



MPLS VPN—Per VRF Label

First Published: June 29, 2007

Last Updated: December 5, 2008

The MPLS VPN—Per VRF Label feature (hereafter, in this document, referred to as the Per VRF Label feature or the Per VRF feature) allows you to configure a single Virtual Private Network (VPN) label for all local routes in the entire VPN routing and forwarding (VRF) domain on Cisco 6500 routers. This MPLS VPN—Per VRF Label feature incorporates a single (per VRF) VPN label that for *all* local routes in the VRF table.

You can enable (or disable) the MPLS VPN—Per VRF Label feature in global configuration mode. This feature is available for the Cisco 6500 router only.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the “[Feature Information for MPLS VPN—Per VRF Label](#)” section on page 12.

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

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Prerequisites for the Per VRF Label Feature

- If your VRF domain has the external/internal Border Gateway Protocol (EIBGP) multipath feature or the Carrier Supporting Carrier (CSC) feature enabled, disable those features before you configure the Per VRF Label feature.
- Before configuring Multiprotocol Label Switching (MPLS) Layer 3 VPNs, you must have MPLS, Label Distribution Protocol (LDP), and Cisco Express Forwarding (CEF) installed in your network. All routers in the core, including the Provider Edge (PE) routers, must be able to support CEF and MPLS forwarding.

Restrictions for the Per VRF Label Feature

- Enabling the Per VRF Label feature causes BGP reconvergence, which can result in data loss for traffic coming from the MPLS VPN core.

**Note**

You can minimize network disruption by enabling this feature during a scheduled MPLS maintenance window. Also, if possible, avoid enabling this feature on a live router.

- There is no performance degradation when you configure up to 511 VRFs; however, when you add more than 511 VRFs, your network might experience some minor performance degradation (similar to the normal degradation experienced by any of the directly connected VRF prefixes present in the router).
- Per-prefix MPLS counters for VPN prefixes are lost when you enable the Per VRF Label feature.
- You cannot use this feature with CSC and EIBGP multipath features.

Information About the Per VRF Label Feature

To configure the MPLS VPN—Per VRF Label feature, you should understand the following concept:

- [MPLS VPN—Per VRF Label Functionality, page 2](#)

MPLS VPN—Per VRF Label Functionality

The PE stores both local and remote routes and includes a label entry for each route. For distributed platforms, the per-prefix labels consume memory. When there are many VRFs and routes, the amount of memory that the per-prefix labels consume can become an issue.

This new Per VRF Label feature allows the advertisement of a single VPN label for local routes throughout the entire VRF. The router uses a new VPN label for the VRF decoding and IP-based lookup to learn where to forward packets for the PE or customer edge (CE) interfaces.

The following conditions apply when you configure the Per VRF Label feature:

- The VRF uses one label for all local routes.
- When you *enable* the Per VRF Label feature, any existing Per VRF Aggregate label is used. If no Per VRF Aggregate label is present, the software creates a new Per VRF label.
- When you *enable* the Per VRF Label feature, the CE router's learned local routes will experience some data loss.
The CE does not lose data when you disable the Per VRF Label feature because when you disable the feature, the configuration reverts to the default labeling configuration of the Cisco 6500 platform, which uses the Per VRF Aggregate label from the local nonCE-sourced routes.
- When you *disable* the Per VRF Label feature, the configuration reverts to the default configuration of the Cisco 6500 routers.
- A Per VRF label forwarding entry is deleted only if the VRF or the BGP configuration is removed.

Summarization of Label Allocation Modes

Table 1 defines the label allocations used with various route types.

