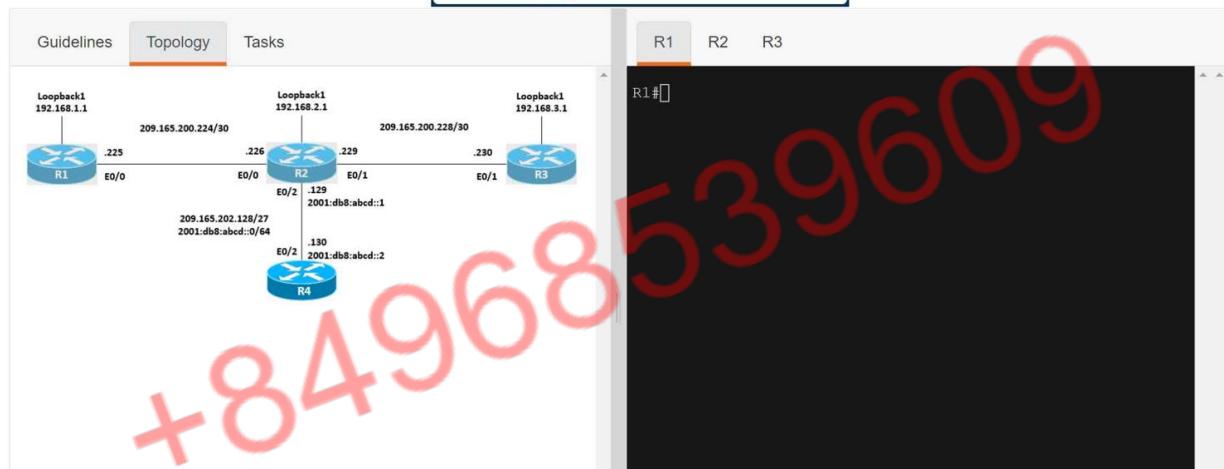


A network analyst is tasked with configuring the date and time on a router using EXEC mode. The date must be set to January 1, 2020 and the time must be set to 12:00 am. Which command should be used?

- clock summer-time date
- clock timezone
- clock set
- clock summer-time recurring

What are two recommendations for protecting network ports from being exploited when located in an office space outside of an IT closet? (Choose two.)

- enable the PortFast feature on ports
- configure ports to a fixed speed
- configure static ARP entries
- shut down unused ports
- implement port-based authentication





Refer to the exhibit. Which switch becomes the root bridge?

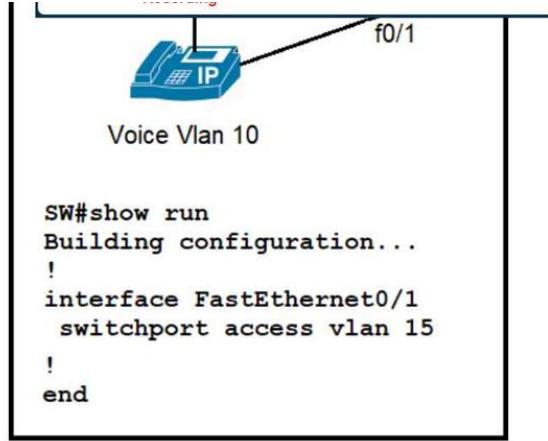
- SW 1
Bridge Priority - 28672
mac-address 00:10:a1:34:b8:50
- SW 2
Bridge Priority - 28672
mac-address 00:10:a1:26:7a:93
- SW 3
Bridge Priority - 61440
mac-address 00:10:a1:89:1c:96
- SW 4
Bridge Priority - 61440
mac-address 00:10:a1:57:d3:a7

Recording

```
R1# show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, * - candidate default
      U - per-user static route, o - ODR
Gateway of last resort is not set
C   172.16.0.0/16 is directly connected, Loopback0
     172.16.0.0/16 is variably subnetted, 4 subnets, 2 masks
O     172.16.1.3/32 [110/100] via 10.0.1.100, 00:39:08, Serial0
O     172.16.1.9/32 [110/5] via 172.16.1.50, 00:43:01, Gigabit Ethernet 0/0
D     172.16.1.4/30  [90/7445] via 172.16.9.5, 00:39:08, Gigabit Ethernet 0/0
          [90/7445] via 172.16.4.4, 00:39:08, Gigabit Ethernet 0/4
```

Refer to the exhibit. How does router R1 handle traffic to the 172.16.1.4 /30 subnet?

- It load-balances traffic over 172.16.9.5 and 172.16.4.4.
- It sends all traffic over the path via 172.16.4.4.
- It sends all traffic over the path via 172.16.9.5 using 172.16.4.4 as a backup.
- It sends all traffic over the path via 10.0.1.100.



Refer to the exhibit. All VLANs are present in the VLAN database. Which command sequence must be applied to complete the configuration?

- interface FastEthernet0/1
switchport mode access
switchport voice vlan 10
- interface FastEthernet0/1
switchport mode trunk
switchport trunk allowed vlan 10,15
- Interface FastEthernet0/1
switchport trunk allowed vlan add 10
vlan 10
private-vlan isolated
- interface FastEthernet0/1
switchport trunk native vlan 10
switchport trunk allowed vlan 10.15

When a WPA2-PSK WLAN is configured in the Wireless LAN Controller, what is the minimum number of characters that is required in ASCII format?

- 6
- 8
- 12
- 18

Output from R1

```
GigabitEthernet0/0/1 is up, line protocol is down
Hardware is SPA-10X1GE-V2, address is 0023.33ee.7c00 (bia 0023.33ee.7c00)
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Half Duplex, 1000Mbps, link type is auto, media type is LX
output flow-control is off, input flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:01, output 00:02:31, output hang never

10 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog, 314 multicast, 0 pause input
1 packets output, 77 bytes, 0 underruns
0 output errors, 50 collisions, 6 interface resets
17 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
```

Refer to the exhibit. What is the issue with the interface GigabitEthernet0/0/1?

- cable disconnect
- port security
- duplex mismatch
- high throughput

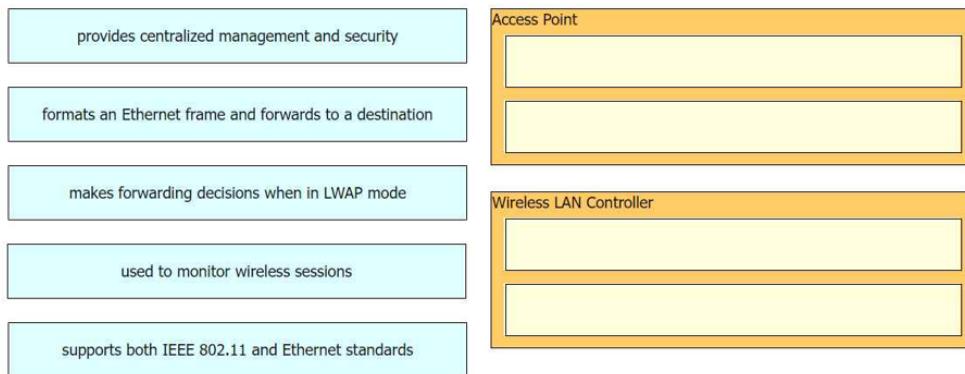
A network administrator wants the syslog server to filter incoming messages into different files based on their importance. Which filtering criteria must be used?

