

Question #222

Topic 1

Which three statements are typical characteristics of VLAN arrangements? (Choose three.)

- A. A new switch has no VLANs configured.
- B. Connectivity between VLANs requires a Layer 3 device.
- C. VLANs typically decrease the number of collision domains.
- D. Each VLAN uses a separate address space.
- E. A switch maintains a separate bridging table for each VLAN.
- F. VLANs cannot span multiple switches.

Correct Answer: *BDE*

 **dicksonpwc** Highly Voted 1 year, 10 months ago

To communicate between two different VLANs we need to use a Layer 3 device like router or Layer 3 switch -> B is correct.

VLANs don't affect the number of collision domains, they are the same -> C is not correct. Typically, VLANs increase the number of broadcast domains.

We must use a different network (or sub-network) for each VLAN. For example we can use 192.168.1.0/24 for VLAN 1, 192.168.2.0/24 for VLAN 2 -> D is correct.

A switch maintains a separate bridging table for each VLAN so that it can send frame to ports on the same VLAN only. For example, if a PC in VLAN 2 sends a frame then the switch look-ups its bridging table and only sends frame out of its ports which belong to VLAN 2 (it also sends this frame on trunk ports) -> E is correct.

upvoted 25 times

 **ac891** Most Recent 3 weeks ago

Why E is Correct?

upvoted 1 times

 **freetnowledge123** 5 months ago

why is D correct?

upvoted 1 times

 **ZUMY** 12 months ago

B D & E are correct

upvoted 3 times

 **Tesfa** 1 year, 5 months ago

Why is A not correct guys b/c a new switch has no vlan configuration.

upvoted 2 times

 **ShammaA** 2 weeks, 5 days ago

I thought the same thing, by default VLAN 1 and 1002-1005 are there so I understood the word "configured" as in newly configured VLANs.. but then I remember this is a CISCO exam

upvoted 1 times

 **Taku2023** 3 months, 1 week ago

We have Vlan 1 (Default)and Vlan 1001-1005 FDDI TOKEN RING so A is out

upvoted 3 times

 **gvofke** 1 year, 5 months ago

I think is because there is always the default VLAN1

upvoted 9 times

 **LordScorpius** 1 year, 1 month ago

Right on. Actually default vlans, out of the box are '1' and 1002 -1005. None of them can be deleted

upvoted 5 times

 **Adaya** 1 year, 11 months ago

A router is a layer 3 device which can be used to connect vlans for intervlan routing

upvoted 2 times

 **dave1992** 1 year, 8 months ago

so is a layer 3 switch

upvoted 1 times

 **ScorpionNet** 1 year, 1 month ago

Yes with ip routing or a router with subinterfaces configured
upvoted 1 times

 **bunblake** 1 year, 11 months ago

Why is B correct?
upvoted 2 times

 **CiscoTerminator** 1 year, 10 months ago

Since each vlan represents a subnet/ network, to route between subnets or networks you need a L3 device such as a router or a L3 switch.
upvoted 4 times

 **Sten111** 1 year, 11 months ago

To send data from one VLAN to another you need a router or layer 3 switch. VLANs are logically separated at layer 2.
upvoted 1 times

Question #223

On a corporate network, hosts on the same VLAN can communicate with each other, but they are unable to communicate with hosts on different VLANs. What is needed to allow communication between the VLANs?

- A. a router with subinterfaces configured on the physical interface that is connected to the switch
- B. a router with an IP address on the physical interface connected to the switch
- C. a switch with an access link that is configured between the switches
- D. a switch with a trunk link that is configured between the switches

Correct Answer: A

Different VLANs can't communicate with each other, they can communicate with the help of Layer3 router. Hence, it is needed to connect a router to a switch, then make the sub-interface on the router to connect to the switch, establishing Trunking links to achieve communications of devices which belong to different VLANs.

 **ZUMY** Highly Voted 12 months ago

A is correct
Router on a stick configuration
upvoted 6 times

 **ScorpionNet** Most Recent 1 year, 1 month ago

A is correct because that is how Router on a Stick is implemented
upvoted 3 times

 **Shamwedge** 1 year, 7 months ago

A and B are correct however A - Router on a stick is the method. If the answer was B, you would have to have a switch port on the the router for each VLAN. Answer A - router on a stick creates sub interfaces for each VLAN eliminating the need for a switch port for each VLAN
upvoted 3 times

 **shaz938** 1 year, 8 months ago

A is correct. In other words, have a Router On A Stick (ROAS).

Another option could be to have a Layer 3 Switch with SVIs (Switched Virtual Interfaces) and the appropriate IP addressing.
upvoted 2 times

 **SScott** 1 year, 10 months ago

Yes A is the right answer.

<https://www.practicalnetworking.net/stand-alone/routing-between-vlans/#:~:text=There%20are%20three%20options%20available%20in%20order%20to%20enable%20routing%20between%20the%20VLANs>

<https://www.ciscopress.com/articles/article.asp?p=2990405&seqNum=2#:~:text=The%20encapsulation%20command%2C%20and%20not%20the%20subinterface%20number%2C%20defines%20the%20VLAN%20ID%20associated%20with%20the%20subinterface>

[https://www.firewall.cx/networking-topics/vlan-networks/218-vlan-access-trunk-links.html#:~:text=these%20two%20VLANS%20do%20not%20exchange%20any%20traffic%20between%20each%20other%2C%20unless%20we%20are%20using%20a%20layer%20switch%20\(or%20router\)%20and%20we%20have%20explicitly%20configured%20the%20switch%20to%20route%20traffic%20between%20the%20two%20VLANS](https://www.firewall.cx/networking-topics/vlan-networks/218-vlan-access-trunk-links.html#:~:text=these%20two%20VLANS%20do%20not%20exchange%20any%20traffic%20between%20each%20other%2C%20unless%20we%20are%20using%20a%20layer%20switch%20(or%20router)%20and%20we%20have%20explicitly%20configured%20the%20switch%20to%20route%20traffic%20between%20the%20two%20VLANS)
upvoted 2 times

 **JammyPashmal00** 1 year, 10 months ago

Yes oooMooo, but "subinterfaces" are not required. Like you said, essentially a connection to each VLAN, and IP for each connection.
upvoted 2 times

 **AWSFastLearner** 1 year, 9 months ago

Yes, like you said. I thought the answer is B...
upvoted 2 times

 **oooMooo** 2 years, 1 month ago

A is correct.

"For inter-VLAN communication, a layer 3 device (usually a router) is needed. This layer 3 device needs to have an IP address in each subnet (VLAN) and have a connected route to each of those subnets. The hosts in each subnet can use the router's IP addresses as their default gateway."
upvoted 3 times

Question #224

Topic 1

Which statement about LLDP is true?

- A. It is a Cisco proprietary protocol.
- B. It is configured in global configuration mode.
- C. The LLDP update frequency is a fixed value.
- D. It runs over the transport layer.

Correct Answer: B

 **SScott** Highly Voted 1 year, 10 months ago

B is correct, LLDP is for support with non-Cisco devices, runs on the data link layer, and llpd timer has a configurable range from 5 to 65534 sec, commands configured only from conf t

upvoted 9 times

 **ian77ex** Highly Voted 1 year, 3 months ago

B is not correct because some LLDP parameters are configured at interface levels (transmit and receive) So it's not only configured at global configuration mode. Maybe the lack of the word "only" makes the answer correct.

C is not correct because the update timer can be modified, but anyone could understand the word "fixed" like stating that the updates are sent steadily every a certain amount of 'fixed' time.

I hate when they are not trying to measure your knowledge. Instead they're trying to trick you by using unclear questions!

upvoted 9 times

 **Liuka_92** 1 year ago

I totally agree.

upvoted 2 times

 **dearc** Most Recent 2 months ago

Selected Answer: B

The answer to the question "Which statement about LLDP is true?" is: B. It is configured in global configuration mode.

This answer is supported by search results [1], [2], [3], [4], [5], [6], [7], [8], and [9], which all state that LLDP is configured in global configuration mode . The other statements listed as choices are incorrect. LLDP is not a Cisco proprietary protocol (A) - it is a vendor-neutral protocol. The LLDP update frequency is not necessarily fixed (C) - it can be configured. LLDP runs over the data link layer, not the transport layer (D)

upvoted 1 times

 **ZUMY** 12 months ago

B is correct

upvoted 3 times

 **Jbcrggddfhh** 1 year ago

B is correct, but C should have been phrased "The LLDP update frequency value can't be modified."

upvoted 1 times

 **JammyPashmal00** 1 year, 10 months ago

Actually, two answers are correct: LLDP has a fixed timer/frequency (30 sec. by default), and it is configured at the Global command level

upvoted 1 times

 **DonnerKomet** 1 year, 9 months ago

No because, C affirms that the frequency value is a fixed value, but is not true. It can be modified

upvoted 9 times

Question #225

What is a function of Wireless LAN Controller?

- A. register with a single access point that controls traffic between wired and wireless endpoints
- B. use SSIDs to distinguish between wireless clients
- C. send LWAPP packets to access points
- D. monitor activity on wireless and wired LANs

Correct Answer: C

Lightweight APs (LAPs) devices require no initial configuration. LAPs use the Lightweight Access Point Protocol (LWAPP) to communicate with a WLAN controller (WLC), as shown in the below figure. Controller-based APs are useful in situations where many APs are required in the network. As more APs are added, each AP is automatically configured and managed by the WLC.

 **bestboy120** Highly Voted 2 years, 5 months ago

B is wrong
C. send LWAPP packets to access points
upvoted 21 times

 **Retxed** Highly Voted 2 years, 4 months ago

Correct Answer: C
Explanation/Reference: Lightweight APs (LAPs) devices require no initial configuration. LAPs use the Lightweight Access Point Protocol (LWAPP) to communicate with a WLAN controller (WLC), as shown in the below figure. Controller-based APs are useful in situations where many APs are required in the network. As more APs are added, each AP is automatically configured and managed by the WLC.
upvoted 8 times

 **jobba111** Most Recent 11 months, 2 weeks ago

Selected Answer: C
C is correct
upvoted 1 times

 **GreatDane** 11 months, 3 weeks ago

Ref: Defining LWAPP (Cisco Wireless LAN Controllers) - what-when-how.com

"...
LWAPP is a way for an AP to communicate directly with a management entity—the WLC.
..."

A. register with a single access point that controls traffic between wired and wireless endpoints

A WLC is used to configure and manage one or more APs. It doesn't control traffic between the wireless and wired part of a network, it controls APs.

Wrong answer.

B. use SSIDs to distinguish between wireless clients

On the contrary, SSIDs are used by wireless clients to distinguish among different wireless LANs and decide which one to associate with.
Wrong answer.

C. send LWAPP packets to access points

Correct answer.

D. monitor activity on wireless and wired LANs

A WLC doesn't monitor data traffic or device behaviour. A WLC is used to MANAGE one or more APs.

Wrong answer.

upvoted 1 times

 **ZUMY** 12 months ago

C is correct
upvoted 1 times

 **Jbcrggddfh** 1 year ago

Selected Answer: C
C is correct -- WLCs communicate and manage APs by sending them LWAPP packets.

"Wireless LAN Controllers (WLC) govern a collection of Lightweight Access Points (APs)."

"Light Weight Access Point Protocol (LWAPP) defines the network protocol between the APs and WLC."

Reference: <https://aristanetworks.force.com/AristaCommunity/s/article/how-to-integrate-cisco-wireless-lan-controller-with-cloudvision-wifi>
upvoted 3 times

 **Jbcrggddfh** 1 year ago

A sounds like it is describing a device that is a client of an AP. Definitely not a WLC.

B is wrong since SSIDs distinguish between different WLANs, not individual clients.

"SSID is short for service set identifier. In layman's terms, an SSID is the name for a Wi-Fi network."

Reference: <https://www.webopedia.com/definitions/ssid/>

D is incorrect because a WLC does not monitor traffic on wired LANs; it only monitors wireless activity.

"A wireless LAN controller (WLC) is a network component that manages wireless network access points and allows wireless devices to connect to the network."

"It offers central control over network elements, increases network visibility, and greatly simplifies individual component monitoring."

Reference: <https://www.manageengine.com/network-monitoring/wlc-monitoring.html>

upvoted 1 times

 **ScorpionNet** 1 year, 1 month ago

I agree with everyone C is correct because LWAPP is used by WLAN Controllers to send packets to LAPs. Like how CAPWAP functions but except it's sent to WLCs

upvoted 1 times

 **LordScorpius** 1 year, 1 month ago

Selected Answer: C

Going with C LWAPP is a protocol that allows WLC to do its thing with LAP enabled devices.

upvoted 1 times

 **raresz** 1 year, 2 months ago

Selected Answer: C

weird question. isn't it also Standalone AP function to use SSID to distinguish between wireless clients? So if Standalone AP can do it why it would be meant about WLC?

upvoted 1 times

 **ismatdmour** 1 year, 3 months ago

Selected Answer: C

C of course

B is meant to trick you. WLC does not use SSID to distinguish between wireless clients, it uses SSID to distinguish between wireless lans

upvoted 1 times

 **Nagib** 1 year, 3 months ago

C. send LWAPP packets to access points

upvoted 1 times

 **bmatthee01** 1 year, 3 months ago

In this case C is correct - LWAPP is one of the functions of a WLC, it is a means to communicate with the AP's

In this case B is not correct, because WLC does not use SSID to distinguish between wireless clients, it uses SSID to distinguish between wireless lans

just have to read the questions carefully and understand the concepts

upvoted 3 times

 **ian77ex** 1 year, 3 months ago

Selected Answer: C

Who said B?

upvoted 1 times

 **Ravan** 1 year, 4 months ago

Selected Answer: C

Correct Answer: C

Explanation/Reference: Lightweight APs (LAPs) are devices that require no initial configuration. LAPs use the Lightweight Access Point Protocol (LWAPP) to communicate with a WLAN controller (WLC). Controller-based APs are useful in situations where many APs are required in the network. As more APs are added, each AP is automatically configured and managed by the WLC.

upvoted 1 times

 **AndersonMr** 1 year, 4 months ago

Selected Answer: C

Explanation/Reference: Lightweight APs (LAPs) are devices that require no initial configuration. LAPs use the Lightweight Access Point Protocol (LWAPP) to communicate with a WLAN

upvoted 1 times

 **awashenko** 1 year, 4 months ago

Selected Answer: C

After digging in I think C is correct
upvoted 1 times

 **LingLingW** 1 year, 5 months ago

Selected Answer: C

Explanation/Reference: Lightweight APs (LAPs) are devices that require no initial configuration. LAPs use the Lightweight Access Point Protocol (LWAPP) to communicate with a WLAN controller (WLC), as shown in the below figure. Controller-based APs are useful in situations where many APs are required in the network. As more APs are added, each AP is automatically configured and managed by the WLC.

upvoted 1 times

Question #226

Topic 1

Which technology is used to improve web traffic performance by proxy caching?

- A. WSA
- B. Firepower
- C. ASA
- D. FireSIGHT

Correct Answer: A

 **mrsiafu** Highly Voted  2 years, 1 month ago

Yeah.. but what cert guide would have given this type of info for a question like this?
upvoted 27 times

 **ian77ex** Highly Voted  1 year, 3 months ago

This is out of scope.
upvoted 15 times

 **soRwatches** Most Recent  2 months, 4 weeks ago

dafuq is this sh!t?
upvoted 10 times

 **ZUMY** 12 months ago

A is correct
upvoted 3 times

 **Cyberops** 1 year ago

Selected Answer: A
A is the correct answer
upvoted 1 times

 **ScorpionNet** 1 year, 1 month ago

A is correct because WSAs are used to detect any sites that seem fishy
upvoted 1 times

 **lordnano** 2 years, 3 months ago

Seems to be correct. Reference:
<https://www.cisco.com/c/en/us/products/collateral/security/web-security-appliance/guide-c07-742373.html>
"

4.1 Web proxy

Caching should be enabled in the web proxy configuration in order to save bandwidth and boost performance. This is becoming less important as the percentage of HTTPS traffic increases because the WSA does not by default cache HTTPS transactions. If the proxy is deployed to serve only explicit clients, forward mode should be specified in order to reject any traffic that isn't specifically destined for the proxy service. This reduces attack surface in the appliance and follows a good security principle: If you don't need it, turn it off.

"

upvoted 12 times

 **Sscott** 1 year, 11 months ago

<https://www.cisco.com/c/en/us/support/docs/security/web-security-appliance/118043-qanda-wsa-00.html>
upvoted 2 times

Question #227

Topic 1

What criteria is used first during the root port selection process?

- A. local port ID
- B. lowest path cost to the root bridge
- C. lowest neighbor's bridge ID
- D. lowest neighbor's port ID

Correct Answer: B

✉  **DavidFitzgerald** Highly Voted  2 years ago

lol root bridge
upvoted 100 times

✉  **IxlJustinIxl** Highly Voted  1 year, 12 months ago

Root Port selection is based on the port having lowest cost to the Root Bridge (CAT1). For PVST (Per VLAN Spanning Tree) path cost will depend on bandwidth of links and cost value is as shown below for most commonly used links.

<https://mrncciew.com/2013/07/07/stp-root-port-selection/>
upvoted 9 times

✉  **tahasidd** Most Recent  4 months, 3 weeks ago

root bridge:p
upvoted 1 times

✉  **ejj8** 6 months, 3 weeks ago

tooooooot
upvoted 3 times

✉  **ZUMY** 12 months ago

Selected Answer: B

B - Root bridge
upvoted 2 times

✉  **ScorpionNet** 1 year, 1 month ago

Answer is B but what does root mean a train? It supposed to be spelt root
upvoted 3 times

✉  **LordScorpius** 1 year, 1 month ago

Selected Answer: B

Here comes the too too training going over the root bridge to the root port
upvoted 5 times

✉  **Rothus** 1 year, 1 month ago

Aprendan a escribir viejos pndjos
upvoted 2 times

✉  **dave1992** 1 year, 8 months ago

root lol
upvoted 5 times

✉  **CISCO2022** 2 years ago

C is correct. question asked for the first step in electing root bridge.
STP Root Port Selection
Lowest bridge ID (Priority:MAC Address) switch becomes the Root-Bridge.
Each non-root bridge should have ONE root port (RP) which is the port having lowest path-cost to Root Bridge.
All ports in Root Bridge become Designated Ports (DP)
Each segment should have one Designated Port (DP)
upvoted 5 times

✉  **Dataset** 1 year, 12 months ago

hi! the question asked "root port" , so B is correct, the root port are ports with the lowest path cost to the root bridge.
Regards!
upvoted 7 times

✉  **Ray12345** 2 years ago

STP root port election
Lowest root cost
Lowest neighbor bridge ID
Lowest neighbor port id
upvoted 5 times

 **kunyo99** 2 years ago

Yes Answer is correct
upvoted 3 times

 **Dataset** 2 years, 1 month ago

B is correct
upvoted 2 times

 **Chun9** 2 years, 4 months ago

Is it root bridge? the B answer?
upvoted 4 times

 **SasithCCNA** 2 years, 4 months ago

yes the answer is B
upvoted 2 times

 **SasithCCNA** 2 years, 4 months ago

its should be root bridge not toot bridge lol
upvoted 7 times

Question #228

Which statement about VLAN configuration is true?

- A. The switch must be in VTP server or transparent mode before you can configure a VLAN
- B. The switch must be in config-vlan mode before you configure an extended VLAN
- C. Dynamic inter-VLAN routing is supported on VLAN2 through VLAN 4096
- D. A switch in VTP transparent mode saves the VLAN databases to the running configuration only

Correct Answer: A

✉  **Nhan** Highly Voted 2 years, 3 months ago

Correct answer is a, you can only create, add, delete, edit VLAN in server and transparent mode, you won't be able to create, delete VLAN in client mode.

upvoted 32 times

✉  **aeK994** Highly Voted 2 years, 3 months ago

```
Switch(config)#vtp mode client
Setting device to VTP CLIENT mode.
Switch(config)#vla
Switch(config)#vlan 20
VTP VLAN configuration not allowed when device is in CLIENT mode.
```

Answer is A

upvoted 24 times

✉  **aeK994** 2 years, 3 months ago

Also B is incorrect. Because when vtp mode is transparent, you can create extended VLAN.

```
Switch(config)#vtp mode transparent
Setting device to VTP TRANSPARENT mode.
Switch(config)#vlan 1010
Switch(config-vlan)#
upvoted 3 times
```

✉  **SScott** 1 year, 11 months ago

Right, statement A precedes B. A comes first before you can even configure an extended VLAN. A is correct.

upvoted 3 times

✉  **Vikramaditya_J** Most Recent 1 month ago

Selected Answer: A

Option A is a correct statement because the question doesn't ask anything about VLAN advertisement or VLAN information forwarding, so we shouldn't think deeper about VTP modes.

upvoted 1 times

✉  **linuxlife** 2 months, 3 weeks ago

```
Switch#show vtp status
VTP Version capable : 1 to 2
VTP version running : 1
VTP Domain Name :
VTP Pruning Mode : Disabled
VTP Traps Generation : Disabled
Device ID : 00D0.FFB3.D900
Configuration last modified by 0.0.0 at 0-0-00 00:00:00
Local updater ID is 0.0.0 (no valid interface found)
```

Feature VLAN :

```
-----
VTP Operating Mode : Server
Maximum VLANs supported locally : 255
Number of existing VLANs : 5
Configuration Revision : 0
MD5 digest : 0x7D 0x5A 0xA6 0x0E 0x9A 0x72 0xA0 0x3A
0xF0 0x58 0x10 0x6C 0x9C 0x0F 0xA0 0xF7
Switch#
Switch#
Switch#
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 4000
```

VLAN_CREATE_FAIL: Failed to create VLANs 4000 : extended VLAN(s) not allowed in current VTP mode
Switch(config)#

upvoted 1 times

✉ **linuxlife** 2 months, 3 weeks ago

changing the VTP Server to Transparent Mode will allow the configurations of Extended VLANs:

```
Switch(config)#vtp mode transparent
Device mode already VTP TRANSPARENT.
Switch(config)#vlan 4000
```

```
Switch#show run
Building configuration...
```

```
Current configuration : 1171 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
vtp mode transparent
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
vlan 4000
```

upvoted 1 times

✉ **humanbot** 6 months, 4 weeks ago

Selected Answer: A

A is the right answer

upvoted 1 times

✉ **sasquatchshrimp** 10 months, 1 week ago

Selected Answer: B

I am going B. Research how to configure an extended vlan, and you end up in config-vlan.

upvoted 1 times

✉ **rijstraket** 4 months, 2 weeks ago

Correct, you end up in config-vlan, but you didn't start the configuration of the extended vlan there. That happened with the rule where you configured an extended vlan (e.g. 'vlan 1234'). Therefor answer B is incorrect.

upvoted 2 times

✉ **ZUMY** 12 months ago

A is okay

upvoted 1 times

✉ **DARKK** 1 year ago

Selected Answer: A

A is correct

upvoted 1 times

✉ **Faram** 2 years, 3 months ago

A

<https://study-ccna.com/vtp-modes/>

upvoted 3 times

✉ **admin1982** 2 years, 4 months ago

OK, so I take it back after doing some research. The correct answer could be A. This is a bit of a tricky one though.

<https://community.cisco.com/t5/networking-documents/how-to-configure-extended-range-vlans-in-catalyst-6500-switch/ta-p/3122316>
upvoted 2 times

✉ **admin1982** 2 years, 4 months ago

wannaknow is correct, the answer is B. I did the config as well.

upvoted 1 times

✉ **wannaknow** 2 years, 4 months ago

Correct answer is B, here is the explanation

Switch#

Switch#config t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#vlan 222

Switch(config-vlan)#name test222

Switch(config-vlan)#exit

Switch(config)#vlan 1200

VLAN_CREATE_FAIL: Failed to create VLANs 1200 : extended VLAN(s) not allowed in current VTP mode

Switch(config)#

Switch(config)#

Switch#

%SYS-5-CONFIG_I: Configured from console by console

Switch#vlan database

% Warning: It is recommended to configure VLAN from config mode,

as VLAN database mode is being deprecated. Please consult user

documentation for configuring VTP/VLAN in config mode.

Switch(vlan)#vlan 1200

VLAN 1200 modified:

Switch(vlan)#

Switch(vlan)#

Switch#

upvoted 2 times

 **helkas** 2 years, 3 months ago

Switch to transparent mode and try from global config again.

1

configure terminal

Enter global configuration mode.

Step 2

vtp mode transparent

Configure the switch for VTP transparent mode, disabling VTP.

Note This step is not required for VTP version 3.

Step 3

vlan vlan-id

Enter an extended-range VLAN ID and enter VLAN configuration mode. The range is 1006 to 4094.

upvoted 1 times

 **mariodesa** 1 year, 4 months ago

You configured the extended vlan in Switch(vlan)# mode, not in Switch(config-vlan)# mode as indicated in option B. The correct answer is A. Server and transparent VTP modes can create, modify and delete vlans.

upvoted 1 times

 **mariodesa** 1 year, 4 months ago

But VTP mode Clients cannot create, modify or delete vlans.

upvoted 1 times

 **SasithCCNA** 2 years, 4 months ago

so what is the correct answer then?

upvoted 1 times

 **Techno_Head** 2 years, 4 months ago

Answer D.

Explanation:

Server mode is the default VTP mode for all Catalyst switches. At least one server is required in a VTP domain to propagate VLAN information within the VTP domain. We can create, add, or delete VLANs of a VTP domain in a Switch which is in VTP Server mode and change VLAN information in a VTP Server. The changes made in a switch in server mode are advertised to the entire VTP domain.

The VTP Transparent mode is something between a VTP Server and a VTP Client but does not participate in the VTP Domain. In Transparent mode, you are able to create, modify and delete VLANs on the local switch, without affecting any other switches regardless of the mode they might be in.

upvoted 1 times

 **Zerotime0** 2 years, 4 months ago

You copied the explanation from another website where answer D there is answer A here. So to be clear explanation is correct for answer A.

upvoted 5 times

 **Techno_Head** 2 years, 3 months ago

Can I disagree with myself. The answer is B to configure vlans you need to be at this prompt. Switch(config-vlan)# Its a bad question but you don't have to be in any vtp mode to configure. Most if not all switches come with VTP disabled. I wish you could edit and delete your posts and wish you got notification when someone responds. Maybe i haven't set that up right will have a look.

upvoted 3 times

 **XBfoundX** 2 years, 4 months ago

The explanations about VTP is right but there is a problem here, the answer said only in the running configuration but in reality vlans are not only on the running-config they are stored in the vlan.dat file into the flash. Even if it is transparent the vlan are still also saved into the vlan.dat file into the flash memory.

Best regards

upvoted 3 times

Question #229

Topic 1

Refer to the exhibit. What two conclusions should be made about this configuration? (Choose two.)

```
SW1#show spanning-tree vlan 30

VLAN0030
Spanning tree enabled protocol rstp
Root ID      Priority        32798
              Address        0025.63e9.c800
              Cost           19
              Port           1 (FastEthernet 2/1)
              Hello Time     2 sec
              Max Age        30 sec
              Forward Delay  20 sec

[Output suppressed]
```

- A. The root port is FastEthernet 2/1
- B. The designated port is FastEthernet 2/1
- C. The spanning-tree mode is PVST+
- D. This is a root bridge
- E. The spanning-tree mode is Rapid PVST+

Correct Answer: AE

 **Randman** Highly Voted 1 year, 6 months ago

And how do we know Fe2/1 is the root port and not the designated port from this show of output?

Thank you

upvoted 9 times

 **ian77ex** 1 year, 3 months ago

The cost to reach the root bridge is 19, meaning that the root bridge is directly connected through a 100Mbps link. That's how you know.

upvoted 11 times

 **DC095** 3 months, 1 week ago

This is not quite correct. In RSTP the default cost of a 100Mbs Link is 200,000. This means that the cost of 19 would have to have been manually configured on the link.

upvoted 3 times

 **oatmealturkey** 3 months, 1 week ago

Not on a Cisco switch. Cisco still uses the default settings as defined in 802.1D-1998, so you would have to manually configure the updated costs that you referred to. The cost of 19 for a 100Mbps port is indeed the default setting on a Cisco switch. I highly recommend getting the Official Certification Guide Vol. 1&2, I believe it is necessary to pass the exam.

upvoted 3 times

 **southcrossboss** 1 year, 2 months ago

true that!

upvoted 2 times

 **netlol** 1 year, 4 months ago

I have the same question

upvoted 1 times

 **Abupaa** 1 year, 4 months ago

It will say "This bridge is the root" in the output

upvoted 5 times

 **dicksonpwc** Highly Voted 1 year, 10 months ago

1. Spanning tree enabled protocol rstp(mode is Rapid PVST+)
2. Port 1(FastEthernet 2/1) = root port is FastEthernet 2/1

upvoted 6 times

 **icecool2019** Most Recent 8 months ago

Rapid PVST+ definition: This is a Cisco enhancement of RSTP that uses PVST+ and provides a separate instance of 802.1w per VLAN. Each separate instance supports PortFast, BPDU guard, BPDU filter, root guard, and loop guard. (Source: Netacad). Since there is no selection for RSTP then Rapid PVST + is the closest answer.

upvoted 1 times

 **ScorpionNet** 1 year, 1 month ago

A and E is correct

upvoted 1 times

 **ZUMY** 2 years, 1 month ago

A & E are Correct

upvoted 2 times

 **goldengodiva** 2 years, 2 months ago

Why does the answer say it's using rapid pvst+ when the exhibit shows that it's using rstp?

upvoted 3 times

 **netlol** 1 year, 4 months ago

it is pvst (per vlan spanning tree) because the show command indicates that there is a STP per vlan (in this case, showing the STP of VLAN 30). And then it's rapid because it says that "Spanning tree enabled protocol rstp", So, in conclusion it's rapid pvst (the "+" is something about Cisco but you don't have to worry about it). Hope this explanation was clear to you!

upvoted 3 times

 **youtri** 2 years, 1 month ago

rstp: r means Rapid

upvoted 3 times

 **jehangt3** 2 years ago

@goldengodiva is right. Rapid STP or RSTP is IEEE standard & Rapid PVST+ is cisco proprietary so the answer does not match the question.

There's a typo here

upvoted 3 times

 **Roberts132** 1 year, 10 months ago

exact!

upvoted 2 times

 **echarles10** 2 years, 5 months ago

AE is correct

upvoted 3 times

Question #230

Topic 1

A network engineer must create a diagram of a multivendor network. Which command must be configured on the Cisco devices so that the topology of the network is allowed to be mapped?

- A. Device(config)#lldp run
- B. Device(config)#cdp run
- C. Device(config-if)#cdp enable
- D. Device(config)#flow-sampler-map topology

Correct Answer: A

 **Jay1324** Highly Voted 1 year, 4 months ago

Key is multi-vendor--lldp. cdp is cisco only
upvoted 11 times

 **StingVN** Most Recent 1 month, 1 week ago

Selected Answer: A
A. As CDP only for cisco devices. but since multi vendor then should be LLDP.
upvoted 1 times

 **Mohammed028** 10 months, 1 week ago

Selected Answer: A
A is correct
upvoted 1 times

 **jose01210** 11 months, 2 weeks ago

aprendiendo ingles a la fuerza jejeje pero vale la pena
upvoted 2 times

 **ZUMY** 11 months, 4 weeks ago

A is correct
upvoted 1 times

 **ScorpionNet** 1 year, 1 month ago

Yep its definitely the Multivendor
upvoted 1 times

 **dipanjana1990** 1 year, 2 months ago

cdp is cisco-proprietary whereas lldp is open standard. as well as cdp is enabled by default in all cisco devices. thus A would be the correct answer.
upvoted 2 times

 **Smaritz** 1 year, 3 months ago

CDP = Cisco only
upvoted 1 times

Question #231

Topic 1

How do AAA operations compare regarding user identification, user services, and access control?

- A. Authorization provides access control, and authentication tracks user services
- B. Authentication identifies users, and accounting tracks user services
- C. Accounting tracks user services, and authentication provides access control
- D. Authorization identifies users, and authentication provides access control

Correct Answer: B

 **Ali526** Highly Voted 2 years, 5 months ago

Authentication, Identify users
Authorization, access control
Accounting, track user services
upvoted 34 times

 **ZUMY** Highly Voted 2 years, 1 month ago

B is correct
Authentication, Identify users
Authorization, access control
Accounting, track user services
upvoted 8 times

 **ScorpionNet** Most Recent 1 year, 1 month ago

B is correct
Authentication = Who are you?
Authorization = Here's some things you're only allowed to do
Accounting = Hmm let's see what this person is doing
upvoted 6 times

 **onikafei** 1 year, 4 months ago

Best way i found it is to cut out the different definitions of authentication the answers provide.

Authentication is verifying your identity, its identifying the users.
Access control is definitely not it lol, neither is tracking user services. Your not touching those without authentication lol
upvoted 1 times

 **ZayaB** 2 years, 4 months ago

C & D are also true according to the ALI526, therefore, why answer is B?
upvoted 3 times

 **Zerotime0** 2 years, 3 months ago

Reread.
upvoted 3 times

Question #232

What is the difference between RADIUS and TACACS+?

- A. RADIUS logs all commands that are entered by the administrator, but TACACS+ logs only start, stop, and interim commands.
- B. TACACS+ separates authentication and authorization, and RADIUS merges them.
- C. TACACS+ encrypts only password information, and RADIUS encrypts the entire payload.
- D. RADIUS is most appropriate for dial authentication, but TACACS+ can be used for multiple types of authentication.

Correct Answer: B

 **Shamwedge** Highly Voted  1 year, 3 months ago

Selected Answer: B

TACAS+ A-Authentictaion | A-Authorization (Both A's are sperated by a C) = TACAS+ seperates Authentication and Authorization.
upvoted 25 times

 **MarioE** 3 months, 1 week ago

Haha Nice! Good way to remember this ;-)
upvoted 2 times

 **dipanjana1990** 1 year, 2 months ago

hehe "separated by C" now m never gonna forget this.
upvoted 8 times

 **examcol** Highly Voted  2 years, 10 months ago

B is correct answer.
<https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838-10.html>
upvoted 8 times

 **Ciscoman021** Most Recent  2 months, 2 weeks ago

Selected Answer: B

the correct answer is option B: TACACS+ separates authentication and authorization, while RADIUS combines them. Option A is incorrect because neither RADIUS nor TACACS+ is designed to log commands entered by administrators. Option C is incorrect because both RADIUS and TACACS+ can encrypt sensitive information. Option D is incorrect because both RADIUS and TACACS+ can be used for various types of authentication, including dial-up, wireless, and VPN.

upvoted 1 times

 **guisam** 6 months, 1 week ago

<https://www.geeksforgeeks.org/difference-between-tacacs-and-radius/>
upvoted 1 times

 **miki1001** 10 months, 1 week ago

Selected Answer: C

TACACS+ encrypts only password information, and RADIUS encrypts the entire payload.
upvoted 3 times

 **mzu_sk8** 7 months, 1 week ago

31 days before the exam, page 179, RADIUS encrypts only the password , TACACS the entire packet
upvoted 3 times

 **Customexit** 7 months, 2 weeks ago

TACACS is more secure. Encrypts the whole packet including username, password, and attributes.
RADIUS only encrypts the password.
upvoted 3 times

 **miki1001** 10 months, 1 week ago

TACACS (Terminal Access Controller Access Control System) is a security protocol that provides centralized validation of users who are attempting to gain access to a router or NAS. TACACS+ provides separate authentication, authorization and accounting services
RADIUS combines authenticaiton and authorization into a single function; TACACS+ allows these services to be split between different servers.
TACACS+ encrypts only password information, and RADIUS encrypts the entire payload.
upvoted 1 times

 **RougePotatoe** 7 months, 2 weeks ago

You got tacacs and radius encryption backwards
upvoted 1 times

 **schleef** 1 year, 6 months ago

"RADIUS combines authentication and authorization. The access-accept packets sent by the RADIUS server to the client contain authorization information. This makes it difficult to decouple authentication and authorization."

TACACS+ uses the AAA architecture, which separates AAA. This allows separate authentication solutions that can still use TACACS+ for authorization and accounting. For example, with TACACS+, it is possible to use Kerberos authentication and TACACS+ authorization and accounting."

Source: <https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838-10.html>
upvoted 4 times

 **Benjamin8189** 1 year, 7 months ago

-TACACS+ provides for separate and modular authentication, authorization, and accounting facilities
-In the Cisco implementation, RADIUS clients run on Cisco routers and send authentication requests to a central RADIUS server that contains all user authentication and network service access information

upvoted 1 times

 **ZUMY** 2 years, 1 month ago

B is correct
<https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838-10.html>
upvoted 3 times

Question #233

What is a difference between local AP mode and FlexConnect AP mode?

- A. Local AP mode creates two CAPWAP tunnels per AP to the WLC
- B. Local AP mode causes the AP to behave as if it were an autonomous AP
- C. FlexConnect AP mode fails to function if the AP loses connectivity with the WLC
- D. FlexConnect AP mode bridges the traffic from the AP to the WLC when local switching is configured

Correct Answer: A

 **dave369** Highly Voted 2 years, 11 months ago

This link supports "A" as the answer:

"In local mode, an AP creates two CAPWAP tunnels to the WLC. One is for management, the other is data traffic. This behavior is known as "centrally switched" because the data traffic is switched(bridged) from the ap to the controller where it is then routed by some routing device."

<https://community.cisco.com/t5/wireless-and-mobility/what-s-the-difference-between-local-mode-and-flex-connect-mode/td-p/2532657>
upvoted 40 times

 **SScott** 1 year, 10 months ago

Good link Dave. A is the best answer.

A is an accurate statement as data traffic is tunneled back to the controller for an SSID with Local AP Mode
B should have referenced FlexConnect AP [Standalone Mode], not local ap mode [Central Switching or Connected Mode]
C is wrong as the purpose of FlexConnect is to provide local connectivity when the connection to controller is lost
D is wrong because "local" switching is referenced and it should be "central" switching

<https://www.ciscolive.com/c/dam/r/ciscolive/latam/docs/2016/pdf/BRKEWN-2016.pdf>

<https://www.kareemccie.com/2017/08/what-is-flexconnect.html>

upvoted 1 times

 **Ebenezer** Highly Voted 2 years, 8 months ago

Actually, the right answer is A.

The FlexConnect AP can locally switch traffic between a VLAN and SSID when the CAPWAP tunnel to the WLC is down. If option D had said, "when it is down," it would have been the right answer. But here, they said, "configured."

upvoted 21 times

 **Raymond9** 2 years, 6 months ago

save my day dude
upvoted 4 times

 **ZUMY** Most Recent 11 months, 3 weeks ago

A is correct!

upvoted 3 times

 **ScorpionNet** 1 year, 1 month ago

A is right because AP creates CAPWAP tunnels to find the WLC
upvoted 2 times

 **pagamar** 1 year, 1 month ago

The answer is A for sure, found in a recent Exam, 100% on Topic 2 (including wireless networks).
upvoted 3 times

 **BreezyNet** 5 months, 2 weeks ago

please share the link on which you found the exam
upvoted 1 times

 **shehabdawood** 1 year, 5 months ago

Selected Answer: A
A is the right answer
upvoted 1 times

 **shehabdawood** 1 year, 5 months ago

D is wrong
A correct
<https://www.thenetworkdna.com/2020/10/wireless-infrastructure-analysis-local.html>
upvoted 1 times

 **Anarckii** 1 year, 6 months ago

A is the correct answer
upvoted 1 times

 **Ernesto_CG** 1 year, 6 months ago

Selected Answer: A
A es la respuesta correcta
upvoted 2 times

 **mr_reyes** 1 year, 6 months ago

Definitely A!
FlexConnect = Switched Locally
Local Mode = Centrally Switched
upvoted 1 times

 **Hodicek** 1 year, 6 months ago

I would say A
upvoted 1 times

 **PanteLa_26** 1 year, 6 months ago

Selected Answer: A
Should be A. FlexConnect is only for when CAPWAP tunnel fails.
upvoted 2 times

 **raydel92** 1 year, 6 months ago

Selected Answer: A
Answer is A.
https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-2/configuration/guide/cg_cg_flexconnect.html
upvoted 1 times

 **maw619** 1 year, 9 months ago

The question is asking for "the difference" between the two but I believe an access point creates two capwap tunnels when in flex connect mode as well. The only hard difference i see between the two is option "D"
upvoted 4 times

 **Taofik** 1 year, 10 months ago

A is the right answer.
upvoted 2 times

 **diazed** 1 year, 11 months ago

A is the correct one
<https://community.cisco.com/t5/wireless/what-s-the-difference-between-local-mode-and-flex-connect-mode/td-p/2532657>
upvoted 3 times

 **MMAXY** 2 years, 1 month ago

so we should disregard their answer D ?
upvoted 1 times

Question #234

Topic 1

The SW1 interface g0/1 is in the down/down state. What are two reasons for the interface condition? (Choose two.)

- A. There is a protocol mismatch
- B. There is a duplex mismatch
- C. The interface is shut down
- D. The interface is error-disabled
- E. There is a speed mismatch

Correct Answer: DE

The interface is shut down - ADMIN DOWN / DOWN

The interface is error-disabled - DOWN / DOWN

There is a speed mismatch - DOWN / DOWN

 **Dante_Dan** Highly Voted 1 year, 4 months ago

Selected Answer: DE

- A.- When there is a protocol mismatch the status is UP/DOWN
- B.- When there is a duplex mismatch, the status is UP/UP
- C.- When the interface is shut down the status is ADMINISTRATIVELY DOWN/DOWN

The only 2 answers where the status is DOWN/DOWN are answers C & D
upvoted 10 times

 **jossyda** Highly Voted 1 year ago

Selected Answer: DE

- A. There is a protocol mismatch up/down
- B. There is a duplex mismatch up/up
- C. The interface is shut down admin down / down
- D. The interface is error-disabled down/down
- E. There is a speed mismatch down/down

upvoted 8 times

 **WowA** 10 months ago

But a duplex mismatch takes the ports to in down / down !
upvoted 1 times

 **RougePotatoe** 7 months, 2 weeks ago

Yea I've seen a lot of people bring up the claim and a cisco source claiming it will only impact the performance but mismatched protocol will result in status: down Protocol: down in packet tracer.
upvoted 1 times

 **linuxlife** Most Recent 2 months, 3 weeks ago

line status/protocol status:

down/down

- No cable connected, bad cable
- neighbor device is powered off
- neighbor device is shutdown
- neighbor device is error disabled

upvoted 1 times

 **linuxlife** 2 months, 3 weeks ago

add-on (speed mismatch):

line status/protocol status:

down/down

- No cable connected, bad cable, speed mismatch
- neighbor device is powered off
- neighbor device is shutdown
- neighbor device is error disabled

upvoted 1 times

 **DB_Cooper** 4 months, 1 week ago

Selected Answer: CD

down/ down
every else would be up/down
upvoted 1 times

Amonzon 10 months, 1 week ago

correct answers are B &D
A. There is a protocol mismatch up/down
B There is a duplex mismatch down/down
Switch(config-if)#duplex full
Switch(config-if)#
%LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

C. err-disable down/down
upvoted 3 times

ZUMY 11 months, 3 weeks ago

D & E correct
upvoted 1 times

timskis2 1 year ago

CAN A PROTOCOL MISMATCH BE ONE AS WELL ? HDLC AND PPP ?
upvoted 1 times

ScorpionNet 1 year, 1 month ago

D and E is right because shutdown is administratively down/down when there is a speed or duplex mismatched and when error disabled down/down
upvoted 1 times

DatBroNZ 1 year, 2 months ago

Selected Answer: DE
The Down/Down combination can have two interface status:
- notconnect (no cable, bad cable, neighbor device is shutdown, speed mismatch)
- err-disabled (port security has disabled the interface)
upvoted 3 times

ismatdmour 1 year, 3 months ago

Selected Answer: DE
Correct answers are D and E
The interface will be in a down (line Status) - down (protocol status) state (not connect interface) for cases of: No cable, bad cable, wrong cable pinouts, speed mismatch and neighbouring device is (1) powered off (2) shutdown or (3) err-disabled. The interface will also be in down-down(err-disabled) because of port security disabling the interface
upvoted 1 times

AndersonMr 1 year, 4 months ago

Selected Answer: DE
Down/Down can be on account of phy problem: no cable attached, sw on other side shutdown, sw powered off, device speed mis match.
upvoted 3 times

awashenko 1 year, 4 months ago

If an interface is shut down it will show Admin Down. Not just down so C is wrong
upvoted 3 times

MrBadger 1 year, 2 months ago

I thought that then I guess if the other end is shutdown your end would show down/down
upvoted 1 times

awashenko 1 year, 4 months ago

Speed mismatch and error disabled are the correct answers
upvoted 2 times

Question #235

Topic 1

How will Link Aggregation be implemented on a Cisco Wireless LAN Controller?

- A. The EtherChannel must be configured in mode active.
- B. When enabled, the WLC bandwidth drops to 500 Mbps.
- C. To pass client traffic, two or more ports must be configured.
- D. One functional physical port is needed to pass client traffic.

Correct Answer: D

Reference:

https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-2/config-guide/b_cg82/b_cg82_chapter_010101011.html

 **Dutch012** Highly Voted 3 months, 2 weeks ago

cisco يلعن ام استاذك

upvoted 5 times

 **oooMooo** Highly Voted 2 years, 1 month ago

D is correct

"When you enable LAG, only one functional physical port is needed for the controller to pass client traffic."

https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-4/configuration/guides/consolidated/b_cg74_CONSOLIDATED/b_cg74_CONSOLIDATED_chapter_01010001.html#:~:text=When%20you%20enable%20LAG%2C%20only,controller%20to%20pass%20client%20traffic.&text=When%20you%20enable%20LAG%2C%20you,on%20which%20it%20received%20them.

upvoted 5 times

 **Drader** Most Recent 2 months, 2 weeks ago

This question could be phrased better.

upvoted 2 times

 **ZUMY** 2 years, 1 month ago

D is correct

Link aggregation (LAG) is a partial implementation of the 802.3ad port aggregation standard. It bundles all of the controller's distribution system ports into a single 802.3ad port channel, thereby reducing the number of IP addresses needed to configure the ports on your controller. When LAG is enabled, the system dynamically manages port redundancy and load balances access points transparently to the user.

LAG simplifies controller configuration because you no longer need to configure primary and secondary ports for each interface. If any of the controller ports fail, traffic is automatically migrated to one of the other ports. As long as at least one controller port is functioning, the system continues to operate, access points remain connected to the network, and wireless clients continue to send and receive data.

upvoted 4 times

Question #236

Topic 1

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

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

Correct Answer: DE

Reference:

<https://www.cisco.com/c/en/us/support/docs/security-vpn/secure-shell-ssh/4145-ssh.html>

✉  **mazintaha** Highly Voted 2 years, 11 months ago

"The Cisco IOS image used must be a k9(crypto) image in order to support SSH. "

"!-- Step 2: Configure the DNS domain of the router.

ip domain-name rtp.cisco.com"

upvoted 17 times

✉  **ZUMY** Highly Voted 2 years, 1 month ago

D & E are Correct!

To use SSH in Cisco Router

01. IOS image must a k9(Crypto) image

02. Configure DNS domain for the router (eg: ip domain-name R1.Contoso.lk)

upvoted 11 times

✉  **Anas_Ahmad** Most Recent 7 months, 2 weeks ago

The switch Must be running a K9 Crypto IOS image

and

The ip domain-Name command Must be configured on the Switch

upvoted 1 times

✉  **Nhan** 2 years, 3 months ago

K9 crypto image support SSH version 1.99 which Is version 2

upvoted 4 times

Question #237

```

Atlanta#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Atlanta(config)#aaa new-model
Atlanta(config)#aaa authentication login default local
Atlanta(config)#line vty 0 4
Atlanta(config-line)#login authentication default
Atlanta(config-line)#exit
Atlanta(config)#username ciscoadmin password adminadmin123
Atlanta(config)#username ciscoadmin privilege 15
Atlanta(config)#enable password cisco123
Atlanta(config)#enable secret testing1234
Atlanta(config)#end

```

Refer to the exhibit. Which password must an engineer use to enter the enable mode?

- A. adminadmin123
- B. cisco123
- C. default
- D. testing1234

Correct Answer: D

If neither the enable password command nor the enable secret command is configured, and if there is a line password configured for the console, the console line password serves as the enable password for all VTY sessions -> The `enable secret` will be used first if available, then `enable password` and line password.

✉  **Ray12345** Highly Voted 2 years, 1 month ago

i like this question:)
upvoted 14 times

✉  **ZUMY** Highly Voted 2 years, 1 month ago

D is correct
If you set both enable password and enable secret. You will need to use the enable secret password to enter privileged mode.
upvoted 11 times

✉  **Dante_Dan** 1 year, 4 months ago

Yes you are correct, but you are ignoring the "aaa new-model" and "...privilege 15" commands.
upvoted 1 times

✉  **GracieRamos** 11 months, 2 weeks ago

I've test with Cat 2960. If you want to enable switch without enable password you need to use "privilege level 15" under line vty. please correct me if i misunderstand
upvoted 1 times

✉  **RougePotatoe** 7 months, 1 week ago

Privilege level 15 on an interface will allow everyone to get to user exec. If you want to limit it to per user then you want to configure username admin privilege level 15 password cisco123 in global configuration then do transport input ssh /telnet on line vty.
upvoted 1 times

✉  **RougePotatoe** 7 months, 1 week ago

My bad I meant to say login local.
upvoted 1 times

✉  **iMo7ed** Most Recent 3 months, 3 weeks ago

Selected Answer: D
D is correct
upvoted 1 times

✉  **oatmealturkey** 3 months, 3 weeks ago

Selected Answer: D

I tested it in PT. If you use AAA for local authentication like in the exhibit (I copied the exact lines from the exhibit), then try to Telnet in, it does not go straight to privileged EXEC mode; after logging in you will be prompted to enter the enable secret.

But then I removed AAA from the configuration so that it was just simple local authentication, without AAA, and in that case the privilege 15 password is enough to get you straight into privileged EXEC mode, no need to enter the enable secret.

So the key difference seems to be AAA.

upvoted 1 times

 **RougePotatoe** 7 months, 1 week ago

Selected Answer: D

Tested it in packet tracer but I don't know why it is the right answer. The following command will allow you to get to user exec mode from line con0 with username password login "username admin privilege level 15 password cisco123 > line con 0 > login local". Based on the commands shown in the picture it seems like they were doing the same thing making the username a level 15 account but for some reason it doesn't work. Hopefully one of yall could explain the difference between (username admin privilege level 15 password cisco123) vs (username admin password cisco123 > username admin privilege level 15).

upvoted 1 times

 **[Removed]** 11 months, 2 weeks ago

D secret takes precedence

upvoted 1 times

 **jossyda** 1 year ago

Selected Answer: D

enable secret

upvoted 2 times

 **ScorpionNet** 1 year, 1 month ago

D is right and A is wrong because enable secret secures the Privilege Exec mode of the system

upvoted 1 times

 **geober** 1 year, 1 month ago

D is the right answer that's it

upvoted 1 times

 **rlelliott** 1 year, 3 months ago

Gotta love the giveme questions. If you can't answer this question correctly in less than 5 seconds, you may want to start your studying over again.
upvoted 2 times

wow dude how exculpatory of you

upvoted 1 times

 **YaaElon** 1 year, 3 months ago

The reason it is "D" is that the "adminadmin123" password gets you into USER EXEC mode. Once you enter the "enable" command it will prompt you for another password, and the "enable secret testing1234" command overrides the "enable password cisco123" forcing you to input "testing1234" to access the Privileged EXEC (enable mode).

upvoted 5 times

 **Shamwedge** 1 year, 3 months ago

Selected Answer: D

Answer is D.

I just did this in packet tracer. The first password will adminadmin123, but the question states " to get into ENABLE mode, which is testing1234 because the secret password triumphs the unencrypted password.

So adminadmin123 will get you into the router, but testing1234 is what gets you into Enable mode.

upvoted 6 times

 **Dante_Dan** 1 year, 4 months ago

Selected Answer: A

Very tricky question indeed.

If we remove the "login authentication default" command from VTY line, definitely the answer would be D, the one with the enable secret command. However, the "username ciscoadmin privilege 15" and "aaa new-model" commands make it a lot different.

I am at work so I couldn't look deeper into it but in such scenario, the Engineer must use the ciscoadmin credentials in order to log into the device and because of the privilege 15, they go directly into enable mode.

And because of the aaa new-model commands, no one else would be able to access to the device. so probably the answer is in fact A

Damn it!! I hate this kind of questions!!!

upvoted 2 times

 **cyborg7** 8 months ago

Yes, ciscoadmin credentials will take him to enable mode once log in. Suppose, he exit enable mode to user mode and want to enter enable mode now, which password he will use to enter enable mode ? I guess that's why testing1234 is correct.

upvoted 1 times

✉ **hector255** 1 year, 4 months ago

Selected Answer: D

D is correct.

upvoted 1 times

✉ **AndersonMr** 1 year, 4 months ago

Selected Answer: D

enable secret takes precedence

upvoted 1 times

✉ **Kane002** 1 year, 4 months ago

Selected Answer: A

A. Login local will force username/password authentication. adminadmin123 with username ciscowhatever will be required.

upvoted 1 times

✉ **Hodicek** 1 year, 6 months ago

D after doing test on packet tracer 1000%

upvoted 2 times

Question #238

Topic 1

Which state does the switch port move to when PortFast is enabled?

- A. blocking
- B. listening
- C. learning
- D. forwarding

Correct Answer: D

✉ **ZUMY** 11 months, 3 weeks ago

D is correct!

upvoted 3 times

✉ **SScott** 1 year, 10 months ago

D Forwarding is right

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4000/8-2glx/configuration/guide/stp_enha.html#:~:text=PortFast%20causes%20a%20switch%20or%20trunk%20port%20to%20enter%20the%20spanning%20tree%20forwarding%20state%20immediately%2C%20bypassing%20the%20listening%20and%20learning%20states.

upvoted 1 times

✉ **Bobrock** 1 year, 10 months ago

Correct

upvoted 2 times

Question #239

Topic 1

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

- A. RADIUS
- B. HTTPS
- C. TACACS+
- D. HTTP

Correct Answer: B

You can protect communication with the GUI by enabling HTTPS. HTTPS protects HTTP browser sessions by using the Secure Sockets Layer (SSL) protocol.

When you enable HTTPS, the controller generates its own local web administration SSL certificate and automatically applies it to the GUI. You also have the option of downloading an externally generated certificate.

Reference:

https://www.cisco.com/c/en/us/td/docs/wireless/controller/8-0/configuration-guide/b_cg80/b_cg80_chapter_011.html

 **battery1979** 11 months ago

RADIUS and TACACS+ are not protocols, and HTTP can't utilize SSL.

upvoted 2 times

 **theRock2022** 1 year, 1 month ago

HTTPS (Hypertext Transfer Protocol Secure) is a secure version of the HTTP protocol that uses the SSL/TLS protocol for encryption and authentication.

upvoted 3 times

 **schleef** 1 year, 6 months ago

This one is self-explaining - web(http) GUI + SSL = HTTPS

upvoted 2 times

Question #240

Topic 1

An engineer must configure interswitch VLAN communication between a Cisco switch and a third-party switch. Which action should be taken?

- A. configure DSCP
- B. configure IEEE 802.1q
- C. configure ISL
- D. configure IEEE 802.1p

Correct Answer: *B*

VLAN trunking offers two options, ISL and 802.1Q. ISL is Cisco proprietary while 802.1Q is standards based and supported by multiple vendors.

 **Timbul** 5 months, 1 week ago

answer B and answer D look identical
untill I figured out p and q difference
upvoted 2 times

 **ZUMY** 11 months, 3 weeks ago

B is correct
upvoted 2 times

 **Ray12345** 2 years ago

B open standard
upvoted 2 times

 **Alsaher** 2 years, 1 month ago

B is correct
upvoted 2 times

Question #241

Topic 1

An engineer requires a switch interface to actively attempt to establish a trunk link with a neighbor switch. What command must be configured?

- A. switchport mode trunk
- B. switchport mode dynamic desirable
- C. switchport nonegotiate
- D. switchport mode dynamic auto

Correct Answer: B

Reference:

<https://www.ciscopress.com/articles/article.asp?p=2181837&seqNum=8#:~:text=switchport%20mode%20dynamic%20auto%3A%20Makes,to%20trunk%20or%20desirable%20mode.&text=switchport%20mode%20dynamic%20desirable%3A%20Makes,link%20to%20a%20trunk%20link>

✉  **Nhan** Highly Voted 2 years, 3 months ago

The key word here is "actively attempt" therefore only desirable is work, then the given answer is correct which is relevant to the question.
upvoted 15 times

✉  **cormorant** Highly Voted 6 months ago

An engineer requires a switch interface to actively attempt to establish a trunk link with a neighbor switch. What command must be configured?

actively

Actively

ACTIVELY

ACTIVELY IS EQUIVALENT TO DESIRABLE, THE SAME WAY THAT PASSIVE RELATES TO AUTO.

upvoted 7 times

✉  **creaguy** Most Recent 8 months ago

Selected Answer: B
It's B. Answer is right there in the reference ink.
upvoted 1 times

✉  **GreatDane** 11 months, 2 weeks ago

Ref: Dynamic Trunking Protocol – Wikipedia

"...

Switch port modes

..."

- Dynamic Auto — Makes the Ethernet port willing to convert the link to a trunk link. The port becomes a trunk port if the neighboring port is set to trunk or dynamic desirable mode. This is the default mode for some switchports.
- Dynamic Desirable — Makes the port actively attempt to convert the link to a trunk link. The port becomes a trunk port if the neighboring Ethernet port is set to trunk, dynamic desirable or dynamic auto mode.

..."

A. switchport mode trunk

Wrong answer.

B. switchport mode dynamic desirable

Correct answer.

C. switchport nonegotiate

Wrong answer.

D. switchport mode dynamic auto

Wrong answer.

upvoted 3 times

✉  **ZUMY** 11 months, 3 weeks ago

B is correct

upvoted 1 times

 **ScorpionNet** 1 year, 1 month ago

B is right because Desirable actively attempts to establish a trunk port while Auto is looking for its neighbor if it has trunk or desirable mode enabled

upvoted 1 times

 **YaaElon** 1 year, 3 months ago

AUTO

PAgP mode places a LAN port into a PASSIVE negotiating state, in which the port responds to PAgP packets it receives but does not initiate PAgP negotiation. (Default)

DESIRABLE

PAgP mode places a LAN port into an ACTIVE negotiating state, in which the port initiates negotiations with other LAN ports by sending PAgP packets.

upvoted 1 times

 **TA77** 11 months, 2 weeks ago

The question is talking about trunking modes, not port aggregation modes :)

upvoted 1 times

 **Anarckii** 1 year, 6 months ago

B is correct because its asking what configuration would have the switch "actively" form a trunk

upvoted 1 times

 **Hodicek** 1 year, 6 months ago

B IS CORRET

upvoted 1 times

 **dicksonpwc** 1 year, 10 months ago

Makes the interface actively attempt to convert the link to a trunk link. The interface becomes a trunk interface if the neighboring interface is set to trunk, desirable, or auto mode

upvoted 2 times

 **Alsaher** 2 years, 1 month ago

B is correct

upvoted 2 times

 **YogaT** 2 years, 1 month ago

The answer D "Dynamic auto" tells switch to sit there and wait on the other switch to start the negotiation. So it's wrong.

upvoted 7 times

 **Cisna** 1 year, 8 months ago

Note this statement in the question:-interface to actively attempt to establish a trunk link with a neighbor switch

upvoted 3 times

 **YogaT** 2 years, 1 month ago

Command: switchport mode dynamic desirable, which asks the switch to both negotiate as well as to begin the negotiation process, rather than waiting on another device.

Thus B.

upvoted 5 times

 **Mahede** 2 years, 3 months ago

A,B,D all is work

upvoted 2 times

 **Cisna** 1 year, 8 months ago

Any referral?

upvoted 1 times

Question #242

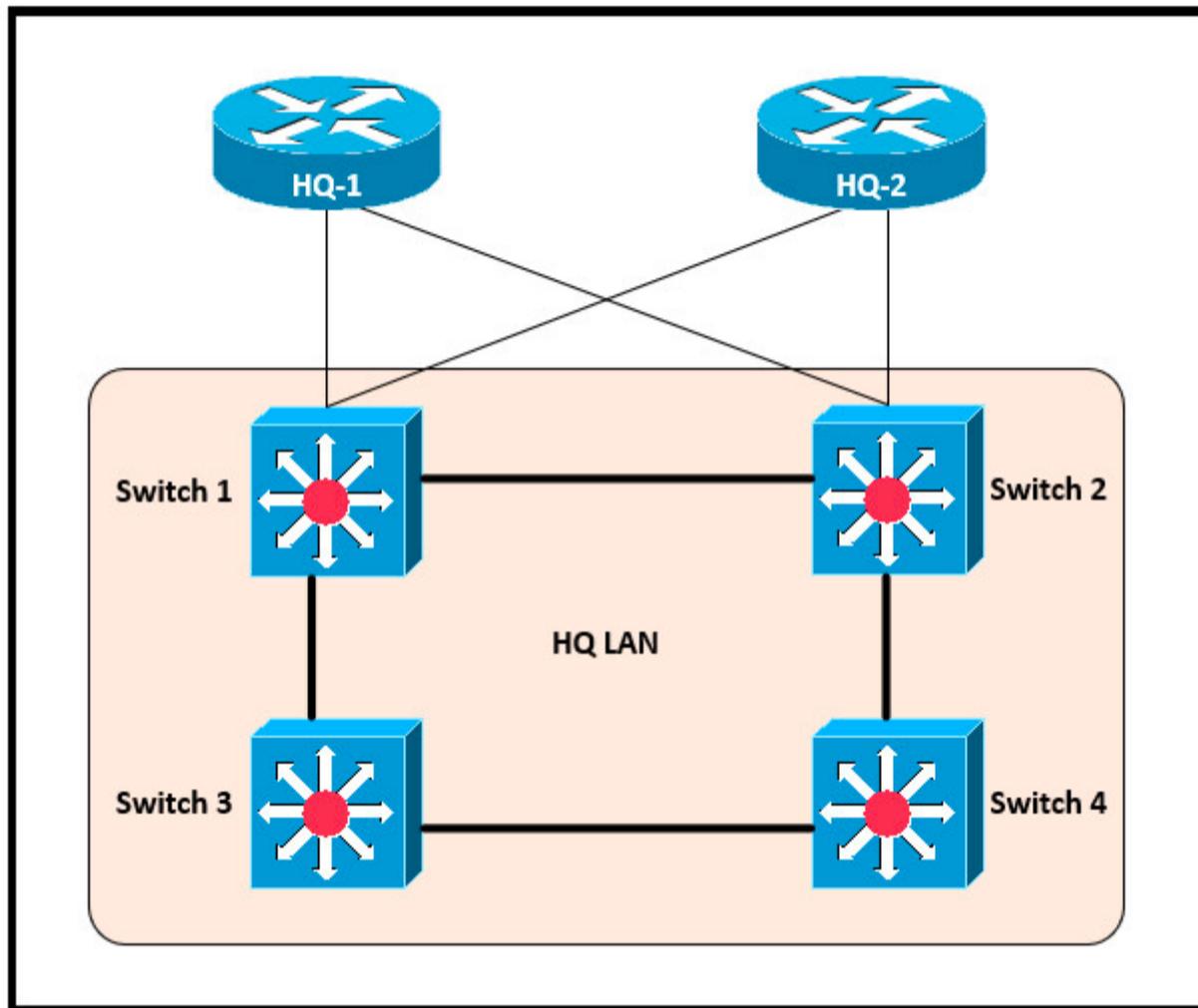
Refer to the exhibit. After the election process, what is the root bridge in the HQ LAN?

Switch 1: 0C:E0:38:81:32:58 -

Switch 2: 0C:0E:15:22:1A:61 -

Switch 3: 0C:0E:15:1D:3C:9A -

Switch 4: 0C:E0:19:A1:4D:16 -



- A. Switch 1
- B. Switch 2
- C. Switch 3
- D. Switch 4

Correct Answer: C

Lovens Highly Voted 1 year, 9 months ago

C is the answer:

$22_{hex} = 2 * 16^1 + 2 * 16^0 = 32 + 2 = 32$ while $1D = 1 * 16^1 + 13 * 16^0 = 16 + 13 = 29$
upvoted 8 times

DeadSkru11 1 year, 5 months ago

Thanks. I was furiously searching for this Ans from past 2 days
upvoted 3 times

DonnerKomet 1 year, 9 months ago

wrong, $32 + 2 = 34$ not 32
upvoted 5 times

Anarckii Highly Voted 1 year, 6 months ago

Selected Answer: C

It's the switch with the lowest MAC address
upvoted 7 times

ZUMY Most Recent 11 months, 2 weeks ago

C is correct

upvoted 3 times

Question #243

An engineer must establish a trunk link between two switches. The neighboring switch is set to trunk or desirable mode. What action should be taken?

- A. configure switchport nonegotiate
- B. configure switchport mode dynamic desirable
- C. configure switchport mode dynamic auto
- D. configure switchport trunk dynamic desirable

Correct Answer: C

 **Masood101** Highly Voted 2 years, 1 month ago

B and C are correct
upvoted 13 times

 **andiks** Highly Voted 2 years, 4 months ago

Actually B is correct as well
upvoted 8 times

 **Jorro99404** Most Recent 3 weeks ago

Selected Answer: C
B and C are correct
upvoted 1 times

 **Bhrino** 3 weeks, 1 day ago

Selected Answer: C
The question is kindve vague so b and c work
upvoted 1 times

 **EllesJ** 1 month, 1 week ago

since the nieghboring switch is set to trunk or desirable, auto will configure the link as trunk while simultaneously preventing other links to be trunks as well. This is maybe the best option from a safety point of view, since VLAN traffic is restricted to where it needs to go
upvoted 3 times

 **thomson_johnson** 2 months, 3 weeks ago

<https://community.cisco.com/t5/switching/why-dtp-is-used/td-p/1377495>

Hall of Fame Cisco Employee Peter Paluch Hall of Fame Cisco EmployeeCisco Certified Internetwork Expert Enterprise Infrastructure (CCIE Enterprise Infrastructure)Hall of Fame Cisco Employee

"The DTP helps to automatically negotiate whether the port should be put into access or trunk mode and what trunking protocol (802.1Q or ISL) should be used. The individual DTP modes are:

dynamic auto - the port will negotiate the mode automatically, however, it prefers to be an access port
dynamic desirable - the port will negotiate the mode automatically, however, it prefers to be a trunk port"

well if the auto prefers to be an access port, i guess desirable is right.

I don't think that on the exam they would not require 2 options to be selected.

upvoted 1 times

 **linuxlife** 2 months, 3 weeks ago

The neighbor device was set to either TRUNK or DYNAMIC DESIRABLE.
If their is a choice to configure the local device to be TRUNK, then thats the right answer. Unfortunately, it wasnt in the choices.
So we are in between to choose:
DYNAMIC DESIRABLE or DYNAMIC AUTO.
Assuming the neighbor device is not TRUNK, instead it is DYNAMIC DESIRABLE, it means that the neighbor device initiates negotiation messages and responds to negotiation messages to dynamically choose whether to start using TRUNKING.

If this is the case, then the local device, which is our concern should have port configured with DYNAMIC AUTO which means, it will passively wait to receive TRUNK negotiation messages, at which point the switch will respond and negotiate whether to use TRUNKING.

So, assuming that the neighbor device was also set to TRUNK and the local device was set to DYNAMIC AUTO, it will still goes to TRUNK.

If both devices, neighbor and local are configured at DYNAMIC DESIRABLE, then both devices initiates negotiation messages which is not right...
upvoted 2 times

 **Alan100** 4 months, 2 weeks ago

Selected Answer: B

auto is the default state is auto. If an action is to be made, set to dynamic desirable so the port can actively seek to become a trunk.
upvoted 3 times

DMc 5 months ago

I vote B using the "Must" or force the switchport interface to take some action instead of just be "willing."

"Dynamic Auto — Makes the Ethernet port willing to convert the link to a trunk link. The port becomes a trunk port if the neighboring port is set to trunk or dynamic desirable mode. This is the default mode for some switchports. Dynamic Desirable — Makes the port actively attempt to convert the link to a trunk link."

upvoted 1 times

BreezyNet 5 months, 2 weeks ago

THE CORRECT ANSWER IS B

upvoted 1 times

laurvy36 5 months, 2 weeks ago

Q 247 Refer to the exhibit. Which command must be executed for Gi1/1 on SW1 to PASSIVELY become a trunk port if Gi1/1 on SW2 is configured in desirable or trunk mode? Answer is AUTO

upvoted 1 times

laurvy36 5 months, 2 weeks ago

It says must, not passive or something like that, therefore B i think is the best option.

upvoted 1 times

laurvy36 5 months, 2 weeks ago

It says must, not passive or something like that.

upvoted 1 times

Yunus_Empire 6 months, 1 week ago

Selected Answer: C

C is the answer

upvoted 1 times

tauuu 7 months, 1 week ago

Selected Answer: B

B and C are correct. For best practice, configure trunk manually

upvoted 3 times

Also remember to add the command no negotiate; which obviously only work for non dynamic ports IE ports manually configured to be access or trunk ports.

upvoted 1 times

Murphy2022 8 months ago

Selected Answer: C

C is cisco best practise and therefor the best matching answer

both B and C are correct

upvoted 1 times

Cisco's guidance for DTP is to hard code it. IE you shouldn't even use DTP because it is a security risk so you should configure it to be a trunk manually. The next closest thing to being manually configured is dynamic desirable.

upvoted 1 times

Davetech 8 months, 1 week ago

C is correct,since the neighbouring switch had been configured on either dynamic desirable or trunk,the configuring switch should be on dynamic auto

upvoted 2 times

Question #244

Which spanning-tree enhancement avoids the learning and listening states and immediately places ports in the forwarding state?

- A. BPDUfilter
- B. PortFast
- C. Backbonefast
- D. BPDUguard

Correct Answer: B

✉  **Alsaher** Highly Voted 2 years, 1 month ago

B is correct
upvoted 5 times

✉  **ricky1802** Most Recent 4 months ago

Selected Answer: B

The correct answer is B. PortFast.

PortFast is a feature in the Spanning Tree Protocol (STP) that is used to quickly transition a port from the blocking state to the forwarding state. This feature is typically used for access ports that connect to end devices (such as PCs or servers), which do not generate Spanning Tree Protocol (BPDUs) messages. By using PortFast, the STP learning and listening states are skipped and the port is immediately placed into the forwarding state, reducing the amount of time it takes for the port to transition from a blocking to a forwarding state.

upvoted 2 times

✉  **ricky1802** 4 months ago

A. BPDUfilter: This feature disables the processing of received BPDUs on a port, but it does not change the operation of the Spanning Tree Protocol.

C. Backbonefast: This feature is used to quickly detect and recover from indirect failures in the network, but it does not change the operation of the Spanning Tree Protocol on individual ports.

D. BPDUguard: This feature helps to prevent unauthorized switches from being connected to the network by disabling a port if it receives a BPDU message. This can help to prevent unauthorized switches from affecting the operation of the Spanning Tree Protocol.

upvoted 1 times

✉  **Customexit** 7 months, 2 weeks ago

PortFast: allows the port to go straight to a forwarding state because there is no danger of a loop.

BPDU Guard: If an interface with this enabled receives BPDU from another switch, the interface will be shut down to prevent a loop from forming.

Root Guard*: even if it receives a superior BPDU (lower bridge ID) on that interface, the switch will not accept the new switch as the root bridge. The interface will be disabled.

Loop Guard*: even if the interface stops receiving BPDUs, it will not start forwarding. The interface will be disabled.

* = not mentioned in objectives.

upvoted 1 times

✉  **ZUMY** 11 months, 2 weeks ago

B is correct!

upvoted 1 times

✉  **Nebulise** 1 year, 4 months ago

B is correct

upvoted 1 times

✉  **netlol** 1 year, 4 months ago

Spanning Tree Portfast causes layer 2 switch interfaces to enter forwarding state immediately, bypassing the listening and learning states. It should be used on ports connected directly to end hosts like servers or workstations. Note: If portfast isn't enabled, DHCP timeouts can occur while STP converges, causing more problems.

upvoted 2 times

✉  **Pamirt** 1 year, 10 months ago

B is correct

upvoted 3 times

Question #245

Topic 1

How does the dynamically-learned MAC address feature function?

- A. The CAM table is empty until ingress traffic arrives at each port
- B. Switches dynamically learn MAC addresses of each connecting CAM table.
- C. The ports are restricted and learn up to a maximum of 10 dynamically-learned addresses
- D. It requires a minimum number of secure MAC addresses to be filled dynamically

Correct Answer: A

 **RSA001** 1 year, 4 months ago

The CAM table is empty until ingress traffic arrives at EACH port?

Is the CAM empty until then??

upvoted 1 times

 **Nicocisco** 1 year, 3 months ago

Yes!

The mac addresse table is empty when the switch start

upvoted 1 times

 **VictorCisco** 1 month, 3 weeks ago

So what?? It doesn't need to receive trafic on EACH port of a switch to start to fill it. just on one port is enough !

upvoted 1 times

 **panagiss** 1 year, 6 months ago

CAM? Is it a typo?

upvoted 2 times

 **laurvy36** 1 year, 5 months ago

Content Addressable Memory (CAM) table is a system memory construct used by Ethernet switch logic which stores information such as MAC addresses available on physical ports

upvoted 1 times

 **Jbcrggddfh** 1 year ago

It's another name for the MAC address table

upvoted 2 times

 **Stonetales987** 1 year, 6 months ago

A is correct. https://www.cisco.com/c/en/us/td/docs/switches/metro/me2600x/config/guide/b_ME2600X-scg/b_ME2600X-scg_chapter_0110.pdf

upvoted 1 times

Question #246

When using Rapid PVST+, which command guarantees the switch is always the root bridge for VLAN 200?

- A. spanning-tree vlan 200 priority 614440
- B. spanning-tree vlan 200 priority 0
- C. spanning-tree vlan 200 root primary
- D. spanning-tree vlan 200 priority 38813258

Correct Answer: B

✉  **Asymptote** Highly Voted 1 year, 10 months ago

there is the same question earlier this one,
but taht answer is D ...

upvoted 21 times

✉  **Smaritz** 1 year, 2 months ago

Indeed, a bit confusing, or I'm missing something
upvoted 2 times

✉  **Taku2023** 3 months ago

The last qsn i came across was exactly the same and it says the keyword "root" should be used because there might be 2 switches with the priority of 0 on that same network
upvoted 3 times

✉  **ScorpionNet** 1 year, 1 month ago

B is correct because the lowest bridge priority is the root
upvoted 1 times

✉  **sasquatchshrimp** 10 months, 1 week ago

You can have two switches with 0 priority, but specifying one to be the root, will establish it as the root, and walk over priority number.
upvoted 2 times

✉  **CISCO2022** Highly Voted 2 years ago

set as Primary dose not grantee the root stay as root always. set as zero grantees the root will always be root.
upvoted 12 times

✉  **Njavwa** Most Recent 2 months, 1 week ago

last question i came across with setting the priority to zero(0) was incorrect and now its correct lol... i think we need to follow our books more in as much as we need to revise
upvoted 3 times

✉  **oatmealturkey** 3 months, 4 weeks ago

Selected Answer: B

About root primary command:

<https://community.cisco.com/t5/switching/spanning-tree-vlan-root-primary/td-p/1269595>

Paraphrasing from this source:

The "spanning-tree root primary" command is actually a macro and it is executed only one time. If after this somebody configures another device with a lower priority, this node cannot react to this and it will lose its root bridge role.

If you use "spanning-tree vlan 1 priority 0", only another device with pri 0 and a lower MAC address can take the role of root bridge.
upvoted 2 times

✉  **greatnickbname1** 4 months ago

C. spanning-tree vlan 200 root primary

upvoted 1 times

✉  **JonasWolfxin** 10 months, 3 weeks ago

The spanning-tree vlan vlan_ID root command fails if the value required to be the root bridge is less than 1.

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_config_gd_rel_503_N1_1_chapter9.html#task_1163819

upvoted 2 times

✉  **Marcos9410** 11 months, 2 weeks ago

Selected Answer: B

The spanning-tree vlan vlan_ID root command fails if the value required to be the root bridge is less than 1.

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_config_gd_rel_503_N1_1_chapter9.html

upvoted 1 times

✉ **ZUMY** 11 months, 2 weeks ago

B is correct!

upvoted 1 times

✉ **bmatthee01** 1 year, 3 months ago

Correct Answer C

technically B is relevant only if you want to change the priority of the root bridge, but to ensure the switch is always the root bridge you must explicitly configure it as the root

eg

SW4(config)#spanning-tree vlan 1 ?

priority Set the bridge priority for the spanning tree

root Configure switch as root

<cr>

<https://www.omnisecu.com/cisco-certified-network-associate-ccna/how-to-configure-spanning-tree-protocol-root-primary-and-root-secondary.php>

upvoted 1 times

✉ **sgashashf** 1 year, 3 months ago

Execute the command "spanning-tree vlan 1 root primary" on a switch and then check the running config. All it lists is a priority 4096 lower than the lowest priority detected on the network. The primary/secondary commands don't do what you think they do.

upvoted 2 times

✉ **JackBond40** 1 year, 4 months ago

The key phrase "guaranteed is always". using the primary command causes the switch to check the existing root switch priority and then lower its priority by 4096. This is only done once thus if a new switch is introduced later with an even lower priority that switch will become root bridge. The only way to guarantee a switch remains root is to set its priority to 0.

upvoted 3 times

✉ **sgashashf** 1 year, 3 months ago

While you are correct, if another switch with a lower mac AND a priority of 0 is added to the network, it would then become the root bridge. I agree that B is the best answer here, but technically there is no way to "guarantee" 100%.

upvoted 4 times

✉ **hassanhady** 1 year, 6 months ago

thank you is there a new qoustions about ccna 2021 after changing exam rules

upvoted 2 times

✉ **Anarckii** 1 year, 6 months ago

I looked at other resouces because I though the answer was C, but B seems to be correct

upvoted 1 times

✉ **Alibaba** 1 year, 6 months ago

B true

upvoted 2 times

✉ **dthomas53** 1 year, 7 months ago

Answer is C.

From Cisco Press book 31 Days Before Your CCNA Exam:

"The network administrator wants to ensure that S1 is always the root bridge (...). The following commands achieve this objective:

S1(config)# spanning-tree vlan 1 root primary

The 'primary' keyword automatically sets the priority to 24576 or to the next 4096 increment value below the lowest bridge priority detected on the network."

This suggests to me whenever a new root bridge election is held, SW1 will update its priority so as to be the lowest.

upvoted 7 times

✉ **zaguy** 1 year, 9 months ago

Correct Answer : spanning-tree vlan 200 priority 0

The best way to prevent erroneous devices from taking over the STP root role is to set the priority to 0 for the primary root switch and to 4096 for the secondary root switch. In addition, root guard should be used.

<https://www.ciscopress.com/articles/article.asp?p=2995351&seqNum=2>

upvoted 1 times

✉ **Cpynch** 1 year, 4 months ago

If you have another switch with a lower MAC that is also set to priority 0, this command will not guarantee it is root bridge. Only the 'primary' command will guarantee whatever any other switch is set to, this switch will become the bridge.

upvoted 1 times

✉  **bwg** 2 years ago

What's the difference between B and C ?

upvoted 4 times

✉  **Roberts132** 1 year, 10 months ago

root primary does that command reduces the the switch priority by 8192 to make it root switch (if all switch have the default priority of 32768)

upvoted 3 times

✉  **M3rc3r08** 1 year, 10 months ago

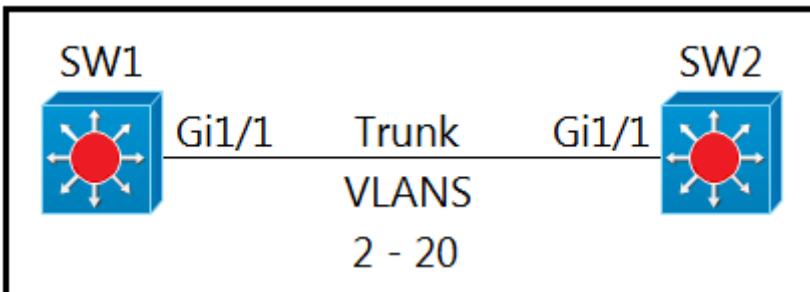
When configuring root primary, the switch looks at the priority of the current root switch and chooses either (a) 24,576 or (b) 4096 less than the current root's priority (if the current root's priority is 24,576 or less) to the configuration instead.

When configuring, root secondary always results in that switch using a priority of 28,672, with the assumption that the value will be less than other switches that use the default of 32,768, and higher than any switch configured as root primary.

upvoted 2 times

Question #247

Topic 1



Refer to the exhibit. Which command must be executed for Gi1/1 on SW1 to passively become a trunk port if Gi1/1 on SW2 is configured in desirable or trunk mode?