Table 1 Label Allocation Modes

Route Types	Label Mode: Cisco 6500 Default	Label Mode: Per VRF Label Feature
Local to the PE (connected, static route to NULL0, BGP aggregates), redistributed to BGP	Per VRF Aggregate label	Per VRF label
Locally learned from CE (through EBGP or other PE or CE protocols)	Per Prefix label	Per VRF label

How to Configure the Per VRF Label Feature

This section describes the following required task:

- [Configuring the Per VRF Label Feature, page 3](#)

Configuring the Per VRF Label Feature

To configure the Per VRF Label feature, perform the following task.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **mpls label mode {vrf *vrf-name* | all-vrfs} protocol bgp-vpnv4 {per-prefix | per-vrf}**
4. **end**
5. **show ip vrf detail**

DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>enable</code> Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> Enter your password if prompted.
Step 2	<code>configure terminal</code> Example: Router# configure terminal	Enters global configuration mode.
Step 3	<code>mpls label mode {vrf vrf-name all-vrfs} protocol bgp-vpnv4 {per-prefix per-vrf}</code> Example: Router(config)# mpls label mode all-vrfs protocol bgp-vpnv4 per-vrf	Configures the Per VRF Label feature.
Step 4	<code>end</code> Example: Router(config)# end	Returns to privileged EXEC mode.
Step 5	<code>show ip vrf detail</code> Example: Router# show ip vrf detail	Displays the VRF label mode.

Examples

The following command example shows how to verify the Per VRF Label configuration:

In this example output, the **bold** text indicates the label modes:

```
Router# show ip vrf detail

VRF vpn1; default RD 1:1; default VPNID <not set>
VRF Table ID = 1
  Interfaces:
    Ethernet0/0          Serial5/0          Loopback1
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:1:1
  Import VPN route-target communities
    RT:1:1
  No import route-map
  No export route-map
CSC is not configured.
VRF label allocation mode: per-vrf (Label 19)
VRF vpn2; default RD 2:1; default VPNID <not set>
VRF Table ID = 2
  Interfaces:
    Ethernet2/0          Loopback2
  Connected addresses are not in global routing table
  Export VPN route-target communities
```

```

RT:2:1
Import VPN route-target communities
RT:2:1
No import route-map
No export route-map
CSC is not configured.
VRF label allocation mode: per-vrf (Label 20)
VRF vpn3; default RD 3:1; default VPNID <not set>
VRF Table ID = 3
Interfaces:
  Ethernet3/0          Loopback3
Connected addresses are not in global routing table
Export VPN route-target communities
RT:3:1
Import VPN route-target communities
RT:3:1
No import route-map
No export route-map
CSC is not configured.
VRF label allocation mode: per-vrf (Label 23)

```

```
Router# show ip bgp vpnv4 all labels
```

Network	Next Hop	In label/Out label
Route Distinguisher: 1:1 (vpn1)		
127.0.0.1/32	192.168.1.1	IPv4 VRF Aggr:19/nolabel
127.0.0.5/32	127.0.0.4	nolabel/19
192.168.1.0/24	192.168.1.1	IPv4 VRF Aggr:19/nolabel
	0.0.0.0	IPv4 VRF Aggr:19/aggregate(vpn1)
192.168.4.0/24	127.0.0.4	nolabel/20
172.16.0.0/16	0.0.0.0	IPv4 VRF Aggr:19/aggregate(vpn1)
172.16.128.0/32	192.168.1.1	IPv4 VRF Aggr:19/nolabel
Route Distinguisher: 2:1 (vpn2)		
127.0.2.2/32	0.0.0.0	IPv4 VRF Aggr:20/aggregate(vpn2)
127.0.0.6/32	192.168.5.1	IPv4 VRF Aggr:20/nolabel
192.168.5.0/24	0.0.0.0	IPv4 VRF Aggr:20/aggregate(vpn2)
172.17.128.0/32	192.168.5.1	IPv4 VRF Aggr:20/nolabel
Route Distinguisher: 3:1 (vpn3)		
127.0.3.2/32	0.0.0.0	IPv4 VRF Aggr:23/aggregate(vpn3)
127.0.0.8/32	192.168.7.1	IPv4 VRF Aggr:23/nolabel
192.168.7.0/24	0.0.0.0	IPv4 VRF Aggr:23/aggregate(vpn3)
172.16.128.0/32	192.168.7.1	IPv4 VRF Aggr:23/nolabel

```
Router# show mpls forwarding-table
```

