



# CHAPTER 1

## Getting Started with MPLS VPN

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This chapter describes the tasks required to get started using Cisco IP Solution Center (ISC) Multiprotocol Label Switching (MPLS) virtual private network (VPN). It contains the following sections:

- [Before You Begin, page 1-1](#)
- [ISC Service Activation, page 1-1](#)
- [Working with MPLS Policies and Service Requests, page 1-2](#)



### Note

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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 ISC services, see [Chapter 2, “Setting Up the ISC Services”](#) and the [Cisco IP Solution Center Infrastructure Reference, 5.1](#).

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## Before You Begin

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

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**Step 1** Install ISC. See the [Cisco IP Solution Center Installation Guide, 5.1](#).

**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. ISC provisions only PE-CEs, not devices within a given network.

**Step 4** Populate ISC. See the [Cisco IP Solution Center Infrastructure Reference, 5.1](#).

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## ISC Service Activation

To activate MPLS services you must configure ISC so it “knows” about the preconfiguration information, such as devices, providers, customers, and so on, that ISC is going to manage and their roles. The major steps to achieve ISC 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**


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These steps are covered in more detail in [Chapter 2, “Setting Up the ISC Services.”](#)

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## Working with MPLS Policies and Service Requests

After you have set up providers, customers, devices, and resources in ISC, 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.

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- Step 1** If necessary, review overview information about MPLS concepts.  
See [Appendix E, “MPLS VPN Concepts”](#)
- Step 2** Set up an MPLS policy.  
For basic information and key concepts, see [Chapter 5, “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 3, “Independent VRF Management.”](#)
  - [Chapter 6, “MPLS VPN Service Requests.”](#)
  - [Chapter 7, “Provisioning Regular PE-CE Links.”](#)
  - [Chapter 8, “Provisioning Multi-VRFCE PE-CE Links.”](#)
  - [Chapter 9, “Provisioning Management VPN.”](#)
  - [Chapter 10, “Provisioning Cable Services.”](#)
  - [Chapter 11, “Provisioning Carrier Supporting Carrier.”](#)
  - [Chapter 12, “Provisioning Multiple Devices.”](#)
  - [Chapter 13, “Spanning Multiple Autonomous Systems.”](#)
- Step 4** Deploy the MPLS service request.  
See [Chapter 6, “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 [Monitoring Service Requests](#), page 6-27.
- Audit service requests. See the section [Auditing Service Requests](#), page 6-28.
- Run MPLS reports. See [Chapter 14, “Generating MPLS Reports.”](#)

**Step 6** Troubleshoot MPLS services.

See [Appendix C, “Troubleshooting MPLS VPNs.”](#)

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

- For information about IPv6 and 6VPE support, see [Chapter 4, “IPv6 and 6VPE Support in MPLS VPN”](#).
- For sample configlets generated by ISC for MPLS services, see [Appendix A, “Sample Configlets.”](#)
- For information about using templates and data files in ISC policies and service requests, see [Appendix B, “Working with Templates and Data Files.”](#)

