

How to configure multiple IPs on a core switch



AI Overview

To configure multiple IP addresses on a core switch, assign each IP to a separate VLAN interface (SVI) or Layer 3 interface, enabling routing between subnets.

Step 1: Ensure Layer 3 Capability
Core switches must support Layer 3 functionality. By default, most switch ports operate at Layer 2. To assign IP addresses, you need to configure Switched Virtual Interfaces (SVIs) or convert physical interfaces to Layer 3 interfaces.

Step 2: Create VLANs
Each IP address typically corresponds to a separate subnet, so you need a VLAN for each subnet:

```
CodeCopySwitch> enable
Switch# configure terminal
Switch(config)# vlan 10
Switch(config-vlan)# name Sales
Switch(config-vlan)# exit
Switch(config)# vlan 20
Switch(config-vlan)# name Marketing
Switch(config-vlan)# exit
```

Assign physical ports to the VLANs as access ports or configure trunk ports for inter-switch connections.

Step 3: Configure IP Addresses on VLAN Interfaces
Once VLANs are created, assign IP addresses to each VLAN interface:

```
CodeCopySwitch(config)# interface vlan 10
Switch(config-if)# ip address 192.168.10.1 255.255.255.0
Switch(config-if)# no shutdown
Switch(config-if)# exit
Switch(config)# interface vlan 20
Switch(config-if)# ip address 192.168.20.1 255.255.255.0
Switch(config-if)# no shutdown
Switch(config-if)# exit
```

Each VLAN interface now acts as a gateway for its subnet.

Step 4: Enable Routing Between VLANs
If the switch supports IP routing, enable it to allow communication between VLANs:

```
CodeCopySwitch(config)# ip routing
```

This allows devices in different VLANs to communicate through the core switch.

Step 5: Configure DHCP (Optional)
If the switch will provide DHCP for multiple VLANs, create DHCP pools for each subnet:

```
CodeCopySwitch(config)# ip dhcp pool Sales
Switch(dhcp-config)# network 192.168.10.0 255.255.255.0
Switch(dhcp-config)# default-router 192.168.10.1
Switch(dhcp-config)# exit
```

```
CodeCopySwitch(config)# ip dhcp pool Marketing
Switch(dhcp-config)# network 192.168.20.0 255.255.255.0
Switch(dhcp-config)# default-router 192.168.20.1
Switch(dhcp-config)# exit
```

Article Content

Configure DHCP Server for multiple VLANs on the Switch

This tutorial explains how to configure and run the DHCP service on a Cisco switch to support multiple VLANs.

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Configure Two-Tier core switches as a VSX pair for Layer 2 aggregation of the data center access switches, IP data center services, and routing to the main campus.

I finally grasp how to split up an ISP connection for two ...

If you have two independent routers/firewalls, you'd need more than 1 IP. An HA pair of Fortigates or Palos for example share a virtual MAC+IP where its only active on one at a time.

Configure IP Address for Interface in Cisco Switches

To configure an IP Address on a switch interface, first, we must change the interface from a layer 2 interface to a layer 3 interface. A point to note is that to provide an IP Address to a switch

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Is it possible to have multiple IP's in same Vlan? Like i have a network 192.168.2.0/25. I have Sales and Admin dept. I would like to subnet 192.168.2.0 and 192.168.2.128. Now under the

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What my supervisor did was created a VLAN on three unused ports on our core switch stack, plugged in the main ISP line into that VLAN, and attached the two firewalls to the other two ports of that VLAN.

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Configuring the Core Switch

In this scenario, IP addresses of the interfaces connecting the core switch to the BRASs and firewalls and OSPF need to be configured on the core switch, so as to implement connectivity

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