- A. switchport mode dynamic auto
- B. switchport mode dot1-tunnel
- C. switchport mode dynamic desirable
- D. switchport mode trunk

Correct Answer: A

✉ **CiscoTerminator** Highly Voted 1 year, 10 months ago

Key Word is "passively" - so its Auto
upvoted 13 times

✉ **Ceruzka** Most Recent 3 months, 1 week ago

another bad q: " SW2 is configured in desirable or trunk mode" Saying that IF:
SW1 dynamic auto - SW2 dynamic desirable -> trunk = thats fine
BUT
SW1 dynamic auto - SW2 trunk -> will not create a trunk
I assume they expect answer "A" SW1 dynamic auto
upvoted 2 times

✉ **ZUMY** 11 months, 2 weeks ago

A is correct
upvoted 1 times

✉ **taiyi078** 1 year, 5 months ago

SW1 dynamic auto - SW2 dynamic auto -> access
SW1 dynamic auto - SW2 dynamic desirable -> trunk
upvoted 1 times

✉ **mickeil** 2 years ago

A and C are true, no ?
upvoted 3 times

Both answers will negotiate a trunk but only auto will do it passively like the question asks.

upvoted 4 times

✉ **SScott** 1 year, 10 months ago

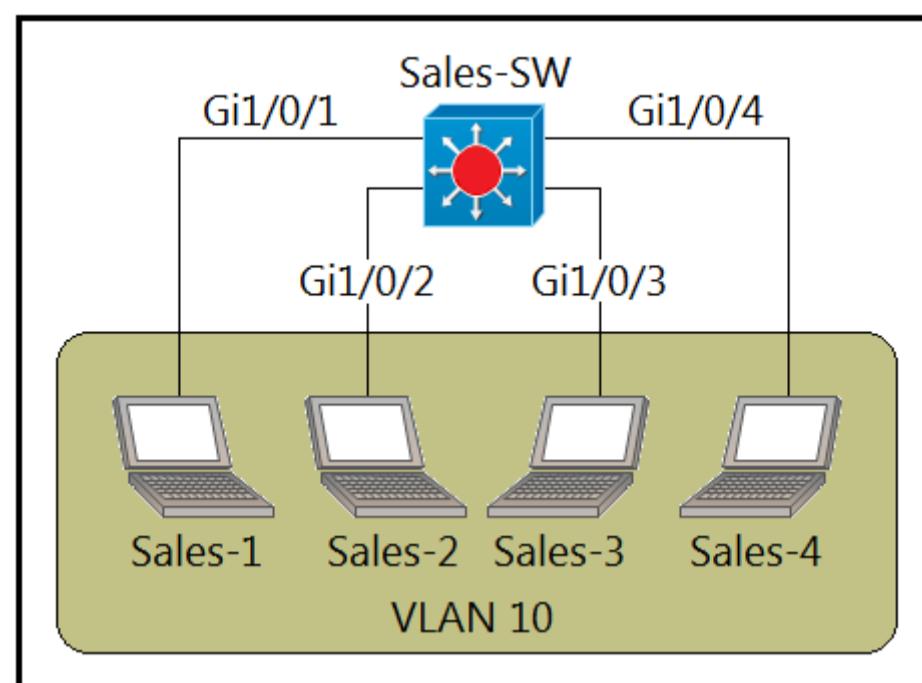
Here is a good summary

https://www.grandmetric.com/knowledge-base/design_and_configure/how-to-configure-dynamic-trunking-protocol-dtp-cisco/#:~:text=Dynamic%20auto%20%E2%80%93%20passive%20mode%2C%20allow%20to%20form%20E2%80%9CTrunk%E2%80%9D%20state%20if%20second%20end%20is%20actively%20negotiating

upvoted 3 times

✉ **Technique31** 1 year, 7 months ago

"C" is not true because in question it says "SW1 to passively become a trunk port"
So in Dynamic Auto mode the switch port waiting passively to become Trunk
upvoted 1 times



Refer to the exhibit. The entire contents or the MAC address table are shown. Sales-4 sends a data frame to Sales-1.

Sales-SW#show mac-address-table

Mac Address Table

VLAN	MAC Address	Type	Ports
10	000c.8590.bb7d	DYNAMIC	Gi1/0/1
10	3939.1170.1bb7	DYNAMIC	Gi1/0/2
10	00d0.d3b6.957c	DYNAMIC	Gi1/0/3

Sales-SW#

What does the switch do as it receives the frame from Sales-4?

- A. Map the Layer 2 MAC address to the Layer 3 IP address and forward the frame.
- B. Insert the source MAC address and port into the forwarding table and forward the frame to Sales-1.
- C. Perform a lookup in the MAC address table and discard the frame due to a missing entry.
- D. Flood the frame out of all ports except on the port where Sales-1 is connected.

Correct Answer: B

achavessu 1 month, 1 week ago

What confuses me is the jargon, why call it Forwarding table? I mean, it is the only option that really makes sense, but the name of that data structure is clearly cam table or mac table, not forwarding table. Can anybody point me to a reference that refers to it as Forwarding table please?
upvoted 1 times

country_rooted 2 months, 1 week ago

D is incorrect, it says it will flood to all ports except to Sales-1, the one you're trying to reach. Switches flood to all ports except the one the frame was received (in this case Sales-4).
upvoted 2 times

Njavwa 2 months, 1 week ago

it cant be D,
there is no Mac addr of src in the table, but the Dst Mac is in the table so the table will be registered with Src and forward to sales-1 where its pointing
correct answer is B
upvoted 1 times

ZUMY 11 months, 2 weeks ago

B is correct!

upvoted 3 times

putler2 1 year ago

Wouldn't it be D?

Assuming Sales-4 never sent anything to Sales-1 (since there's no MAC address table entry from Sales-4 in the switch) it won't know Sales-1's MAC Address. Not knowing the MAC address, it'll use ARP and set broadcast FF:FF:FF:FF:FF:FF as the MAC Destination. When the Switch receives Sales-4's ARP request and sees the FF:FF:FF:FF:FF:FF in source MAC, it'll have no choice but to broadcast it to all ports except from where it came from.

The only way it could be B is if Sale-4 already had Sales-1's MAC address cached in its arp table.

Am I over thinking this?

upvoted 3 times

 **FALARASTA** 1 month, 2 weeks ago

Exactly. The switch is already aware of the address to forward the frame. What it does is to recognize the new device Mac Sales-4 and adds its Mac to its CAM and forwards the frame to the existing Mac sales-1

upvoted 1 times

 **battery1979** 11 months, 2 weeks ago

The switch already knows Sale-1's address and the switch is forwarding the traffic so it doesn't matter if Sale-4 knows where the traffic is going or not as the question is asking what the switch will do.

upvoted 4 times

 **johnnd** 1 year, 4 months ago

Selected Answer: B

B indeed

upvoted 1 times

 **bhurishravas** 1 year, 4 months ago

Selected Answer: B

I choose B. Not D. Because SW will flood's only if it don't know to whom forward the frame. In this case the SW has clear bind mac to port

upvoted 1 times

 **Anarckii** 1 year, 6 months ago

The answer is B, because the MAC table doesn't have the MAC address or port number yet, so it is going to have to use ARP

upvoted 1 times

 **Hodicek** 1 year, 6 months ago

B IS CORRECT AS SWITCH KNOW DST , SO IT WILL REGISTER SRC IN CAM TABLE AND PASS THE DATA TO DST AS IT IS REGISTERED ALREADY IN CAM TABLE

upvoted 4 times

 **FGR1987** 1 year, 9 months ago

it can not be answer D because switch knows the destination MAC.

upvoted 2 times

 **firstblood** 1 year, 9 months ago

It's D. Because Sale 4 MAC is missing from the CAM table.

upvoted 1 times

 **laurvy36** 1 year, 5 months ago

the switch needs to know the destination, not the source, it already knows the destination, so it forwards the frame to the port where he learned that mac address

upvoted 2 times

 **PanteLa_26** 1 year, 6 months ago

It's not D. Switches make forwarding decisions based on destination MAC addresses. In this case the switch knows where Sales-1 PC is, so there's no need for flooding. Sales-4 PC's MAC will be added to CAM table for future reference.

upvoted 2 times

 **Dante_Dan** 1 year, 11 months ago

I think answer should be D.

Answer B says that adds the MAC information to the table when it's already in.

In the exhibit you can see that laptop 4 is not in the table, so the switch needs to find where it is by flooding all ports except the one the petition came from.

D

upvoted 1 times

 **UmbertoReed** 1 year, 10 months ago

>>> "In the exhibit you can see that laptop 4 is not in the table, so the switch needs to find where it is by flooding all ports except the one the petition came from".

This would be the case if Sales-1 were trying to forward frames to Sales-4, but it is the other way around, Sales-4 is sending to Sales-1.

The switch does not currently have an entry for Sales-4's MAC address, so it will add it and then send a Layer 2 unicast to Sales-1 (because it already has an entry mapped for it).

upvoted 6 times

 **SScott** 1 year, 10 months ago

When Sales-4 sends the frame to Sales-1, the Sales-SW switch will receive the frame first and add the MAC address of Sales-4 and Gi1/0/4 to the CAM table. The switch will already have Sales-1's MAC address and port and forward the frame as requested.

upvoted 1 times

 **bwg** 2 years ago

B is right. Although the sentence "forward the frame to Sales-1" looks like a little strange.

upvoted 3 times

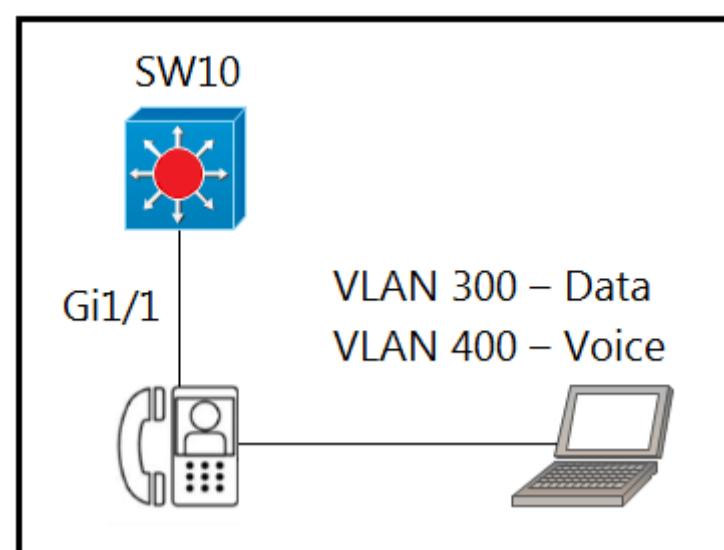
 **SScott** 1 year, 10 months ago

Yes, B is the best answer.

<https://www.ciscopress.com/articles/article.asp?p=3089352&seqNum=6>

D is incorrect because there is no reference to the frame MAC and port info being added to the table and Sales-4 is the originating machine.

upvoted 1 times



Refer to the exhibit. An engineer must configure GigabitEthernet1/1 to accommodate voice and data traffic. Which configuration accomplishes this task?

- A. interface gigabitethernet1/1 switchport mode access switchport access vlan 300 switchport voice vlan 400
- B. interface gigabitethernet1/1 switchport mode trunk switchport trunk vlan 300 switchport trunk vlan 400
- C. interface gigabitethernet1/1 switchport mode access switchport voice vlan 300 switchport access vlan 400
- D. interface gigabitethernet1/1 switchport mode trunk switchport trunk vlan 300 switchport voice vlan 400

Correct Answer: A

ZUMY 11 months, 2 weeks ago

A is correct
upvoted 2 times

SOAPGUY 1 year ago

Selected Answer: A
PAGE198, VOL1;
Example 8-8 Configuring the Voice and Data VLAN on Ports Connected to Phones
upvoted 2 times

LilGhost_404 1 year, 4 months ago

Selected Answer: A
<https://study-ccna.com/configuring-voice-vlans/>
upvoted 2 times

Ravan 1 year, 4 months ago

A is correct
upvoted 1 times

johnnd 1 year, 4 months ago

A indeed
upvoted 1 times

AndersonMr 1 year, 4 months ago

Selected Answer: A
Voice VLANs work like this.
upvoted 1 times

yonten007 1 year, 5 months ago

Selected Answer: D
D: You need to enable protected management frame under the SSID configured
upvoted 1 times

Anarckii 1 year, 6 months ago

Selected Answer: A
For some this may be confusing and it go be the first time around until i looked at the answer more clearly. The answer is A, because lets say you wanted to configure the port as a management port, you would want to configure that interface first before the voice vlan. Thats the only I remember from working with switching as an administrator
upvoted 1 times

✉ **vannplus11** 1 year, 8 months ago

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_40_se/configuration/guide/scg/swvoip.pdf
upvoted 1 times

✉ **etx** 1 year, 11 months ago

How can this be correct? Access ports can only process one vlan per port.
upvoted 3 times

✉ **sdokmak** 1 year, 11 months ago

VoIP phones work in a weird way. The access port is split into two ports, one for voice and one for data. So somehow the access access port behaves like a trunk.
upvoted 11 times

✉ **Bne_Pradhan** 1 year, 11 months ago

Guys, how can a access port manage to process two different Vlans over the same interface, not convinced with the ans.
upvoted 2 times

✉ **Sten111** 1 year, 11 months ago

It is a trunk but not configured as a trunk. Voice VLANs are weird.
<https://networklessons.com/cisco/ccna-routing-switching-icnd1-100-105/voice-vlan>
upvoted 5 times

✉ **SScott** 1 year, 10 months ago

While A seems to be incorrect syntax and an invalid command line, of the choices listed A is the best answer.

<https://www.learnCisco.net/courses/icomm-ccna-voice/cisco-uc-solution-maintenance/switch-configuration.html#:~:text=Cisco%20allows%20us%20to%20have%20two%20VLANs%20connected%20to%20one%20port%2C%20it%27s%20a%20multi-VLAN%20access%20port.%20And%20Cisco%20allows%20us%20to%20bend%20the%20rules%20if%20and%20only%20if%20one%20of%20those%20two%20VLANs%20is%20a%20voice%20VLAN>

<https://community.cisco.com/t5/switching/subinterface-to-access-port/td-p/3804800>

https://www.reddit.com/r/networking/comments/m5ruhr/8021x_and_allowing_phones_on_voice_vlan/

<https://www.cisco.com/c/en/us/support/docs/switches/catalyst-2950-series-switches/113260-voice-vlan-00.html#:~:text=Configure%20specified%20VLANs%20for%20voice%20and%20data%20traffic>

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_40_se/configuration/guide/scg/swvoip.pdf
upvoted 2 times

✉ **SScott** 1 year, 10 months ago

Some very good discussions covering answer D which illustrate this command line being invalid:

<https://community.cisco.com/t5/switching/what-happens-when-voice-vlan-command-is-added-to-a-trunk-port/td-p/1570579>

<https://learningnetwork.cisco.com/s/question/0D53i00000Kt1GR/voice-vlan-on-a-trunk-port>
upvoted 1 times

Question #250

An engineer needs to add an old switch back into a network. To prevent the switch from corrupting the VLAN database, what action must be taken?

- A. Add the switch in the VTP domain with a lower revision number.
- B. Add the switch in the VTP domain with a higher revision number.
- C. Add the switch with DTP set to dynamic desirable.
- D. Add the switch with DTP set to desirable.

Correct Answer: A

 **Customexit** Highly Voted 7 months, 2 weeks ago

Selected Answer: A

One danger of VTP:

If you connect an old switch with a higher revision number to your network (and the VTP domain name matches), all switches in the domain will sync their VLAN database to that switch.

upvoted 6 times

 **GreatDane** Most Recent 11 months, 2 weeks ago

Ref: VTP Client and revision numbers - Cisco Community

Post by balaji.bandi

"..."

Adding a VTP Client Switch to a VTP Domain

Before adding a VTP client to a VTP domain, always verify that its VTP configuration revision number is lower than the configuration revision number of the other switches in the VTP domain. Switches in a VTP domain always use the VLAN configuration of the switch with the highest VTP configuration revision number.

..."

A. Add the switch in the VTP domain with a lower revision number.

Correct answer.

B. Add the switch in the VTP domain with a higher revision number.

Wrong answer.

C. Add the switch with DTP set to dynamic desirable.

Wrong answer.

D. Add the switch with DTP set to desirable.

Wrong answer.

upvoted 3 times

 **ZUMY** 11 months, 2 weeks ago

A is correct

upvoted 1 times

 **ScorpionNet** 1 year, 1 month ago

A is right because you don't want to mess the database up

upvoted 1 times

 **bitree** 1 year, 2 months ago

whether A or B, The switch has to have the lower revision number, not the VTP domain.

They should have used more words to make that clear. Likely the answer is A because if you're putting in a switch, you're going to do it regardless of what the VTP domain is currently set up as. and so, the "with a lower revision number" likely refers to the switch.

upvoted 3 times

 **dipanjana1990** 10 months, 2 weeks ago

exactly, that's why i got confused between "A" and "B" because of the selection of the words.

upvoted 2 times

 **xSora** 1 year, 2 months ago

Why are people answering B?

Answer is A.

upvoted 2 times

✉  **mohdalijmc** 1 year, 2 months ago

ANSWER B

I highly suggest you implement some kind of vtp configuration to prevent this in the future. Adding a switch with a higher revision can easily wipe out the vlan configuration on the remaining switches and perhaps that's exactly what happened

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3750/software/release/12-2_40_se/configuration/guide/scg1/swvtp.html

upvoted 2 times

✉  **CRP098274** 1 year, 6 months ago

Answer is B

Please read the question carefully. The question is pertaining to the old switch from corrupting the VLAN database. It needs the highest revision number in order to prevent from corrupting the VLAN database.

upvoted 3 times

✉  **laurvy36** 1 year, 5 months ago

if you put a switch with higher revision number will f...k up the database of the other switches, if you put a switch with lower revision number, it will update the database according with the other switches

upvoted 8 times

✉  **LOST40** 1 year, 3 months ago

Absolutely not! You're on drugs. Two ways to prevent network breakdown:

- a). change VTP domain to an unused domain, will reset the REVISION number to ZERO.
- b). Change the VTP mode to transparent in order to reset the REVISION number to ZERO.

upvoted 3 times

✉  **samuraipizza26** 1 year, 8 months ago

B

Caution Before adding a VTP client switch to a VTP domain, always verify that its VTP configuration revision number is lower than the configuration revision number of the other switches in the VTP domain. Switches in a VTP domain always use the VLAN configuration of the switch with the highest VTP configuration revision number.

<http://www.securecisco.com/TMCCisco1234F12/StudyGuide/ccna3/Info/revision.number.htm>

upvoted 1 times

✉  **schleef** 1 year, 6 months ago

In real life you would just put a switch in transparent mode...

upvoted 4 times

✉  **UmbertoReed** 1 year, 8 months ago

This source verifies that the correct answer is "A". Did you type wrong or did you misunderstand the source?

upvoted 9 times

✉  **samuraipizza26** 1 year, 8 months ago

Wording error on my part. A is correct.

Thanks

upvoted 5 times

Question #251

Which technology prevents client devices from arbitrarily connecting to the network without state remediation?

- A. 802.11n
- B. 802.1x
- C. MAC Authentication Bypass
- D. IP Source Guard

Correct Answer: B

 **sdokmak** Highly Voted 1 year, 11 months ago

B seems right.
A. is a wifi extension protocol
C. is a means of bypassing 802.1x which is the opposite of what we want.
D. is when an attacker uses the same IP as the client. But the question states client devices as a given.

upvoted 14 times

 **Alizadeh** Most Recent 5 months, 1 week ago

Selected Answer: B

802.1x is a security standard that prevents client devices from arbitrarily connecting to the network without state remediation. It provides a framework for authenticating devices that are attempting to access a LAN or WLAN.

802.1x uses a supplicant (client device) and an authenticator (network access device) to establish a secure connection. The supplicant sends an authentication request to the authenticator, which then forwards the request to an authentication server. If the authentication server approves the request, the supplicant is allowed to access the network. If the request is denied, the supplicant is not allowed to access the network.

upvoted 4 times

 **ZUMY** 11 months, 2 weeks ago

B is correct!
802.1X is a network authentication protocol that opens ports for network access when an organization authenticates a user's identity and authorizes them for access to the network. The user's identity is determined based on their credentials or certificate, which is confirmed by the RADIUS server

upvoted 4 times

 **BlankNothing1** 1 year ago

The source link would be in the CCNA 200-301 OCG Volume 1. Page 658, 2nd paragraph, 2nd sentence. Start with page 657, the subject "802.1x/EAP" will give more information.

upvoted 4 times

 **SSESSE2021** 1 year, 7 months ago

Any source link for this?

upvoted 1 times

 **laurvy36** 1 year, 5 months ago

IEEE 802.1X is an IEEE Standard for port-based Network Access Control (PNAC). It is part of the IEEE 802.1 group of networking protocols. It provides an authentication mechanism to devices wishing to attach to a LAN or WLAN

upvoted 5 times

Question #252

Topic 1

Which protocol does an access point use to draw power from a connected switch?

- A. Internet Group Management Protocol
- B. Cisco Discovery Protocol
- C. Adaptive Wireless Path Protocol
- D. Neighbor Discovery Protocol

Correct Answer: B

 **CISCO2022** Highly Voted 2 years ago

PoE switches support Cisco pre-standard PD detection mechanisms, and any Standards based compliant PDs. Most Cisco made PDs, pre-standard or standard, support Cisco Discovery Protocol (CDP). Once power is applied to a port that contains a pre-standard or standard Cisco PD, CDP is used in order to determine the actual power requirement, and the system power budget is adjusted accordingly.

upvoted 9 times

 **ricky1802** Most Recent 3 months, 4 weeks ago

Selected Answer: B

CDP is used in output power negotiations for POE capable devices; like IP Phones, AccessPoints etc.
<https://learningnetwork.cisco.com/s/article/cisco-discovery-protocol-cdp-x>

upvoted 1 times

 **ZUMY** 11 months, 2 weeks ago

B is correct

upvoted 3 times

 **jossyda** 1 year ago

Selected Answer: B

CDP is correct

upvoted 1 times

 **Micah7** 2 years ago

B is correct:

<https://blog.router-switch.com/2012/03/faq-power-over-ethernet-poe-power-requirements/>

upvoted 4 times

Question #253

An administrator must secure the WLC from receiving spoofed association requests. Which steps must be taken to configure the WLC to restrict the requests and force the user to wait 10 ms to retry an association request?

- A. Enable MAC filtering and set the SA Query timeout to 10.
- B. Enable 802.1x Layer 2 security and set the Comeback timer to 10.
- C. Enable Security Association Teardown Protection and set the SA Query timeout to 10.
- D. Enable the Protected Management Frame service and set the Comeback timer to 10.

Correct Answer: C

 **MrPOW** Highly Voted 1 year, 11 months ago

Has to be D based on..

<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/212576-configure-802-11w-management-frame-prote.html#anc8>

upvoted 12 times

 **SScott** 1 year, 9 months ago

Yes D is the best answer with 802.11w PMF with protection and validation via secure hash to verify signed frames with MIC IE from a BSSID in the network. The secure pmf command is used together with the association-comeback time to configure a portion of this setup. In addition helps more with capwap debugging for Cisco proprietary CCX/MFP messages between controller, APs, and devices. This method is supported on the newer WLCs.

<https://www.cisco.com/c/en/us/support/docs/smb/wireless/cisco-small-business-wireless-access-points/smb5442-frequently-asked-questions-about-management-frame-protection.html#q3>

https://content.cisco.com/chapter.sjs?uri=/searchable/chapter/content/en/us/td/docs/wireless/controller/9800/config-guide/b_wl_16_10_cg/802-11w.html.xml

upvoted 3 times

 **SScott** 1 year, 9 months ago

A is not as effective with hardening the controller and AP association requests at an enterprise level
<https://www.portnox.com/blog/network-security/the-truth-about-mac-spoofing/>

B 802.1x is secure, encrypted and effective for client authentication especially with RADIUS config. However 802.1x/802.11x are not as specifically robust as the Protected Management Frame service mechanism and processes on WLC with 802.11w.

C while Security Association is an excellent added protection with Association Comeback, this answer is wrong as the SA Query retry value is between 100 to 500 ms

SA teardown protection is a mechanism to prevent replay attacks from tearing down the session of an existing client. It consists of an Association Comeback Time and an SA-Query procedure preventing spoofed association requests from disconnecting an already connected client.

https://content.cisco.com/chapter.sjs?uri=/searchable/chapter/content/en/us/td/docs/wireless/controller/9800/config-guide/b_wl_16_10_cg/802-11w.html.xml

upvoted 5 times

 **Vikramaditya_J** Most Recent 1 month ago

Selected Answer: C

Security Association (SA) Teardown Protection is a mechanism in Cisco WLC that prevents replay attacks from tearing down the session of an existing client. It consists of an Association Comeback Time and an SA-Query procedure that prevents spoofed association requests from disconnecting an already connected client. Prior to the implementation of the 802.11w standard, if an AP received either an Association or Authentication request with a spoofed source address, it would tear down the existing association with the legitimate client. With SA Teardown Protection, the AP waits for a specified time before tearing down the existing association, allowing the legitimate client to re-associate with the AP.

upvoted 1 times

 **jnanofrancisco** 4 months, 3 weeks ago

I am not sure but i think C is correct. D is just a part of SA teardown

<https://www.hitchhikersguidetolearning.com/2017/09/17/security-association-sa-teardown-protection-part-1/>

upvoted 1 times

 **Mahfuj_01** 6 months, 2 weeks ago

Answer is C.

Reference :

https://www.cisco.com/c/en/us/td/docs/wireless/controller/technotes/5700/software/release/ios_xe_33/11rkw_DeploymentGuide/b_802point11rkw_deployment_guide_cisco_ios_xe_release33/b_802point11rkw_deployment_guide_cisco_ios_xe_release33_chapter_0100.html

upvoted 1 times

✉  **splashy** 7 months ago

Selected Answer: D

I checked with my netacad instructor after reading this

https://www.cisco.com/c/en/us/td/docs/wireless/controller/technotes/5700/software/release/ios_xe_33/11rkw_DeploymentGuide/b_802point11rkw_deployment_guide_cisco_ios_xe_release33/b_802point11rkw_deployment_guide_cisco_ios_xe_release33_chapter_0100.html

association-comeback—Configures the 802.11w association. The range is from 1 through 20 seconds.

saquery-retry-time ... The range is from 100 to 500 ms. The value must be specified in multiples of 100 milliseconds.

I think the questions should say 10 seconds, 10ms does not fall into either possible range.

So 10ms should not be possible. 10 seconds? --> comeback timer

upvoted 1 times

✉  **aizudin** 7 months, 3 weeks ago

Selected Answer: C

Infrastructure protection is added by adding a Security Association (SA) tear down protection mechanism consisting of an Association Comeback Time and an SA-Query procedure preventing spoofed association request from disconnecting an already connected client.

association-comeback—Configures the 802.11w association. The range is from 1 through 20 seconds.

https://www.cisco.com/c/en/us/td/docs/wireless/controller/technotes/5700/software/release/ios_xe_33/11rkw_DeploymentGuide/b_802point11rkw_deployment_guide_cisco_ios_xe_release33/b_802point11rkw_deployment_guide_cisco_ios_xe_release33_chapter_0100.html

upvoted 1 times

✉  **PiotrMar** 8 months, 3 weeks ago

it is "C"

Security Association (SA) Teardown Protection SA teardown protection is a mechanism to prevent replay attacks from tearing down the session of an existing client. It consists of an Association Comeback Time and an SA-Query procedure preventing spoofed association requests from disconnecting an already connected client.

upvoted 2 times

✉  **GreatDane** 11 months, 2 weeks ago

Ref: Configure 802.11w Management Frame Protection on WLC – Cisco

"...

Benefits of 802.11w Management Frame Protection

...

• AP Protection

...

When you use 802.11w MFP, if the STA is associated and has negotiated Management Frame Protection, the AP rejects the Association Request with return status code 30 Association request rejected temporarily; Try again later to the client.

Included in the Association Response is an Association Comeback Time information element which specifies a comeback time when the AP would be ready to accept an association with this STA. This way you can ensure that legitimate clients are not disassociated due to a spoofed association request.

..."

A. Enable MAC filtering and set the SA Query timeout to 10.

Wrong answer.

B. Enable 802.1x Layer 2 security and set the Comeback timer to 10.

Wrong answer.

C. Enable Security Association Teardown Protection and set the SA Query timeout to 10.

Wrong answer.

D. Enable the Protected Management Frame service and set the Comeback timer to 10.

Correct answer.

upvoted 2 times

✉  **ZUMY** 11 months, 2 weeks ago

Selected Answer: D

Going with D:

<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/212576-configure-802-11w-management-frame-prote.html#anc8>

upvoted 1 times

✉  **jossyda** 1 year ago

Selected Answer: D

Protected Management Frames (PMF) to secure important 802.11 management frames between APs and clients, to prevent malicious activity that might spoof or tamper with a BSS's operation.

upvoted 2 times

 **dipanjana1990** 1 year, 2 months ago

D is the correct answer.

Since Protected management Frame doesn't let spoofed clients to associate with the access point whereas Security Association Teardown Protection tears down spoofed association as original association already exist in the table with WLC.

Thus, D will be the correct answer

upvoted 1 times

 **awashenko** 1 year, 4 months ago

Selected Answer: D

I also think D is correct

<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/wireless-lan-wlan/212576-configure-802-11w-management-frame-prote.html>

upvoted 1 times

 **daanderud** 1 year, 5 months ago

Selected Answer: D

D is the correct answer

upvoted 1 times

 **Anarckii** 1 year, 5 months ago

The answer should be D. The question asks about the association request, which involves the management of the WLC

upvoted 1 times

 **Aatik** 1 year, 6 months ago

Selected Answer: D

D IS THE CORRECT ANSWER

upvoted 1 times

 **Hodicek** 1 year, 6 months ago

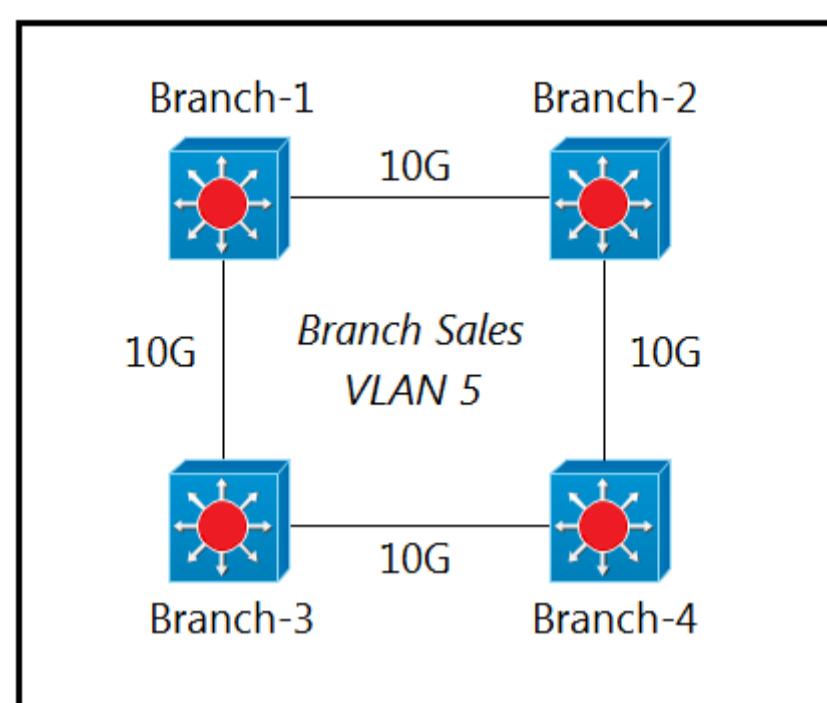
GIVEN ANSWER IS CORRECT

upvoted 1 times

 **Alibaba** 1 year, 6 months ago

i think also D is correct answer

upvoted 2 times



Refer to the exhibit. Only four switches are participating in the VLAN spanning-tree process.

Branch-1: priority 614440 -

Branch-2: priority 39391170 -

Branch-3: priority 0 -

Branch-4: root primary -

Which switch becomes the permanent root bridge for VLAN 5?

- A. Branch-1
- B. Branch-2
- C. Branch-3
- D. Branch-4

Correct Answer: C

LOST40 Highly Voted 1 year, 3 months ago

A priority 0 means that it guarantees the switch is always the root bridge of a particular VLAN. You don't need other information.
upvoted 11 times

Peter_panda Highly Voted 5 months ago

I just verified with a C2960 and a C1111 - Priority 0 "beats" root primary, so the right answer is C indeed.
upvoted 7 times

GigaGremlin Most Recent 8 months ago

Correct answer is D, because of the manually configured Root Primary of Branch-4. As long it is well and alive Priority 0 doesn't matter. Guess in Cases like this Root Backup would be manually selected to, to prevent unexpected Root election results...
upvoted 1 times

DoBronx 7 months, 1 week ago

wrong. Priority 0 supersedes that
upvoted 5 times

GreatDane 11 months, 2 weeks ago

Ref: CCNP and CCIE Enterprise Core ENCOR 350-401 Official Cert Guide

"Advanced STP Tuning

...

Root Bridge Placement

Ideally the root bridge is placed on a core switch, and a secondary root bridge is designated to minimize changes to the overall spanning tree. Root bridge placement is accomplished by lowering the system priority on the root bridge to the lowest value possible, raising the secondary root bridge to a value slightly higher than that of the root bridge, and (ideally) increasing the system priority on all other switches. This ensures consistent placement of the root bridge.

..."

A. Branch-1

Wrong answer.

B. Branch-2

Wrong answer.

C. Branch-3

Correct answer.

D. Branch-4

Wrong answer.

upvoted 2 times

 **ZUMY** 11 months, 2 weeks ago

C is correct!

upvoted 1 times

 **ZUMY** 11 months, 2 weeks ago

-Each switch has its own bridge ID and has a default priority value of 32768
-using the 'root primary' will set the bridge priority to 24576, which is lower than the default priority.
upvoted 2 times

 **bmatthee01** 1 year, 3 months ago

In this case the best answer is D

To ensure the desired switch becomes the permanent root bridge for a specific vlan (in this scenario Vlan5) you must explicitly configure it as the primary
<https://www.omniseCU.com/cisco-certified-network-associate-ccna/how-to-configure-spanning-tree-protocol-root-primary-and-root-secondary.php>

think about it

if you configure the switch with bridge priority 0 and connect another switch with bridge priority 0 and a lower mac address the root bridge will give up its position and change the topology

wheres a switch with the primary role wont give up its position even if a switch with priority 0 and lower mac address is connected

upvoted 2 times

 **sgashashf** 1 year, 3 months ago

But that's how any of this works. Executing the command "spanning-tree vlan 5 root primary" doesn't place a "primary" tag into the running config, it simply checks the priorities of other switches on the networks and sets its own to 4096 lower. Kane002 is correct, without more information there is literally no way to know which of these switches would be elected root bridge.

upvoted 1 times

 **JackBond40** 1 year, 4 months ago

I believe there is enough information. Branch 1 has lower priority than Branch 2 so it would become primary between those 2. If election was between Branch 1 and Branch 4 Branch 4 would have a lower value by 4096 and become primary...then Branch 3 would take primary as it has priority 0. If election was between branch 3 and Branch 1 first Branch 3 would take primary with priority 0. Since Branch 3 is already primary with a priority 0 it will not relinquish primary to Branch 4. Branch 4 will set its priority to 0 but Branch 3 will remain primary while it is active in the STP process.

upvoted 1 times

 **johntan1980** 1 year, 4 months ago

Priority 0

upvoted 1 times

 **Kane002** 1 year, 4 months ago

Not enough information to answer. Both root primary and priority 0 will have a priority of 0, and go down to the lowest MAC address. Root primary will also generate SNMP complaints that it can't set its priority to negative 4096, as primary always sets to 4096 below the lowest priority. Best answer is root primary.

upvoted 2 times

 **SScott** 1 year, 9 months ago

Yeah C

upvoted 2 times

Question #255

Topic 1

An engineer must configure traffic for a VLAN that is untagged by the switch as it crosses a trunk link. Which command should be used?

- A. switchport trunk encapsulation dot1q
- B. switchport trunk allowed vlan 10
- C. switchport mode trunk
- D. switchport trunk native vlan 10

Correct Answer: D

 **Bhrino** 3 weeks, 1 day ago

In most cases if the question ask for untagged data most of the time the answer is native vlan
upvoted 1 times

 **MoctarS** 3 months ago

Selected Answer: D

Best answer is D .
upvoted 2 times

 **sasquatchshrimp** 10 months, 1 week ago

Cisco is getting tipsy when making these questions. What do they mean you need to configure traffic?
upvoted 3 times

 **ZUMY** 11 months, 2 weeks ago

D is correct
upvoted 1 times

 **Rob2000** 1 year, 8 months ago

D
The switchport trunk native vlan command specifies the native (untagged) VLAN for a Layer 2 interface operating in trunk mode on a Cisco IOS device. This command only takes effect for interfaces that are operating in trunk mode.
upvoted 3 times

 **dave1992** 1 year, 8 months ago

huh?
how do you configure traffic? if youre marking traffic wouldnt you mark it with the command encap dot1q?
upvoted 1 times

 **lade12** 1 year, 7 months ago

untagged traffic goes through the native vlan
upvoted 3 times

Question #256

Topic 1

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

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

Correct Answer: AD

 **vannplus11** Highly Voted 1 year, 8 months ago

- Interfaces with portfast enabled that come up will go to forwarding mode immediately, the interface will skip the listening and learning state.
- A switch will never generate a topology change notification for an interface that has portfast enabled.

<https://networklessons.com/switching/cisco-portfast-configuration>

upvoted 24 times

 **Jorro99404** Most Recent 3 weeks ago

Selected Answer: CD

C and D

upvoted 1 times

 **Tarek70** 1 month, 1 week ago

C and D

upvoted 2 times

 **checkoboy88** 3 months ago

Selected Answer: CD

C&D are correct for sure :)

upvoted 4 times

 **Ciscoman021** 5 months ago

Selected Answer: CD

Portfast does two things for us: Interfaces with portfast enabled that come up will go to forwarding mode immediately, the interface will skip the listening and learning state. A switch will never generate a topology change notification for an interface that has portfast enabled.

<https://networklessons.com/switching/cisco-portfast-configuration>

upvoted 2 times

 **mzu_sk8** 7 months, 1 week ago

Selected Answer: CD

"A switch will never generate a topology change notification for an interface that has portfast enabled."

upvoted 3 times

 **DoBronx** 7 months, 1 week ago

this is just an obvious mistake

CD

upvoted 2 times

 **DUMPLedore** 8 months ago

Selected Answer: CD

@EXAMTOPICS - pls change answer to CD

upvoted 4 times

 **creaguy** 8 months, 1 week ago

Selected Answer: CD

A is wrong.

<https://networklessons.com/switching/cisco-portfast-configuration#:~:text=Portfast%20does%20two,has%20portfast%20enabled.>
upvoted 1 times

 **J1983** 8 months, 1 week ago

"A switch will never generate a topology change notification for an interface that has portfast enabled." Source: <https://networklessons.com/switching/cisco-portfast-configuration>

"Another major benefit of the STP portfast feature is that the access ports bypass the earlier 802.1D STP states (learning and listening) and forward traffic immediately."

Source: <https://www.ciscopress.com/articles/article.asp?p=2995351&seqNum=3>

upvoted 2 times

 **TMT91** 8 months, 2 weeks ago

Selected Answer: CD

C&D is the correct answer

upvoted 2 times

 **shubhambala** 8 months, 3 weeks ago

Selected Answer: CD

CD is the anwers pals (source - Trust me please!)

upvoted 2 times

 **splashy** 8 months, 3 weeks ago

Selected Answer: CD

A&D contradict each other so please change the answer :)

It's C&D

You DON'T want access/edge ports LISTENING or LEARNING anything (spanning tree related) from (potentially malicious) end devices = So you enable Portfast

You can then also enable BPDU guard to detect BPDU's, which when received on an access/edge port is malicious activity or user error. BPDU guard will then put the port in err-disabled state.

Implementing these two functions is access-port hardening.

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4000/8-2glx/configuration/guide/stp_enha.html#wp1046787

upvoted 2 times

 **Cracked76** 8 months, 4 weeks ago

Selected Answer: CD

Port fast = forwarding state

upvoted 1 times

 **ZUMY** 11 months, 2 weeks ago

C & D are correct!

upvoted 2 times

 **onikafei** 1 year, 4 months ago

Selected Answer: CD

Port forwarding is it sets the date immediately to forwarding mode.

It shouldn't affect the topology at all

upvoted 1 times

Question #257

Topic 1

What is the benefit of configuring PortFast on an interface?

- A. The frames entering the interface are marked with the higher priority and then processed faster by a switch.
- B. After the cable is connected, the interface is available faster to send and receive user data.
- C. Real-time voice and video frames entering the interface are processed faster.
- D. After the cable is connected, the interface uses the fastest speed setting available for that cable type.

Correct Answer: B

 **Stonetales987** Highly Voted  1 year, 6 months ago

B is correct - Portfast causes a switch or trunk port to enter the spanning tree forwarding state immediately, bypassing the listening and learning states.

upvoted 8 times

 **DUMPlidore** Most Recent  8 months ago

Selected Answer: B

B is correct

upvoted 1 times

 **ZUMY** 11 months, 2 weeks ago

B is correct

upvoted 1 times

 **Nicocisco** 1 year, 3 months ago

Selected Answer: B

Comme le port prend va à l'état "forwarding" directement, l'interface est effectivement prête à processer de la donnée plus vite
upvoted 4 times

 **studying_1** 1 month ago

tout a fait d'accord avec toi, c'est vrai

upvoted 1 times

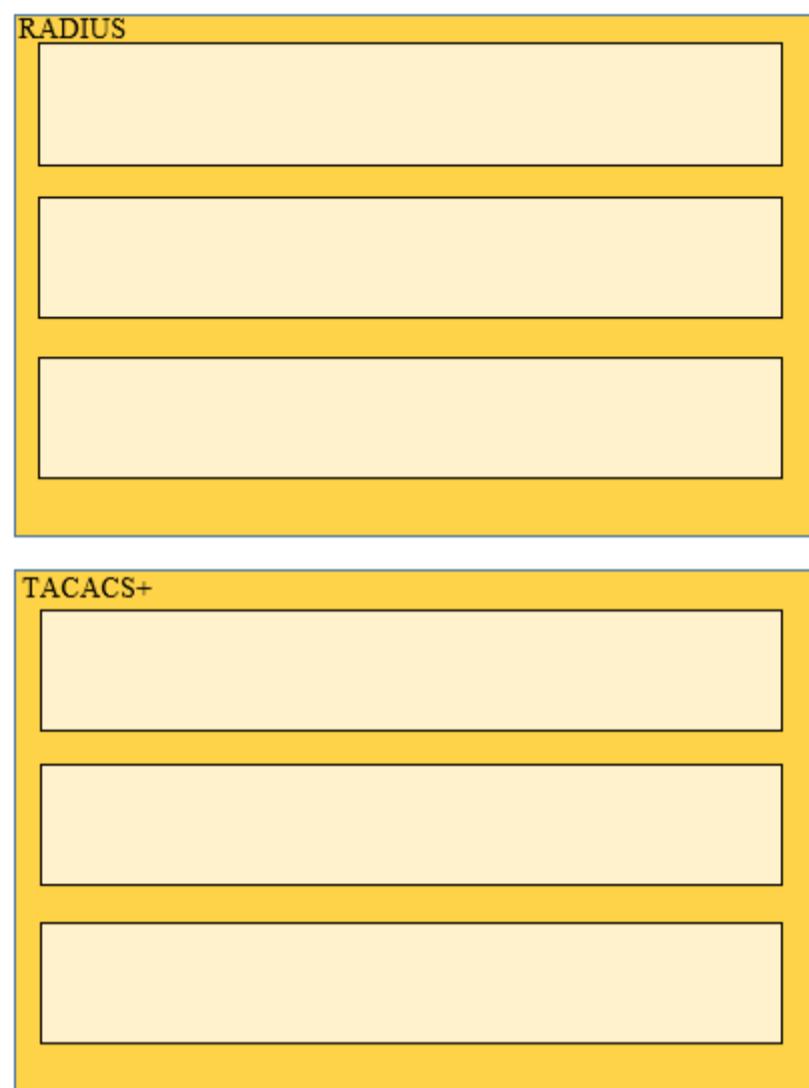
Question #258

DRAG DROP -

Drag and drop the functions of AAA supporting protocols from the left onto the protocols on the right.

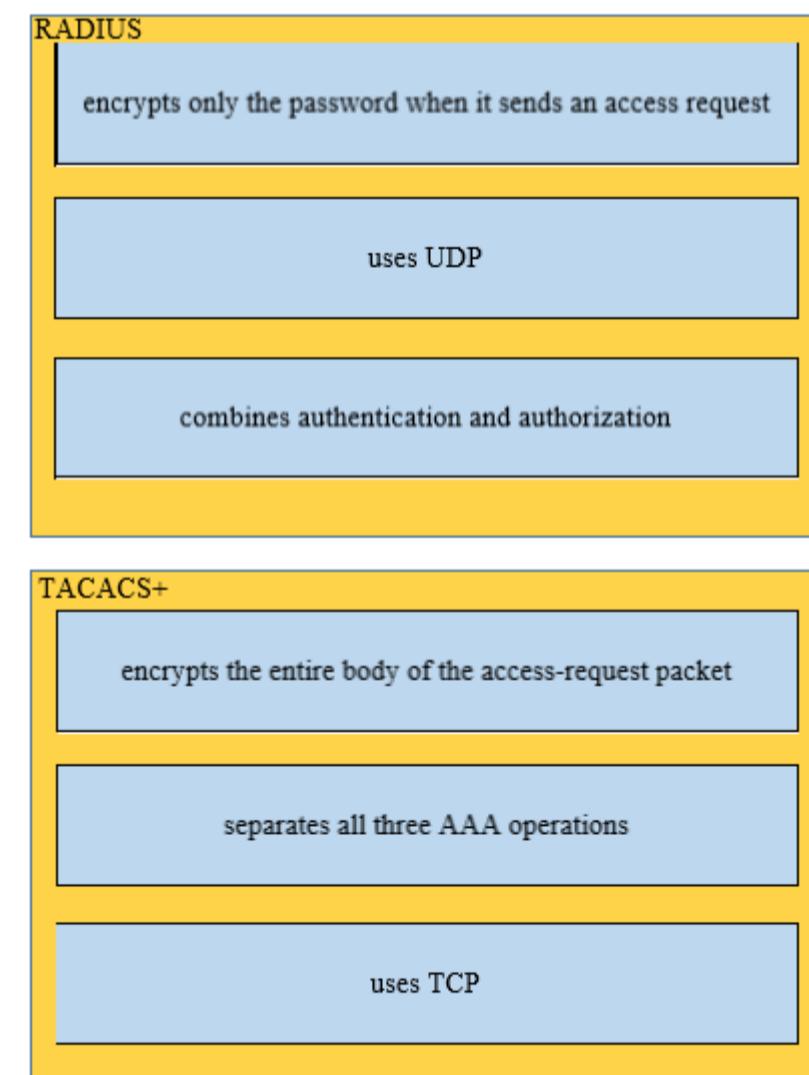
Select and Place:

- encrypts only the password when it sends an access request
- encrypts the entire body of the access-request packet
- separates all three AAA operations
- combines authentication and authorization
- uses TCP
- uses UDP



Correct Answer:

- encrypts only the password when it sends an access request
- encrypts the entire body of the access-request packet
- separates all three AAA operations
- combines authentication and authorization
- uses TCP
- uses UDP



✉  **ricky1802** 4 months ago

Answer is correct.

RADIUS uses UDP while TACACS+ uses TCP.

RADIUS encrypts only the password in the access-request packet, from the client to the server. The remainder of the packet is unencrypted. Other information, such as username, authorized services, and accounting, can be captured by a third party.

TACACS+ encrypts the entire body of the packet but leaves a standard TACACS+ header.

RADIUS combines authentication and authorization.

TACACS+ uses the AAA architecture, which separates AAA.

upvoted 4 times

Question #259

Topic 1

Why does a switch flood a frame to all ports?

- A. The frame has zero destination MAC addresses.
- B. The destination MAC address of the frame is unknown.
- C. The source MAC address of the frame is unknown
- D. The source and destination MAC addresses of the frame are the same.

Correct Answer: B

 **Fuaad** Highly Voted 1 year, 9 months ago

B is the correct answer

please update it

upvoted 36 times

 **HSong** Most Recent 1 month, 2 weeks ago

D is the answer, if the destination MAC is unknown, the frame will be sent to all the port except the original one, but not ALL THE PORTS.

upvoted 1 times

 **jaypzz** 6 months ago

Selected Answer: B

B is correct

upvoted 1 times

 **R_AZZ23** 10 months, 2 weeks ago

B is the correct answer .

upvoted 2 times

 **ZUMY** 11 months, 2 weeks ago

Selected Answer: B

B is correct

upvoted 2 times

 **Shirona** 11 months, 2 weeks ago

B is Correct.

upvoted 1 times

 **sakisg** 12 months ago

Selected Answer: B

b is correct

upvoted 1 times

 **Djow** 1 year ago

Selected Answer: D

D is the correct answer.

if the source MAC is know, the sw will send traffic to all ports, except the source port...

upvoted 2 times

 **Weezyfbaby** 1 year ago

Selected Answer: B

Because CCNA

upvoted 3 times

 **abual3ees** 1 year ago

Selected Answer: B

b correct

upvoted 1 times

 **Sajowww** 1 year ago

Selected Answer: B

Source MAC is known, only destination MAC is unknown

upvoted 1 times

 **battery1979** 11 months ago

Question asked what happens if both source and destination are unknown, but no clue how a switch ends up with a frame with an unknown source.

upvoted 1 times

 **dfvanloon** 1 year ago

B is the correct answer can you update the answer.

upvoted 2 times

 **ScorpionNet** 1 year, 1 month ago

B is correct because it happens during an ARP request for IPv4 and ICMPv6 ND for IPv6 because the Switch doesn't know what network had the MAC Address assigned yet

upvoted 2 times

 **msomali** 1 year, 1 month ago

The correct answer is B.

Switches tend to flood frame with the Unknown Destination MAC Address out all ports apart from the Originating (apart from the one it received) port.

upvoted 2 times

 **geober** 1 year, 1 month ago

B is the right answer

upvoted 2 times

 **Ebsa** 1 year, 2 months ago

Selected Answer: B

B is correct answer

upvoted 1 times

 **lovalim** 1 year, 2 months ago

Selected Answer: B

B is the correct ansder

upvoted 1 times

Question #260

Topic 1

An engineer configures interface Gi1/0 on the company PE router to connect to an ISP. Neighbor discovery is disabled.

```
interface Gi1/0
description HQ_DC3992-38488
duplex full
speed 100
negotiation auto
lldp transmit
lldp receive
```

Which action is necessary to complete the configuration if the ISP uses third-party network devices?

- A. Disable autonegotiation.
- B. Enable LLDP globally.
- C. Enable LLDP-MED on the ISP device.
- D. Disable Cisco Discovery Protocol on the interface.

Correct Answer: B

 **mechelleh** Highly Voted 1 year, 2 months ago

such a dumb question...

upvoted 14 times

 **CCNA_beast_69** Highly Voted 1 year, 6 months ago

It is correct. Big brain CCNA stuff right here lads.

upvoted 6 times

 **oatmealturkey** Most Recent 3 months, 1 week ago

I am so annoyed with Odom for claiming in OCG that you can have LLDP globally disabled and just configure LLDP on an interface, and then that interface will transmit and/or receive LLDP messages while LLDP is globally disabled on the device. Did anyone else notice that?!

upvoted 3 times

 **Pokoyo** 11 months, 1 week ago

Answer B

LLDP-MED TLV support is enabled by default if LLDP is enabled globally and locally on a supported interface. Specific TLVs, however, can be enabled and suppressed.

<https://content.cisco.com/chapter.sjs?uri=/searchable/chapter/content/en/us/td/docs/ios-xml/ios/ether/configuration/15-mt/ce-15-mt-book/ce-lldp-multivend.html.xml>
upvoted 2 times

 **asbaleha** 10 months, 3 weeks ago

lldp transmit and lldp receive are active in the running-config that means the lldp is already active ?, and if it's already active we need to disable cdp correct if am wrong and thx

upvoted 1 times

 **ZUMY** 11 months, 2 weeks ago

B is correct

Link Layer Discovery Protocol (LLDP) is a layer 2 neighbor discovery protocol that allows devices to advertise device information to their directly connected peers/neighbors. It is best practice to enable LLDP globally to standardize network topology across all devices if you have a multi-vendor network.

upvoted 4 times

 **LeonardM** 1 year, 1 month ago

B 100% CORRECT

upvoted 1 times

 **SollyMalwane** 1 year, 4 months ago

Selected Answer: B

CORRECT

upvoted 1 times

 **reagan_donald** 1 year, 4 months ago

Neither in Wendell nor on Netacad was mentioned LLDP-MED

upvoted 2 times

 **EDUROJAS** 1 year, 4 months ago

it c

<https://content.cisco.com/chapter.sjs?uri=/searchable/chapter/content/en/us/td/docs/ios-xml/ios/ceether/configuration/15-mt/ce-15-mt-book/ce-lldp-multivend.html.xml>

upvoted 1 times

Question #261

DRAG DROP -

Drag and drop the Rapid PVST+ forwarding state actions from the left to the right. Not all actions are used.

Select and Place:

BPDUs received are forwarded to the system module	action
BPDUs received from the system module are processed and transmitted	action
Frames received from the attached segment are discarded	action
Frames received from the attached segment are processed	action
Switched frames received from other ports are advanced	
The port in the forwarding state responds to network management messages	

BPDUs received are forwarded to the system module	BPDUs received are forwarded to the system module
BPDUs received from the system module are processed and transmitted	BPDUs received from the system module are processed and transmitted
Frames received from the attached segment are discarded	Frames received from the attached segment are discarded
Frames received from the attached segment are processed	
Switched frames received from other ports are advanced	
The port in the forwarding state responds to network management messages	

Correct Answer:

 **ccna_goat** Highly Voted 8 months, 2 weeks ago

system module, attached segment? another broken question.

upvoted 13 times

 **splashy** Highly Voted 8 months, 2 weeks ago

BPDU'S received forwarded to system module

BPDU'S received from system module are processed and transmitted

Switched frames from other ports are advanced

The port in the forwarding state responds to netwrok management messages

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_config_gd_rel_503_N1_1_chapter9.html#con_1241832

upvoted 12 times

 **VictorCisco** 1 month, 3 weeks ago

Do not mess the guys studying !

there is no "Switched frames from other ports are advanced"!!

upvoted 1 times

✉  **bisiyemo1** Most Recent 1 month, 4 weeks ago

A LAN port in the forwarding state performs as follows:

Forwards frames received from the attached segment.

Forwards frames switched from another port for forwarding.

Incorporates the end station location information into its address database.

Receives BPDUs and directs them to the system module.

Processes BPDUs received from the system module.

Receives and responds to network management messages.

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_config_gd_rel_503_N1_1_chapter9.html#con_1241832

upvoted 2 times

✉  **guisam** 6 months ago

A port in the forwarding state performs as follows:

- Forwards frames that are received from the attached segment
- Forwards frames that are switched from another port for forwarding
- Incorporates station location information into its address database
- Receives BPDUs and directs them to the system module
- Processes BPDUs that are received from the system module
- Receives and responds to network management messages

<https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4000/8-2glx/configuration/guide/spantree.html#wp1174176>

upvoted 5 times

✉  **binrayelias** 4 months, 3 weeks ago

Switched frames from other ports are advanced.

BPDUs received are forwarded to the sys module.

Frames received from attached segment are processed.

Port in the forwarding state responds to network mngmt messages.

upvoted 3 times

✉  **dick3311** 7 months, 1 week ago

<https://www.examtopics.com/discussions/cisco/view/61948-exam-200-301-topic-1-question-182-discussion/>

upvoted 4 times

Question #262

Topic 1

Which access point mode relies on a centralized controller for management, roaming, and SSID configuration?

- A. lightweight mode
- B. autonomous mode
- C. bridge mode
- D. repeater mode

Correct Answer: A

 **Rether16** 2 months ago

In the words of Ronnie Coleman: Lightweight Baby!!!

upvoted 4 times

 **Kansen** 10 months ago

Can someone explain shortly the difference between Autonomous and Lightweight mode?

upvoted 2 times

 **Customexit** 7 months, 2 weeks ago

Autonomous Access Points (APs) are self-contained that do not rely on a Wireless LAN Controller (WLC), they are configured individually. There is no central monitoring or management of APs.,

For Lightweight APs, the functions of an AP can be split between the AP and the WLC. Other functions are carried out by a WLC. The WLC is also used to centrally configure the lightweight APs. Can be configured in modes such as Local or FlexConnect.

Extra info because I've seen it mentioned in other questions here:

WLC and lightweight APs use a protocol called CAPWAP (Control And Provisioning Of Wireless Access Points) to communicate. This is based on an older protocol, LWAPP (Lightweight Access Point Protocol).

Two tunnels are created between each AP and WLC: Control Tunnel (manage operations) and Data Tunnel (traffic from wireless clients is sent through this tunnel to the WLC, it does not go direct to the wired network. Traffic here is not encrypted by default).

upvoted 11 times

 **Godfather2022** 4 months, 1 week ago

You completely right I have seen questions about the meaning of CAPWAP.

upvoted 1 times

 **ZUMY** 11 months, 1 week ago

A is correct

upvoted 1 times

 **hassanhady** 1 year, 3 months ago

i didn't understand the question!

upvoted 2 times

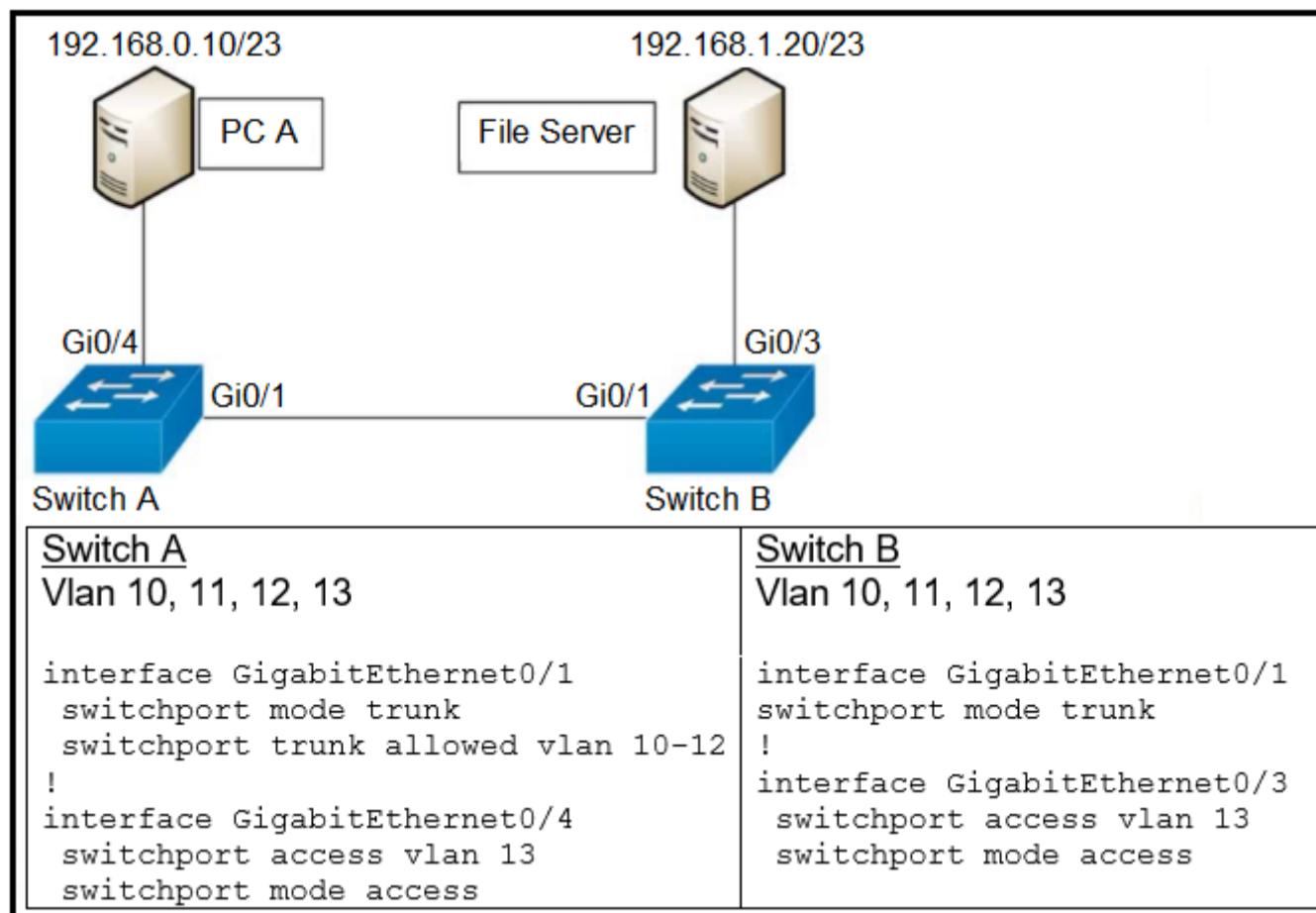
 **PraygeForPass** 1 year, 1 month ago

Lightweight AP deployment requires a centralized controller to operate, a.k.a. a WLC.

A is correct

upvoted 3 times

Question #263



Refer to the exhibit. A network engineer must configure communication between PC A and the File Server. To prevent interruption for any other communications, which command must be configured?

- A. switchport truck allowed vlan 12
- B. switchport truck allowed vlan none
- C. switchport truck allowed vlan add 13
- D. switchport truck allowed vlan remove 10-11

Correct Answer: C

✉ **ctoklu** Highly Voted 11 months, 2 weeks ago

switchport TRUCK?? --> TRUNK

upvoted 10 times

✉ **Yunus_Empire** 6 months ago

Huahaha i was thinking the same what is Truck its Trunk LoL

upvoted 1 times

✉ **Aleks123** Highly Voted 1 year, 5 months ago

The switchport trunk allowed vlan command is used to specify the list of VLANs that are allowed on a trunk port. When a Layer 2 interface on a Cisco IOS device is configured to operate in trunk mode, the default setting is for the interface to carry all of the VLANs defined on the switch.

upvoted 10 times

✉ **GigaGremlin** Most Recent 8 months ago

If this Question really is about to add VLAN 13, you have do add it on A & B. Otherwise both devices seem to be not necessarily within VLAN 13 and maybe should just use the nativ VLAN to communicate ?!

upvoted 1 times

✉ **usamahrakib001** 9 months, 4 weeks ago

If you need to add any more VLAN's to the already allowed list you need to use the add command otherwise you will override what is in there already.

upvoted 2 times

✉ **znabbe** 1 year, 1 month ago

They can't communicate either way since they are in different subnets or am I wrong? I thought you needed a router to communicate between subnets.

upvoted 4 times

✉ **ciscodj** 1 year ago

They are on the same subnet.

upvoted 3 times

✉ **dipanjana1990** 10 months, 2 weeks ago

they are on the same subnet.
upvoted 1 times

 **jiri_kurka** 1 year, 2 months ago

Selected Answer: C
I'm not sure if command "switchport TRUNK allowed vlan add 13" helps.... anyway it seems be correct :-D
upvoted 2 times

 **bhurishravas** 1 year, 4 months ago

Selected Answer: C
so just add absent vlan ID
upvoted 4 times

 **Cho1571** 1 year, 4 months ago

Looks like Switch B is missing the Switchport trunk allowed VLAN command....lol
upvoted 1 times

Question #264

Topic 1

```
switch(config)#interface gigabitEthernet 1/11
switch(config-if)#switchport mode access
switch(config-if)#spanning-tree portfast
switch(config-if)#spanning-tree bpduguard enable
```

Refer to the exhibit. What is the result if Gig1/11 receives an STP BPDU?

- A. The port transitions to STP blocking.
- B. The port immediately transitions to STP forwarding.
- C. The port goes into error-disable state.
- D. The port transitions to the root port.

Correct Answer: C

 **ZUMY** Highly Voted 11 months, 1 week ago

C:

BPDU Guard feature protects the port from receiving STP BPDUs, however the port can transmit STP BPDUs. When a STP BPDU is received on a BPDU Guard enabled port, the port is shutdown and the state of the port changes to ErrDis (Error-Disable) state.

upvoted 7 times

 **ZUMY** 11 months, 1 week ago

BPDU guard is enabled only on access ports where laptops, servers or other device are connected. If some one generate PBDU's from end devices PBDU guard will put the port in to erro-disable state

upvoted 8 times

 **binrayelias** Most Recent 4 months, 3 weeks ago

hen the interface receives a BPDU, it is put in the error-disabled state

upvoted 1 times

 **Ipham** 11 months, 4 weeks ago

C is correct.

"Spanning tree shuts down STP ports that are in a Port Fast-operational state if any BPDU is received on those ports. In a valid configuration, Port Fast-enabled STP ports do not receive BPDUs. Receiving a BPDU on a Port Fast-enabled port signals an invalid configuration, such as the connection of an unauthorized device, and the BPDU guard feature puts the interface in the error-disabled state."

https://www.cisco.com/en/US/docs/switches/metro/me3600x_3800x/trash/swstpopt.html#wp1095752

upvoted 2 times

 **amadeu** 1 year, 5 months ago

C , is the correct.

upvoted 1 times

Question #265

Topic 1

Which access layer threat-mitigation technique provides security based on identity?

- A. Dynamic ARP Inspection
- B. DHCP snooping
- C. 802.1x
- D. using a non-default native VLAN

Correct Answer: C

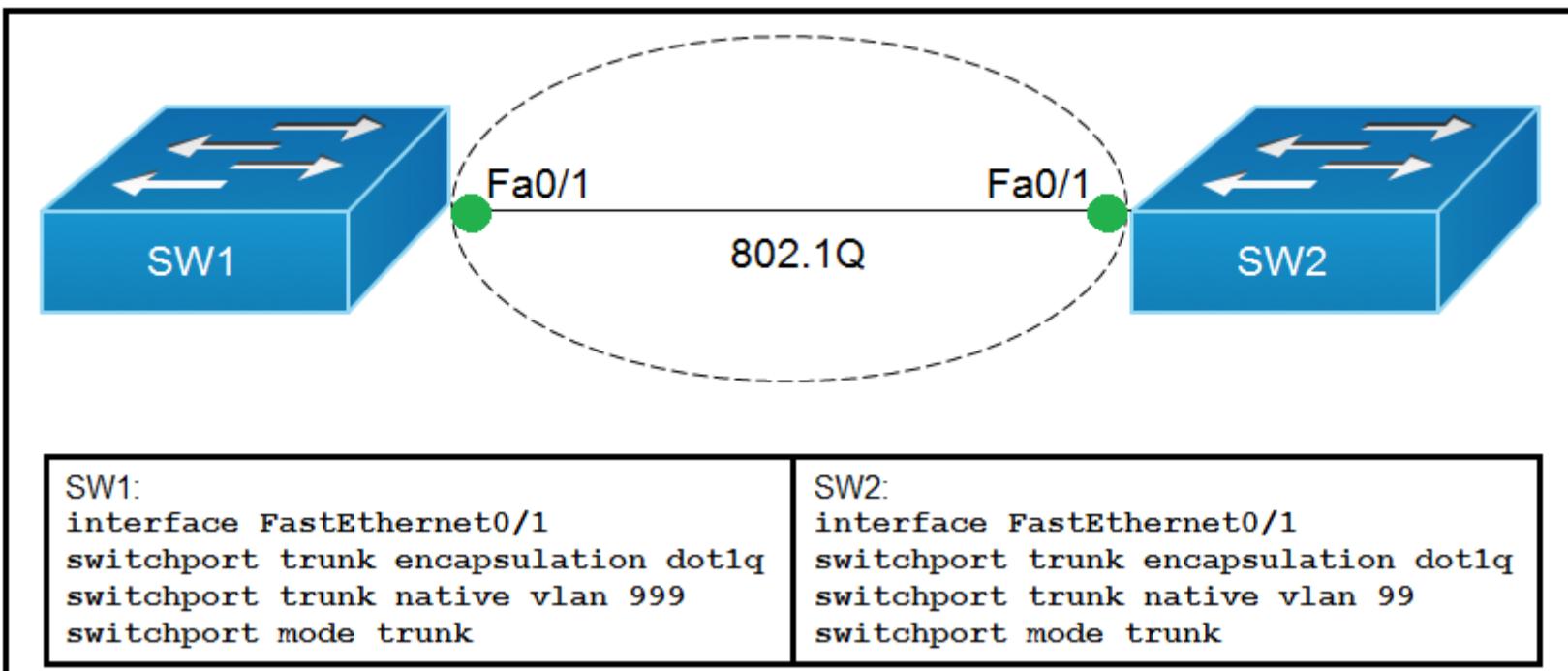
 **ZUMY** 11 months, 1 week ago

C: answer
upvoted 3 times

 **SparkySM** 1 year, 5 months ago

<https://alexwilkins.dev/index.php/1-7-describe-common-access-layer-threat-mitigation-techniques/>
upvoted 3 times

Question #266



Refer to the exhibit. Which action do the switches take on the trunk link?

- A. The trunk does not form, and the ports go into an err-disabled status.
- B. The trunk forms, but the mismatched native VLANs are merged into a single broadcast domain.
- C. The trunk forms, but VLAN 99 and VLAN 999 are in a shutdown state.
- D. The trunk does not form, but VLAN 99 and VLAN 999 are allowed to traverse the link.

Correct Answer: B

The trunk still forms with mismatched native VLANs and the traffic can actually flow between mismatched switches. But it is absolutely necessary that the native

VLANs on both ends of a trunk link match; otherwise a native VLAN mismatch occurs, causing the two VLANs to effectively merge. For example, with the above configuration, SW1 would send untagged frames for VLAN 999. SW2 receives them but would think they are for VLAN 99 so we can say these two VLANs are merged.

✉ **splashy** Highly Voted 8 months, 3 weeks ago

Every time i see this question... i hate it more.

B is indeed the "least incorrect/bad" option but it's just a ridiculously small part of the whole answer. Meaning this would be the end result WITHOUT spanning tree existing and putting the end of the trunk that was last configured (mismatched) in a "broken status" blocking all untagged traffic on that port.

Call me crazy but i hate questions where i need to envision a parallel reality where spanning tree does not yet exist.

upvoted 11 times

✉ **RougePotatoe** 7 months, 1 week ago

To explain if anyone do not understand his complaint. According to Cisco STP is enabled by default on all cisco switches. Cisco documentation says STP should shut down ports when there is a native vlan mismatch. Although, I have yet to see this happen on Packet Tracer or in Lab equipment.

upvoted 7 times

✉ **GhostWolf** 6 months, 4 weeks ago

Thanks.

upvoted 1 times

✉ **BeautifulSmile** Most Recent 1 month, 1 week ago

This particular question gets me confused all the time.

upvoted 1 times

✉ **onikafei** 1 year, 4 months ago

Selected Answer: B

B is correct

upvoted 1 times

✉ **ZUMY** 2 years, 1 month ago

B is correct

upvoted 3 times

✉ **nenortronix** 2 years, 2 months ago

"B" is the correct answer

upvoted 3 times

 **SScott** 1 year, 10 months ago

While B is a bit vague, this would be the general result of the native VLAN mismatch

<https://www.networkacademy.io/ccna/ethernet/trunk-native-vlan#:~:text=the%20Trunk%20settings%20on%20one%20switchport%20do%20not%20have%20to%20exactly%20match%20the%20settings%20on%20the%20other%20side%20of%20the%20link>

<https://learningnetwork.cisco.com/s/article/effects-of-mismatched-native-vlans-on-a-trunk-link>

upvoted 2 times

Question #267

A network engineer must configure two new subnets using the address block 10.70.128.0/19 to meet these requirements:

- The first subnet must support 24 hosts.
- The second subnet must support 472 hosts.
- Both subnets must use the longest subnet mask possible from the address block.

Which two configurations must be used to configure the new subnets and meet a requirement to use the first available address in each subnet for the router interfaces? (Choose two.)

- A. interface vlan 1148 ip address 10.70.148.1 255.255.254.0
- B. interface vlan 3002 ip address 10.70.147.17 255.255.255.224
- C. interface vlan 4722 ip address 10.70.133.17 255.255.255.192
- D. interface vlan 1234 ip address 10.70.159.1 255.255.254.0
- E. interface vlan 155 ip address 10.70.155.65 255.255.255.224

Correct Answer: DE

 **Customexit** Highly Voted 7 months, 2 weeks ago

Selected Answer: AE

Adding my answer since there is so much confusion.

Remove C because VLAN ranges are 1-1005 and 1006-4094.

!The requirement is to use the first available address in each subnet!

For A, the network address is .148.0. The first available is 148.1. 255.255.254.0 is /23, we have 512 addresses so we are good on the 472 host requirement.

For B, 10.70.147.1 is the first address. So no.

For D, (we already decided on A but we'll do this anyway) 10.70.158.1 is our first. Not 159.1.

For E, .64 is our network, .65 is our first. This works. .224 is /27 which gives us 32 total addresses, more than we need.

I highly recommend watching 'Subnetting Mastery' youtube playlist for learn how to subnet fast.

upvoted 25 times

 **MTrap** Highly Voted 11 months, 3 weeks ago

It has to be A & B. The first subnet will require 24 hosts which would put in the subnet mask ending in 224 yes. However since it is the first subnet, it has to come before the second (obviously) so since B has an IP address of 10.70.147.17 with a subnet mask of 255.255.255.224 and A has an IP address of 10.70.148.1 and a network mask of 255.255.254.0 (512 IP addresses) and it immediately follows the previous address, this should be the answer.

upvoted 7 times

 **everchosen13** 8 months, 1 week ago

Agreed, key word here being "First"

upvoted 1 times

 **Deeztroyer** 11 months, 2 weeks ago

/27 needed for 24 addresses -> magical number is 32. The router needs to be the first IP address in the range. => E is right

upvoted 5 times

 **MTrap** 11 months, 2 weeks ago

Yeap, the first available IP address thing got me.

upvoted 2 times

 **doribeqiraj** Most Recent 2 weeks, 6 days ago

Correct answer for me is A & E

Network 10.70.128.0/19 = 10.70.128.1-10.70.159.25

D is incorrect, because is out of range. 10.70.159.1 - 10.70.160.255

upvoted 1 times

 **Bhrino** 3 weeks, 1 day ago

Why is it not b instead of e? I understand that .64 is a network address but so is .0

upvoted 1 times

 **Lda_cr** 1 month, 1 week ago

Is this flsm or vlsm?

upvoted 1 times

Danielki 2 months ago

Selected Answer: DE

Guys please read the question carefully!

Specifically

"Both subnets must use the longest subnet mask possible from the address block."

D. interface vlan 1234 ip address 10.70.159.1 255.255.254.0

This is a /23 subnet with 512 addresses, which is sufficient for 472 hosts, and it is at the end of the /19 address block (10.70.128.0/19), so it uses the longest subnet mask possible.

So, the correct configurations to meet the requirements are options D and E:

D. interface vlan 1234 ip address 10.70.159.1 255.255.254.0

For the second subnet with 472 hosts, using the longest subnet mask possible.

E. interface vlan 155 ip address 10.70.155.65 255.255.255.224

For the first subnet with 24 hosts.

upvoted 1 times

daddydagoth 3 months, 2 weeks ago

It's AE, anyone that thinks otherwise need to hold off on taking the CCNA and brush up their subnetting!

upvoted 4 times

nnfordcion 4 months, 2 weeks ago

'meet a requirement to use the first available address in each subnet for the router interfaces?'

I don't understand the meaning of this sentence at all.What is the difference between this and normal subnetting?

upvoted 1 times

Etidic 7 months, 2 weeks ago

But we need to understand that the 32hosts subnet is only guaranteed/mandatory for the first subnet that we are creating. Other subnet blocks can exist based on VLSM. So this means that we can have x.x.147.0/28 or x.x.147.8/29 already existing or for future use.

With this in mind, it allows us to have a possible first usable address of x.x.x.17 in the x.x.x.16/27 network.

And this allows us to use the first possible available subnets from the options A-E provided after x.x.128.0/19. This would be option B

As some of us have stated and quite rightly the allowed range is between 10.70.128.1-10.70.159.254.

Making option D incorrect.

This leaves us with option A and option B fulfilling the requirements and option A closely follows after option B address.

I hope this helps!

upvoted 1 times

Etidic 7 months, 2 weeks ago

Selected Answer: AB

The instruction in the question was precise.

The FIRST SUBNET MUST = 24hosts. This implies that you have to create a subnet for 32hosts first.

After this is done, then the second subnet must be created from the remaining available range.

In order to accommodate 24hosts we would need a subnet mask of at least /27 (32hosts). We could have used /26 (x.x.x.192 = 64hosts) if we felt like, but based on the instruction, THE LONGEST SUBNET (/26) has to be used. Hence, we have to use .224. This disqualifies Answer C.

A number of us have assumed that since the subnet we are configuring for the first subnet is for 32hosts then it invalidates B. Making us settle for E.

upvoted 1 times

KoreaSpurs 7 months, 4 weeks ago

can anyone explain why D is not correct?

upvoted 1 times

Customexit 7 months, 2 weeks ago

From my understanding, D cannot be correct because a requirement per the question is "to use the first available address in each subnet".

If you subnet 10.70.159.1 255.255.254.0, you will see that the network address is 10.70.158.0. The 'next' network starts at 10.70.160.0.

The first available would actually be 10.70.158.1. Not 10.70.159.1.

upvoted 4 times

bruno0147 7 months, 1 week ago

How did you get to this network if we have 0.254 1.255 with /23?

upvoted 1 times

everchosen13 8 months, 1 week ago

I actually think it might be A&B based on the wording of the question.

"The FIRST subnet must support 24 users," the subnet 10.70.147.17 255.255.255.224 comes sequentially before the 10.70.148.1 255.255.254.0 subnet without conflicting addresses and supports 30 users. Theoretically there could be subnet 10.70.147.1/28 that comes before the 10.70.147.17 255.255.255.224 subnet without conflicting addresses and meet all the conditions of the question.

upvoted 2 times

 **Equiano** 8 months, 1 week ago

Selected Answer: AE

These two are the only ones that have the first IP in their range and meet the requirement of 472 hosts (A) and 24 hosts (E) respectively.
upvoted 4 times

 **JonasWolfxin** 8 months, 2 weeks ago

Selected Answer: AE

10.70.128.0/19 includes 10.70.128.0/19 - 10.70.160.0;
from 10.70.159.1 to 10.70.160.0, there are only 254 IP address usable
upvoted 1 times

 **everchosen13** 8 months, 1 week ago

10.70.128.0/19 goes from first host 10.70.128.1 to last host 10.70.159.254.
10.70.160.0 is not within the 10.70.128.0/19 block.
upvoted 1 times

 **ShadyAbdekmalek** 8 months, 3 weeks ago

Selected Answer: AE

For B, C: the x.x.x.17 is not correct
For D: this choice means that ip address range will extend between 10.70.159.1 - 10.70.160.254, and this is beyond the allowed range of 10.70.128.0/19 (allowed range is between 10.70.128.1-10.70.159.254).
That leave A and E to be the correct answer
upvoted 1 times

 **KoreaSpurs** 8 months ago

Could you show me how I calculate host range for D?
upvoted 1 times

 **ukguy** 8 months, 3 weeks ago

can anyone show me the complete calculation of this question, please?
upvoted 1 times

 **splashy** 8 months, 3 weeks ago

Selected Answer: AE
B & C wrong => not the first address

D wrong => goes outside of the provided 10.70.128.0/19 block/range

Only A & E can meet the requirements.

upvoted 2 times

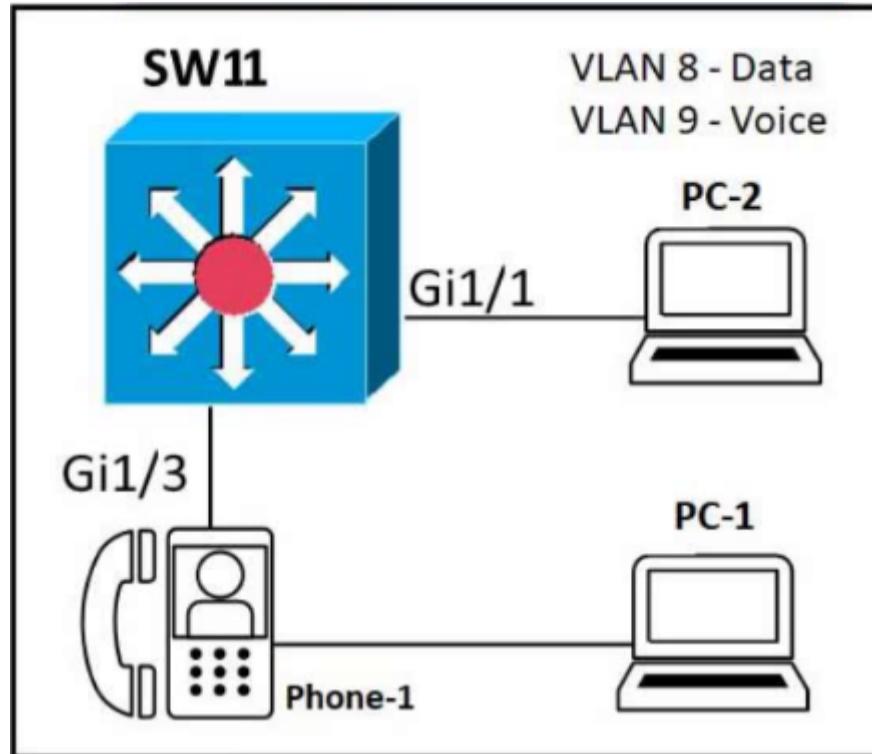
 **PiotrMar** 8 months, 3 weeks ago

D and E are correct. the broadcast address of the network 10.70.128.0/19 is 10.70.160.255. So 10.70.159.1 is the first address and 10.70.160.254 is the last usable address for the network 10.70.159.0/23
upvoted 1 times

 **everchosen13** 8 months, 1 week ago

The block range for usable host on the 10.70.128.0/19 network is from 10.70.128.1 - 10.70.159.254. The broadcast address is 10.70.159.255.
Anything on 10.70.160.0 is outside of the network block. D cannot be a correct answer.
upvoted 1 times

Question #268



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?