- process ID
- facility
- message body
- level

Which WPA3 enhancement protects against hackers viewing traffic on the Wi-Fi network?

- SAE encryption
- AES encryption
- TKIP encryption
- scrambled encryption key

Drag and drop the characteristic from the left onto the device type on the right. Not all characteristics are used.



Output from R1

```
GigabitEthernet0/0/1 is up, line protocol is down
Hardware is SPA-10XIGE-V2, address is 0023.33ee.7c00 (bia 0023.33ee.7c00)
MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive not supported
Half Duplex, 1000Mbps, link type is auto, media type is LX
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ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:01, output 00:02:31, output hang never

10 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
0 watchdog, 314 multicast, 0 pause input
1 packets output, 77 bytes, 0 underruns
0 output errors, 50 collisions, 6 interface resets
17 unknown protocol drops
0 babbles, 0 late collision, 0 deferred
```

Refer to the exhibit. What is the issue with the interface GigabitEthernet0/0/1?

- cable disconnect
- port security
- duplex mismatch
- high throughput

What is the path for traffic sent from one user workstation to another workstation on a separate switch in a three-tier architecture model?

- access - distribution - core - distribution - access
- access - core - distribution - access
- access - distribution - distribution - access
- access - core - access

 Comment



What is the maximum bandwidth of a T1 point-to-point connection?

- 1.544 Mbps
- 2.048 Mbps
- 34.368 Mbps
- 43.7 Mbps

An office has 8 floors with approximately 30-40 users per floor. One subnet must be used. Which command must be configured on the router Switched Virtual Interface to use address space efficiently?

- ip address 192.168.0.0 255.255.0.0
- ip address 192.168.0.0 255.255.254.0
- ip address 192.168.0.0 255.255.255.128
- ip address 192.168.0.0 255.255.255.224

What are two benefits of using the PortFast feature? (Choose two.)

- Enabled interfaces are automatically placed in listening state.
- Enabled interfaces that move to the learning state generate switch topology change notifications.
- Enabled interfaces wait 50 seconds before they move to the forwarding state.
- Enabled interfaces never generate topology change notifications.
- Enabled interfaces come up and move to the forwarding state immediately.

Drag and drop the threat-mitigation techniques from the left onto the types of threat or attack they mitigate on the right.



 Comment



Which device protects an internal network from the Internet?

- firewall
- Layer 2 switch
- access point
- router

When configuring a WLAN with WPA2 PSK in the Cisco Wireless LAN Controller GUI, which two formats are available to select? (Choose two.)

- hexadecimal
- ASCII
- base64
- binary
- decimal

Which two conditions must be met before SSH operates normally on a Cisco IOS switch? (Choose two.)

- IP routing must be enabled on the switch.
- Telnet must be disabled on the switch.
- The **ip domain-name** command must be configured on the switch.
- The switch must be running a k9 (crypto) IOS image.
- A console password must be configured on the switch.

Recording

```
EIGRP 10.10.10.0/24[90/1441] via F0/10
EIGRP 10.10.10.0/24[90/144] via F0/11
EIGRP 10.10.10.0/24[90/1441] via F0/12
OSPF 10.10.10.0/24[110/20] via F0/13
OSPF 10.10.10.0/24[110/30] via F0/14
```

Refer to the exhibit. Packets received by the router from BGP enter via a serial interface at 209.165.201.10. Each route is present within the routing table. Which interface is used to forward traffic with a destination IP of 10.10.10.24?

- F0/10
- F0/11
- F0/12
- F0/13

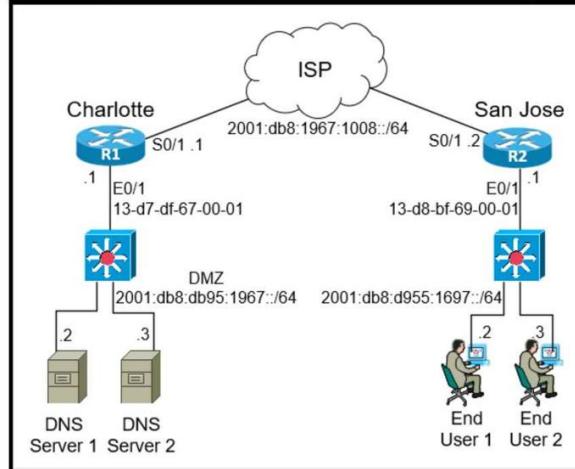
How is a configuration change made to a wireless AP in lightweight mode?

- CAPWAP/LWAPP connection via the parent WLC
- SSH connection to the management IP of the AP
- EoIP connection via the parent WLC
- HTTPS connection directly to the out-of-band address of the AP

After installing a new Cisco ISE server, which task must the engineer perform on the Cisco WLC to connect wireless clients on a specific VLAN based on their credentials?

- Enable the Event Driven RRM.
- Enable the Allow AAA Override.
- Disable the LAG Mode on Next Reboot.
- Enable the Authorize MIC APs against auth-list or AAA.

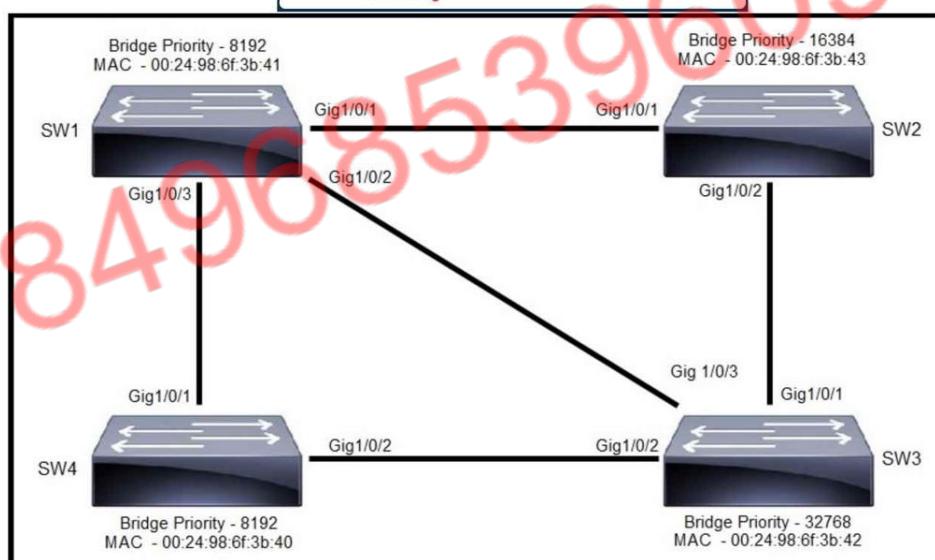
Recording



Refer to the exhibit. The IPv6 address for the LAN segment on router R2 must be configured using the EUI-64 format. When configured which ipv6 address is produced by the router?

