

CISCO QUESTIONS

What are the steps for creating a vlan?

1. Vlan (#of vlan)
2. Name vlan(# of vlan)

How do you assign a port to a vlan?

1. Interface (port#)
2. Switchport access vlan (# of vlan)
3. Switchport mode access

How do you create a trunk?

1. Interface (port#)
2. Switchport trunk encapsulation dot1q
3. Switchport mode trunk

How do you make a switch the root bridge?

- Spanning-tree (vlan#) root primary priority 0

How do you see which ports are assigned to a vlan?

- Show vlan

How can you see if an interface is up?

- Show ip interface brief

How can you see spanning tree information?

- Show spanning-tree

How do you enable routing on a multilayer switch?

- Ip routing

How do you assign an ip address to a port on a multilayer switch?

- Interface (name of the port or vlan)
- Ip address (ip address subnet mask)

How do you assign a default gateway to a multilayer switch?

- Ip default-gateway (ip address)

How do you see the routing table on a multilayer switch?

- Show route

How do you show the mac address and port assignments? (Think CAM table)

- Show mac-address-table

PFSENSE FIREWALL QUESTIONS

How do you add an interface? (assuming you have an interface to add)

Interfaces

Assign

Name of interface

add

How do you add a static route?

System

Routing

Static routes

add

What are the firewall rules for the WAN interface?

No rules are defined

What are the firewall rules for the LAN interface?

Default allow LAN to any rule

Default allow LAN IPv6 to any rule

What are the firewall rules for the WIFI interface?

Allow traffic for WiFi to anything

What are the firewall rules for the DMZ?

None?

Is there a DHCP server configured for the LAN interface?

No

Is there a DHCP server configured for the WIFI interface?

No

Is there a DHCP server configured for the DMZ interface?

No

GENERAL NETWORKING QUESTIONS

What are VLANs for?

1. To segment a broadcast domain
2. To reduce broadcast traffic
3. To enhance security

When would you use a VLAN?

1. When we need to segment the network and we want to save costs
2. When traffic is slowing down the network
3. When we need to isolate a part of the network for security purposes

What is routing?

- The process of moving data from one network (source) to another network (destination)

What is a default gateway for?

- It's an access point that a network computer uses to send information to another computer in another network, or to the Internet.

What are some tools you can use for network troubleshooting?

1. Ping (another device's ip address or the Internet)
2. Traceroute

What does DHCP stand for?

- Dynamic Host Configuration Protocol

What does DNS stand for?

- Domain Name System

What does DNS do?

- It is like the Internet phone book. It translates domain names to ip addresses and vice-versa

What kinds of things can be automatically assigned by a DHCP server?

- IP addresses and other related configuration information, such as subnet mask, default gateway and address conflicts.

NETWORK ENGINEERING QUESTIONS - Use your lab for this

You are asked to provide internet access to hundreds of users. What services do you need to provide in order to accomplish this task?

How will you configure a DHCP server on pfSense so network B and C have dynamically assigned addresses?

You are told that the company is expanding. Redesign the network to accommodate the following.

1. 2 additional floors of the office building
2. 150 devices on each floor
3. Include room for expanding
4. Trunks should be done over etherchannel (you'll have to look this up)