Local tag	Outgoing tag or VC	Prefix or Tunnel Id	Bytes tag switched	Outgoing interface	Next Hop
16	Pop tag	192.168.3.0/24	0	Et1/0	192.168.2.3
17	Pop tag	127.0.0.3/32	0	Et1/0	192.168.2.3
18	17	127.0.0.4/32	0	Et1/0	192.168.2.3
19	Pop Label	IPv4 VRF[V]	0	aggregate/vpn1	
20	Pop Label	IPv4 VRF[V]	0	aggregate/vpn2	
23	Pop Label	IPv4 VRF[V]	0	aggregate/vpn3	

```
PE1#
```

Configuration Examples for the Per VRF Label feature

This section shows examples for three different configurations:

- [No Label Mode \(Cisco 6500 Router Default\): Example, page 6](#)

- [Mixed Mode \(with Global Per-Prefix\): Example, page 7](#)
- [Mixed Mode \(with Global Per-VRF\): Example, page 9](#)

No Label Mode (Cisco 6500 Router Default): Example

The following example shows the default label mode configuration (no label mode) for the Cisco 6500 router.

In this example output, the **bold** text indicates the label modes:

```
Router# show ip vrf detail

VRF vpn1; default RD 1:1; default VPNID <not set>
VRF Table ID = 1
  Interfaces:
    Ethernet0/0          Serial5/0          Loopback1
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:1:1
  Import VPN route-target communities
    RT:1:1
  No import route-map
  No export route-map
  CSC is not configured.
VRF label allocation mode: per-prefix
per-vrf-aggr for connected and BGP aggregates (Label 19)
VRF vpn2; default RD 2:1; default VPNID <not set>
VRF Table ID = 2
  Interfaces:
    Ethernet2/0          Loopback2
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:2:1
  Import VPN route-target communities
    RT:2:1
  No import route-map
  No export route-map
  CSC is not configured.
VRF label allocation mode: per-prefix
per-vrf-aggr for connected and BGP aggregates (Label 20)
VRF vpn3; default RD 3:1; default VPNID <not set>
VRF Table ID = 3
  Interfaces:
    Ethernet3/0          Loopback3
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:3:1
  Import VPN route-target communities
    RT:3:1
  No import route-map
  No export route-map
  CSC is not configured.
VRF label allocation mode: per-prefix
per-vrf-aggr for connected and BGP aggregates (Label 23)
Router# show ip bgp vpnv4 all labels

      Network          Next Hop          In label/Out label
Route Distinguisher: 1:1 (vpn1)
  127.0.0.1/32        192.168.1.1      27/nolabel
  127.0.0.5/32        127.0.0.4        nolabel/19
  192.168.1.0/24      192.168.1.1      IPv4 VRF Aggr:19/nolabel
```

```

192.168.4.0/24 127.0.0.4 IPv4 VRF Aggr:19/aggregate (vpn1)
172.16.0.0/16 0.0.0.0 nolabel/20
172.16.128.0/32 192.168.1.1 IPv4 VRF Aggr:19/aggregate (vpn1)
Route Distinguisher: 2:1 (vpn2) 28/nolabel
127.0.2.2/32 0.0.0.0 IPv4 VRF Aggr:20/aggregate (vpn2)
127.0.0.6/32 192.168.5.1 21/nolabel
192.168.5.0/24 0.0.0.0 IPv4 VRF Aggr:20/aggregate (vpn2)
172.17.128.0/32 192.168.5.1 22/nolabel
Route Distinguisher: 3:1 (vpn3)
127.0.3.2/32 0.0.0.0 IPv4 VRF Aggr:23/aggregate (vpn3)
127.0.0.8/32 192.168.7.1 24/nolabel
192.168.7.0/24 0.0.0.0 IPv4 VRF Aggr:23/aggregate (vpn3)
172.16.128.0/32 192.168.7.1 25/nolabel