- A. interface gigabitethernet1/1 switchport mode access switchport access vlan 8 ! interface gigabitethernet1/3 switchport mode access switchport access vlan 8 switchport voice vlan 9
- B. interface gigabitethernet1/1 switchport mode access switchport access vlan 8 ! interface gigabitethernet1/3 switchport mode trunk switchport trunk vlan 8 switchport voice vlan 9
- C. interface gigabitethernet1/1 switchport mode access switchport access vlan 9 ! interface gigabitethernet1/3 switchport mode trunk switchport trunk vlan 8 switchport trunk vlan 9
- D. interface gigabitethernet1/1 switchport mode access switchport access vlan 8 ! interface gigabitethernet1/3 switchport mode access switchport voice vlan 8 switchport access vlan 9

Correct Answer: A

ZUMY Highly Voted 11 months, 1 week ago

A is correct
upvoted 5 times

potfur Most Recent 12 months ago

A. interface gigabitethernet1/1 switchport mode access switchport access vlan 8 ! interface gigabitethernet1/3 switchport mode access switchport access vlan 8 switchport voice vlan 9
upvoted 3 times

Question #269

General Security QoS Policy-Mapping Advanced

Layer 2 Layer 3 AAA Servers

Fast Transition

Fast Transition

Protected Management Frame

PMF

WPA+WPA2 Parameters

WPA Policy	<input type="checkbox"/>
WPA2 Policy	<input checked="" type="checkbox"/>
WPA2 Encryption	<input checked="" type="checkbox"/> AES <input type="checkbox"/> TKIP <input type="checkbox"/> CCMP256 <input type="checkbox"/> GCMP128 <input type="checkbox"/> GCMP256
OSEN Policy	<input type="checkbox"/>

Authentication Key Management [19](#)

<input type="checkbox"/> 802.1X	<input type="checkbox"/> Enable
<input type="checkbox"/> CCKM	<input type="checkbox"/> Enable
<input checked="" type="checkbox"/> PSK	<input checked="" type="checkbox"/> Enable
<input type="checkbox"/> FT 802.1X	<input type="checkbox"/> Enable
<input type="checkbox"/> FT PSK	<input type="checkbox"/> Enable

Refer to the exhibit. Users need to connect to the wireless network with IEEE 802.11r-compatible devices. The connection must be maintained as users travel between floors or to other areas in the building. What must be the configuration of the connection?

- A. Disable AES encryption.
- B. Enable Fast Transition and select the FT 802.1x option.
- C. Enable Fast Transition and select the FT PSK option.
- D. Select the WPA Policy option with the CCKM option.

Correct Answer: C

Reference:

<https://www.cisco.com/c/dam/en/us/td/docs/wireless/controller/technotes/80211r-ft/b-80211r-dg.html>

Networknovice Highly Voted 1 year ago

Ok, I'm going to take a swing at this...

So, the question specifically states compatible devices "Users need to connect to the wireless network with IEEE 802.11r-COMPATIBLE DEVICES." According to the reference link, it states "If clients do not support mixed mode or 802.11r join, they can join non-802.11r WLANs. When you configure FT PSK and later define PSK, clients that can join only PSK can now join the WLAN in mixed mode." Therefore, if you want to configure Fast Transition with COMPATIBLE DEVICES, select the FT 802.1X option. If they are non-compatible they can still join by utilizing the Pre-shared key (if selected). Consequently, I believe B is correct.

upvoted 15 times

CCNAMAN1 Highly Voted 1 year, 1 month ago

I really dont understand why it is b, doesnt make c more sense because we want PSK?

upvoted 7 times

lightp33 Most Recent 2 months, 3 weeks ago

<https://www.cisco.com/c/dam/en/us/td/docs/wireless/controller/technotes/80211r-ft/b-80211r-dg.html>

In here say When Fast Transition adaptive is enabled, you can use only 802.1X and PSK AKM.. So answer is B

upvoted 1 times

freaknowledge123 5 months ago

you cannot use FT mode without 802.1x

upvoted 1 times

ehab_alaa 6 months, 2 weeks ago

Selected Answer: B

When Fast Transition adaptive is enabled, you can use only 802.1X

upvoted 3 times

RougePotatoe 7 months, 2 weeks ago

Selected Answer: C

This question is strictly based on the configuration that is displayed here. You cannot use FT 802.1x because you don't have it configured on the WLC; as PSK is checked not 802.1x. For you to not have to reconfigure the security setting of your network the quickest way to achieve roaming is via PSK as PSK is already configured.

upvoted 6 times

WOP_TO 10 months ago

Selected Answer: C

PSK is enabled as a authentication method, So i guess the right answer is C, because you just need to enable fast transition and FT PSK;

<https://www.wiresandwi.fi/blog/configuring-fast-transition-ft-80211r-on-a-cisco-wlc>

upvoted 1 times

BieLey 8 months, 1 week ago

PSK also supports non-compatible devices for 802.11r. Therefor it would be answer B

upvoted 1 times

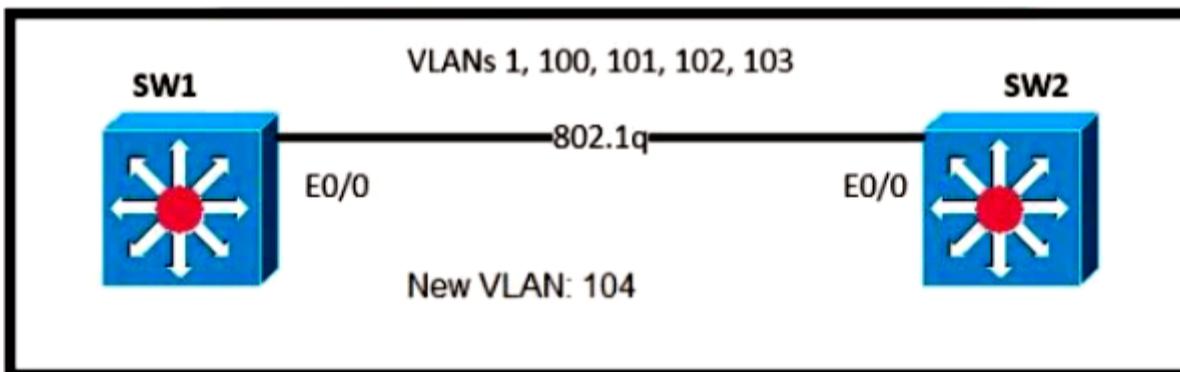
ZUMY 11 months, 1 week ago

B : is correct

upvoted 2 times

Question #270

Topic 1



Refer to the exhibit. An engineer is asked to insert the new VLAN into the existing trunk without modifying anything previously configured. Which command accomplishes this task?

- A. switchport trunk allowed vlan 100-104
- B. switchport trunk allowed vlan 104
- C. switchport trunk allowed vlan all
- D. switchport trunk allowed vlan add 104

Correct Answer: D

ZUMY 11 months, 1 week ago

Selected Answer: D

D: command is correct

upvoted 4 times

Tunz 1 year, 1 month ago

Correct ans

upvoted 1 times

Question #271

Topic 1

Aside from discarding, which two states does the switch port transition through while using RSTP (802.1w)? (Choose two.)

- A. blocking
- B. speaking
- C. listening
- D. learning
- E. forwarding

Correct Answer: DE

Reference:

<https://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/24062-146.html>

 **ScorpionNet** Highly Voted 1 year, 1 month ago

D and E is right because
STP goes from blocked, listening, learning, and forwarding
and RSTP goes from Discarding, Learning, and Forwarding
upvoted 17 times

 **country_rooted** Most Recent 1 month, 2 weeks ago

Just think Rapid. Aint got time for blocking and listening. Straight to the point
upvoted 3 times

 **DUMPlidore** 8 months ago

Selected Answer: DE
RSTP goes from Discarding, Learning, and Forwarding
upvoted 1 times

 **ZUMY** 11 months, 1 week ago

D & E are correct
upvoted 1 times

 **DARKK** 1 year ago

Selected Answer: DE
D & E Are correct. RSTP goes from Discarding to Learning, and to Forwarding.
upvoted 1 times

Question #272

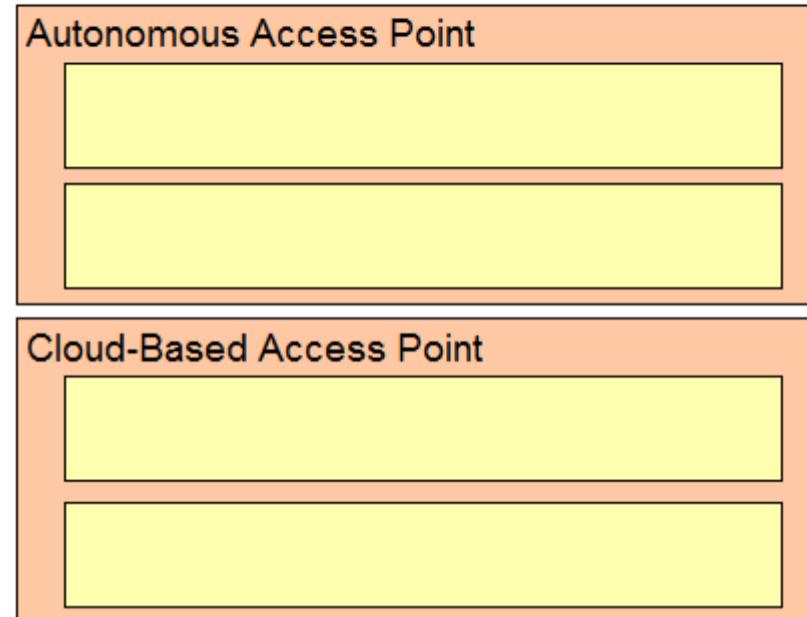
DRAG DROP -

Drag and drop the facts about wireless architectures from the left onto the types of access point on the right. Not all options are used.

Select and Place:

Answer Area

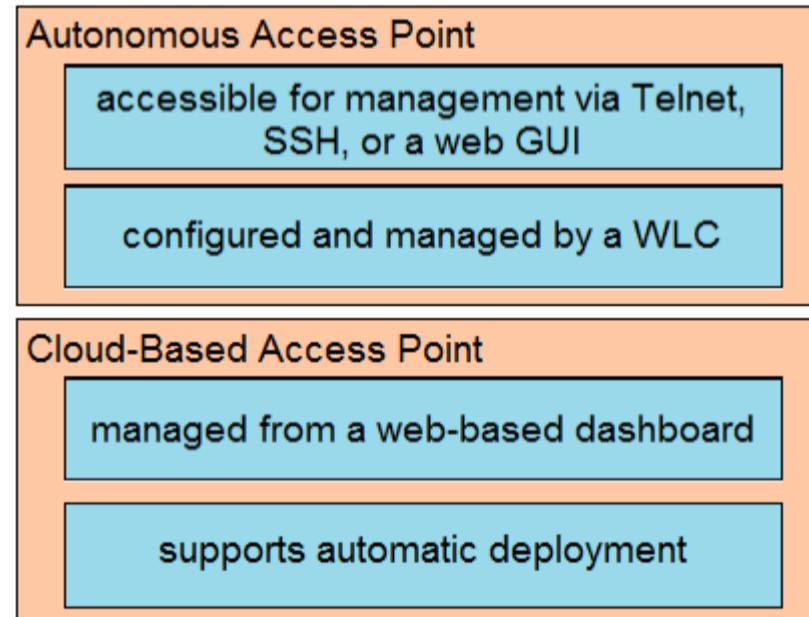
- configured and managed by a WLC
- managed from a web-based dashboard
- accessible for management via Telnet, SSH, or a web GUI
- requires a management IP address
- supports automatic deployment



Correct Answer:

Answer Area

- configured and managed by a WLC
- managed from a web-based dashboard
- accessible for management via Telnet, SSH, or a web GUI
- requires a management IP address
- supports automatic deployment



mrgreat Highly Voted 9 months ago

Each autonomous AP must be configured with a management IP address so that it can be remotely accessed using Telnet, SSH, or a web interface. Each AP must be individually managed and maintained unless you use a management platform such as Cisco DNA Center.

The AP management function is pushed into the Internet cloud. For example, Cisco Meraki is a cloud-based AP management service that allows you to automatically deploy Cisco Meraki APs. These APs can then be managed from the Meraki cloud web interface (dashboard).

Autonomous Access Point:

- Requires a management IP Address
- Accessible for management via Telnet, SSH, or a web GUI

Cloud-Based Access Point:

- Supports automatic deployment
 - managed from a web-based dashboard
- upvoted 51 times

everchosen13 Highly Voted 8 months, 1 week ago

An autonomous access point does not require a WLC. The answer given is incorrect

upvoted 19 times

linuxlife Most Recent 2 months, 3 weeks ago

Autonomous Access Point

- accessible for management via Telnet, SSH, or a Web GUI

- requires a management IP address
- upvoted 3 times

 **Dontguess** 7 months, 1 week ago

Isn't "Cloud based Access Point" also configured and managed by a WLC (that in the Cloud)?

upvoted 2 times

 **melmiosis** 7 months ago

nuh, its managed with Cisco web-based dashboard aka. a software like Cisco Meraki.

upvoted 2 times

 **splashy** 8 months, 3 weeks ago

The given answer can only be correct in case of a HYBRID AP. It can be managed centralized with a WLC or in case of a software defined network a controller. And it can be managed like an autonomous AP: by giving it an ip address and using ssh/telnet/web to connect to it.

Autonomous Access Point:

- Requires a management IP Address
- Accessible for management via Telenet, SSH, or a web GUI

Cloud-Based Access Point:

- Supports automatic deployment
- managed from a web-based dashboard

upvoted 10 times

Question #273

Topic 1

Which interface mode must be configured to connect the lightweight APs in a centralized architecture?

- A. WLAN dynamic
- B. trunk
- C. access
- D. management

Correct Answer: C

While the Cisco WLCs always connect to 802.1Q trunks, Cisco lightweight APs do not understand VLAN tagging and should only be connected to the access ports of the neighbor switch.

This is an example switch port configuration from the Catalyst 3750: interface GigabitEthernet1/0/22 description Access Port Connection to Cisco Lightweight AP switchport access vlan 5 switchport mode access no shutdown

Reference:

<https://www.cisco.com/c/en/us/support/docs/wireless/4400-series-wireless-lan-controllers/69719-wlc-lwap-config.html>

 **rijstraket** 4 months, 2 weeks ago

Lightweight Access-Points do understand VLAN tagging when in FlexConnect mode, the keyword is 'centralized' here indicating this is a "Local" deployment. Hence the use for an access port, as the user data is tunneled with CAPWAP to the WLC.

upvoted 1 times

 **creaguy** 8 months, 2 weeks ago

"centralized architecture" why don't they call it for what it is a "switch"

upvoted 3 times

 **ptfish** 11 months ago

While the Cisco WLCs always connect to 802.1Q trunks, Cisco lightweight APs do not understand VLAN tagging and should only be connected to the access ports of the neighbor switch.

This is an example switch port configuration from the Catalyst 3750:

```
interface GigabitEthernet1/0/22
description Access Port Connection to Cisco Lightweight AP
switchport access vlan 5
switchport mode access
no shutdown
```

upvoted 2 times

 **TA77** 11 months, 1 week ago

"While the Cisco WLCs always connect to 802.1Q trunks, Cisco lightweight APs do not understand VLAN tagging and should only be connected to the access ports of the neighbor switch."

From the link provided:

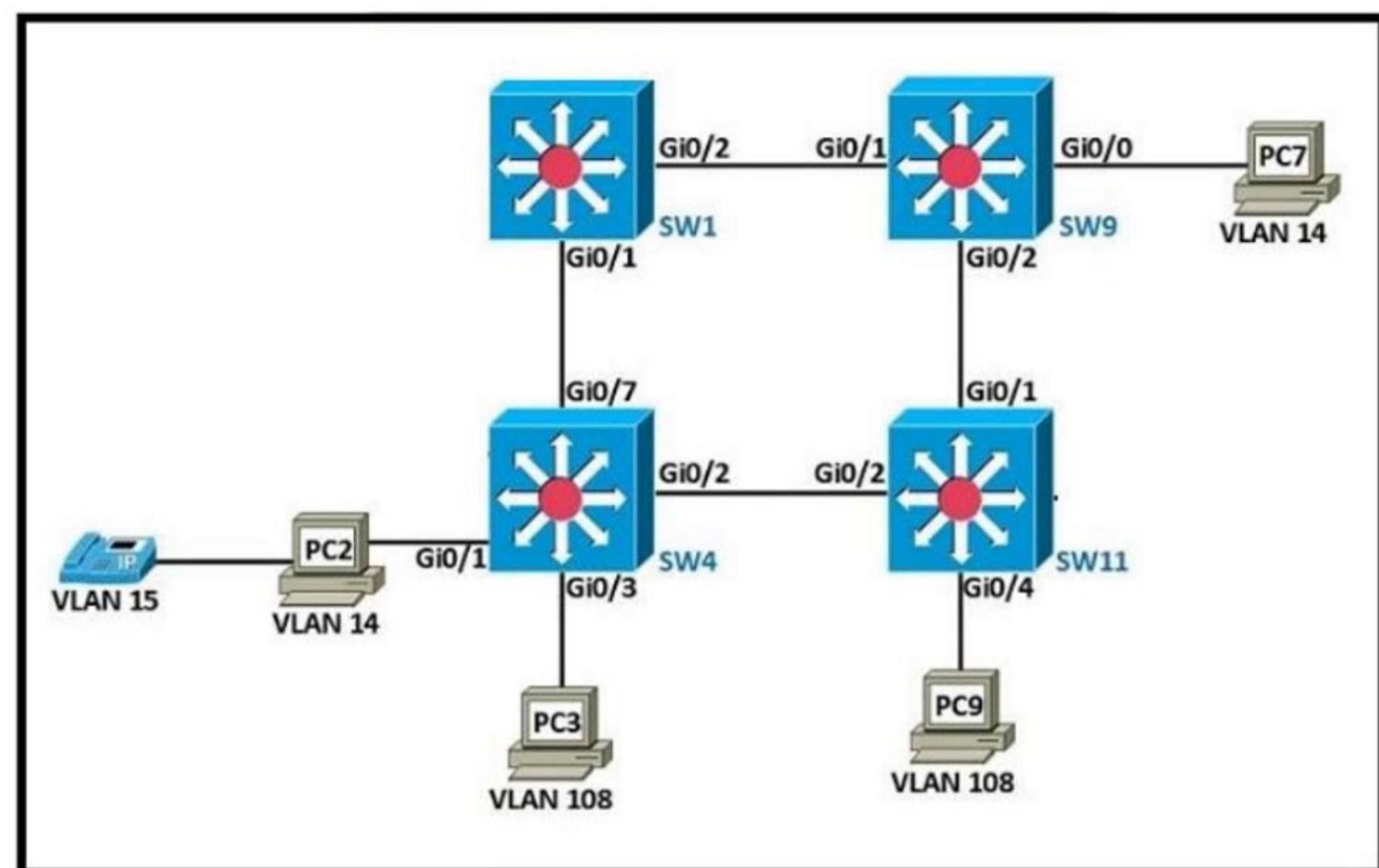
<https://www.cisco.com/c/en/us/support/docs/wireless/4400-series-wireless-lan-controllers/69719-wlc-lwap-config.html>

upvoted 1 times

 **jobba111** 11 months, 1 week ago

its just asking which status its gonna be

upvoted 1 times



Refer to the exhibit. The following must be considered:

- SW1 is fully configured for all traffic.
- The SW4 and SW9 links to SW1 have been configured.
- The SW4 interface Gi0/1 and Gi0/0 on SW9 have been configured.
- The remaining switches have had all VLANs added to their VLAN database.

Which configuration establishes a successful ping from PC2 to PC7 without interruption to traffic flow between other PCs?

- A. SW4 interface Gi0/7 switchport mode trunk switchport trunk allowed vlan 108 ! interface Gi0/2 switchport mode access switchport access vlan 14 SW11# interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 14,108 ! interface Gi0/1 switchport mode trunk switchport trunk allowed vlan 14,108 SW9# interface Gi0/2 switchport mode access switchport access vlan 14
- B. SW4 interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 14,108 SW11# interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 14,108 !! interface Gi0/1 switchport mode trunk switchport trunk allowed vlan 14,108 SW9# interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 14
- C. SW4 interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 14 SW11# interface Gi0/1 switchport mode trunk switchport trunk allowed vlan 14 SW9# interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 108
- D. SW4 interface Gi0/2 switchport mode access switchport access vlan 14 SW11# interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 14 ! interface Gi0/0 switchport mode access switchport access vlan 14 ! interface Gi0/1 switchport mode trunk SW9# interface Gi0/2 switchport mode access switchport access vlan 14

Correct Answer: C

Etidic Highly Voted 7 months, 2 weeks ago

Did anyone notice that all the wrong answers have exclamation marks (!!) in the CLI?

upvoted 11 times

HMaw Highly Voted 6 months, 3 weeks ago

C is correct. Please simulate in Cisco Package Tracer and you guys will know why it's correct. All I need to make G0/2 on SW4 to be trunk port and G0/1 on SW11 to be trunk port. I don't even have to touch SW9. Stop debating, hand on is always the best and you will never forget. PS - preconfigured all the switches as mentioned in question. Good luck

upvoted 5 times

thomson_johnson 2 months, 2 weeks ago

C must be wrong, because PC2 and PC7 are in VLAN 14, and the last command in C looks like that:
 SW9# interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 108

upvoted 2 times

 **linuxlife** 2 months, 3 weeks ago

C is wrong.

upvoted 2 times

 **binrayelias** 4 months, 3 weeks ago

It's B, based on the questions S4 gi0/2; SW11 gi0/2,gi0/1; and SW9 gi0/2 is not configured.

upvoted 1 times

 **dropspablo** Most Recent 4 weeks, 1 day ago

Selected Answer: B

C is wrong.

The same link between SW11 and SW9 has only VLAN 14 allowed on one side and only VLAN 108 on the other. In this case, none of them pass. This configuration doesn't make sense:

SW11# interface Gi0/1 switchport mode trunk switchport trunk allowed vlan 14

SW9# interface Gi0/2 switchport mode trunk switchport trunk allowed vlan 108

upvoted 1 times

 **deluxecenna** 1 month, 3 weeks ago

Based on the exhibit and the given information, the correct configuration that establishes a successful ping from PC2 to PC7 without interruption to traffic flow between other PCs is:

B.

SW4

interface Gi0/2

switchport mode trunk

switchport trunk allowed vlan 14,108

SW11

interface Gi0/2

switchport mode trunk

switchport trunk allowed vlan 14,108

!

interface Gi0/1

switchport mode trunk

switchport trunk allowed vlan 14,108

SW9

interface Gi0/2

switchport mode trunk

switchport trunk allowed vlan 14

In this configuration, SW4 and SW11 are trunked with allowed VLANs 14 and 108, while SW9 is trunked with only VLAN 14 allowed. This allows traffic to flow between PC2 and PC7, which belong to VLANs 14 and 108 respectively. The other VLANs will also continue to function without interruption.

upvoted 2 times

 **linuxlife** 2 months, 3 weeks ago

C doesn't allow all two VLANs between SW4 and SW11 which B does.

upvoted 1 times

 **iMo7ed** 3 months, 2 weeks ago

Selected Answer: B

It is B

upvoted 1 times

 **Sdiego** 4 months, 2 weeks ago

Selected Answer: B

C answer is incorrect, missing configuration for Gi0/2 interface on SW11

upvoted 2 times

 **Anas_Ahmad** 4 months, 2 weeks ago

Selected Answer: B

just look on SW 4 configuration (switchport trunk allowed vlan 14,108)

upvoted 3 times

 **freaknowledge123** 5 months ago

correct answer is B, don't forget to always check the discussion even if you think the answer is obvious.

upvoted 3 times

 **jibon_22** 5 months, 4 weeks ago

Correct ans is: B

Because look carefully, for G0/2 of S9, allowed VLAN is 108 not 14.

upvoted 3 times

✉ **joeylam** 5 months, 3 weeks ago

at G0/2, S9 have to tag traffic from pc7 to vlan 108 and 14.

G0/2 of S9 should allowed both VLAN 108 and 14.

upvoted 2 times

✉ **everchosen13** 8 months, 1 week ago

I believe the Answer would actually be B

upvoted 3 times

✉ **TMT91** 8 months, 2 weeks ago

Selected Answer: B

I think B is the right answer

upvoted 3 times

✉ **ShadyAbdekmalek** 8 months, 3 weeks ago

However B seems most accurate among all other choices , I still think there should be a typo . VL 108 should not be allowed between SW11 and SW9. the trunk configuration must be the same at both sides

upvoted 1 times

✉ **PiotrMar** 8 months, 3 weeks ago

Selected Answer: B

I would go for b, as other options would allow only 1 of the vlans that would prevent other pcs from communicating.

upvoted 4 times

✉ **shubhambala** 8 months, 4 weeks ago

B is the right answer

upvoted 3 times

✉ **guynetwork** 9 months ago

Selected Answer: B

It is B

upvoted 2 times

✉ **Liuka_92** 12 months ago

Why in SW 11 as vlan allowed in the trunk there is also vlan 108, shouldn't be only 14?

upvoted 2 times

✉ **ctoklu** 11 months, 2 weeks ago

to comply with the following (I assume) "without interruption to traffic flow between other PCs"

upvoted 2 times

✉ **linuxlife** 2 months, 3 weeks ago

yes you are right

upvoted 1 times

Question #275

```
Cat9K-1# show lldp entry Cat9K-2
Local Intf: Gi1/0/21
Chassis id: 308b.b2b3.2880
Port id: Gi1/0/21
Port Description: GigabitEthernet1/0/21
System Name: Cat9K-2

Management Addresses:
IP: 10.5.110.2
```

Refer to the exhibit. The network administrator must prevent the switch Cat9K-2 IP address from being visible in LLDP without disabling the protocol. Which action must be taken to complete the task?

- A. Configure the no lldp mac-phy-cfg command globally on Cat9K-2.
- B. Configure the no lldp receive command on interface G1/0/21 on Cat9K-1.
- C. Configure the no lldp transmit command on interface G1/0/21 on Cat9K-1.
- D. Configure the no lldp tlv-select management-address command globally on Cat9K-2.

Correct Answer: C

- ✉ **linuxlife** 2 months, 3 weeks ago
https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_37_ey/configuration/guide/scg/swlldp.pdf
D is the correct way to answer this question
upvoted 3 times
- ✉ **diidiuQldama** 5 months, 2 weeks ago
Selected Answer: D
You don't want sw2's ip to be seen, you should do something on sw2 not sw1, otherwise sw34567 still can see sw's ip. a is about layer 2 address, wrong. So D
upvoted 2 times
- ✉ **guisam** 5 months, 4 weeks ago
R2#sh lldp entry R1.guisam.lan | se Mana
Management Addresses:
IP: 10.1.1.1

R1(config)#no lldp tlv-select management-address
R1(config)#no lldp run
R1(config)#lldp run

R2#sh lldp entry R1.guisam.lan | se Mana
Management Addresses - not advertised
upvoted 4 times
- ✉ **Yunus_Empire** 6 months ago
Selected Answer: D
D is Correct

<https://vceguide.com/which-action-must-be-taken-must-be-taken-to-complete-the-task/>
upvoted 1 times
- ✉ **mzu_sk8** 7 months ago
Selected Answer: D
from another source
upvoted 1 times
- ✉ **Equiano** 8 months, 1 week ago
Selected Answer: D
Option C disables the switch from transmitting LLDP. The task is to disable the switch from sending its IP address only, hence D is a better option.
upvoted 1 times
- ✉ **ShadyAbdekmalek** 8 months, 3 weeks ago
Selected Answer: D

This example shows how to enable LLDP to send or receive IPv4 management address TLVs:

```
switch# configure terminal  
switch(config)# lldp tlv-select management-address v4
```

Source:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus3000/sw/layer2/602_U1_1/b_Cisco_n3k_Layer_2_Switching_Config_602_u1_1/b_Cisco_n3k_Layer_2_Switching_Config_602_u1_1_chapter_01001.pdf

So we must negate the command as per option D

upvoted 1 times

Nodirbek 9 months ago

Selected Answer: D

i know this is the exact and right answer

upvoted 1 times

foreach 9 months ago

Selected Answer: D

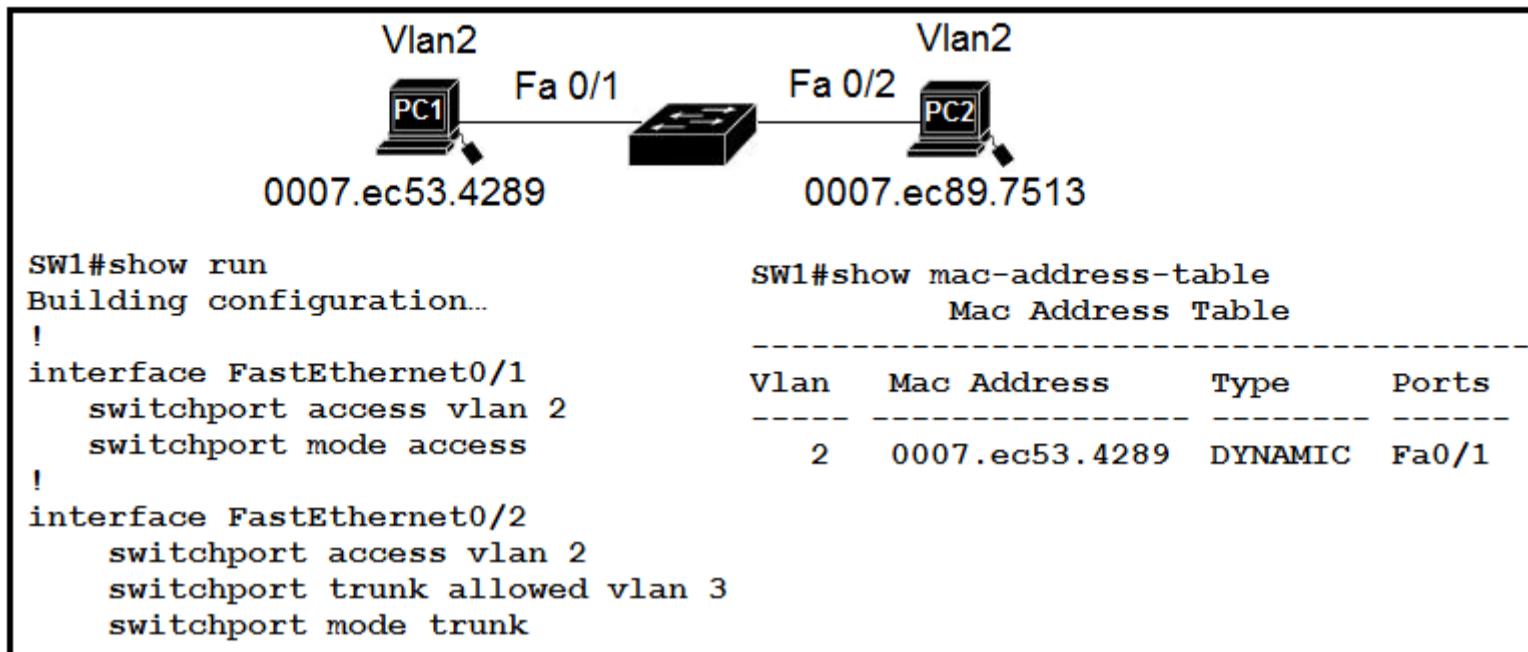
D seems a better answer to me.

With C, you disable transmitting LLDP infos on Cat9K-1 interface, not on Cat9K-2. And the question is asking about Cat9K-2. And with B, you won't receive any LLDP infos on Cat9K-1 interface, which is overkill.

So D seems a better choice. With it, you're only disabling sending/receiving mgmt address on Cat9K-2.

upvoted 3 times

Question #276



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?

- A. SW1(config)#interface fa0/2 SW1(config-if)#no switchport access vlan 2 SW1(config-if)#no switchport trunk allowed vlan 3 SW1(config-if)#switchport trunk allowed vlan 2
- B. SW1(config)#interface fa0/2 SW1(config-if)#no switchport access vlan 2 SW1(config-if)#switchport trunk native vlan 2 SW1(config-if)#switchport trunk allowed vlan 3
- C. 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
- D. SW1(config)#interface fa0/1 SW1(config-if)#no switchport access vlan 2 SW1(config-if)#switchport access vlan 3 SW1(config-if)#switchport trunk allowed vlan 2

Correct Answer: C

Goh0503 Highly Voted 8 months ago

Answer C

access port – a port that can be assigned to a single VLAN. This type of interface is configured on switch ports that are connected to end devices such as workstations, printers, or access points.

trunk port – a port that is connected to another switch. This type of interface can carry traffic of multiple VLANs, thus enabling you to extend VLANs across your entire network. Frames are tagged by assigning a VLAN ID to each frame as they traverse between switches.

<https://study-ccna.com/access-and-trunk-ports/>

upvoted 6 times

Bhrino Most Recent 3 weeks, 1 day ago

Selected Answer: C

C is correct there's no need to use trunk ports due the fact they are all in the same vlan and c just removes all the trunking commands and adds the last access port one

upvoted 1 times

iMo7ed 3 months, 2 weeks ago

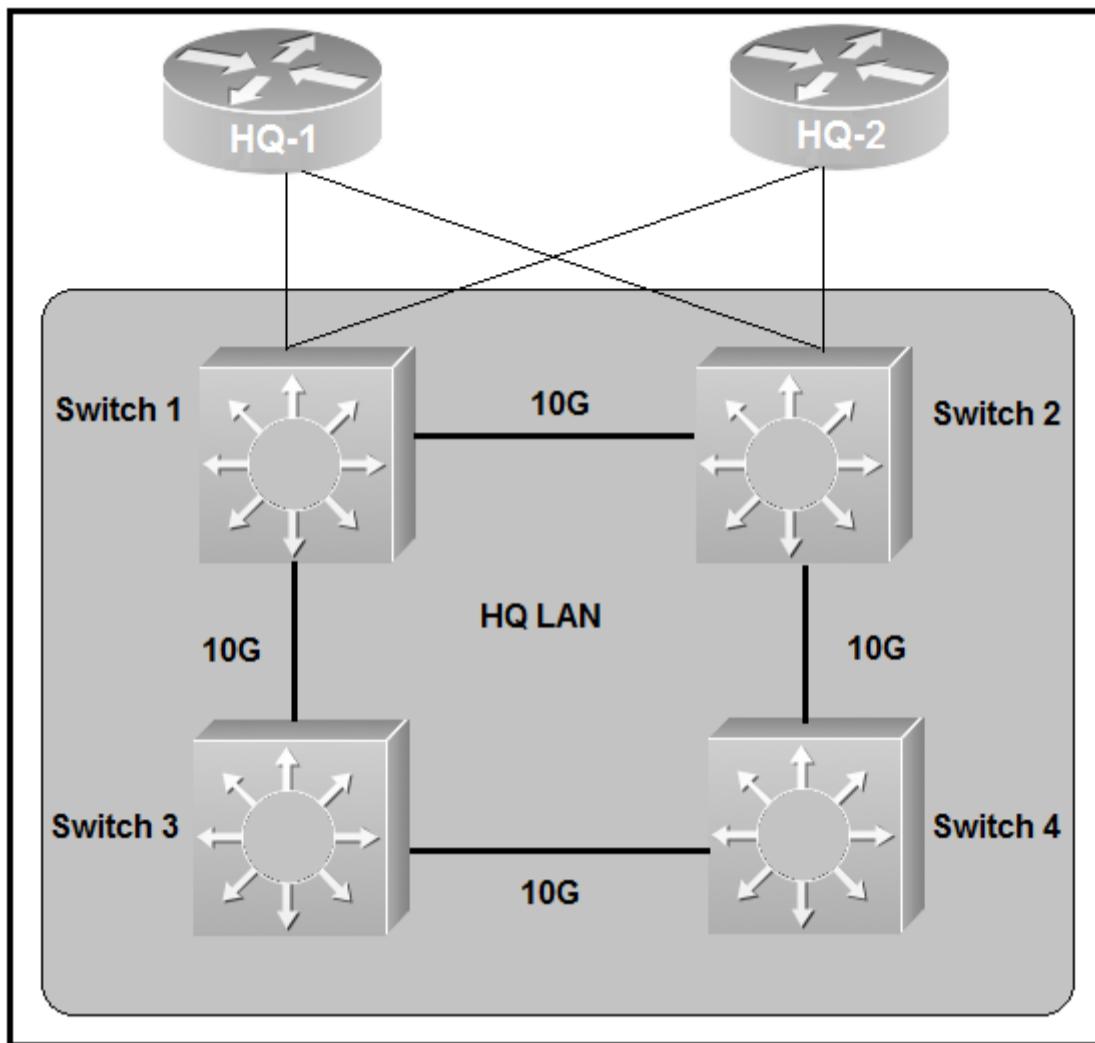
Selected Answer: C

C is correct

upvoted 2 times

Question #277

Refer to the exhibit. Which switch becomes the root of the spanning tree?



Switch 1 -

BID: 32778 0018.184e.3c00 -

Switch 2 -

BID: 24586 001a.e3ff.a680 -

Switch 3 -

BID: 28682 0022.55cf.cc00 -

Switch 4 -

BID: 64000 4e15.8403.08f -

- A. Switch 1
- B. Switch 2
- C. Switch 3
- D. Switch 4

Correct Answer: B

PassNow1234 Highly Voted 4 months ago

Every switch taking part in spanning tree has a bridge priority. The switch with the lowest priority becomes the root bridge. If there's a tie, then the switch with the lowest bridge ID number wins

upvoted 6 times

badboyrobinson Highly Voted 5 months, 3 weeks ago

zgzdgf

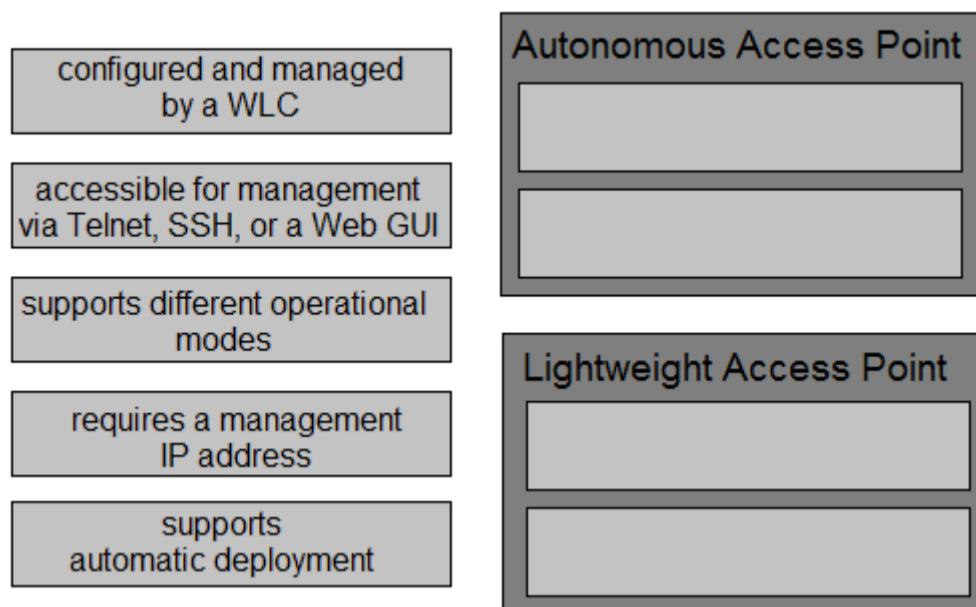
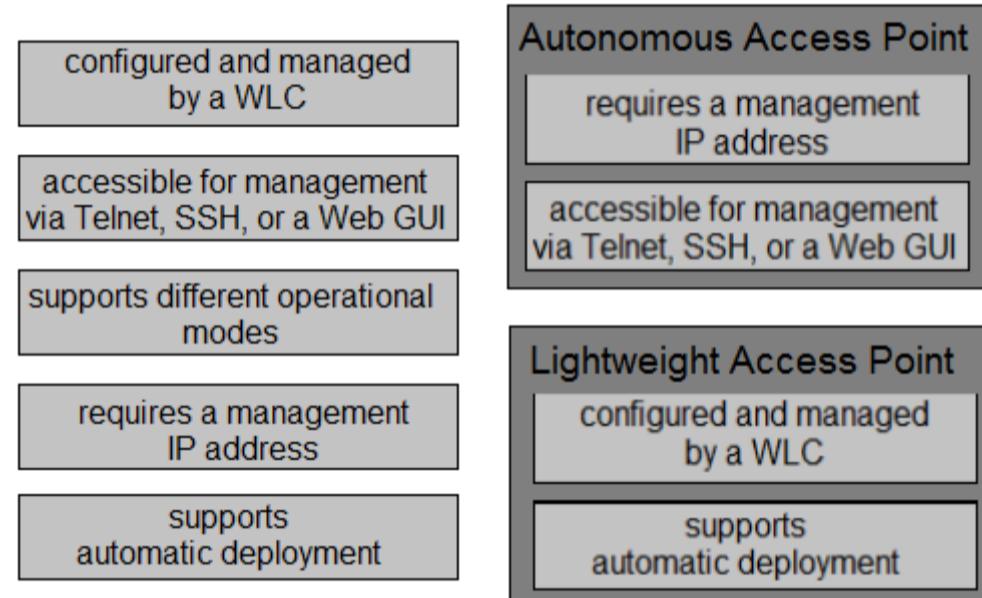
upvoted 5 times

Question #278

DRAG DROP -

Drag and drop the facts about wireless architectures from the left onto the types of access point on the right. Not all options are used.

Select and Place:

**Correct Answer:**

Bonesaw Highly Voted 8 months, 2 weeks ago

The Lightweight Access Point supports different modes, like bridge, sniffer, local, or Flexconnect.

Automatic deployments are for cloud based

upvoted 39 times

Lance789 Highly Voted 7 months, 4 weeks ago

i think it should be

Autonomous Access Point

- accessible for management via Telnet, SSH, or a Web GUI
- requires a management IP address

Lightweight Access Point

- configured and managed by a WLC
- supports different operational modes

upvoted 35 times

LekkiDee Most Recent 3 weeks ago

I have an autonomous AP I use at home to extend my Wi-Fi coverage. It has the below options if I need to configure it.

Radio0-802.11N2.4GHz

Role in Radio Network: Access Point Repeater

Root Bridge Non-Root Bridge

Workgroup Bridge Universal Workgroup Bridge Client MAC:

Scanner

This means that Autonomous APs can also support different operational modes. I wish Cisco can fix these annoying ambiguous questions.

upvoted 1 times

mustdoit 3 months, 3 weeks ago

Answer is incorrect.

Autonomous:

- Accessible via telnet...
- Configured by WLC

Lightweight

- Require a management IP
- Support different operational modes

upvoted 3 times

✉  **deluxeccna** 1 month, 3 weeks ago

Autonomous is configured by WLC? That's not correct

upvoted 3 times

✉  **AlexFordly** 7 months ago

Autonomous Access Point

- accessible for management via Telnet, SSH, or a Web GUI
- requires a management IP address

Lightweight Access Point

- configured and managed by a WLC
- supports different operational modes

upvoted 3 times

Question #279

```

interface g2/0/0
    channel-group 1 mode active
interface g4/0/0
    channel-group 1 mode active
interface Port-channel1
    ip address 203.0.113.65 255.255.255.252

%LINEPROTO-5-UPDOWN: Line protocol on Interface Port-channel1,
changed state to down

```

Refer to the exhibit. An engineer is configuring a Layer 3 port-channel interface with LACP. The configuration on the first device is complete, and it is verified that both interfaces have registered the neighbor device in the CDP table. Which task on the neighbor device enables the new port channel to come up without negotiating the channel?

- A. Configure the IP address of the neighboring device.
- B. Bring up the neighboring interfaces using the no shutdown command.
- C. Change the EtherChannel mode on the neighboring interfaces to auto.
- D. Modify the static EtherChannel configuration of the device to passive mode.

Correct Answer: D

✉️  **splashy** Highly Voted 8 months, 3 weeks ago

Yes... it's D

But it's also a bad answer as per cisco documentation (current netacad course)

static/manual = etherchannel ON
dynamic/negotiation = LACP PagP

So they provide an answer with a partially incorrect statement to confuse you and look at an other option with an even worse or incorrect statement... .

upvoted 10 times

✉️  **FALARASTA** Most Recent 1 month, 2 weeks ago

But the passive mode will call for negotiation from the active mode. The answer is partially wrong but the best choice anyway
upvoted 1 times

✉️  **Murphy2022** 8 months, 1 week ago

Which task on the neighbor device enables the new port channel to come up without negotiating the channel?

As the neighboring device isn't negotiating its LACP Channel in passive mode, D is correct.

The negotiation is done by the active configuration. Passive only accepts, but doesn't negotiate.

upvoted 3 times

✉️  **RougePotatoe** 7 months ago

Based on this cisco resource you are wrong. The right answer should be manually configure it to On as passive still participate in negotiation. Since that option is not here the closest right answer is D. "Both the active and passive LACP modes enable ports to negotiate with partner ports to an EtherChannel based on criteria such as port speed, and for Layer 2 EtherChannels, based on trunk state and VLAN numbers."

https://www.cisco.com/en/US/docs/switches/lan/catalyst3850/software/release/3.2_0_se/multibook/configuration_guide/b_consolidated_config_guide_3850_chapter_0111110.pdf

upvoted 3 times

✉️  **FALARASTA** 1 month, 2 weeks ago

From that document: Both the active and passive LACP modes enable ports to negotiate with partner ports to an EtherChannel based on criteria such as port speed, and for Layer 2 EtherChannels, based on trunk state and VLAN numbers. Ports can form an EtherChannel when they are in different LACP modes as long as the modes are compatible. For example:
• A port in the active mode can form an EtherChannel with another port that is in the active or passive mode.
• A port in the passive mode cannot form an EtherChannel with another port that is also in the passive mode because neither port starts LACP negotiation.

I support

upvoted 1 times

✉️  **harsh1309** 3 months, 2 weeks ago

Yes RougePotatoe is correct, passive doesn't cause port to not negotiate, instead port wait for other switch to start negotiation and then they start negotiation.

upvoted 1 times

✉️  **purenuker** 6 months, 3 weeks ago

Does "active" and "on" form an etherchannel ? I don't think so.

upvoted 3 times

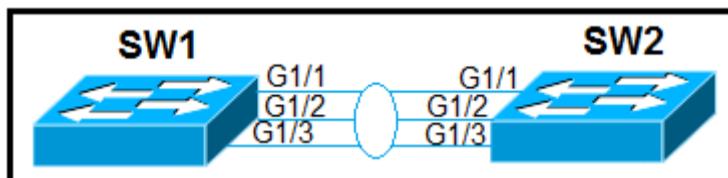
 **RougePotatoe** 6 months, 3 weeks ago

Think you might be right. I've seen a chart a while back that stated it does but I've never checked it. I just did it in packet tracer and in the Active/ON configuration results in the LACP side to have po1 as connected while the ON switch has po1 as not connected. The LACP switch has 1 of the links protocol down as well.

upvoted 1 times

Question #280

Topic 1



Refer to the exhibit. Which configuration establishes a Layer 2 LACP EtherChannel when applied to both switches?

- A. Interface range G1/1 1/3 "switchport mode trunk channel-group 1 mode active no shutdown
- B. Interface range G1/1 1/3 "switchport mode access channel-group 1 mode passive no shutdown
- C. Interface range G1/1 1/3 "switchport mode trunk channel-group 1 mode desirable no shutdown
- D. Interface range G1/1 1/3 "switchport mode access channel-group 1 mode on no shutdown

Correct Answer: A

 **freetnowledge123** Highly Voted 5 months ago

LACP=Active PAGP=desirable Static=On

upvoted 6 times

 **Hope_12** Most Recent 1 month ago

Selected Answer: A

LACP uses active and passive

- A. Uses active(2 active interfaces do form ether channel) Correct Answer
- B. Uses passive(2 passive interfaces don't form ether channel)
- C. Uses desirable (This is for PAGP ether channel required is LACP)
- D. Uses mode on(This is for static ether channel required is LACP)

upvoted 3 times

 **Jacques1982** 4 months, 2 weeks ago

Selected Answer: D

I would think answer D... because...they ask the question on both switched. If you "mode active" on both sides it won't form the etherchannel. If "mode ON" then it would establish the channel? Am I wrong?

upvoted 3 times

 **Loq** 3 weeks, 2 days ago

A is correct. Ether channel should be LACP hence, mode is active on both switch

upvoted 1 times

 **hamish88** 4 months ago

You are dead wrong. A is correct.

upvoted 5 times

 **joyboy92** 4 months, 1 week ago

Wrong, in D answer you are setting the range in access; to create etherchannel we need mode trunk i tried to research on my netacad course. In this case i'll go A.

upvoted 8 times

Question #281

Topic 1

Which switching concept is used to create separate broadcast domains?

- A. STP
- B. VTP
- C. VLAN
- D. CSMA/CD

Correct Answer: C

✉️  **LeonardoMcCabrio** 5 days, 5 hours ago

Selected Answer: C

C Correct

upvoted 1 times

Question #282

Topic 1

```
Cat9300# show cdp
Global CDP information:
  Sending CDP packets every 60 seconds
  Sending a holdtime value of 180 seconds
  Sending CDPv2 advertisements is enabled
```

Refer to the exhibit. Which action must be taken so that neighboring devices rapidly discover switch Cat9300?

- A. Enable portfast on the ports that connect to neighboring devices.
- B. Configure the cdp timer 10 command on switch Cat9300.
- C. Configure the cdp holdtime 10 command on switch Cat9300
- D. Configure the cdp timer 10 command on the neighbors of switch Cat9300

Correct Answer: B

✉️  **CHCHCHC** Highly Voted 4 months, 2 weeks ago

hello beautiful

upvoted 8 times

✉️  **RAJ_1920** 1 month, 1 week ago

Hello chunky munkie

upvoted 1 times

✉️  **NICE_ANSWERS** 1 week, 1 day ago

hihihihihi 😊 😊 😊 😊

upvoted 1 times

Question #283

Topic 1

What is a requirement when configuring or removing LAG on a WLC?

- A. The incoming and outgoing ports for traffic flow must be specified if LAG is enabled.
- B. The management interface must be reassigned if LAG is disabled
- C. The controller must be rebooted after enabling or reconfiguring LAG
- D. Multiple untagged interfaces on the same port must be supported

Correct Answer: B

 **dick311** Highly Voted 7 months ago

Selected Answer: C

Answer C is correct

upvoted 6 times

 **PiotrMar** Highly Voted 8 months, 3 weeks ago

it seems like B and C might be right:

B - When you disable LAG, you must assign an AP-manager interface to each port on the controller.

C - When LAG is enabled, any change to the LAG configuration requires a controller reboot

<https://community.cisco.com/t5/wireless-mobility-knowledge-base/lag-link-aggregation/ta-p/3128669#toc-hld--766763784>

upvoted 5 times

 **splashy** 8 months, 2 weeks ago

You are right after reading it again i think B might be "more correct"

because C states after enabling OR reconfiguring, which would imply you need to reboot when you enable LAG and again after configuring it, which would seem a bit strange and unpractical. Good catch Piotr.

upvoted 3 times

 **splashy** 8 months, 2 weeks ago

I dunno C could still score some points it is just worded very weird as usual...

upvoted 1 times

 **Tibisandres** Most Recent 2 months, 2 weeks ago

Selected Answer: C

When you enable LAG or make any changes to the LAG configuration, you must immediately reboot the controller.

(<https://community.cisco.com/t5/wireless-mobility-knowledge-base/lag-link-aggregation/ta-p/3128669#:~:text=When%20you%20enable%20LAG%20or%20make%20any%20changes%20to%20the%20LAG%20configuration%2C%20you%20must%20immediately%20reboot%20the%20controller.>)

upvoted 1 times

 **Ciscoman021** 2 months, 2 weeks ago

Selected Answer: C

When you enable LAG or make any changes to the LAG configuration, you must immediately reboot the controller. When you enable LAG, you can configure only one AP-manager interface because only one logical port is needed. LAG removes the requirement for supporting multiple AP-manager interfaces.

upvoted 2 times

 **thomson_johnson** 2 months, 2 weeks ago

People here in discussion forgot that AP-manager and management interfaces are not the same.

C is correct I think

The management interface is the default interface used to access and manage the WLC. The management interface is also used by the access points to communicate with the WLC. The management interface IP address is the only pingable IP address and is used by administrators to manage the WLC.

Administrators can log into the WLC's configuration GUI by entering the management interface IP address in a web browser and logging into the system.

nothing that relates to LAG

upvoted 2 times

 **linuxlife** 2 months, 2 weeks ago

<https://community.cisco.com/t5/wireless-mobility-knowledge-base/lag-link-aggregation/ta-p/3128669#toc-hld--766763784>

When LAG is enabled, any change to the LAG configuration requires a controller reboot.

When you enable LAG, you can configure only one AP-manager interface because only one logical port is needed.

When you disable LAG, you must assign an AP-manager interface to each port on the controller.

upvoted 1 times

✉  **DevNetAdmin** 3 months, 1 week ago

it is C.

<https://me2learn.wordpress.com/2014/05/22/wlc-link-aggregation-lag/>

on part2 it is clearly written to reboot.

upvoted 1 times

✉  **Silviu11** 3 months, 3 weeks ago

It is C

upvoted 1 times

✉  **xbobdan** 4 months ago

Selected Answer: B

after reading some of the discussions, i agree with B

upvoted 2 times

✉  **Anas_Ahmad** 4 months, 2 weeks ago

Selected Answer: C

you must immediately reboot the controller.

upvoted 4 times

✉  **Anas_Ahmad** 4 months, 3 weeks ago

Selected Answer: C

must immediately reboot the controller.

upvoted 4 times

✉  **mhdyyqq** 5 months ago

Answer C is correct

upvoted 2 times

✉  **mrgreat** 7 months, 3 weeks ago

Answer C is correct. When you enable LAG or change the LAG configuration, you must immediately reboot the controller.
<http://what-when-how.com/deploying-and-troubleshooting-cisco-wireless-lan-controllers/lag-cisco-wireless-lan-controllers/>

upvoted 3 times

✉  **splashy** 8 months, 3 weeks ago

Selected Answer: C

<https://community.cisco.com/t5/wireless-mobility-knowledge-base/lag-link-aggregation/ta-p/3128669#toc-h1d--766763784>

Obviously C...

upvoted 3 times

✉  **splashy** 8 months, 2 weeks ago

Check Piotr

upvoted 1 times

✉  **guynetwork** 9 months ago

Selected Answer: C

it is c

upvoted 3 times

✉  **reeeda** 9 months ago

C is the right answer

-When LAG is enabled, any change to the LAG configuration requires a controller reboot.

<https://community.cisco.com/t5/wireless-mobility-knowledge-base/lag-link-aggregation/ta-p/3128669>

upvoted 3 times

✉  **Webfat** 3 months, 4 weeks ago

Using your link, we also have:

"When you disable LAG, you must assign an AP-manager interface to each port on the controller."

upvoted 2 times

Question #284

DRAG DROP -

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

Select and Place:

configure the BPDU guard feature	802.1q double tagging
configure the dynamic ARP inspection feature	ARP spoofing
configure the root guard feature	unwanted superior BPDUs
configure a VLAN access control list	unwanted BPDUs on Port-Fast enabled interfaces

configure the BPDU guard feature	configure a VLAN access control list
configure the dynamic ARP inspection feature	configure the dynamic ARP inspection feature
configure the root guard feature	configure the root guard feature
configure a VLAN access control list	configure the BPDU guard feature

Correct Answer:

  **country_rooted** 2 months, 1 week ago

The answer given is correct

upvoted 4 times

Question #285

Topic 1

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

- A. access
- B. LAG
- C. trunk
- D. EtherChannel

Correct Answer: C

  **everchosen13** 8 months, 1 week ago

Answer given is correct.

<https://study-ccna.com/autonomous-ap-access-point-configuration/>

upvoted 3 times

Question #286

Topic 1

A network administrator needs to aggregate 4 ports into a single logical link which must negotiate layer 2 connectivity to ports on another switch. What must be configured when using active mode on both sides of the connection?

- A. LLDP
- B. LACP
- C. Cisco vPC
- D. 802.1q trunks

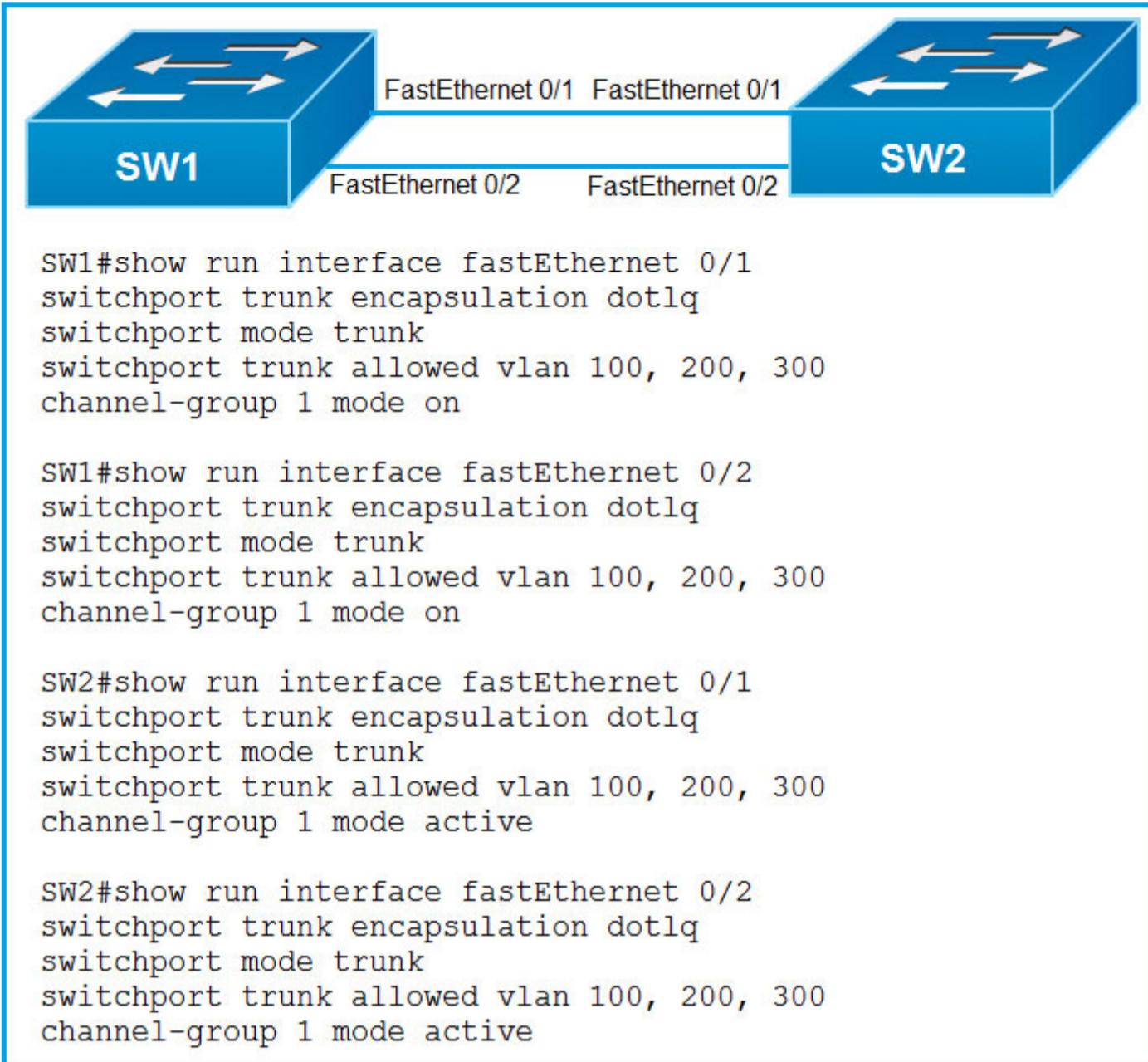
Correct Answer: B

 **country_rooted** 2 months, 1 week ago
LACP-Active, Passive (Industry standard)
PAgP -Desirable, Auto (Cisco Proprietary)
upvoted 4 times

 **xbobdan** 3 months, 2 weeks ago
acronyms acronyms acronyms!
upvoted 2 times

 **Rether16** 2 months ago
I was just thinking that, I almost selected LLDP by accident!
upvoted 1 times

Question #287



Refer to the exhibit. An engineer built a new L2 LACP EtherChannel between SW1 and SW2 and executed these show commands to verify the work establish an LACP port channel?

- A. Change the channel-group mode on SW1 to desirable
- B. Change the channel-group mode on SW1 to active or passive
- C. Change the channel-group mode on SW2 to auto
- D. Configure the interface port-channel 1 command on both switches

Correct Answer: B

✉ **RougePotatoe** Highly Voted 7 months ago

I'm literally spending more time trying to figure out what the question is asking rather than figuring out the answer...
upvoted 6 times

✉ **daddydagoth** 3 months, 2 weeks ago

These are the dangers of braindumps my friend
upvoted 2 times

✉ **Yunus_Empire** 6 months ago

That's What Einstein Said About (Question / Answer) issue, if you know!!!
upvoted 2 times

✉ **cuenca73** Most Recent 3 months, 3 weeks ago

the commands starting with "switchport" should not be inside the Po1 interface config instead inside the individual interface conforming the channel-group?

but also B is right
upvoted 1 times

✉ **Customexit** 7 months, 2 weeks ago

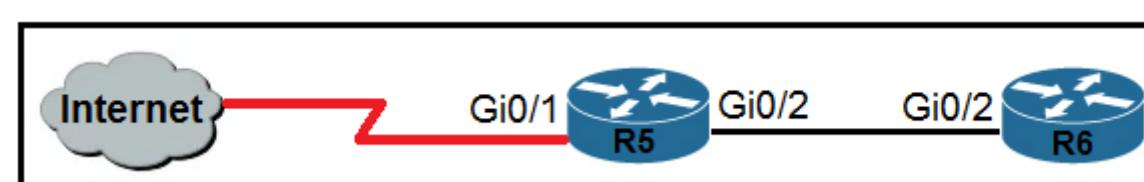
LACP = Active/Passive
PAGP = Desirable/Auto

upvoted 2 times

 **everchosen13** 8 months, 1 week ago

I think the question is not worded correctly but I believe answer given, B is correct.

upvoted 3 times



Refer to the exhibit. For security reasons, automatic neighbor discovery must be disabled on the R5 Gi0/1 interface. These tasks must be completed:

- Disable all neighbor discovery methods on R5 interface Gi0/1
- Permit neighbor discovery on R5 interface Gi0/2.
- Verify there are no dynamically learned neighbors on R5 interface Gi0/1.
- Display the IP address of R6's interface Gi0/2

Which configuration must be used?

- A. R5(config)#int Gi0/1 R5(config-if)#no cdp enable R5(config-if)#exit R5(config)#lldp run R5(config)#no cdp run R5#sh cdp neighbor detail R5#sh lldp neighbor
- B. R5(config)#int Gi0/1 R5(config-if)#no cdp enable R5(config-if)#exit R5(config)#no lldp run R5(config)#cdp run R5#sh cdp neighbor R5#sh lldp neighbor
- C. R5(config)#int Gi0/1 R5(config-if)#no cdp run R5(config-if)#exit R5(config)#lldp run R5(config)#cdp enable R5#sh cdp neighbor R5#sh lldp neighbor
- D. R5(config)#int Gi0/1 R5(config-if)#no cdp enable R5(config-if)#exit R5(config)#no lldp run R5(config)#cdp run R5#sh cdp neighbor detail R5#sh lldp neighbor

Correct Answer: D

SaMee69 Highly Voted 6 months ago

If you don't understand why 'cdp run' command again in the end:

cdp is running by default on IOS routers and IOS switches. If you turn off cdp globally by "no cdp run", there is no cdp process running, and even if there is an interface configured with "cdp enable", the device will not send or process cdp frames. If you configure an interface with "no cdp enable" and cdp is running on the device, the device will send and process received cdp frames on any interface but the ones, where cdp is disabled.

upvoted 5 times

CHCHCHC 4 months, 2 weeks ago

what about the last command? how wil "sh lldp neighbor" work when you have already disabled it in global privilage mode? w

upvoted 4 times

dropspablop Most Recent 4 weeks ago

Selected Answer: D

D. R5(config)#int Gi0/1 R5(config-if)#no cdp enable R5(config-if)#exit R5(config)#no lldp run R5(config)#cdp run R5#sh cdp neighbor detail R5#sh lldp neighbor

- Disable all neighbor discovery methods on R5 interface Gi0/1
(config-if)#no cdp enable / (config)#no lldp run

- Permit neighbor discovery on R5 interface Gi0/2.
(config)#cdp run

- Verify there are no dynamically learned neighbors on R5 interface Gi0/1.
#sh lldp neighbor (just to confirm LLDP discovery has been disabled)

- Display the IP address of R6's interface Gi0/2
#sh cdp neighbor detail ("detail" shows information such as IP address)

upvoted 4 times

FALARASTA 1 month, 2 weeks ago

D is correct. The actions are performed for both LLDP and CDP. I was confused at first

upvoted 1 times

VictorCisco 2 months, 2 weeks ago

Why in the end show lldp neighbor? if lldp is disabled ??

upvoted 2 times

linuxlife 2 months, 2 weeks ago

but if for specific interface only, no cdp enable is a VALID command.
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface gi0/1
Switch(config-if)#no cdp enable
Switch(config-if)#
upvoted 1 times

✉️ **linuxlife** 2 months, 2 weeks ago

no cdp enable is an INVALID command. It must be no cdp run.

Switch(config)#no cdp enable
^
% Invalid input detected at '^' marker.

Switch(config)#no cdp run
Switch(config)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show cdp neigh
Switch#show cdp neighbors
% CDP is not enabled
Switch#
upvoted 1 times

✉️ **country_rooted** 2 months, 1 week ago

This command is solely to disable an interface or a range thereof as is indicated in the question. Hence, why C is wrong from the go / process of elimination because we are not trying to disable CDP globally.

upvoted 1 times

✉️ **imigr** 2 months, 2 weeks ago

you have to type this command under the interface Switch(config-if)#no cdp enable

upvoted 1 times

✉️ **RougePotatoe** 7 months ago

Does anyone know why is it D? Nothing says these routers are both cisco devices?

upvoted 3 times

✉️ **splashy** 7 months ago

I think because "Disable all neighbor discovery methods"
which means both lldp & cdp

upvoted 2 times

Question #289

Topic 1

Which two spanning-tree states are bypassed on an interface running PortFast? (Choose two.)

- A. disabled
- B. listening
- C. learning
- D. blocking
- E. forwarding

Correct Answer: BC

✉  **SVN05** 4 months ago

PortFast is a Spanning-Tree Protocol feature used to speed up convergence time on ports which are connected to a workstation by causing a port to enter the forwarding state instantly, bypassing the listening and learning state.

Ref:-<https://www.skillset.com/questions/which-stp-feature-is-used-to-speed-up-convergence-time-on-ports-which-are-connected-to-a-workstation#:~:text=PortFast%20is%20a%20Spanning%2DTree,the%20listening%20and%20learning%20state>.

upvoted 4 times

✉  **SVN05** 4 months ago

In addition, you should not confuse yourself with port states(discussed in Rapid Spanning Tree)where the states are discarding, learning and forwarding only.

upvoted 1 times

Question #290

Topic 1

DRAG DROP -

Drag and drop the management connection types from the left onto the definitions on the right.

Select and Place:

console	supports clear-text connections to the controller CLI
HTTPS	supports encrypted access to CLI and a secure channel for data transfer
SSH	supports physical connections over a serial cable
Telnet	supports secure web access for management of the device

console	Telnet
HTTPS	SSH
SSH	console
Telnet	HTTPS

Correct Answer: **Yunus_Empire** Highly Voted 6 months ago

One of The Simplest Question

upvoted 5 times

 **mrgreat** Most Recent 9 months ago

Answers are correct

upvoted 3 times

Question #291

An engineer is configuring data and voice services to pass through the same port. The designated switch interface fastethernet0/1 must transmit packets using the same priority for data when they are received from the access port of the IP phone. Which configuration must be used?

- A. interface fastethernet0/1 switchport voice vlan dot1p
- B. interface fastethernet0/1 switchport priority extend cos 7
- C. interface fastethernet0/1 switchport voice vlan untagged
- D. interface fastethernet0/1 switchport priority extend trust

Correct Answer: D

 **Mahfuj_01** Highly Voted 6 months, 2 weeks ago

I think answer is correct.

Set the priority of data traffic received from the Cisco IP Phone access port:

- cos value—Configure the "phone" to override the priority received from the "PC or the attached device" with the specified CoS value. The value is a number from 0 to 7, with 7 as the highest priority. The default priority is cos 0.
So, If we set the value 7 here it means, port will prioritize the voice traffic over data traffic.

- trust—Configure the phone access port to trust the priority received from the "PC or the attached device".
When traffic from pc is trusted, it will consider both voice and data traffic as same priority. (Since voice traffic is prioritised over data traffic by default.)

upvoted 9 times

 **jibon_22** 5 months, 4 weeks ago

you are right, D is correct.

upvoted 1 times

 **Johan_jelly** Highly Voted 5 months, 3 weeks ago

Hey, I know that the answer is D, but do we have to know this type of commands for the CCNA ?

upvoted 6 times

 **Aie_7** 4 months ago

I agree

upvoted 2 times

 **dropspable** Most Recent 4 weeks ago

Selected Answer: D
D is correct, "switchport priority extend trust" in trust mode the switch transmits frames with the same marking received on its port.

Without this command, the markings would be forwarded with CoS 0, regardless of the marking received.

If the question had asked to change the marking, also with the highest possible priority, then the answer would be B, "switchport priority extend cos 7" with CoS 7 transmission for all packets, regardless of the marking received.

upvoted 2 times

 **mustdoit** 3 months, 3 weeks ago

Wondering why 100% said B is correct when it doesn't seem to according to below cisco source.

D is the correct answer.

Please read carefully:

"Cisco IP Phone Data Traffic

The switch can also process tagged data traffic (traffic in IEEE 802.1Q or IEEE 802.1p frame types) from the device attached to the access port on the Cisco IP Phone. You can configure Layer 2 access ports on the switch to send CDP packets that instruct the attached phone to configure the phone access port in one of these modes :

- In trusted mode , all traffic received through the access port on the Cisco IP Phone passes through the phone unchanged.
- In untrusted mode , all traffic in IEEE 802.1Q or IEEE 802.1p frames received through the access port on the Cisco IP Phone receive a configured Layer 2 CoS value . The default Layer 2 CoS value is 0. Untrusted mode is the default."

upvoted 2 times

 **laurvy36** 3 months, 4 weeks ago

The switchport priority extend trust command does not configure the switch port to trust the traffic it receives from an IP phone.

upvoted 1 times

 **mustdoit** 3 months, 3 weeks ago

Nowhere, it's been asked to configure the switch port to trust the traffic unless I'm missing something?

upvoted 1 times

 **DMc** 5 months ago

B is the Answer:

Step 3 switchport priority extend {cos value | trust}

Set the priority of data traffic received from the Cisco IP Phone access port:

- cos value—Configure the phone to override the priority received from the PC or the attached device with the specified CoS value. The value is a number from 0 to 7, with 7 as the highest priority. The default priority is cos 0.

- trust—Configure the phone access port to trust the priority received from the PC or the attached device.

upvoted 3 times

 **Anas_Ahmad** 5 months, 3 weeks ago

Switch(config)#int g0/1

Switch(config-if)#switchport priority extend trust

^

% Invalid input detected at '^' marker

upvoted 2 times

 **jibon_22** 5 months, 4 weeks ago

"D" is 100% correct.

You are not instructed to overwrite the priority received from the phone's access port. Just trust the priority received and transmit data with the same priority.

A tricky question to understand.

upvoted 3 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: B

"switchport priority extend

{cos value | trust}

Set the priority of data traffic received from the Cisco IP Phone access port:

- cos value—Configure the phone to override the priority received from the PC or the attached device with the specified CoS value. The value is a number from 0 to 7, with 7 as the highest priority. The default priority is cos 0."

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3560/software/release/12-2_44_se/configuration/guide/scg/swvoip.html#wp1033848

upvoted 1 times

 **dick3311** 7 months, 2 weeks ago

But he ask same priority?so maybe is B

upvoted 5 times

 **everchosen13** 8 months, 1 week ago

The given answer is incorrect.

C is the answer the correct Answer

<https://community.cisco.com/t5/switching/switchport-priority-extend-cos-0/td-p/1638603>

upvoted 1 times

 **EliasM** 8 months ago

This will make the IP phone send traffic with no vlan tag. But what about the CoS value?

upvoted 2 times

Question #292

Topic 1

```
Switch1#show etherchannel summary
Flags:      D - down          P - in port-channel
            I - stand-alone    S - suspended
            H - Hot-standby   (LACP only)
            R - Layer3         S - Layer2
            U - in use          f - failed to allocate aggregator
            u - unsuitable for bundling
            w - waiting to be aggregated
            d - default port

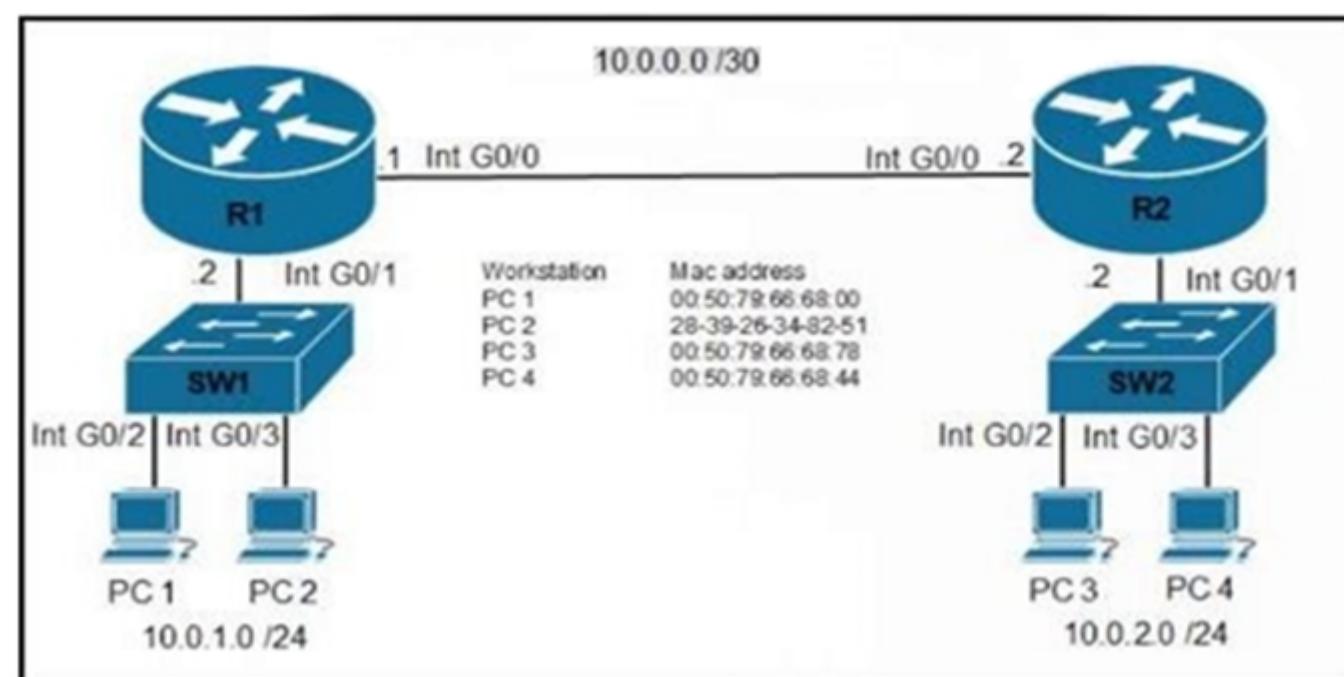
Number of channel-groups in use: 1
Number of aggregators:           1
Group Port-channel Protocol     Ports
-----+-----+-----+
 1      Pol (SD)        LACP      Fa0/2 (I) Fa0/1 (I)

Switch1#show run
Building configuration...
interface Port-channel1
!
interface FastEthernet0/1
  channel-group 1 mode passive
!
interface FastEthernet0/2
  channel-group 1 mode passive
                                         Switch2#show run
                                         Building configuration...
                                         interface Port-channel1
                                         !
                                         interface FastEthernet0/1
                                         channel-group 1 mode passive
                                         !
                                         interface FastEthernet0/2
                                         channel-group 1 mode passive
```

Refer to the exhibit. Which change to the configuration on Switch2 allows the two switches to establish an EtherChannel?

- A. Change the LACP mode to desirable
- B. Change the protocol to PAgP and use auto mode
- C. Change the LACP mode to active
- D. Change the protocol to EtherChannel mode on

Correct Answer: C



Refer to the exhibit. An engineer must configure the interface that connects to PC1 and secure it in a way that only PC1 is allowed to use the port. No VLAN tagging can be used except for a voice VLAN. Which command sequence must be entered to configure the switch?

- A. SW1(config-if)#switchport mode dynamic auto SW1(config-if)#switchport port-security SW1(config-if)#switchport port-security violation restrict
- B. SW1(config-if)#switchport mode nonegotiate SW1(config-if)#switchport port-security SW1(config-if)#switchport port-security maximum 1
- C. SW1(config-if)#switchport mode access SW1(config-if)#switchport port-security SW1(config-if)#switchport port-security mac-address 0050.7966.6800
- D. SW1(config-if)#switchport mode dynamic desirable SW1(config-if)#switchport port-security mac-address 0050.7966.6800 SW1(config-if)#switchport port-security mac-address sticky

Correct Answer: C

BeautifulSmile 3 weeks, 4 days ago

Answer is correct.
upvoted 1 times

robbydice 3 months ago

The key phrase is "in a way that only PC1 is allowed to use the port" that means no VLAN tagging, no trunking. Therefore in that case the best way to configure the port with access to PC1 is to configure it with command SW1# switchport mode access
upvoted 2 times

Silencer 3 months, 3 weeks ago

correct
upvoted 3 times

tyui0 6 months ago

Given answer is correct.
upvoted 2 times

everchosen13 8 months, 1 week ago

Given answer is correct.
upvoted 4 times

Question #294

Topic 1

Which protocol must be implemented to support separate authorization and authentication solutions for wireless APs?

- A. RADIUS
- B. TACACS+
- C. 802.1X
- D. Kerberos

Correct Answer: A

 **Ronild** Highly Voted  8 months, 4 weeks ago

Selected Answer: B

Correct: B

Authentication and Authorization

RADIUS combines authentication and authorization. The access-accept packets sent by the RADIUS server to the client contain authorization information. This makes it difficult to decouple authentication and authorization.

TACACS+ uses the AAA architecture, which separates AAA. This allows separate authentication solutions that can still use TACACS+ for authorization and accounting. For example, with TACACS+, it is possible to use Kerberos authentication and TACACS+ authorization and accounting. After a NAS authenticates on a Kerberos server, it requests authorization information from a TACACS+ server without having to re-authenticate. The NAS informs the TACACS+ server that it has successfully authenticated on a Kerberos server, and the server then provides authorization information.

Source: <https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838-10.html>
upvoted 15 times

 **Isuzu** 3 weeks, 6 days ago

but the question state "SEPARATE authorization and authentication solutions...."

upvoted 1 times

 **Jorro99404** Most Recent  2 weeks, 6 days ago

Selected Answer: B

B. TACACS+

upvoted 1 times

 **Isuzu** 3 weeks, 4 days ago

Guys... referring to the below link, the correct answer might RADIUS for sure.

<https://www.geeksforgeeks.org/difference-between-tacacs-and-radius/>

upvoted 1 times

 **Jorro99404** 2 weeks, 6 days ago

Nope. Read it again

upvoted 1 times

 **BeautifulSmile** 3 weeks, 4 days ago

The giving answer is wrong. TACACS+ is the correct answer.

upvoted 1 times

 **FALARASTA** 1 month, 2 weeks ago

Sometimes after vote the moderators need to change the answers to the correct ones. This is clearly B

upvoted 2 times

 **therandomjoke** 1 month, 2 weeks ago

Selected Answer: B

maybe Answer A its True <> the question asks ---> " to support separate Author and Authent ? so we need to implement the Radius to merge them and Support them..... them... them.... them.... or maybe not.

upvoted 2 times

 **elixirwell** 2 months, 1 week ago

Selected Answer: B

TACACS+ is the correct answer.

Source: <https://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838-10.html>

upvoted 1 times

 **Matalongo** 2 months, 1 week ago

B is the correct answer

upvoted 1 times

 **sbnpj** 2 months, 2 weeks ago

Selected Answer: B

I agree B is the correct answer.

upvoted 1 times

 **linuxlife** 2 months, 2 weeks ago

Authentication, Authorization, and Accounting are separated in TACACS+.

Authentication and Authorization are combined in RADIUS.

upvoted 3 times

 **Swiz005** 2 months, 3 weeks ago

Selected Answer: B

Definitely B

upvoted 1 times

 **checkoboy88** 3 months ago

Selected Answer: B

tacacs

upvoted 1 times

 **checkoboy88** 3 months, 1 week ago

Selected Answer: B

Correct: B

upvoted 1 times

 **iMo7ed** 3 months, 2 weeks ago

Selected Answer: B

It is B

upvoted 1 times

 **JY888** 3 months, 3 weeks ago

WTH is with these answers?

upvoted 3 times

 **moise_amo** 4 months ago

Selected Answer: B

B is the correct answer

upvoted 1 times

 **wallo_** 4 months, 1 week ago

Selected Answer: B

B is the correct answer

upvoted 1 times

Question #295

Topic 1

Which port type supports the spanning-tree portfast command without additional configuration?

