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FSOS

VPN Configuration Guide

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1 Configuring VRF

1.1 Overview

VPN is defined as a collection of sites sharing a common routing table. A customer site is connected to the service provider network by one or more interfaces, where the service provider associates each interface with a VPN routing table. A VPN routing table is called a VPN routing and forwarding (VRF) table. Beginning in privileged EXEC mode, follow these steps to configure one or more VRFs.

1.2 Configuration

Switch(config)# ip vrf vpn1	Name the VRF, and enter VRF configuration mode
Switch(config-vrf)# rd 100:1	Create a VRF table by specifying a route distinguisher. Enter either an AS number and an arbitrary number (xxx:y) or an IP address and an arbitrary number (A.B.C.D:y)
Switch(config-vrf)# router-id 1.1.1.1	Set router id
Switch(config-vrf)# route-target both 100:1	Create a list of import, export, or import and export route target communities for the specified VRF. Enter either an AS system number and an arbitrary number (xxx:y) or an IP address and an arbitrary number (A.B.C.D:y)
Switch(config-vrf)# import map route-map	(Optional) Associate a route map with the VRF
Switch(config-vrf)# interface eth-0-1	Specify the Layer 3 interface (except vlan interface) to be associated with the VRF, and enter interface configuration mode. The interface can be a routed port but not an SVI

Switch(config-if)# no shutdown	Set interface up
Switch(config-if)# no switchport	Change the port to L3 port
Switch(config-if)# ip vrf forwarding vpn1	Associate a VPN routing and forwarding(VRF)instance with an Layer3 interface
Switch(config-if)# ip add 1.1.1.1/24	Set ip address
Switch(config-if)# end	Quit the interface mode
Switch # show ip vrf vpn1	Verify the configuration. Display information about the configured VRFs

1.3 Validation

The result of show information about the configured VRFs

Switch# show ip vrf

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VRF vpn1, FIB ID 1
Router ID: 1.1.1.1 (config)
Interfaces:
  eth-0-1

Switch# show ip vrf interfaces vpn1
Interface            IP-Address      VRF                 Protocol
eth-0-1              1.1.1.1         vpn1                up

Switch# show ip vrf bgp brief
Name                Default RD          Interfaces
vpn1                100:1               eth-0-1

Switch# show ip vrf bgp detail
VRF vpn1; default RD 100:1
Interfaces:
  eth-0-1
VRF Table ID = 1
Export VPN route-target communities
  RT:100:1
Import VPN route-target communities
  RT:100:1
import-map: route-map
No export route-map
```