```

```
Router# show mpls forwarding-table
```

Local tag	Outgoing tag or VC	Prefix or Tunnel Id	Bytes switched	tag	Outgoing interface	Next Hop
16	Pop tag	192.168.3.0/24	0		Et1/0	192.168.2.3
17	Pop tag	127.0.0.3/32	0		Et1/0	192.168.2.3
18	17	127.0.0.4/32	0		Et1/0	192.168.2.3
19	Pop Label	IPv4 VRF [V]	0		aggregate/vpn1	
20	Pop Label	IPv4 VRF [V]	0		aggregate/vpn2	
21	Untagged	127.0.0.6/32 [V]	0		Et2/0	192.168.5.1
22	Untagged	172.17.128.0/32 [V]	0		Et2/0	192.168.5.1
23	Pop Label	IPv4 VRF [V]	0		aggregate/vpn3	
24	Untagged	127.0.0.8/32 [V]	0		Et3/0	192.168.7.1
25	Untagged	172.16.128.0/32 [V]	0		Et3/0	192.168.7.1
27	Untagged	127.0.0.1/32 [V]	0		Et0/0	192.168.1.1
28	Untagged	172.16.128.0/32 [V]	0		Et0/0	192.168.1.1

Mixed Mode (with Global Per-Prefix): Example

For this example, the following commands set VPN 1 for per-vrf label mode, VPN 2 for per-prefix label mode, and all remaining VPNs for per-prefix (globally).

In this example output, the **bold** text indicates the label modes:

```
Router# mpls label mode vrf vpn1 protocol bgp-vpnv4 per-vrf
Router# mpls label mode vrf vpn2 protocol bgp-vpnv4 per-prefix
```

Use the following show commands to display the label mode settings:

```
Router# show ip vrf detail
```

```

VRF vpn1; default RD 1:1; default VPNID <not set>
VRF Table ID = 1
  Interfaces:
    Ethernet0/0          Serial5/0          Loopback1
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:1:1
  Import VPN route-target communities
    RT:1:1
  No import route-map
  No export route-map
CSC is not configured.
VRF label allocation mode: per-vrf (Label 26)
VRF vpn2; default RD 2:1; default VPNID <not set>
VRF Table ID = 2
  Interfaces:

```

Configuration Examples for the Per VRF Label feature

```

Ethernet2/0          Loopback2
Connected addresses are not in global routing table
Export VPN route-target communities
  RT:2:1
Import VPN route-target communities
  RT:2:1
No import route-map
No export route-map
CSC is not configured.
VRF label allocation mode: per-prefix
per-vrf-aggr for connected and BGP aggregates (Label 27)
VRF vpn3; default RD 3:1; default VPNID <not set>
VRF Table ID = 3
Interfaces:
  Ethernet3/0          Loopback3
Connected addresses are not in global routing table
Export VPN route-target communities
  RT:3:1
Import VPN route-target communities
  RT:3:1
No import route-map
No export route-map
CSC is not configured.
VRF label allocation mode: per-prefix
per-vrf-aggr for connected and BGP aggregates (Label 28)