- A. trunk ports
- B. Layer 3 sub interfaces
- C. Layer 3 main interfaces
- D. access ports

Correct Answer: D

✉  **hasbulla01** Highly Voted 6 months, 3 weeks ago

only access port should portfast
upvoted 6 times

✉  **Tarek70** Most Recent 1 month ago

ter the STP forwarding-state immediately or upon a linkup event, thus bypassing the listening and learning states. The PortFast feature is enabled at a port level, and this port can either be a physical or a logical port. When PortFast feature is enabled on a switch or a trunk port, the port immediately transitions to the STP forwarding state.

Though PortFast is enabled the port still participates in STP. If the port happens to be part of topology that could form a loop, the port eventually transitions into STP blocking mode

upvoted 2 times

✉  **iMo7ed** 3 months, 2 weeks ago

Selected Answer: D

Answer is D
upvoted 3 times

✉  **Murphy2022** 8 months, 1 week ago

Accessports don't need further configuration in order to send the portfast command
Ciscologic
upvoted 3 times

✉  **MolisePan** 9 months ago

who knows why?
upvoted 1 times

✉  **RougePotatoe** 7 months, 2 weeks ago

That is because you should only use port fast command on access ports. If you used it on a trunk port it could cause issues with spanning tree since it skips the listening and learning stages.
upvoted 7 times

Question #296

Topic 1

```
SW1#show spanning-tree vlan 30

VLAN0030
Spanning tree enabled protocol rstp
Root ID Priority 32798
Address 0025.63e9.c800
Cost 19
Port 1 (FastEthernet 2/1)
Hello Time 2 sec
Max Age 30 sec
Forward Delay 20 sec

[Output suppressed]
```

Refer to the exhibit. What are two conclusions about this configuration? (Choose two.)

- A. The spanning-tree mode is Rapid PVST+
- B. This is a root bridge
- C. The spanning-tree mode is PVST+
- D. The designated port is FastEthernet 2/1
- E. The root port is FastEthernet 2/1

Correct Answer: AE

 **iMo7ed** 3 months, 2 weeks ago

Selected Answer: AE

A & E are correct
upvoted 3 times

 **Eminn** 7 months, 2 weeks ago

AE is correct answer
upvoted 2 times

 **DoBronx** 7 months, 1 week ago

why do we know it is a root port
upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: AE
The answer is correct
upvoted 1 times

 **DoBronx** 7 months, 1 week ago

why do we know its a root port
upvoted 1 times

 **skeah** 7 months ago

It's trick, this is because the cost is 19, the only way to have 19 has cost is with a 100Mb/s link
upvoted 1 times

 **GhostWolf** 6 months, 4 weeks ago

I don't understand.
upvoted 1 times

 **cuenca73** 3 months, 2 weeks ago

Because it means that a direct link to the root bridge is through that port. In this case, it can be deduced that the way to the root bridge is directly after this 100 Mbps link
upvoted 2 times

Question #297

A Cisco engineer must configure a single switch interface to meet these requirements:

- Accept untagged frames and place them in VLAN 20
- Accept tagged frames in VLAN 30 when CDP detects a Cisco IP phone
-

Which command set must the engineer apply?

- A. switchport mode dynamic desirable switchport access vlan 20 switchport trunk allowed vlan 30 switchport voice vlan 30
- B. switchport mode access switchport access vlan 20 switchport voice vlan 30
- C. switchport mode dynamic auto switchport trunk native vlan 20 switchport trunk allowed vlan 30 switchport voice vlan 30
- D. switchport mode trunk switchport access vlan 20 switchport voice vlan 30

Correct Answer: D

 **foreach** Highly Voted 9 months ago

Selected Answer: B

B should be the answer.

With D, the interface operates in trunk mode. So the access configuration is not taken into account and the vlan 20 will be tagged.

upvoted 12 times

 **Etidic** Highly Voted 7 months, 2 weeks ago

Selected Answer: B

The answer is B.

The data vlan is connected to the IP phone. Data VLANs connected to the IP phones are untagged by default.

<https://www.practicalnetworking.net/stand-alone/voice-vlan-auxiliary-vlan/>

<https://docs.nvidia.com/networking-ethernet-software/cumulus-linux-40/Layer-2/Link-Layer-Discovery-Protocol/Voice-VLAN/>

The IP phone connected to a switchport should learn its vlan using cdp. To configure this, the command is "switchport voice Vlan 30"

upvoted 5 times

 **Etidic** 7 months, 2 weeks ago

Also from the options provided, only B is configured as an access port.

Cisco recommends using an access for Voice VLAN configuration on a switchport. Pls note that this statement doesn't make a trunk port configuration impossible but I do you think Cisco would choose an answer that contradicts their recommendations?

"Voice VLAN Configuration Guidelines These are the voice VLAN configuration guidelines: • You should configure voice VLAN on switch access ports; voice VLAN is not supported on trunk ports. Note Voice VLAN is only supported on access ports and not on trunk ports, even though the configuration is allowed."

Cisco

<https://www.cisco.com › scgPDF>

Configuring Voice VLAN

upvoted 1 times

 **Jorro99404** Most Recent 2 weeks, 6 days ago

Selected Answer: B

They want UNTAGGED VLAN -> access port

upvoted 1 times

 **dropspablo** 4 weeks ago

BBBBBBBB

upvoted 1 times

 **king_oat** 1 month ago

wow a lot of these answers suck. cmon exam topics

upvoted 2 times

 **omikun** 1 month, 1 week ago

answer B

upvoted 1 times

 **Webfat** 3 months, 2 weeks ago

My answer was C, this was chatGTP answer when I asked why it can't be C

The command set in option C is not correct because it includes "switchport mode dynamic auto," which would cause the interface to become a

trunk port if the neighboring device is set to trunk mode.

In this scenario, the requirement is to accept untagged frames in VLAN 20 and tagged frames in VLAN 30 when a Cisco IP phone is detected. Therefore, the interface should be configured as an access port in VLAN 20 and a voice VLAN should be configured for VLAN 30. The command set that meets these requirements is option B:

switchport mode access
switchport access vlan 20
switchport voice vlan 30

Option A is incorrect because it sets the interface to dynamic desirable mode, which could result in the interface becoming a trunk port if the neighboring device is set to trunk or dynamic auto mode. It also allows VLAN 30 on the access port, which is not required.

Option D is incorrect because it sets the interface to trunk mode, which is not necessary for this scenario.

upvoted 3 times

 **DB_Cooper** 4 months, 1 week ago

Selected Answer: C

untagged. so native vlan 20. native vlans allow frames to pass untagged

upvoted 1 times

 **TechJ** 6 days, 23 hours ago

I thought it was C as well, but I guess the "allowed" is missing in the command?

upvoted 1 times

 **linuxlife** 2 months, 2 weeks ago

but there is no allow native vlan command from C..so its wrong

upvoted 2 times

 **marti28052** 4 months, 1 week ago

I think is C, you must place the intagged frames at VLAN 20.

upvoted 2 times

 **marti28052** 4 months, 1 week ago

Sorry, B is correct, the key word "native" apply to the trunk.

upvoted 2 times

 **jnanofrancisco** 4 months, 3 weeks ago

B is the correct one.

upvoted 1 times

 **EthanhuntMI6** 5 months ago

Selected Answer: D

Definitely not D.

upvoted 1 times

 **leooel** 5 months, 3 weeks ago

Selected Answer: B

B is correct

upvoted 2 times

 **everchosen13** 8 months, 1 week ago

I believe it is B due to the fact that the ip phone is a factor here.

Remember access ports support untagged data traffic.

Don't be fooled by the native vlan in C

upvoted 1 times

 **creaguy** 8 months, 1 week ago

I think C & D should work. I had to add "switchport trunk encapsulation dot1q" for d to work. So the best answer I say is C.

```
interface GigabitEthernet1/0/46
switchport trunk native vlan 20
switchport trunk allowed vlan 30
switchport voice vlan 30
spanning-tree portfast
!
interface GigabitEthernet1/0/47
switchport access vlan 20
switchport trunk encapsulation dot1q
switchport mode trunk
switchport voice vlan 30
spanning-tree portfast
```

It cannot be B. because it has to accept tagged frames and needs a trunk statement.

upvoted 1 times

 **Equiano** 8 months, 1 week ago

Selected Answer: B

The correct answer here should be B
upvoted 3 times

 **mellohelle** 8 months, 2 weeks ago

Selected Answer: C

Untagget => Native
upvoted 1 times

 **EngrRex** 8 months, 2 weeks ago

Selected Answer: C

It says 'Accept untagged frames and place them in VLAN 20'. so it should have native vlan 20 command
upvoted 1 times

Question #298

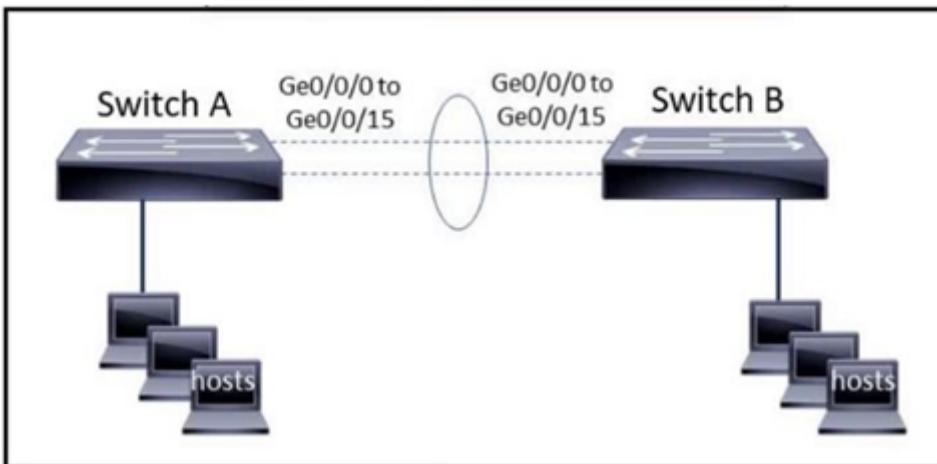
Topic 1

What does a switch use to build its MAC address table?

- A. VTP
- B. DTP
- C. ingress traffic
- D. egress traffic

Correct Answer: C

Question #299



Refer to the exhibit. The EtherChannel is configured with a speed of 1000 and duplex as full on both ends of channel group 1. What is the next step to configure the channel on switch A to respond to but not initiate LACP communication?

- A. interface range gigabitethernet0/0/0-15 channel-group 1 mode on
- B. interface range gigabitethernet0/0/0-15 channel-group 1 mode desirable
- C. interface port-channel 1 channel-group 1 mode auto
- D. interface port-channel 1 channel-group 1 mode passive

Correct Answer: D

laurvy36 Highly Voted 3 months, 3 weeks ago

Selected Answer: D

Mode Passive:

The mode places a port into a passive negotiating state, in which the port RESPONDS to LACP packets that it receives, but DOES NOT initiate protocol negotiation.

upvoted 7 times

Yaqub009 Highly Voted 3 months, 4 weeks ago

Selected Answer: D

This questions say that "SW A RESPOND, BUT NOT START LACP COMMUNICATION". Ask that "WHICH LACP MODE DOESN'T START COMMUNICATION?"

LACP modes -> Active/Passive.

Active -> Start Communication

Passive -> Doesn't start Communication.

Correct Answer is "D".

upvoted 5 times

Hope_12 Most Recent 1 month ago

Selected Answer: D

" respond to but not initiate LACP communication"

Should be passive mode interface of LACP which is just waiting for LACP communication.

Answer is D.

upvoted 1 times

Hope_12 1 month ago

Also mode on only works with mode on.

Desirable and on/Active and on will not work.

upvoted 1 times

KeerthiPraveen 1 month, 1 week ago

Selected Answer: A

A is correct....D states LACP

upvoted 1 times

soRwatches 2 months ago

Selected Answer: A

A is correct, Invalid command for D.

upvoted 3 times

ThomasSmith 4 weeks, 1 day ago

I think the correct answer is D as the question mentions LACP that uses active or passive. Static etherchannel uses "on mode". However, the command should be:
 interface range gigabitethernet0/0/0-15
 channel-group 1 mode passive
 upvoted 2 times

 **linuxlife** 2 months, 2 weeks ago

MODE ON: Mode that forces the LAN port to channel unconditionally. In the on mode, a usable EtherChannel exists only when a LAN port group in the on mode is connected to another LAN port group in the on mode. Because ports configured in the on mode do not negotiate, there is no negotiation traffic between the ports. You cannot configure the on mode with an EtherChannel protocol. If one end uses the on mode, the other end must also.

MODE PASSIVE:

LACP mode that places a port into a passive negotiating state, in which the port responds to LACP packets it receives but does not initiate LACP negotiation. (Default)

upvoted 3 times

 **Naghini** 4 months, 1 week ago

Selected Answer: D

LACP = Active/Passive.

Answer is D.

upvoted 4 times

 **Sdiego** 4 months, 2 weeks ago

Selected Answer: A

It does not specify LACP negotiation, but communication.

Sounds like it just wants the Etherchannel set up - ON mode -

upvoted 1 times

 **country_rooted** 1 month, 2 weeks ago

the last couple words do mention LACP and that it simply wants a response. so the ans must be passive. ON can only work with ON

upvoted 3 times

 **rivera82** 5 months, 4 weeks ago

Selected Answer: D

Passive—Places a port into a passive negotiating state, in which the port responds to LACP packets it receives but does not initiate LACP negotiation.

upvoted 3 times

 **dick3311** 7 months, 1 week ago

Selected Answer: A

not initiate ==no negotiate

upvoted 2 times

 **dick3311** 7 months, 1 week ago

sorry , I agree with Customexit

ans shoud be D

upvoted 3 times

 **Customexit** 7 months, 2 weeks ago

Selected Answer: D

We need Switch to respond to but not initiate LACP.

This means Passive.

For those saying A, we already read that the EtherChannel is configured, so we don't need to do all that. Also ON is neither LACP or PAGP. With ON, it will be created only when another interface group in EtherChannel "ON" mode.

upvoted 4 times

 **cdp_neighbor** 5 months, 2 weeks ago

Mate, just look at this:

```
c9200(config)#int po1
c9200(config-if)#chann
c9200(config-if)#chann?
% Unrecognized command
```

There is NO statement such "channel-group" inside the "int po1" command. You can only do this inside the interface(s). That's why A is correct while B is not responding the task.

upvoted 3 times

 **creaguy** 8 months ago

Selected Answer: D

D is correct. page 15-2

https://www.cisco.com/en/US/docs/general/Test/dwerblo/broken_guide/channel.pdf

upvoted 1 times

 **Davetech** 8 months, 1 week ago

mode on establish ether channel without negotiation

upvoted 2 times

 **HennieB** 7 months, 3 weeks ago

It says to negotiate with LACP. Mode on will not negotiate. Answer is D

upvoted 2 times

 **Davetech** 8 months, 1 week ago

i think A should be the correct answer,since it says not initiate LACP,if no negotiation,we can go for mode on

upvoted 1 times

Question #300

Topic 1

Which command entered on a switch configured with Rapid PVST+ listens and learns for a specific time period?

- A. switch(config)#spanning-tree vlan 1 priority 4096
- B. switch(config)#spanning-tree vlan 1 hello-time 10
- C. switch(config)#spanning-tree vlan 1 max-age 6
- D. switch(config)#spanning-tree vlan 1 forward-time 20

Correct Answer: D

 **foreach** Highly Voted 9 months ago

Strange question... In Rapid-PVST+, there's no listening state anymore
upvoted 6 times

 **mzu_sk8** 6 months, 3 weeks ago

I believe it is used for backward compatibility to a old switch that only uses STP
upvoted 3 times

 **Bonesaw** 9 months ago

It says the forward delay timer has a listening and learning state here:
https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus3000/sw/layer2/503_U1_1/Cisco_n3k_layer2_config_gd_503_U1_1_chapter7.html#con_1205111
upvoted 8 times

 **g_mindset** 8 months, 4 weeks ago

Thank you, was getting confused already.
upvoted 2 times

 **Isuzu** Most Recent 2 weeks, 6 days ago

Selected Answer: C

The maximum age timer controls the maximum time that a switch port will wait for a BPDU (Bridge Protocol Data Unit) from the root bridge before declaring the current root bridge as lost and initiating a new election process.

Option A (Wrong) configures the priority of the switch for a specific VLAN.
Option B (Wrong) configures the hello time for STP messages in the network.
Option D (Wrong) configures the forwarding delay time for STP.
upvoted 1 times

 **FALARASTA** 1 month, 2 weeks ago

Gather here and explain to me why D and not C
upvoted 1 times

 **FALARASTA** 1 month, 2 weeks ago

I now understand. The command "spanning-tree vlan 1 max-age 6" is used to configure the maximum age timer for the Spanning Tree Protocol (STP) on VLAN 1. The "max-age" timer controls the maximum time that a switch port will wait for a BPDU (Bridge Protocol Data Unit) from the root bridge before declaring the current root bridge as lost and initiating a new election process.
upvoted 1 times

 **liviuml** 1 month, 3 weeks ago

Selected Answer: D

Confirm write answer D.

Search "Rapid PVST+ Protocol Timers" in following link:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n1_1/Cisco_n5k_layer2_config_gd_rel_503_N1_1_chapter9.html

Regards,

upvoted 1 times

 **Silencer** 2 months, 4 weeks ago

C. switch(config)#spanning-tree vlan 1 max-age 6

Explanation:

The max-age parameter controls the maximum age of STP messages in the network, which is the maximum amount of time that a switch will retain information about the network topology before discarding it. By default, the max-age is set to 20 seconds. However, in Rapid PVST+, the max-age can be set as low as 6 seconds to allow for faster convergence.

Option A sets the priority of the switch for a specific VLAN. This does not affect the listen and learn time period.

Option B sets the hello time for STP messages in the network. This does not affect the listen and learn time period.

Option D sets the forwarding delay time for STP. This does not affect the listen and learn time period.

upvoted 2 times

 **Dhruv3390** 4 months, 4 weeks ago

Forward time : Determines how long each of the listening and learning states last before the port begins forwarding.

Switch(config)# [no] spanning-tree vlan vlan_ID forward-time forward_time

Configures the forward time of a VLAN. The forward_time value can be from 4 to 30 seconds.

<https://www.cisco.com/c/en/us/td/docs-switches/lan/catalyst4500/12-2/15-02SG/configuration/guide/config/spantree.html#56177>

upvoted 1 times

Question #301

Topic 1

What must a network administrator consider when deciding whether to configure a new wireless network with APs in autonomous mode or APs running in cloud-based mode?

- A. Autonomous mode APs are less dependent on an underlay but more complex to maintain than APs in cloud-based mode.
- B. Cloud-based mode APs rely on underlays and are more complex to maintain than APs in autonomous mode.
- C. Cloud-based mode APs are easy to deploy but harder to automate than APs in autonomous mode.
- D. Autonomous mode APs are easy to deploy and automate than APs in cloud-based mode.

Correct Answer: A

 **freetnowledge123** Highly Voted 5 months ago

typical voodoo question of cisco: autonomous AP require a network infrastructure (underlay) to function, but not to the same degree as AP since they don't use CAPWAP, they don't rely on central controller and require more knowledge to maintain (complexity). the other answer don't seem that incorrect to me, but option A is the more correct.

upvoted 10 times

 **shiv3003** Most Recent 1 month, 1 week ago

I go for B

upvoted 1 times

 **FALARASTA** 1 month, 2 weeks ago

Atonomous: Having the ability to govern itself.

upvoted 1 times

 **realneal92** 3 months ago

In autonomous mode, each AP operates independently and does not require a central controller. Configuration changes and firmware updates must be made manually on each AP. In contrast, cloud-based mode involves APs that operate under the control of a centralized controller located in the cloud. In this mode, configuration changes and firmware updates are pushed from the cloud to the APs, and the controller provides a centralized view of the network.

When deciding which mode to deploy, the network administrator must consider the dependencies of each mode. In autonomous mode, the APs are less dependent on the underlying network infrastructure but require more manual maintenance, which may be more complex for a large number of APs. In cloud-based mode, the APs rely on the underlying network infrastructure and require more complex maintenance for the centralized controller, but provide easy deployment and automation for a large number of APs.

Therefore, the correct answer to this question is option B: "Cloud-based mode APs rely on underlays and are more complex to maintain than APs in autonomous mode."

upvoted 2 times

Question #302

Topic 1

When a switch receives a frame for an unknown destination MAC address, how is the frame handled?

- A. flooded to all ports except the origination port
- B. forwarded to the first available port
- C. broadcast to all ports on the switch
- D. inspected and dropped by the switch

Correct Answer: A **freeknowledge123** 5 months ago

easy question, switch forwards frame when the dest is unknown to all other ports.

upvoted 2 times

Question #303

Topic 1

Which state is bypassed in Rapid PVST+ when PortFast is enabled on a port?

- A. blocking
- B. forwarding
- C. learning
- D. discarding

Correct Answer: C **zezc** 1 month, 1 week ago

Forwarding is correct

upvoted 1 times

 **beerbisceps1** 2 months ago

don't understand the question. in RSTP the transition states are discarding, learning and forwarding. I am not even sure if this question is brain dumped properly...

upvoted 1 times

 **beerbisceps1** 2 months ago

blocking and listening from STP are replaced by discarding in RSTP

upvoted 1 times

 **freeknowledge123** 5 months ago

weird question, when portfast is enabled two state are bypassed, discarding and learning in RSTP, i guess a port can be blocked (discarding) in RSTP but it can never be in the learning state.

upvoted 1 times

Question #304

Topic 1

What happens when a switch receives a frame with a destination MAC address that recently aged out?

- A. The switch floods the frame to all ports in all VLANs except the port that received the frame.
- B. The switch floods the frame to all ports in the VLAN except the port that received the frame.
- C. The switch references the MAC address aging table for historical addresses on the port that received the frame.
- D. The switch drops the frame and learns the destination MAC address again from the port that received the frame.

Correct Answer: B

✉️  **DoBronx** Highly Voted 7 months, 1 week ago

question is trying to trick you. It's still asking about an unknown destination MAC address essentially. Answer given is correct
upvoted 7 times

✉️  **Godfather2022** 4 months, 1 week ago

You absolutely right @DoBronx.Cisco always trick people. Read the question more than once.
upvoted 1 times

✉️  **Lokylax** Most Recent 1 month, 1 week ago

Selected Answer: B
B is the correct answer.
upvoted 1 times

✉️  **FALARASTA** 1 month, 2 weeks ago

This is simply an unknown MAC
upvoted 1 times

✉️  **Vikramaditya_J** 1 month, 2 weeks ago

When the switch receives a frame for a destination MAC address which isn't listed in its CAM table, it floods the frame to all LAN ports of the "same VLAN", except the port where it received the frame. So, the option "B" is correct.
upvoted 1 times

✉️  **Vikramaditya_J** 1 month, 2 weeks ago

When the switch receives a frame for a MAC destination address not listed in its CAM table, it floods the frame to all LAN ports of the "same VLAN" except the port that received the frame. So, the option B is correct.
upvoted 1 times

✉️  **moise_amo** 4 months ago

Selected Answer: B
each vlan represent its own broadcast domain so yhe switch can't floods it in other vlan. it must be a singular vlan
upvoted 2 times

✉️  **Godfather2022** 4 months, 1 week ago

B is the correct answer.
upvoted 1 times

✉️  **kobisiva** 4 months, 2 weeks ago

B is not correct because when the destination mac address is not found in the mac address table the switch floods the frame to all VLANs.
upvoted 1 times

✉️  **freeknowledge123** 5 months ago

goes to show that you need to read all question carefully to fully prepare for the exam.
upvoted 2 times

✉️  **Anas_Ahmad** 5 months, 3 weeks ago

Selected Answer: B
the switch flood to all ports in same Vlan B is right
upvoted 1 times

✉️  **battlefate** 5 months, 3 weeks ago

Selected Answer: B
B is correct.
Switch only forward all frame to the same broadcast domain.
upvoted 2 times

✉️  **hasbulla01** 6 months, 3 weeks ago

Selected Answer: A

A and B is same
upvoted 2 times

 **Incepnet** 5 months, 3 weeks ago
It's not the same. A. VLANs -- B. VLAN
upvoted 6 times

Question #305

Topic 1

What is a function of store-and forward switching?

- A. It reduces latency by eliminating error checking within the frame
- B. It produces an effective level of error-free network traffic using CRCs.
- C. It buffers frames and forwards regardless of errors within the frames.
- D. It forwards a frame by checking only the destination MAC address

Correct Answer: B

 **freeknowledge123**  5 months ago

store and forward: checks the whole frame
frament free mode: checks the first 64 byte (no crc)
cut through: checks only the destination
upvoted 7 times

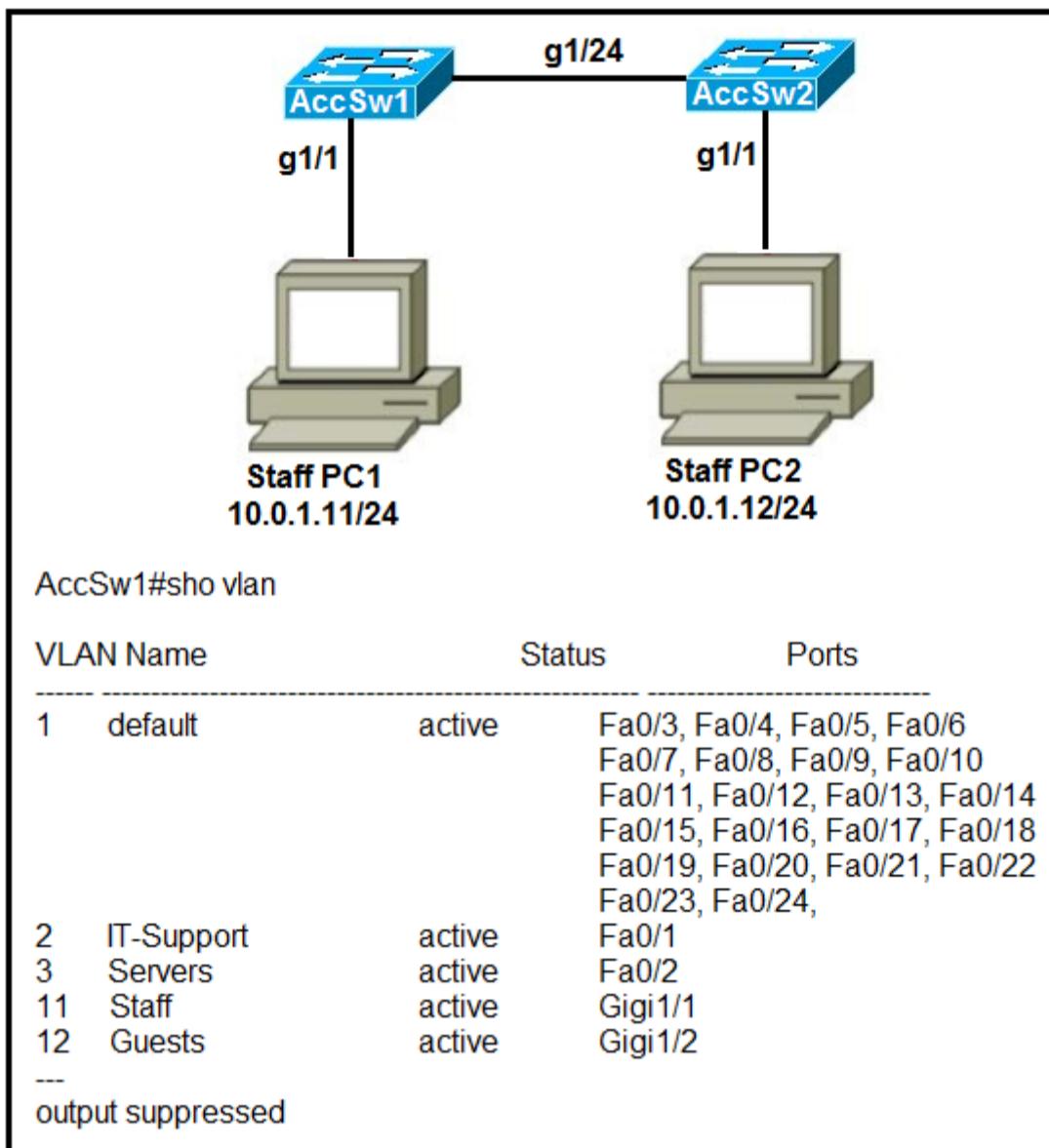
 **g_mindset**  8 months, 4 weeks ago

<https://www.tutorialspoint.com/store-and-forward-packet-switching#:~:text=In%20telecommunications%2C%20store%20E2%88%92%20and%20E2%88%92,integrity%20of%20the%20data%20packets.>
upvoted 7 times

 **shiv3003**  1 month, 1 week ago

answer is good
upvoted 1 times

Question #306



Refer to the exhibit. Switch AccSw1 has just been added to the network along with PC2. All VLANs have been implemented on AccSw2. How must the ports on

AccSw2 be configured to establish Layer 2 connectivity between PC1 and PC2?

- A. interface GigabitEthernet1/2 switchport mode access switchport access vlan 2 ! interface GigabitEthernet1/24 switchport mode trunk
- B. interface GigabitEthernet1/1 switchport mode access switchport access vlan 11 ! interface GigabitEthernet1/24 switchport mode trunk
- C. interface GigabitEthernet1/24 switchport mode trunk switchport trunk allowed vlan 11, 12 ! interface GigabitEthernet1/1 switchport access vlan 11
- D. interface GigabitEthernet1/2 switchport mode access switchport access vlan 12 ! interface GigabitEthernet1/24 switchport mode trunk switchport trunk allowed vlan 11, 12

Correct Answer: B

✉ **Etidic** Highly Voted 7 months, 2 weeks ago

Selected Answer: B

I imagine that the confusion is the "switchport trunk allowed VLAN 11, 12" command in option C.
Please note that this just a distraction.

As you may have learnt already when you apply the "switchport mode trunk" on an interface it allows all VLANs by default. So by using this command in option B all VLANs 1 - 4094 are allowed over the trunk.

For security reasons, during our network design we tend to remove all vlans and only allow the vlans we desire.

If we apply the command in option C "switchport trunk allowed VLAN 11, 12" it would delete all vlans and only allow VLANs 11 and 12. This means that all other devices or departments who are dependent on this trunk will be cut-off.

One of the biggest blunders sometimes made by beginners is to delete an entire VLAN by overwriting it. Always remember to use the "add" command when adding new VLANs to a trunk already configured for other VLANs.

upvoted 25 times

✉ **linuxlife** 2 months, 2 weeks ago

well explained. this is right.

upvoted 1 times

✉ **Etidic** 7 months, 2 weeks ago

Reference page 5 in the Cisco document

https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst_digital_building_series_switches/software/15-

2_5_ex/configuration_guide/b_1525ex Consolidated_cdb_cg/b_1525ex Consolidated_cdb_cg Chapter_0110101.pdf&ved=2ahUKEwjtxrDFIO_6AhW-ADQIHZk1B6QQFnoECA8QBQ&usg=AOvVaw1HVa1ltIBL8EHVJI_H7g8b

upvoted 1 times

 **splashy**  8 months, 3 weeks ago

Selected Answer: B

- A wrong interface
- D wrong interface
- C Traffic to/from servers won't be possible as it is tagged (vlan) and not untagged

upvoted 6 times

 **BeautifulSmile**  3 weeks, 3 days ago

Take note of the two PCs. They are in the same vlan, which is Sales. hence, the correct answer is B.

upvoted 1 times

 **BeautifulSmile** 3 weeks, 3 days ago

I mean Staff not sales.

upvoted 1 times

 **binjalala** 6 months ago

the question asked "How must the ports on AccSw2 be configured?" so the correct answer should be C

upvoted 1 times

 **korekwsieci** 7 months ago

The question was: how to establish Layer 2 connectivity between PC1 and PC2. So answer C is also correct since the connection between these two specified hosts will work just fine.

upvoted 2 times

 **g_mindset** 8 months, 4 weeks ago

Selected Answer: C

Answer is C, switchport trunk allowed VLAN 11, 12

upvoted 4 times

 **Taku2023** 2 months, 2 weeks ago

If you use that command only VLAN 11, 12 will be allowed on the trunk. The command overrides the command "switchport mode trunk"

upvoted 1 times

 **everchosen13** 8 months, 1 week ago

You would not need to allow VLAN 12 on the trunk to support a connection between two workstations. Both PCs are in the same VLAN. I believe the answer would be B

upvoted 3 times

 **cyborg7** 8 months ago

Even two workstations are not in the same VLAN, switchport mode trunk will include in VLANs

upvoted 1 times

Question #307

Topic 1

```
Switch2# show lldp
Global LLDP Information
  Status: ACTIVE
  LLDP advertisements are sent every 30 seconds
  LLDP hold time advertised is 120 seconds
  LLDP interface reinitialization delay is 2 seconds
```

Refer to the exhibit. A network engineer must update the configuration on Switch2 so that it sends LLDP packets every minute and the information sent via LLDP is refreshed every 3 minutes. Which configuration must the engineer apply?

- A. Switch2(config)#lldp timer 60 Switch2(config)#lldp tlv-select 180
- B. Switch2(config)#lldp timer 60 Switch2(config)#lldp holdtime 180
- C. Switch2(config)#lldp timer 1 Switch2(config)#lldp holdtime 3
- D. Switch2(config)#lldp timer 1 Switch2(config)#lldp tlv-select 3

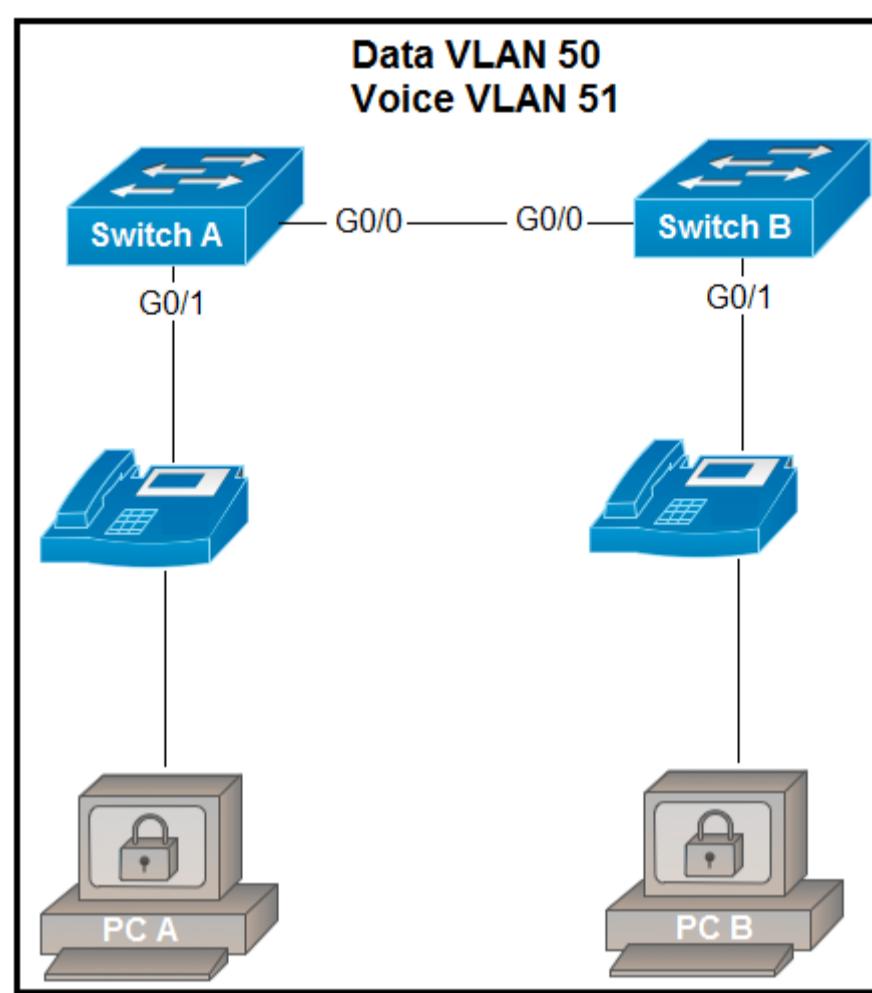
Correct Answer: B

Step 2	<p>(Optional) [no] lldp holdtime seconds</p> <p>Example:</p> <pre>switch(config)# lldp holdtime 200</pre>	<p>Specifies the amount of time in seconds that a receiving device should hold the information that is sent by your device before discarding it.</p> <p>The range is 10 to 255 seconds; the default is 120 seconds.</p>
Step 4	<p>(Optional) [no] lldp timer seconds</p> <p>Example:</p> <pre>switch(config)# lldp timer 50</pre>	<p>Specifies the transmission frequency of LLDP updates in seconds.</p> <p>The range is 5 to 254 seconds; the default is 30 seconds.</p>

Reference:

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus9000/sw/6-x/system_management/configuration/guide/b_Cisco_Nexus_9000_Series_NX-OS_System_Management_Configuration_Guide/sm_lldp.pdf

 **Vyncy** 6 days, 9 hours ago
hello beautiful
upvoted 1 times



Refer to the exhibit. Switch A is newly configured. All VLANs are present in the VLAN database. The IP phone and PC A on Gi0/1 must be configured for the appropriate VLANs to establish connectivity between the PCs. Which command set fulfills the requirement?

- A. SwitchA(config-if)#switchport mode access SwitchA(config-if)#switchport access vlan 50 SwitchA(config-if)#switchport voice vlan 51
- B. SwitchA(config-if)#switchport mode trunk SwitchA(config-if)#switchport trunk allowed vlan add 50, 51 SwitchA(config-if)#switchport voice vlan dot1p
- C. SwitchA(config-if)#switchport mode trunk SwitchA(config-if)#switchport trunk allowed vlan 50, 51 SwitchA(config-if)#mis qos trust cos
- D. SwitchA(config-if)#switchport mode access SwitchA(config-if)#switchport access vlan 50 SwitchA(config-if)#switchport voice vlan untagged

Correct Answer: A

✉ **Goh0503** Highly Voted 8 months, 3 weeks ago

Answer A

<https://networklessons.com/cisco/ccna-routing-switching-icnd1-100-105/voice-vla>

First, we have to create the two VLANs:

```
SW1(config)#vlan 100
SW1(config-vlan)#name COMPUTER
SW1(config-vlan)#exit
```

```
SW1(config)#vlan 101
SW1(config-vlan)#name VOIP
SW1(config-vlan)#exit
```

Now we can configure the interface:

```
SW1(config)#interface GigabitEthernet 0/1
SW1(config-if)#switchport mode access
SW1(config-if)#switchport access vlan 100
SW1(config-if)#switchport voice vlan 101
SW1(config-if)#exit
```

We configure the interface in access mode and use VLAN 100 for the computer. The switchport voice vlan command tells the switch to use VLAN 101 as the voice VLAN.

upvoted 13 times

✉ **FALARASTA** Most Recent 1 month, 2 weeks ago

Any port configured as trunk should be eliminated first voice is configures in access ports only. The right answer is A

upvoted 1 times

✉ **iMo7ed** 3 months, 2 weeks ago

Selected Answer: A

It is A

upvoted 1 times

  **JY888** 3 months, 3 weeks ago

There was a question earlier where the correct answer was a truck and not access. This question clears up that confusion. Voice Vlan should be an access port.

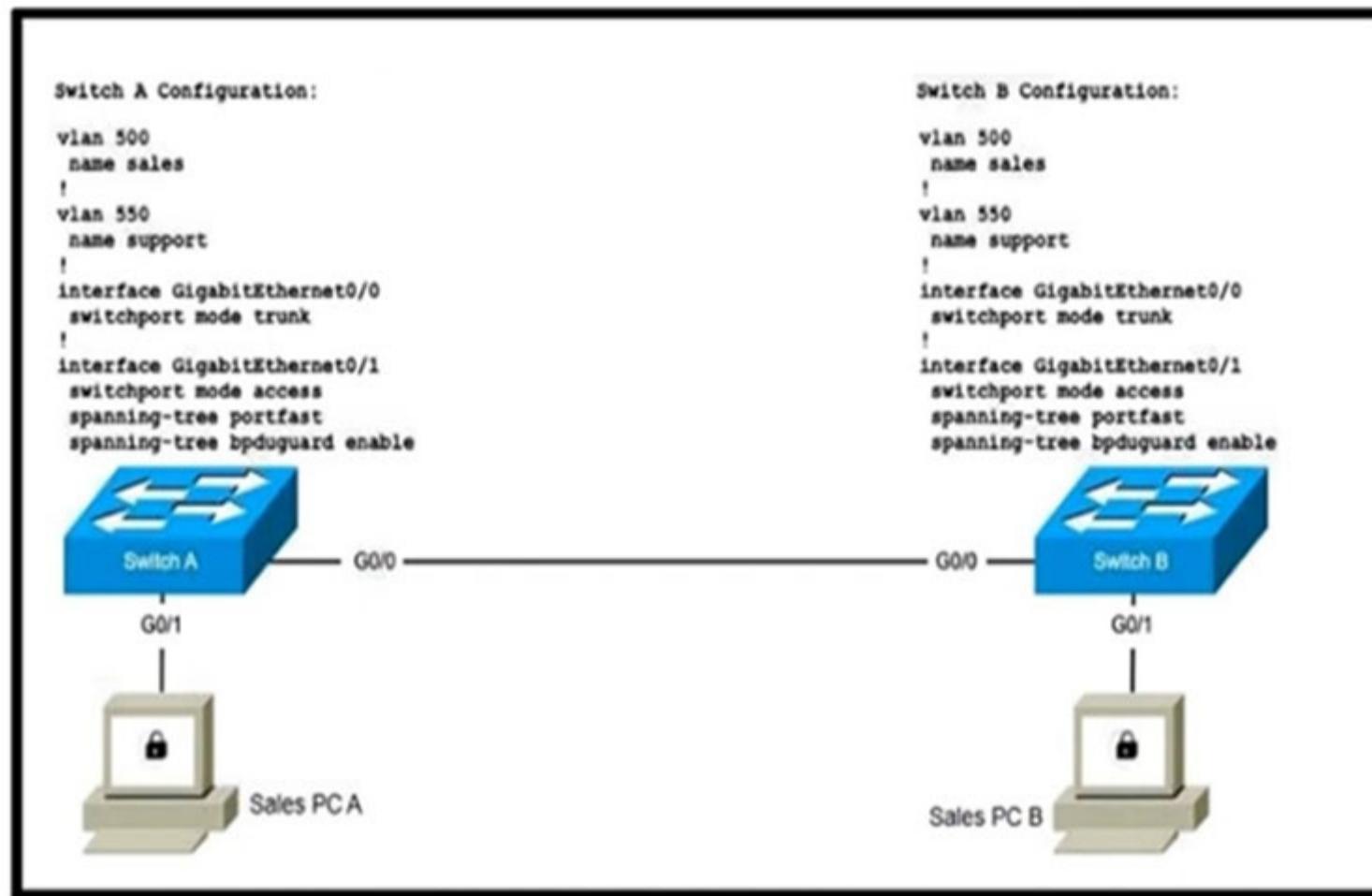
upvoted 1 times

  **Etidic** 7 months, 2 weeks ago**Selected Answer: A**

Answer A is correct

upvoted 1 times

Question #309



Refer to the exhibit. Two new switches are being installed. The remote monitoring team uses the support network to monitor both switches. Which configuration is the next step to establish a Layer 2 connection between the two PCs?

- A. SwitchA(config)#interface GigabitEthernet0/1 SwitchA(config-if)#switchport access vlan 500 SwitchB(config)#interface GigabitEthernet0/1 SwitchB(config-if)#switchport access vlan 500
- B. SwitchA(config)#interface GigabitEthernet0/1 SwitchA(config-if)#switchport mode trunk SwitchB(config)#interface GigabitEthernet0/1 SwitchB(config-if)#switchport mode trunk
- C. SwitchA(config)#interface GigabitEthernet0/0 SwitchA(config-if)#switchport trunk allowed vlan 500, 550 SwitchB(config)#interface GigabitEthernet0/0 SwitchB(config-if)#switchport trunk allowed vlan 500, 550
- D. SwitchA(config)#interface GigabitEthernet0/0 SwitchA(config-if)#spanning-tree portfast SwitchA(config-if)#spanning-tree bpduguard enable SwitchB(config)#interface GigabitEthernet0/0 SwitchB(config-if)#spanning-tree portfast SwitchB(config-if)#spanning-tree bpduguard enable

Correct Answer: A

BeautifulSmile 3 weeks, 4 days ago

Take note of the Vlan the two PCs belong to. They both belong to Sales which is the Vlan 500 and from the configurations given, you just need to add the sales vlan to established connection between the two PCs. The correct answer is A.

upvoted 1 times

HSong 1 month ago

A

Please note that the PCs are all for Sales department

upvoted 4 times

Kerrera 2 months, 2 weeks ago

Selected Answer: A

L2 connectivity done : vlans allowed on trunk 1-1005. The next step is to configure the access

upvoted 1 times

Kerrera 2 months, 2 weeks ago

L2 connectivity done : vlans allowed on trunk 1-1005. The next step is to configure the access

upvoted 1 times

Italian 3 months ago

Selected Answer: C

Support network has already been configured, for connectivity between the two PCs both vlans should be allowed on the G0/0 interface of both switch

upvoted 1 times

 **Goena** 5 months, 1 week ago

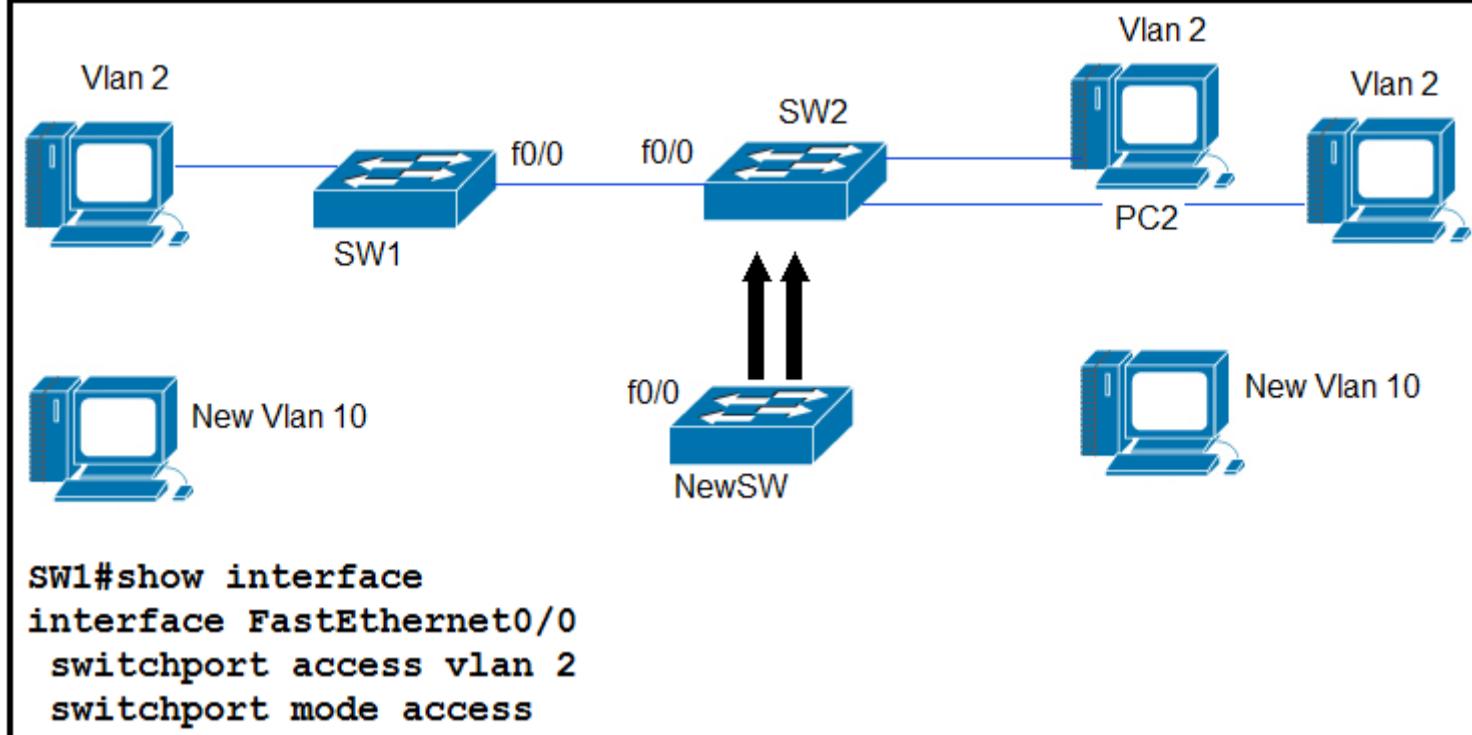
Selected Answer: A

It is indeed another tricky question: the support vlan 550 is already configured. So the next step is to configure vlan 500.
upvoted 2 times

 **Johan_jelly** 5 months, 3 weeks ago

key word here is next step
upvoted 1 times

Question #310



Refer to the exhibit. An engineer is configuring a new Cisco switch, NewSW, to replace SW2. The details have been provided:

- Switches SW1 and SW2 are third-party devices without support for trunk ports.
- The existing connections must be maintained between PC1, PC2, and PC3.
- Allow the switch to pass traffic from future VLAN 10.

Which configuration must be applied?

- A. NewSW(config)#interface f0/0 NewSW(config-if)#switchport mode trunk NewSW(config-if)#switchport trunk native vlan 10 NewSW(config-if)#switchport trunk native vlan 10
- B. NewSW(config)#interface f0/0 NewSW(config-if)#switchport mode access NewSW(config-if)#switchport trunk allowed vlan 2, 10 NewSW(config-if)#switchport trunk native vlan 2
- C. NewSW(config)#interface f0/0 NewSW(config-if)#switchport mode access NewSW(config-if)#switchport trunk allowed vlan 2, 10 NewSW(config-if)#switchport trunk native vlan 10
- D. NewSW(config)#interface f0/0 NewSW(config-if)#switchport mode trunk NewSW(config-if)#switchport trunk allowed vlan 2, 10 NewSW(config-if)#switchport trunk native vlan 2

Correct Answer: D

□ **DoBronx** Highly Voted 7 months, 1 week ago

what is this garbage question

upvoted 33 times

□ **Godfather2022** 4 months, 1 week ago

Have been trying to configure what is the question is asking for the past 15 minutes but I cant.

upvoted 4 times

□ **freaknowledge123** 5 months ago

just goes to show the importance of sites like examtopic

upvoted 8 times

□ **andresfjardim** Highly Voted 4 months ago

Selected Answer: D

I tested this in packet tracer, feel free to try it yourselfs, the correct answer is D!

Nothing says that the new switch doesn't allow trunking. It can't be B, because when you configure the port in access mode it doesn't evaluate the trunking commands, and access only permits one vlan.

If you have access on one side the vlan comes untagged, for the other side to put this untagged vlan in a native vlan the port needs to be configured as trunk. Also this imposes that in the future to have vlan 10 passing here you would need to replace SW1 to have trunk functionality or alternatively configure another uplink to pass vlan 10 the same way to new SW.

upvoted 9 times

□ **ThomasSmith** 4 weeks, 1 day ago

SW1 is already configured in access mode.

NewSW cannot be configured in trunk mode.

In order for the ping to work both sides of the link need to have the same mode (access or trunk) and not one side trunk and the other side access.

upvoted 1 times

 **Rydaz** Most Recent 3 weeks, 6 days ago

in switchport mode access : the interface can only carry ONE VLAN on that interface, only exception is with voice

upvoted 1 times

 **Lokylax** 1 month, 1 week ago

Selected Answer: D

Answer is D because of future need of vlan 10.

upvoted 1 times

 **Karrera** 2 months, 2 weeks ago

Selected Answer: D

The question does not talk about the need for connectivity at this time, it only talks about allowing traffic for the future... it will be necessary to install a compatible intermediate switch

upvoted 1 times

 **oatmealturkey** 3 months, 2 weeks ago

Selected Answer: D

B is impossible. An access port can only be assigned to one vlan so the configuration would not work. One exception is that an access port can be assigned to both a data vlan and a voice vlan.

upvoted 5 times

 **kobisiva** 4 months, 2 weeks ago

i'm choose B, for trunk both devices must support for trunk protocol

upvoted 1 times

 **freeknowledge123** 5 months ago

why is it B and not C?

upvoted 2 times

 **Mistwalker** 5 months, 1 week ago

Selected Answer: B

It's B. Both A and D immediately configure a trunk port to a switch that the question clearly says doesn't support trunk ports.

upvoted 2 times

 **Drader** 2 months, 2 weeks ago

Old switches doesn't support trunking, but the NewSwitch might.

upvoted 2 times

 **Sutokuto** 5 months, 3 weeks ago

Selected Answer: B

The question says the old switches don't support trunking

upvoted 2 times

 **ssssse** 6 months ago

Selected Answer: D

It can be D. Native VLAN2 will pass untagged traffic from VLAN2. it is a tricky question

upvoted 1 times

 **HMax** 6 months, 2 weeks ago

Selected Answer: B

I tested in Package Tracer. It is B. STP will block if you turn on f0/0 to trunk port. Here is what need to be done on NewSW

```
#int f0/0
#sw mo acc
#sw acc vlan 2
#sw trunk allowed vlan 2
```

That's it

upvoted 2 times

 **ksl20cc0** 6 months, 4 weeks ago

Selected Answer: B

"When two switches configure a mode of 'access' on one end and 'trunk' on the other, problems occur. Avoid this combination." (OCG vol 1 p195)

upvoted 3 times

 **mzu_sk8** 7 months ago

configure a trunk with native vlan 2, which is untagged so it can reach SW1's access Vlan 2 port, there will be no problem

upvoted 1 times

 **dick3311** 7 months, 1 week ago

Selected Answer: B

It should be B
cause SW1 F0/0 is mode access
so NewSW F0/0 should also be access
upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: D

The Answer is D.
upvoted 1 times

 **melllos** 7 months, 3 weeks ago

la respuesta correcta para mi es la "B" el enunciado dice que no soporta puerto troncales
upvoted 1 times

Question #311

Topic 1

Which WLC interface provides out-of-band management in the Cisco Unified Wireless Network Architecture?

- A. AP-Manager
- B. service port
- C. dynamic
- D. virtual

Correct Answer: B

 **mrgreat**  9 months ago

Selected Answer: B

The service port is used for out-of-band management of the controller and system recovery and maintenance in the event of a network failure. It is important to note that the service port does not support VLAN trunking or VLAN tagging and is therefore required to connect to an access port on the switch.

It is also recommended not to connect the service port to the same VLAN as the wired clients network because by doing so, administrators will not be able to access the management interface (analysed later) of the controller.

upvoted 9 times

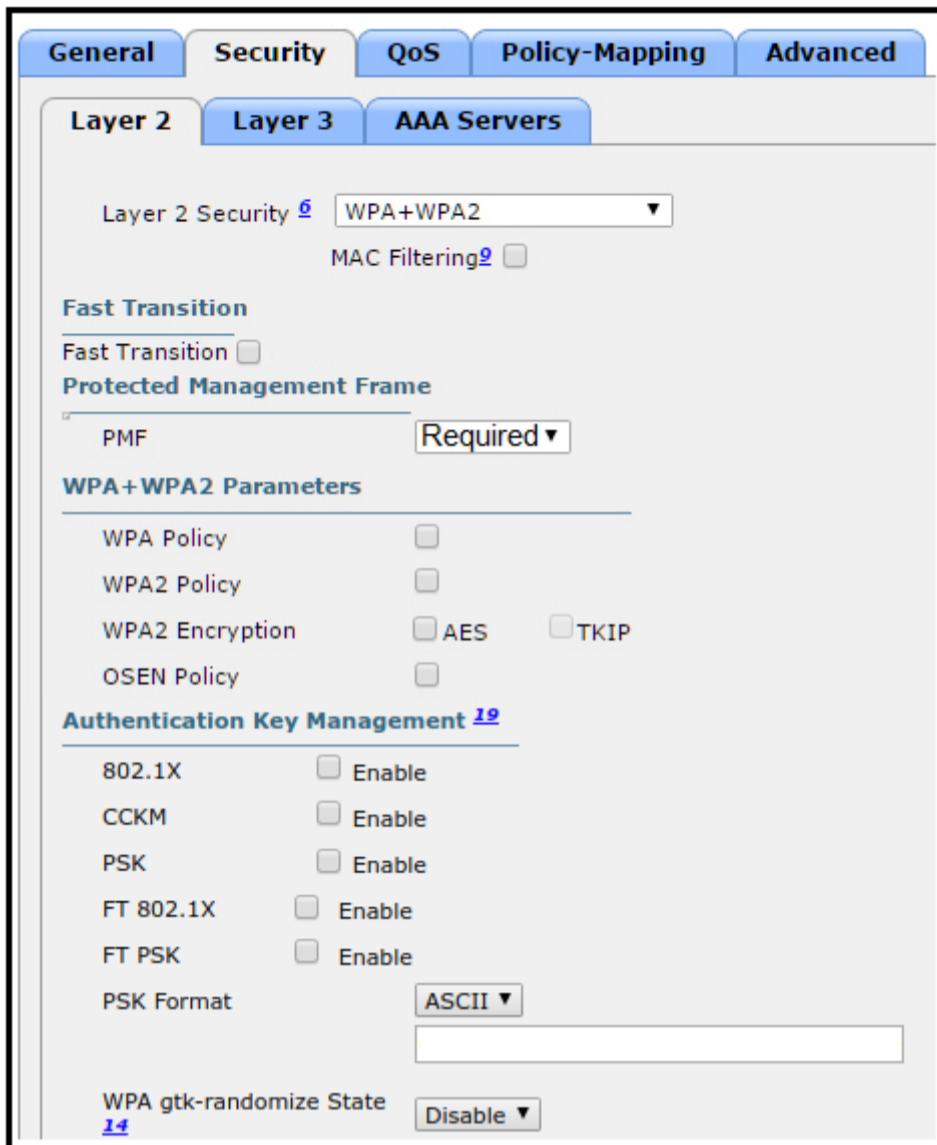
 **Dhiru959**  3 weeks, 1 day ago

Ans : B (Service Port)

The service port is used for out-of-band management of the controller and system recovery and maintenance in the event of a network failure. It is important to note that the service port does not support VLAN trunking or VLAN tagging and is therefore required to connect to an access port on the switch.

upvoted 1 times

Question #312



Refer to the exhibit. The network engineer is configuring a new WLAN and is told to use a setup password for authentication instead of the RADIUS servers.

Which additional set of tasks must the engineer perform to complete the configuration?

- A. Disable PMF Enable PSK Enable 802.1x
- B. Select WPA Policy Enable CCKM Enable PSK
- C. Select WPA Policy Select WPA2 Policy Enable FT PSK
- D. Select WPA2 Policy Disable PMF Enable PSK

Correct Answer: D

Panda_man Highly Voted 6 months ago

Selected Answer: B

A - Is not correct since they say RADIUS is not used and 802.1x is to be used for authentication through RADIUS, TACACS;

C- not correct you can not have WPA Policy and WPA2 policy at the same time;

D-not correct, since it's not reccomandation to disable Pmf and especially if WPA2 is unable;

Therefore B should be correct answer.

upvoted 5 times

Request7108 5 months, 1 week ago

Your evaluation of C is incorrect because it is possible to have WPA and WPA2 at the same time. It is not recommended, but it is possible.

upvoted 2 times

Drader 2 months, 2 weeks ago

Isn't it possible to have WPA2 and WPA at the same time for backwards compatibility?

upvoted 1 times

Ciscoman021 Most Recent 1 month, 3 weeks ago

Selected Answer: D

The correct option for this scenario would be D. Select WPA2 Policy Disable PMF Enable PSK.

When configuring a WLAN to use a setup password for authentication instead of RADIUS servers, the following tasks must be performed:

Select WPA2 Policy: The engineer should select WPA2 (Wi-Fi Protected Access II) as the security policy for the WLAN. WPA2 is a widely used security protocol that provides strong encryption and authentication for wireless networks.

Disable PMF: PMF (Protected Management Frames) is a security feature that helps protect against certain types of attacks on wireless networks. However, it may cause compatibility issues with some client devices. Therefore, it should be disabled when using a setup password for authentication.

Enable PSK: PSK (Pre-Shared Key) is a form of authentication that uses a shared password or passphrase to authenticate clients on the wireless network. When using a setup password for authentication, the engineer should enable PSK and set the shared password or passphrase.

upvoted 2 times

oatmealturkey 3 months, 2 weeks ago

Selected Answer: D

It is not B, you cannot select both CCKM and PSK. Cisco is trying to throw us off with disabling PMFs, but D is the best answer.

upvoted 4 times

studying_1 1 month ago

but PMF is a security feature of WPA3, so i guess no need to keep it enabled, since we're using WPA2, n'est ce pas? je crois que oui, please, correct me if i'm wrong

upvoted 1 times

splashy 4 months, 3 weeks ago

Selected Answer: D

A.dot1x = no

B.CCKM + PSK = no go (atleast not on the devices i've seen in netacad course + PT)

C.Possible but ONLY FT capable clients will be able to connect, non-FT will not which is very far from ideal.

D. While disabling PMF is sub-optimal, at least you will not be denying non FT-capable clients/devices to connect.

upvoted 3 times

freeknowledge123 5 months ago

using a wpa/wpa2 mixed mode is a high security risk

<https://www.speedguide.net/faq/wpa2-vs-wpa2wpa-mixed-mode-security-436#:~:text=WPA2%2FWPA%20mixed%20mode%20allows,for%20use%20by%20the%20client.>

basically clients can use either wpa and wpa2 to connect, which is a big no no for security.

i think it's either B or D.

Again all options are correct but i think B is more correct because it provide the most security, CCKM works with PSK correct me if i am wrong.

upvoted 1 times

Request7108 5 months, 1 week ago

Selected Answer: C

This is a badly written question and answer set. I ran this on my 5520, code version 8.10.130

A) Obviously wrong because it is dot1x

B) Wrong because CCKM is not an option when using PSK. For the code version I'm running, CCKM disappears as soon as I select personal versus enterprise.

C) WPA and WPA2 is allowable but not ideal. It also needs to have the FT enabled checked and the FT PSK box checked. On my code version, this is automatically done when I set FT to enable.

D) While not ideal to disable PMF, it is possible.

Strictly speaking, this question comes down to whether or not Cisco is expecting both FT boxes to be checked or not. I hope they aren't being this neurotic so I'm choosing C, despite D being the most asinine yet accurate.

upvoted 2 times

fjori 6 months, 1 week ago

A is not the choice as 802.1x is an authentication protocol to allow access to networks with the use of a RADIUS server. C is not correct as FT PSK is used only for static configuration only . D is not correct as we shoul not disable PMF for security. So the correct answer is B

upvoted 1 times

mijhn13 7 months, 2 weeks ago

are you sure etidic? im confused

upvoted 1 times

Etidic 7 months, 2 weeks ago

Selected Answer: C

The answer is C

upvoted 1 times

chathu123 7 months, 2 weeks ago

can you explain it ?

upvoted 1 times

RougePotatoe 6 months, 3 weeks ago

He is wrong. "802.11r FT + PMF is not recommended."

<https://www.cisco.com/c/dam/en/us/td/docs/wireless/controller/technotes/80211r-ft/b-80211r-dg.html>

upvoted 2 times

Question #313

Topic 1

Which mode must be set for Aps to communicate to a Wireless LAN Controller using the Control and Provisioning of Wireless Access Points (CAPWAP) protocol?

- A. route
- B. bridge
- C. lightweight
- D. autonomous

Correct Answer: C

✉️  **freeknowledge123** 5 months ago

lightweight=local mode

upvoted 2 times

✉️  **Trevor_VT** 1 month, 1 week ago

Not sure what you mean by "local mode", but looks like it is exactly the opposite. Lightweight = dependent from a controller and can not run "locally". While autonomous mode runs "locally" - does not need Wireless LAN Controllers to function.

upvoted 1 times

✉️  **Hope_12** 1 month ago

I think it means LAP running on one of its mode which is local. Default mode of LAP.

upvoted 1 times

Question #314

Topic 1

Which switch technology establishes a network connection immediately when it is plugged in?

- A. PortFast
- B. BPDU guard
- C. UplinkFast
- D. BackboneFast

Correct Answer: A

 jonathan126 1 month, 2 weeks ago

Selected Answer: C

The answer is D. Look carefully at the wordings: establishes a network connection immediately when "IT" is plugged in. It refers to a switch. Portfast is used for end devices not switch. The answer is C.

upvoted 1 times

 jonathan126 1 month, 2 weeks ago

Sorry I mean C not D.

upvoted 2 times

 Ciscoman021 1 month, 3 weeks ago

Selected Answer: A

The switch technology that establishes a network connection immediately when it is plugged in is PortFast.

upvoted 1 times

 fransCISCO 4 months, 1 week ago

it should be C UplinkFast. not PortFast (forwarding state only)

upvoted 2 times

 checkoboy88 3 months, 1 week ago

Uplinkfast is mainly used in a distribution or core layer.

https://www.cisco.com/c/es_mx/support/docs/lan-switching/spanning-tree-protocol/10575-51.html

upvoted 1 times

 Goh0503 8 months, 3 weeks ago

Answer A

When you enable PortFast on a switch or trunk port, the port is immediately transitioned to the spanning tree forwarding state.

https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4000/8-2glx/configuration/guide/stp_enha.html

upvoted 3 times

Question #315

Topic 1

Which command on a port enters the forwarding state immediately when a PC is connected to it?

- A. switch(config)#spanning-tree portfast default
- B. switch(config)#spanning-tree portfast bpduhold default
- C. switch(config-if)#spanning-tree portfast trunk
- D. switch(config-if)#no spanning-tree portfast

Correct Answer: A

✉  **Customexit** Highly Voted 7 months, 2 weeks ago

Selected Answer: A

int g0/2 spanning-tree portfast.

You can also enable portfast with the following command:

SW1(config)# spanning-tree portfast default

(this enables portfast on all access ports (not trunk ports)).

upvoted 6 times

✉  **Etidic** Most Recent 7 months, 2 weeks ago

Selected Answer: A

The correct answer is A.

The use of the word 'port' in the question was just a distraction.

upvoted 2 times

✉  **gorigorimmm** 8 months, 1 week ago

I think there is no correct answer in the options.

The correct answer should be:

switch(config-if)#spanning-tree portfast

upvoted 2 times

✉  **FatimaG** 8 months, 1 week ago

A is correct. You can enable spanning-tree portfast on the interface configuration or spanning-tree portfast default on global configuration command.

https://www.cisco.com/en/US/docs/switches/metro/me3600x_3800x/trash/swstpopt.html

upvoted 7 times

✉  **arenjenkins** 8 months, 2 weeks ago

Correct anwser is C

upvoted 3 times

✉  **SABRISAEIB** 8 months, 1 week ago

Port Fast works only with access ports

upvoted 3 times

✉  **RougePotatoe** 7 months, 1 week ago

Incorrect. You can configure portfast on trunk links via the following command in the interface configuration mode: spanning-tree portfast trunk. It is only recommended that you only use portfast on access ports but you can definitely configure portfast on trunk ports.

upvoted 4 times

Question #316

Topic 1

If a switch port receives a new frame while it is actively transmitting a previous frame, how does it process the frames?

- A. The new frame is delivered first, the previous frame is dropped, and a retransmission request is sent
- B. The previous frame is delivered, the new frame is dropped, and a retransmission request is sent
- C. The new frame is placed in a queue for transmission after the previous frame
- D. The two frames are processed and delivered at the same time

Correct Answer: C

 **thomson_johnson** 2 months, 2 weeks ago

They are processed at the same time, but if they are supposed to be sent using the same interface, new one will be sent when it is free to go. Like blitzstorm pointed out: FIFO is default config for a queue.

Full duplex means receiving and sending is possible at the same time, but no magic will make switch send 2 frames out of the same interface simultaneously with that configuration.

plus it's a little wording puzzle, if one frame is already being transmitted, there is no possibility for the new one to be sent at exactly the same time (it still needs to be processed, so a tiny difference in time, but still a difference)

upvoted 3 times

 **Ceruzka** 3 months, 1 week ago

hmmm, perhaps I have a bad English, but the port receives a frame and transmits (sends) a frame - in full duplex at the same time..so what is wrong with answer D ?

upvoted 1 times

 **soRwatches** 2 months, 3 weeks ago

same thought.

upvoted 1 times

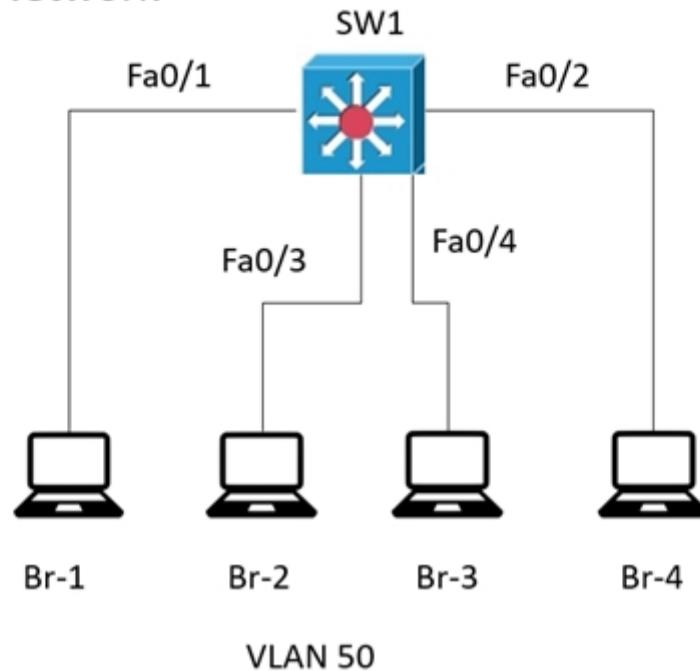
 **blitzstorm** 4 months ago

Selected Answer: C

First in First out (FIFO) is default config for a queue

upvoted 2 times

Question #317

Branch Network

Refer to the exhibit. The entire MAC address table for SW1 is shown here:

SW1#show mac-address-table

Mac Address Table

Vlan	Mac Address	Type	Ports
50	000c.8590.bb7d	DYNAMIC	Fa0/1
50	010a.7a17.45bc	DYNAMIC	Fa0/3
50	7aa7.4041.0525	DYNAMIC	Fa0/4

SW1#

What does SW1 do when Br-4 sends a frame for Br-2

- A. It performs a lookup in the MAC address table for Br-4 and discards the frame due to a missing entry.
- B. It floods the frame out of all ports except on the port where Br-2 is connected.
- C. It inserts the source MAC address and port into the forwarding table and forwards the frame to Br-2.
- D. It maps the Layer 2 MAC address for Fa0/3 to the Layer 3 IP address and forwards the frame.

Correct Answer: C

✉ **Sdiego** Highly Voted 4 months, 2 weeks ago

Tricky! Exchanging interfaces IDs with Branch numbers, b careful!
upvoted 5 times

✉ **Rydaz** 3 weeks, 6 days ago

dirty move
upvoted 1 times

✉ **HSong** Most Recent 1 month ago

the question tricks.
upvoted 2 times

Question #318

Topic 1

Which statement about Link Aggregation when implemented on a Cisco Wireless LAN Controller is true?

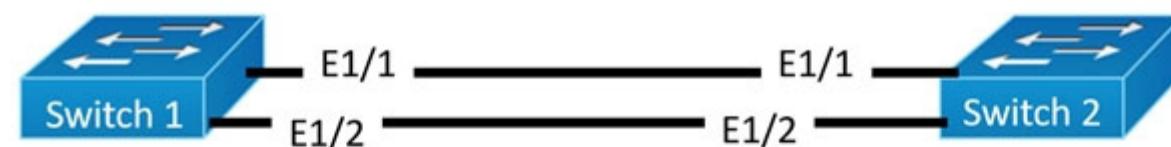
- A. To pass client traffic two or more ports must be configured
- B. The EtherChannel must be configured in `mode active`
- C. When enabled, the WLC bandwidth drops to 500 Mbps
- D. One functional physical port is needed to pass client traffic

Correct Answer: D

 **curbstone19** 3 months, 1 week ago

Answer: D

upvoted 3 times



Interface Po1
switchport
switchport mode access
switchport access vlan 2

Interface E1/1 - 2
Switchport
Switchport mode access
Switchport access vlan 2

Interface Po1
switchport
switchport mode access
switchport access vlan 2

Interface E1/1 - 2
Switchport
Switchport mode access
Switchport access vlan 2

Refer to the exhibit. An engineer is configuring an EtherChannel using LACP between Switches 1 and 2.

Which configuration must be applied so that only Switch 1 sends LACP initiation packets?

A.

Switch1(config-if)#channel-group 1 mode on

Switch2(config-if)#channel-group 1 mode active

B.

Switch1(config-if)#channel-group 1 mode active

Switch2(config-if)#channel-group 1 mode passive

C.

Switch1(config-if)#channel-group 1 mode passive

Switch2(config-if)#channel-group 1 mode active

D.

Switch1(config-if)#channel-group 1 mode on

Switch2(config-if)#channel-group 1 mode passive

Correct Answer: B

 **country_rooted** 2 months, 1 week ago

Correct

upvoted 3 times

 **Goena** 5 months, 1 week ago

Switch 1 sends LACP initiation packets:

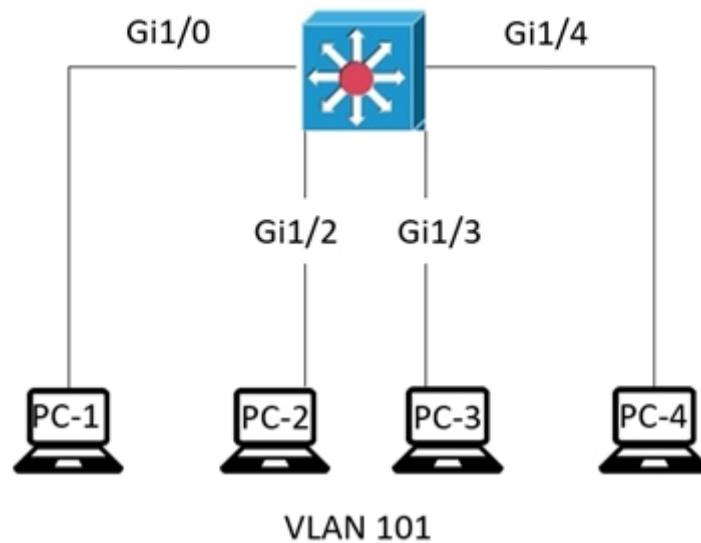
Switch 1 is active.

Switch 2 is passive

upvoted 4 times

Question #320

Topic 1

Marketing-SW1

```
Marketing-SW1#show mac-address-table
```

Mac Address Table

VLAN	MAC Address	Type	Ports
101	000a.000a.000a	DYNAMIC	Gi1/0
101	3986.3986.3986	DYNAMIC	Gi1/2
101	00d0.00d0.00d0	DYNAMIC	Gi1/3

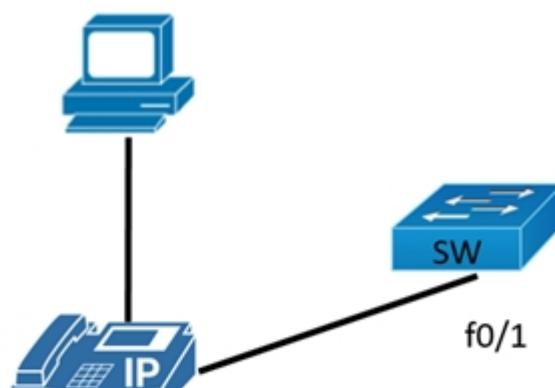
Refer to the exhibit. The entire Marketing-SW1 MAC address table is shown here:

What does the switch do when PC-4 sends a frame to PC-1?

- A. It performs a lookup in the MAC address table and discards the frame due to a missing entry.
- B. It maps the Layer 2 MAC address to the Layer 3 IP address and forwards the frame.
- C. It inserts the source MAC address and port into the table and forwards the frame to PC-1.
- D. It floods the frame out of all ports except on the port where PC-1 is connected.

Correct Answer: C

Question #321

Data Vlan 15**Voice Vlan 10**

```

SW#show run
Building configuration...
!
interface FastEthernet0/1
  switchport access vlan 15
!
end
  
```

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

A.

```

interface FastEthernet0/1
switchport mode access
switchport voice vlan 10
  
```

B.

```

interface FastEthernet0/1
switchport trunk native vlan 10
switchport trunk allowed vlan 10,15
  
```

C.

```

Interface FastEthernet0/1
switchport trunk allowed vlan add 10
vlan 10
private-vlan isolated
  
```

D.

```

interface FastEthernet0/1
switchport mode trunk
switchport trunk allowed vlan 10,15
  
```

Correct Answer: A

GigaGremlin Highly Voted 8 months ago

Answer A is fine.

Config would usually look like this:

```

Switch(config)#interface FastEthernet0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport voice vlan 10
Switch(config-if)#switchport access vlan 15
  
```

upvoted 7 times

Tomasek1234 Most Recent 3 months, 2 weeks ago

Answer C is correct

upvoted 1 times

Tomasek1234 3 months, 2 weeks ago

Wrong question, delete this please

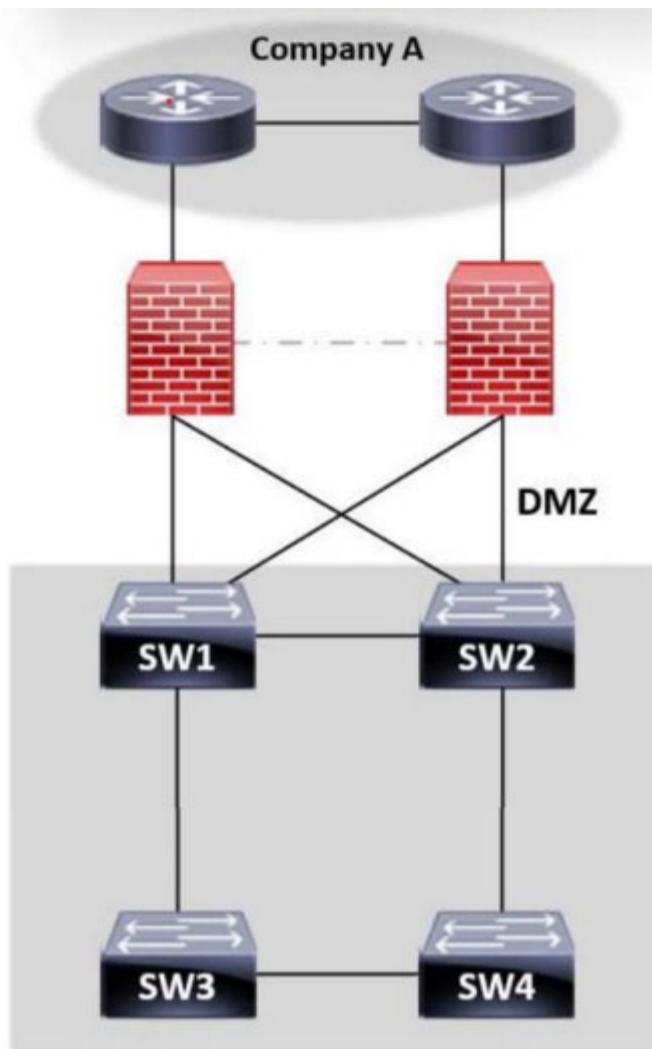
upvoted 1 times

JY888 3 months, 3 weeks ago

There is a question earlier where a truck port is chosen as the answer regarding a VoIP phone passthrough with a PC. I believe only access ports are used for this scenario.

upvoted 2 times

Question #322



SW1: VLAN10 - 32778 0018.1843.3cb0

SW2: VLAN10 - 24586 004a.13e9.3912

SW3: VLAN10 - 28682 0022.55cf.cc00

SW4: VLAN10 - 64000 0022.66ed.a29f

Refer to the exhibit. Which switch becomes the root of a spanning tree for VLAN 10 if the primary switch fails and all links are of equal speed?