- 2001:db8:d955:1697:4618:825F:FE66:1
- 2001:db8:d955:1697:11D8:BFFF:FE69:1
- 2001:db8:d955:1697:12D8:BAFE:FF01:1
- 2001:db8:d955:1697:1130:ABFF:FECC:1

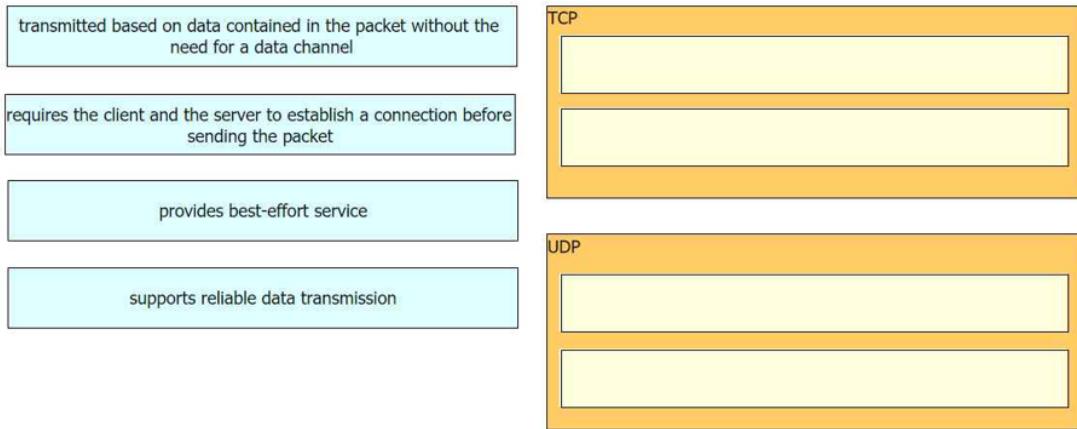
Recording



Refer to the exhibit. Rapid PVST+ mode is on the same VLAN on each switch. Which switch becomes the root bridge and why?

- SW1, because its priority is the lowest and its MAC address is higher
- SW2, because its MAC address is the highest
- SW4, because its priority is highest and its MAC address is lower
- SW2, because its priority is the highest

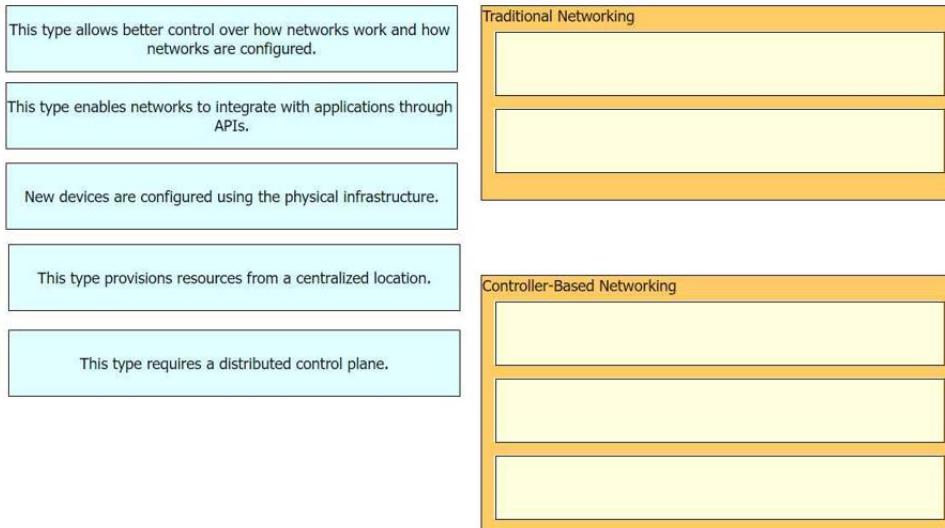
Drag and drop the TCP or UDP details from the left onto their corresponding protocols on the right.



How are RFC 1918 IP addresses used in a network?

- They are used by internet service providers to route over the internet.
- They are used to access the internet from the internal network without conversion.
- They are used with NAT to preserve public IPv4 addresses.
- They are used instead of public addresses for increased security.

Drag and drop the statements about networking from the left onto the corresponding networking types on the right.



A Cisco engineer notices that two OSPF neighbors are connected using a crossover Ethernet cable. The neighbors are taking too long to become fully adjacent. Which command must be issued under the interface configuration on each router to reduce the time required for the adjacency to reach the FULL state?

- ip ospf network broadcast
- ip ospf priority 0
- ip ospf dead-interval 40
- ip ospf network point-to-point

Under which condition is TCP preferred over UDP?

- TCP is used when dropped data is more acceptable, and UDP is used when data is accepted out-of-order.
- UDP is used when low latency is optimal, and TCP is used when latency is tolerable.
- TCP is used when data reliability is critical, and UDP is used when missing packets are acceptable.
- UDP is used when data is highly interactive, and TCP is used when data is time-sensitive.

What is a difference between an IPv6 multicast address and an IPv6 anycast address?

- An IPv6 multicast address uses the prefix 2002::/15 and forwards to one destination, and an IPv6 anycast address uses the prefix ff00::/8 and forwards to any destination in a group.
- A packet sent to an IPv6 multicast address is delivered to one or more destinations at once, but a packet sent to an IPv6 anycast address is routed to the closest interface with that address.
- IPv6 multicast addresses are used to transition from IPv4 to IPv6, and IPv6 anycast addresses are used for address aggregation in an IPv6-only environment.
- An IPv6 multicast address is assigned to numerous interfaces within a subnet, but an IPv6 anycast address is used for a predefined group of nodes in an all-IPv6 routers group.

What are two benefits of FHRPs? (Choose two.)

- They enable automatic failover of the default gateway.
- They are able to bundle multiple ports to increase bandwidth.
- They allow multiple devices to serve as a single virtual gateway for clients in the network.
- They prevent loops in the Layer 2 network.
- They allow encrypted traffic.

A packet from a company's branch office is destined to host 172.31.0.1 at headquarters. The sending router has three possible matches in its routing table for the packet: prefixes 172.31.0.0/16, 172.31.0.0/24, and 172.31.0.0/25. How does the router handle the packet?

