network management module that troubleshoots and diagnoses a wide range of problems in MPLS VPNs.

Cisco Prime Fulfillment accelerates deployments by making design, fulfillment, and diagnosis of network services fast and efficient. Cisco Prime Fulfillment lowers total cost of ownership (TCO) by using pre-defined policies for automating core processes, making it possible for level-1 help desk operators to provision, diagnose and repair service problems rapidly. In addition Cisco Prime Diagnostics helps reduce operational costs by providing automated workflow-based troubleshooting and diagnostic capabilities for MPLS VPNs.

Figure 1. Cisco Prime Fulfillment resource pools and provisioning templates.



Features and Benefits

Cisco Prime Fulfillment provides service providers and other organizations requiring carrier-grade networks, key capabilities for the activation and assurance of Layer 3 and Layer 2 VPNs, AToM, and Carrier Ethernet services.

MPLS VPN Management - Cisco Prime Fulfillment automates the provisioning, configuration and functional audits of MPLS VPNs using predefined service profiles making service activation quick and predictable.

Layer 2 VPN and Carrier Ethernet Management - Cisco Prime Fulfillment automates the provisioning of Layer 2 VPNs and Carrier Ethernet services. Deployments are validated through automated service configuration and functional audits for Carrier Ethernet VPNs and Any Transport over MPLS (AToM) VPNs.

MPLS VPN Troubleshooting - Cisco Prime Diagnostics, included with Cisco Prime Fulfillment, is an automated, workflow-based solution for troubleshooting and diagnosing problems in MPLS VPN deployments. Cisco Prime Diagnostics offers customers the capability to significantly reduce the amount of time required to diagnose MPLS related network outages - in many cases from hours to minutes.

MPLS Traffic Engineering Management - Cisco Prime Fulfillment provides an optional solution for managing the configuration of Cisco MPLS Traffic Engineering tunnels. Cisco Prime Fulfillment Traffic Engineering Management computes and configures primary tunnels to meet user-specified constraints and computes Fast Reroute (FRR) bypass tunnels for network element protection (node, links, or shared-risk link groups), ensuring connectivity and bandwidth to meet stringent SLA requirements for voice and video traffic.

Asynchronous Device Updates - Cisco Prime Fulfillment increases service provider time-to-market velocity for new services through asynchronous device updates (ADUs) providing day-1 support of new or enhanced devices. The new extensible Cisco Prime Fulfillment provisioning engine enables the rapid development and distribution of device support without the need for software upgrades.

Integration to Operations Support Systems - Cisco Prime Fulfillment features APIs to facilitate integration with service provider operation support systems (OSS) such as Cisco Info Center and IBM Tivoli Netcool. These APIs, using an HTTP/HTTPS/Simple Object Access Protocol (SOAP) request/response system interface, provide a mechanism for inserting, retrieving, updating, and removing data from Cisco Prime Fulfillment.

Table 1 provides details on features and benefits in Cisco Prime Fulfillment.