- A. SW1
- B. SW2
- C. SW3
- D. SW4

Correct Answer: C

freaknowledge123 Highly Voted 5 months ago

we need an admin here to check this bellabop, ruining answers for all users.

upvoted 20 times

FALARASTA 1 month, 2 weeks ago

The answer is correct. Which one after the first one.

upvoted 2 times

Godfather2022 4 months, 1 week ago

@ Bellabop please desist from confusing people. We hear to learn.

upvoted 1 times

Elle_33 4 months, 3 weeks ago

Let us report it

upvoted 2 times

dannyode Highly Voted 8 months ago

Selected Answer: C

Switch 2 is primary. But in this context, that is to say when it fails, the primary is chosen between SW1, SW3 and SW4. Thus, SW3 becomes the root. Answer C is correct.

upvoted 18 times

Loq Most Recent 3 weeks, 1 day ago

C is correct. The primary is SW2 and if it fails SW3 will become the primary.

upvoted 2 times

 **ThomasSmith** 4 weeks ago

Selected Answer: C

Increasing stat for the correct answer C.

upvoted 1 times

 **HSong** 1 month, 2 weeks ago

SW1 should have been the primary, and it fails?

upvoted 1 times

 **ASHLEY_27** 1 month, 3 weeks ago

Selected Answer: C

The question says if a primary fails. According to the table primary is SW1 which has the lowest priority, followed by SW3 which has the second lowest priority making it secondary.

upvoted 1 times

 **Eminn** 3 months, 1 week ago

Selected Answer: B

Correct answer is B! Because first of all selected Low Priority. If priority is default on all devices, second select is MAC

upvoted 1 times

 **thomson_johnson** 2 months, 2 weeks ago

Question asks which switch will become the root bridge if the current one fails, so C is correct

upvoted 2 times

 **linuxlife** 2 months, 2 weeks ago

the question if "primary failed" who will be the root switch...so its the switch with the lowest Bridge ID after Switch 2.

upvoted 2 times

 **Tomaszek1234** 3 months, 2 weeks ago

Selected Answer: C

C is correct

upvoted 1 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 2 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 2 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 2 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 1 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 1 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 1 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 1 times

 **[Removed]** 5 months, 1 week ago

Selected Answer: A

Answer is C.

upvoted 1 times

 [Removed] 5 months, 1 week ago

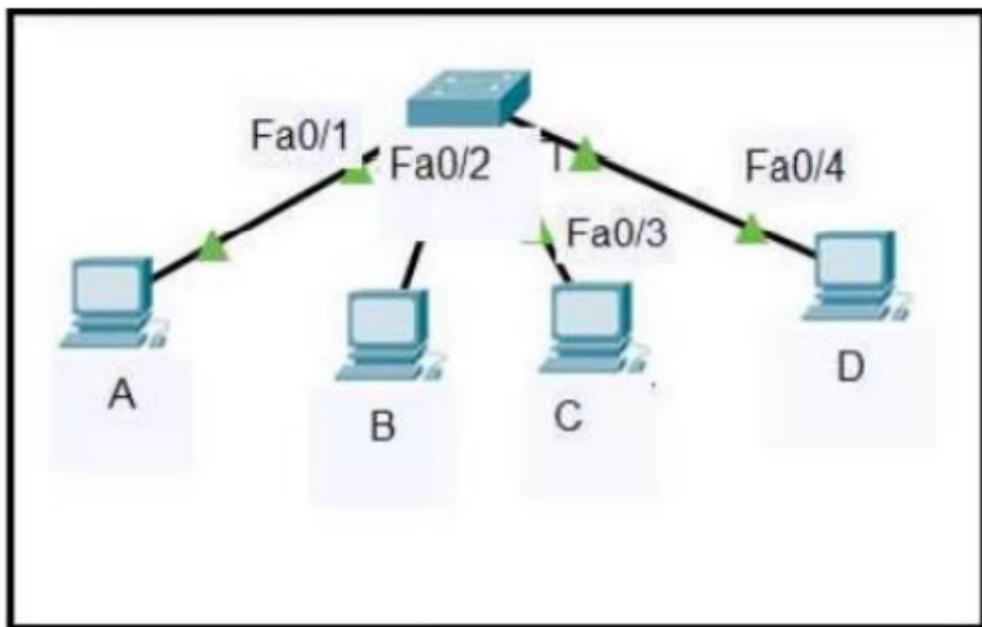
Selected Answer: A

Answer is C.

upvoted 1 times

Question #323

Topic 1



Refer to the exhibit. Host A sent a data frame destined for host D.

```
SwitchA#show mac-address table Mac Address Table
Vlan Mac Address Type Ports
2 000c.859c.bb7b DYNAMIC Fa0/1
2 0010.11dc.3e91 DYNAMIC Fa0/2
2 0041.39d1.c469 DYNAMIC Fa0/3 Switch A#
```

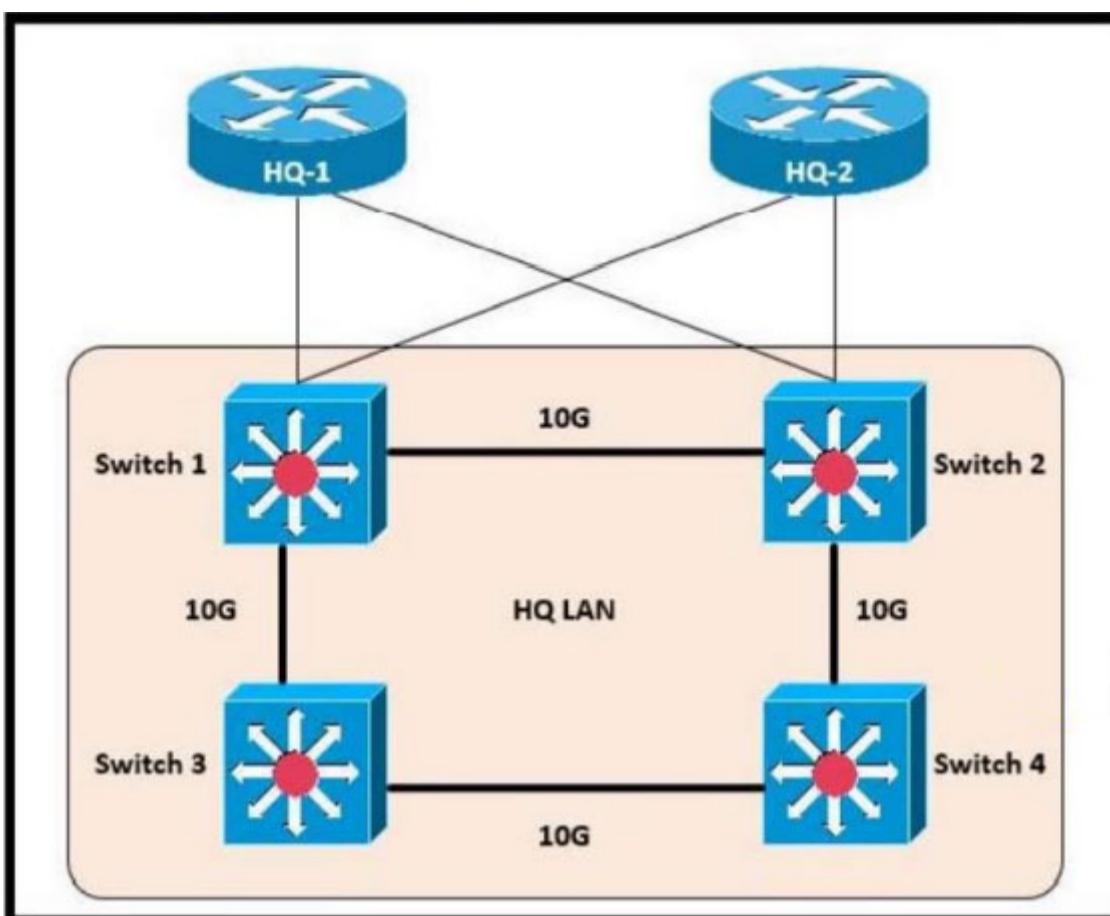
What does the switch do when it receives the frame from host A?

- A. It floods the frame out of all ports except port Fa0/1
- B. It experiences a broadcast storm
- C. It shuts down the port Fa0/1 and places it in err-disable mode
- D. It drops the frame from the switch CAM table

Correct Answer: A

Question #324

Topic 1



Switch 1
BID: 32778 0018.184e.3c00
Switch 2
BID: 24586 001a.e3ff.a680
Switch 3
BID: 28682 0022.55cf.cc00
Switch 4
BID: 64000 0e41.4503.004f

Refer to the exhibit. Which switch becomes the root of the spanning tree?

- A. Switch 1
- B. Switch 2
- C. Switch 3
- D. Switch 4

Correct Answer: B

The root bridge is the bridge with the lowest Bridge ID. All the decisions like which ports are the root ports (the port with the best path to the root bridge) are made from the perspective of the root bridge. In case of a tie (not the case in this example) then the root bridge will be the switch with the lowest MAC address.

Question #325

Topic 1

Which channel-group mode must be configured when multiple distribution interfaces connected to a WLC are bundled?

- A. Channel-group mode passive.
- B. Channel-group mode on.
- C. Channel-group mode desirable.
- D. Channel-group mode active.

Correct Answer: B

 **creaguy** 8 months, 1 week ago

Selected Answer: B

B is correct

<https://www.firewall.cx/cisco-technical-knowledgebase/cisco-wireless/1223-how-to-configure-wlc-lag-and-port-channel-with-nexus-catalyst-switches.html#:~:text=switchport%20mode%20trunk-,channel%2Dgroup%201%20mode%20on,-!%0Ainterface%20GigabitEthernet0>

upvoted 4 times

 **RougePotatoe** 7 months, 1 week ago

In support of the claim above from cisco source.

"Once the EtherChannel is configured as on at both ends of the link, the Catalyst switch should not be configured for either Link Aggregation Control Protocol (LACP) or Cisco proprietary Port Aggregation Protocol (PAgP) but be set unconditionally to LAG. Because no channel negotiation is done between the controller and the switch, the controller does not answer to negotiation frames and the LAG is not formed if a dynamic form of LAG is set on the switch. Additionally, LACP and PAgP are not supported on the controller."

https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-4/configuration/guides/consolidated/b_cg74_CONSOLIDATED/b_cg74_CONSOLIDATED_chapter_010100001.html#ID1514

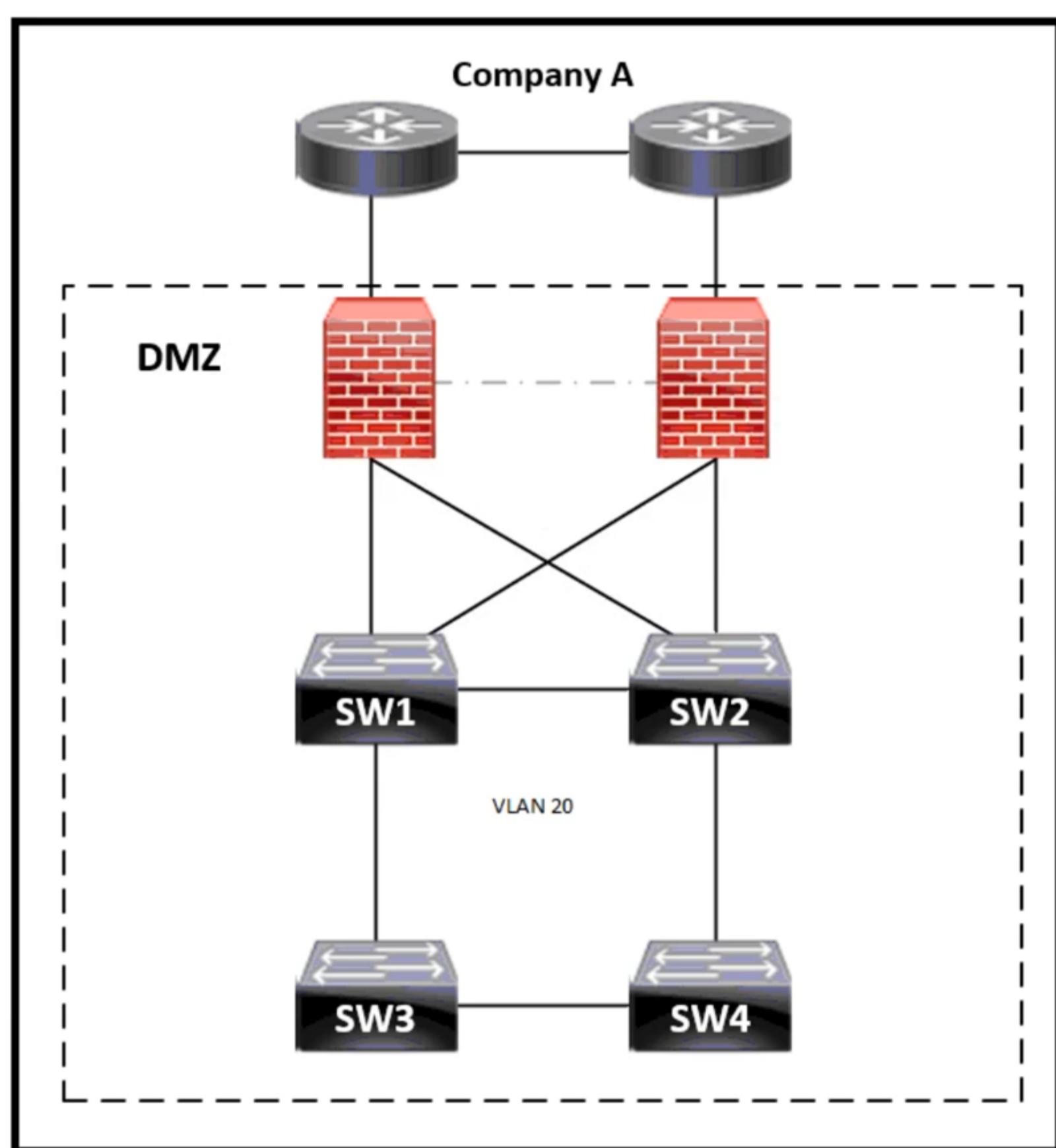
upvoted 8 times

 **Customexit** 7 months, 2 weeks ago

For anyone not wanting to search through this article, I believe the reasoning is:

"Notice that the channel-group mode is set to on which enables Etherchannel without any LACP or PAgP support. This is because the WLC doesn't support LACP or PAgP and requires a plain vanilla Etherchannel."

upvoted 11 times



SW1 = 24596 0018.184e.3c00

SW2 = 28692 004a.13e9.6900

SW3 = 32788 0022.55cf.dd00

SW4 = 64000 0041.396d.690f

Refer to the exhibit. Which switch become the root of a spanning tree for VLAN 20 if all links are of equal speed?

- A. SW1
- B. SW2
- C. SW3
- D. SW4

Correct Answer: A

shiv3003 1 month, 3 weeks ago

why not c??

upvoted 1 times

Hope_12 1 month ago

Because SW1 has the lowest bridge ID.(lowest bridge priority)

upvoted 2 times

 **Goena** 5 months, 1 week ago

Selected Answer: A

The root bridge is the bridge with the lowest Bridge ID.
upvoted 3 times

Question #327

Topic 1

Which Layer 2 switch function encapsulates packets for different VLANs so that the packets transverse the same port and maintain traffic separation between the VLANs?

- A. VLAN marking
- B. VLAN numbering
- C. VLAN DSCP
- D. VLAN tagging

Correct Answer: D

 **Customexit**  7 months, 2 weeks ago

Selected Answer: D

p.s. "marking" is for QoS stuff.
upvoted 5 times

Question #328

Topic 1

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

- A. VLAN ID
- B. SSID
- C. RFID
- D. WLAN ID

Correct Answer: B

 **thomson_johnson** 2 months, 2 weeks ago

SSID doesn't have to be unique.

I'm thinking that someone who posted questions about wireless on this site doesn't know the difference between SSID and BSSID, and there are questions in which someone deleted the B or though it's useless or idk. (There are questions here that spell truck instead of trunk etc.)

upvoted 3 times

 **thomson_johnson** 2 months, 2 weeks ago

thought* i was whining about typos and made one Xd

upvoted 1 times

 **Goena** 5 months, 1 week ago

Selected Answer: B

B. SSID

upvoted 1 times

 **cormorant** 6 months, 1 week ago

The SSID is a unique identifier that wireless networking devices use to establish and maintain wireless connectivity. Multiple access points on a network or subnetwork may use the same SSIDs.

upvoted 3 times

 **shubhambala** 8 months, 3 weeks ago

SSID is not unique though? It seems like the most correct option.

upvoted 4 times

 **ccna_goat** 8 months, 2 weeks ago

it should be unique, but its not mandatory. another poorly worded question.

upvoted 6 times

Question #329

Topic 1

An engineer must configure neighbor discovery between the company router and an ISP.

```
interface gigabitethernet0/0
description Circuit-ATT4139-84320
duplex full
speed 1000
media-type gbic
negotiation auto
lldp transmit
lldp receive
```

What is the next step to complete the configuration if the ISP uses a third-party router?

- A. Enable LLDP globally.
- B. Disable CDP on gi0/0.
- C. Enable LLDP TLVs on the ISP router.
- D. Disable auto-negotiation.

Correct Answer: A

 **yavuzcangiz** 7 months, 4 weeks ago

Disabling and Enabling LLDP on an Interface – LLDP is disabled globally on all supported interfaces. You must enable LLDP globally to allow a device to send LLDP packets.

https://www.grandmetric.com/knowledge-base/design_and_configure/lldp-configuration-example-cisco/

upvoted 4 times

 **vladals** 8 months, 3 weeks ago

In my opinion, lldp transmit and recieve are configured on the port. We need LLDP to be configured globally in order to complete the company router configuration. Also the phrasing of the question (complete THE build) accompanied by the "snip" of the company router is against answer C as being the correct one.

upvoted 4 times

 **PiotrMar** 8 months, 3 weeks ago

why A when lldp transmit and recieve is already configured..? My guess was C

upvoted 2 times

 **FALARASTA** 1 month, 2 weeks ago

I was thinking the same.

upvoted 1 times

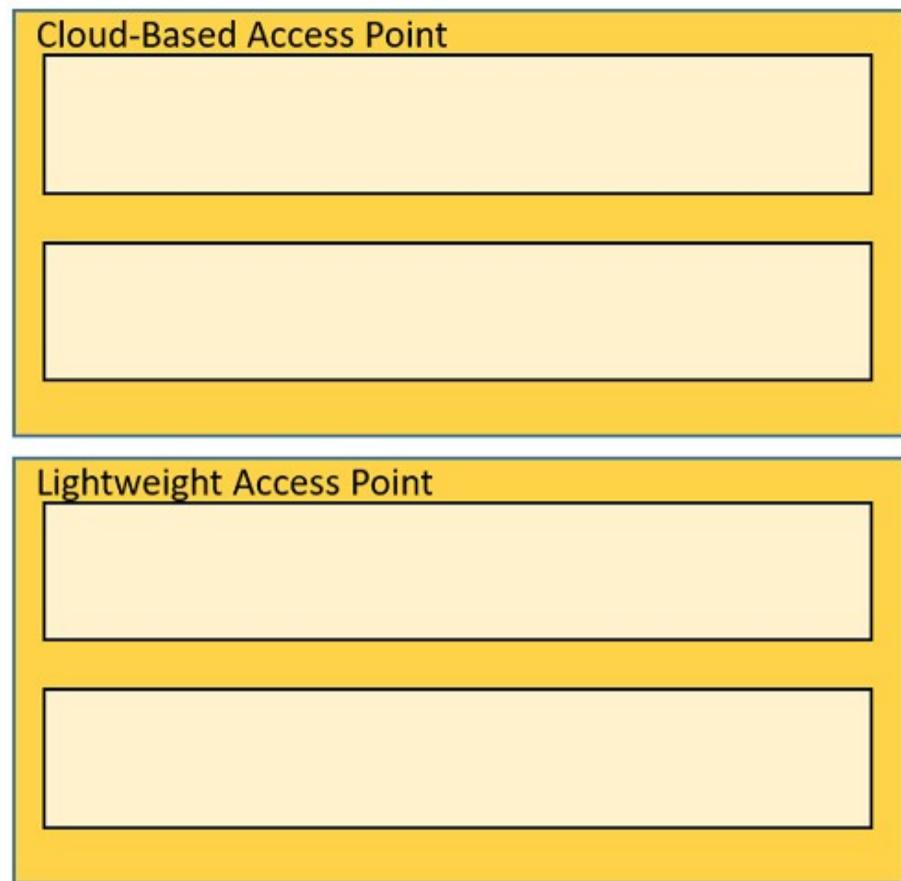
Question #330

DRAG DROP -

Drag and drop the facts about wireless architectures from the left onto the types of access point on the right. Not all options are used.

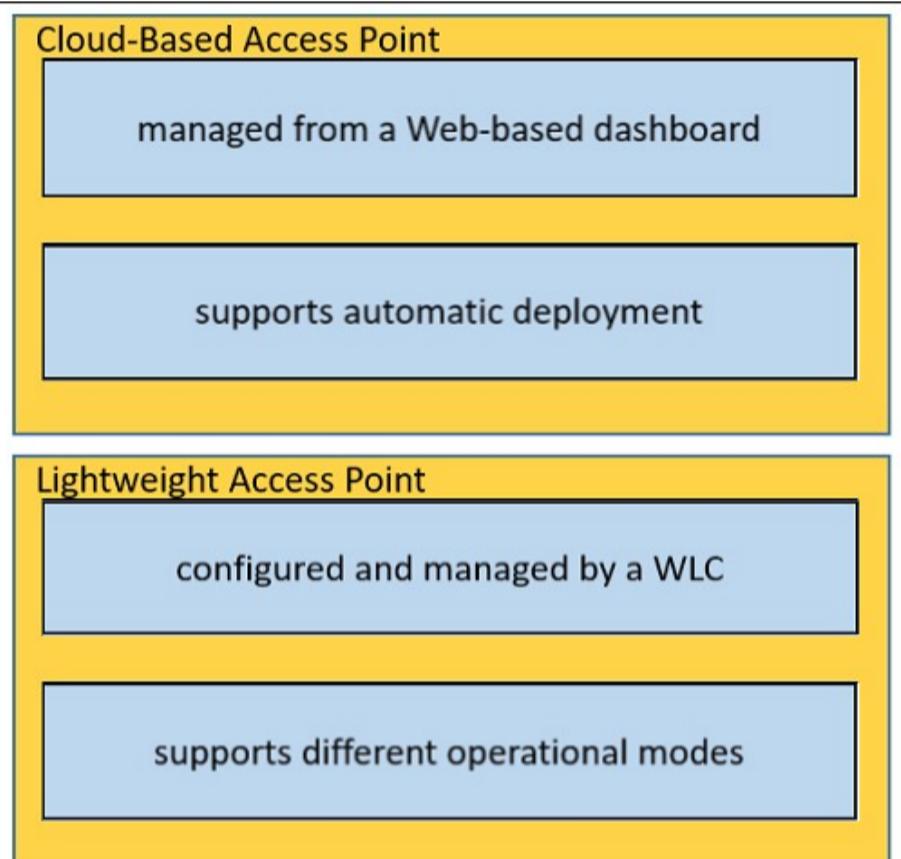
Select and Place:

- configured and managed by a WLC
- managed from a Web-based dashboard
- accessible for management via Telnet, SSH, or a Web GUI
- supports different operational modes
- supports automatic deployment



Correct Answer:

- configured and managed by a WLC
- managed from a Web-based dashboard
- accessible for management via Telnet, SSH, or a Web GUI
- supports different operational modes
- supports automatic deployment



 **huykg009** 4 months, 3 weeks ago

the answer is correct

upvoted 4 times

Question #331

What is a function of MAC learning on a switch?

- A. MAC address learning is disabled by default on all VLANs.
- B. Frames received for a destination MAC address not listed in the address table are dropped.
- C. The MAC address table is used to populate the ARP table.
- D. A static MAC address is manually added to the MAC table.

Correct Answer: D

 **dropsplable** 3 weeks, 6 days ago

Selected Answer: D

- A. Wrong - MAC address learning is generally enabled by default on switches.
- B. Wrong - in this case the next step would be to replicate the original frame to the remaining ports (flood), in order to find the destination.
- C. Wrong - MAC learning on a switch (MAC table) is not used to populate the ARP table. MAC learning takes place at the layer 2 level of the OSI model, while the ARP table is related to layer 3, the IP protocol. The ARP table is populated by the host's response frame from the searched IP address destination (ARP reply).
- D. Correct - in MAC table learning, the addresses are learned by dynamically received frames, but it can also be learned statically, adding manually, when you want to force a destination for a specific host. Perhaps, in this case the static form can be considered a form of learning.

upvoted 3 times

 **4aynick** 1 week, 6 days ago

arp is 2 layer protocol

upvoted 1 times

 **Jack67** 1 month, 3 weeks ago

Selected Answer: D

D is correct answer

upvoted 2 times

 **zamklio** 2 months, 1 week ago

D is correct!

I think MAC learning is about learning the unknown MAC Addresses, not matching the MAC addresses and IP addresses(ARP Table). Each switch has an ARP (Address Resolution Protocol) table to store the IP addresses and MAC addresses of the network devices. The ARP table is used to determine the destination MAC addresses of the network nodes, as well as the VLANs and ports from where the nodes are reached.

upvoted 2 times

 **linuxlife** 2 months, 2 weeks ago

A switch can learn MAC address in two ways; statically or dynamically. In the static option, we have to add the MAC addresses in the CAM table manually. In the dynamic option, the switch learns and adds the MAC addresses in the CAM table automatically. The switch stores the CAM table in the RAM. The RAM is a temporary memory. All contents stored in the RAM are wiped out automatically when we turn off the switch.

upvoted 3 times

 **linuxlife** 2 months, 2 weeks ago

If the switch does not find an entry for the source MAC address, it creates a new entry for this MAC address. An entry contains three pieces of information; the source MAC address, the port or interface on which the frame arrived, and the time when the frame arrived.

If the switch finds an entry for the source MAC address, it updates that entry and resets the timer of that specific entry. The switch assigns a separate timer to each entry of the CAM table. This timer is used to age out old entries from the CAM table, allowing room to store new entries. This feature is known as the Aging.

Once the CAM table is full, the switch has no place to store any new addresses. Aging resolves this issue by automatically removing the old entries from the CAM table. It keeps the MAC addresses of only those devices that are constantly sending the frames.

If any device is not sending the frames, once the timer is expired, it removes the MAC address of that device from the CAM table. In this manner, only the devices that are constantly sending frames remain in the CAM table and the devices that are not sending any frames will eventually be removed from the table.

upvoted 1 times

 **DevNetAdmin** 3 months, 1 week ago

A function of MAC learning on a switch is to dynamically build and maintain the MAC address table, which maps MAC addresses to the interfaces on the switch. The MAC address table is not used to populate the ARP table, which maps IP addresses to MAC addresses.

upvoted 2 times

 **ricky1802** 3 months, 3 weeks ago

Selected Answer: D

Correct answer is D.

MAC table - layer 2

ARP - layer 3
upvoted 4 times

✉ **4aynick** 1 week, 6 days ago
arp 2 layer protocol
upvoted 1 times

✉ **Naghini** 4 months, 3 weeks ago

Selected Answer: D

C - incorrect, MAC table is for layer 2 switches , ARP table - layer 3 (routers and hosts use it).
D - correct. A static entry in a MAC table is only possible if it's inserted manually.
upvoted 3 times

✉ **freetnowledge123** 5 months ago

ARP table: MAC to IP address learning, no relation to the MAC learning process.
D is the more correct choice.
upvoted 4 times

✉ **Goena** 5 months, 1 week ago

Selected Answer: C

The answer is C.
upvoted 2 times

✉ **remoto** 5 months, 3 weeks ago

Selected Answer: C

learning, don't is static
upvoted 1 times

✉ **Sara_Yus** 6 months, 1 week ago

Isn't it supposed to be the CAM Table?
upvoted 2 times

✉ **BakedPotato** 3 months, 2 weeks ago

CAM table, MAC-address table, ARP table, forwarding table... all the same thing.
upvoted 1 times

✉ **thomson_johnson** 2 months, 2 weeks ago

no, ARP table is for mapping IPs to MACs, CAM / MAC table is for mapping MACs to interfaces
upvoted 1 times

✉ **guisam** 6 months, 1 week ago

<https://medium.com/@cbits.sheetal0303/understanding-mac-learning-in-ccna-dc3d81a4979b>
upvoted 1 times

✉ **bruno0147** 7 months, 1 week ago

Reposta D
upvoted 1 times

✉ **arenjenkins** 7 months, 2 weeks ago

Selected Answer: C

obious
upvoted 2 times

✉ **Etidic** 7 months, 2 weeks ago

Selected Answer: C

The answer is C.
Dynamic MAC learning
upvoted 2 times

✉ **HennieB** 7 months, 3 weeks ago

Selected Answer: C

The question specifically says LEARNING. A Static MAC is not learned
upvoted 4 times

Question #332

Topic 1

What does a switch do when it receives a frame whose destination MAC address is missing from the MAC address table?

- A. It changes the checksum of the frame to a value that indicates an invalid frame.
- B. It updates the CAM table with the destination MAC address of the frame.
- C. It appends the table with a static entry for the MAC and shuts down the port.
- D. It floods the frame unchanged across all remaining ports in the incoming VLAN.

Correct Answer: D

 **MikD4016** Highly Voted 8 months, 2 weeks ago

If the address is in the table, the frame is forwarded out the port associated with the MAC address in the table. When the DESTINATION MAC address is not found in the MAC address table, the switch forwards the frame out of all ports (flooding) except for the ingress port of the frame
upvoted 5 times

 **HMaw** Most Recent 6 months, 2 weeks ago

My answer is none of them.
upvoted 3 times

 **yavuzcangiz** 7 months, 4 weeks ago

In this case destination mac is missin so it will flood the frame broadcast to the vlan except incoming port
upvoted 1 times

 **tattybizzy** 8 months ago

D is correct
upvoted 3 times

 **Bibi20** 8 months, 2 weeks ago

I think the correct answer is B
<https://www.ciscopress.com/articles/article.asp?p=2181835&seqNum=5#:~:text=If%20the%20address%20is%20in,ingress%20port%20of%20the%20frame.>
upvoted 4 times

Question #333

Topic 1

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

- A. 200 seconds
- B. 300 seconds
- C. 600 seconds
- D. 900 seconds

Correct Answer: B

✉️  **Goh0503** 8 months, 3 weeks ago

Answer is B

DETAILED STEPS

Command or Action Purpose

Step 1 switch# configure terminal Enters configuration mode.

Specifies the time before an entry ages out and is discarded from the MAC address table. The range is from 0 to 1000000; the default is 300
switch(config)# mac-address-table

aging-time seconds [vlan vlan_id]

Step 2

seconds. Entering the value 0 disables the MAC aging. If a VLAN is not specified, the aging specification applies to all VLANs.

https://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/layer2/503_n2_1/b_Cisco_n5k_layer2_config_gd_rel_503_N2_1/b_Cisco_n5k_layer2_config_gd_rel_503_N2_1_chapter_01111.pdf

upvoted 3 times

✉️  **toufa** 9 months ago

300 secondes is correct

upvoted 3 times

Question #334

A project objective is to minimize the association time to the different access points as mobile devices move around the office. The ideal solution must cover numerous devices and device types, including laptops, mobile phones, tablets and wireless printers. What must be configured?

- A. 802.11v BSS Max Idle Service
- B. 802.11v Disassociation Imminent
- C. 802.11ax BSS configure
- D. 802.11k neighbor List Dual Band

Correct Answer: B

 **splashy** Highly Voted 8 months, 3 weeks ago

Selected Answer: B

I probably did... but i do not remember seeing this in the ccna course at all

802.11v

Basic Service Set (BSS) transition management - BSS transition management with Disassociation Imminent allows the network's control layer to influence client roaming behavior by providing it the load information of nearby access points. The device takes this information into account when deciding among the possible roam targets.

Directed Multicast Service (DMS) - DMS optimizes multicast traffic transmission on wireless networks. The device uses this information to enhance multicast communication and preserve device battery life.

BSS Max Idle Service - The BSS Max Idle Service helps clients and access points efficiently decide how long to remain associated when no traffic is being transmitted. The device uses this information to preserve device battery life.

Disassociation Imminent - The Disassociation Imminent option sets a flag in 11v request telling the client that it needs to roam, or it will be disassociated after a certain amount of time.

<https://support.accessagility.com/hc/802.11k-802.11r-and-802.11v>

upvoted 10 times

 **splashy** 4 months, 3 weeks ago

When i purely "stick to the books" i have to say B

I don't know your wireless setup, i don't know the devices it needs to support.

I do however know (i hope lol) what is in the books.

You gave me an example of how it doesn't work as intended which is possible.

I didn't see two reasons, i also don't see any links to a knowledge base that supports/illustrates this example.

"The primary benefit of this option is to force sticky clients to roam" thats one of the goals of this question.

"The ideal solution must cover numerous devices and device types" This also includes older devices that don't support 5Ghz

That would not make D seem like the "ideal" sollection unless every last one of your wireless devices supports both 2.4 & 5Ghz.

Don't get me wrong i'm not disagreeing with you, in real life you would most definitely also enable D.

upvoted 1 times

 **Request7108** 5 months, 1 week ago

This answer is incorrect for two reasons - first from the practical standpoint of 11v disassociation imminent forcing the client to look for another access point, which requires off-channel scanning and some client devices panic, drop what they're doing, and search for another AP. I see this at work fairly often and no matter what, it does not help with minimizing association time. The primary benefit of this option is to force sticky clients to roam.

upvoted 2 times

 **ccna_great** 8 months, 2 weeks ago

wireless questions are the hardest ones, because they cover some topics not mentioned in OCG and even the best courses. im talking about various settings of network using GUI, there are boatload of them.

upvoted 4 times

 **RougePotatoe** Highly Voted 7 months, 1 week ago

Selected Answer: D

D. 802.11k neighbor List Dual Band

"With the neighbor list information, the 11k capable client does not need to probe all of the 2.4 GHz and 5 GHz channels to find an AP it can roam to. Not having to probe all of the channels reduces channel utilization on all channels, thereby increasing bandwidth on all channels. It also reduces roam time and improves the decisions made by the client."

https://www.cisco.com/c/en/us/td/docs/wireless/controller/technotes/5700/software/release/ios_xe_33/11rkw_DeploymentGuide/b_802point11rkw_deployment_guide_cisco_ios_xe_release33/b_802point11rkw_deployment_guide_cisco_ios_xe_release33_chapter_010.pdf

upvoted 6 times

 **Isuzu** Most Recent 3 weeks ago

802.11v BSS Max Idle Service is a feature that allows clients and access points to efficiently decide how long to remain associated when no traffic is being transmitted. This helps to preserve battery life on mobile devices.

802.11v Disassociation Imminent is a feature that allows access points to notify clients when they are about to be disassociated. This gives clients a chance to save any data that they have not yet transmitted.

802.11ax BSS configure is a feature that allows access points to be configured to support 802.11ax clients. This is not necessary for the project objective, as the project objective is to minimize the association time to the different access points as mobile devices move around the office.

802.11k neighbor List Dual Band is a feature that allows access points to maintain a list of neighboring access points on both the 2.4 GHz and 5 GHz bands. This is not necessary for the project objective, as the project objective is to minimize the association time to the different access points as mobile devices move around the office.

upvoted 1 times

 **dropspablo** 3 weeks, 3 days ago

Selected Answer: D

Enabling the ".11v Disassociation Imminent" setting alone does not automatically roam, it just signals the client that roaming is required, but does not provide information on the APs. To perform automatic roaming, it is activated together with the ".11v BSS Transition" option activated, which enables the Optimized Roaming resource, being able to send information about the APs, by "Disassociation Imminent" message. While we can directly enable ".11k Neighbor List Dual Band" which already provides customers with a list of neighbors from the same WLAN and roaming can be enabled automatically.

upvoted 1 times

 **dropspablo** 3 weeks, 3 days ago

It is recommended to use 802.11v and 802.11k together. But 802.11k is preferable for roaming as the client receives the list of neighbors in advance by management frames. And in 802.11v (with Optimized Roaming feature) the client receives information from the APs only after a "Disassociation Imminent" message.

<https://support.accessagility.com/hc/802.11k-802.11r-and-802.11v>

upvoted 1 times

 **UnbornD9** 1 month, 3 weeks ago

I feel a little disheartened... I'm searching on CCNA Official Cert Guide PDF but none of these names are reported. So. Why there is this question in the exam?

upvoted 3 times

 **hamish88** 4 months ago

As far as I understand, Disassociation Imminent option doesn't help users at all to move around.

Within a BSS Transition Management Request, the Disassociation Imminent field can be added. This function is to disassociate the client after a period of time if the client does not re-associate with another AP.

However, as we want to have the roaming option for different types of devices which are of course limited to some frequencies and channels, I go with option D.

upvoted 2 times

 **freeknowledge123** 5 months ago

802.11k: Radio optimization

802.11r: Roaming optimization

802.11v:Management

upvoted 1 times

 **Request7108** 5 months, 1 week ago

Selected Answer: D

11k neighbor lists come from the distribution system and are a range of potential roaming targets for the client. Instead of performing the normal off-channel scanning and full sweep, the client can immediately reach out on known channels for association. Of all the answers, 11k is the most helpful in fast roaming operations if the client can handle it.

upvoted 2 times

Question #335

Topic 1

Which two protocols are used by an administrator for authentication and configuration on access points? (Choose two.)

- A. 802.1Q
- B. RADIUS
- C. Kerberos
- D. TACACS+
- E. 802.1x

Correct Answer: BD

✉  **Yunus_Empire** Highly Voted 6 months ago

Everyone Who Like My Comment Will Get 95%+ on CCNA Exam..Inshallah
upvoted 88 times

✉  **Anas_Ahmad** 5 months, 1 week ago

Dua Qabool na hui to Dislike ker dun ga
upvoted 1 times

✉  **Yunus_Empire** Most Recent 6 months ago

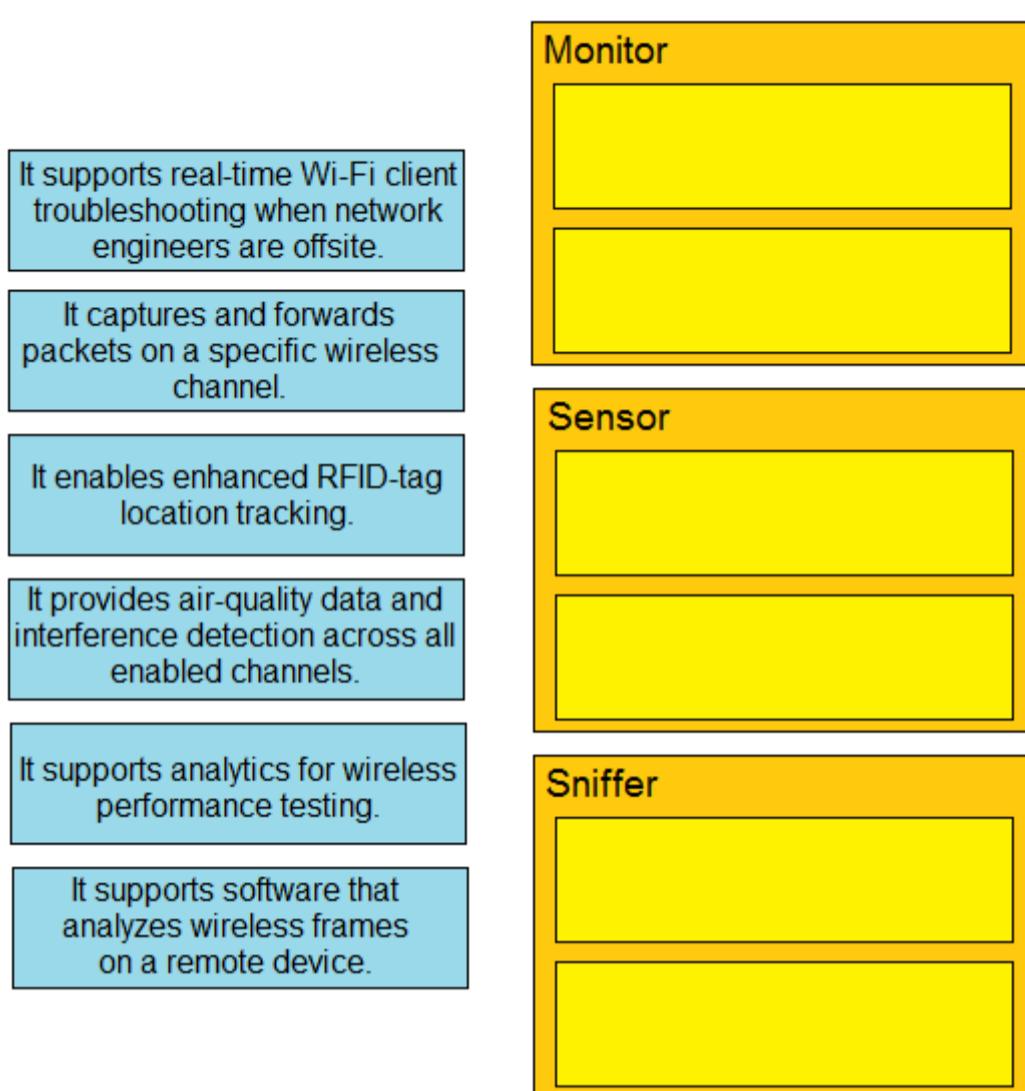
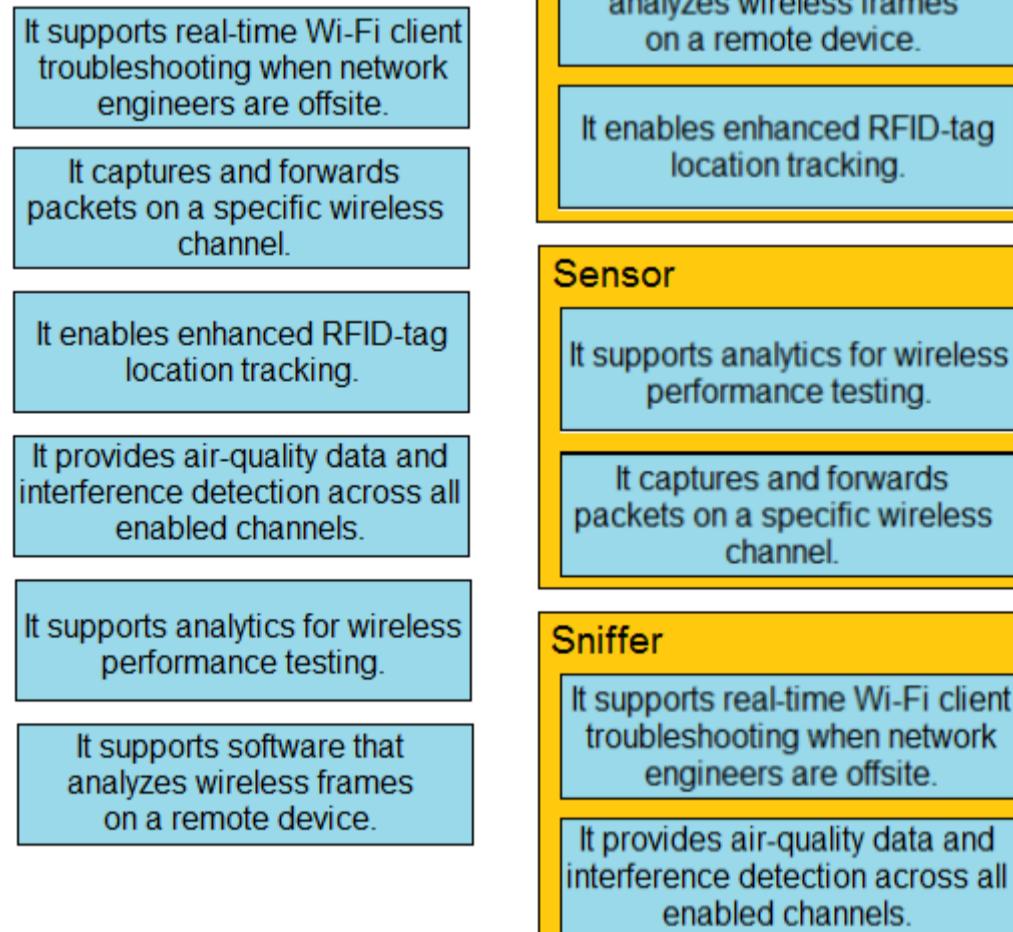
Eazy Question
upvoted 3 times

Question #336

DRAG DROP -

Drag and drop the statements about access-point modes from the left onto the corresponding modes on the right.

Select and Place:

**Correct Answer:**

PiotrMar Highly Voted 8 months, 3 weeks ago

not sure about the answers

upvoted 10 times

chuchuu Highly Voted 7 months, 2 weeks ago

Monitor

It enables RFID-tag location tracking

It supports analytics for wireless performance testing

Sensor

it supports real time wifi client troubleshooting when network engineers are offline
It supports software that analyzes wireless frames on a remote device

Sniffer

it captures and forwards packets on a specific wireless channel
It enables air-quality data and interference detection across all enabled devices

monitor mode: https://www.cisco.com/c/en/us/td/docs/wireless/controller/9800/config-guide/b_wl_16_10_cg/monitor-mode.pdf

sensor mode: https://www.cisco.com/c/en/us/td/docs/wireless/controller/9800/config-guide/b_wl_16_10_cg/b_wl_16_10_cg_chapter_01101110.pdf

sniffer mode: https://www.cisco.com/c/en/us/td/docs/wireless/controller/9800/config-guide/b_wl_16_10_cg/sniffer-mode.pdf

upvoted 6 times

✉ **chuchuu** 7 months, 2 weeks ago

sorry, I correct my answer as follows

Monitor

It enables RFID-tag location tracking

It supports software that analyzes wireless frames on a remote device

Sensor

it supports real time wifi client troubleshooting when network engineers are offline

It supports analytics for wireless performance testing

Sniffer

it captures and forwards packets on a specific wireless channel

It enables air-quality data and interference detection across all enabled devices

upvoted 1 times

✉ **dropspablo** Most Recent 3 weeks, 2 days ago

Monitor

- It enables enhanced RFID-tag location tracking.

https://www.cisco.com/c/en/us/td/docs/wireless/controller/9800/config-guide/b_wl_16_10_cg/monitor-mode.pdf

- It provides air-quality data and interference detection across all enabled channels.

https://www.cisco.com/en/US/docs/switches/lan/catalyst3650/software/release/3se/consolidated_guide/configuration_guide/b_consolidated_3850-3se_cg_chapter_011011.html#task_8022D2989BD74F1E851BBA6C30992C2E

Sensor

- It supports real-time Wi-Fi client troubleshooting when network engineers are offsite.

- It supports analytics for wireless performance testing.

https://www.cisco.com/c/en/us/td/docs/wireless/controller/9800/config-guide/b_wl_16_10_cg/monitor-mode.pdf

upvoted 1 times

✉ **dropspablo** 3 weeks, 2 days ago

Sniffer

- It captures and forwards packets on a specific wireless channel.

<https://www.cisco.com/c/en/us/support/docs/wireless-mobility/80211/200527-Fundamentals-of-802-11-Wireless-Sniffing.html>

- It supports software that analyzes wireless frames on a remote device.

https://www.cisco.com/c/en/us/td/docs/wireless/controller/9800/17-7/config-guide/b_wl_17_7_cg/m-sniffer-cg.html#:~:text=%E2%80%9Csniiffer%E2%80%9D%2C%20which%20captures%20and%20forwards%20all%20the%20packets%20on%20a%20particular%20channel%20to%20a%20remote%20machine%20that%20runs%20packet%20analyzer%20software.

upvoted 1 times

✉ **freaknowledge123** 5 months ago

one of those: is the cup half empty or half full questions

upvoted 3 times

✉ **RougePotatoe** 6 months, 3 weeks ago

From Cert guide, nothing about sensor in the book.

Monitor: The AP does not transmit at all, but its receiver is enabled to act as a dedicated sensor. The AP checks for IDS events, detects rogue access points, and determines the position of stations through location-based services.

Sniffer: An AP dedicates its radios to receiving 802.11 traffic from other sources, much like a sniffer or packet capture device. The captured traffic is then forwarded to a PC running network analyzer software such as WildPackets OmniPeek or Wireshark, where it can be analyzed further.

upvoted 4 times

✉ **RougePotatoe** 6 months, 3 weeks ago

Based off the text from the cert guide I think the following fits best.

It enables enhanced RFID-tag location tracking (bit of a stretch but location services)

It provides air-quality data and interference detection across all enabled channels (detect rogue APs)

it supports analytics for wireless performance testing

it supports real-time wifi client troubleshooting when network engineers are offsite

it supports software that analyzes wireless frames on a remote device ("forwarded to a pc")

IT captures and forwards packets on a specific wireless channel (packet capture device)

upvoted 6 times

✉  **everchosen13** 8 months, 1 week ago

Below is just one article I found. But I could not find anything about "sensor mode"
<https://ipcisco.com/lesson/wireless-access-point-modes/>

upvoted 1 times

✉  **splashy** 8 months, 3 weeks ago

Don't think that "sensor" is an official AP mode, but by elimination and using below sources i came to this result
(please correct if wrong)

Monitor

It supports analytics for wireless performance testing

It supports software that analyzes wireless frames on a remote device

Sensor

It enables RFID-tag location tracking

It enables air-quality data and interference detection across all enabled devices

Sniffer

it supports real time wifi client troubleshooting when network engineers are offline

it captures and forwards packets on a specific wireless channel

<https://community.cisco.com/t5/wireless/access-point-modes/td-p/1154701>

<https://study-ccnp.com/cisco-wireless-access-point-ap-modes-explained/>

<https://networklessons.com/cisco/ccna-200-301/cisco-wireless-ap-modes>

upvoted 2 times

✉  **ShadyAbdekmalek** 8 months, 2 weeks ago

For me it would be more logic that way :

Monitor

It supports analytics for wireless performance testing

it supports real time wifi client troubleshooting when network engineers are offline

Sensor

It enables RFID-tag location tracking

It enables air-quality data and interference detection across all enabled devices

Sniffer

It supports software that analyzes wireless frames on a remote device

it captures and forwards packets on a specific wireless channel

upvoted 13 times

✉  **ac891** 3 weeks ago

I agree with this

upvoted 1 times

✉  **EliasM** 8 months ago

Agree with Shady. The purpose of Sniffer is to capture wireless frames and send those to a remote device (wireshark for instance) for analysis.

upvoted 1 times

✉  **splashy** 8 months, 2 weeks ago

Thx for the comment,

but the description said the engineers are offsite, that made me decide to put it under sniffer.

upvoted 1 times

Question #337

A WLC sends alarms about a rogue AP, and the network administrator verifies that the alarms are caused by a legitimate autonomous AP. How must the alarms be stopped for the MAC address of the AP?

- A. Remove the AP from WLC management
- B. Place the AP into manual containment.
- C. Manually remove the AP from Pending state.
- D. Set the AP Class Type to Friendly.

Correct Answer: B

 **splashy** Highly Voted 8 months, 3 weeks ago

Keyword is "legitimate autonomous AP"

Answer is D

I think option B will kick the clients, which you probably don't want

<https://www.cisco.com/c/en/us/support/docs/wireless/4400-series-wireless-lan-controllers/112045-handling-rogue-cuwn-00.html#anc23>

<https://www.cisco.com/c/en/us/support/docs/wireless/4400-series-wireless-lan-controllers/112045-handling-rogue-cuwn-00.html#anc34>

<https://www.cisco.com/c/en/us/support/docs/wireless/4400-series-wireless-lan-controllers/112045-handling-rogue-cuwn-00.html#anc32>

Also search for "Valid client on Rogue AP" in provided links

upvoted 14 times

 **everchosen13** 8 months, 1 week ago

I agree basIn order to classify a rogue AP as friendly, malicious, or unclassified, navigate toMonitor > Rogue > Unclassified APs, and click the particular rogue AP name. Choose the option from the drop-down list, as shown in the image.ed on the article"

Taken from the article in the link

"

upvoted 2 times

 **everchosen13** 8 months, 1 week ago

Didnt paste that in so smoothly but you get my point

upvoted 1 times

 **Isuzu** Most Recent 2 weeks, 6 days ago

Selected Answer: D

A WLC will send alarms about a rogue AP when it detects an AP that is not under its management. This can happen when a legitimate autonomous AP is installed on the network. To stop the alarms, the network administrator must set the AP Class Type to Friendly. This will tell the WLC that the AP is a legitimate AP and that it should not send alarms about it.

The other options are incorrect for the following reasons:

Removing the AP from WLC management will stop the alarms, but it will also prevent the WLC from managing the AP. This is not necessary, since the AP is a legitimate AP.

Placing the AP into manual containment will stop the alarms, but it will also prevent the AP from being used by clients. This is not necessary, since the AP is a legitimate AP.

Manually removing the AP from Pending state will not stop the alarms. The WLC will continue to send alarms about the AP until the AP Class Type is set to Friendly.

upvoted 1 times

 **liviuml** 1 month, 3 weeks ago

Selected Answer: D

Answer is D.

Search for "Table 1. Classification Mapping" in following link:

https://content.cisco.com/chapter.sjs?uri=/searchable/chapter/content/en/us/td/docs/wireless/controller/7-5/configuration-guide/b_cg75/b_cg75_chapter_0111010.html.xml

Regards,

upvoted 1 times

 **Ciscoman021** 2 months, 1 week ago

Selected Answer: B

If the alarms sent by the WLC are caused by a legitimate autonomous AP, the most appropriate action to stop the alarms for the MAC address of the AP is:

- B. Place the AP into manual containment.

Manual containment is a method used to block a rogue AP and prevent it from interfering with the wireless network. It is a more targeted and less disruptive method compared to removing the AP from WLC management altogether, which would result in loss of connectivity for the AP.

upvoted 1 times

 **linuxlife** 2 months, 2 weeks ago

Rogue Classification Rules

Rogue classification rules, allow you to define a set of conditions that mark a rogue as either malicious or friendly. These rules are configured at the PI or the WLC, but they are always performed on the controller as new rogues are discovered.

upvoted 1 times

 **linuxlife** 2 months, 2 weeks ago

Rogue Containment

Containment is a method that uses over-the-air packets to temporarily interrupt service on a rogue device until it can physically be removed. Containment works with the spoof of de-authentication packets with the spoofed source address of the rogue AP so that any clients associated are kicked off.

upvoted 1 times

 **linuxlife** 2 months, 2 weeks ago

<https://www.cisco.com/c/dam/en/us/support/docs/wireless/4400-series-wireless-lan-controllers/112045-handling-rogue-cuwn-00-14.jpeg>
upvoted 1 times

 **fjori** 6 months, 1 week ago

Selected Answer: D

https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-4/configuration/guides/consolidated/b_cg74_CONSOLIDATED/b_cg74_CONSOLIDATED_chapter_010111001.html

Internal—If the unknown access point is inside the network and poses no threat to WLAN security, you would manually configure it as Friendly, Internal. An example is the access points in your lab network.

External—If the unknown access point is outside the network and poses no threat to WLAN security, you would manually configure it as Friendly, External. An example is an access point that belongs to a neighboring coffee shop.

Alert—The unknown access point is moved to Alert if it is not in the neighbor list or in the user-configured friendly MAC list.

upvoted 1 times

 **alejandro12** 6 months, 2 weeks ago

Answer is D

upvoted 2 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: D

The Answer is D

upvoted 4 times

Question #338

Topic 1

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

- A. to increase security and encrypt management frames
- B. to enable connected switch ports to failover and use different VLANs
- C. to provide link redundancy and load balancing
- D. to allow for stateful and link-state failover

Correct Answer: C

 **Vynny** 6 days, 8 hours ago

hello beautiful

upvoted 1 times

Question #339

Topic 1

When an access point is seeking to join wireless LAN controller, which message is sent to the AP-Manager interface?

- A. Discovery response
- B. DHCP request
- C. DHCP discover
- D. Discovery request

Correct Answer: C

The LAPs always connect to the management interface address of the controller first with a discovery request. The controller then tells the LAP the Layer 3 AP- manager interface (which can also be the management by default) IP address so the LAP can send a join request to the AP- manager interface next.

Reference:

<https://www.cisco.com/c/en/us/support/docs/wireless/5500-series-wireless-controllers/119286-lap-notjoin-wlc-tshoot.html>

 **YongS0925** 2 months, 3 weeks ago

S/b join request which was not listed
upvoted 1 times

 **checkoboy88** 3 months, 1 week ago

Selected Answer: D

D is the correct one
upvoted 1 times

 **daddydagoth** 3 months, 2 weeks ago

Selected Answer: D

It's bloody D. Who the hells fact checks this answers?
upvoted 2 times

 **DB_Cooper** 4 months, 1 week ago

Selected Answer: D

discovery request
upvoted 1 times

 **BreezyNet** 5 months, 1 week ago

the person that post this question and put the answer as C is a fool lmao, even the site reference he put says D is the correct answer, shaking my head.
upvoted 1 times

 **Anas_Ahmad** 5 months, 3 weeks ago

Selected Answer: D

D is right answer
upvoted 1 times

 **Elidor** 6 months, 3 weeks ago

It's D lol
upvoted 1 times

 **Drei0213** 7 months, 2 weeks ago

I think c before send a request the need to send discover first
upvoted 2 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: D
The answer is D
upvoted 1 times

 **everchosen13** 8 months, 1 week ago

Selected Answer: D
Lol its definitely D..
upvoted 2 times

 **splashy** 8 months, 3 weeks ago

Selected Answer: D

The provided link and explanation literally point to D :)
upvoted 2 times

 **Bibi20** 8 months, 3 weeks ago

Selected Answer: D

I think the right answer is D,
upvoted 2 times

 **shubhambala** 8 months, 3 weeks ago

Selected Answer: D

D people
upvoted 2 times

 **PiotrMar** 8 months, 3 weeks ago

Selected Answer: D

its a D
upvoted 2 times

 **shubhambala** 8 months, 3 weeks ago

Selected Answer: D

Right answer is D <https://mrncciew.com/2013/03/17/ap-registration/>
upvoted 4 times

Refer to the exhibit. A network engineer configures the Cisco WLC to authenticate local wireless clients against a RADIUS server. Which task must be performed to complete the process?

- A. Change the Support for CoA to Enabled
- B. Select Enable next to Management
- C. Select Enable next to Network User
- D. Change the Server Status to Disabled

Correct Answer: C

FALARASTA 1 month, 2 weeks ago

So the goal is wireless clients and not management.
upvoted 1 times

enzo86 1 month, 3 weeks ago

Selected Answer: B

Check the Management box , if you want to allow the RADIUS Server to authenticate users who login to the WLC.
(I don't want to authenticate the WLC users via RADIUS)----->NETWORK USER
<https://rscciew.wordpress.com/2014/01/25/configure-radius-server-on-wlc/>
upvoted 1 times

RougePotatoe 7 months, 1 week ago

Selected Answer: C

Network users is for authenticating the people connected to the wireless network.
Management is for authentication people who try to login to the WLC.
<https://mrncciew.com/2013/04/21/configuring-radius-on-wlc/>
upvoted 4 times

Etidic 7 months, 2 weeks ago

Selected Answer: C

Network user = enabled is a must
Management is not compulsory
"If you are not authenticating management user via RADIUS then you must disable it"
upvoted 2 times

yavuzcangiz 7 months, 4 weeks ago

Hi @everchosen13 management is not a must according to the page you have shared
upvoted 2 times

✉  **everchosen13** 8 months, 1 week ago

Don't both boxes need to be checked? Management and Network?
<https://rscciew.wordpress.com/2014/01/25/configure-radius-server-on-wlc/>

upvoted 1 times

Question #341

Topic 1

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?

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

Correct Answer: C

✉  **daddydagoth** Highly Voted 3 months, 2 weeks ago

Is this even on the CCNA?

upvoted 7 times

✉  **GigaGremlin** Most Recent 8 months ago

Answer C is correct,...

In order to support centralized access control through a centralized AAA server such as the Cisco Identity Services Engine (ISE) or ACS, the IPv6 ACL can be provisioned on a per-client basis using AAA Override attributes. In order to use this feature, the IPv6 ACL must be configured on the controller and the WLAN must be configured with the AAA Override feature enabled.

https://www.cisco.com/c/en/us/td/docs/wireless/controller/7-6/configuration-guide/b_cg76/b_cg76_chapter_0111001.pdf

upvoted 2 times

✉  **Goh0503** 8 months ago

<https://rscciew.wordpress.com/2015/01/08/dynamic-vlan-assignment-with-ac-server/>

upvoted 3 times

✉  **Hope_12** 1 month ago

Thanks for this link.

upvoted 1 times

Question #342

Topic 1

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?

```
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
```

- A. longest prefix
- B. administrative distance
- C. cost
- D. metric

Correct Answer: A

 **rlelliott** Highly Voted 1 year, 3 months ago

I saw a bunch, bunch, bunch of these on the CCNA. They were all pretty easy. Find the network that the IP fits in, look at the prefix length, if you have 1 that is longer than the rest choose that as answer. If there is more than 1 with the same longest prefix move over to AD and pick the lowest value. Once again if duplicate lowest move over to metric. Watch for the tricky non-default AD and DO NOT pick by code letter because they change ADs on some of them.

upvoted 35 times

 **ZUMY** Highly Voted 11 months, 1 week ago

A is right
Routing preference
*Longest Prefix
*AD
*Metric
upvoted 5 times

 **Ciscoman021** Most Recent 2 months, 2 weeks ago

Selected Answer: B

The route characteristic used by the router to forward the packet for the destination IP 172.16.32.1 is:

- B. administrative distance

Explanation:

From the output of the "show ip route" command, we can see that there are three different routes for the destination IP 172.16.32.1 with different routing protocols and administrative distances:

D 172.16.32.0/27[90/2888597172] via 20.1.1.1 (EIGRP)
O 172.16.32.0/19[110/292094] via 20.1.1.10 (OSPF)
R 172.16.32.0/24[120/2] via 20.1.1.3 (RIP)

The administrative distance is a measure of the trustworthiness of the source of the routing information. The lower the administrative distance, the more trustworthy the source. When there are multiple routes to the same destination, the router will choose the one with the lowest administrative distance. In this case, the route with the lowest administrative distance is the RIP route, which has an administrative distance of 120. Therefore, the router will use this route to forward packets to the destination IP 172.16.32.1.

upvoted 1 times

 **YongS0925** 3 months, 1 week ago

When a router is running multiple routing protocols and has multiple routes to the same destination network, it will use the administrative distance to determine which route to use. The administrative distance is a value assigned to each routing protocol, which indicates the trustworthiness of the routing information provided by that protocol.

In general, the router will prefer the route with the lowest administrative distance, regardless of the prefix length or any other factors. If there are multiple routes with the same administrative distance, the router will then use the longest prefix match to determine the best route.

???

upvoted 1 times

 **DevNetAdmin** 3 months, 1 week ago

A router uses longest prefix match when it has multiple routes to a destination with different prefix lengths. The router prefers the most specific prefix that matches the destination IP address bit-by-bit regardless of the cost or metric associated with each route.

upvoted 3 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: A

A is correct

upvoted 1 times

 **DARKK** 1 year ago

Selected Answer: A

/27 is the Highest prefix inclusive of the destination IP address therefore the router uses that route based on the Longest Prefix First rule.
upvoted 3 times

 **Tera_911** 1 year, 1 month ago

In the given question all routes have same prefix so it would use AD .Therefore ,it should B.

upvoted 2 times

 **DARKK** 1 year ago

That is 100% wrong buddy. /27 is the Highest prefix inclusive of the destination IP address therefore the router uses that route.

upvoted 2 times

 **ismatdmour** 1 year, 3 months ago

Selected Answer: A

Surely A. Answers B, C and D plays ahead in building the routing table while choice A (longest prefix match) plays later in selecting which route for a host that fits in the many target subnets in the routing table.

Remember first that the routing table shall have only one route to any one subnet (except for load balancing cases which needs more detail I like to skip here). Two subnets are not the same subnet if they differ in either subnet ID and/or Subnet mask.

Answer B, Administrative distance plays first to select which route to be inserted when we have 2 routes learned by the router using 2 different routing protocols. In this case the route with the lowest AD will be inserted.

Answer C (Cost for ospf) and answer D (metric in general) are used (lowest value) to select between 2 routes learned using the same protocol)

In the question, we have 3 routes to 3 different subnets, but if the host belongs to more then one (all of them in this case), we select the more specific subnet (the one with the longest match as our route)

upvoted 4 times

 **gachocop3** 1 year, 3 months ago

typo - longest prefix

upvoted 2 times

 **gachocop3** 1 year, 3 months ago

A is the correct answer

Multiple routing protocols to different destinations- longest distance.

upvoted 2 times

 **Stonetales987** 1 year, 6 months ago

It's easier to see when you convert the Network addresses to binary. I associate the longest prefix to more specific. The /27 has 27 1 bits in the network address portion of the IP vs the 24 and 19...

/27 11111111.11111111.11111111.111 00000

/24 11111111.11111111.11111111 .00000000

/19 11111111.11111111.111 00000.00000000

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8651-21.html#classless>

upvoted 4 times

 **aliwqa777** 2 years, 1 month ago

I would be glad if there is someone who can fully explain this question

upvoted 4 times

 **UmbertoReed** 2 years, 1 month ago

The way I understand it, when you have multiple routes to reach a destination, the first criteria for choosing is which one has the longest prefix. If one of the routes has a longer prefix than the other ones, that's the only criteria considered and that route is chosen.

If the routes had the same prefix length, in that case administrative distance would come into play. But since one of the routes had a longer prefix, it didn't come down to the AD.

upvoted 14 times

 **SparkySM** 1 year, 5 months ago

Good explanation UmbertoReed

upvoted 1 times

 **jerry19** 2 years, 1 month ago

To caveat, if the routes had the same AD, then the metric would be the determining factor.

upvoted 3 times

 **SScott** 1 year, 9 months ago

Right, but go back a bit before the metric and what is that primarily based on, an AD and that is calculated from the subnet mask and prefix, right? Cisco test writers are trying to determine our initial thought process with approaching and evaluating any field IP network, broadcast and routable IP issue....Choice A comes first in the perpetual flowchart.

upvoted 1 times

✉ **SScott** 1 year, 9 months ago

Right do you like cider[apple]/cidr (longest prefix) or administration/ive (distance) better -- cidr subnet calculations of course! Well a silly but effective way to remember the answer :)

upvoted 4 times

✉ **FGR1987** 1 year, 9 months ago

Always longest prefix will be elected!

upvoted 3 times

✉ **potasio101** 1 year, 11 months ago

Router Preference

*Longest Prefix

*AD

*Metric

upvoted 10 times

✉ **SScott** 1 year, 9 months ago

Yes, cisco track statements are the bomb! (prefix precedes AD). Difficult config level indeed but w/out prefix consideration/calc the AD is invalid or rather irrelevant.

<https://community.cisco.com/t5/switching/please-explain-how-the-longest-prefix-matching-works/td-p/2891235>

https://www.cisco.com/c/en/us/td/docs/routers/xr12000/software/xr12k_r3-9/system_management/command/reference/yr39xr12k_chapter10.html

https://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r3.7/system_management/command/reference/yr37obj.html

A leads to B, chicken before the egg, right but of course debatable for some

upvoted 1 times

✉ **hadesmv666** 2 years, 3 months ago

Correct Answer is A

View Making Forwarding Decisions on:<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8651-21.html>

upvoted 3 times

✉ **Nhan** 2 years, 3 months ago

Correct answer is Administrarive distance which is B

upvoted 2 times

✉ **SasithCCNA** 2 years, 3 months ago

No, in this case the longest prefix rule comes into play so answer A is correct.

upvoted 5 times

✉ **SScott** 1 year, 9 months ago

Correct, here is a good article

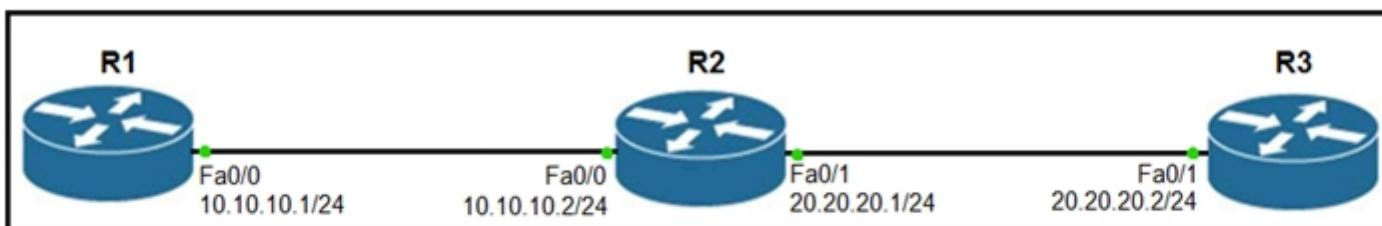
<https://www.geeksforgeeks.org/longest-prefix-matching-in-routers/>

Ouch, those people, I know.... but same networking concept. Forgive the competitor URL <https://aws.amazon.com/blogs/networking-and-content-delivery/influencing-traffic-over-hybrid-networks-using-longest-prefix-match/>

upvoted 1 times

Question #343

Refer to the exhibit. Router R1 Fa0/0 cannot ping router R3 Fa0/1. Which action must be taken in router R1 to help resolve the configuration issue?



```
R1#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, 0 - 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - DDR, P - periodic downloaded static route
```

Gateway of last resort is not set

C 10.0.0.0/24 is subnetted, 1 subnets
 10.10.10.0 is directly connected, FastEthernet0/0

```
R2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, 0 - 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - DDR, P - periodic downloaded static route
```

Gateway of last resort is not set

C 20.0.0.0/24 is subnetted, 1 subnets
 20.20.20.0 is directly connected, FastEthernet0/1
C 10.0.0.0/24 is subnetted, 1 subnets
 10.10.10.0 is directly connected, FastEthernet0/0

```
R3#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, 0 - 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - DDR, P - periodic downloaded static route
```

Gateway of last resort is not set

C 20.0.0.0/24 is subnetted, 1 subnets
 20.20.20.0 is directly connected, FastEthernet0/1
S 10.0.0.0/24 is subnetted, 1 subnets
 10.10.10.0 (1/0) via 20.20.20.1

- A. set the default gateway as 20.20.20.2
- B. configure a static route with Fa0/1 as the egress interface to reach the 20.20.2.0/24 network
- C. configure a static route with 10.10.10.2 as the next hop to reach the 20.20.20.0/24 network
- D. set the default network as 20.20.20.0/24

Correct Answer: C

vadiminski Highly Voted 2 years ago

The given answer is correct

upvoted 5 times

SScott 1 year, 9 months ago

That's it

<https://www.cisco.com/c/en/us/support/docs/dial-access/floating-static-route/118263-technote-nexthop-00.html#:~:text=A%20traceroute%20from%20the%20host%20to%20the%20Internet%20host%2010.100.1.1%20shows%20this>
upvoted 2 times

ZUMY Highly Voted 11 months, 1 week ago

C is correct

upvoted 5 times

freeknowledge123 Most Recent 5 months ago

Selected Answer: C

C is correct.

upvoted 2 times

Question #344

Topic 1

By default, how does EIGRP determine the metric of a route for the routing table?

- A. It uses the bandwidth and delay values of the path to calculate the route metric.
- B. It uses a default metric of 10 for all routes that are learned by the router.
- C. It counts the number of hops between the receiving and destination routers and uses that value as the metric.
- D. It uses a reference bandwidth and the actual bandwidth of the connected link to calculate the route metric.

Correct Answer: A

 **Harryjio** Highly Voted 2 years, 10 months ago

A- EIGRP,
C- RIP
D-OSPF
upvoted 32 times

 **Hope_12** 1 month ago

B. is use for IS - IS
upvoted 1 times

 **SScott** 1 year, 9 months ago

On point
upvoted 4 times

 **examcol** Highly Voted 2 years, 10 months ago

A is correct answer.
<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/16406-eigrp-toc.html#anc6>
upvoted 5 times

 **tyuipo** 2 years, 1 month ago

tldr:
"EIGRP uses the minimum bandwidth on the path to a destination network and the total delay to compute routing metrics"
upvoted 4 times

 **ZUMY** Most Recent 11 months, 1 week ago

A correct
upvoted 1 times

 **DARKK** 1 year ago

Selected Answer: A
A is correct
upvoted 1 times

 **Heymannicerouter** 1 year, 9 months ago

EIGRP is no longer on the CCNA exam objectives btw
upvoted 5 times

 **everchosen13** 8 months, 1 week ago

Yes but you still might see a question on the subject just not a main focus
upvoted 2 times

Question #345

Topic 1

Router R1 must send all traffic without a matching routing-table entry to 192.168.1.1. Which configuration accomplishes this task?

- A. R1#config t R1(config)#ip routing R1(config)#ip route default-route 192.168.1.1
- B. R1#config t R1(config)#ip routing R1(config)#ip route 192.168.1.1 0.0.0.0 0.0.0.0
- C. R1#config t R1(config)#ip routing R1(config)#ip route 0.0.0.0 0.0.0.0 192.168.1.1
- D. R1#config t R1(config)#ip routing R1(config)#ip default-gateway 192.168.1.1

Correct Answer: C

✉  **FloridaMan88**  2 years, 3 months ago

This text appears to be from a L3 switch. On a router there is no need to turn on (config)# "ip routing" first and then the default route command.

it should be: R1# conf t R1(config)# ip route 0.0.0.0 0.0.0.0 192.168.1.1
upvoted 12 times

✉  **Airrat** 1 year, 11 months ago

It's true
upvoted 4 times

✉  **sdokmak**  1 year, 11 months ago

This one stumped me because I figured 192.168.1.1 would be the destination address, but it should be the next hop address. So it's C
upvoted 8 times

✉  **gc999**  2 months, 3 weeks ago

For answer "C", just want to know if it would be shown on the routing table? If yes, then the answer should not be "C"
upvoted 1 times

✉  **Etidic** 7 months, 2 weeks ago

Selected Answer: C
Answer is C
upvoted 3 times

✉  **ZUMY** 11 months, 1 week ago

C is correct
upvoted 2 times

✉  **MrBadger** 1 year, 2 months ago

IP default-gateway I see this as for the switch rather than data-plane traffic, might not be a strictly true but it's a good way of thinking about its function.
upvoted 1 times

✉  **Jonfernz** 2 years, 1 month ago

Packets that do not match routes in the table must be sent to the default route. Hence the command to establish a default route is required here.
upvoted 4 times

✉  **Raymond9** 2 years, 6 months ago

"IP Default-Gateway" is usually used on switches that are not L3 switches/routers or on "hosts" "IP Route 0.0.0.0" is usually used on devices that are L3 eg Layer 3 switches/routers etc

ref:<https://ipwithease.com/difference-between-ip-default-gateway-and-ip-route-0-0-0-0/>
upvoted 4 times

✉  **TA77** 11 months, 1 week ago

Just to clarify the sentence:
"ip default-gateway" is usually used on Layer 2 switches and on hosts.
"ip route 0.0.0.0" is usually used on Layer 3 switches and on routers.
upvoted 3 times

✉  **Harryjio** 2 years, 10 months ago

Need to make subnet and mask to zero
upvoted 3 times

Question #346

Topic 1

A packet is destined for 10.10.1.22. Which static route does the router choose to forward the packet?

- A. ip route 10.10.1.0 255.255.255.240 10.10.255.1
- B. ip route 10.10.1.20 255.255.255.252 10.10.255.1
- C. ip route 10.10.1.16 255.255.255.252 10.10.255.1
- D. ip route 10.10.1.20 255.255.255.254 10.10.255.1

Correct Answer: B

 **alexiro** Highly Voted 2 years, 9 months ago

Network 10.10.1.20 /30
host range 10.10.1.21 - 10.10.1.22
upvoted 38 times

 **uevenasdf** Highly Voted 2 years, 4 months ago

10.10.1.20 /30

20 = .000101[00] network
21 = .000101[01] host
22 = .000101[10] host
23 = .000101[11] broadcast
upvoted 25 times

 **cormorant** Most Recent 7 months ago

wouldn't the router prefer the route with the longest prefix length? whatever happened to this rule?!
upvoted 2 times

 **andresfjardim** 4 months ago

The /31 would make ip's .20 and .21 on a p2p link.

It asks for .22 so answer is correct.

upvoted 1 times

 **binrayelias** 4 months, 3 weeks ago

/31 can be used as p2p
upvoted 1 times

 **binrayelias** 4 months, 3 weeks ago

I agree so I choose D as the answer
upvoted 1 times

 **bruno0147** 7 months, 1 week ago

No CCNA as perguntas são mal elaboradas dessa forma? Alguém pode nos dizer?
upvoted 1 times

 **Customexit** 7 months, 2 weeks ago

This is B for example:

GROUP SIZE: 128 64 32 16 8 [4] 2 1
SUBNET: 128 192 224 240 248 [252] 254 255
CIDR: /25 /26 /27 /28 /29 [/30] /31 /32

10.10.1.20
Group size is 4. Start at 0 and go up by 4. 4, 8, 12, 16, 20, 24.
We land on 20 so that's the network.
Notice I continued to .24 instead of stopping at .20.

.24 is the next subnet.
.23 is the broadcast.
.22 is the last usable host.
.21 is the first usable.
.20 is the network.
upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: B

B is correct

upvoted 1 times

 **ZUMY** 11 months, 1 week ago

B is right
Network portion|Host portion
30 | 2
Possible host
 $2^n = 2^2 = 4$ host
20 = .000101[00] network
21 = .000101[01] host
22 = .000101[10] host
23 = .000101[11] broadcast
upvoted 2 times

 **taiyi078** 1 year, 6 months ago

Why is it /30? Where can I find it?
upvoted 4 times

 **zizo1982** 1 year, 8 months ago

- the destined ip address is 10.10.1.22
A- the range is 10.10.1.0 to 10.10.1.15 --> wrong range
B- the range is 10.10.1.20 to 10.10.1.23 --> right range
C- the range is 10.10.1.16 to 10.10.1.19 --> wrong range
D- the range is 10.10.1.20 to 10.10.1.21 --> wrong range
So the only correct range is answer B, so B is the correct answer
if there are more than 1 correct range, then the correct answer will be the range with the longer prefix.
upvoted 8 times

 **Hoklengz** 1 year, 9 months ago

B is correct
upvoted 3 times

 **CiscoTerminator** 1 year, 9 months ago

255.255.255.254 is a /31 which means viable routes are 10.10.1.20 and 10.10.1.21 ONLY. 10.10.1.22 is left out hence why this is the wrong answer.
upvoted 1 times

 **CISCO2022** 2 years ago

Router(config-if)#ip address 192.168.0.1 255.255.255.254
Bad mask /31 for address 192.168.0.1
.254 is broadcast address for /31 not valid
the longest prefix here is .252 /30
upvoted 3 times

 **Mardin94** 2 years ago

Can someone explain for me :(
upvoted 2 times

 **shanem** 1 year, 11 months ago

It's using the longest match rule. IE, the longest subnet will be routed first. 255.255.255.254 is /30, which is longer than any of the other ranges that still include the target address.
upvoted 4 times

 **shanem** 1 year, 11 months ago

Sorry I meant 255.255.255.252
upvoted 4 times

 **DickFrancis** 2 years ago

pretty sure 255.255.255.254 is a /31 (not /30) so B is correct
upvoted 2 times

 **cormorant** 7 months ago

but wouldn't this mean that this should be chosen as it has teh longest prefix length?
upvoted 1 times

Question #347

Topic 1

EIGRP: 192.168.12.0/24
RIP: 192.168.12.0/27
OSPF: 192.168.12.0/28

Refer to the exhibit. How does the router manage traffic to 192.168.12.16?

- A. It chooses the EIGRP route because it has the lowest administrative distance.
- B. It load-balances traffic between all three routes.
- C. It chooses the OSPF route because it has the longest prefix inclusive of the destination address.
- D. It selects the RIP route because it has the longest prefix inclusive of the destination address.

Correct Answer: D

 **MM_9** Highly Voted 2 years, 5 months ago

The answer is wrong. The router can't use the network OSPF because it's another network and not include the destination address (192.168.12.0/28 --> from 192.168.12.0 to 192.168.12.15). The correct answer is D because the RIP route use a /27 subnet and include the destination address (192.168.12.0/27 --> from 192.168.12.0 to 192.168.12.31).

If i wrong please correct me

upvoted 50 times

 **Pkard** 1 year, 8 months ago

This completely depends upon if the 192.168.12.16 in the question is a destination network or host address. If it's the destination network then 192.168.12.0/28 is correct since 192.168.12.16 is a network and not a host IP. If 192.168.12.16 is a host IP then the answer is 192.168.12.0/27. In my opinion the question isn't clear but I read it as the destination network.

upvoted 12 times

 **uevenasdf** 2 years, 4 months ago

You're right C is wrong D is correct
upvoted 9 times

 **thegolden3** 2 years, 2 months ago

yes, D is correct because the C addresses are 192.168.12.0-> subnet address and the last 192.168.12.15-> broadcast address
upvoted 5 times

 **SScott** 1 year, 9 months ago

D is correct. C is wrong since 192.168.12.16 is outside the host address range; therefore, a mask of 255.255.255.224 is able to route traffic properly with RIP /27
upvoted 6 times

 **Ali526** Highly Voted 2 years, 5 months ago

D is correct. OSPF with /28 does NOT include .16, stops at .14, .15 broadcast.
upvoted 17 times

 **IxlJustinIxl** 2 years ago

And even if they wanted to make this a 'trickier' question, they should have had the last one as 192.168.12.16/28. It would include the address in the range but answer would still be D since .16 would be network address. Basically, a .16 address on a /28 network can never be a host address.
upvoted 3 times

 **daddydagoth** 3 months, 2 weeks ago

Even if it is not a host address, I am pretty sure the router will still chose the OSPF route in the case you described.
upvoted 1 times

 **binrayelias** Most Recent 4 months, 3 weeks ago

C is the answer. For IPv4, the destination address can be a host, network, subnetwork, supernetwork, or default address.
<https://www.ibm.com/docs/en/zos/2.4.0?topic=panel-destination-address>
upvoted 1 times

 **binrayelias** 4 months, 3 weeks ago

I take back C and choose D as the answer cuz since in /27 only stops at 15 so it is not inclusive in the dest address.
upvoted 1 times

 **atika870** 5 months, 1 week ago

D. It selects the RIP route because it has the longest prefix inclusive of the destination address.

I've seen this question somewhere else and the answer they gave for OSPF here wasn't the same, just think they trying to trick people but I hope what I shared can help anyone here new looking for explanation to this question like me.

A router evaluates routes in the following order.

1. Prefix Length - The longest-matching route is preferred first. Prefix length trumps all other route attributes.
2. Administrative Distance - In the event there are multiple routes to a destination with the same prefix length, the route learned by the protocol with the lowest administrative distance is preferred.
3. Metric - In the event there are multiple routes learned by the same protocol with same prefix length, the route with the lowest metric is preferred. (If two or more of these routes have equal metrics, load balancing across them may occur.)

upvoted 2 times

Etidic 7 months, 2 weeks ago

Selected Answer: D

D is correct

upvoted 2 times

everchosen13 8 months, 1 week ago

D is correct it would use RIP.