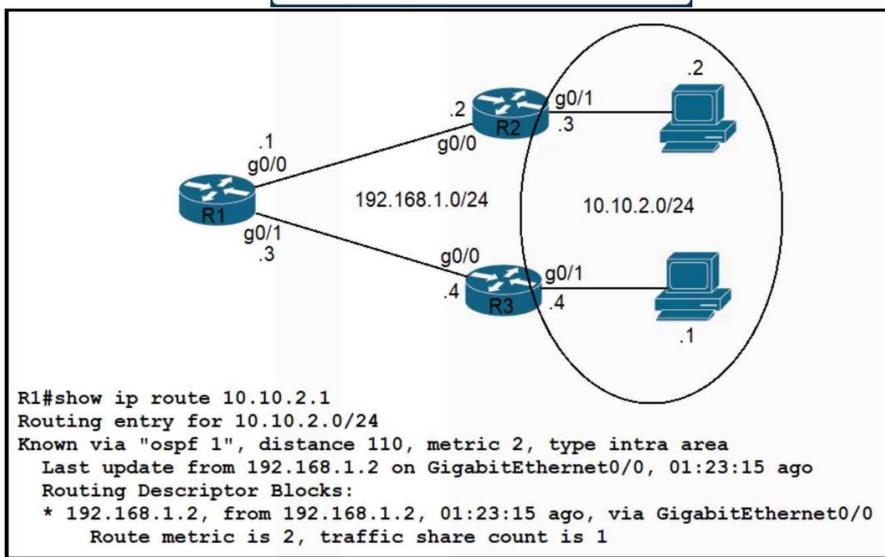
- It sends the traffic via prefix 172.31.0.0/24.
- It sends the traffic via the default gateway 0.0.0.0/0.
- It sends the traffic via prefix 172.31.0.0/25.
- It sends the traffic via prefix 172.31.0.0/16.

When a site-to-site VPN is configured, which IPsec mode provides encapsulation and encryption of the entire original IP packet?

- IPsec transport mode with ESP
- IPsec tunnel mode with ESP
- IPsec tunnel mode with AH
- IPsec transport mode with AH

What is a difference between an IPv6 multicast address and an IPv6 anycast address?

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- An IPv6 multicast address is assigned to numerous interfaces within a subnet, but an IPv6 anycast address is used for a predefined group of nodes in an all-IPv6 routers group.



Refer to the exhibit. Traffic from R1 to the 10.10.2.0/24 subnet uses 192.168.1.2 as its next hop. A network engineer wants to update the R1 configuration so that traffic with destination 10.10.2.1 passes through router R3, and all other traffic to the 10.10.2.0/24 subnet passes through R2. Which command must be used?

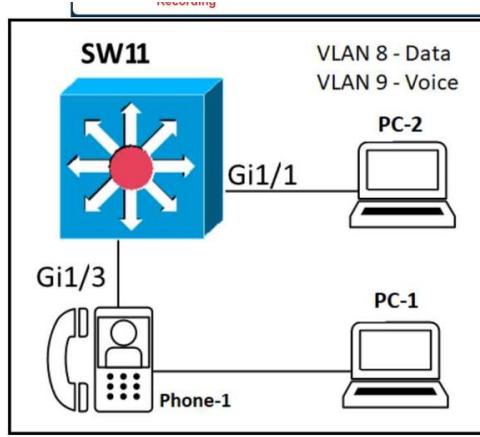
- ip route 10.10.2.1 255.255.255.255 192.168.1.4 100
- ip route 10.10.2.1 255.255.255.255 192.168.1.4 115

A network architect is deciding whether to implement Cisco autonomous access points or lightweight access points. Which fact about firmware updates must the architect consider?

- Unlike lightweight access points, which require redundant WLCs to support firmware upgrades, autonomous access points require only one WLC.
- Unlike autonomous access points, lightweight access points require a WLC to implement remote firmware updates.
- Unlike autonomous access points, lightweight access points store a complete copy of the current firmware for backup.
- Unlike lightweight access points, autonomous access points can recover automatically from a corrupt firmware update.

A wireless administrator has configured a WLAN; however, the clients need access to a less congested 5-GHz network for their voice quality. Which action must be taken to meet the requirement?

- enable RX-SOP
- enable Band Select
- enable DTIM
- enable AAA override



Refer to the exhibit. An administrator must configure interfaces Gi1/1 and Gi1/3 on switch SW11. PC-1 and PC-2 must be placed in the Data VLAN, and Phone-1 must be placed in the Voice VLAN. Which configuration meets these requirements?

- interface gigabitethernet1/1
switchport mode access
switchport access vlan 9
!
- interface gigabitethernet1/3
switchport mode trunk
switchport trunk vlan 8
switchport trunk vlan 9
- interface gigabitethernet1/1

Which protocol prompts the Wireless LAN Controller to generate its own local web administration SSL certificate for GUI access?

- RADIUS
- HTTPS
- TACACS+
- HTTP

```
R1# show ip route | begin gateway
Gateway of last resort is not set
      172.16.0.0/16 is variably subnetted, 5 subnets, 5 masks
O   172.16.2.128/25 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O   172.16.3.64/27 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O   172.16.3.128/28 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O   172.16.3.192/29 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
O   172.16.4.0/23 [110/3184437] via 207.165.200.250, 00:00:25, Serial0/0/0
      207.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
C   207.165.200.248/30 is directly connected, Serial0/0/0
L   207.165.200.249/32 is directly connected, Serial0/0/0
C   207.165.200.252/30 is directly connected, Serial0/0/1
L   207.165.200.253/32 is directly connected, Serial0/0/1
```

Refer to the exhibit. Drag and drop the learned prefixes from the left onto the subnet masks on the right.

172.16.3.128	255.255.254.0
172.16.3.64	255.255.255.128
172.16.2.128	255.255.255.224
172.16.3.192	255.255.255.240
172.16.4.0	255.255.255.248

Which value is the unique identifier that an access point uses to establish and maintain wireless connectivity to wireless network devices?

- WLAN ID
- SSID
- VLAN ID
- RFID

Which function does an SNMP agent perform?

- It manages routing between Layer 3 devices in a network.
- It requests information from remote network nodes about catastrophic system events.
- It coordinates user authentication between a network device and a TACACS+ or RADIUS server.
- It sends information about MIB variables in response to requests from the NMS.

```
{  
  "Interfaces": [ "ethernet0/3", "ethernet0/4", "ethernet0/5" ]  
}
```

Refer to the exhibit. Which type of JSON data is shown?

- sequence
- string
- object
- Boolean

Connection-specific DNS Suffix . :
Description : Intel(R) Ethernet Connection (2) I218-V
Physical Address : D0-50-99-47-A9-7F
DHCP Enabled. : Yes
Autoconfiguration Enabled : Yes
Link-local IPv6 Address : fe80::8809:9772:c583:6b18%15(PREFERRED)
IPv4 Address. : 192.168.69.132(PREFERRED)
Subnet Mask : 255.255.255.0
Lease Obtained. : Thursday, January 21, 2021 11:10:46 PM
Lease Expires : Wednesday, February 3, 2021 11:27:29 AM
Default Gateway : 192.168.69.1
DHCP Server : 192.168.69.1
DHCPv6 IAID : 231755929
DHCPv6 Client DUID. : 00-01-00-01-26-D7-BB-3F-D0-50-99-47-A9-7F
DNS Servers : 192.168.69.1
NetBIOS over Tcpip. : Enabled

Refer to the exhibit. What does the host do when using the IPv4 Preferred function?