Table 1. Cisco Prime Fulfillment Features and Benefits

Feature	Description	Benefit
Tracking of Layer 3 and Layer 2 resources	Manages resources such as Border Gateway Protocol (BGP) autonomous system, regions, customers, customer sites, access domains, service provider administrative domains, virtual routing and forwarding (VRF) names, IP addresses, VLAN IDs, pseudowire virtual circuit IDs, route distinguishers, and route targets.	Automation of resource management reduces cost of manual and time-consuming tasks and helps ensure accuracy.
Rapid profile-based provisioning	Allows service operators to define Layer 3 and Layer 2 VPN provisioning parameters in a service policy; uploads the network-element configuration to calculate the change in configuration needed for successful service activation.	Helps control operational costs by accelerating service deployments. The use of service policies for service activation greatly reduces the service operator's tasks and required skill level. Uploading the configuration prior to applying it ensures that the service activation configuration will be successfully and rapidly applied and will avoid colliding with the existing configurations.
Asynchronous device updates	The introduction of an extensible provisioning engine for MPLS VPN Management and Layer 2 VPN and Carrier Ethernet Management enables the development and asynchronous distribution of new device support without having to upgrade the software.	Increases time to market and platform support velocity by being able to rapidly develop and distribute new device support. The Cisco Prime Fulfillment provisioning engine is flexible, easier to maintain, and easier to extend.
Linux/Cisco Unified Computing System (UCS)/VMware support	Cisco Prime Fulfillment provides deployment support on Linux, VMware, and UCS.	Lowers total cost of ownership by increasing the deployment options and supporting virtualized environments.
Consistent and streamlined user experience	New usability improvements, including grouping of functional components, sort/filter mechanisms, and mega-menus, and the adoption of the new UI standard that will be used by all Cisco Prime service provider applications.	Improves organizational efficiencies and reduces training time by providing a consistent user experience.
Deployment configuration preview	New preview feature for MPLS VPN, Layer 2 VPN and Carrier Ethernet configurations provides the ability to validate the configlets before deployment.	Increases operational visibility and decreases end-user anxiety by providing configuration preview functionality.
Recognition of incorrect service configuration	Provides post-provisioning validation of the service design in order to determine whether the Layer 3 and Layer 2 VPNs are active and functional.	Reduces the time it takes to troubleshoot network outages due to incorrect service configuration by verifying that the commands for a service are present on the network elements and the links involved or VPN is working correctly.
Investment protection for Cisco IOS® Software and line cards	Cisco Prime Fulfillment supports provisioning and diagnostics across a comprehensive list of platforms and Cisco IOS Software.	Reduces time to market of new services and lowers the cost of upgrading customer OSSs due to upgrades in platforms, software versions, and line cards by providing extensive support of the latest Cisco hardware and Cisco IOS Software versions.
Bandwidth protection planning and activation	Identifies placement of FRR backup tunnels to protect critical network elements. Installs backup tunnels to protect against link, node, or SRLG failures.	Supports strict service-level agreements (SLAs) and high availability of voice and video traffic. Provides a cost-effective alternative to lower-layer protection. Highly efficient use of bandwidth allows more traffic to be supported on the network without redundant network investment.
MPLS traffic engineering tunnel placement, repair, and network grooming	Generates MPLS traffic engineering tunnel paths that meet user-specified constraints, including bandwidth, affinity, and delay, and proposes fixes to meet user-specified constraints for new tunnel demands. Global reoptimization of primary tunnel placements improves network utilization.	Facilitates efficient core network planning and cost savings. Bandwidth upgrade costs can be delayed or reduced by identifying bottleneck links and routing traffic away from them. Flow-through provisioning provides major time and cost savings and dramatically simplifies planning and managing a traffic-engineered network.
Automated workflow-based troubleshooting and diagnostics of MPLS VPN deployments	This functionality provided by Cisco Prime Diagnostics is based on the in-depth analysis of network failure scenarios across MPLS access, edge, and core networks.	Cisco Prime Diagnostics significantly reduces the operational cost to manage and maintain an MPLS network. In addition, its ability to reduce mean time to repair (MTTR) helps increase network availability.
Carrier-grade infrastructure for large deployments	Provides the following system features: <ul style="list-style-type: none"> • Thin web-based GUI client • Role-based access control (RBAC) • API: Extensible Markup Language (XML) over HTTP northbound interface • Data backup and restore 	RBAC provides access control to service providers that want to implement strict operational processes. Backup and restore capabilities protect data against OS crashes, file corruption, disk failures, and total machine failure.

About Cisco Prime

The Cisco Prime™ portfolio of enterprise and service provider management offerings empower IT organizations to more effectively manage their networks and the services they deliver. Built on a service-centric foundation, the Cisco Prime portfolio of products supports integrated lifecycle management through an intuitive workflow-oriented user experience. The portfolio of Cisco Prime for Service Providers solutions provides A-to-Z management for IP Next-Generation Networks, Mobility, Video, and Managed services.

Product Specifications

Product specifications for Cisco Prime Fulfillment can be found in the Installation Guide at <http://www.cisco.com/go/fulfillment>.