/28 = 0 - 15. 16 is out of the scope

upvoted 1 times

ZUMY 11 months, 1 week ago

D is correct

upvoted 1 times

DARKK 1 year ago

Selected Answer: D

D is correct, I choses Rip because OSPF (/28) Is not inclusive of the IP address. 0-15 = 16 IPs = /28. RIP is because /27 = 32 IPs, 0-31

upvoted 1 times

dave1992 1 year, 5 months ago

Selected Answer: D

D longest prefix

upvoted 2 times

Anarckii 1 year, 6 months ago

Selected Answer: D

C is the only other "closest" subnet but the broadcast ends at .15 and the next Subnet ID would be .16 which couldn't be used as the first IP address. So D would be correct with an address range from .1-.30

upvoted 2 times

shakyak 1 year, 7 months ago

RIP is correct, $32-28 = 4$, $2^4=16$

usable IP range is 192.168.12.0 -192.168.12.15 so OSPF doesn't cover the network.

upvoted 3 times

kokoyul 1 year, 8 months ago

D es la correcta: https://www.cisco.com/c/es_mx/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8651-21.html

upvoted 1 times

Adekoya_Oluwatobi 1 year, 9 months ago

I think the correct answer is A. I believe that when a router is using different routing protocols, the protocol with the lowest administrative distance (EIGRP in this case) is used to route the packet.

EIGRP - 90

RIP - 120

OSPF - 110

upvoted 2 times

RougePotatoe 7 months, 1 week ago

His assumption is incorrect. administrative distance only come into play when the networks are the same. /24, /27, and /28 are different networks. Thus the network with the closest match will be selected; in this case it is /27 because /28 doesn't include .16 as it is the start of a different network.

upvoted 2 times

Chenet 1 year, 8 months ago

You are Lost my friend!

upvoted 7 times

illuded03jolted 12 months ago

1. Longest Prefix
2. Administrative distance
3. Metric

upvoted 2 times

Pamirt 1 year, 10 months ago

D is the correct answer.

upvoted 3 times

 **kardashian25** 1 year, 10 months ago

very wrong answer .

.16 is not included to /28 network so the answer has to be RIP

please do change it. thank you

upvoted 3 times

 **CiscoTerminator** 1 year, 10 months ago

C is definitely wrong as it does not accommodate .16 in that subnet. D is the correct answer!

upvoted 2 times

 **LLAMBRA** 1 year, 10 months ago

I believe in the answer the right answer It has to be the RIP.

The /28 mask only gives 15 hosts and does not include the IP 192.168.12.16.

The /27 mask has 30 IP available. And this includes the IP 192.168.12.16.

The correct answer must be RIP

upvoted 2 times

Question #348

Topic 1

What are two reasons for an engineer to configure a floating static route? (Choose two.)

- A. to enable fallback static routing when the dynamic routing protocol fails
- B. to route traffic differently based on the source IP of the packet
- C. to automatically route traffic on a secondary path when the primary path goes down
- D. to support load balancing via static routing
- E. to control the return path of traffic that is sent from the router

Correct Answer: AC

 **dicksonpwc** Highly Voted  1 year, 10 months ago

Floating static routes are static routes that have an administrative distance greater than the administrative distance of dynamic routes.

Administrative distances can be configured on a static route so that the static route is less desirable than a dynamic route. In this manner, the static route is not used when the dynamic route is available. However, if the dynamic route is lost, the static route can take over, and traffic can be sent through this alternate route. If this alternate route is provided using a DDR interface, then that interface can be used as a backup mechanism.

Used when primary route is Not available.

upvoted 19 times

 **country_rooted** Most Recent  2 months, 1 week ago

The answer is literally the same. Just said 2 different ways

upvoted 2 times

 **DoBronx** 7 months, 1 week ago

Selected Answer: AC

A and C are literally the same

upvoted 3 times

 **ZUMY** 11 months ago

A & C are correct

upvoted 3 times

 **jacks** 1 year ago

Selected Answer: AC

YES A and C

upvoted 3 times

 **iGlitch** 1 year, 1 month ago

A and C are the same thing with different wording. :)

upvoted 4 times

Question #349

Topic 1

R1# show ip route

D	192.168.10.0/24	[90/2679326] via 192.168.1.1
R	192.168.10.0/27	[120/3] via 192.168.1.2
O	192.168.10.0/23	[110/2] via 192.168.1.3
i L1	192.168.10.0/13	[115/30] via 192.168.1.4

Refer to the exhibit. How does router R1 handle traffic to 192.168.10.16?

- A. It selects the IS-IS route because it has the shortest prefix inclusive of the destination address
- B. It selects the RIP route because it has the longest prefix inclusive of the destination address
- C. It selects the OSPF route because it has the lowest cost
- D. It selects the EIGRP route because it has the lowest administrative distance

Correct Answer: B

 **Stonetales987** Highly Voted  1 year, 6 months ago

B is correct.

1. Longest Prefix
2. Administrative distance
3. Metric

<https://packetlife.net/blog/2010/aug/16/route-preference/>

upvoted 8 times

 **ZUMY** Most Recent  11 months ago

B is correct

Routing preference
Longest prefix
AD
Metric
upvoted 1 times

 **shaz938** 1 year, 8 months ago

Answer B is correct. Uses RIP route since its the longest prefix match

upvoted 1 times

 **Adekoya_Oluwatobi** 1 year, 9 months ago

The answer is D

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/15986-admin-distance.html>

upvoted 1 times

 **Malojizter** 1 year, 9 months ago

This would be true, except the routes don't point to the same subnet, so prefix length would be used instead

upvoted 2 times

Question #350

Topic 1

IBGP route 10.0.0.0/30
RIP route 10.0.0.0/30
OSPF route 10.0.0.0/16
OSPF route 10.0.0.0/30
EIGRP route 10.0.0.1/32

Refer to the exhibit. A router received these five routes from different routing information sources. Which two routes does the router install in its routing table?

(Choose two.)

- A. OSPF route 10.0.0.0/30
- B. IBGP route 10.0.0.0/30
- C. OSPF route 10.0.0.0/16
- D. EIGRP route 10.0.0.1/32
- E. RIP route 10.0.0.0/30

Correct Answer: AD

✉  **ismatdmour** Highly Voted 1 year, 3 months ago

We have 3 correct answers not 2 !

One route to 10.0.0.0/30 selected from the 3 routes IBGP/OSPF and RIP (OSPF is correct option A)

One route to a host 10.0.0.1/32 (D) EIGRP

One route to 10.0.0.0/16 OSPF (C)

A D and C are correct ?

upvoted 18 times

✉  **g_mindset** 9 months, 3 weeks ago

totally agree! 3 correct answer here: A, C, & D.

upvoted 2 times

✉  **GreatDane** Highly Voted 11 months, 1 week ago

Ref: Route Selection in Cisco Routers - Cisco

..."

Summary

The LONGEST PREFIX MATCH always wins among the routes actually installed in the routing table, while the routing protocol with the LOWEST ADMINISTRATIVE DISTANCE always wins when installing routes into the routing table.

..."

You have 5 routes from 4 different routing protocols. Two of these routes are from OSPF: the router must choose (between them) which one to install in the routing table, and here the longest prefix match criteria wins (router chooses OSPF route 10.0.0.0/30).

Now, you have 4 routes. 3 routes are all /30 routes (same prefix length): the router chooses on the basis of lowest administrative distance, and OSPF wins (administrative distance for these protocols is OSPF 110, which is lower than RIP 120, which is lower than BGP 200).

The last route is an EIGRP one, and this is also a host route (look at the /32 prefix). There can't be a longest prefix than a host route. Also, this route doesn't have to compete with any other route to be installed in the routing table. So, this route is the router's second choice.

Answers A and D are correct.

upvoted 9 times

✉  **DixieNormus** 9 months ago

Googling your reference found me this link:

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8651-21.html>

From your reference:

Let's look at another scenario to see how the router handles another common situation: varying prefix lengths. Assume, again, that a router has four routing processes running on it, and each process has received these routes:

EIGRP (internal): 192.168.32.0/26

RIP: 192.168.32.0/24

OSPF: 192.168.32.0/19

Which of these routes will be installed in the routing table? Since EIGRP internal routes have the best administrative distance, it's tempting to assume the first one will be installed. However, since each of these routes has a different prefix length (subnet mask), they're considered different destinations, and they will all be installed in the routing table.

upvoted 1 times

 **daddydagoth** [Most Recent] 3 months, 2 weeks ago

Selected Answer: AD

ADC are the correct answers. This is a misleading question that wouldn't come up like this in the actual exam.

upvoted 1 times

 **dick3311** 7 months, 1 week ago

Selected Answer: CD

I think is CD cause they have different subnet mask

upvoted 2 times

 **DoBronx** 7 months, 1 week ago

Selected Answer: AD

I chose ADC

upvoted 1 times

 **splashy** 8 months, 3 weeks ago

This question is BAF and should have three correct answers A C D

riddle me this riddle me that:

If every host route would "win" from a non host (subnet) route in the routing table, how do you think you will be able to ping other hosts in the subnets those host routes are in?

upvoted 3 times

 **dipanjana1990** 10 months, 2 weeks ago

there will be three correct answers. One will be selected among the three /30 mask, other one will be /16 mask and last one will be /32 mask. among the three /30 mask routes, Ospf will be selected since Ospf has lowest AD which is 110 whereas RIP has AD value of 120 and iBGP has AD value of 200.

upvoted 3 times

 **nander** 10 months, 1 week ago

Agree. /16 network should be added to the routing table too.

upvoted 1 times

 **ZUMY** 11 months ago

A & D are correct

upvoted 1 times

 **AWSEMA** 11 months, 2 weeks ago

JUST ONE ROUTE IN THE ROUTING TABLE WILL APPEAR (EIGRP) !!! why they say 2 ???

upvoted 1 times

 **bitree** 1 year, 2 months ago

source: <https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8651-21.html>

according to cisco, 3 routes will be installed, because different subnets mean different destinations. Moot question

upvoted 2 times

 **bitree** 1 year, 2 months ago

actually 4 routes will get installed. all but the RIP route for 10.0.0.0/32 will get installed.

upvoted 1 times

 **i_am_confused** 12 months ago

No, the IBGP route will definitely not be installed either because IBGP has a higher AD than OSPF.

upvoted 2 times

 **gachocop3** 1 year, 2 months ago

A&D

The longest-matching route is preferred first.

In the event, there are multiple routes to a destination with the same prefix length, the route learned by the protocol with the lowest administrative distance is preferred.

upvoted 2 times

 **DixieNormus** 9 months ago

That is only for making forwarding decisions, not for determining what gets put on the routing table.

upvoted 1 times

 **dannysolisa** 1 year, 4 months ago

Selected Answer: AD

A and D b/c IBGP has 200 of AD

upvoted 9 times

 **dannysolisa** 1 year, 4 months ago

Route Source Default Distance Values
Connected interface 0
Static route 1
Enhanced Interior Gateway Routing Protocol (EIGRP) summary route 5
External Border Gateway Protocol (BGP) 20
Internal EIGRP 90
IGRP 100
OSPF 110
Intermediate System-to-Intermediate System (IS-IS) 115
Routing Information Protocol (RIP) 120
Exterior Gateway Protocol (EGP) 140
On Demand Routing (ODR) 160
External EIGRP 170
Internal BGP 200
upvoted 6 times

 **LilGhost_404** 1 year, 4 months ago

Selected Answer: AD
First it win the longes prefix = EIGRP, after that the next longest prefix is a tie, then lowest administrative distance = OSPF
upvoted 1 times

 **Armoonbear** 1 year, 4 months ago

Selected Answer: BD
Answer BD

Administrative distances are
IBGP - 20
EIGRP - 90
OSPF - 110
RIP - 120

IBGP and EIGRP has lowest AD (Administrative distance) leading the router to install it in its routing table.
upvoted 1 times

 **Dante_Dan** 1 year, 4 months ago

Actually no. The Administrative Distance of IBGP (Internal BGP) is 200.

DO NOT confuse with EBGP (External BGP) which it has and Administrative distance of 20.
upvoted 9 times

 **kijken** 1 year, 4 months ago

Selected Answer: BD
IBGP has lower administrative distance. Should be
upvoted 2 times

 **Dante_Dan** 1 year, 4 months ago

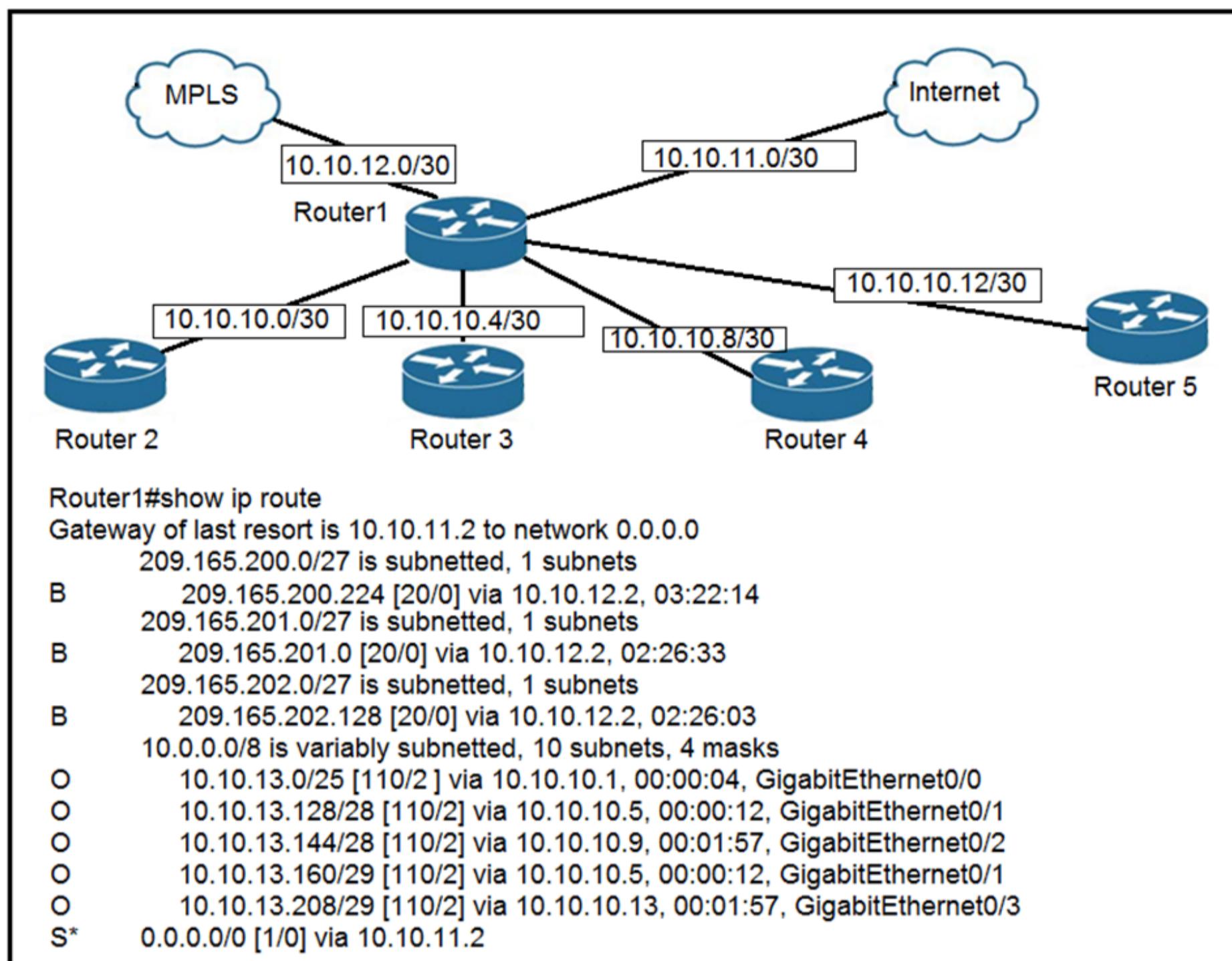
Actually no. The Administrative Distance of IBGP (Internal BGP) is 200.

DO NOT confuse with EBGP (External BGP) which it has and Administrative distance of 20.
upvoted 8 times

 **bhurishravas** 1 year, 5 months ago

Selected Answer: AD
because EIGRP and OSPF has shortest admin. distance
upvoted 2 times

Question #351



Refer to the exhibit. To which device does Router1 send packets that are destined to host 10.10.13.165?

- A. Router2
- B. Router3
- C. Router4
- D. Router5

Correct Answer: B

TheLorenz Highly Voted 1 year, 2 months ago

Here's a short subnet chart. You can write down a chart before the test starts

/32 - 1
 /31 - 2
 /30 - 4
 /29 - 8
 /28 - 16
 /27 - 32
 /26 - 64
 /25 - 128
 /24 - 256
 /23 - 514

Check the routing table and look for a subnet that fits the 10.10.13.165 IP address. the only one that fits is 10.10.13.160/29. As you can see in this chart, /29 is equal to 8 total addresses and 6 total hosts (You have to subtract 2 from the total number of addresses to get the amount of hosts). 10.10.13.160 +6 = 166 which is the last usable address for 10.10.13.160/29. You pretty much do the same thing to find the router it'll send it out of.

upvoted 16 times

BeautifulSmile 3 weeks ago

Perfectly explained.

upvoted 1 times

✉  **Liuka_92** 1 year ago

Great!
upvoted 2 times

✉  **Caoimhaoin** 12 months ago

/23 - 512
upvoted 5 times

✉  **DatBroNZ**  1 year, 2 months ago

Selected Answer: B

Router 3 is the correct answer. Hard question. Need to be well versed on subnetting.

The subnet on the routing table that has 10.10.13.165 is the 10.10.13.160/29.

The 10.10.13.160/29 subnet is routed via 10.10.10.5 which is one of the usable hosts on the subnet between R1 and R3.

So the host 10.10.13.165 is reachable via R3.
upvoted 12 times

✉  **daddydagoth**  3 months, 2 weeks ago

Selected Answer: B

B is correct, refer to the explanations by TheLorenz and DatBroNZ
upvoted 1 times

✉  **HMaw** 6 months, 2 weeks ago

Selected Answer: B

/28 = 248 and increment is 16
/29 = 240 and increment is 8

Destined host IP = 10.10.13.165

160 network host range for /28 is 160-175. Usable IP 161-174
160 network host range for /29 is 160-167. Usable IP 161-166

So we go with /29

O 10.10.13.160/29 [110/2] via 1010.10.5

Router 3 network is 10.10.10.4/30 increment is 4
Usable IP for 10.10.10.4/30 network is 5 and 6

Router 3 WAN IP are 10.10.10.5 and 10.10.10.6
upvoted 4 times

✉  **dosu01** 8 months, 2 weeks ago

Selected Answer: B

I'ts B
upvoted 1 times

✉  **GreatDane** 11 months, 1 week ago

1. Which route, inside the routing table, includes address 10.10.13.165? It's the route to subnet 10.10.13.160/29. This subnet has the following characteristics:

/29 means 3 bits in the host ID -> $2^3 - 2 = 6$ IP addresses.

1st IP address = 10.10.13.161
Last IP address 10.10.13.166

2. Which is the exit interface for this route?

It's Ge0/1, which leads to IP 10.10.10.5 (the next-hop for this route).

3. Which subnet, among those shown in the exhibit, includes the next-hop's IP address? It's subnet 10.10.10.4/30. Again:

/30 means 2 bits in the host ID -> $2^2 - 2 = 2$ IP addresses.

1st IP address = 10.10.10.5
Last IP address 10.10.10.6

The next-hop is inside this subnet and it's Router 3. The remaining IP address, 10.10.10.6, is Router 1's Ge0/1 IP address.

A. Router2

Wrong answer.

B. Router3

Correct answer.

C. Router4

Wrong answer.

D. Router5

Wrong answer.

upvoted 3 times

cheerios_aregreat 1 year, 3 months ago

I am trying to figure out why I cant access the Microsoft Azure 900 Fundamentals exam questions. I was on it a couple mins ago and I started getting an error and BOOM it just disappeared. Microsoft as an option has disappeared from the VIEW ALL EXAMS tab. There is no contact information for these people and when I click on CONTACT US it just sends me back to the bottom of the page? Help.

upvoted 2 times

LOST40 1 year, 3 months ago

maybe they want want you to be a contributor?

upvoted 1 times

bootloader_jack 1 year, 4 months ago

First we need to check routing table to find out which network 10.10.13.165 IP address belongs to.

If we check routing table, 10.10.13.160/29 IP address/Mask combination covers the following IP addresses: 10.10.13.160 (network address), 10.10.13.161, 10.10.13.162, 10.10.13.163, 10.10.13.164, 10.10.13.165, 10.10.13.166, 10.10.13.167 (Broadcast address). Since the address to go is 10.10.13.165, the network it is in is 10.10.13.160/29.

But, In order to go 10.10.13.160/29 network, we need to pass from 10.10.10.5 next hop address. The question asks us which router has that address. In order to find it, we need to look at question. We see many 10.10.10.X/30 networks. If we analyse 10.10.10.4/30, we see that it covers 10.10.10.4 (network address), 10.10.10.5, 10.10.10.6 and 10.10.10.7(broadcast address) addresses. So 10.10.10.5 address belongs to 10.10.10.4/30 network which is between router1 and router3. So the answer is Router3.

upvoted 2 times

SparkySM 1 year, 5 months ago

idk why it says r3 , I think its r4

upvoted 1 times

andrewmutava 1 year, 5 months ago

can someone explain this to me please,i am lost

upvoted 2 times

Jdant 1 year, 4 months ago

The answer is B

The IP address 10.10.13.165 falls into the subnet of 10.10.13.160/29. Network address of the network is 10.10.13.160 with a broadcast address of 10.10.13.167. The route table says that anything that falls into that network is to be routed to 10.10.10.5 on interface Gei0/1. The IP address 10.10.10.5 belongs to the 10.10.10.4/30 network which connects to Router 3.

upvoted 6 times

gachocop3 1 year, 3 months ago

thank you!

upvoted 1 times

LOST40 1 year, 3 months ago

Yes, this is my understanding as well.

upvoted 1 times

hassanhady 1 year, 5 months ago

can any one explain it tome please ?

upvoted 2 times

Question #352

Topic 1

R1 has learned route 10.10.10.0/24 via numerous routing protocols. Which route is installed?

- A. route with the next hop that has the highest IP
- B. route with the lowest cost
- C. route with the lowest administrative distance
- D. route with the shortest prefix length

Correct Answer: C

 **diamcle** Highly Voted 2 years, 7 months ago

Route Preference:

1. Longest Prefix
2. Administrative Distance
3. Metric

In this specific question, the first option is: Administrative Distance.

upvoted 19 times

 **sinear** 2 years, 4 months ago

Those rules u mention are for the route selection. Here the question is about route insertion. Longest Prefix does not play a role for inserting in the table, only for selecting a route.

upvoted 18 times

 **packitrl3lgud** 2 years, 3 months ago

Sinear is correct.

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8651-21.html>

"The longest prefix match always wins among the routes actually installed in the routing table, while the routing protocol with the lowest administrative distance always wins when installing routes into the routing table."

upvoted 14 times

 **oooMooo** 2 years, 1 month ago

Nice quote!

upvoted 3 times

 **ZUMY** Most Recent 11 months ago

C is correct

upvoted 1 times

 **GreatDane** 11 months, 1 week ago

Ref: Route Selection in Cisco Routers – Cisco

..."

Building the Routing Table

..."

As each routing process receives updates and other information, it chooses the best path to any given destination and attempts to install this path into the routing table. For instance, if EIGRP learns of a path toward 10.1.1.0/24, and decides this particular path is the best EIGRP path to this destination, it tries to install the path it has learned into the routing table.

The router decides whether or not to install the routes presented by the routing processes based on the administrative distance of the route in question. If this path has the lowest administrative distance to this destination (when compared to the other routes in the table), it's installed in the routing table. If this route isn't the route with the best administrative distance, then the route is rejected.

..."

A. route with the next hop that has the highest IP

Wrong answer.

B. route with the lowest cost

Wrong answer.

C. route with the lowest administrative distance

Correct answer.

D. route with the shortest prefix length

Wrong answer.

upvoted 1 times

 **Anarckii** 1 year, 6 months ago

Selected Answer: C

Installed and input are the same thing, don't overthink it. The reason the answer is C is because longest prefix isn't mentioned in one of the answers. So the next best thing to think of is the lowest admin distance

upvoted 1 times

 **Naj_Val** 1 year, 5 months ago

The answer is indeed C, but I'd like to correct an inaccuracy in your reasoning. The length of the prefix is the same for all of the routes, as is stated in the question. "R1 has learned route 10.10.10.0/24 via numerous routing protocols", meaning the prefix length is the same. Therefore, the next most relevant parameter is AD.

upvoted 3 times

 **4guysgaming** 1 year, 11 months ago

Why does the question say "lowest" admin distance instead of higher?

upvoted 1 times

 **Taku2023** 2 months, 1 week ago

don't confuse longest prefix and high administrative distance

upvoted 1 times

 **yasyas** 1 year, 6 months ago

lowest distance = highest priority

upvoted 1 times

 **Genshin** 1 year, 8 months ago

because when the router is trying to determine which route it wants in its table, it will choose the "lowest" (the shortest path).

upvoted 2 times

Question #353

Topic 1

Which two minimum parameters must be configured on an active interface to enable OSPFv2 to operate? (Choose two.)

- A. OSPF process ID
- B. OSPF MD5 authentication key
- C. OSPF stub flag
- D. IPv6 address
- E. OSPF area

Correct Answer: AE

 **M3rc3r08** Highly Voted 1 year, 10 months ago

Also, OSPFv2 does not advertise IPv6 addresses. That's OSPFv3.
upvoted 10 times

 **SScott** Highly Voted 1 year, 9 months ago

Answers are correct.
<https://www.pearsonitcertification.com/articles/article.aspx?p=1868078#:~:text=2,area%20area-id>

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xe-3e/iro-xe-3e-book/iro-mode-ospfv2.pdf

[https://www.ietf.org/rfc/rfc2328.txt#:~:text=Area%20ID%0A%20The%20OSPF%20area%20that%20he%20packet%20is%20being%20sent%20into](https://www.ietf.org/rfc/rfc2328.txt#:~:text=Area%20ID%0A%20%20%20%20%20%20%20%20%20%20%20%20The%20OSPF%20area%20that%20he%20packet%20is%20being%20sent%20into)
upvoted 5 times

 **dbc0ol22** Most Recent 10 months, 1 week ago

Selected Answer: AE
Key word is "enable", this is not pertaining to adjacency with neighbors.
upvoted 1 times

 **ZUMY** 11 months ago

A and E are correct
upvoted 1 times

 **GreatDane** 11 months, 1 week ago

Ref: Cisco Nexus 7000 Series NX-OS Unicast Routing Configuration Guide, Release 5.x

...
Configuring Networks in OSPFv2
...

SUMMARY STEPS

1. configure terminal
 2. interface interface-type slot/port
 3. ip address ip-prefix/length
 4. ip router ospf instance-tag area area-id [secondaries none]
- ..."

A. OSPF process ID

Correct answer.

B. OSPF MD5 authentication key

Wrong answer.

C. OSPF stub flag

Wrong answer.

D. IPv6 address

Wrong answer.

E. OSPF area

Correct answer.

upvoted 1 times

✉  **timskis2** 1 year ago

THAT IS IN CORRECT. they need an ip so they can be part of the DR/BDR process if they dont have a router id. (which is not one of the options) because "process id is only "locally" important.

upvoted 1 times

✉  **DixieNormus** 9 months ago

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/iro-xe-3s-book/iro-mode-ospfv2.html#GUID-C7538EF0-66B0-4F5A-896D-ED91EE5BC3CC

Enabling OSPFv2 on an Interface

SUMMARY STEPS

1. enable
2. configure terminal
3. interface type number
4. ip ospf process-id area area-id [secondaries none]
5. end
6. show ip ospf interface [type -number]

step 4 requires both a process ID and area ID

upvoted 2 times

✉  **zalogue98** 1 year, 1 month ago

If there is only one area you do not have to specify there is an area 0

upvoted 1 times

✉  **Nicocisco** 1 year, 3 months ago

Ip ospf <process_id> area <area_id>

A E

upvoted 1 times

✉  **NORLI** 1 year, 1 month ago

The process don't need to match for ospf to come up

upvoted 2 times

✉  **Dking001** 1 year, 11 months ago

No...

You don't need ipv6 address to setup ospfv2

upvoted 2 times

✉  **distortion** 1 year, 11 months ago

Shouldn't it also need to have an IPv6 Address before anything can happen?

upvoted 2 times

✉  **SScott** 1 year, 9 months ago

An IPv6 address will not work as OSPFv2 runs over IPv4 only.

<https://www.networkworld.com/article/2298648/chapter-9--ospfv3.html#:~:text=Another%20similarity%20to%20the%20relationship%20of%20RIPng%20to%20RIPv2%20is%20that%20OSPFv3%20is%20not%20backward-compatible%20with%20OSPFv2.%20So%20if%20you%20want%20to%20use%20OSPF%20to%20route%20both%20IPv4%20and%20IPv6%2C%20you%20must%20run%20both%20OSPFv2%20and%20OSPFv3>

upvoted 1 times

Question #354

Refer to the exhibit. What commands are needed to add a sub-interface to Ethernet0/0 on R1 to allow for VLAN 20, with IP address 10.20.20.1/24?

R1:	SW1:	SW2:
<pre>interface Ethernet0/0 no ip address !</pre>	<pre>interface Ethernet0/0 switchport trunk encapsulation dot1q switchport mode trunk ! interface Ethernet0/1 switchport trunk allowed vlan 10 switchport trunk encapsulation dot1q switchport mode trunk</pre>	<pre>interface Ethernet0/1 switchport trunk encapsulation dot1q switchport mode trunk ! interface Ethernet0/2 switchport access vlan 20 switchport mode access</pre>

- A. R1(config)#interface ethernet0/0 R1(config-if)#encapsulation dot1q 20 R1(config-if)#ip address 10.20.20.1 255.255.255.0
- B. R1(config)#interface ethernet0/0.20 R1(config-if)#encapsulation dot1q 20 R1(config-if)#ip address 10.20.20.1 255.255.255.0
- C. R1(config)#interface ethernet0/0.20 R1(config-if)#ip address 10.20.20.1 255.255.255.0
- D. R1(config)#interface ethernet0/0 R1(config-if)#ip address 10.20.20.1 255.255.255.0

Correct Answer: B

 **ZayaB** Highly Voted 2 years, 3 months ago

For a Router on a stick, you need to:

1. create a sub-interface
2. encapsulate dot1q with the VLAN ID
3. Assign an IP address

upvoted 32 times

 **ZUMY** Most Recent 11 months ago

B is correct

upvoted 1 times

 **MonaHamed** 1 year, 4 months ago

isn't that topic cancelled in 200-301?

upvoted 4 times

 **Nickname53796** 1 year ago

No, Cisco wants to trick us.

upvoted 3 times

 **jerry19** 2 years, 1 month ago

Answer B, sidenotes you must enter encap dot1q 20, in this case or you won't be able to enable 802.1q (and have vlan cross communications). The next step after you perform steps Zaya outlined would be to add your native subinterface. Which would entail "encap dot1q x native" with x being the native vlan. Native vlans are not assigned IP addresses. The physical interface is turned on and no ip is assigned to it.

upvoted 3 times

 **Retxed** 2 years, 4 months ago

Why letter b?

upvoted 2 times

 **Media1993** 2 years, 4 months ago

Read router on a stick and you will know why

upvoted 4 times

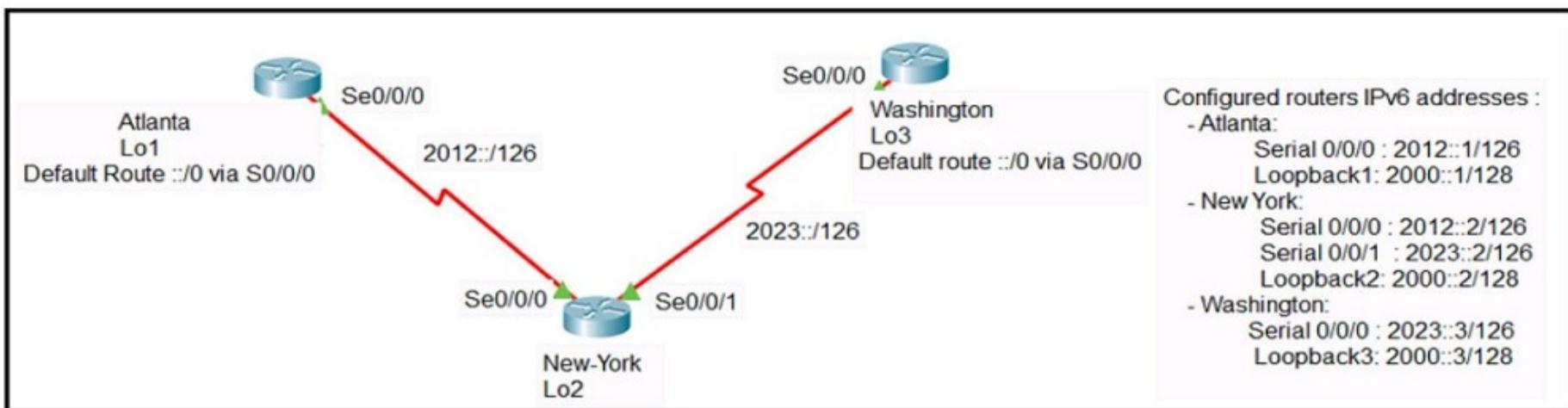
 **ScorpionNet** 1 year, 1 month ago

Because the administrator is configuring Router on a Stick

upvoted 1 times

upvoted 10 times

Question #356



Refer to the exhibit. The loopback1 interface of the Atlanta router must reach the loopback3 interface of the Washington router. Which two static host routes must be configured on the New York router? (Choose two.)

- A. ipv6 route 2000::3/128 s0/0/0
- B. ipv6 route 2000::1/128 s0/0/1
- C. ipv6 route 2000::1/128 2012::1
- D. ipv6 route 2000::1/128 2012::2
- E. ipv6 route 2000::3/128 2023::3

Correct Answer: CE

GreatDane Highly Voted 11 months, 1 week ago

To let the serial interfaces on the Atlanta and Washington routers reach other, you need to configure a static host route (on the New York router) which points to the destination IP (to the serial interface of the other router) and goes through the next-hop IP address.

For the Washington Lo3, you have to specify a static route to 2000::3/128 (destination IP) through Se0/0/0 on the Washington router (the next-hop):

ipv6 route 2000::3/128 2023::3

For the Atlanta Lo1, you have to specify a static route to 2000::1/128 (destination IP) through Se0/0/0 on the Atlanta router (the next-hop):

ipv6 route 2000::1/128 2012::1 command on the Washington router

- A. ipv6 route 2000::3/128 s0/0/0

Wrong answer.

- B. ipv6 route 2000::1/128 s0/0/1

Wrong answer.

- C. ipv6 route 2000::1/128 2012::1

Correct answer.

- D. ipv6 route 2000::1/128 2012::2

Wrong answer.

- E. ipv6 route 2000::3/128 2023::3

Correct answer.

upvoted 5 times

JonasWolfxin 10 months, 3 weeks ago

Both static host routes must be configured on the New York router

upvoted 2 times

SOAPGUY Highly Voted 1 year ago

Selected Answer: CE

ON NEWYORK ON NEWYORK ON NEWYORK~~~

upvoted 5 times

cormorant Most Recent 5 months, 3 weeks ago

THE NEXT HOPS ARE THE INTERFACES ON THE ATLANTA AND WASHINGTON ROUTERS.

ATLANTA: SERIAL 0/0/0 2012::1/126

WASHINGTON: SERIAL SE0/0/0 - 2023::3/126

upvoted 1 times

 **ludodelauz** 1 year, 4 months ago

Why it's C and not D ?

upvoted 1 times

 **helmerpach** 1 year, 5 months ago

is correct because is static

upvoted 1 times

 **Anarckii** 1 year, 6 months ago

the answers are correct but technically A and B are as well

upvoted 1 times

 **daddydagoth** 3 months, 2 weeks ago

They aren't correct my friend. You might have misread the question like I did and are configuring routes on Atlanta and Washington to reach each other instead of New York's router like the question asks you to!

upvoted 1 times

 **panagiss** 1 year, 6 months ago

No, take a look at the interfaces on A & B

upvoted 2 times

 **Darrien1301** 1 year, 1 month ago

can you explain that in more detail? Don't understand why this isn't possible

upvoted 1 times

 **Deezstroyer** 11 months, 2 weeks ago

the serial interfaces are swapped around...

upvoted 1 times

 **Hodicek** 1 year, 6 months ago

I would choose D - E

upvoted 3 times

 **jerry19** 2 years, 1 month ago

Answer C and E, it would be much easier if the question said configure recursive route on New York router for each loopback network.

upvoted 4 times

 **oooMooo** 2 years, 1 month ago

C and E are correct.

ipv6 [loopback network] [serial interface IP]

IPv6: /128 provides a single IPv6 address.

upvoted 3 times

 **Robin999** 2 years, 2 months ago

I need to correct my statement. Given answers are correct. They should not communicate to each other, just from one side to the other side.

upvoted 2 times

 **Robin999** 2 years, 3 months ago

Correct answers are AB because the next hop addresses are not matching in CD.

upvoted 4 times

 **ZayaB** 2 years, 3 months ago

According to what I understand, you can use interface names such as s0/0/0 or g0/1 on a static route config instead of next hop IP addresses. It is not recommended but it is possible. Therefore, A and B are technically correct, isn't it?

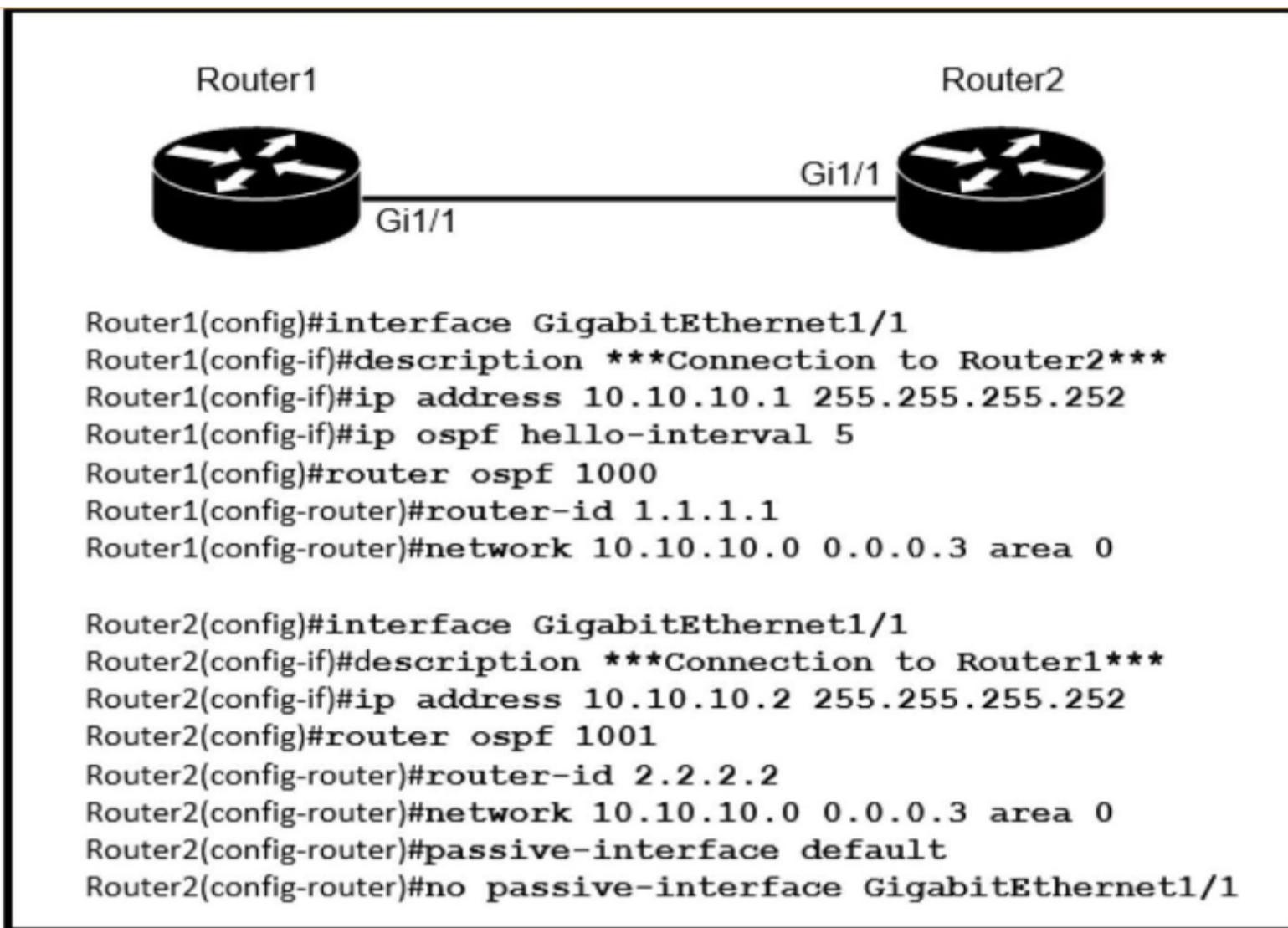
upvoted 2 times

 **ZayaB** 2 years, 3 months ago

Sorry, it is asking the config on NY router...C and E are correct. My bad.

upvoted 4 times

Question #357



Refer to the exhibit. After the configuration is applied, the two routers fail to establish an OSPF neighbor relationship. What is the reason for the problem?

- A. The OSPF process IDs are mismatched
- B. The network statement on Router1 is misconfigured
- C. Router2 is using the default hello timer
- D. The OSPF router IDs are mismatched

Correct Answer: C

✉ **bmatthee01** 1 year, 3 months ago

Ospf processes can differ on each router and neighborship will form
Ospf area must be the same to form adjacency
Hello and dead timers must match to form adjacency

Ospf Default hello timer is 10 and dead timer is 40

In This case R1 hello timer was modified to 5 seconds

Timers was not changed on R2 hence using the default timers

So C is correct
upvoted 13 times

✉ **vadiminski** 2 years ago

The given answer is correct, the default hello time is 10 seconds which causes a mismatch
upvoted 7 times

✉ **Fuaad** 1 year, 9 months ago

what about the Router-ID since they are mismatching?
upvoted 2 times

✉ **kmb192006** 1 year, 9 months ago

router-id has to be unique on each router instead

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/23862-duplicate-router-id-ospf.html>
upvoted 4 times

✉ **ThomasSmith** 3 weeks, 6 days ago

Selected Answer: C

Keith Barker's acronym for OSPF neighborship: TAN - MAT
These must match in OSPF.

Timers

Area number

Network address

MTU size

Authentication

Type (Network type: broadcast (with ethernet) or p2p)

upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: C

C is correct

upvoted 1 times

 **ZUMY** 11 months ago

C is correct

Hello and dead timer should much

upvoted 3 times

 **Mozah** 1 year, 5 months ago

Router ID can not be an issue. At least if the Areas were different but are all using area "0". The given answer "C" is correct, default hello time is 10 seconds and died time its times four of hello timer. In this case, the routers are using differ hello timer which results in fail of OSPF relationship

upvoted 2 times

 **panagiss** 1 year, 6 months ago

Process ID MUST BE Different. So the answer is correct

upvoted 1 times

 **ismatdmour** 1 year, 3 months ago

It is not necessarily that Process IDs be Different. They can be the same or they can be different. but neither is a requirement

upvoted 2 times

 **dave1992** 1 year, 8 months ago

process IDs are not matching. A is the correct answer.

upvoted 3 times

 **kokoyul** 1 year, 8 months ago

Router-Id and process OSPF son de importancia local; el valor default de los hello es de 10, por lo cual la respuesta es correcta. C.

upvoted 2 times

 **Cisna** 1 year, 8 months ago

Hey y'all how about the process ID? I think that should also be the answer

upvoted 1 times

 **Cisna** 1 year, 8 months ago

Just confirmed, neighbors converges despite the process ID mismatch!

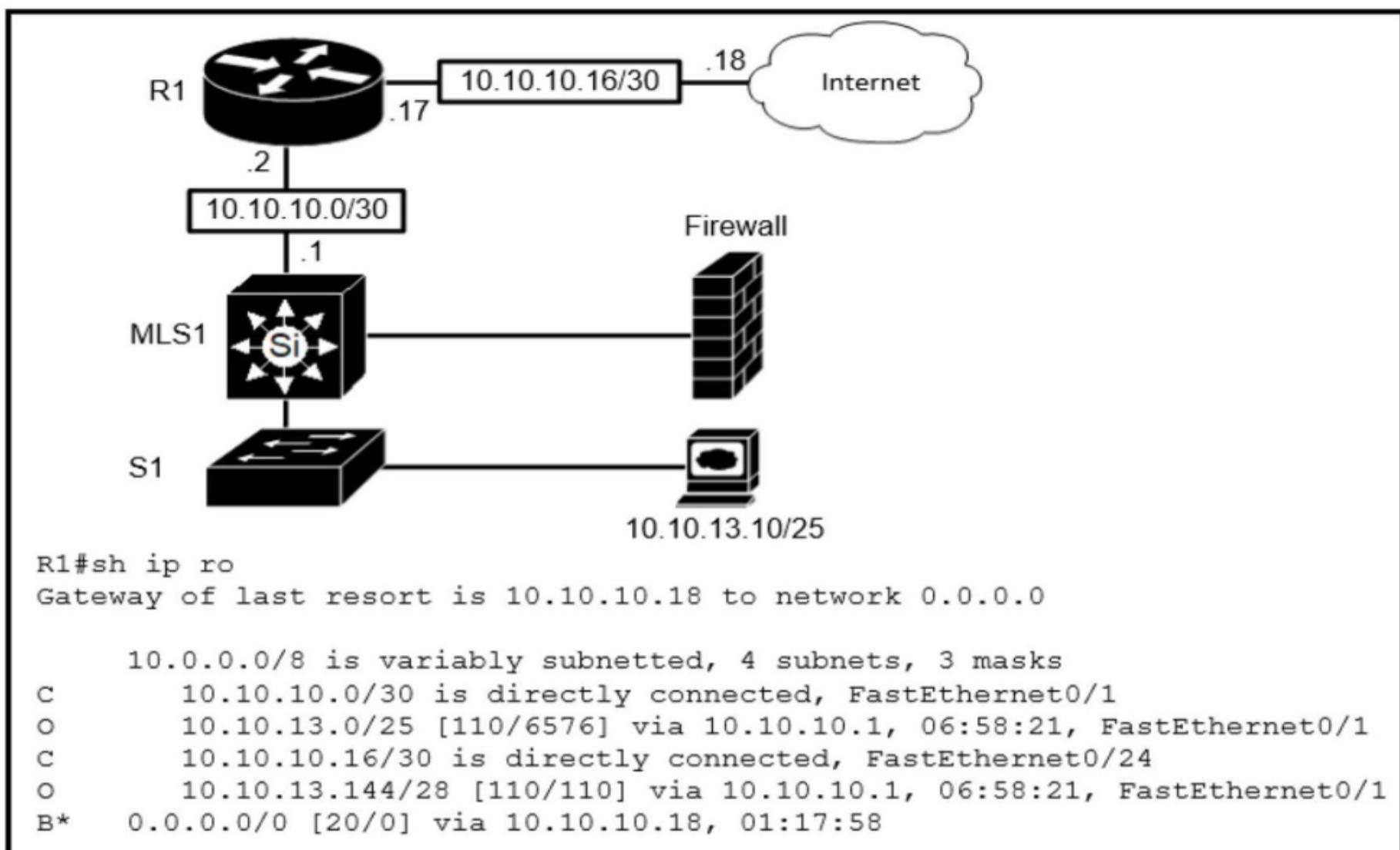
upvoted 4 times

 **laurvy36** 1 year, 6 months ago

the process ID doesnt matter on ospf, only in eigrp has to be the same on all devices because is considered an AS

upvoted 2 times

Question #358



Refer to the exhibit. Which route type is configured to reach the Internet?

- A. floating static route
- B. host route
- C. network route
- D. default route

Correct Answer: D

TheLorenz Highly Voted 1 year, 2 months ago

D. It can reach the internet with the directly connected route but only if it's specified to go directly to 10.10.10.18. The internet itself is filled with unknown addresses, so any other unknown address will need to use the default route.

upvoted 5 times

moise_amo Most Recent 4 months ago

Selected Answer: D
i hope B* is Just because the AD defined for the default route is for internal BGP

upvoted 1 times

DoBronx 7 months, 1 week ago

what does B* mean
upvoted 1 times

RougePotatoe 7 months, 1 week ago

Basically /32 address, route to a end point such as computer, phone, and what not.
<https://learningnetwork.cisco.com/s/question/0D53i00000Kt1dkCAB/host-route>
upvoted 1 times

ZUMY 10 months, 2 weeks ago

D is correct
upvoted 1 times

ScorpionNet 1 year, 1 month ago

D is right because it identifies the one network that is not in the routing table
upvoted 1 times

golddy 1 year, 2 months ago

IT S VAGUE QUESTION NO REALY CLEAR

upvoted 3 times

 **Mozah** 1 year, 5 months ago

D. default route is correct. 0.0.0.0/0 means when there is no any match in the routing table eg for www.google.com, that traffic must use the specified next hop/path (10.10.10.18). That's the way since we don't know the destination so the next hop/router will search the destination from neighboring routers up to the tear 1 if its really available

upvoted 1 times

 **Networkingguy** 2 years, 4 months ago

Such a vague question, the /30 which includes .17 and .18 via the connected route which is a 'network route' as they can reach the internet/next hop. As does the default route for all non specified routes that are not in the routing table.. Both are correct dumb question.

upvoted 4 times

 **yoyosannn** 2 years, 4 months ago

Only if the PC will ask to go to 10.10.10.18 it will use the network route.

When asking to go to the internet the router will use the default gateway - the network route does not include 8.8.8.8 or any other public address

Yaki נולן Israel

upvoted 11 times

 **shakyak** 1 year, 6 months ago

I guess we can safely say that, default route is default gateway.

upvoted 6 times

 **Networkingguy** 2 years, 4 months ago

C The specified route, would be the route it takes out to the internet...

upvoted 4 times

 **sinear** 2 years, 4 months ago

Why not C here ? The direct connected interface will be used to reach the internet as it matches the address .18 leading to the interface. It's not the default route that will be used here. Unless question refers to "what was configured" and not "what is used" ?

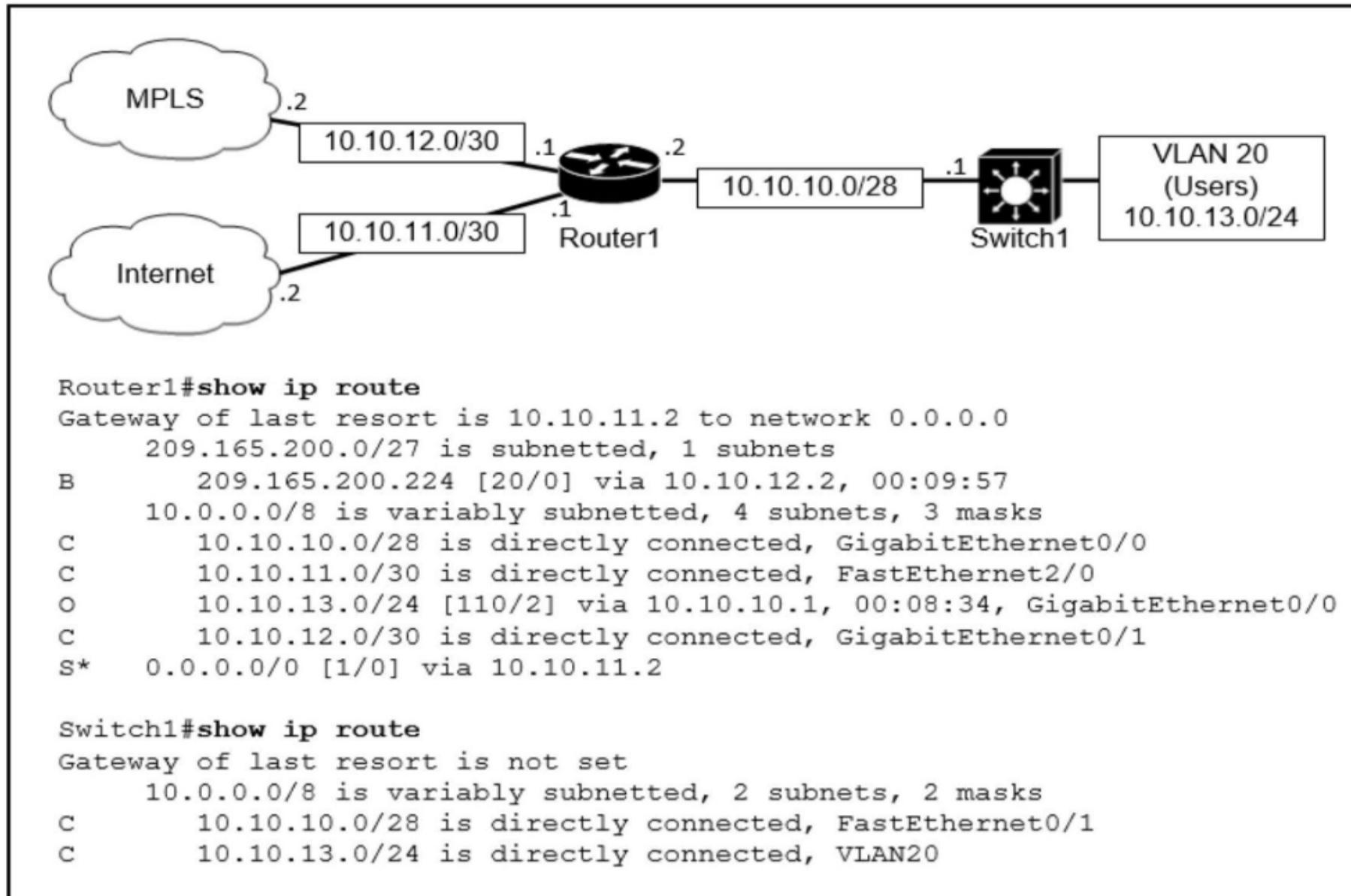
upvoted 3 times

 **Ongogablogian** 2 years, 4 months ago

The only thing in the table that would match a packet with a public IP destination is the default route

upvoted 11 times

Question #359



Refer to the exhibit. Which path is used by the router for Internet traffic?

- A. 209.165.200.0/27
- B. 0.0.0.0/0
- C. 10.10.13.0/24
- D. 10.10.10.0/28

Correct Answer: B

LTTAM Highly Voted 2 years, 4 months ago

For internet traffic... the destination IP's can vary. Hence in this topology, it is using the default gateway 0.0.0.0. Path selection does not meet any other criteria so it has to use gateway of last resort. Correct me if I'm wrong here folks.

upvoted 15 times

Zerotime0 2 years, 4 months ago

You right

upvoted 4 times

uevenasdf Highly Voted 2 years, 4 months ago

Why isn't 10.10.11.0/30 an option? Weird question obviously the others are wrong and the 0.0.0.0 is the only option

upvoted 5 times

sinear 2 years, 4 months ago

Indeed this is misleading... typical cisco.

upvoted 10 times

oooMooo 2 years, 1 month ago

It didn't ask which route. It asked which path. I too, was confused at first.

upvoted 3 times

ZUMY Most Recent 10 months, 2 weeks ago

B is correct

upvoted 1 times

promaster 2 years ago

S* 0.0.0.0/0 is the candidate default route, and statically configured. So i am assuming that it will take presence as default route (gateway). I could be wrong, but this is my best guess.

upvoted 3 times

 **Nhan** 2 years, 3 months ago

Default route

upvoted 4 times

Question #360

Topic 1

When OSPF learns multiple paths to a network, how does it select a route?

- A. For each existing interface, it adds the metric from the source router to the destination to calculate the route with the lowest bandwidth.
- B. It counts the number of hops between the source router and the destination to determine the route with the lowest metric.
- C. It divides a reference bandwidth of 100 Mbps by the actual bandwidth of the exiting interface to calculate the route with the lowest cost.
- D. It multiplies the active K values by 256 to calculate the route with the lowest metric.

Correct Answer: C

✉  **RebWat93** Highly Voted 2 years, 5 months ago

OSPF uses cost to make routing decisions

upvoted 8 times

✉  **suepanda** Highly Voted 2 years, 10 months ago

C is correct. <https://networktechstudy.com/home/learning-ospf-path-selection>

upvoted 7 times

✉  **linuxlife** Most Recent 2 months, 2 weeks ago

OSPF-running routers use these criteria to select the best route to be installed in the routing table:

When there are multiple routes available to the same network with different route types, routers use this order of preference (from highest to lowest):

Intra-area routes

Inter-area routes

External Type-1 routes

External Type-2 routes

If there are multiple routes to a network with the same route type, the OSPF metric calculated as cost based on the bandwidth is used for selecting the best route. The route with the lowest value for cost is chosen as the best route.

If there are multiple routes to a network with the same route type and cost, it chooses all the routes to be installed in the routing table, and the router does equal cost load balancing across multiple paths.

upvoted 1 times

✉  **Ceruzka** 3 months ago

C says how to calculate ospf metric for a specific intf

A says how to choose the correct path to dest with the lowest cumulative metric.

A is correct answer.

upvoted 1 times

✉  **dropspablo** 2 weeks, 6 days ago

route with the lowest bandwidth???

upvoted 1 times

✉  **leooel** 5 months, 3 weeks ago

Selected Answer: C

c is correct

upvoted 2 times

✉  **dick3311** 7 months, 1 week ago

Selected Answer: C

definitely is C

upvoted 3 times

✉  **DoBronx** 7 months, 1 week ago

Selected Answer: C

It is C. Anyone disputing this needs to study

upvoted 6 times

✉  **hichccna** 4 months, 1 week ago

You should rethink your answer, since the right answer is A

upvoted 2 times

✉  **Rether16** 2 months ago

You're wrong. And you have made yourself look silly by posting this.

upvoted 2 times

✉  **splashy** 8 months, 2 weeks ago

Selected Answer: A

A takes every exiting interface from source to destination into account
C Only takes 1 exiting interface into account

Cumulative cost is the sum of the all costs of the outgoing OSPF interfaces in the path.
While calculating cumulative cost, OSPF consider only outgoing interfaces in path. It does not add the cost of incoming interfaces in cumulative cost.
If multiple routes exist, SPF compares the cumulative costs. Route which has the lowest cumulative cost will be chosen for routing table.

<https://www.computernetworkingnotes.com/ccna-study-guide/ospf-metric-cost-calculation-formula-explained.html>

upvoted 3 times

✉ **splashy** 7 months ago

metric should be cumulative cost and it should say lowest cost or highest bandwidth instead of lowest bandwidth (totally misread (past tense) it).

So C should be more correct... but it needs cumulative cost of every exiting/outgoing interface on the path from source to destination to actually be able to calculate which path is best=lowest cost. Trip up question.

upvoted 2 times

✉ **ShadyAbdekmalek** 8 months, 2 weeks ago

Selected Answer: A

I would go for A

The destination could be after several hops ,and each of those has a cost based on BW , they needed do be all added to calculate the cost to that destination

upvoted 2 times

✉ **ZUMY** 9 months, 1 week ago

C :

Cisco routers determine what to base the cost versus bandwidth on a 'reference bandwidth' which defaults to 100mbps. The reference bandwidth is then divided by the link bandwidth to generate the link cost

upvoted 2 times

✉ **ismatdmour** 1 year, 3 months ago

In fact C is misleading. This is because cost compared is not the cost of one interface (obtained by division of ref BW/interface BW). It is rather the accumulation of all the divisions on all interfaces, e.g. if the first interface 100Mbps ==> cost=1 and the second interface is 10 Mbps==> Cost =10, the total cost is 10+1=11, which is the one compared with the total costs of other paths calculated similarly.

Hence, I would choose A as it is more descriptive of the process except for that last 2 words "lowest bandwidth" is incorrect and should be "lowest cost".

upvoted 5 times

✉ **bigbelly123** 1 year, 5 months ago

to be specific, its not actual bandwidth, its the reference bandwidth :)

upvoted 1 times

Question #361

Topic 1

When a floating static route is configured, which action ensures that the backup route is used when the primary route fails?

- A. The administrative distance must be higher on the primary route so that the backup route becomes secondary.
- B. The default-information originate command must be configured for the route to be installed into the routing table.
- C. The floating static route must have a lower administrative distance than the primary route so it is used as a backup.
- D. The floating static route must have a higher administrative distance than the primary route so it is used as a backup

Correct Answer: D

✉  **alexiro** Highly Voted 2 years, 9 months ago

By default, IOS considers static routes better than OSPF-learned routes. By default, IOS gives static routes an administrative distance of 1. A floating static route floats or moves into and out of the IP routing table depending on whether the better (lower) administrative distance route learned by the routing protocol happens to exist currently.

upvoted 10 times

✉  **golddy** Most Recent 2 years, 2 months ago

it could be A

upvoted 3 times

✉  **dave1992** 1 year, 8 months ago

golddy, you read it wrong. the secondary route needs a higher AD, not a lower AD. Lower AD gets selected. you are mixed up. I almost agreed with you for a second.

upvoted 8 times

✉  **oooMooo** 2 years, 1 month ago

It's D. A says AD should be higher on the primary route. Which is false.

upvoted 4 times

✉  **on2it** 11 months, 2 weeks ago

that's not nice

upvoted 1 times

Question #362

Topic 1

Designated Router (ID) 10.11.11.11, Interface address 10.10.10.1
Backup Designated router (ID) 10.3.3.3, Interface address 10.10.10.3
Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
oob-resync timeout 40
Hello due in 00:00:08
Supports Link-local Signaling (LLS)
Cisco NSF helper support enabled
IETF NSF helper support enabled
Index 1/1/1, flood queue length 0
Next 0x0(0)/0x0(0)/0x0(0)
Last flood scan length is 1, maximum is 6
Last flood scan time is 0 msec, maximum is 1 msec
Neighbor Count is 3, Adjacent neighbor count is 3
Adjacent with neighbor 10.1.1.4
Adjacent with neighbor 10.2.2.2
Adjacent with neighbor 10.3.3.3 (Backup Designated Router)
Suppress hello for 0 neighbor(s)

Refer to the exhibit. The show ip ospf interface command has been executed on R1. How is OSPF configured?

- A. A point-to-point network type is configured.
- B. The interface is not participating in OSPF.
- C. The default Hello and Dead timers are in use.
- D. There are six OSPF neighbors on this interface.

Correct Answer: C

From the output we can see there are Designated Router & Backup Designated Router for this OSPF domain so this is a broadcast network (point-to-point and point-to-multipoint networks do not elect DR & BDR).

By default, the timers on a broadcast network (Ethernet, point-to-point and point-to-multipoint) are 10 seconds hello and 40 seconds dead. The timers on a non- broadcast network are 30 seconds hello 120 seconds dead.

From the line `Neighbor Count is 3`, we learn there are four OSPF routers in this OSPF domain.

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13689-17.html>

✉  **vadiminski** Highly Voted 2 years ago

A is wrong because default and designated routers are in use
B is obviously wrong
D is wrong, the neighbour count is 3
C is correct, the default timers in broadcast networks (ethernet) are 10 seconds hello and 4*hello for the dead timer
upvoted 19 times

✉  **kunyo99** 2 years ago

Great Explanation
upvoted 6 times

✉  **freeknowledge123** Most Recent 5 months ago

c by process of elimination
upvoted 1 times

✉  **Yunus_Empire** 6 months ago

Tricky Question
upvoted 1 times

✉  **ZUMY** 9 months, 1 week ago

C is correct
upvoted 1 times

Question #363

Topic 1

A user configured OSPF and advertised the Gigabit Ethernet interface in OSPF. By default, to which type of OSPF network does this interface belong?

- A. point-to-multipoint
- B. point-to-point
- C. broadcast
- D. nonbroadcast

Correct Answer: C

The Broadcast network type is the default for an OSPF enabled ethernet interface (while Point-to-Point is the default OSPF network type for Serial interface with HDLC and PPP encapsulation).

Reference:

<https://www.oreilly.com/library/view/cisco-ios-cookbook/0596527225/ch08s15.html>

✉  **Ahhmedd** Highly Voted 2 years, 10 months ago

The Broadcast network type is the default for an OSPF enabled ethernet interface (while Point-to-Point is the default OSPF network type for Serial interface with HDLC and PPP encapsulation so the An is C

upvoted 54 times

✉  **CJ32** 2 years, 10 months ago

Well worded. This is 100% correct

upvoted 4 times

✉  **Yunus_Empire** Highly Voted 6 months ago

Selected Answer: C

You Got This... Only 437 Questions Left.....zrezos@gmail.com

upvoted 6 times

✉  **ZUMY** Most Recent 9 months, 1 week ago

C is correct

upvoted 2 times

✉  **mustafa007** 2 years, 9 months ago

right.OSPF behaves differently on some types of interfaces based on a per-interface setting called the OSPF network type. On Ethernet links, OSPF defaults to use a network type of broadcast, which causes OSPF to elect one of the routers on the same subnet to act as the designated router (DR). The DR plays a key role in how the database exchange process works, with different rules than with point-to-point links. official Cert guide volume 2, page 456

upvoted 5 times

✉  **Jackie_Manuas12** 1 year, 2 months ago

OCG Vol1 p456, not Vol2

upvoted 1 times

✉  **Abuelyoser** 2 years, 10 months ago

it should be B Point to Point

upvoted 2 times

✉  **Dataset** 1 year, 11 months ago

no, in serial link applies the B answer

Regards

upvoted 2 times

✉  **Alibaba** 1 year, 7 months ago

c TRUE OPTION

upvoted 1 times

Question #364

Topic 1

Which attribute does a router use to select the best path when two or more different routes to the same destination exist from two different routing protocols?

- A. dual algorithm
- B. metric
- C. administrative distance
- D. hop count

Correct Answer: C

Administrative distance is the feature used by routers to select the best path when there are two or more different routes to the same destination from different routing protocols. Administrative distance defines the reliability of a routing protocol.

 **alexiro** Highly Voted 2 years, 9 months ago

When IOS must choose between routes learned using different routing protocols, IOS uses a concept called administrative distance. Administrative distance is a number that denotes how believable an entire routing protocol is on a single router. The lower the number, the better. The AD is a rating of trust when multiple routes exist to the same destination.

upvoted 10 times

 **SVN05** Most Recent 4 months ago

To my understanding

If installing into routing table is AD or Metric ONLY!

If choosing a route from routing table is Longest Prefix, AD & Metric. Basically all are taken into account.

AD - When 2 or more routes to the same destination from different routing protocols

Metric - When 2 or more routes to the same destination and using the SAME ROUTING PROTOCOL

Longest Prefix(in the case when choosing a route from route table)- This will take precedence over AD and Metric

Hope everyone gets the idea on how routing questions work. Also take into account that you should also know if the subnet prefix can be used for the host that the route we are choosing.

upvoted 2 times

 **ZUMY** 9 months, 1 week ago

C is correct

-AD

upvoted 1 times

 **mimo1000** 1 year, 5 months ago

Administrative distance is the correct answer

upvoted 1 times

 **lucky1559** 1 year, 9 months ago

When it comes to chose one route from many that ALREADY EXISTS in RIB to same destination, router uses longest prefix match rule. AD (Administrative Distance) is used when it comes to installing different paths learned through different protocols.

Hence, in my opinion the "Longest Prefix Match" answer is missing.

upvoted 3 times

Question #365

Topic 1

Router A learns the same route from two different neighbors; one of the neighbor routers is an OSPF neighbor, and the other is an EIGRP neighbor. What is the administrative distance of the route that will be installed in the routing table?

- A. 20
- B. 90
- C. 110
- D. 115

Correct Answer: B

The Administrative distance (AD) of EIGRP is 90 while the AD of OSPF is 110 so EIGRP route will be chosen to install into the routing table.

 **alexiro** Highly Voted 2 years, 9 months ago

Admin Distance:

Connected.....0
Static.....1
EIGRP Summary.....5 (This occurs only on the router where the summary was generated)
eBGP.....20
Internal EIGRP.....90
OSPF.....110
IS-IS.....115
RIP.....120
External EIGRP.....170
iBGP.....200
NHRP.....250 (You'll typically only when using phase 3 DMVPN)
<https://networktechstudy.com/home/learning-ospf-path-selection>

upvoted 24 times

 **Gelo29** Highly Voted 2 years, 9 months ago

Lowest AD win

upvoted 5 times

 **Alibaba** 1 year, 6 months ago

A and B

upvoted 1 times

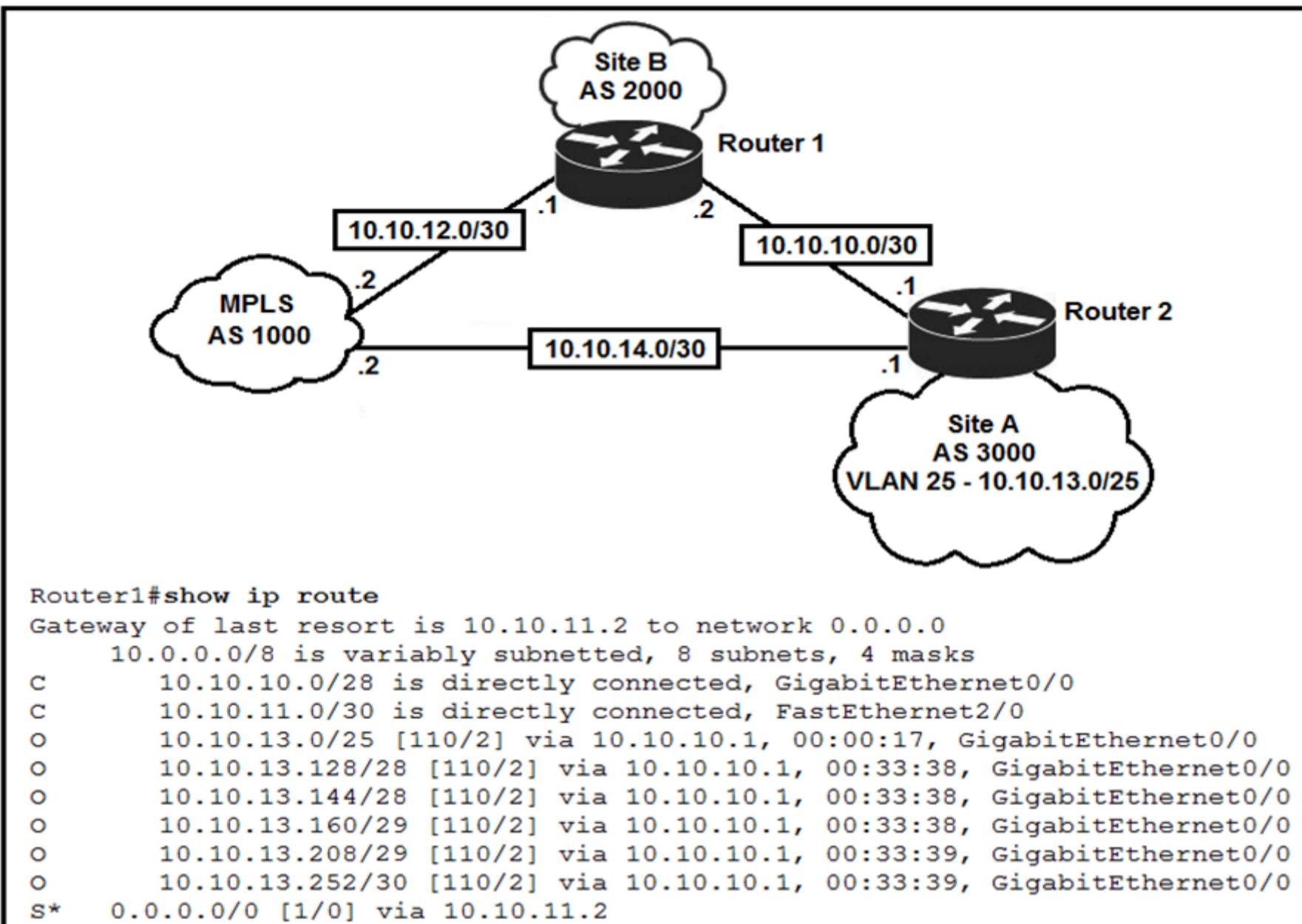
 **Customexit** 7 months, 1 week ago

"one of the neighbor routers is an OSPF neighbor, and the other is an EIGRP neighbor."

upvoted 1 times

Question #366

Topic 1



Refer to the exhibit. An engineer is bringing up a new circuit to the MPLS provider on the Gi0/1 interface of Router 1. The new circuit uses eBGP and learns the route to VLAN25 from the BGP path.

What is the expected behavior for the traffic flow for route 10.10.13.0/25?

- A. Traffic to 10.10.13.0/25 is load balanced out of multiple interfaces.
- B. Traffic to 10.10.13.0/25 is asymmetrical.
- C. Route 10.10.13.0/25 is updated in the routing table as being learned from interface Gi0/1.
- D. Route 10.10.13.0/25 learned via the Gi0/0 interface remains in the routing table.

Correct Answer: D

The AD of eBGP (20) is smaller than that of OSPF (110) so the route to 10.10.13.0/25 will be updated as being learned from the new BGP path.

cybernett Highly Voted 2 years, 3 months ago

The correct answer is D

Because when new route is learned by R1 it will be added to its routing table via Gi0/1 But the previous still stays in the routing table which is learned via Gi0/0 (ospf)

Hence we have two paths to reach 10.10.13.0/25

Cisco plays with words, read carefully.

C is wrong because they used the word updated and not added. Updated means previous route is removed

Which is not true , it stays in the table

Hence D is perfect answer

upvoted 57 times

ThomasSmith 3 weeks, 6 days ago

The answer is C.

Routes That Must Win Twice | Cisco CCNA 200-301

<https://www.youtube.com/watch?v=qU2qFU7NgNU>

upvoted 1 times

bootloader_jack 1 year, 4 months ago

I know that only the route with better administrative distance is installed in routing table. So, the ospf route will be replaced by ebgp route. Am I wrong?

upvoted 3 times

✉ **jahinchains** 1 year, 1 month ago

10.10.13.0/25 is a different subnet ospf will stay on the routing table
upvoted 1 times

✉ **DixieNormus** 9 months ago

How is 10.10.13.0/25 a different subnet from 10.10.13.0/25?
upvoted 6 times

✉ **BreezyNet** 5 months, 1 week ago

this is true, experienced this in real life as I was configured two paths to a branch via 2 different ISP's, both routes where learned and kept in the routing table
upvoted 2 times

✉ **gaber** 1 year, 5 months ago

the question seems to be whether the route will be replaced by the new one. Does it delete the ospf route? I don't know. but I imagine not. So I'd probably go with D.
upvoted 2 times

✉ **cdp_neighbor** Highly Voted 2 years, 4 months ago

"The AD of eBGP (20) is smaller than that of OSPF (110) so the route to 10.10.13.0/25 will be updated as being learned from the new BGP path." - which means that C is the correct answer?

upvoted 26 times

✉ **sinear** 2 years, 4 months ago

I think so too, though we find several answers to this in other sites.
The comment below the question seems to point to C rather than D.
upvoted 6 times

✉ **gc999** Most Recent 2 months, 3 weeks ago

I see the official answer here is "D", but it uses the explanation in "C". That is "so the route to 10.10.13.0/25 will be updated as being learned from the new BGP path".
upvoted 1 times

✉ **remoto** 5 months, 3 weeks ago

Selected Answer: D
The correct answer is "D"
The keys is "learned"
upvoted 1 times

✉ **arenjenkins** 7 months, 2 weeks ago

beyond CCNA
upvoted 9 times

✉ **clivebarker86** 8 months ago

i just tried with PT, configured OSPF + RIP, only OSPF is added to the table, with #no router ospf command, RIP added to the table, correct answer C
upvoted 2 times

✉ **Murphy2022** 8 months, 1 week ago

There is no Gi0/0 Interface so C must be correct.
upvoted 1 times

✉ **PiotrMar** 8 months, 3 weeks ago

Selected Answer: C
it is C
upvoted 1 times

✉ **ZUMY** 9 months, 1 week ago

Going with C:
upvoted 2 times

✉ **WOP_TO** 10 months ago

Selected Answer: C
C, no doubt; BGP AD 20, OSPF AD 110;

The router decides whether or not to install the routes presented by the routing processes based on the administrative distance of the route in question. If this path has the lowest administrative distance to this destination (when compared to the other routes in the table), it's installed in the routing table. If this route isn't the route with the best administrative distance, then the route is rejected.

upvoted 3 times

✉ **TA77** 11 months, 1 week ago

The explaination doesn't match the selected answer. I guess the answer D was selected by mistake instead of C.
upvoted 2 times

✉ **DARKK** 1 year ago

Selected Answer: C

An OSPF(110 AD) path for VLAN 25 (10.10.13.0 /25) exits via Gi0/0, However an eBGP (20 AD) Path is being added via Gi0/1. Answer is C. Read the question carefully, and look at the image given. The eBGP path via Gi0/1 is chosen because it has a lower AD.

upvoted 3 times

 **ar2** 1 year ago

C.

I've just watched CBT Nuggets BGP overview, he does a demo almost identical. ie same network/mask with BGP and OSPF. The OSPF route is replaced.

upvoted 5 times

 **SOAPGUY** 1 year ago

Selected Answer: C

C;

<https://www.cisco.com/c/en/us/support/docs/ip/border-gateway-protocol-bgp/15986-admin-distance.html>

upvoted 2 times

 **Nalle72** 1 year, 2 months ago

D is correct. The routes OSPF learns are subnetted with longer prefixes (/28,/29, /30), but eBGP learns a route to 10.10.13.0/25. Thus, the OSPF routes need to remain. As the OSPF routes with longer prefixes do not cover the whole /25 subnet, BGP route would be added to the routing table as well.

upvoted 1 times

 **i_am_confused** 12 months ago

The question asks specifically about the 10.10.13.0/25 network. The more specific networks can be ignored since those are separate networks not relevant to the question. There will be two routes to 10.10.13.0/25, one through eBGP and one through OSPF. The eBGP route will be installed into the routing table and replace the OSPF route since eBGP has lower AD than OSPF. I believe the answer is C.

upvoted 4 times

 **bmatthee01** 1 year, 3 months ago

Agreed with cybernett,

The routing table allows up to two paths to the same destination.

As we can see from the output only one existing route.

When the new circuit comes up it will be added to the routing table and the existing one remains. Making a Total of two routes

upvoted 1 times

 **DixieNormus** 9 months ago

Where did you find this information that a routing table allows up to two paths to the same destination?

upvoted 2 times

 **onikafei** 1 year, 3 months ago

Selected Answer: D

I have to go with D on this one, I figured C for a bit. but this is on 0/0 not 0/1. Plus this is a new route(updated being one). Cisco seems to like to sneak in too many words to play on.

upvoted 3 times

Question #367

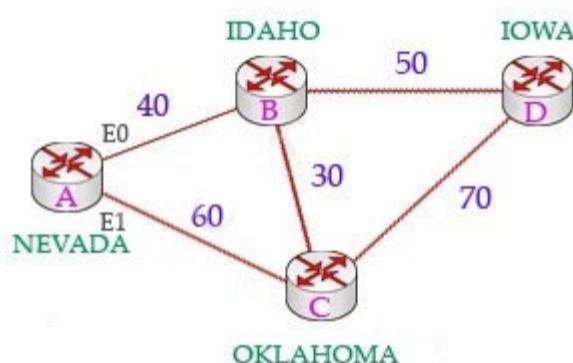
Which two actions influence the EIGRP route selection process? (Choose two.)

- A. The advertised distance is calculated by a downstream neighbor to inform the local router of the bandwidth on the link.
- B. The router calculates the feasible distance of all paths to the destination route.
- C. The router must use the advertised distance as the metric for any given route.
- D. The router calculates the best backup path to the destination route and assigns it as the feasible successor.
- E. The router calculates the reported distance by multiplying the delay on the exiting interface by 256.

Correct Answer: BD

The reported distance (or advertised distance) is the cost from the neighbor to the destination. It is calculated from the router advertising the route to the network.

For example in the topology below, suppose router A & B are exchanging their routing tables for the first time. Router B says "Hey, the best metric (cost) from me to IOWA is 50 and the metric from you to IOWA is 90" and advertises it to router A. Router A considers the first metric (50) as the Advertised distance. The second metric (90), which is from NEVADA to IOWA (through IDAHO), is called the Feasible distance.



The reported distance is calculated in the same way of calculating the metric. By default ($K_1 = 1, K_2 = 0, K_3 = 1, K_4 = 0, K_5 = 0$), the metric is calculated as follows:

$$\text{metric} = \left[\frac{10,000,000}{\text{slowest bandwidth [in kbps]}} + \frac{\text{sum of delay [in } \mu\text{sec}]}{10} \right] * 256$$

Feasible successor is the backup route. To be a feasible successor, the route must have an Advertised distance (AD) less than the Feasible distance (FD) of the current successor route.

Feasible distance (FD): The sum of the AD plus the cost between the local router and the next-hop router. The router must calculate the FD of all paths to choose the best path to put into the routing table.

Note: Although the new CCNA exam does not have EIGRP topic but you should learn the basic knowledge of this routing protocol.