- It requests the same IPv4 address when it renews its lease with the DHCP server.
- It continues to use a statically assigned IPv4 address.
- It prefers a pool of addresses when renewing the IPv4 host IP address.
- It forces the DNS server to provide the same IPv4 address at each renewal.

Which benefit does Cisco DNA Center provide over traditional campus management?

- Cisco DNA Center automates HTTPS for secure web access, and traditional campus management uses HTTP.
- Cisco DNA Center leverages SNMPv3 for encrypted management, and traditional campus management uses SNMPv2.
- Cisco DNA Center leverages APIs, and traditional campus management requires manual data gathering.
- Cisco DNA Center automates SSH access for encrypted entry, and SSH is absent from traditional campus management.

An organization secures its network with multi-factor authentication using an authenticator app on employee smartphones. How is the application secured in the case of a user's smartphone being lost or stolen?

- The application challenges a user by requiring an administrator password to reactivate when the smartphone is rebooted.
- The application requires the user to enter a PIN before it provides the second factor.
- The application requires an administrator password to reactivate after a configured interval.
- The application verifies that the user is in a specific location before it provides the second factor.

An engineer configured an OSPF neighbor as a designated router. Which state verifies the designated router is in the proper mode?

- Init
- Exchange
- Full
- 2-way

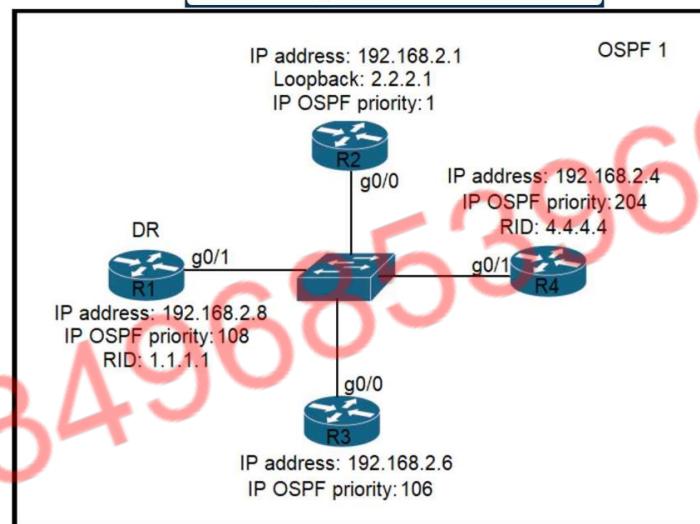
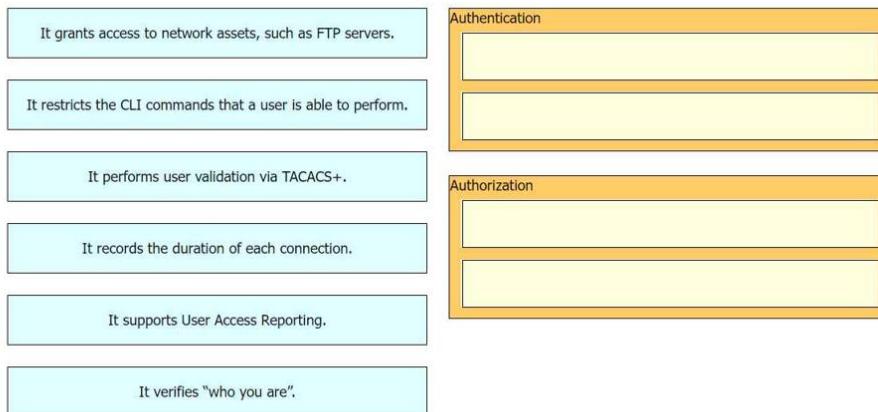
By default, how long will the switch continue to know a workstation MAC address after the workstation stops sending traffic?

- 200 seconds
- 300 seconds
- 600 seconds
- 900 seconds

An organization secures its network with multi-factor authentication using an authenticator app on employee smartphones. How is the application secured in the case of a user's smartphone being lost or stolen?

- The application challenges a user by requiring an administrator password to reactivate when the smartphone is rebooted.
- The application requires the user to enter a PIN before it provides the second factor.
- The application requires an administrator password to reactivate after a configured interval.
- The application verifies that the user is in a specific location before it provides the second factor.

Drag and drop the statements about AAA services from the left to the corresponding AAA services on the right. Not all options are used.



Refer to the exhibit. A network engineer is verifying the settings on a new OSPF network. All OSPF configurations use the default values unless otherwise indicated. Which router does the engineer expect will be elected as the DR when all devices boot up simultaneously?

- R1
- R2

A network engineer must migrate a router loopback interface to the IPv6 address space. If the current IPv4 address of the interface is 10.54.73.1/32, and the engineer configures IPv6 address 0:0:0:0:ffff:a36:4901, which prefix length must be used?

- /64
- /96
- /124
- /128

How do servers connect to the network in a virtual environment?

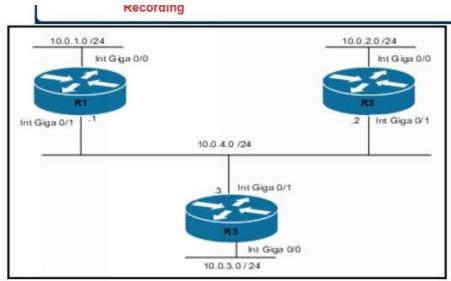
- a software switch on a hypervisor that is physically connected to the network
- a cable connected to a physical switch on the network
- a virtual switch that links to an access point that is physically connected to the network
- wireless to an access point that is physically connected to the network

What are two advantages of implementing a controller-based architecture instead of a traditional network architecture? (Choose two.)

- It allows for seamless connectivity to virtual machines.
- It increases security against denial-of-service attacks.
- It supports complex and high-scale IP addressing schemes.
- It provides increased scalability and management options.
- It enables configuration task automation.

What differentiates device management enabled by Cisco DNA Center from traditional campus device management?

- CLI-oriented device
- per-device
- centralized
- device-by-device hands-on



Refer to the exhibit. Routers R1 and R3 have the default configuration. The router R2 priority is set to 99. Which commands on R3 configure it as the DR in the 10.0.4.0/24 network?

- R3(config)#interface Gig0/1
R3(config-if)#ip ospf priority 100
- R3(config)#interface Gig0/0
R3(config-if)#ip ospf priority 100
- R3(config)#interface Gig0/0
R3(config-if)#ip ospf priority 1
- R3(config)#interface Gig0/1
R3(config-if)#ip ospf priority 0

Comment

What is a reason to implement LAG on a Cisco WLC?