```

Router# **show ip bgp vpnv4 all label**

Network	Next Hop	In label/Out label
Route Distinguisher: 1:1 (vpn1)		
127.0.0.1/32	192.168.1.1	IPv4 VRF Aggr:26/nolabel
127.0.0.5/32	127.0.0.4	nolabel/19
192.168.1.0/24	0.0.0.0	IPv4 VRF Aggr:26/aggregate(vpn1)
	192.168.1.1	IPv4 VRF Aggr:26/nolabel
192.168.4.0/24	127.0.0.4	nolabel/20
172.16.0.0/16	0.0.0.0	IPv4 VRF Aggr:26/aggregate(vpn1)
172.16.128.0/32	192.168.1.1	IPv4 VRF Aggr:26/nolabel
Route Distinguisher: 2:1 (vpn2)		
127.0.2.2/32	0.0.0.0	IPv4 VRF Aggr:27/aggregate(vpn2)
127.0.0.6/32	192.168.5.1	20/nolabel
192.168.5.0/24	0.0.0.0	IPv4 VRF Aggr:27/aggregate(vpn2)
172.17.128.0/32	192.168.5.1	21/nolabel
Route Distinguisher: 3:1 (vpn3)		
127.0.3.2/32	0.0.0.0	IPv4 VRF Aggr:28/aggregate(vpn3)
127.0.0.8/32	192.168.7.1	22/nolabel
192.168.7.0/24	0.0.0.0	IPv4 VRF Aggr:28/aggregate(vpn3)
172.16.128.0/32	192.168.7.1	23/nolabel

Router# **show mpls forwarding-table**

Local tag	Outgoing tag or VC	Prefix or Tunnel Id	Bytes switched	tag	Outgoing interface	Next Hop
16	Pop tag	192.168.3.0/24	0		Et1/0	192.168.2.3
17	Pop tag	127.0.0.3/32	0		Et1/0	192.168.2.3
18	17	127.0.0.4/32	0		Et1/0	192.168.2.3
20	Untagged	127.0.0.6/32[V]	0		Et2/0	192.168.5.1
21	Untagged	172.17.128.0/32[V]0	0		Et2/0	192.168.5.1
22	Untagged	127.0.0.8/32[V]	0		Et3/0	192.168.7.1
23	Untagged	172.16.128.0/32[V]0	0		Et3/0	192.168.7.1
26	Pop Label	IPv4 VRF[V]	0		aggregate/vpn1	
27	Pop Label	IPv4 VRF[V]	0		aggregate/vpn1	
28	Pop Label	IPv4 VRF[V]	0		aggregate/vpn1	

Mixed Mode (with Global Per-VRF): Example

For this example, the following commands set VPN 1 for per-vrf label mode, VPN 2 for per-prefix label mode, and all remaining VPNs for per-vrf (globally).

In this example output, the **bold** text indicates the label modes:

```

Router# mpls label mode vrf vpn1 protocol bgp-ipv4 per-vrf
Router# mpls label mode vrf vpn2 protocol bgp-ipv4 per-prefix
Router# mpls label mode all-vrfs protocol bgp-ipv4 per-vrf

Router# show ip vrf detail

VRF vpn1; default RD 1:1; default VPNID <not set>
VRF Table ID = 1
  Interfaces:
    Ethernet0/0          Serial5/0          Loopback1
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:1:1
  Import VPN route-target communities
    RT:1:1
  No import route-map
  No export route-map
  CSC is not configured.
VRF label allocation mode: per-vrf (Label 26)
VRF vpn2; default RD 2:1; default VPNID <not set>
VRF Table ID = 2
  Interfaces:
    Ethernet2/0          Loopback2
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:2:1
  Import VPN route-target communities
    RT:2:1
  No import route-map
  No export route-map
  CSC is not configured.
VRF label allocation mode: per-prefix
per-vrf-aggr for connected and BGP aggregates (Label 27)
VRF vpn3; default RD 3:1; default VPNID <not set>
VRF Table ID = 3
  Interfaces:
    Ethernet3/0          Loopback3
  Connected addresses are not in global routing table
  Export VPN route-target communities
    RT:3:1
  Import VPN route-target communities
    RT:3:1
  No import route-map
  No export route-map
  CSC is not configured.
VRF label allocation mode: per-vrf (Label 28)

Router# show ip bgp ipv4 all label

      Network          Next Hop          In label/Out label
Route Distinguisher: 1:1 (vpn1)
127.0.0.1/32      192.168.1.1      IPv4 VRF Aggr:26/nolabel
127.0.0.5/32      127.0.0.4          nolabel/19
192.168.1.0/24    0.0.0.0            IPv4 VRF Aggr:26/aggregate(vpn1)
                  192.168.1.1        IPv4 VRF Aggr:26/nolabel
192.168.4.0/24    127.0.0.4          nolabel/20