Shamwedge Highly Voted 1 year, 3 months ago

The two answers with feasible in it, make them feasible answers.

upvoted 21 times

hassanhady Highly Voted 1 year, 6 months ago

i didnt understand the answer yet or why

upvoted 6 times

DoBronx Most Recent 7 months, 1 week ago

I thought it was bandwith and delay

upvoted 3 times

RougePotatoe 7 months, 1 week ago

Read more about the operation of EIGRP and how it selects routes. Yes it uses bandwidth and delay but that's only the default parameters that it uses for the calculation.

upvoted 1 times

timskis2 1 year ago

WHY WOULD IT NOT BE "A" LEARNING FROM THE DOWN STREAM ?

upvoted 2 times

RougePotatoe 7 months, 1 week ago

Not A because advertised distance is not a report of the bandwidth on the link. Sure it uses bandwidth and delay to calculate a metric but don't confuse the metric with the bandwidth they are not interchangeable.

The Advertised Distance (AD) is the distance from a given neighbor to the destination router.

<https://www.pluralsight.com/blog/it-ops/eigrp-overview>

<https://networklessons.com/eigrp/introduction-to-eigrp#:~:text=You%20have%20now%20learned%20two,to%20get%20to%20the%20destination.>

upvoted 1 times

✉ **promaster** 2 years ago

Network topology updates are sent using eigrp, therefore the answer is C, because there was a circuit update by the engineer that has lower AD than the previous route from int0/0.

upvoted 1 times

✉ **Acai** 2 years ago

Yeah you should definitely learn this as well as the AD of other routing protocols.

upvoted 2 times

✉ **anonymous1966** 2 years, 3 months ago

EIGRP is NOT topic of 200-301.

upvoted 5 times

✉ **oooMooo** 2 years, 1 month ago

Yes, it's on the exam. You must know how it calculates the best path and it's AD cost. That's about it.

upvoted 6 times

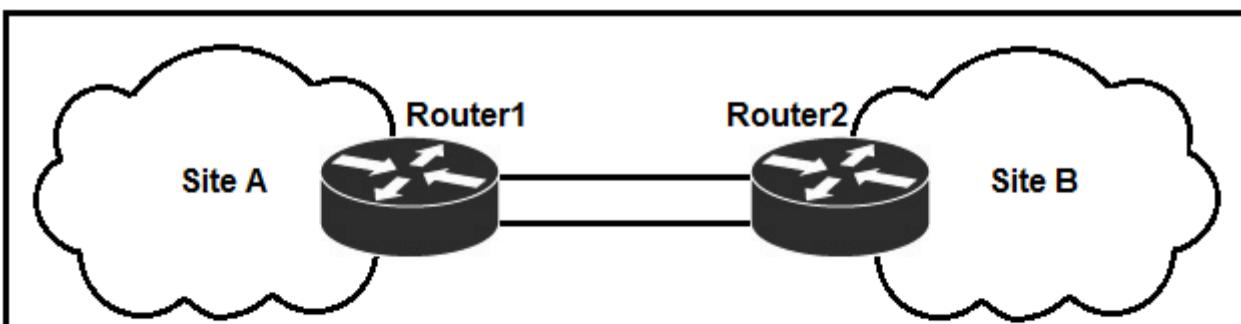
✉ **ddban** 2 years, 1 month ago

it's on there

upvoted 5 times

Question #368

Topic 1



Router2#show ip route

Gateway of last resort is not set

- 10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
- C 10.10.10.8/30 is directly connected, FastEthernet0/2
- C 10.10.10.12/30 is directly connected, FastEthernet0/1
- O 10.10.13.0/25 [110/11] via 10.10.10.9, 00:00:03, FastEthernet0/2
[110/11] via 10.10.10.13, 00:00:03, FastEthernet0/1
- C 10.10.10.4/30 is directly connected, FastEthernet0/2

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?

- A. It sends packets out of interface Fa0/1 only.
- B. It sends packets out of interface Fa0/2 only.
- C. It load-balances traffic out of Fa0/1 and Fa0/2.
- D. It cannot send packets to 10.10.13.128/25.

Correct Answer: D

Router2 does not have an entry for the subnet 10.10.13.128/25. It only has an entry for 10.10.13.0/25, which ranges from 10.10.13.0 to 10.10.13.127.

admin1982 Highly Voted 2 years, 4 months ago

@ Texter: Router 2 does not have an entry for the subnet 10.10.13.128/25. It only has an entry for 10.10.13.0/25, which ranges from 10.10.13.0 to 10.10.13.127. You're welcome - Je vous en prie

upvoted 19 times

mrsiafu Highly Voted 2 years, 1 month ago

Usable range 10.10.13.1 to 10.10.13.126 for this /25

upvoted 9 times

ZUMY Most Recent 9 months, 1 week ago

D is okay

upvoted 1 times

WOP_TO 10 months ago

What a ridiculous question;

Shame on cisco;

upvoted 7 times

DoBronx 7 months, 1 week ago

always subnet

upvoted 1 times

MK_Engr 11 months, 2 weeks ago

It was Subnet mask related question, NOT routing related, lol

upvoted 4 times

tweesgger 1 year, 7 months ago

10.10.13.0/25 subnet does not include 10.10.13.128 because it is the subnet network address of the next subnet block for the /25 prefix, since it is not even a usable address to begin with, such scenario can only be hypothetical and no such situation can be found in an up and working network.

upvoted 2 times

CISCO2022 2 years ago

X.X.X.0 /25 = Bit 25 is 128 increment = first net ID .0 Broadcast 127 IPs 0-126

2nd Net ID 128 Broadcast 255 IPs 129-254

10.10.13.128 is a Network ID

upvoted 5 times

 **Texter** 2 years, 4 months ago

Could someone help explain how the IP Address range(s) are generated.
Thank you - Merci beacoup.

upvoted 1 times

Question #369

Topic 1

Which two outcomes are predictable behaviors for HSRP? (Choose two.)

- A. The two routers negotiate one router as the active router and the other as the standby router.
- B. The two routers share the same interface IP address, and default gateway traffic is load-balanced between them.
- C. The two routers synchronize configurations to provide consistent packet forwarding.
- D. Each router has a different IP address, both routers act as the default gateway on the LAN, and traffic is load-balanced between them.
- E. The two routers share a virtual IP address that is used as the default gateway for devices on the LAN.

Correct Answer: AE

✉  **alexiro** Highly Voted 2 years, 9 months ago

Hot Standby Router Protocol (HSRP) A Cisco proprietary protocol that allows two (or more) routers to share the duties of being the default router on a subnet, with an active/standby model, with one router acting as the default router and the other sitting by waiting to take over that role if the first router fails
HSRP

Protocol Cisco proprietary

"Number of groups" 16 groups maximum

Active/Standby "1 active, 1 standby and multiple candidates."

"Virtual IPAddress" "Different from real IP addresses on interfaces"

Multicast address 224.0.0.2

Tracking Interfaces or Objects

HSRP virtual Mac address will start with 0000.0c07.acXX

07.ac is the hexadecimal conversion of the HSRP group Id.

XX is Group number

virtual Mac for hsrp group 2 = 0000.0c07.ac02

virtual Mac for hsrp group12 = 0000.0c07.ac0C

upvoted 43 times

✉  **Ali526** 2 years, 5 months ago

You have written a very long story. How about answers?

BTW, AE is correct. HSRP does not do load-balancing, unless you have multiple network subnets; that's another long story.

upvoted 8 times

✉  **Taku2023** 2 months, 1 week ago

Yeah true GLBP, gateway load balancing protocols does load balance between active virtual router gateway and active virtual forwarding.
upvoted 1 times

✉  **DoBronx** 7 months, 1 week ago

You always tell people they write long stories
upvoted 1 times

✉  **sinear** 2 years, 4 months ago

AE are correct indeed.
upvoted 3 times

✉  **Genshin** 1 year, 8 months ago

some people just want things spoon fed to them.
this guy is giving incredible information on why the answer is correct. if people just took a little time to LEARN
upvoted 9 times

✉  **ZUMY** Most Recent 9 months, 1 week ago

A&E are correct
upvoted 2 times

✉  **admin1982** 2 years, 4 months ago

@ alexiro: what's the point with this dumb long explanation and no answer? such idiotic behavior.

upvoted 2 times

✉ **hassanhhady** 1 year, 6 months ago

i think Alexiro write the best answer and explaining for this question
and i think your comment is the dumbest words in all these comments

upvoted 7 times

✉ **DoBronx** 7 months, 1 week ago

Ladies calm down.

upvoted 2 times

✉ **Nebulise** 1 year, 4 months ago

stop fighting-errrrr

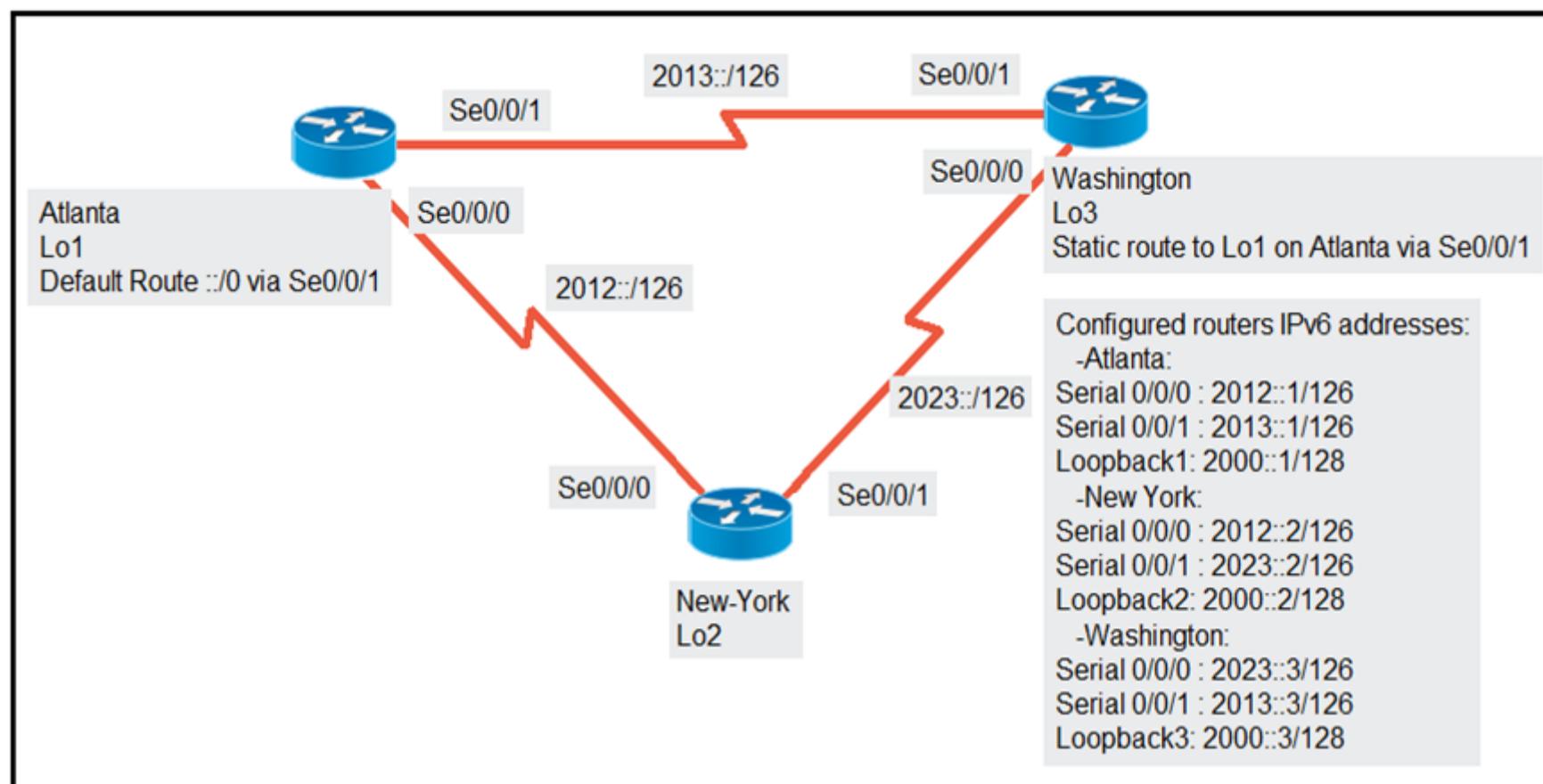
upvoted 2 times

✉ **LingLingW** 1 year, 5 months ago

if you understand the long explanation you wouldn't come out with this idiotic statement

upvoted 6 times

Question #370



Refer to the exhibit. An engineer is configuring the New York router to reach the Lo1 interface of the Atlanta router using interface Se0/0/0 as the primary path.

Which two commands must be configured on the New York router so that it reaches the Lo1 interface of the Atlanta router via Washington when the link between

New York and Atlanta goes down? (Choose two.)

- A. Ipv6 route 2000::1/128 2012::1
- B. Ipv6 route 2000::1/128 2012::1 5
- C. Ipv6 route 2000::1/128 2012::2
- D. Ipv6 route 2000::1/128 2023::2 5
- E. Ipv6 route 2000::1/128 2023::3 5

Correct Answer: AE

Floating static routes are static routes that have an administrative distance greater than the administrative distance (AD) of another static route or dynamic routes.

By default a static route has an AD of 1 then floating static route must have the AD greater than 1. Floating static route has a manually configured administrative distance greater than that of the primary route and therefore would not be in the routing table until the primary route fails.

ZayaB Highly Voted 2 years, 3 months ago

I agree with Jeff, the question is not correctly worded. I also assumed that primary path is already configured and we are just configuring the floating route. :(

upvoted 14 times

GA24 Highly Voted 2 years, 4 months ago

How come option A is also correct where in the question it clearly states that the link between New York and Atlanta is down, Which also means that network 2012::128 is down?

upvoted 12 times

sdokmak 1 year, 11 months ago

A is correct because it's asking for WHEN the link goes down. So you still need to configure the primary link.

upvoted 18 times

DoBronx Most Recent 7 months, 1 week ago

W Question

upvoted 2 times

ZUMY 9 months, 1 week ago

A & E are correct

upvoted 2 times

✉ **aaronquiamco** 11 months ago

What does the 5 at the end mean?

upvoted 1 times

✉ **hp2wx** 10 months, 2 weeks ago

The 5 is manually configuring the administrative distance for the static route. You should definitely review some routing concepts before you take your exam as this is a very important concept.

upvoted 1 times

✉ **JonCCNA12** 12 months ago

I hate how this is worded

upvoted 3 times

✉ **jahinchains** 1 year, 1 month ago

Selected Answer: AE

the question is MUST CONFIGURE do you really configure two floating static route which is basically the same?

upvoted 1 times

✉ **ismatdmour** 1 year, 3 months ago

(4) I may disappoint you more. It looks that they are the only routers in the city. The show command about each of them says that each of them are DRs and there exist no BDR (Backup designated router). Unfortunately, now, fixing the timers lead to they become 2-way at first, but they will proceed to negotiate DR/BDR roles, and finally they will agree on one of them as DR and the other as BDR. Sadly, this will bring A again (fixing timers) to false. But this leaves us with all incorrect answers. Ooops.

If you will ask me what to choose, I think A (fixing timers) is the one (correct in the examiner's mind, remember no other action can bring relation whatsoever unless you act and fix timers first). Again, I hate it when the question is not well studied and expecting the examiners to make assumptions which might be not assumed by the one who made the question..... hmmmmmmmm

upvoted 3 times

✉ **Vinarino** 1 year, 4 months ago

A) Ipv6 route 2000::1/128 2012::1 = washington to atlanta (always up hence, default AD)

Email, VoIP, etc., via an OC3 link is OK.

E) E. Ipv6 route 2000::1/128 2023::3 5 = NY to washington (backup route hence AD = 5)

Seems this BACKUP-route via NY to washington is the only link requiring setup in real life - to answer the Q.

A) is already up!

upvoted 2 times

✉ **gaber** 1 year, 8 months ago

D&E. The question is pretty clear.

upvoted 1 times

✉ **AlvinNg** 1 year, 8 months ago

what is the 5 means ? on the answer E. Sorry I am still new in networking.. need some guide and explanation on this question..

upvoted 2 times

✉ **paulotiago** 1 year, 8 months ago

AD - Administrative distance

upvoted 3 times

✉ **maximk33** 1 year, 10 months ago

that it reaches the Lo1 interface of the Atlanta router** via Washington** when the link between.

how answer A correct?!

New York and Atlanta goes down?

upvoted 1 times

✉ **Coffeezw** 1 year, 7 months ago

A is correct coz the question says WHEN, not IS down

upvoted 1 times

✉ **IxlJustinlxl** 2 years ago

should only be E since router should be smart enough to figure out the other part itself (which interface to exit from); however, I guess doing the config in D would be best practice so no assumptions are being made.

ANSWER = DE

upvoted 2 times

✉ **DixieNormus** 9 months ago

A router can't see loopback interfaces of its neighbors, only the IPs of the interfaces it is connected to.

upvoted 2 times

✉ **mrsiafu** 2 years, 1 month ago

Only possible answers are D & E based on the question.

upvoted 3 times

✉ **jeff** 2 years, 3 months ago

I believe A was an answer because the question stated the router is being configured to connect to Atlanta with a primary path "then" a back up route if the primary goes down

....just badly/Cisco worded.

upvoted 9 times

 **FloridaMan88** 2 years, 3 months ago

This shouldn't be a multiple choice question...there is only one real answer.

D as an answer doesn't work in reality - it is not a next hop...its the routers interface, it would need to be written as s0/0/1 5

E is the only possible answer as the question is written as GA24 states about A as an answer in their comment:

"GA24:

How come option A is also correct where in the question it clearly states that the link between New York and Atlanta is down, Which also means that network 2012::128 is down?"

upvoted 1 times

 **Riki** 2 years, 4 months ago

This answer DE

upvoted 4 times

Question #371

Topic 1

How does HSRP provide first hop redundancy?

- A. It load-balances Layer 2 traffic along the path by flooding traffic out all interfaces configured with the same VLAN.
- B. It uses a shared virtual MAC and a virtual IP address to a group of routers that serve as the default gateway for hosts on a LAN.
- C. It forwards multiple packets to the same destination over different routed links in the data path.
- D. It load-balances traffic by assigning the same metric value to more than one route to the same destination in the IP routing table.

Correct Answer: B

Reference:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipapp_fhrp/configuration/xe-16/fhp-xe-16-book/fhp-hsrp-mgo.html

 **alexiro** Highly Voted 2 years, 9 months ago

This virtual IP address is in the same subnet as the interface IP address, but it is a different IP address. The router then automatically creates the virtual MAC address. All the cooperating HSRP routers know these virtual addresses, but only the HSRP active router uses these addresses at any one point in time.

The virtual router is responsible for host communications such as an ARP request for the host's default gateway. Technically, this is served by the active router since it is hosting the virtual router. However, it is the virtual router's IP address and MAC address that are used for outgoing packets.

upvoted 12 times

 **ZUMY** Most Recent 9 months, 1 week ago

B is correct

upvoted 1 times

 **ismatdmour** 1 year, 3 months ago

(2) The answer to this can be "Neighboring interfaces with MTU mismatch"; i.e to change MTU value of one router to be different than the one which belongs to the other router.

But as this option is not there, and I rejected D based on above (B and C, process ID and priority are irrelevant and are also rejected). This leaves for us A; i.e. to modify hello interval. However, before we discuss the impact of this, please read the question again to find that whatever we do, we need to act the status quo in which the two routers even have no intent to become neighbors, they send hello's but each one finds a different hello timers in the hello messages and therefore refuse to proceed more. Hence, whatever other option we chose (e.g. D or if MTU is there), we have to first fix Timers (combined with the other option of your choice). Hence, I believe the answer given is the one that is on the mind of the examiner who designed this question.

upvoted 1 times

Question #372

Topic 1

Refer to the exhibit. Which action establishes the OSPF neighbor relationship without forming an adjacency?

```
R1# sh ip ospf int gig0/0
Gig0/0 is up, line protocol is up
    Internet Address 10.201.24.8/28, Area 1, Attached via Network Statement
    Process ID 100, Router ID 192.168.1.1, Network Type BROADCAST, Cost: 1
    Topology-MTID      Cost      Disabled      Shutdown      Topology Name
        0            1            no            no            Base
    Transmit Delay is 1 sec, State DR, Priority 1
    Designated Router (ID) 192.168.1.1, Interface address 10.201.24.8
    No backup designated router on this network
    Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
        oob-resync timeout 40
        Hello due in 00:00:07

R2#sh ip ospf int gig0/0
gig0/0 is up, line protocol is up
    Internet Address 10.201.24.1/28, Area 1
    Process ID 100, Router ID 172.16.1.1, Network Type BROADCAST, Cost: 1
    Transmit Delay is 1 sec, State DR, Priority 1
    Designated Router (ID) 172.16.1.1, Interface address 10.201.24.1
    No backup designated router on this network
    Timer intervals configured, Hello 20, Dead 80, Wait 80, Retransmit 5
```

- A. modify hello interval
- B. modify process ID
- C. modify priority
- D. modify network type

Correct Answer: A

✉  **nebolala1** Highly Voted 1 year, 6 months ago

I hate this
upvoted 33 times

✉  **ismatdmour** 1 year, 3 months ago

Agree. Missing information and improper wording. See my other comment
upvoted 5 times

✉  **anonymous1966** Highly Voted 2 years, 3 months ago

Correct is D
Pay attention to the statement: "establishes the OSPF neighbor relationship without forming an adjacency"
This two conditions (1) NO Neighbor Missing AND (2) no adjacency occurs only in two situations:
1) Neighboring interfaces with MTU mismatch.
2) Neighboring interfaces with OSPF network type mismatch
https://learning.oreilly.com/library/view/ccna-200-301-official/9780136755562/vol1_ch21.xhtml
upvoted 13 times

✉  **iGlitch** 1 year, 1 month ago

According to OCG Volume 1 Chapter 21 page 515 :
"Interestingly, if you
misconfigure network type settings such that one router uses broadcast, and the other uses
point-to-point, the following occurs:
■ The two routers become fully adjacent neighbors (that is, they reach a full state).
■ They exchange their LSDBs.
■ They do not add IP routes to the IP routing table.
The reason for not adding the routes has to do with the details of LSAs and how the use of
a DR (or not) changes those LSAs. Basically, the two routers expect different details in the
LSAs, and the SPF algorithm notices those differences and cannot trust the LSAs because of
those differences."

So D cannot be the correct answer.

upvoted 11 times

✉  **ThomasSmith** Most Recent 3 weeks, 5 days ago

Selected Answer: A

Question's Answer: Choosing answer A (modify hello interval) will cause R1 and R2 to successfully get to the 2-WAY OSPF neighbor relationship state but R1 and R2 will not become adjacent neighbors. Because R4 and R3 have the highest and second highest OSPF Router-IDs (192.168.1.4 and 192.168.1.3), they will become the DR and BDR. R1 will form full adjacencies with both the DR and BDR.

<https://learningnetwork.cisco.com/s/question/0D56e0000CfMTBnCQO/which-action-establishes-the-ospf-neighbor-relationship-without-forming-an-adjacency?t=1683708512442>

upvoted 1 times

 **liviuml** 1 month, 3 weeks ago

NOT possible - NO right answered if we get all request conditions.

First of all, "B. modify process ID" has nothing to do with relationship between devices, is internal.

To establishes the OSPF neighbor relationship we need to change timers to be the same. No matter if routers are in Broadcast or P2P, they cannot become neighbors if timers are not the same (even the Hello packets are transmitted, they will be ignored).

With presented settings if we adjust timers the routers will form ADJACENCY (again no matter if network types are Broadcast or P2P).

The only way to force routers to not form adjacency is to change PRIORITY to 0. In this way the routers will not become DR/BDR and will remain both DROTHERs (Neighbor Count is 1, Adjacent neighbor count is 0).

They will continue to send Hello messages, will be neighbors, but never achieve adjacency.

So, regarding the question there are 2 necessary actions to take to fulfill the request: changing timers to be the same & priority 0. With only one action is impossible.

Tested all variants in PT.

Regards to the person who invented this impossible question/situation,

upvoted 1 times

 **oatmealturkey** 3 months, 1 week ago

Selected Answer: A

I've gone back and forth on this question, but I have to finally go with A. If you change the network type, the Hello and Dead Interval timers still will not match, so a neighbor relationship still will not form. So A is the only possible answer (assuming that if you change the Hello timer, IOS automatically makes the Dead Interval timer 4 times that of the Hello timer, can anyone confirm that?).

I don't really know WHY it's A, because why then would they not reach full adjacency? I wonder if it has something to do with the fact that one router interface does not display any "attached" statement ("Attached via network statement", "Attached via interface enable")? I have no idea....

upvoted 1 times

 **networkin** 5 months, 4 weeks ago

Ok. I'll take a swing at this. The question should have been "Which TWO actions establish..". Then it would have made perfect sense! A & D.

upvoted 1 times

 **Murphy2022** 8 months ago

Selected Answer: A

I have rebuild this on real switches and A is the correct answer.

When you modify the hello timer on R2 to 10 the output is:

Neighbour Count is 1, Adjacent neighbour count is 0

upvoted 4 times

 **RougePotatoe** 7 months, 1 week ago

That's funny I did mismatched network types and one side is Neighbor 1 Adjacent 1 while the other is Neighbor 1 Adjacent 0. When I configured mis-matched timers it didn't even list any neighbors.

upvoted 1 times

 **Sal34** 1 year ago

Answer is D.

From the perspective of OSPF, there are a couple of things that must match for an OSPF neighborship to establish; these include:

1. The devices must be in the same area.
2. The devices must have the same authentication configuration.
3. The devices must be on the same subnet.
4. The devices hello and dead intervals must match.
5. The devices must have matching stub flags.

But the question is asking about OSPF neighborship without forming adjacencies. The OSPF point-to-point and point-to-multipoint nonbroadcast networks require statically defined neighbor statements without forming DR/BDR adjacencies.

upvoted 1 times

 **ar2** 1 year ago

A

<https://community.cisco.com/t5/switching/ospf-neighbor-v-ospf-adjacency/td-p/1576785#:~:text=An%20OSPF%20adjacency%20is%20formed,routing%20updates%20from%20the%20DR.>

upvoted 1 times

 **jahinchains** 1 year, 1 month ago

<https://www.ciscopress.com/articles/article.asp?p=2294214>

spend time reading this one and you will know the best answer

upvoted 1 times

 **jahinchains** 1 year, 1 month ago

Selected Answer: A

even you modify network type they will never become neighbor if it has hello interval mismatch
upvoted 9 times

 **Ghost47** 1 year, 2 months ago

Selected Answer: A

A is correct because the question ask "Which action establishes the OSPF neighbor relationship (without) forming an adjacency. This question is Cisco use their word games on the question to confuse people. The question is in plain terms ask what need to be change to make the router neighbors. Below is a section from the CCNA Official Cert guide 200-301.

"Mismatched OSPF Network Types

Earlier in this chapter you read about the OSPF broadcast network type, which uses a DR/BDR, and the OSPF point-to-point network type, which does not. Interestingly, if you misconfigure network type settings such that one router uses broadcast, and the other uses point-to-point, the following occurs:

- The two routers become fully adjacent neighbors (that is, they reach a full state).
- They exchange their LSDBs.
- They do not add IP routes to the IP routing table."

Have matching Hello timer is one of the requirements for OSPF to neighbors to become FULL.

upvoted 2 times

 **JonasWolfxin** 10 months, 3 weeks ago

what about that both 2 routers use point-to-point type? The answer should be D

upvoted 2 times

 **ismatdmour** 1 year, 3 months ago

(3) Let us next discuss whether this can be the correct answer or not. I say that this can be a correct. Remember that in a broadcast network where we have 4 routers or more, one of them will be Dr, another will be BDR, and all remaining routers will be DROTH (Not a DR nor a BDR). DR/BDR proceed to fully adjacent relation with all DROTHers while any 2 DROTHers will form a 2 way (not adjacent) and each one of them will have the other as 2-way/DROTH. Wow... this our target, hence A, fixing timers can lead in such cases to neighbor relation (but not full). I believe this is what was on the examiner mind. However, the information about existence or no-existence of more than 4 routers are not there. Moreover,

upvoted 2 times

 **ismatdmour** 1 year, 3 months ago

(1) I can say that this is a kind of question has some missing information and improper wording.
D cannot be fully correct because the question asks that no adjacency (the two routers become fully adjacent) be formed. Network mismatch will ensure that neighbor relation is formed, however, it will proceed to be fully adjacent and routers will exchange LSA and update LSDBs. The only impact on ospf process is that the SPF algorithm when digging in the LSDBs of both routers will find things which will prevent him from proceeding and it will not add routes (based on algorithm findings in LSDBs) to routing tables.

upvoted 2 times

 **rlelliott** 1 year, 3 months ago

The easiest way to answer this question is to completely ignore the exhibit all together. Then the answer becomes quite obvious.

upvoted 1 times

 **rlelliott** 1 year, 3 months ago

Oh by the way the answer is D

upvoted 1 times

 **ShaneFusco** 1 year, 3 months ago

in hex?

upvoted 1 times

 **ksave** 1 year, 4 months ago

Selected Answer: D

Answer is D.

Mismatched OSPF network types makes two routers neighbours but they do not add IP routes in the routing table.

Source: Wendell Odom, Volume 1, page 515.

whereas mismatched hello interval prevents the routers to become OSPF neighbours in the first place.

upvoted 2 times

 **reagan_donald** 1 year, 4 months ago

Interestingly, if you misconfigure network type settings such that one router uses broadcast, and the other uses point-to-point, the following occurs:

- The two routers become fully adjacent neighbors (that is, they reach a full state).
- They exchange their LSDBs.
- They do not add IP routes to the IP routing table.

Yes but it also says that it will become fully adjacent....

i think question is here interpreted wrongly

upvoted 1 times

 **JimmyX** 1 year, 6 months ago

I believe the answer is A - modify hello interval

The default Network Type is Broadcast for Ethernet networks. Initially routers identify themselves with Hello protocol packet. Once acknowledged, this establishes the most basic relationship.

It's not until at least one of them become Designated Router or Backup Designated Router do they form the adjacency.

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xe-16/iro-xe-16-book/iro-cfg.html

https://en.wikipedia.org/wiki/Open_Shortest_Path_First

upvoted 4 times

✉ **RSA001** 1 year, 4 months ago

Among with other reasons why your point is wrong, changing ONLY hello timer will not change anything in this case

upvoted 1 times

Question #373

Topic 1

Which command must you enter to guarantee that an HSRP router with higher priority becomes the HSRP primary router after it is reloaded?

- A. standby 10 preempt
- B. standby 10 version 1
- C. standby 10 priority 150
- D. standby 10 version 2

Correct Answer: A

The `preempt` command enables the HSRP router with the highest priority to immediately become the active router.

✉ **kaus3k** Highly Voted 1 year, 7 months ago

Preemption is the technology that ask a HSRP enabled router to be primary every time it comes up even though backup router is acting as Primary currently. if Preemption not enabled, when primary router reloads then backup router becomes primary and doesnot become backup even though primary router comes up.

upvoted 12 times

✉ **ZUMY** Most Recent 9 months, 1 week ago

A okay

upvoted 3 times

✉ **Belinda** 1 year, 2 months ago

Hello! Pls this discussion part is not opening on my laptop but opens in my phone, on my laptop when u go via a question and want to check the discussion part of it, it says server error couldn't load discussion, pls what could be the issue?

upvoted 2 times

✉ **Belinda** 1 year, 2 months ago

Hello! At first the discussion part was opening on my laptop out of a sudden it not , kept saying server error couldn't load discussion. But it opening on my phone that's how can even text here for help. Thanks . Waiting for anyone who can be of help.

upvoted 2 times

✉ **NICE_ANSWERS** 6 days, 14 hours ago

Check your internet connection

upvoted 1 times

✉ **Wilasky** 1 year, 3 months ago

The `standby preempt` command enable HSRP router with highest priority to immediately become the active router.

upvoted 2 times

Question #374

Topic 1

Which command should you enter to verify the priority of a router in an HSRP group?

- A. show hsrp
- B. show sessions
- C. show interfaces
- D. show standby

Correct Answer: D

The following is sample output from the show standby command:

```
Router# show standby

Ethernet0/1 - Group 1
State is Active
  2 state changes, last state change 00:30:59
  Virtual IP address is 10.1.0.20
    Secondary virtual IP address 10.1.0.21
  Active virtual MAC address is 0004.4d82.7981
  Local virtual MAC address is 0004.4d82.7981 (bia)
  Hello time 4 sec, hold time 12 sec
  Next hello sent in 1.412 secs
  Gratuitous ARP 14 sent, next in 7.412 secs
  Preemption enabled, min delay 50 sec, sync delay 40 sec
  Active router is local
  Standby router is 10.1.0.6, priority 75 (expires in 9.184 sec)
Priority 95 (configured 120)
Tracking 2 objects, 0 up
  Down Interface Ethernet0/2, pri 15
  Down Interface Ethernet0/3
Group name is "HSRP1" (cfgd)
Follow by groups:
  Et1/0.3 Grp 2 Active 10.0.0.254 0000.0c07.ac02 refresh 30 secs (nex
  ↪
  Et1/0.4 Grp 2 Active 10.0.0.254 0000.0c07.ac02 refresh 30 secs (nex
  ↪
  Group name is "HSRP1", advertisement interval is 34 sec
```

 **xsp** Highly Voted 2 years, 3 months ago

on the contrary if the question is vrrp, command is:

show vrrp

upvoted 14 times

 **Acai** 2 years ago

and for GLBP, show glbp

upvoted 11 times

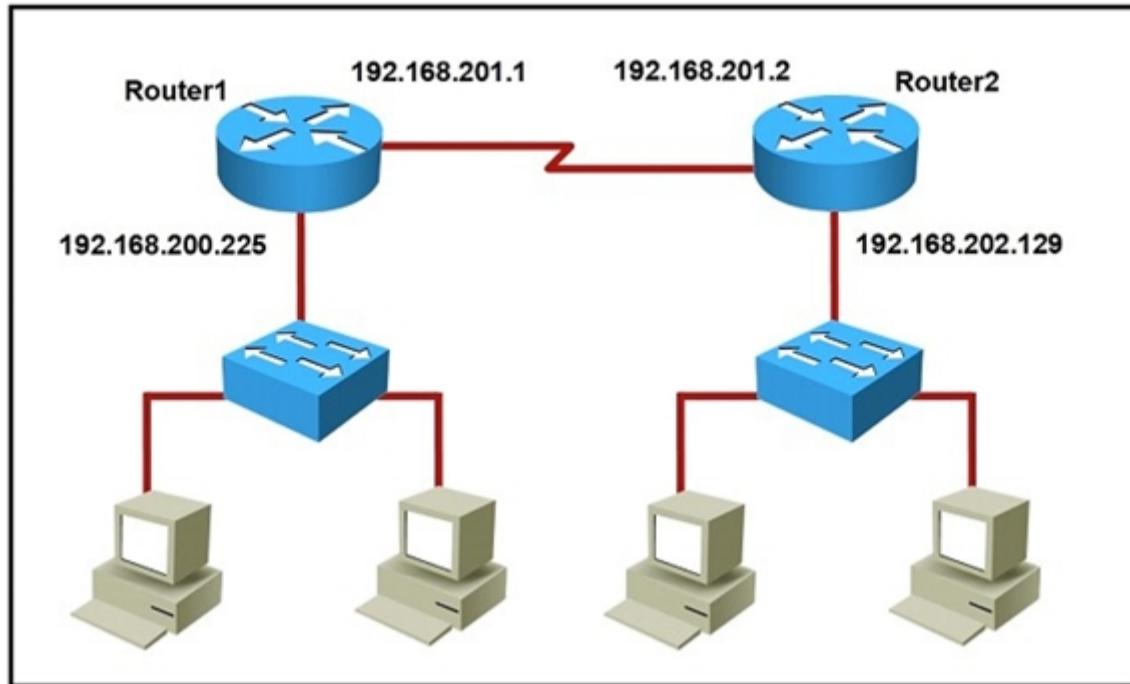
 **xbobdan** 3 months, 2 weeks ago

what's the point of asking these pure memorization question without any logical or sequential knowledge ground? i hate this

upvoted 5 times

Question #375

Refer to the exhibit. Which command would you use to configure a static route on Router1 to network 192.168.202.0/24 with a nondefault administrative distance?



- A. router1(config)#ip route 192.168.202.0 255.255.255.0 192.168.201.2 1
- B. router1(config)#ip route 192.168.202.0 255.255.255.0 192.168.201.2 5
- C. router1(config)#ip route 1 192.168.201.1 255.255.255.0 192.168.201.2
- D. router1(config)#ip route 5 192.168.202.0 255.255.255.0 192.168.201.2

Correct Answer: B

The default AD of static route is 1 so we need to configure another number for the static route.

cybernett Highly Voted 2 years, 3 months ago

Answer B is correct and not A because question asks for Non default AD therefore we use 5 as AD for static route and not 1 because Default AD for static route is 1

upvoted 12 times

checkoboy88 Most Recent 3 months, 1 week ago

syntax:

ip route command + subnet to be reached + submask of subnet to be reached + nexthop subnet + administrative distance (needs to be different than 1 because static route default is 1)

upvoted 1 times

msomali 1 year, 1 month ago

keyword is NON-DEFAULT AD which means FLOATING ROUTE. Static route have a default AD of 1. So looking for the static with AD higher than 1 will be correct according to the question.

upvoted 2 times

Jay1324 1 year, 4 months ago

this is a syntax question, learning the order in which the command goes and knowing the default admin distance of a static route
upvoted 3 times

Dataset 1 year, 12 months ago

B is correct

upvoted 4 times

Question #376

Topic 1

Which of the following dynamic routing protocols are Distance Vector routing protocols?

- A. IS-IS
- B. EIGRP
- C. OSPF
- D. BGP
- E. RIP

Correct Answer: BE

 **Stonetales987** Highly Voted 1 year, 6 months ago

Distance Vector - RIP & EIGRP
OSPF - Link State & IS IS
BGP - Path State
https://packetlife.net/media/library/40/IOS_Interior_Routing_Protocols.pdf
upvoted 22 times

 **bigbux** Highly Voted 2 years, 1 month ago

EIGRP is sometimes referred to as a hybrid routing protocol because it has characteristics of both distance-vector and link-state protocols. For example, EIGRP doesn't send link-state packets as OSPF does; instead, it sends traditional distance-vector updates containing information about networks plus the cost of reaching them from the perspective of the advertising router. And EIGRP has link-state characteristics as well—it synchronizes routing tables between neighbors at startup and then sends specific updates only when topology changes occur. This makes EIGRP suitable for very large networks. EIGRP has a maximum hop count of 255 (the default is set to 100).

upvoted 12 times

 **LekkiDee** Most Recent 1 week, 5 days ago

The keyword in the question is "are" this will indicate that they are looking for a minimum of two answers.
upvoted 1 times

 **SVN05** 4 months ago

Fun Tip. For Distance Vector protocols, the letters "R.I.P" are present in E"l"G"R""P" and RIP.
upvoted 6 times

 **Rether16** 2 months ago

I love you.
upvoted 3 times

 **HMax** 6 months, 2 weeks ago

Distance Vector Protocols (DVP)
Link State Protocols (LSP)

IS-IS = LSP
EIGRP = DVP+LSP
OSPF = LSP
BGP = Path-Vector Routing Protocol
RIP = DVP
upvoted 3 times

 **everchosen13** 8 months, 1 week ago

I would say only E because technically EIGRP is not a true distance vector but a hybrid. If asked to select multiple I would have chose both EIGRP and RIP
upvoted 1 times

 **Murphy2022** 8 months, 1 week ago

EIGRP is an enhanced distance vector protocol
RIP is a distance vector protocol
Question states to not choose more than 2 so I would say that only E is correct.
upvoted 2 times

 **bitree** 1 year, 2 months ago

<https://www.ciscopress.com/articles/article.asp?p=2180210&seqNum=9>
cisco says RIP and EIGRP
upvoted 1 times

 **Nvoid** 1 year, 5 months ago

Can you mark the question as taking two answers, really great person that created this site! Thx in advance!!

upvoted 6 times

 **django1001** 1 year, 9 months ago

Should be B and D

upvoted 1 times

 **Alibaba** 1 year, 6 months ago

are you sure about it

upvoted 1 times

 **Alibaba** 1 year, 6 months ago

B and E dude

upvoted 1 times

 **paulotiago** 1 year, 8 months ago

BGP is a path vector routing protocol.

upvoted 4 times

Question #377

Topic 1

You have configured a router with an OSPF router ID, but its IP address still reflects the physical interface.

Which action can you take to correct the problem in the least disruptive way?

- A. Reload the OSPF process
- B. Specify a loopback address
- C. Reboot the router
- D. Save the router configuration

Correct Answer: A

Once an OSPF Router ID selection is done, it remains there even if you remove it or configure another OSPF Router ID. So the least disruptive way is to correct it using the command `clear ip ospf process`.

 **CISCO2022** Highly Voted  2 years ago

Adding loopback ip still need to reload ospf process to take effect.

upvoted 15 times

 **Webfat** 3 months, 2 weeks ago

It can be loopback because the rules to select the router ID

1. Manual configuration of the router ID (via the `router-id x.x.x.x` command under OSPF router configuration mode).

2. Highest IP address on a loopback interface.

3. Highest IP address on a non-loopback and active (no shutdown) interface.

In this question we already have a manual router ID, so even if you configure a loopback, manual router ID still will be the priority

upvoted 1 times

 **anonymous1966** Highly Voted  2 years, 3 months ago

Correct is B

in my opinion this is the "least disruptive way".

upvoted 13 times

 **Panda_man** Most Recent  6 months, 1 week ago

Selected Answer: A

A is correct

upvoted 1 times

 **Nalle72** 1 year, 2 months ago

Router id is not an IP address, the question confuses the two. (It can be the same as the IP address, for sure. But in the end, it is just an independent 32-bit id, and the only criteria, from OSPF point of view, is that it needs to be unique). Just nitpicking.

upvoted 1 times

 **jerry19** 2 years, 1 month ago

I'm leaning towards the answer given A. If the explanation is accurate, it shouldn't be B (especially if you configured `router-id x.x.x.x` as indicated in problem statement). Clear `ip ospf process` temporarily restarts the neighbor relationships and there is disruption but my understanding it is only temporary. OSPF is self-healing with the hello packets so the OSPF routers should reconverge.

upvoted 8 times

Question #378

Topic 1

Which command should you enter to view the error log in an EIGRP for IPv6 environment?

- A. show ipv6 eigrp neighbors
- B. show ipv6 eigrp topology
- C. show ipv6 eigrp traffic
- D. show ipv6 eigrp events

Correct Answer: D

✉  **Rockrl** Highly Voted 1 year, 5 months ago

A lot of EIGRP question when it is not listed in the topics to cover
upvoted 12 times

✉  **Jackie_Manuas12** 1 year, 2 months ago

These must be questions from the previous CCNA exams before the update to 200-301. Rather than edit them out, admin here decided to just add to the question bank. I'm not sure if that's a good or bad decision...
upvoted 13 times

✉  **mrsiafu** Highly Voted 2 years, 1 month ago

show ip eigrp events
To display the Enhanced Interior Gateway Routing Protocol (EIGRP) event log, use the show ip eigrp events command in user EXEC or privileged EXEC mode.

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_eigrp/command/ire-cr-book/ire-s1.html#wp3095206170
upvoted 8 times

✉  **Ciscoman021** Most Recent 2 months, 1 week ago

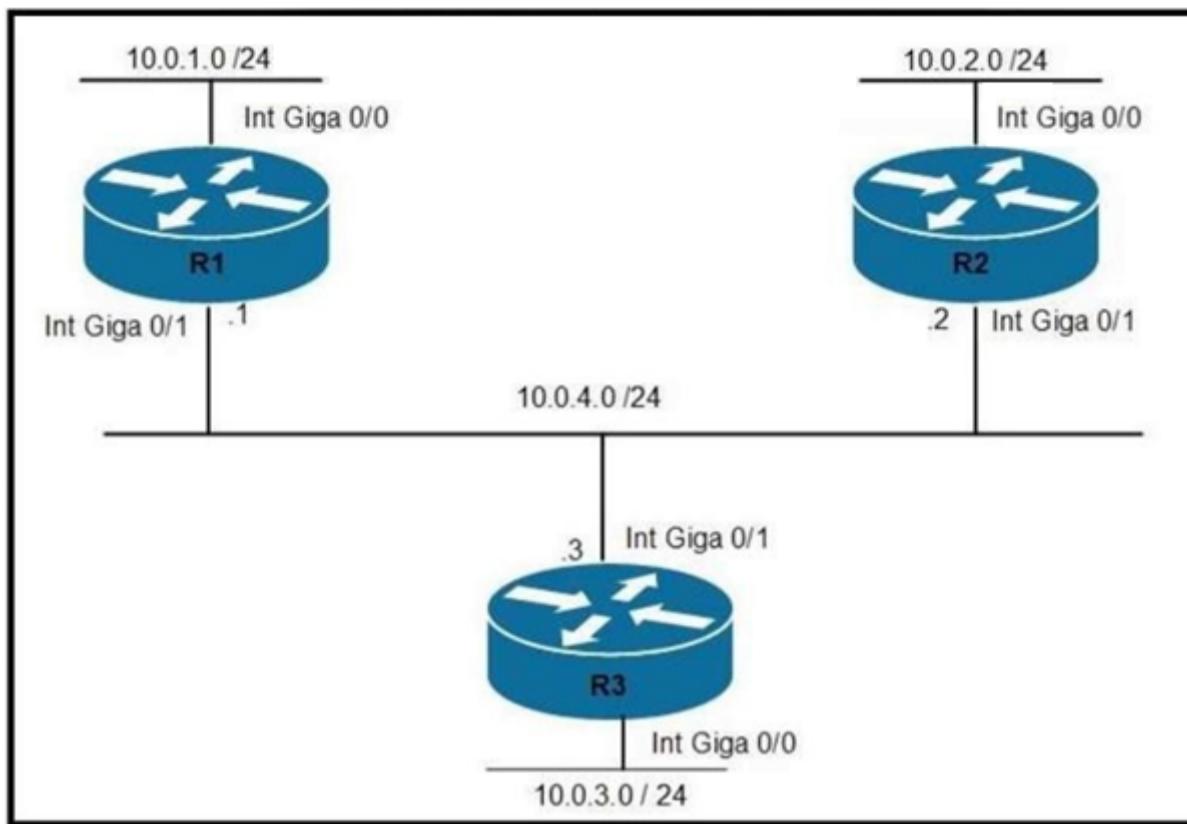
Selected Answer: D

The "show ipv6 eigrp events" command displays the recent EIGRP for IPv6 events and provides information about the error messages, notifications, and warnings generated by EIGRP for IPv6. This command is useful for troubleshooting EIGRP for IPv6 issues.
upvoted 1 times

Question #379

Topic 1

Refer to the exhibit. Which two statements about the network environment of router R1 must be true? (Choose two.)



Refer to the exhibit. Router R1 must be configured to reach the 10.0.3.0/24 network from the 10.0.1.0/24 segment. Which command must be used to configure the route?

- A. route add 10.0.3.0 0.255.255.255 10.0.4.2
- B. ip route 10.0.3.0 0.255.255.255 10.0.4.2
- C. route add 10.0.3.0 mask 255.255.255.0 10.0.4.3
- D. ip route 10.0.3.0 255.255.255.0 10.0.4.3

Correct Answer: D

✉️ **Request7108** 5 months, 1 week ago

The prompt says choose two?

upvoted 4 times

✉️ **freaknowledge123** 5 months ago

relates to the next question

upvoted 3 times

Question #380

Topic 1

```
R1#show ip route
Gateway of last resort is 10.85.33.14 to network 0.0.0.0
D*EX 0.0.0.0/0
[170/257024] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/257024] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
10.0.0.0/8 is variably subnetted, 6692 subnets, 20 masks
B 10.0.0.0/8 [20/0] via 10.48.144.14, 1w5d
D EX 10.0.1.0/24
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
D EX 10.0.2.0/23
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
D EX 10.0.4.0/22
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
D EX 10.0.8.0/21
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
D EX 10.0.16.0/20
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
D EX 10.0.32.0/19
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
B 10.1.96.0/23 [20/0] via 10.111.33.217, 2w3d
B 10.1.96.0/24 [20/0] via 10.111.33.217, 2w3d
B 10.1.97.0/24 [20/0] via 10.111.33.217, 4w5d
D EX 10.1.255.240/28
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
D EX 10.2.0.0/16
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
B 10.2.0.0/24 [20/0] via 10.111.33.217, 4w5d
B 10.2.96.0/23 [20/0] via 10.48.144.14, 4w5d
B 10.2.96.0/24 [20/0] via 10.48.144.14, 3w1d
B 10.2.97.0/24 [20/0] via 10.48.144.14, 4w5d
D EX 10.3.0.0/16
[170/51968] via 10.85.33.14, 7w0d, TenGigabitEthernet0/2/0.100
[170/51968] via 10.85.33.10, 7w0d, TenGigabitEthernet0/1/0.100
B 10.5.1.0/24 [20/0] via 10.111.33.217, 1w4d
B 10.5.5.0/24 [20/0] via 10.111.33.217, 4w3d
B 10.6.0.0/24 [20/0] via 10.111.33.217, 3w3d
```

- A. The EIGRP administrative distance was manually changed from 90 to 170.
- B. There are 20 different network masks within the 10.0.0.0/8 network.
- C. Ten routes are equally load-balanced between Te0/1/0.100 and Te0/2/0.100.
- D. The 10.0.0.0/8 network was learned via external EIGRP.
- E. A static default route to 10.85.33.14 was defined.

Correct Answer: BC

✉  **Tylosh** Highly Voted  9 months ago

Where is the question ?

upvoted 21 times

✉  **Yunus_Empire** 6 months ago

Good Question

upvoted 9 times

✉  **splashy** Highly Voted  8 months, 2 weeks ago

Selected Answer: BC

D EX = EIGRP external = default 170 AD

So you can eliminate A+D

10.0.0.0/8 is variably subnetted, 6692 subnets, 20 masks

B is correct

C is correct just count the 170 AD load balanced routes

E is not correct because it states "to 10.85.33.14" i think... at first i thought it also was correct
it should be via 10.85.33.14 or to 0.0.0.0

upvoted 5 times

✉  **Murphy2022** 8 months, 1 week ago

E ist not correct as it isn't a static route, thanks for the explanation of B and C!

upvoted 1 times

✉  **andresfjardim** Most Recent  4 months, 1 week ago

Selected Answer: BC

Question: Refer to the exhibit. Which two statements about the network environment of router R1 must be true? (Choose two.)

upvoted 5 times

 **Sdiego** 4 months, 2 weeks ago

B isn't correct, there may be 20 different network paths, but not 20 different network masks...
upvoted 1 times

 **binrayelias** 4 months, 3 weeks ago

B and C since since D EX is external eigrp with AD of 170
upvoted 1 times

 **DoBronx** 7 months, 1 week ago

what? no question? freebie!
upvoted 2 times

 **GigaGremlin** 8 months ago

B is Wrong, WITHIN the 10.0.0.0/8 network are only 19 Network Masks
C is correct
E is correct, 10.85.33.14 is a static default route
upvoted 2 times

 **mzu_sk8** 6 months, 3 weeks ago

the static route is to 0.0.0.0 using 10.85.33.14 as the next hop!! E is wrong
upvoted 2 times

 **guynetwork** 8 months, 4 weeks ago

Selected Answer: AC

Refer to the exhibit. Which two statements about the network environment of router R1 must be true? (Choose two.)

A C

upvoted 2 times

 **Customexit** 7 months, 1 week ago

but it's not EIGRP (90), it's External EIGRP hence the D EX (170). nothing was changed.
upvoted 4 times

Question #381

Topic 1

Which two statements about exterior routing protocols are true? (Choose two.)

- A. They determine the optimal within an autonomous system.
- B. They determine the optimal path between autonomous systems.
- C. BGP is the current standard exterior routing protocol.
- D. Most modern networking supports both EGP and BGP for external routing.
- E. Most modern network routers support both EGP and EIGRP for external routing.

Correct Answer: BC

 **Clinques** Highly Voted 1 year, 5 months ago

Selected Answer: BC

Exterior Gateway Protocols (EGP): Used for routing between autonomous systems. It is also referred to as inter-AS routing. Service providers and large companies may interconnect using an EGP. The Border Gateway Protocol (BGP) is the only currently viable EGP and is the official routing protocol used by the Internet.

NOTE

Because BGP is the only EGP available, the term EGP is rarely used; instead, most engineers simply refer to BGP.

<https://www.ciscopress.com/articles/article.asp?p=2180210&seqNum=7>

upvoted 14 times

 **Yunus_Empire** Most Recent 6 months ago

Selected Answer: BC

<https://www.ciscopress.com/articles/article.asp?p=2180210&seqNum=7>

upvoted 1 times

 **arenjenkins** 7 months, 2 weeks ago

beyond scope

upvoted 1 times

 **amadeu** 1 year, 5 months ago

B and C is the correct answer.

upvoted 3 times

Question #382

You have two paths for the 10.10.10.0 network - one that has a feasible distance of 3072 and the other of 6144.

What do you need to do to load balance your EIGRP routes?

- A. Change the maximum paths to 2
- B. Change the configuration so they both have the same feasible distance
- C. Change the variance for the path that has a feasible distance of 3072 to 2
- D. Change the IP addresses so both paths have the same source IP address

Correct Answer: BC

Every routing protocol supports equal cost path load balancing. In addition, Interior Gateway Routing Protocol (IGRP) and EIGRP also support unequal cost path load balancing. Use the variance n command in order to instruct the router to include routes with a metric of less than n times the minimum metric route for that destination. The variable n can take a value between 1 and 128. The default is 1, which means equal cost load balancing. Traffic is also distributed among the links with unequal costs, proportionately, with respect to the metric.

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/13677-19.html#topic1>

 **jehangt3** Highly Voted 2 years ago

THE QUESTION DOES NOT STATE TO "CHOOSE 2 ANSWERS" !

upvoted 109 times

 **reagan_donald** Highly Voted 1 year, 5 months ago

They were claiming that they have removed EIGRP from blueprints, as i guess they just lied out there...there are lot of deep/detailed questions about EIGRP which i have not met neither in Wendell Odom nor on Netacad.

upvoted 15 times

 **Ali526** 11 months, 1 week ago

It is not very helpful.

upvoted 1 times

 **Dhruv3390** Most Recent 4 months, 3 weeks ago

BC are correct choice here.

B: By changing the the configuration and make feasible distance same for both, will enable ECMP (Equal Cost Multiple Path) Load-balancing. It will load balance the traffic.

C: By changing the Variance by 2 (Means allowing other feasible distance upto x 2) of 3072.

In other words, If I apply variance 2 on 3072, I'm allowing other distance by to 6144 can be Load- balance. This is called Enequal-cost load-balancing. which is only supported by EIGRP. I hope this helps.

upvoted 3 times

 **david124** 10 months, 1 week ago

this question is not a CCNA question it is a CCNP question

upvoted 9 times

 **Nvoid** 1 year, 5 months ago

Please fix so theres two answers, thanks!

upvoted 5 times

 **ProgSnob** 1 year, 6 months ago

I believe the answer should be C. Variance is something used to create unequal cost load balancing. I've never read anything that just says to change the configuration so they have the same feasible distance. Using variance is practically an EIGRP staple.

upvoted 3 times

 **Satya927** 1 year, 9 months ago

From what I understood, both B and C represent the same thing, i.e., by changing variance to 2 allows value to be same($2 \times 3072 = 6144$) which is C & B states to change the configuration to achieve same feasible distance which is if variance 2 is given both will have the same feasible distance. So I guess the answers are correct.

upvoted 2 times

 **Peterpyon** 1 year, 10 months ago

Folks,

Eigrp supports an unequal path metrics (cost) using Variance command. in this case, C is the correct answer.

upvoted 4 times

 **lordnano** 2 years, 3 months ago

Can someone explain the answer?

I would assume only C is a correct solution:

B: is feasible distance not a calculated number?

"feasible distance: Best metric among all path to a network. It is calculated by adding the advertised/reported distance advertised by the neighbor and the cost calculated by that current router to reach the neighbor."

<https://www.geeksforgeeks.org/eigrp-cost-calculation/>

C: Makes sense since 3072 multiplied by variance 2 is 6144

<https://study-ccna.com/eigrp-authentication-load-balancing/>

upvoted 3 times

✉ **Robin999** 2 years, 3 months ago

I would say its only B. The Distance needs to be the same but not forced 2.

Probaly both are right but B is the better answer.

However there are just 4 answers and no "Choose two".

upvoted 2 times

✉ **LTTAM** 2 years, 4 months ago

Answers are correct. Source:

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/13677-19.html#topic1>

upvoted 5 times

✉ **velrisan** 2 years ago

is true, from the same source of LTTAM here is the answer: Every routing protocol supports equal cost path load balancing. In addition, Interior Gateway Routing Protocol (IGRP) and EIGRP also support unequal cost path load balancing

upvoted 2 times

Question #383

DRAG DROP -

Drag each route source from the left to the numbers on the right. Beginning with the lowest and ending with the highest administrative distance.

Select and Place:

connected	1
EBGP	2
EIGRP	3
OSPF	4
RIP	5
static	6

Correct Answer:

connected	connected
EBGP	static
EIGRP	EBGP
OSPF	EIGRP
RIP	OSPF
static	RIP

 **Chocobo** Highly Voted 2 years, 3 months ago

Administrative distances for these are:

Connected - 0

Static route - 1

EBGP - 20

EIGRP - 90

OSPF - 110

RIP - 120

upvoted 42 times

 **jerry19** 2 years ago

To caveat, IBGP is 200. Not shown here but definitely worth noting.

upvoted 18 times

 **BooleanPizza** 1 year, 9 months ago

Also worth noting, IS-IS has an AD of 115.

upvoted 16 times

 **msomali** Highly Voted 1 year, 1 month ago

here is a list of routing protocols with default ADs

Connected = 0

Static Route = 1

eBGP (external) = 20

EIGRP (Internal) = 90

OSPF = 110
IS-IS = 115
RIP = 120
EIGRP (external) = 170
iBGP (internal BGP) = 200
EIGRP summary route = 5
upvoted 9 times

 **Nevnarion** Most Recent 7 months, 3 weeks ago

Easy way to remember these; if you can memorise that connected is first and static is second, the rest of them are in alphabetical order.
upvoted 6 times

 **illuded03jolted** 12 months ago

DO – Directly connected- 0
Secure- Static- 1
Buggy- eBGP- 20
Encryption- Internal (EIGRP)- 90
On- OSPF- 110
Internet- ISIS- 115
Router- RIP- 120
upvoted 5 times

Question #384

Topic 1

Which two circumstances can prevent two routers from establishing an OSPF neighbor adjacency? (Choose two.)

- A. mismatched autonomous system numbers
- B. an ACL blocking traffic from multicast address 224.0.0.10
- C. mismatched process IDs
- D. mismatched hello timers and dead timers
- E. use of the same router ID on both devices

Correct Answer: DE

 **dicksonpwc** Highly Voted 1 year, 9 months ago

Must be unique:
– OSPF process ID
– router ID
– IP address
Must match:
– netmask
– area ID
– timers
upvoted 31 times

 **mimo1000** Highly Voted 1 year, 5 months ago

you guys confuse people here.
the giving answers are correct
upvoted 8 times

 **Pamirt** Most Recent 8 months ago

Selected Answer: DE
timers must match, router id must unique
upvoted 2 times

 **peshev123** 1 year, 1 month ago

Selected Answer: DE
answ: C,D,E
upvoted 1 times

 **sdokmak** 1 year, 11 months ago

D and E
upvoted 4 times

 **CISCO2022** 1 year, 12 months ago

Area duplicate router ID
%OSPF-4-DUP_RTRID1: Detected router with duplicate
router ID 100.0.0.2 in area 0
Explanation—OSPF detected a router that has the same router ID in the area.
Recommended Action—The OSPF router ID should be unique. Make sure all routers in the area have unique router ID.
upvoted 2 times

 **CISCO2022** 2 years ago

b and C
OSPF uses two IP multicast addresses on broadcast and point-to-point networks: 225.0. 0.5 for all OSPF routers and 224.0. 0.6 for all DR/BDR (designated router/backup designated router) routers. Using IP multicast addresses is more efficient than using broadcast addresses.
upvoted 1 times

 **Nicocisco** 1 year, 3 months ago

B = 224.0.0.10 so it's D & E
C = process ID is local so we dont care about that
upvoted 1 times

 **TA77** 11 months, 1 week ago

Process ID must be unique, so C is wrong. Given answer is correct (D and E).
upvoted 1 times

 **DoBronx** 7 months, 1 week ago

process ID does not have to be unique

upvoted 2 times

✉ **Cisco2021** 2 years ago

what is the correct answer?

upvoted 1 times

✉ **mkamau** 2 years, 4 months ago

224.0.0.10 is used by eigrp so CD are correct

upvoted 4 times

✉ **Robin999** 2 years, 2 months ago

Given Answers are correct.

C is no possiblty. Process ID doesnt needs to match, but it can - it doesnt matter for the adjacent process

upvoted 2 times

✉ **Ali526** 2 years, 5 months ago

B can also be correct. Needs to be checked out.

upvoted 2 times

✉ **daynight** 2 years, 4 months ago

B is wrong: The IPv4 multicast addresses used for OSPF are 224.0. 0.5 to send information to all OSPF routers and 224.0. 0.6 to send information to DR/BDR routers. The IPv6 multicast addresses are FF02::5 for all OSPFv3 routers and FF02::6 for all DR/BDR routers.

upvoted 6 times

✉ **Ali526** 2 years, 4 months ago

You are 100% right. I forgot Multicast IPs of OSPF. '10' is for eigrp.

upvoted 3 times

Question #385

Topic 1

Which three describe the reasons large OSPF networks use a hierarchical design? (Choose three.)

- A. to speed up convergence
- B. to reduce routing overhead
- C. to lower costs by replacing routers with distribution layer switches
- D. to decrease latency by increasing bandwidth
- E. to confine network instability to single areas of the network
- F. to reduce the complexity of router configuration

Correct Answer: ABE

✉  **dicksonpwc** Highly Voted 1 year, 9 months ago

Hierarchical design of OSPF (basically means that you can separate the larger internetwork into smaller internetworks called areas) helps us create a network with all features listed above (decrease routing overhead, speed up convergence, confine network instability to single areas of the network).

upvoted 19 times

✉  **echarles10** Highly Voted 2 years, 5 months ago

A,B and E is correct

upvoted 6 times

✉  **splashy** Most Recent 8 months, 3 weeks ago

Selected Answer: ABE

Not D because you're not increasing bandwidth, you're decreasing ospf related multicast traffic

upvoted 4 times

✉  **ratu68** 11 months ago

OSPF uses a hierarchical design. Commonly, large OSPF uses this hierarchical design. The main reasons for using this design are the following:

To reduce the routing overhead.
For faster convergence.
To converge all the instabilities into a particular area.

<https://snabaynetworking.com/what-is-ospf-area-ospf-hierarchical-network-design-and-advantages/>

upvoted 1 times

✉  **qasawq** 11 months, 2 weeks ago

Selected Answer: ABE

see @dicksonpwc's comment

upvoted 1 times

✉  **peshev123** 1 year, 1 month ago

Selected Answer: ADE

it's ok

upvoted 1 times

✉  **Robin999** 2 years, 3 months ago

Could D an option too?

If you have less Overhead, because of building more areas, you can increase the Bandwidth.

upvoted 3 times

✉  **Zerotime0** 2 years, 3 months ago

In essence of what areas are for and hierarchical design ,those answers given are bestest out of maybe some others like D

upvoted 4 times

✉  **mike132** 11 months, 1 week ago

No because summary routes would take care of this most of the time, making it not that much more complex.

upvoted 1 times

Question #386

Topic 1

Refer to the exhibit. If R1 receives a packet destined to 172.16.1.1, to which IP address does it send the packet?

```
R1#show ip route
#output suppressed
```

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

```
C    172.16.1.128/25 is directly connected, GigabitEthernet1/1/0
C    192.168.12.0/24 is directly connected, FastEthernet0/0
C    192.168.13.0/24 is directly connected, FastEthernet0/1
C    192.168.14.0/24 is directly connected, FastEthernet1/0
C    172.16.16.1 is directly connected, Loopback1
      192.168.10.0/24 is variably subnetted, 3 subnets, 3 masks
O    192.168.10.0/24 [110/2] via 192.168.14.4, 00:02:01, FastEthernet1/0
O    192.168.10.32/27 [110/11] via 192.168.13.3, 00:00:52, FastEthernet0/1
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet1/1
D    192.168.10.1/32 [90/52778] via 192.168.12.2, 00:03:44, FastEthernet0/0
0*E2  0.0.0.0/0 [110/1] via 192.168.14.4, 00:00:10, FastEthernet1/0
```

- A. 192.168.14.4
- B. 192.168.12.2
- C. 192.168.13.3
- D. 192.168.15.5

Correct Answer: A

 **jobba111** Highly Voted 11 months, 2 weeks ago

route is not there, goes to the default gate way instead.

upvoted 6 times

 **msomali** Highly Voted 1 year, 1 month ago

172.16.1.1 is not in the routing table this means it is a random address.

But since a default static route of 0.0.0.0 has been configured and injected to OSPF with the next hop address of 192.168.14.4 through FastEthernet1/0, thus R1 will send the packet to 192.168.14.4.

upvoted 5 times

 **TA77** 11 months, 1 week ago

I believe the default route was 'generated' not 'configured' as a static. But anyway, the provided answer is correct.

upvoted 2 times

 **MassNasty1** Most Recent 1 month ago

The default gateway is specified as 192.168.14.1. Listed as "The Gateway of Last Resort" at the top of the routing table. This route is generally used to reach the internet but can route traffic to other networks as well. TA77 is correct since it would be listed in the actual routing table with the letter "S" for static route. The CLI syntax for a static route entry in the Privileged Exec Mode would be: #R1(config): ip route 0.0.0.0 0.0.0.0 192.168.14.1. However, it is indeed specified as a generated default gateway and therefore msomali and TA77 are both correct.

upvoted 1 times

 **virab4** 1 month, 2 weeks ago

Selected Answer: A

answer is A,192.168.15.5 also can be but answer A has lower cost,correct me if im wrong please

upvoted 1 times

 **UnbornD9** 1 month, 3 weeks ago

sorry but, 172.16.1.1 does not match with 172.16.0.0/16?? so, the route could be 192.168.15.5... I missed a point?

upvoted 1 times

 **yuh** 1 month ago

You are probably misunderstanding.
via192.168.15.5 is the route to 192.168.0.0/16. Not 172.16.0.0/16.

so, answer is A.

upvoted 1 times

Question #387

Refer to the exhibit. On R1 which routing protocol is in use on the route to 192.168.10.1?

```
R1#show ip route
Codes: C - connected, S - static, 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - ODR, P - periodic downloaded static route

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

C  192.168.12.0/24 is directly connected, FastEthernet0/0
C  192.168.13.0/24 is directly connected, FastEthernet0/1
C  192.168.14.0/24 is directly connected, FastEthernet1/0
C  192.168.10.0/24 is variably subnetted, 3 subnets, 3 masks
O    192.168.10.0/24 [110/2] via 192.168.14.4, 00:02:01, FastEthernet1/0
O    192.168.10.32/27 [110/11] via 192.168.13.3, 00:00:52, FastEthernet0/1
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet1/1
D    192.168.10.1/32 [90/52778] via 192.168.12.2, 00:03:44, FastEthernet0/0
O*E2 0.0.0.0/0 [110/1] via 192.168.14.4, 00:00:10, FastEthernet1/0
```

- A. RIP
- B. OSPF
- C. IGRP
- D. EIGRP

Correct Answer: D

✉ **Robin999** Highly Voted 2 years, 3 months ago

no AD needed. Rule most specified Prefix you need.
upvoted 8 times

✉ **Nhan** Highly Voted 2 years, 3 months ago

The AD=90
upvoted 5 times

✉ **Yunus_Empire** Most Recent 6 months ago

D is Symbol Used For EIGRP.....Like C Used For Connected....
upvoted 3 times

✉ **Customexit** 7 months, 1 week ago

Not only is /32 is longest prefix, /32 is a host route. It's a route directly to the host.
upvoted 1 times

✉ **itExamDumps11** 1 year, 1 month ago

D. = EIGRP. Also the default AD for it is 90. That being said, no matter what, longest prefix wins
upvoted 2 times

✉ **Scrvfce** 1 year, 1 month ago

This question needs to be looked into, if it was a host IP 192.168.10.1 the answer should be B(OSPF), and if its a network Address of 192.168.10.1, then it can be D (EIGRP), And they didn't specify which of them the IP belongs to
upvoted 1 times

✉ **Pkard** 1 year, 6 months ago

I hate how it is often unclear if the destination is a network or a host IP. If 192.168.10.1 is a host IP address then it would use 192.168.10.0/24 (OSPF) to get there. The 192.168.10.1/32 route is only correct if it's a destination network not host.
Does anyone else see it this way and have trouble trying to figure out if they want the route to a network or host?!?
upvoted 2 times

Here's how I solved it. Look at the letter and notice the D. = EIGRP. Also the default AD for it is 90. That being said, no matter what, longest prefix wins. (Most specific path)

upvoted 3 times

✉ **dave1992** 1 year, 6 months ago

You can also use the codes in the above table. D = EIGRP
upvoted 3 times

✉ **Stonetales987** 1 year, 6 months ago

You can also use the codes in the above table. D = EIGRP

upvoted 3 times

✉ **firstblood** 1 year, 9 months ago

D wins.

upvoted 4 times

 **dicksonpwc** 1 year, 9 months ago

As 192.168.10.1 /32 is Longest Prefix.

upvoted 4 times

Question #388

Topic 1

Refer to the exhibit. Which Command do you enter so that R1 advertises the loopback0 interface to the BGP Peers?

```
R1
interface Loopback0
 ip address 172.16.1.33 255.255.255.224

interface FastEthernet0/0
 ip address 192.168.12.1 255.255.255.0

router bgp 100
neighbor 192.168.12.2 remote-as 100
```

- A. Network 172.16.1.32 mask 255.255.255.224
- B. Network 172.16.1.0 0.0.0.255
- C. Network 172.16.1.32 255.255.255.224
- D. Network 172.16.1.33 mask 255.255.255.224
- E. Network 172.16.1.32 mask 0.0.0.31
- F. Network 172.16.1.32 0.0.0.31

Correct Answer: A

 **nakres64** Highly Voted 2 years, 4 months ago

BGP is out of content.

upvoted 41 times

 **firstblood** Highly Voted 1 year, 9 months ago

The way i see it, you got to be prepared for anything.

upvoted 28 times

 **jo966** Most Recent 4 months ago

never thought i could give an answer as a command:

I exclude:

its a network command so the advertised IP can only be a network address .33 is a host

--> exclude all .33 answers

Then, so far i only used wildcard masks in ACLs so

--> exclude the wildcards

Only A remains

upvoted 1 times

 **DoBronx** 7 months, 1 week ago

well played cisco

upvoted 4 times

 **splashy** 8 months, 3 weeks ago

Out of scope but pretty simple to remember:

no wildcard just normal submask,

and the use of the "mask" in front of the submask which is actually syntax tautology (good way to remember)

upvoted 3 times

 **timskis2** 1 year ago

why is the correct answer MASK ? in the command ?

upvoted 1 times

 **Patrick69** 11 months, 1 week ago

The correct syntax, including the keyword "mask" when you advertise the network for BGP

R1# router bgp 100

R1#neighbour 172.16.13.33 remote-as 200

R1#network 172.16.13.32 mask 255.255.255.252

upvoted 3 times

 **timskis2** 1 year ago

WHY WOULD IT NOT BE "C" ?

upvoted 1 times

✉ **HugoP** 14 hours, 1 minute ago

You need to have "mask" in your command
upvoted 1 times

✉ **iGlitch** 1 year, 1 month ago

BGP is out of scoop.
upvoted 2 times

✉ **Summo** 1 year, 2 months ago

unlike other routing protocols like OSPF or EIGRP, we have to use subnet mask, not wildcard mask, under BGP to advertise the routes in the "network" command.

upvoted 2 times

✉ **HelloBPDU** 1 year, 3 months ago

How the hell should I know how to configure BGP?
upvoted 18 times

✉ **mohamed1999** 1 year, 9 months ago

Correct answer is A,
D is not correct because the .33 is the first available host in the network and .32 is the network it self. Therefore A is correct.
upvoted 6 times

✉ **mrsiafu** 2 years, 1 month ago

Okay a subnetting question...but if you don't know how to configure BGP, then you would get this question wrong!
upvoted 6 times

✉ **mrsiafu** 2 years, 1 month ago

So BGP is part of CCNA now...?
upvoted 6 times

✉ **Acai** 2 years ago

Might be one of those ungraded questions they throw in there.
upvoted 2 times

✉ **Mozah** 1 year, 5 months ago

not at all
upvoted 2 times

✉ **bobert** 2 years, 3 months ago

OSPF uses wildcard mask
network ip-address wildcard-mask area area-id
should be E
upvoted 2 times

✉ **bobert** 2 years, 3 months ago

nevermind ... it's BGP
upvoted 4 times

✉ **XBfoundX** 2 years, 5 months ago

When BGP is configured it is not going to advertise networks is just for peering two neighbors, after that you have done your neighborship you can advertise the networks with the command suggested by Exam Topics, another important thing is that BGP needs to have the networks in the Routing table for be advertised if the networks are not in the Routing Table the networks will not be advertised.

upvoted 2 times

✉ **Zerotime0** 2 years, 5 months ago

Net id 0,32,64 so D would be incorrect because its not a net id but a usable 1st ip?
upvoted 1 times

✉ **Zerotime0** 2 years, 5 months ago

Would love expl. Here folks.
upvoted 1 times

✉ **LTТАM** 2 years, 4 months ago

Tricky question. This tests more of your knowledge of subnetting than routing? Posted answer of A is correct. Loopback IP 172.168.1.33 falls into the address range 172.16.2.32
255.255.255.224. Hence that (172.16.2.32) is the network to be advertised.
upvoted 10 times

✉ **cant_stop_studying** 2 years, 3 months ago

I disagree, it tests your knowledge of BGP more than anything, and that's not on the topic list anywhere that I've seen.

network [IP] mask [MASK]

is invalid syntax for OSPF which uses

network [IP] [WILDCARD MASK] area [AREA]

So without studying BGP specifically, we'd assume the answer is F if this was just testing subnetting.
upvoted 9 times

 **LTTAM** 2 years, 4 months ago

Ooop typo... I meant 172.16.1.32
upvoted 4 times

Question #389

Topic 1

Refer to exhibit. What Administrative distance has route to 192.168.10.1?

```
R1#show ip route
Codes: C - connected, S - static, 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - ODR, P - periodic downloaded static route

Gateway of last resort is 192.168.14.4 to network 0.0.0.0

C  192.168.12.0/24 is directly connected, FastEthernet0/0
C  192.168.13.0/24 is directly connected, FastEthernet0/1
C  192.168.14.0/24 is directly connected, FastEthernet1/0
  192.168.10.0/24 is variably subnetted, 3 subnets, 3 masks
O    192.168.10.0/24 [110/2] via 192.168.14.4, 00:02:01, FastEthernet1/0
O    192.168.10.32/27 [110/11] via 192.168.13.3, 00:00:52, FastEthernet0/1
O    192.168.0.0/16 [110/2] via 192.168.15.5, 00:05:01, FastEthernet1/1
D    192.168.10.1/32 [90/52778] via 192.168.12.2, 00:03:44, FastEthernet0/0
O*E2 0.0.0.0/0 [110/1] via 192.168.14.4, 00:00:10, FastEthernet1/0
```

- A. 1
- B. 90
- C. 110
- D. 120

Correct Answer: B

 **ZUMY** 9 months ago

B is correct
Longest pre fix elected
upvoted 3 times

 **Cyberops** 1 year ago

Look at the second line of the syslog from the bottom pls
D: 192.168.10.1 (here it is 90/52778) via 192.168.12..2 fa0/0
upvoted 1 times

 **Veasna_shadow** 2 years, 2 months ago

I think 110 rather than 90... Someone help me to explain please ?
upvoted 2 times

 **Dataset** 1 year, 12 months ago

longest prefix match, /32
EIGRP AD=90
regards
upvoted 9 times

 **stickerbombmaster** 2 years, 2 months ago

Second route from the bottom has the longest prefix (/32, its basically host route) with AD 90
upvoted 3 times

Question #390

Topic 1

Which value is used to determine the active router in an HSRP default configuration?

- A. Router loopback address
- B. Router IP address
- C. Router priority
- D. Router tracking number

Correct Answer: B

Q. If there is no priority configured for a standby group, what determines which router is active?

A. The priority field is used to elect the active router and the standby router for the specific group. In the case of an equal priority, the router with the highest IP address for the respective group is elected as active. Furthermore, if there are more than two routers in the group, the second highest IP address determines the standby router and the other router/routers are in the listen state.

 **xsp** [Highly Voted] 2 years, 3 months ago

keyword default configuration, means that priorities of both routers are the same (100).

upvoted 31 times

 **mrsiafu** [Highly Voted] 2 years, 1 month ago

This was the better question...

If there is no priority configured for a standby group, what determines which router is active?

upvoted 21 times

 **siredobu** 3 months, 2 weeks ago

That way, it is not a question, rather spoon feeding.

upvoted 1 times

 **L3nnny** 1 year, 7 months ago

Typical cisco, these questions are there to trick you.

upvoted 8 times

 **Rockrl** 1 year, 5 months ago

The question stated default priority

upvoted 2 times

 **shiv3003** [Most Recent] 1 month, 1 week ago

why not C

upvoted 1 times

 **Dhruv3390** 4 months, 3 weeks ago

Well played Cisco!

upvoted 2 times

 **everchosen13** 8 months, 1 week ago

Highest IP by "Default"

You almost had me there cisco

upvoted 2 times

 **ZUMY** 9 months ago

B is correct

upvoted 2 times

 **BlankNothing1** 1 year ago

You can go to Wendell Odom's blog which is <https://blog.certskills.com/cl514-answer/> that explains why it is the IP address. If the priority is not configured (default configuration of 100) then the active router is selected by using the highest interface address (IP address).

upvoted 1 times

 **hassanhady** 1 year, 6 months ago

i thought HsRP take priority!!

upvoted 2 times

 **CCNA_beast_69** 1 year, 6 months ago

B is correct

upvoted 1 times

Question #391

Topic 1

Refer to the exhibit. If RTR01 is configured as shown, which three addresses will be received by other routers that are running EIGRP on the network? (Choose three.)

```
RTR01 (config) #router eigrp 103
RTR01 (config-router) #network 10.4.3.0
RTR01 (config-router) #network 172.16.4.0
RTR01 (config-router) #network 192.168.2.0
RTR01 (config-router) #auto-summary
```

- A. 192.168.2.0
- B. 10.4.3.0
- C. 10.0.0.0
- D. 172.16.0.0
- E. 172.16.4.0
- F. 192.168.0.0

Correct Answer: ACD

✉  **sdokmak** Highly Voted 1 year, 11 months ago

A, C and D
auto summary uses "classful boundary"
- 10.4.3.0 with mask 255.0.0.0 gives 10.0.0.0
- 172.16.4.0 with mask 255.255.0.0 gives 172.16.0.0
- 192.168.2.0 with mask 255.255.255.0 gives 192.168.2.0
upvoted 38 times

✉  **hokieman91** Highly Voted 2 years, 4 months ago

Classless routing in EIGRP autosummary so
Class A 10.0.0.0 / 8
Class B 172.16.0.0 /16
Class C 192.168.x.0 /24

Gives answers A, C and D - tricky... I didn't study EIGRP as much since I thought the focus now was/is on OSPF
upvoted 17 times

✉  **hokieman91** 2 years, 4 months ago

Typo - meant "classful" routing --- mask dropped
upvoted 2 times

✉  **BooleanPizza** 1 year, 9 months ago

Mmm, it thought it was:
A - 10.0.0.0/8
B - 172.16.0.0/12
C - 192.168.0.0/16
upvoted 7 times

✉  **Dpsypher** 11 months ago

yup, good catch.
upvoted 1 times

✉  **gc999** Most Recent 2 months, 3 weeks ago

I think the major command here is "auto-summary", which once it is enabled, routers are summarized to the classful boundary in the routing updates.
upvoted 1 times

✉  **MED095** 4 months, 3 weeks ago

im sorry guys i have a question. if OSPF in question instead of EIGRP would answer be the same?
upvoted 1 times

✉  **kostka** 7 months, 4 weeks ago

EIGRP is part of CCNA? I don't think so
upvoted 2 times

✉  **Augusto2332** 6 months, 2 weeks ago

Is not, not in the official topic list
upvoted 1 times

 **reagan_donald** 1 year, 5 months ago

Probably Cisco's intentions was/is to fail as much candidates as they can, they strictly said that they have removed EIGRP from exam, even David Bombal and other guys are also saying so....it means they just lied....because seems that there are lot of EIGRP questions out there....beside that neither in Wendell Odom nor Netacad EIGRP is mentioned in details....

upvoted 8 times

 **Hodicek** 1 year, 6 months ago

TRICKY QUESTION ALTHOUGH IT IS VERY EASY ONE

upvoted 1 times

 **imo90s** 2 years, 1 month ago

eigrp is no longer on the exam folks

upvoted 3 times

 **ITGirl1982** 2 years ago

Actually, EIGRP is on the exam. My boss has required my entire team to take it and everyone who has taken it so far says EIGRP is on the exam.

upvoted 10 times

 **mvalveal** 2 years, 4 months ago

C D y F. the class are 10.0.0.0 172.16.0.0 192.168.0.0

upvoted 1 times

 **hokieman91** 2 years, 3 months ago

Manual summarization does allow for VLSM, however, auto-summary uses "classful boundary" so Class C would still be 192.168.x.0/24
Good explanation here and demo - <http://technologyordie.com/route-summarization-basics>

upvoted 2 times

 **mekesis** 2 years, 4 months ago

OK for D & C but why A and not F ? i don't understand.. Can someone help me please

upvoted 1 times

 **Hexa_44** 2 years ago

255.0.0.0 - Class A Subnet Mask (10.0.0.0)

255.255.0.0 - Class B Subnet Mask (172.16.0.0)

255.255.255.0 - Class C Subnet Mask (192.168.2.0)

upvoted 5 times

 **dave1992** 1 year, 6 months ago

Based on the answers, the reason why it's A is because 192.168.2.0 is actually a network address. And because we have a 255.255.255.0 mask, that means the third octet is left alone and we move to the 4th octet. So 192.168.2.0 would be the answer and not 192.168.0.0

upvoted 1 times

 **TheGenoShow** 2 years, 4 months ago

Can someone help me with this one if the answers are A,C,D, kinda looking over the answer why is the answer A and not F?

upvoted 6 times

 **Retxed** 2 years, 4 months ago

Using classful, class a, b and c

upvoted 4 times

Question #392

Topic 1

Which configuration command can you apply to a HSRP router so that its local interface becomes active if all other routers in the group fail?