System Requirements

The server, client, and web browser system requirements for Cisco Prime Fulfillment can be found in the Installation Guide at <http://www.cisco.com/go/fulfillment>, under Technical Documentation and Tools. Please refer to this and the Product Documentation Guide for more detailed information on setting up and configuring this product.

Ordering Information

Cisco Prime Fulfillment is available for purchase through regular Cisco sales and distribution channels worldwide. To place an order, visit the [Cisco Ordering Homepage](#).

Table 2. Ordering Information

Cisco Prime Fulfillment Entry Points

Part Number	Description
PF-6.1-BASE-K9	Cisco Prime Fulfillment 6.1 CD Base Media
PF-6.1-ENT-500-K9	Cisco Prime Fulfillment 6.1 Entry, Layer 3/Layer 2, MDE, Reporting API includes 500 Activation Licenses (ALs)
PF-6.1-ENT-1K-K9	Cisco Prime Fulfillment 6.1 Entry, Layer 3/Layer 2, MDE, Reporting API includes 1000 ALs

Cisco Prime Fulfillment Application Programming Interfaces (APIs)

Part Number	Description
PF-6.X-MPLS-L2-API	Cisco Prime Fulfillment 6.x MPLS VPN, Layer 2 API Flow-Through Provisioning
PF-6.X-TEM-API	Cisco Prime Fulfillment 6.x TEM API for Cisco AS Customer Only

Cisco Prime Fulfillment Incremental Activation Licenses

Part Number	Description
PF-6.X-500-INC	Cisco Prime Fulfillment 6.x 500 Incremental ALs for MPLS, Layer 2, and MDE
PF-6.X-1K-INC	Cisco Prime Fulfillment 6.x 1000 Incremental ALs for MPLS, Layer 2, and MDE
PF-6.X-5K-INC	Cisco Prime Fulfillment 6.x 5000 Incremental ALs for MPLS, Layer 2, and MDE
PF-6.X-10K-INC	Cisco Prime Fulfillment 6.x 10,000 Incremental ALs for MPLS, Layer 2, and MDE

Cisco Prime Fulfillment Traffic Engineering Management (TEM)

Part Number	Description
PF-6.X-TEM-20N-AP	Cisco Prime Fulfillment 6.1 TEM - Include first 20 TE-Enabled
PF-6.X-TEM-50NTU	Cisco Prime Fulfillment 6.x TEM Upgrade from Current 20 to 50-Node AL
PF-6.X-TEM-50N-INC	Cisco Prime Fulfillment 6.x TEM 50-Node Incremental Upgrade Beyond 50 Nodes

Cisco Prime Fulfillment Upgrade Options from Cisco ISC 5.x to ISC 6.0

Part Number	Description
PF-5-6.1-UP-2K-K9	Upgrade to Cisco Prime Fulfillment 6.1 Apps for 5.x customers with up to 2000 A/Cs
PF-5-6.1-UP-6K-K9	Upgrade to Cisco Prime Fulfillment 6.1 Apps for 5.x customers with 2000-6000 A/Cs
PF-5-6.1-UP-30K-K9	Upgrade to Cisco Prime Fulfillment 6.1 Apps for 5.x customers with 6000-30,000 A/Cs
PF-5-6.1-UP-50K-K9	Upgrade to Cisco Prime Fulfillment 6.1 Apps for 5.x customers with 30,000-50,000 A/Cs
PF-5-6.1-UP100K-K9	Upgrade to Cisco Prime Fulfillment 6.1 Apps for 5.x customers with 50,000-100,000 A/Cs
PF-5-6.1-UP250K-K9	Upgrade to Cisco Prime Fulfillment 6.1 Apps for 5.x customers with 100,000-250,000 A/Cs

Cisco Prime Fulfillment Backup and Lab Copies

Part Number	Description
PF-6.1-BU-K9	Cisco Prime Fulfillment 6.x Backup Pack (Site Diversification License)
PF-6.1-LAB-K9	Cisco Prime Fulfillment 6.x Lab/Test Combo License - Including 25 ALs/10 Nodes

For More Information

For more information about Cisco Prime Fulfillment, contact your local account representative or visit the Cisco Prime Fulfillment Overview at <http://www.cisco.com/go/fulfillment>.



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