- Provide link redundancy and load balancing.
- Increase security and encrypt management frames.
- Enable connected switch ports to fail over and use different VLANs.
- Allow for stateful and link-state failover.

Which configuration management mechanism uses TCP port 22 by default when communicating with managed nodes?

- Python
- Ansible
- Chef
- Puppet

```
R1# show ip route
...
D      172.16.32.0/27 [90/2888597172] via 20.1.1.1
O      172.16.32.0/19 [110/292094] via 20.1.1.10
R      172.16.32.0/24 [120/2] via 20.1.1.3
```

Refer to the exhibit. Router R1 is running three different routing protocols. Which route characteristic is used by the router to forward the packet that it receives for destination IP 172.16.32.1?

- metric
- cost
- longest prefix
- administrative distance

Which API is used in controller-based architectures to interact with edge devices?

- underlay
- southbound
- northbound
- overlay

A DHCP pool has been created with the name CONTROL. The pool uses the next to last usable IP address as the default gateway for the DHCP clients. The server is located at 172.16.32.15. What is the next step in the process for clients on the 192.168.52.0/24 subnet to reach the DHCP server?

- ip default-network 192.168.52.253
- ip helper-address 172.16.32.15
- ip default-gateway 192.168.52.253
- ip forward-protocol udp 137

With REST API, which standard HTTP header tells a server which media type is expected by the client?

- Content-Type: application/json; charset=utf-8
- Accept: application/json
- Accept-Encoding: gzip, deflate
- Accept-Patch: text/example; charset=utf-8

```

R1#  

Gateway of last resort is 10.56.0.1 to network 0.0.0.0  

S*   0.0.0.0/0 [1/0] via 10.56.0.1  

      10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks  

C     10.56.0.0/16 is directly connected, Null0  

C     10.56.0.0/26 is directly connected, Vlan58  

C     10.56.0.0/17 is directly connected, Vlan59  

C     10.56.0.0/24 is directly connected, Vlan60

```

Refer to the exhibit. When router R1 receives a packet with destination IP address 10.56.0.62, through which interface does it route the packet?

- Vlan59
- Vlan58
- Null0
- Vlan60

+84939609

```

Router# show interface gi0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
  Hardware is ISR4331-3xIGE, address is 5486.bc25.1f70 (bia 5486.bc25.1f70)
  Description: <> WAN Link <>
  Internet address is 192.0.2.2/30
  MTU 1500 bytes, BW 1000000 Kbit/sec, DLY 10 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not supported
  Full Duplex, 1000Mbps, link type is auto, media type is RJ45
  output flow-control is off, input flow-control is off
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 00:00:11, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/375/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 7000 bits/sec, 4 packets/sec
  5 minute output rate 4000 bits/sec, 4 packets/sec
    22579370 packets input, 8825545968 bytes, 0 no buffer
    Received 67 broadcasts (0 IP multicasts)
    0 runts, 0 giants, 0 throttles
    3612699 input errors, 3612699 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 10747057 multicast, 0 pause input
    12072167 packets output, 1697953637 bytes, 0 underruns
    0 output errors, 0 collisions, 1 interface resets
    6 unknown protocol drops
    0 babbles, 0 late collision, 0 deferred
    5 lost carrier, 0 no carrier, 0 pause output
    0 output buffer failures, 0 output buffers swapped out

```

Refer to the exhibit. What is a reason for poor performance on the network interface?

- The cable connection between the two devices is faulty.
- The interface is receiving excessive broadcast traffic.
- The interface is operating at a different speed than the connected device.

Which type of protocol is VRRP?

- uses dynamic IP address assignment
- uses Cisco-proprietary First Hop Redundancy Protocol
- uses a destination IP address 224.0.0.102 for router-to-router communication
- allows two or more routers to act as a default gateway

A network engineer is configuring a switch so that it is remotely reachable via SSH. The engineer has already configured the host name. Which additional command must the engineer configure before entering the command to generate the RSA key?

- ip domain-name domain**
- ip ssh authentication-retries 2**
- password password**
- crypto key generate rsa modulus 1024**

An engineer needs to configure LLDP to send the port description type length value (TLV). Which command sequence must be implemented?

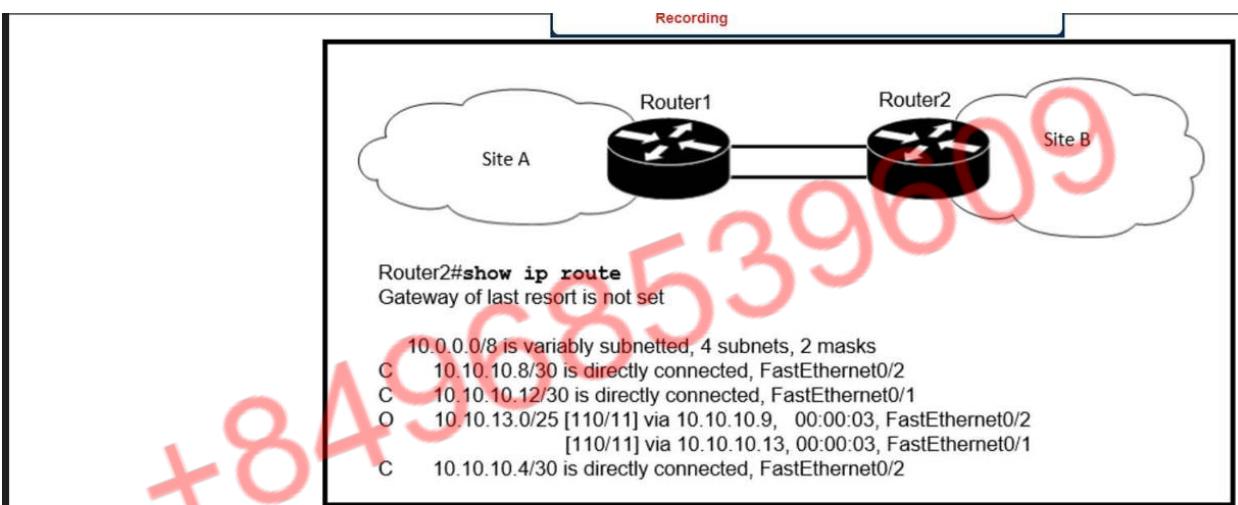
- switch(config)#lldp port-description**
- switch#lldp port-description**
- switch(config-if)#lldp port-description**
- switch(config-line)#lldp port-description**

Why would an administrator choose to implement an automated network management solution?

- to support simpler password policies
- to reduce operational costs
- to limit recurrent management costs
- to enable "box by box" configuration and deployment

Which two QoS tools provide congestion management? (Choose two.)

- CBWFQ
- PBR
- PQ
- FRTS
- CAR



Refer to the exhibit. If OSPF is running on this network, how does Router2 handle traffic from Site B to 10.10.13.128/25 at Site A?