```

Additional References

```

172.16.0.0/16      0.0.0.0      IPv4 VRF Aggr:26/aggregate(vpn1)
172.16.128.0/32 192.168.1.1 IPv4 VRF Aggr:26/nolabel
Route Distinguisher: 2:1 (vpn2)
127.0.2.2/32     0.0.0.0      IPv4 VRF Aggr:27/aggregate(vpn2)
127.0.0.6/32     192.168.5.1  20/nolabel
192.168.5.0/24   0.0.0.0      IPv4 VRF Aggr:27/aggregate(vpn2)
172.17.128.0/32  192.168.5.1  21/nolabel
Route Distinguisher: 3:1 (vpn3)
127.0.3.2/32     0.0.0.0      IPv4 VRF Aggr:28/aggregate(vpn3)
127.0.0.8/32   192.168.7.1 IPv4 VRF Aggr:28/nolabel
192.168.7.0/24   0.0.0.0      IPv4 VRF Aggr:28/aggregate(vpn3)
172.16.128.0/32 192.168.7.1 IPv4 VRF Aggr:28/nolabel

```

```
Router# show mpls forwarding-table
```

Local tag	Outgoing tag or VC	Prefix or Tunnel Id	Bytes switched	tag	Outgoing interface	Next Hop
16	Pop tag	192.168.3.0/24	0		Et1/0	192.168.2.3
17	Pop tag	127.0.0.3/32	0		Et1/0	192.168.2.3
18	17	127.0.0.4/32	0		Et1/0	192.168.2.3
20	Untagged	127.0.0.6/32[V]	0		Et2/0	192.168.5.1
21	Untagged	172.17.128.0/32[V]	0		Et2/0	192.168.5.1
26	Pop Label	IPv4 VRF [V]	0		aggregate/vpn1	
27	Pop Label	IPv4 VRF [V]	0		aggregate/vpn2	
28	Pop Label	IPv4 VRF [V]	0		aggregate/vpn3	

Additional References

The following sections provide references related to the Per VRF Label feature.

Related Documents

Related Topic	Document Title
MPLS VPNs	<i>Cisco IOS Multiprotocol Label Switching Configuration Guide, Release 12.4</i> Part 4: MPLS Virtual Private Networks

Standards

Standard	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	—

MIBs

MIB	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
RFC 2547	<i>BGP/MPLS</i>

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/techsupport

Command Reference

The following commands are introduced or modified in the feature or features documented in this module. For information about these commands, see the *Cisco IOS Multiprotocol Label Switching Command Reference* at http://www.cisco.com/en/US/docs/ios/mpls/command/reference/mp_book.html. For information about all Cisco IOS commands, use the Command Lookup Tool at <http://tools.cisco.com/Support/CLILookup> or the *Cisco IOS Master Command List, All Releases*, at http://www.cisco.com/en/US/docs/ios/mcl/allreleasemcl/all_book.html.

- `debug ip bgp vpnv4 unicast`
- `mpls label mode`

Feature Information for MPLS VPN—Per VRF Label

Table 2 lists the release history for this feature.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS and Catalyst OS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.



Note

Table 2 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 2 Feature Information for MPLS VPN—Per VRF Label

Feature Name	Releases	Feature Information
MPLS VPN—Per VRF Label	12.2(33)SRD	<p>This feature allows a user to configure a single VPN label for all local routes in the entire VPN routing and forwarding (VRF) domain on Cisco 6500 routers. The feature incorporates a single (per VRF) VPN label for <i>all</i> local routes in the VRF table.</p> <p>You can enable (or disable) the MPLS VPN—Per VRF Label feature in global configuration mode using a new, hidden, command. This feature is available for the Cisco 6500 router only</p> <p>In 12.2(33)SRD, this feature was integrated.</p>

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