



CHAPTER 20

Getting Started with MPLS VPN

This chapter describes the tasks required to get started using Cisco Prime Fulfillment 6.1, Multiprotocol Label Switching (MPLS) virtual private network (VPN).



Note

The information in the chapter summarizes some of the key tasks required to get started using MPLS VPN. For additional information about setting up basic Prime Fulfillment services, see [Chapter 21, “Setting Up the Cisco Prime Fulfillment Services”](#) and the Setting Up Services part.

Before You Begin

Before you can use MPLS VPN to provision, perform the following steps.

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| Step 1 | Install Prime Fulfillment. See the Cisco Prime Fulfillment Installation Guide 6.1 . |
| Step 2 | Purchase the license. |
| Step 3 | Assess your network.

For example, the network must meet certain criteria such as MPLS, MP-BGP enabled, PE routers in supported platforms, and so forth. Prime Fulfillment provisions only PE-CEs, not devices within a given network. |
| Step 4 | Populate Prime Fulfillment. |
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Prime Fulfillment Service Activation

To activate MPLS services you must configure Prime Fulfillment so it “knows” about the preconfiguration information, such as devices, providers, customers, and so on, that Prime Fulfillment is going to manage and their roles. The major steps to achieve Prime Fulfillment service activation include setting up:

- Devices
- Provider information (providers, regions, and PEs)
- Customer information (customers, sites, and CPEs)
- Resource pools:

- IP addresses
- Route targets (RTs)
- Route distinguishers (RDs)
- Site of origin (SOO)
- Virtual Private Networks (VPNs)
- Customer edge (CE) routing communities (CERCs)
- Named Physical Circuits (NPCs)

**Note**

These steps are covered in more detail in [Chapter 21, “Setting Up the Cisco Prime Fulfillment Services.”](#)

Working with MPLS Policies and Service Requests

After you have set up providers, customers, devices, and resources in Prime Fulfillment, you are ready to create MPLS policies, provision service requests, and deploy the services. After the service requests are deployed you can monitor, audit and run reports on them. All of these tasks are covered in this guide. To accomplish these tasks, perform the following steps.

Step 1 If necessary, review overview information about MPLS concepts.

Step 2 Set up an MPLS policy.

For basic information and key concepts, see [Chapter 24, “MPLS VPN Service Policies,”](#) as well as subsequent chapters in this guide.

Step 3 Provision the MPLS service request.

See the appropriate chapter, depending on the type service request you want to provision:

- [Chapter 22, “Independent VRF Management.”](#)
- [Chapter 25, “MPLS VPN Service Requests.”](#)
- [Chapter 27, “Provisioning Regular PE-CE Links.”](#)
- [Chapter 26, “Provisioning Multi-VRFCE PE-CE Links.”](#)
- [Chapter 28, “Provisioning Management VPN.”](#)
- [Chapter 29, “Provisioning Cable Services.”](#)
- [Chapter 30, “Provisioning Carrier Supporting Carrier.”](#)
- [Chapter 31, “Provisioning Multiple Devices.”](#)
- [Chapter 32, “Spanning Multiple Autonomous Systems.”](#)

Step 4 Deploy the MPLS service request.

See [Chapter 25, “MPLS VPN Service Requests.”](#)

Step 5 Check the status of deployed services.

You can use one or more of the following methods:

- Monitor service requests. See the section [Chapter 47, “Monitoring Service Requests”](#).
- Audit service requests. See the section [Chapter 16, “Deploying, Monitoring, and Auditing Service Requests”](#).
- Run MPLS reports. See [Chapter 55, “Generating MPLS Reports”](#)

Step 6 Troubleshoot MPLS services.

See [Chapter 34, “Troubleshooting MPLS VPNs”](#)

For additional information on specific topics, see the following sections of this guide:

- For information about IPv6 and 6VPE support, see [Chapter 23, “IPv6 and 6VPE Support in MPLS VPN”](#).
- For sample configlets generated by Prime Fulfillment for MPLS services, see [Chapter 33, “Sample Configlets”](#)
- For information about using templates and data files in Prime Fulfillment policies and service requests, see [Chapter 49, “Using Templates and Data Files with Policies and Service Requests”](#)