- It is unreachable and discards the traffic.
- It load-balances traffic out of Fa0/1 and Fa0/2.
- It sends packets out of interface Fa0/1.
- It sends packets out of interface Fa0/2.

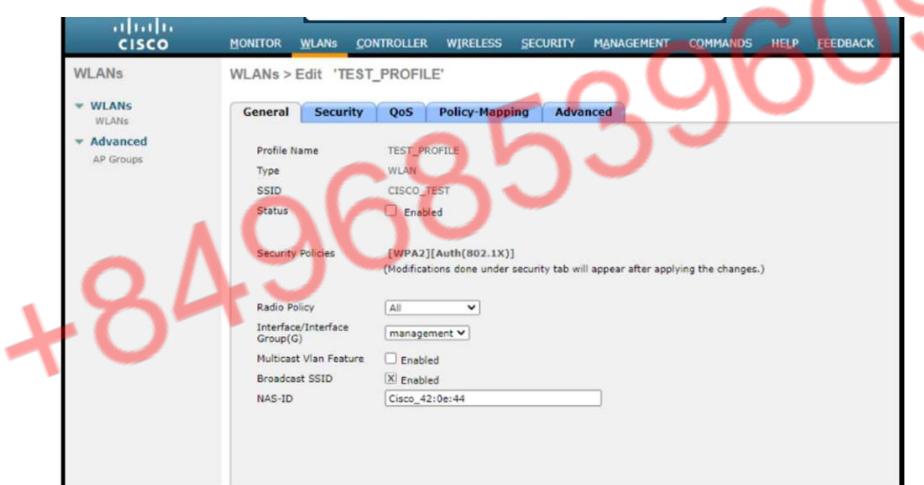
```

router# show ip route
...
D 172.18.32.0/26 [90/25789217] via 10.1.1.1
R 172.18.32.0/24 [120/4] via 10.1.1.2
O 172.18.32.0/19 [110/229840] via 10.1.1.3
C 172.18.32.32/32 is directly connected, Loopback0
C 172.18.32.36/30 is directly connected, GigabitEthernet0/0
L 172.18.32.37/32 is directly connected, GigabitEthernet0/0

```

Refer to the exhibit. A packet sourced from 172.18.33.2 is destined for 172.18.32.38. Where does the router forward the packet?

- Loopback0
- 10.1.1.3
- GigabitEthernet0/0
- 10.1.1.1



Refer to the exhibit. A Cisco WLC administrator is creating a new wireless network with enhanced SSID security. The new network must operate at 2.4 Ghz with 54 Mbps of throughput. Which set of tasks must the administrator perform to complete the configuration?

- Check the Broadcast SSID check box and set the Radio Policy to 802.11a only.
- Uncheck the Broadcast SSID check box and set the Radio Policy to 802.11g only.
- Uncheck the Broadcast SSID check box and set the Radio Policy to 802.11a/g only.
- Check the Broadcast SSID check box and set the Radio Policy to 802.11g only.

```
R1# show ip route
Gateway of last resort is 192.168.200.1 (192.168.200.1)
S* 0.0.0.0/0 [1/0]
  is directly connected, 172.16.0.0
  S 172.16.0.0/8 [20/1]
    via 207.165.200.2, serial1/0/0
    S 172.16.0.12/8 [32445/1]
      via 207.165.200.2, serial1/0/0
    D 172.16.0.19/8 [318443/9]
      via 207.165.200.2, serial1/0/0
    C 207.165.200.0/16 [0/0]
      is directly connected, 172.16.0.19
    L 207.165.200.255/32 [0/0]
      is directly connected, Serial1/0/0
    C 207.165.200.255/32 [0/0]
      is directly connected, Serial1/0/0
```

Refer to the exhibit. With which metric does router R1 learn the route?

- 90
 - 110
 - 32445
 - 3184439

172.16.0.202



An engineer is configuring NAT to translate the source subnet of 10.10.0.0/24 to any one of three addresses: 192.168.3.1, 192.168.3.2, or 192.168.3.3. Which configuration should be used?

- enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
access-list 1 permit 10.10.0.0 0.0.0.254
ip nat Inside source list 1 pool mypool
Interface g1/1
ip nat inside
interface g1/2
ip nat outside
 - enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
route-map permit 10.10.0.0 255.255.255.0
ip nat outside destination list 1 pool mypool
Interface g1/1
ip nat inside
interface g1/2
ip nat outside
 - enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
access-list 1 permit 10.10.0.0 0.0.0.255
ip nat outside destination list 1 pool mypool
Interface g1/1
ip nat inside
interface g1/2
ip nat outside
 - enable
configure terminal
ip nat pool mypool 192.168.3.1 192.168.3.3 prefix-length 30
access-list 1 permit 10.10.0.0 0.0.0.255
ip nat Inside source list 1 pool mypool

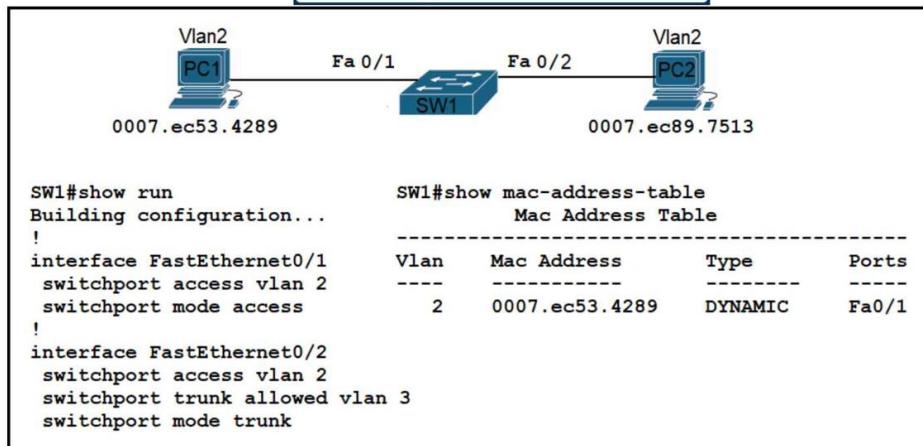
Drag and drop the DNS lookup components from the left onto the functions on the right.

cache	local database of address mappings that improves name-resolution performance
DNS	service that maps hostnames to IP addresses
domain	disables DNS services on a Cisco device
name resolver	in response to client requests, queries a name server for IP address information
no ip domain-lookup	component of a URL that indicates the location or organization type.

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.246 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 209.165.200.246, Serial0/1/0
is directly connected, Serial0/1/0
    172.16.0.0/16 is variably subnetted, 3 subnets, 3 masks
S  172.16.0.0/24 [1/0] via 207.165.200.250, Serial0/0/0
O  172.16.0.128/25 [110/32445] via 207.165.200.254, 00:00:23, Serial0/0/1
D  172.16.0.192/29 [90/3184439] via 207.165.200.254, 00:00:25, Serial0/0/1
    207.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
C  207.165.200.248/30 is directly connected, Serial0/0/0
L  207.165.200.249/32 is directly connected, Serial0/0/0
C  207.165.200.252/30 is directly connected, Serial0/0/1
L  207.165.200.253/32 is directly connected, Serial0/0/1
```

Refer to the exhibit. With which metric does router R1 learn the route to host 172.16.0.202?

- 90
- 110
- 32445
- 3184439



Refer to the exhibit. An engineer has started to configure replacement switch SW1. To verify part of the configuration, the engineer issued the commands as shown and noticed that the entry for PC2 is missing. Which change must be applied to SW1 so that PC1 and PC2 communicate normally?

- SW1(config)#interface fa0/1
SW1(config-if)#no switchport access vlan 2
SW1(config-if)#switchport trunk native vlan 2
SW1(config-if)#switchport trunk allowed vlan 3
- SW1(config)#interface fa0/2
SW1(config-if)#no switchport mode trunk
SW1(config-if)#no switchport trunk allowed vlan 3
SW1(config-if)#switchport mode access

An engineer must update the configuration on two PCs in two different subnets to communicate locally with each other. One PC is configured with IP address 192.168.25.128/25 and the other with 192.168.25.100/25. Which network mask must the engineer configure on both PCs to enable the communication?

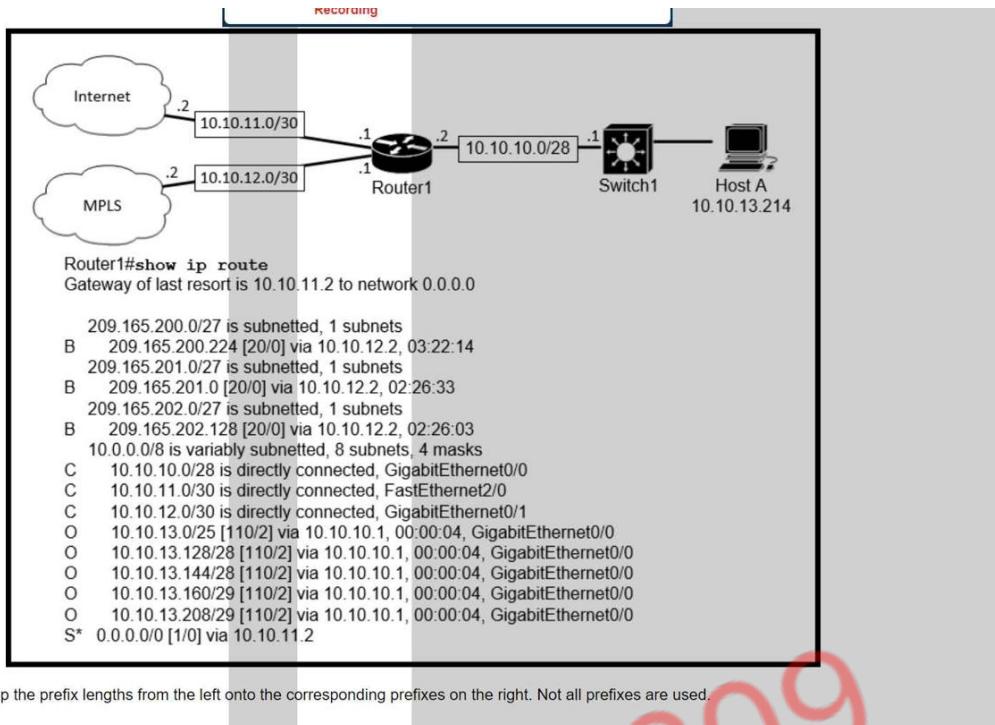
- 255.255.255.0
- 255.255.255.248
- 255.255.255.252
- 255.255.255.224

Comment



What is a characteristic of an SSID in wireless networks?

- uses a case-sensitive text string
- encodes connections at the sending and receiving ends
- allows easy file sharing between endpoints
- requires the use of PoE for functionality



Refer to the exhibit. Drag and drop the prefix lengths from the left onto the corresponding prefixes on the right. Not all prefixes are used.

What is the difference between IPv6 unicast and anycast addressing?

- Unlike an IPv6 anycast address, an IPv6 unicast address is assigned to a group of interfaces on multiple nodes.
- IPv6 unicast nodes must be explicitly configured to recognize the unicast address, but IPv6 anycast nodes require no special configuration.
- IPv6 anycast nodes must be explicitly configured to recognize the anycast address, but IPv6 unicast nodes require no special configuration.
- An individual IPv6 unicast address is supported on a single interface on one node, but an IPv6 anycast address is assigned to a group of interfaces on multiple nodes.

An engineer must configure the IPv6 address 2001:0db8:0000:0000:0700:0003:400F:572B on the serial0/0 interface of the HQ router and wants to compress it for easier configuration. Which command must be issued on the router interface?

- ipv6 address 2001::db8:0000::700:3:400F:572B**
- ipv6 address 2001:db8::700:3:400F:572B**
- ipv6 address 2001:db8:0::700:3:4F:572B**
- ipv6 address 2001:0db8::7:3:4F:572B**

Which type of port is used to connect to the wired network when an autonomous AP maps two VLANs to its WLANs?

- EtherChannel
- access
- trunk
- LAG

How does Cisco DNA Center gather data from the network?

- Devices use the call-home protocol to periodically send data to the controller.
- The Cisco CLI Analyzer tool gathers data from each licensed network device and streams it to the controller.
- Network devices use different services like SNMP, syslog, and streaming telemetry to send data to the controller.
- Devices establish an IPsec tunnel to exchange data with the controller.

What are two differences between optical-fiber cabling and copper cabling? (Choose two.)

- The glass core component is encased in a cladding.
- The data can pass through the cladding.
- Fiber connects to physical interfaces using RJ-45 connections.
- A BNC connector is used for fiber connections.
- Light is transmitted through the core of the fiber.

```
R1#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.2/24, Area 0
  Process ID 1, Router ID 192.168.1.2, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 15, Dead 20, Wait 20, Retransmit 5
    Hello due in 00:00:08
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 1, maximum is 1
  Last flood scan time is 0 msec, maximum is 0 msec
  Suppress hello for 0 neighbor(s)

R2#show ip ospf interface g0/0/0
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.1/24, Area 0
  Process ID 1, Router ID 10.1.1.1, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:11
  Index 1/1, flood queue length 0
  Next 0x0(0)/0x0(0)
  Last flood scan length is 1, maximum is 1
  Last flood scan time is 0 msec, maximum is 0 msec
  Suppress hello for 0 neighbor(s)
```

Refer to the exhibit. The network engineer is configuring router R2 as a replacement router on the network. After the initial configuration is applied, it is determined that R2 failed to show R1 as a neighbor. Which configuration must be applied to R2 to complete the OSPF configuration and enable it to establish the neighbor relationship with R1?

+84968539609