- A. no additional config is required
- B. standby 1 track ethernet
- C. standby 1 preempt
- D. standby 1 priority 250

Correct Answer: A

Simply because that will be the default behavior routers would follow in the event all other routers in the HSRP group fail, then it would not keep attributes such as priority or preemption. What preemption does in summary is to make sure that the configured Priority on all routers within the same HSRP group is always respected. That is, if R1 is configured on the HSRP group with a priority of 150 but he stands as active since all other routers currently subscribed to that group have a priority 150, then will router will preempt the current active router and will take over hence becoming the new active router.

With preemption disabled, the new router does not preempt the current active router, unless routers in the group have to renegotiate their roles based on each router's priority at the time of negotiation.

 **SollyMalwane** Highly Voted 1 year, 3 months ago

Selected Answer: A

NO CONFIGURATION REQUIRED

upvoted 5 times

 **Yunus_Empire** Most Recent 6 months ago

Good Question!

upvoted 2 times

 **ktilwari** 1 year, 4 months ago

Selected Answer: A

It is simple. No Config is required.

upvoted 1 times

Question #393

Topic 1

Which two statements about eBGP neighbor relationships are true? (Choose two.)

- A. The two devices must reside in different autonomous systems
- B. Neighbors must be specifically declared in the configuration of each device
- C. They can be created dynamically after the network statement is configured
- D. The two devices must reside in the same autonomous system
- E. The two devices must have matching timer settings

Correct Answer: AB

✉  **FloridaMan88** Highly Voted 2 years, 3 months ago

This topic isn't for CCNA 200-301 exam, more likely for CCNP or CCIE level exams...just good to know for the future.
upvoted 21 times

✉  **Un_Paesino_Prima_De_Genzano** 2 years, 1 month ago

e c'hai ragione bro, sto albano [leggi username]
upvoted 6 times

✉  **daddydagoth** 3 months, 2 weeks ago

Bella vedere i fellow network engineers italiani. Saluti a voi butei, spero che l'avete presa la CCNA
upvoted 1 times

✉  **Scipions** 2 years, 1 month ago

Al castelli solo Genzano!
upvoted 5 times

✉  **ShravaniKulkarni** Highly Voted 1 year ago

We just have OSPF routing protocol in CCNA if I am not wrong.
upvoted 7 times

✉  **MDK94** Most Recent 11 months, 1 week ago

"Just like OSPF or EIGRP, BGP establishes a neighbor adjacency with other BGP routers before they exchange any routing information. Unlike other routing protocols however, BGP does not use broadcast or multicast to "discover" other BGP neighbors.

Neighbors have to be configured manually and BGP uses TCP port 179 for the connection."
Source: <https://networklessons.com/bgp/bgp-neighbor-adjacency-states#:~:text=Just%20like%20OSPF%20or%20EIGRP,%E2%80%9Cdiscover%E2%80%9D%20other%20BGP%20neighbors.>

upvoted 3 times

✉  **Eyan** 1 year, 8 months ago

its common sense type of questions, since the IGPs within autonomous systems, BGP is between autonomous systems and need to be configured manually. thats what i understood
upvoted 2 times

✉  **iGlitch** 1 year, 1 month ago

What about the second choice then smart ?
upvoted 3 times

✉  **jpfulton314** 1 year, 9 months ago

The following topics are general guidelines for the content likely to be included on the exam. However, other related topics may also appear on any specific delivery of the exam. To better reflect the contents of the exam and for clarity purposes, the guidelines below may change at any time without notice.

This opens the door for topics not necessarily listed in the exam objectives.

upvoted 1 times

✉  **Lucaa** 2 years ago

Sorry, but are these questions in 200-301 exam???
upvoted 5 times

✉  **mrsiafu** 2 years, 1 month ago

More BGP... SMH!
upvoted 4 times

Question #394

Topic 1

Refer to the exhibit. How will the router handle a packet destined for 192.0.2.156?

```
router#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 192.168.4.1 to network 0.0.0.0

 10.0.0.0/24 is subnetted, 3 subnets
C    10.0.2.0 is directly connected, Ethernet1
D    10.0.3.0 [90/2195456] via 192.168.1.2, 00:03:01, Serial0
D    10.0.4.0 [90/2195456] via 192.168.3.1, 00:03:01, Serial1
C    192.168.1.0/24 is directly connected, Serial0
D    192.168.2.0/24 [90/2681856] via 192.168.1.2, 00:03:01, Serial0
                  [90/2681856] via 192.168.3.1, 00:03:01, Serial1
C    192.168.3.0/24 is directly connected, Serial1
C    192.168.4.0/24 is directly connected, Serial2
```

- A. The router will forward the packet via either Serial0 or Serial1.
- B. The router will return the packet to its source.
- C. The router will forward the packet via Serial2.
- D. The router will drop the packet.

Correct Answer: C

✉ **Retxed** Highly Voted 2 years, 4 months ago

Explanation:

Router has pointed default router to 192.168.4.1 and this subnet is connected via serial 2 interface. Router does not have router for the 192.0.2.156. so it will use the default gateway 192.168.4.1. A default route identifies the gateway IP address to which the router sends all IP packets for which it does not have a learned or static route.

upvoted 45 times

✉ **Mozah** 1 year, 5 months ago

perfect!!

upvoted 4 times

✉ **uevenasdf** Highly Voted 2 years, 4 months ago

192.0.2.156 has not route so 0.0.0.0 which is connected to 192.168.4.0 (Serial 2)

upvoted 11 times

✉ **soRwatches** Most Recent 2 months, 3 weeks ago

well played Cisco!

upvoted 1 times

✉ **Sah_** 3 months, 1 week ago

Are there labs in ccna

upvoted 1 times

✉ **country_rooted** 2 months, 1 week ago

Jeremy's i.t lab (Youtube) has labs that you can receive via google drive and download. (check out his ccna playlist of 121 videos. The process should be in one of the 1st 5 vids). Even if you are stuck during a lab you can follow along with his videos.

If you have the funds you can purchase boson exsim and they also have step by step guided labs that can also indicate where you've gone wrong, what's been successfully completed, what's incomplete etc.

upvoted 1 times

✉ **cormorant** 6 months ago

1. look up route for 192.0.2.156. you'll see there's none
2. check gateway of last resort and see if it can route 192.0.2.156
3. you'll find out it does: it points to 0.0.0.0, which can fit any ip
4. the route pointing to 0.0.0.0 is 192.168.4.1. this is the route that you want
5. look up its subnet in the routing table and the interface connected to it. that is your answer

upvoted 4 times

✉ **Pkard** 1 year, 6 months ago

My eyes have betrayed me...I kept reading 192.168.2.156...

upvoted 6 times

✉ **Aleks123** 1 year, 5 months ago

They play with the numbers like that alot

upvoted 2 times

✉ **BooleanPizza** 1 year, 9 months ago

Are we sure that 192.0.2.156 isn't a typo and it's actually 192.168.2.156?

upvoted 2 times

✉ **Eyan** 1 year, 8 months ago

can't be type 156 is not even close by any sense to 0

upvoted 1 times

✉ **aike92** 1 year, 4 months ago

I agree w/ BooleanPizza, this question seems off in correlation to the hundreds of others if it was a typo & the questions states "192.168.2.156" then the correct Ans is A (Serial 1)

but just incase it isn't a typo the others would be correct in the Answer tied to the Default gateway

upvoted 1 times

Question #395

Which statements describe the routing protocol OSPF? (Choose three.)

- A. It supports VLSM.
- B. It is used to route between autonomous systems.
- C. It confines network instability to one area of the network.
- D. It increases routing overhead on the network.
- E. It allows extensive control of routing updates.
- F. It is simpler to configure than RIP v2.

Correct Answer: ACE

The OSPF protocol is based on link-state technology, which is a departure from the Bellman-Ford vector based algorithms used in traditional Internet routing protocols such as RIP. OSPF has introduced new concepts such as authentication of routing updates, Variable Length Subnet Masks (VLSM), route summarization, and so forth.

OSPF uses flooding to exchange link-state updates between routers. Any change in routing information is flooded to all routers in the network. Areas are introduced to put a boundary on the explosion of link-state updates. Flooding and calculation of the Dijkstra algorithm on a router is limited to changes within an area.

✉  **Robin999** Highly Voted 2 years, 3 months ago

D probaly would is right too.

If you gonna use OSPF you have more Routing overhead in your network. If its already implemented you can reduce the overhead by building different areas. All in all it increases the overhead.

Answers by Question 184 proofs it

upvoted 8 times

✉  **ScorpionNet** 1 year, 1 month ago

No because Dynamic Routing Protocols are used to reduce routing overhead not increase it

upvoted 1 times

✉  **Auronx92** 2 years, 1 month ago

But Question 184, indicates that it reduces overhead, in this question in indicates that it increases it.

upvoted 6 times

✉  **promaster** 2 years ago

Question 184 was in the perspective of using OSPF in a hierarchical design.

upvoted 5 times

✉  **Etidic** Most Recent 7 months, 2 weeks ago

Selected Answer: ACE

A C & E are correct

upvoted 4 times

✉  **ScorpionNet** 1 year, 1 month ago

A C and E are correct because that's how scalable OSPF is

upvoted 1 times

✉  **Alex127** 1 year, 1 month ago

i think d is incorrect

in question 222: Which three describe the reasons large OSPF networks use a hierarchical design?

answer b: to reduce routing overhead is correct

upvoted 1 times

✉  **bmatthee01** 1 year, 3 months ago

A is correct

B wrong, this is related to ebgp

C correct, it confines network instability to one area of the network, eg in a multi area network if there's a problem in area 1 it will only affect area 1

D possibly correct , as the network grows it has to update its routing table and broadcast Lsa, update Lsdb, using more cpu and memory resource but this does not describe ospf its a symptom

E. Correct, the router will flood Lsa specifically in its own area not to other areas

F. Wrong. It's not that much easier to configure than rip v2

upvoted 3 times

✉  **ismatdmour** 1 year, 3 months ago

Wow, u r great man. This word "Symptom" makes D incorrect. All others are descriptions of how ospf operates. I wonder how much those CISCO people are expected exam takers to be so strict on wording (like this)!. I doubt if I asked them the same question that they won't give 4 answers correct -D correct also- out of the six answers given. Agree?

upvoted 2 times

 **Chen80** 1 year, 11 months ago

I think ACE are right, the only doubt is

B: It is used to route between autonomous systems

OSPF actually can operate between different AS thru the ASBR but it was born as an INTERIOR Gateway Routing Protocol, so to operate inside one AS.

upvoted 2 times

 **Raman1996** 1 year, 4 months ago

ospf doesn't use AS, it uses area ID

upvoted 1 times

Question #396

Topic 1

Refer to the exhibit. After you apply the given configurations to R1 and R2 you notice that OSPFv3 fails to start.

```
R1
ipv6 unicast-routing

interface FastEthernet0/0
    no ip address
ipv6 enable
    ipv6 address 3001:DBB:13::1/64
    ipv6 ospf 1 area 0
ipv6 router ospf 1
router-id 172.16.1.1

R2
ipv6 unicast-routing

interface FastEthernet0/0
    no ip address
    ipv6 enable
    ipv6 address 2001:DBB:12::12/64
    ipv6 ospf 1 area 3
ipv6 router ospf 1
router-id 172.16.3.3
```

- A. The area numbers on R1 and R2 are mismatched
- B. The IPv6 network addresses on R1 and R2 are mismatched
- C. The autonomous system numbers on R1 and R2 are mismatched
- D. The router ids on R1 and R2 are mismatched

Correct Answer: A

✉ **ScorpionNet** 1 year, 1 month ago

Correct because areas, timers, and wildcard masks needs to match
upvoted 3 times

✉ **YoniEth** 1 year, 10 months ago

can routers on different areas can communicate??
upvoted 1 times

✉ **Petan** 1 year, 8 months ago

Yes, they can but you will have to configure at least one Area Border Router to help communication between the different areas.
upvoted 4 times

✉ **Raulf** 2 years, 2 months ago

Correct. Areas mismatched... however, The IPV6 global addresses are also in different subnets and there shouldn't be connectivity right?
upvoted 4 times

✉ **Nicocisco** 1 year, 3 months ago

OSPFv3 use link-local address, so when R1 and R2 dont use GUA to speak
(correct me if it's wrong)
upvoted 3 times

✉ **Un_Paesino_Prima_De_Genzano** 2 years, 1 month ago

sisi dije de si
upvoted 2 times

✉ **vadiminski** 2 years, 1 month ago

I think the answer is correct, because "ospf fails to START" and the only must-have requirements for ist to start are matching area IDs and hello/dead timers. Correct me, if I'm wrong
upvoted 6 times

Question #397

Topic 1

Which command is used to display the collection of OSPF link states?

- A. show ip ospf link-state
- B. show ip ospf lsa database
- C. show ip ospf neighbors
- D. show ip ospf database

Correct Answer: D

The "show ip ospf database" command displays the link states. Here is an example:

Here is the lsa database on R2.

```
R2#show ip ospf database -  
OSPF Router with ID (2.2.2.2) (Process ID 1)  
Router Link States (Area 0)  
Link ID ADV Router Age Seq# Checksum Link count2.2.2.2 2.2.2.2 793 0x80000003 0x004F85 210.4.4.4 10.4.4.4 776 0x80000004 0x005643  
1111.111.111.111  
111.111.111.111 755 0x80000005 0x0059CA 2133.133.133.133 133.133.133.133 775 0x80000005 0x00B5B1 2 Net Link States (Area 0)  
Link ID ADV Router Age Seq# Checksum10.1.1.1 111.111.111.111 794 0x80000001 0x001E8B10.2.2.3 133.133.133.133 812 0x80000001  
0x004BA910.4.4.1  
111.111.111.111 755 0x80000001 0x007F1610.4.4.3 133.133.133.133 775 0x80000001 0x00C31F
```

✉  **shiv3003** 1 month, 1 week ago

B i think
upvoted 1 times

✉  **shiv3003** 1 month, 1 week ago

No its D
upvoted 2 times

Question #398

Topic 1

Refer to the exhibit. A network associate has configured OSPF with the command:

```
City(config-router)# network 192.168.12.64 0.0.0.63 area 0
```

After completing the configuration, the associate discovers that not all the interfaces are participating in OSPF. Which three of the interfaces shown in the exhibit will participate in OSPF according to this configuration statement? (Choose three.)

City#show ip interface brief

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/0	192.168.12.48	Yes	manual	up	up
FastEthernet0/1	192.168.12.65	Yes	manual	up	up
Serial0/0	192.168.12.121	Yes	manual	up	up
Seriak0/1	unassigned	Yes	unset	up	up
Serial0/1.102	192.168.12.125	Yes	manual	up	up
Serial0/1.103	192.168.12.129	Yes	manual	up	up
Serial0/1.104	192.168.12.133	Yes	manual	up	up

City#

- A. FastEthernet0 /0
- B. FastEthernet0 /1
- C. Serial0/0
- D. Serial0/1.102
- E. Serial0/1.103
- F. Serial0/1.104

Correct Answer: BCD

The "network 192.168.12.64 0.0.0.63 equals to network 192.168.12.64/26. This network has:

⇒ Increment: 64 (/26= 1111 1111.1111 1111.1111 1111.1100 0000) + Network address:

192.168.12.64

⇒ Broadcast address: 192.168.12.127

Therefore all interface in the range of this network will join OSPF.

✉  **chr** Highly Voted  2 years ago

OSPF will match IP addresses based on 192.168.12.64 0.0.0.63.

11000000.10101000.00001100.01000000 => 192.168.12.64

00000000.00000000.00000000.00111111 => 0.0.0.63

Matches will be made on the IP only for the 1's not 0's above. We can invert the bits to make it more familiar as a network mask. This becomes:

11000000.10101000.00001100.01000000 => 192.168.12.64

11111111.11111111.11111111.11000000 => /26 or 255.255.255.192

This therefore gives a match of IPs in the network 192.168.12.64 (the next network is 192.168.12.128) so broadcast is 192.168.12.127 and usable IPs are .65 to 126.

We now match IPs in this range which are:

FastEthernet0/1 (192.168.12.65) - ANSWER B

Serial0/0 (192.168.12.121) - ANSWER C

Serial0/1/102 (192.168.12.125) - ANSWER D

If you are having problems understanding this one the key to write out 0.0.0.63 in binary and then invert the bits.

upvoted 35 times

✉  **FALARASTA** 1 month, 1 week ago

Thank you

upvoted 1 times

✉  **Carter_Milk** Highly Voted  1 year, 6 months ago

Use the magic number technique. Wildcard mask minus 255 so 255 minus 63 = 192.

192 give block size of 64 (256-192)

network 0 -63

network 64 -127

network 128 - 192

upvoted 10 times

✉ **liviuml** 2 months ago

@Carter_Milk why you use right hand to go to the left ear?

Is more simple to add 63 (from wildcard mask) to 64 (the ip of network) and will give you 127 (the upper limit of network). Results the range x.x.x.64-127. Regards,

upvoted 1 times

✉ **dmaster42** [Most Recent] 8 months, 2 weeks ago

excellent explanation, chr, that the way

upvoted 1 times

✉ **aliwqa777** 2 years, 1 month ago

I see that no one knows the explanation

upvoted 3 times

✉ **Jonfernz** 2 years, 1 month ago

It has already been explained. The network 192.168.12.64 0.0.0.63 covers IP address ranging from .64 to .127 (it's using a /25 subnet mask).

So in this case, that's what you're looking for.

upvoted 4 times

✉ **Sayeem** 2 years, 1 month ago

But why 192.168.12.64 0.0.0.63 --> IP address ranging .64 to .127 (why /25 subnet)

upvoted 1 times

✉ **BooleanPizza** 1 year, 9 months ago

It's /26 actually

upvoted 2 times

✉ **Jonfernz** 1 year, 8 months ago

sorry. typo. i meant /26

upvoted 3 times

✉ **BooleanPizza** 1 year, 9 months ago

because it's a wildcard mask, which is the inverse of the subnet mask which in this case is 255.255.255.192

upvoted 1 times

✉ **Sayeem** 2 years, 1 month ago

why network 192.168.12.64 0.0.0.63 equals to network 192.168.12.64/26? can anyone help me explain please

upvoted 2 times

✉ **jehangt3** 2 years ago

In order to identify what a wildcard mask actually represents you must subtract the amount from 255 so in this case 255-63=192. So the subnet mask is actually 255.255.255.192 which is a /26.

Use my subnet calculator below to help you master subnetting

1st OCT /1 /2 /3 /4 /5 /6 /7 /8

2nd OCT /9 /10 /11 /12 /13 /14 /15 /16

3rd OCT /17 /18 /19 /20 /21 /22 /23 /24

4th OCT /25 /26 /27 /28 /29 /30 /31 /32

HOSTS 128 64 32 16 8 4 2 1

SUBNET 1 2 4 8 16 32 64 128

PREFIX 128 192 224 240 248 252 254 255

upvoted 5 times

✉ **ttomer** 2 years, 3 months ago

Why Serial 1.102 and not Serial 1.103?

192.168.12.128 is the next network, isn't it?

upvoted 1 times

✉ **hokieman91** 2 years, 3 months ago

Network 192.168.12.64 0.0.0.63 covers the addresses for 192.168.12.64 to 127

192.168.12.64 - Network

192.168.12.65 to 126 - Gives 62 Usable host addresses

192.168.12.127 - Broadcast

Only Int F0/1, S0/0 and S0/1.102 fall inside this host range

S0/1.103 is in the next network

upvoted 3 times

✉ **Zerotime0** 2 years, 4 months ago

So net id's Are 0/64/128 pick which ever fall in .64-127.

upvoted 1 times

✉ **Chun9** 2 years, 4 months ago

I got it thanks.

upvoted 1 times

 **Chun9** 2 years, 4 months ago

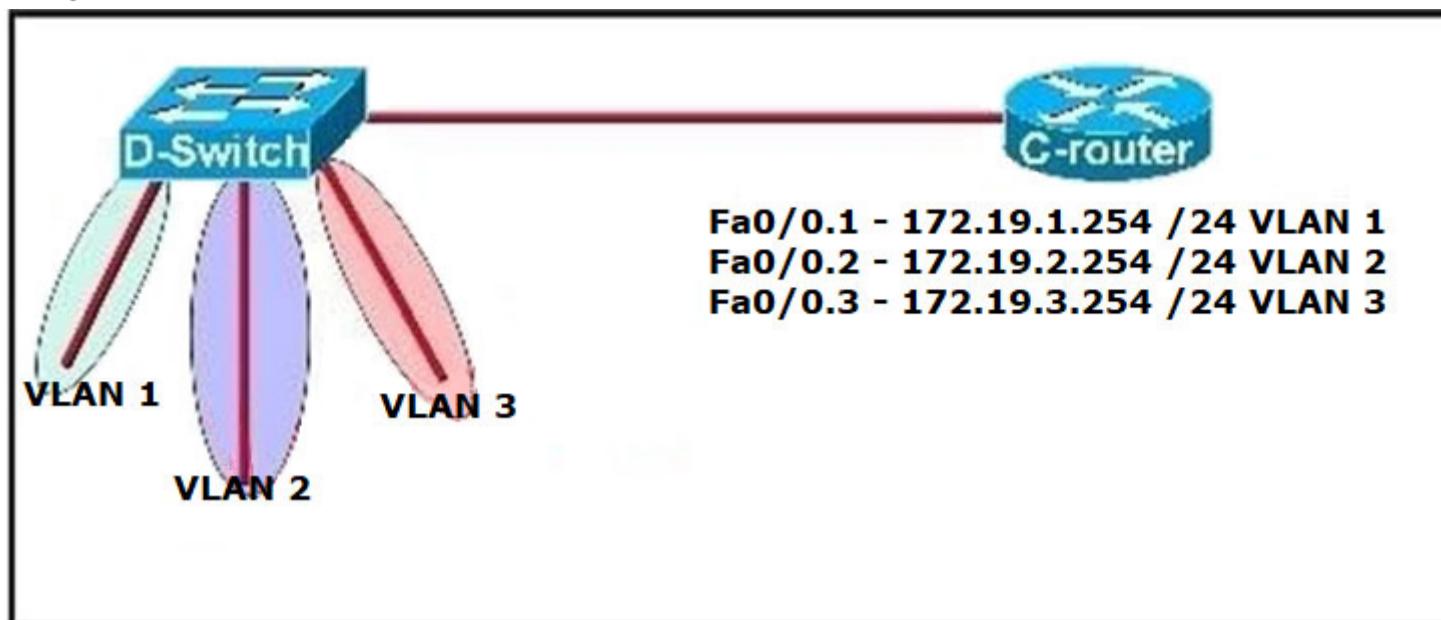
Can anyone can explain for me please? Thanks

upvoted 1 times

Question #399

Topic 1

Refer to the exhibit. C-router is to be used as a "router-on-a-stick" to route between the VLANs. All the interfaces have been properly configured and IP routing is operational. The hosts in the VLANs have been configured with the appropriate default gateway. What is true about this configuration?



- A. These commands need to be added to the configuration: C-router(config)# router eigrp 123 C-router(config-router)# network 172.19.0.0
- B. These commands need to be added to the configuration: C-router(config)# router ospf 1 C-router(config-router)# network 172.19.0.0 0.0.3.255 area 0
- C. These commands need to be added to the configuration: C-router(config)# router rip C-router(config-router)# network 172.19.0.0
- D. No further routing configuration is required.

Correct Answer: D

Since all the same router (C-router) is the default gateway for all three VLANs, all traffic destined to a different VLA will be sent to the C-router. The C-router will have knowledge of all three networks since they will appear as directly connected in the routing table. Since the C-router already knows how to get to all three networks, no routing protocols need to be configured.

LTTAM Highly Voted 2 years, 4 months ago

D is correct. However... tricky question though. They list the routing protocols to throw you off. The question is actually testing your knowledge of VLAN routing.

upvoted 12 times

Scipions Highly Voted 2 years, 1 month ago

examtopics is the new netacad

upvoted 10 times

RougePotatoe 7 months, 1 week ago

Netacad was literally torture here's 2 - 3 hours of reading material and we are going to constantly throw in useless cisco propaganda.

upvoted 3 times

FALARASTA Most Recent 1 month, 1 week ago

Always dont overthink. Trick sana

upvoted 1 times

Wes_60 2 months ago

They are trying to trick you. No routing protocols are needed for router on a stick. Plus they already told you everything was properly configured and functioning.

upvoted 1 times

ScorpionNet 1 year, 1 month ago

D is right because it describes Router on a Stick so it's a VLAN topic

upvoted 1 times

Shamwedge 1 year, 3 months ago

everything is working

No information provided would indicate on which routing protocol would be the one to use

No routing protocol is needed for intervlan routing.

upvoted 1 times

Shamwedge 1 year, 3 months ago

D is my answer

upvoted 1 times

 **jerry19** 2 years ago

Technically, you have to configure a native subinterface or none of this will work but since that wasn't an option and we know that "all interfaces have been configured properly and all ip routing is operational," the answer is therefore D.

upvoted 4 times

 **ROBZY90** 2 years, 1 month ago

No routing protocols are needed for Router on a stick

upvoted 2 times

Question #400

Topic 1

Refer to the exhibit. Which address and mask combination represents a summary of the routes learned by EIGRP?

Gateway of last resort is not set

- 192.168.25.0/30 is subnetted, 4 subnets**
- D 192.168.25.20 [90/2681856] via 192.168.15.5, 00:00:10, Serial0/1
 - D 192.168.25.16 [90/1823638] via 192.168.15.5, 00:00:50, Serial0/1
 - D 192.168.25.24 [90/3837233] via 192.168.15.5, 00:05:23, Serial0/1
 - D 192.168.25.28 [90/8127323] via 192.168.15.5, 00:06:45, Serial0/1
 - C 192.168.15.4/30 is directly connected, Serial0/1
 - C 192.168.2.0/24 is directly connected, FastEthernet0/0

- A. 192.168.25.0 255.255.255.240
- B. 192.168.25.0 255.255.255.252
- C. 192.168.25.16 255.255.255.240
- D. 192.168.25.16 255.255.255.252
- E. 192.168.25.28 255.255.255.240
- F. 192.168.25.28 255.255.255.252

Correct Answer: C

The binary version of 20 is 10100.

The binary version of 16 is 10000.

The binary version of 24 is 11000.

The binary version of 28 is 11100.

The subnet mask is /28. The mask is 255.255.255.240.

Note:

From the output above, EIGRP learned 4 routes and we need to find out the summary of them:

↪ 192.168.25.16

192.168.25.20

▪

↪ 192.168.25.24

↪ 192.168.25.28

-> The increment should be 28 ?16 = 12 but 12 is not an exponentiation of 2; so we must choose 16 (24). Therefore the subnet mask is /28

(=1111 1111.1111

1111.1111 1111.11110000) = 255.255.255.240.

So the best answer should be 192.168.25.16 255.255.255.240.

✉ **Kareemelkh** Highly Voted 2 years, 5 months ago

Ali526 check this link it will clear you confusion , I hade the same doubt

<https://youtu.be/QqEcCzhIWis>

upvoted 21 times

✉ **aaaaaaaaakkk** 11 months, 1 week ago

this more then helpful thank you

upvoted 2 times

✉ **LLAMBRA** Highly Voted 1 year, 10 months ago

```
=====
| 192.168.25|20 -->0001| 0100
| 192.168.25|16 -->0001| 0000
| 192.168.25|24 -->0001| 1000
| 192.168.25|24 -->0001| 1000
```

```
128 64 32 16| 8 4 2 1
```

```
0 0 0 1| 0 1 0 0
0 0 0 1| 0 0 0 0
0 0 0 1| 1 0 0 0
0 0 0 1| 1 0 0 0
```

192.168.25.16/28 == 255.255.255.240

==> 192.168.25.16 /255.255.255.240

==== >> answer is C <<====

upvoted 12 times

 **bond071982** (Most Recent) 2 months, 3 weeks ago

Is cisco 200-301 webpage down today?

upvoted 6 times

 **throwaway_account** 2 months, 3 weeks ago

It's hilarious that they had their "unlimited" promotion last week, then immediately removed all Cisco content. It's like they knew this was coming, but wanted a cash grab first.

upvoted 1 times

 **monoki** 2 months, 3 weeks ago

i can't find any cisco exams on the site, i have the same problem.

upvoted 1 times

 **Elsjona1** 2 months, 3 weeks ago

i have the same problem

upvoted 1 times

 **Channaveera** 2 months, 3 weeks ago

A. 192.168.25.0 255.255.255.240 covers (192.168.25.1 - 15 (boradcast inclusive)

B. 192.168.25.0 255.255.255.252 covers (192.168.25.1 - 3 (boradcast inclusive)

C. 192.168.25.16 255.255.255.240 covers (192.168.25.16 - 192.168.25.31 (boradcast inclusive)

D. 192.168.25.16 255.255.255.252 covers (192.168.25.16 - 192.168.25.19 (boradcast inclusive)

E. 192.168.25.28 255.255.255.240 covers (192.168.25.28 - 192.168.25.43 (broadcast inclusive)

F. 192.168.25.28 255.255.255.252 covers (192.168.25.28 - 192.168.25.31 (broadcast inclusive)

192.168.25.16 255.255.255.240 didn't cover all the range of IPs

upvoted 1 times

 **Freddy01** 6 months, 2 weeks ago

C is the correct answer. Read the question carefully, it's saying what would be the "Summary of the route" meaning summary network address or also known as route summarisation in subnetting. Option C covers all the addresses in the range starting from .16 to .30. Broadcast address on this subnet is 192.168.25.31 which is always one address less from the next block of addresses, which in this case will be a .32 block ending at .47 as it's Broadcast and .48 as the next block. So, 192.168.25.16/28 255.255.255.240 is the summary address for those EIGRP learnt subnets in the routing table showing up in the exhibit.

Another note for those who are confusing it with /30 network: Read the question as it's asking for route summarisation address which will cover .16 to .28 addresses and your /30 prefix for 192.168.25.16 will only go up to .19(Broadcast on this subnet) and then it would be .20 block which does NOT fall in that .16 block as it's the next block of addresses. So, .16 only has .17 and .18 as two allocable host addresses with of course .19 being the broadcast address on this subnet. Hence it's incorrect.

Right answer is C

upvoted 3 times

 **THEKYPTONIAN** 8 months ago

min - max (192.168.25.16 - 192.168.25.30 = 14) so 14 = /28

upvoted 2 times

 **TA77** 11 months, 1 week ago

The correct answer is C.

You need to find which network range covers all the EIGRP learned addresses in the routing table.

The ranges are as follows:

Answer A:

192.168.25.0 - 192.168.25.15

Answer B:

192.168.25.0 - 192.168.25.3

Answer C:

192.168.25.16 - 192.168.25.31

Answer D:

192.168.25.16 - 192.168.25.19

Answer E:

192.168.25.28 - 192.168.25.43

Answer F:

192.168.25.28 - 192.168.25.31

How to find the ranges? Well, there are different ways to find the ranges. Personally, I'm using the 'Seven Seconds Subnetting' technique by Professor Messer. You may search Youtube for that.

upvoted 2 times

 **AWSEMA** 11 months, 1 week ago

128 64 32 16 8 4 2 1
1 0 1 0 0
1 0 0 0 0
1 1 0 0 0
1 1 1 0 0
upvoted 1 times

 **[Removed]** 1 year, 1 month ago

How did you get the subnet mask of /28
upvoted 1 times

 **Darrien1301** 1 year, 1 month ago

Is it possible to calculate like this: 4 Subnets = 2^4 combinations = 16 and then for the mask $256-16 = 240$?
upvoted 1 times

 **shakyak** 1 year, 6 months ago

To those of you who are confused about how the subnet is decided, all the binary that matches is considered 1, and those that don't match is considered 0. So, for the example below:

0 0 0 1| 0 1 0 0
0 0 0 1| 0 0 0 0
0 0 0 1| 1 0 0 0
0 0 0 1| 1 0 0 0

The final four digits don't match which makes the final four digital all zeros.
Hence, the final subnet would be:

11111111.11111111.11111111.11110000 = 240

upvoted 1 times

 **Kahowl** 1 year, 9 months ago

This is stating a /30 subnet, a summary of this address should be:
B) 192.168.25.0 255.255.255.252

upvoted 2 times

 **Adaya** 1 year, 11 months ago

I agree the answer is c
upvoted 1 times

 **Zerotime0** 2 years, 5 months ago

In summary ,Summary encompasses 4 subnets.mask .240 fits better $4 \times 4 = 16$
upvoted 2 times

 **Ali526** 2 years, 5 months ago

I'll go with D.
upvoted 1 times

 **MM_9** 2 years, 5 months ago

The answer C is correct because it include all network learned via EIGRP (192.168.25.16/28 ---> from 192.168.25.16 to 192.168.25.31) so it summarized all network. The D answer not include all network (192.168.25.16/30 ---> from 192.168.25.16 to 192.168.25.19) so it's wrong
upvoted 9 times

Question #401

Topic 1

Refer to the exhibit. Given the output for this command, if the router ID has not been manually set, what router ID will OSPF use for this router?

```
Router# show ip interface brief
Interface          IP-Address      OK?   Method     Status    Protocol
FastEthernet0/0    192.168.5.3    Yes   manual     up       up
FastEthernet0/1    10.1.1.2      Yes   manual     up       up
Loopback0          172.16.5.1    Yes   NVRAM      up       up
Loopback1          10.154.154.1  Yes   NVRAM      up       up
```

- A. 10.1.1.2
- B. 10.154.154.1
- C. 172.16.5.1
- D. 192.168.5.3

Correct Answer: C

The highest IP address of all loopback interfaces will be chosen -> Loopback 0 will be chosen as the router ID.

✉  **Ali526** Highly Voted 2 years, 5 months ago

C is correct and so is the reasoning. If router ID is not manually setup, the highest loopback IP is selected and if there is no loopback, highest IP from the interface IPs is selected.

upvoted 17 times

✉  **SasithCCNA** 2 years, 2 months ago

Accurate explanation

upvoted 4 times

✉  **Dutch012** Most Recent 3 months, 2 weeks ago

did we choose (C) because 172 > 10 (B) ?

upvoted 1 times

✉  **SONG00992** 1 year, 6 months ago

The highest IP address of any logical interface will always become a router's RID. Loopback interface is the logical interface. So answer is C.
upvoted 1 times

✉  **Scipions** 2 years, 1 month ago

Grazie a sta ceppa

upvoted 1 times

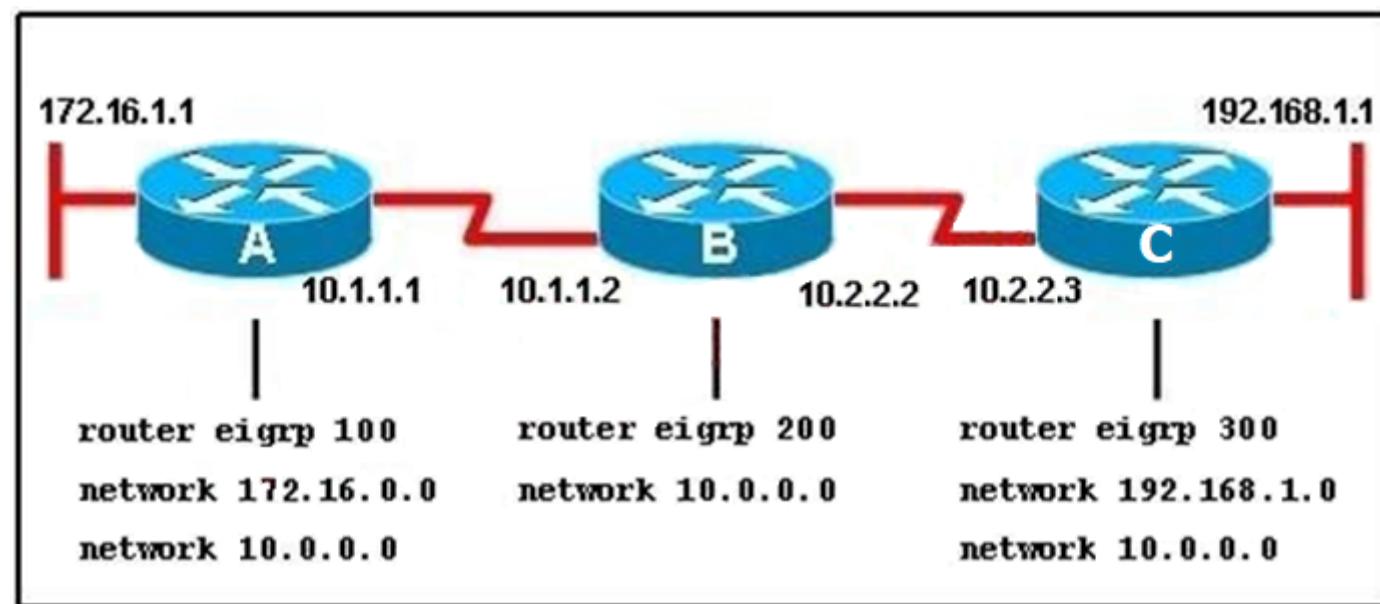
✉  **redivivo** 1 year ago

very accurate

upvoted 1 times

Question #402

Refer to the exhibit. When running EIGRP, what is required for RouterA to exchange routing updates with RouterC?



- A. AS numbers must be changed to match on all the routers
- B. Loopback interfaces must be configured so a DR is elected
- C. The no auto-summary command is needed on Router A and Router C
- D. Router B needs to have two network statements, one for each connected network

Correct Answer: A

This question is to examine the understanding of the interaction between EIGRP routers. The following information must be matched so as to create neighborhood. EIGRP routers to establish, must match the following information:

1. AS Number;
2. K value.

Stonetales987 Highly Voted 1 year, 6 months ago

To become neighbors, the following parameters must match on both routers:

ASN (Autonomous System Number)
subnet
K values (components of metric)

<https://geek-university.com/ccna/eigrp-neighbors/>
upvoted 10 times

etx Highly Voted 1 year, 9 months ago

Why not d?
upvoted 5 times

shaz938 1 year, 8 months ago

Because the existing 10.0.0.0 network statement (Class A address, 255.0.0.0 subnet mask or /8 prefix) already encompasses the two connected networks (10.1.1.2 and 10.2.2.2).

So Answer C is correct.
upvoted 6 times

gc999 Most Recent 2 months, 3 weeks ago

I would choose "C", because, if auto-summary is enabled, classful route is advertised, which both Router A and C also advertise 10.0.0.0/8 which does not make sense.

upvoted 1 times

oatmealturkey 4 months ago

Does anyone who has taken the exam remember seeing any questions about EIGRP? I ask because with the release of 200-301, EIGRP has been removed from the CCNA curriculum....

upvoted 1 times

netzwork 8 months ago

Selected Answer: A
For EIGRP to work all AS need to be the same, otherwise they won't share the learned networks

upvoted 2 times

[Removed] 11 months, 1 week ago

Selected Answer: A

Wow.... Lesson one of eigrp. If you want neighbours to form, they need to have the same AS.....
upvoted 2 times

PoBratsky 1 year ago

Selected Answer: A

A is correct
upvoted 1 times

PoBratsky 1 year ago

A is correct
upvoted 1 times

Jbcrggddfh 1 year ago

Selected Answer: C

See shaz's comment for an explanation. Answer is definitely C.
upvoted 1 times

Jbcrggddfh 1 year ago

Meant to say A... mod please remove this
upvoted 1 times

DoBronx 7 months, 1 week ago

crazy we cant delete comments
upvoted 1 times

ScorpionNet 1 year, 1 month ago

A is right because EIGRP doesn't have a process ID like OSPF has
upvoted 1 times

Jbcrggddfh 1 year, 1 month ago

Selected Answer: A

EIGRP routers must have the same AS number to be neighbors
upvoted 1 times

aosroyal 1 year, 1 month ago

Selected Answer: D

i dont understand what the others are saying in the comments.

seems to me like D would be the right answer. Router B needs to advertise the routes correct?
upvoted 1 times

i_am_confused 12 months ago

Both networks connected to router B are advertised by the network 10.0.0.0 statement since auto summary is by default enabled.
upvoted 1 times

JamesDean_Youldiots 2 years ago

no discussion on this?
upvoted 3 times

Sten111 1 year, 11 months ago

AS number is like the area ID for OSPF. They have to match to exchange routing updates.
upvoted 8 times

Question #403

A network administrator is troubleshooting the OSPF configuration of routers R1 and R2. The routers cannot establish an adjacency relationship on their common Ethernet link.

R1: Ethernet0 is up, line protocol is up

Internet address 192.168.1.2/24, Area 0

Process ID 1, Router ID 192.168.31.33, Network Type BROADCAST, Cost: 10

Transmit Delay is 1 sec, State DR, Priority 1

Designated Router (ID) 192.168.31.33, Interface address 192.168.1.2

No backup designated router on this network

Timer intervals configured, Hello 5, Dead 20, Wait 20, Retransmit 5

R2: Ethernet0 is up, line protocol is up

Internet address 192.168.1.2/24, Area 0

Process ID 2, Router ID 192.168.31.11, Network Type BROADCAST, Cost: 10

Transmit Delay is 1 sec, State DR, Priority 1

Designated Router (ID) 192.168.31.11, Interface address 192.168.1.1

No backup designated router on this network

Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5

The graphic shows the output of the show ip ospf interface e0 command for routers R1 and R2. Based on the information in the graphic, what is the cause of this problem?

- A. The OSPF area is not configured properly.
- B. The priority on R1 should be set higher.
- C. The cost on R1 should be set higher.
- D. The hello and dead timers are not configured properly.
- E. A backup designated router needs to be added to the network.
- F. The OSPF process ID numbers must match.

Correct Answer: D

In OSPF, the hello and dead intervals must match and here we can see the hello interval is set to 5 on R1 and 10 on R2. The dead interval is also set to 20 on R1 but it is 40 on R2.

 **Taloo** Highly Voted 2 years, 3 months ago

By the way, the interfaces on both routers have the same IP address
upvoted 51 times

 **MonsieurP** Most Recent 6 months, 1 week ago

What about IP addresses on both e0 interfaces of the 2 routers? Is it correct both be the same?
upvoted 1 times

 **DoBronx** 7 months, 1 week ago

Both have same IP, both are DR, shame on cisco
upvoted 3 times

 **ScorpionNet** 1 year, 1 month ago

D is right because the hello and dead interval needs to match in order to maintain neighbor adjacency
upvoted 1 times

 **dipanjana1990** 1 year, 2 months ago

First of all both the routers have same IP address. As well as both belong to same area 0 yet both of them are DR. How come its possible? There are more than 1 reason for these two routers to form ospf neighborship, let alone adjacency. But since there are some parameters which are need to matched in order to form ospf neighborship and timers mismatch is one of them. Thus, option D is correct.

upvoted 1 times

 **Belinda** 1 year, 3 months ago

The hello timer, dead and wait time differs on both routers, thereby causing the adjacency not to form
upvoted 1 times

 **Belinda** 1 year, 3 months ago

The hello timer interval differs on both router which is the reason why the adjacency did form a relationship.
upvoted 1 times

 **CiscoTerminator** 1 year, 10 months ago

Anyone notice that before we even talk about OSPF, the two routers have the same IP address. Definitely an error there.
upvoted 1 times

 **Cisna** 1 year, 8 months ago

The good thing is, its not part of the multiple choices
upvoted 1 times

 **4guysgaming** 1 year, 11 months ago

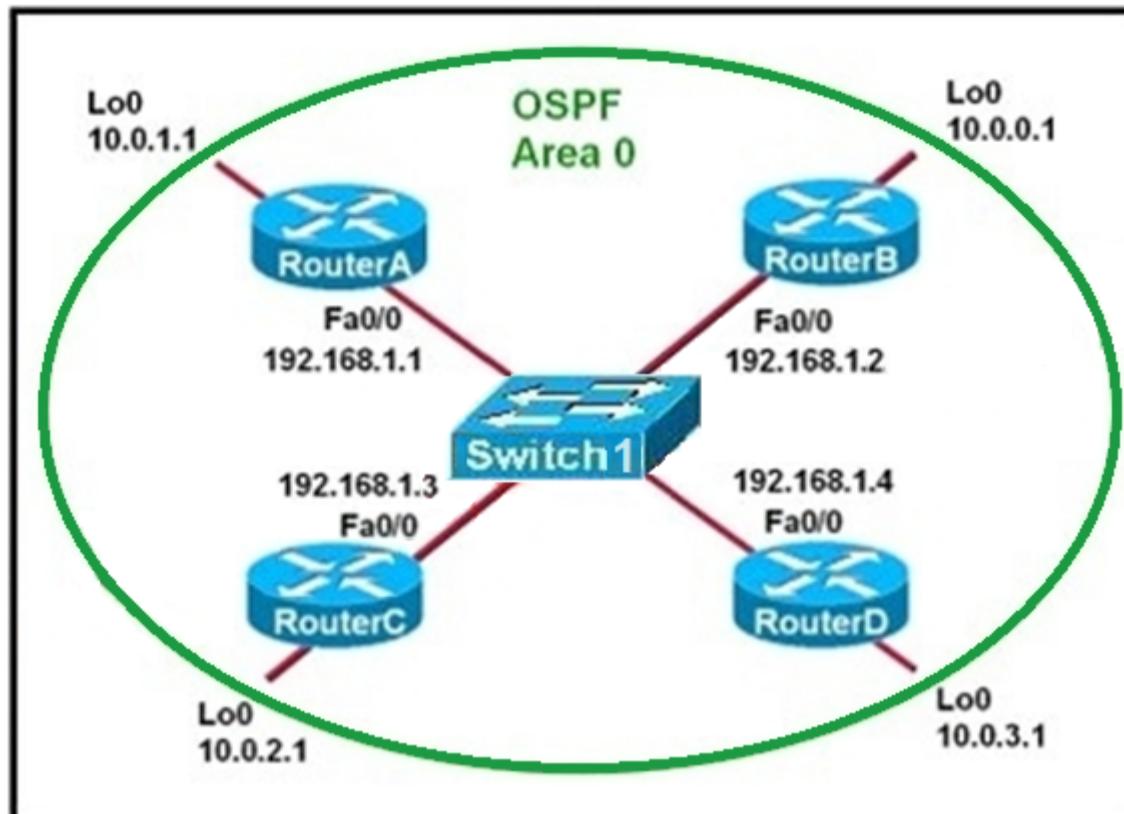
I also don't see a BDR. The output even says no backup Designated Router on this network?
upvoted 1 times

 **Micah7** 2 years ago

Agreed- same IP address. This was the first thing I noticed as well, but of course did not see it as an answer option so had to move on to another possibility
upvoted 3 times

Question #404

Refer to the exhibit. Which two statements are true about the loopback address that is configured on RouterB? (Choose two.)



- A. It ensures that data will be forwarded by RouterB.
- B. It provides stability for the OSPF process on RouterB.
- C. It specifies that the router ID for RouterB should be 10.0.0.1.
- D. It decreases the metric for routes that are advertised from RouterB.
- E. It indicates that RouterB should be elected the DR for the LAN.

Correct Answer: BC

✉ **MikD4016** Highly Voted 9 months, 2 weeks ago

A loopback interface never comes down even if the link is broken so it provides stability for the OSPF process (for example we use that loopback interface as the router-id) - B is correct.

The router-ID is chosen in the order below:

The highest IP address assigned to a loopback (logical) interface. If a loopback interface is not defined, the highest IP address of all active router's physical interfaces will be chosen. -The loopback interface will be chosen as the router ID of RouterB - C is correct.

upvoted 10 times

✉ **murad999MV** Most Recent 4 months, 2 weeks ago

Selected Answer: BC

true true true

upvoted 1 times

✉ **iGlitch** 1 year ago

Can someone explain how it provides stability for the OSPF process ?

upvoted 4 times

✉ **i_am_confused** 12 months ago

I am not sure either, but if I had to guess it is because the router will have a stable router ID instead of picking from the highest configured interface IP address.

upvoted 3 times

✉ **hp2wx** 10 months, 3 weeks ago

The loopback interface will provide stability for the OSPF process because the loopback interface is a virtual interface inside of the router, meaning that it is not dependent upon a physical interface being up/up. As long as the router is connected to power and OSPF is enabled, the OSPF process on the router will be active.

upvoted 9 times

✉ **kadafi** 2 years, 2 months ago

The issue of DR does not apply remember that by default OSPF priority is 0. hence no need to talk about Election process.

The best answers are router ID and stability.

upvoted 2 times

✉ **DonnerKomet** 1 year, 9 months ago

no, the deafault priority is 1, if you have 0, it means a DROTHER, a ROuter that can not become DR or DBR.
upvoted 8 times

 **GA24** 2 years, 4 months ago

@Zerotime0 , it is the router-ID for router B only. Router-ID must be unique in every router. If the router-ID is not defined on the ospf configuration then it will choose the highest loopback address on that router, if no loopback address was configured then it will choose the highest IP address of the active interface on that router.

upvoted 4 times

 **Zerotime0** 2 years, 4 months ago

I dont get how it specifies router id.. its not highest loopback.y.

upvoted 1 times

 **SasithCCNA** 2 years, 4 months ago

here in the diagram only one loopback is specified so we need to assumes that only one loopback is configured on the router hence it will be used as the router id.

upvoted 2 times

 **Cpynch** 1 year, 4 months ago

With the provided data, it's the ONLY loopback address on each router. Therefore, the router ID.

upvoted 2 times

 **IxlJustinIxl** 2 years ago

OSPF uses the following criteria to select the router ID:

1. Manual configuration of the router ID (via the "router-id x.x.x.x" command under OSPF router configuration mode).
2. Highest IP address on a loopback interface.
3. Highest IP address on a non-loopback and active (no shutdown) interface.

With OSPF, the loopback interface is useful because it is an interface with an IP address which never goes down (stability)

Answer = BC

upvoted 17 times

 **Darrien1301** 1 year, 1 month ago

you forgot the priority or not

upvoted 1 times

 **Tharwat** 2 years, 4 months ago

E. It indicates that RouterB should be elected the DR for the LAN.

upvoted 3 times

 **Ongogablogian** 2 years, 4 months ago

Highest ID becomes the DR, not the lowest.

upvoted 5 times

 **Acai** 2 years ago

There's no other area in the figure beside 0, so you can't have a DR or BDR

upvoted 2 times

 **SVN05** 1 year ago

I was researching on this and it states, as long you have more than 2 routers(considers as Multi Access Network) will allows that area 0(for this ex.) to elect a DR and BDR no?

upvoted 1 times

Question #405

Topic 1

If all OSPF routers in a single area are configured with the same priority value, what value does a router use for the OSPF router ID in the absence of a loopback interface?

- A. the IP address of the first Fast Ethernet interface
- B. the IP address of the console management interface
- C. the highest IP address among its active interfaces
- D. the lowest IP address among its active interfaces
- E. the priority value until a loopback interface is configured

Correct Answer: C

 **M3rc3r08** Highly Voted  1 year, 10 months ago

C is correct.

A router ID is determined in the following order:

1. using the router-id command under the OSPF process to statically configure the router ID.
2. using the highest IP address of the router's loopback interfaces.
3. using the highest IP address of the router's active physical interfaces.

upvoted 12 times

 **Garfieldcat** Most Recent  7 months, 3 weeks ago

Priority influent DR/BDR election only, not Router ID

upvoted 3 times

 **peshev123** 1 year, 1 month ago

Selected Answer: C

- 1.priority
- 2.loopback
- 3.high IP

upvoted 1 times

 **hassanhady** 1 year, 6 months ago

why close dumb from page 25 to 41 ?

upvoted 1 times

Question #406

Topic 1

The OSPF Hello protocol performs which of the following tasks? (Choose two.)

- A. It provides dynamic neighbor discovery.
- B. It detects unreachable neighbors in 90 second intervals.
- C. It maintains neighbor relationships.
- D. It negotiates correctness parameters between neighboring interfaces.
- E. It uses timers to elect the router with the fastest links as the designated router.
- F. It broadcasts hello packets throughout the internetwork to discover all routers that are running OSPF.

Correct Answer: AC

 **vadiminski** Highly Voted 2 years ago

B: wrong, by default 40 seconds
D: wrong, not only between neighbouring interfaces
E: wrong, designated router is not elected based on its hello-response time, but on its priority / router ID
F: wrong, multicast and not broadcast is used for hello packets
This leaves us with the correct answers A & B

upvoted 32 times

 **vadiminski** 2 years ago

Correction, the DEAD timer is 40 sec by default, the hello timer is 10 sec for ethernet networks

upvoted 7 times

 **Pkard** 1 year, 6 months ago

Nice explanation but you must mean A & C. You already said B was wrong

upvoted 7 times

 **[Removed]** Most Recent 11 months, 1 week ago

Selected Answer: AC

A and C is correct

upvoted 1 times

 **DARKK** 1 year ago

Selected Answer: AC

Given answer is correct

upvoted 2 times

 **SVN05** 1 year ago

B: wrong, by default 10 seconds(hello timer) & 40 seconds(dead timer) for ethernet networks.

D: wrong, not only between neighbouring interfaces

E: wrong, designated router is not elected based on its hello-response time, but on its priority / router ID

F: wrong, multicast is used for Hello packets, not Broadcasts.

This leaves us with the correct answers A & B

Credits:- vadiminski

upvoted 1 times

Question #407

Topic 1

What are two requirements for an HSRP group? (Choose two.)

- A. exactly one active router
- B. one or more standby routers
- C. one or more backup virtual routers
- D. exactly one standby active router
- E. exactly one backup virtual router

Correct Answer: AB

Exactly one active router: Only one Active Router per HSRP group will be elected based on highest priority. In case of equal priority, Highest IP address will be elected as Active Router.

One or more standby routers: There can be one or more Standby Routers.

 **hamish88** 4 months ago

I also thought there should be only one Active router and only one standby router and the rest will remain in the listening state. However, as per the following lines, it seems we can have more than one router in a standby state:

HSRP uses an active/standby model in which one router actively assumes the role of the default gateway for devices on the subnet. One or more routers on the same subnet are then in standby mode

I also choose A and B.

upvoted 2 times

 **Murphy2022** 8 months ago

Selected Answer: AB

I think D is a weird wording for 'backup' HSRP-Router which makes no sense.

I go with A and B.

upvoted 1 times

 **[Removed]** 11 months, 1 week ago

Selected Answer: AB

I'd go for Ab... Alough, bay they say standby active.. Maybe they are talking about the command standby?

upvoted 1 times

 **iGlitch** 1 year ago

Selected Answer: AD

HSRP group allows a single Active router.

HSRP group allows a single Standby router, the rest of them will be in the "Listening" state.

I think answer D is the closest one but it has "Standby active" in it, and I'll take that as a typo.

upvoted 2 times

 **iGlitch** 1 year ago

Or the word 'Active' in answer D means 'Operational' and Not the HSRP Active term.

upvoted 1 times

 **Jbcrggddfh** 1 year, 1 month ago

Selected Answer: AB

A and B are correct. The below reference shows why D must be wrong:

"HSRP allows you to configure two or more routers as standby routers and only a single router as an active router at a time. All the routers in a single HSRP group shares a single MAC address and IP address, which acts as a default gateway to the local network."

<https://www.geeksforgeeks.org/hsrp-protocol/>
hsrp/#:~:text=HSRP%20allows%20you%20to%20configure,gateway%20to%20the%20local%20network.

upvoted 2 times

 **eusvt** 1 year, 8 months ago

Answer A&B are correct, Cisco 200-301 vol 2 pg 261 by Odom (Cisco Press)

upvoted 2 times

 **oscar_05** 1 year, 11 months ago

I believe it's just necessary have one active router and one standby router in the same domain collision, if other router is in the same domain collision, it takes the role of "listen"

upvoted 3 times

 **eazy99** 1 year, 11 months ago

I believe A is correct but B is not. From my understanding, HSRP can not have more than one router as standby. Any other routers will be in init state but not standby state. Not like VRRP where it doesn't matter how many router you have, you can have 1 master and all other routers become backup routers. With that being said, I believe the closest answer wil be D. Please correct me if I'm wrong.

upvoted 4 times

 **Sten111** 1 year, 11 months ago

You make a good point, I don't think the answer is D though as there is no such thing as an 'active standby' router in HSRP.

I think the way to think of this question is not in the actual HSRP operation in which it would elect one Active and one Standby router, but to think of the HSRP group like the question asks. If you are setting up a group, you would have one router that you configure to become the active router, and one or more routers for standby use.

They are not all standby in operation, but the intended purpose is standby when you are configuring the group.

upvoted 4 times

 **iGlitch** 1 year ago

I think answer D has a typo.

upvoted 1 times

 **mickeil** 2 years ago

an HSRP group don't really need one standby router

upvoted 2 times

Question #408

Topic 1

Which two pieces of information can you learn by viewing the routing table? (Choose two.)

- A. whether an ACL was applied inbound or outbound to an interface
- B. the EIGRP or BGP autonomous system
- C. whether the administrative distance was manually or dynamically configured
- D. which neighbor adjacencies are established
- E. the length of time that a route has been known

Correct Answer: CE

✉ **hokieman91** Highly Voted 2 years, 3 months ago

I also thought D and E at first - but then forgot that adjacencies are shown with (config)# sh ip (ospf, eigrp) neighbor
Most logical is answer given (this is hoping and assuming that you would not manually input the same admin distance as an existing protocol on a route - I see myself over thinking these answers....)

upvoted 15 times

✉ **Jay1324** 1 year, 4 months ago

I made the exact same mistake.
upvoted 1 times

✉ **Doopfenel** 1 year, 6 months ago

C is correct, because from that command you can see the AD values of the routes. If they match with the default values they have not been manually configured
upvoted 5 times

✉ **dee17** Highly Voted 1 year, 4 months ago

Why is it E ?
upvoted 13 times

✉ **NICE_ANSWERS** Most Recent 5 days, 15 hours ago

A quick search on google says the answers are B and E
upvoted 1 times

✉ **Kasapin** 3 weeks, 1 day ago

Selected Answer: CD
I go with C & D. How can you view the time on show ip route?
upvoted 1 times

✉ **Rydaz** 3 weeks, 6 days ago

chat GPT and bing say its B and E
upvoted 1 times

✉ **JY888** 1 month, 1 week ago

Selected Answer: CD
You can tell your neighbors through directly connected routes and you can tell the AD by knowing the defaults. CD
upvoted 2 times

✉ **gc999** 2 months, 3 weeks ago

Selected Answer: BC
I choose B and C
B - By viewing the Administrative Distance, I can guess which Dynamic Routing it is used. For example, 120 is RIP, 110 is OSPF and etc.
C - We know the default AD of different dynamic routing, so if it is different from the default one, we know it was manually configured
upvoted 1 times

✉ **thomson_johnson** 2 months, 2 weeks ago

autonomous system number is the one you're entering when: router eigrp 100, AS number is 100 and you don't get that from routing table.

I would go with C and D

Why E??

upvoted 1 times

✉ **alejandro12** 6 months, 2 weeks ago

Answer C

You can see if the ad of a static route was changed

upvoted 1 times

 **agazi** 1 year, 3 months ago

I think it is confusing when you look at it because D and C are more difficult to choose but due to the generalization of the question where it doesn't specify which protocol (Link state or Distance Vector) Since neighbor adjacency only to (OSPF, IS-IS..) but administrate Distance (AD) is very common to most routing protocols so I would choose C

upvoted 2 times

 **q1w2e3r4t5y6** 2 years, 4 months ago

i think it's D, E

upvoted 2 times

 **Doopfenel** 1 year, 6 months ago

C is correct, because from that command you can see the AD values of the routes. If they match with the default values they have not been manually configured

upvoted 1 times

Question #409

Topic 1

- 10.0.0.0/24 is subnetted, 1 subnets
- C 10.0.0.0 is directly connected, FastEthernet0/1
 - C 172.160.0/16 is directly connected, FastEthernet0/0
 - D 192.168.0.0/24 [90/30720] via 172.16.0.2, 00:00:03, FastEthernet0/0

Refer to the exhibit. Which route type does the routing protocol Code D represent in the output?

- A. statically assigned route
- B. route learned through EIGRP
- C. 724 route of a locally configured IP
- D. internal BGP route

Correct Answer: B

 **Nhan** Highly Voted 2 years, 3 months ago

Because the AD is 90

upvoted 12 times

 **UmbertoReed** 1 year, 9 months ago

That's a good way to recognize it, but the proper answer would be: because EIGRP uses the DUAL (D) algorithm to perform its calculations.

upvoted 7 times

 **jerry19** Highly Voted 2 years, 1 month ago

D = EIGRP, O = OSPF, L = Local, S = Static, C = Directly Connected

upvoted 12 times

 **mechelleh** Most Recent 1 year, 2 months ago

Oh God NOOO, NO MORE EIGRP PLS GOD NOOO

upvoted 4 times

 **johnnd** 1 year, 4 months ago

Selected Answer: B

- | Route Source | Default AD | Letter |
- | --- | --- | --- |
- | Connected Interface | 0 | C |
- | Static Route | 1 | S |
- | External BGP | 20 | B |
- | EIGRP | 90 | D |
- | OSPF | 110 | O |
- | IS-IS | 115 | i |
- | RIP | 120 | R |

upvoted 4 times

Question #410

Topic 1

An engineer must configure an OSPF neighbor relationship between router R1 and R3. The authentication configuration has been configured and the connecting interfaces are in the same 192.168.1.0/30 subnet. What are the next two steps to complete the configuration? (Choose two.)

- A. configure the interfaces as OSPF active on both sides
- B. configure both interfaces with the same area ID
- C. configure the hello and dead timers to match on both sides
- D. configure the same process ID for the router OSPF process
- E. configure the same router ID on both routing processes

Correct Answer: BC

✉  **klosinskil** Highly Voted 2 years, 7 months ago

A and B
timers match by default
upvoted 43 times

✉  **Dante_Dan** 1 year, 4 months ago

And also the interface is ISPF active by default...
Tricky question.
upvoted 5 times

✉  **Murphy2022** 8 months ago

Ospf isn't active on the interfaces until you configure both interfaces to be inside of area 0 which you do with the network xxxx xxxx area 0 statement inside the ospf process or by using "ip ospf area 0" inside the interface configuration
upvoted 6 times

✉  **ITstudent123** Highly Voted 2 years, 7 months ago

Timers match by default
The process ID can be the same or not
The router ID mustn't be the same

So answer is A and B
upvoted 25 times

✉  **ZayaB** 2 years, 3 months ago

Agreed. For that reason A and B is correct. Tricky question
upvoted 5 times

✉  **Loq** Most Recent 2 weeks, 6 days ago

AB should be correct. There's no need to manually configure the timers. Cisco IOS shall use the default timer values automatically if none was configured.
upvoted 1 times

✉  **Rydaz** 3 weeks, 6 days ago

at least one router should be active, so if both are active it's good also, by default they are passive, so you NEED to configure them. and also SAME area ID. C is no good because you don't NEED to config hello and dead because by default they are the same value.
so answer is A and B
upvoted 1 times

✉  **linuxlife** 2 months, 1 week ago

OSPF Neighborship Requirement

In order to become OSPF neighbor following values must be match on both routers.

Area ID
Authentication
Hello and Dead Intervals
Stub Flag
MTU Size
upvoted 1 times

✉  **Webfat** 3 months, 2 weeks ago

This was ChatGPT answer for why A its incorrect and B and C are correct

Option A is not a valid configuration step for establishing an OSPF neighbor relationship. OSPF neighbors are discovered dynamically through the exchange of hello packets, so configuring the interfaces as OSPF active is not necessary.

In OSPF, two devices become neighbors when they exchange hello packets on a common subnet. In this case, since the connecting interfaces are already in the same subnet, the next steps are:

Configure both interfaces with the same area ID (Option B). OSPF routers only become neighbors and exchange information with other routers in the same OSPF area. The area ID can be configured on the interface using the ip ospf area command.
 Configure the hello and dead timers to match on both sides (Option C). OSPF neighbors must agree on the interval between hello packets and the interval after which an unresponsive neighbor is considered dead. These timers can be adjusted using the ip ospf hello-interval and ip ospf dead-interval commands.

upvoted 2 times

splashy 8 months, 1 week ago

Selected Answer: BC

Enabling OSPF

SUMMARY STEPS

1. enable
2. configure terminal
3. router ospf process-id
4. network ip-address wildcard-mask area area-id
5. end

<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv4/ospf/configuration/xe-16/iro-xe-16-book/iro-cfg.html#GUID-51A06D7A-7099-453C-A9FD-34CE45080796>

upvoted 1 times

splashy 8 months, 1 week ago

Actually... this points more towards AB, assuming the the hello & dead timers are default...

upvoted 4 times

raed6000 8 months, 4 weeks ago

Selected Answer: BC

Look when you configure both interfaces with the same area ID and that is what you should and must do, you active OSPF on that interfaces , so answer A sh*t ,and answer B correct.

answer D&E are sh*t you know why,
leaving answer C and that OK

upvoted 2 times

Nickname53796 1 year ago

All these questions seem to be too easy to be actual questions

upvoted 2 times

guille_teleco 1 year ago

B and C are the correct answer, please update

upvoted 2 times

ismatdmour 1 year, 3 months ago

Selected Answer: AB

Both A and B are configured in one Network command or one ip ospf n area m command

upvoted 3 times

Nicocisco 1 year, 3 months ago

Selected Answer: AB

Yeah i think it's A and B because by default, timer are already matching

upvoted 2 times

Father 1 year, 4 months ago

Very trick, the question says authentication and connecting interfaces have already been done and these will defiantly come as setting OSPF active so I would choose B and C.

Please find ref <https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv4/ospf/configuration/xe-16/iro-xe-16-book/iro-cfg.html#GUID-588D1301-F63C-4DAC-BF1C-C3735EB13673>

upvoted 3 times

Mozah 1 year, 5 months ago

A & B must be a correct answer. What's on "C" is always by default (Hello timer - 10sec and Dead timer - 40sec). That's my opinion

upvoted 1 times

Alibaba 1 year, 6 months ago

in my opinio A and C, i saw in another place a and C

upvoted 1 times

Alibaba 1 year, 6 months ago

i mistake B and C right option

upvoted 1 times

ProgSnob 1 year, 6 months ago

That's tricky. Using the term Active makes it seem like it's a specific command using the term "active". They should say "Configure to Enable OSPF on Both Sides" instead. The timers match by default so you wouldn't have to configure that.

upvoted 1 times

 **Ed12345** 1 year, 7 months ago

Commands:

router ospf 1

network 10.0.12.0 0.0.0.3 area 0

or

interface g0/1

ip ospf 1 area 0

do A and B.

When we configure both interfaces with the same area ID, we also configure the interfaces as OSPF too. So I think that after point A, point B makes no sense.

So B and C are correct.

upvoted 1 times

 **ismatdmour** 1 year, 3 months ago

Yes, I first excluded this because of this same thinking to discover that the remaining answers are incorrect; timers are equal by default (X); Router ID cannot be equal(X) and Process need not be the same. Then has to consider B as correct.

I assume therefore that the word "configure" is not to specify how many commands are needed to perform a task; it can be one command; more than one command or even part of a command as in this case.

upvoted 1 times

Question #411

Topic 1

```
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, 2 subnets, 2 masks
S   172.16.3.0/24 [1/0] via 209.165.200.250, Serial0/0/0
O   172.16.3.0/28 [110/1] via 209.165.200.254, 00:00:28, Serial0/0/1
    209.165.200.0/24 is variably subnetted, 6 subnets, 2 masks
C   209.165.200.244/30 is directly connected, Serial0/1/0
L   209.165.200.245/32 is directly connected, Serial0/1/0
C   209.165.200.248/30 is directly connected, Serial0/0/0
L   209.165.200.249/32 is directly connected, Serial0/0/0
C   209.165.200.252/30 is directly connected, Serial0/0/1
L   209.165.200.253/32 is directly connected, Serial0/0/1
```

Refer to the exhibit. A packet is being sent across router R1 to host 172.16.0.14. What is the destination route for the packet?

- A. 209.165.200.250 via Serial0/0/0
- B. 209.165.200.254 via Serial0/0/0
- C. 209.165.200.254 via Serial0/0/1
- D. 209.165.200.246 via Serial0/1/0

Correct Answer: D

The router will use the default route since there is no entry for the destination address/subnet entry in the routine table.

 **Nhan** Highly Voted 2 years, 3 months ago

D is Right, it's use the default route since there is no entry for the destination address/subnet entry in the routine table.
upvoted 18 times

 **Manjil** 1 year, 5 months ago

How do you know which one is the default route from the table?
upvoted 1 times

 **Jay1324** 1 year, 4 months ago

a default route has a 0.0.0.0/0 in its address, meaning 'anything' (that doesn't match else-where in the table) also look into gateways of last resort.
upvoted 2 times

 **HMAw** Most Recent 6 months, 1 week ago

It is really sad to see CCNA questions are more and more like a Microsoft exam questions now. So many gotcha Qs instead of allowing test taker to troubleshoot on simulator to fix thing on broken stuff.
upvoted 1 times

 **DARKK** 1 year ago

Selected Answer: D

172.16.0.14 is not on the routing table so it goes to 0.0.0.0/0 connected via - D
Pay attention to the 0, 172.16.*0.14
upvoted 1 times

 **israa** 1 year, 2 months ago

The difference between this question & the next one is:
Here, they ask about the route, while the router doesn't learn it directly (it's not in the routing table), its route is the default route.

The next question asks about the destination, the router will route to the closest subnet, to reach destination.
upvoted 1 times

 **Alibaba** 1 year, 6 months ago

C is right
upvoted 2 times

 **DARKK** 1 year ago

No that's wrong, 172.16.0.14 is not on the routing table so it goes to 0.0.0.0/0 connected via - D
Question #237 172.16.0.14 = D
Question #238 172.16.3.14 = C
upvoted 1 times

 **DARKK** 1 year ago

Correction- Question #238 172.16.3.14 = D

upvoted 1 times

 **taiyi078** 1 year, 6 months ago

Question #237 172.16.0.14

Question #238 172.16.3.14

0 and 3 are different

upvoted 3 times

 **taiyi078** 1 year, 6 months ago

What is the difference between Question #237 and Question #238 ???

If you follow Question #238, Question #237 is answer C.

upvoted 1 times

 **mohamed1999** 1 year, 9 months ago

C is right, because 172.16.3.14 is the last available ip in the /28 subnet.

upvoted 2 times

 **mohamed1999** 1 year, 9 months ago

nevermind i saw it wrong

upvoted 4 times

 **shakyak** 1 year, 6 months ago

I was on opioid :D

upvoted 1 times

 **GangsterDady** 1 year, 7 months ago

which drugs are you on mate?

upvoted 8 times

 **randccna** 2 years, 3 months ago

Would it not go to C via serial0/0/1? 209.165.200.252/30 is an address range of 252-255 so that would include .254?

upvoted 2 times

 **UmbertoReed** 2 years, 1 month ago

D is correct because there is no network in the routing table that includes 172.16.0.14 in its IP range, so the router needs to default to the gateway of last resort, which in this case is the serial 0/1/0 interface with the next-hop IP address 209.165.200.246.

upvoted 4 times

 **Retxed** 2 years, 4 months ago

Default route to be used

upvoted 4 times

 **Cristy** 2 years, 5 months ago

I think C is the correct answer

upvoted 2 times

 **Cristy** 2 years, 5 months ago

Sorry, I was wrong. I didn't read the instruction carefully

upvoted 1 times

 **uevenasdf** 2 years, 4 months ago

It is going to use the default route I believe it is D

upvoted 7 times

Question #412

Topic 1

```
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, 2 subnets, 2 masks
S   172.16.3.0/24 [1/0] via 207.165.200.250, Serial0/0/0
O   172.16.3.0/28 [110/84437] via 207.165.200.254, 00:00:28, Serial0/0/1
    207.165.200.0/24 is variably subnetted, 6 subnets, 2 masks
C   207.165.200.244/30 is directly connected, Serial0/1/0
L   207.165.200.245/32 is directly connected, Serial0/1/0
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. A packet is being sent across router R1 to host 172.16.3.14. To which destination does the router send the packet?

- A. 207.165.200.246 via Serial0/1/0
- B. 207.165.200.254 via Serial0/0/0
- C. 207.165.200.250 via Serial0/0/0
- D. 207.165.200.254 via Serial0/0/1

Correct Answer: D

The longest matching route to 172.16.3.14 is the 182.16.3.0/28 route, using Serial 0/0/1 with a next hop of 207.165.200.254.

-  **uevenasdf** Highly Voted 2 years, 4 months ago
172.16.3.14 routes to ospf route 172.16.3.0-16 /28 - D is correct
upvoted 11 times
-  **Regnulos** 2 years, 3 months ago
172.16.3.0-15 /28
upvoted 2 times
-  **cybernett** Highly Voted 2 years, 3 months ago
Answer D , because it has the longest prefix compared to other route to the destination?
upvoted 7 times
-  **msomali** Most Recent 1 year, 1 month ago
Although Static Route has the lower AD than OSPF But from the case study of the question The longest prefix match wins because a /28 gives us 16 possible subnets with each 14 hosts thus starts from 172.16.3.1 -- 172.16.3.14 so OSPF wins with the longest prefix match rule. and the Answer is Letter D
upvoted 2 times
-  **MFarhankhan** 1 year, 11 months ago
Hi Guys i also agree with Answer D
upvoted 1 times
-  **mrsiafu** 2 years, 1 month ago
SMH...!
172.16.3.0/28
Host range 172.16.3.1 - 172.16.3.14
upvoted 2 times
-  **Nhan** 2 years, 3 months ago
Lordnano is correct I miss that question, thank you for clearing that
upvoted 1 times
-  **Nhan** 2 years, 3 months ago
Correct answer is C, the AD is 1 which is static router.
upvoted 3 times
-  **lordnano** 2 years, 3 months ago
D should be the right answer. The prefix length is more important than the AD: <https://packetlife.net/blog/2010/aug/16/route-preference/>
upvoted 10 times
-  **oooMooo** 2 years, 1 month ago

Routers prefer routes with the "longest match". Meaning the smallest prefix that contains the host's IP address. /28 is a longer match than /24.

D is correct.

upvoted 7 times

Question #413

Topic 1

```

R1#config t
R1(config)# interface gi1/1
R1(config-if)# ip address 192.168.0.1 255.255.255.0

R1(config)# router bgp 65000
R1(config-router)# neighbor 192.168.0.2 remote-as 65001
R1(config-router)# network 10.1.1.0 mask 255.255.255.0

R1(config)# router ospf 1
R1(config)# router-id 1.1.1.1
R1(config)# network 192.168.0.1 0.0.0.0 area 0
R1(config)# network 10.1.1.0 0.0.0.255 area 0

R1(config)# router eigrp 1
R1(config)# eigrp router-id 1.1.1.1
R1(config)# network 10.1.1.0 0.0.0.255
R1(config)# network 192.168.0.1 0.0.0.0

R2#config t
R2(config)# interface gi1/1
R2(config-if)# ip address 192.168.0.2 255.255.255.0

R2(config)# router bgp 65001
R2(config-router)# neighbor 192.168.0.1 remote-as 65000

R2(config)# router ospf 1
R2(config)# router-id 2.2.2.2
R2(config)# network 192.168.1.2 0.0.0.0 area 0

R2(config)# router eigrp 1
R2(config)# eigrp router-id 1.1.1.1
R2(config)# network 192.168.0.1 0.0.0.0

R2(config)# ip route 10.1.1.0 255.255.255.0 192.168.0.1

```

Refer to the exhibit. Router R2 is configured with multiple routes to reach network 10.1.1.0/24 from router R1. Which path is chosen by router R2 to reach the destination network 10.1.1.0/24?

- A. static
- B. EIGRP
- C. eBGP
- D. OSPF

Correct Answer: A

✉  **xsp** [Highly Voted ] 2 years, 3 months ago

Admin Distance:
 Connected - 0
 Static - 1
 eBGP - 5
 iEIGRP - 90
 OSPF - 110
 IS-IS - 115
 RIP - 120

So yeah answer is correct based from AD of a statically configured route.

upvoted 14 times

✉  **Gere** 2 years, 3 months ago

eBGP is 20 not 5
 upvoted 7 times

✉  **Stonetales987** 1 year, 6 months ago

5 - Enhanced Interior Gateway Routing Protocol (EIGRP) summary route
 20 - External Border Gateway Protocol (BGP)
 upvoted 3 times

✉  **oooMooo** 2 years, 1 month ago

Routing Protocol Administrative distance
Directly connected interface 0[a][5]
Static route out an interface 1[b]
Static route to next-hop address 1
DMNR - Dynamic Mobile Network Routing 3
EIGRP summary route 5
External BGP 20
Internal EIGRP 90
IGRP 100
OSPF 110
IS-IS 115
Routing Information Protocol (RIP) 120
Exterior Gateway Protocol (EGP) 140
On Demand Routing (ODR) 160
External EIGRP 170
Internal BGP 200
upvoted 1 times

 **paolo_brosio** Highly Voted 2 years, 1 month ago

Nate a riccoje e fragole
upvoted 6 times

 **noblackpeople** Most Recent 1 year, 2 months ago

Is page 25 last free accessible page for 200-301 ?
upvoted 1 times

 **Jinzo03** 6 months ago

Yes, at some point to you need to pay to get access to the rest of the content
upvoted 1 times

 **RichyES** 1 year, 5 months ago

The answer is A(correct)
upvoted 3 times

 **Hodicek** 1 year, 6 months ago

check the last line in the table, static is correct
upvoted 1 times

 **UrMom** 2 years, 4 months ago

Static route if configured Always comes First.
upvoted 3 times

 **uevenasdf** 2 years, 4 months ago

Last line of config has static route with AD of 1. EIGRP has mis-configured router id and BGP/OSPF don't have route to 10.1.1.0/24
upvoted 3 times

 **lordnano** 2 years, 3 months ago

I agree on AD, but why do you mean there is no route to 10.1.1.0/24 for BGP/OSPF?
upvoted 2 times

 **oooMooo** 2 years ago

Look at the hostnames. I overlooked them in my first pass.
upvoted 1 times

 **panagiss** 1 year, 6 months ago

I'm not sure I get what you are saying
upvoted 1 times

 **Nicocisco** 1 year, 3 months ago

The R1 router shares BGP/OSPF network to R2
upvoted 1 times

Question #414

Topic 1

```
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       1.0.0.0/8 is directly connected, Loopback0
        10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O         10.0.1.3/32 [110/100] via 10.0.1.3, 00:39:08, Serial0
C         10.0.1.0/24 is directly connected, Serial0
O         10.0.1.5/32 [110/5] via 10.0.1.50, 00:39:08, Serial0
O         10.0.1.4/32 [110/10] via 10.0.1.4, 00:39:08, Serial0
```

Refer to the exhibit. What is the next hop address for traffic that is destined to host 10.0.1.5?

- A. Loopback 0
- B. 10.0.1.4
- C. 10.0.1.3
- D. 10.0.1.50

Correct Answer: D

 **Imadolfo2019** Highly Voted  2 years, 2 months ago

The correct answer is line D.
upvoted 11 times

 **papinski** Most Recent  4 months, 2 weeks ago

Selected Answer: D
Answer is D
upvoted 1 times

 **DoBronx** 7 months, 1 week ago

Selected Answer: D
D is right
upvoted 1 times

 **i_am_confused** 12 months ago

Selected Answer: D
This is very straightforward.
upvoted 1 times

 **Ricci91** 1 year, 1 month ago

Selected Answer: D
/32 is a host ID so answer is D
upvoted 2 times

 **TheLorenz** 1 year, 2 months ago

Correct Answer D. Question asks what is the next hop address. Multiple routes are inserted into the router already, so now we look for the highest prefix.
A /32 prefix represents a host, and this is the highest you can get with ipv4. The next hop is 10.0.1.50 as you can see where it says 'via 10.0.1.50'.
upvoted 2 times

 **Samir_123** 1 year, 3 months ago

Selected Answer: C
answer D is not host it is the ID
upvoted 1 times

 **RichyES** 1 year, 4 months ago

Selected Answer: D
Anwer is D
upvoted 2 times

 **Mozah** 1 year, 5 months ago

i cant continue from question 240.. prompting to have a Contributor Access
upvoted 3 times

 **panagiss** 1 year, 6 months ago

Contribution access?? LOL

upvoted 1 times

 **Pkard** 1 year, 6 months ago

the question states we are trying to get to the HOST address 10.0.1.5 so the answer should be B ...
Can anybody explain it?

upvoted 1 times

 **Blazeryf** 1 year, 6 months ago

a /32 network is just a host.
So a 10.0.1.5 /32 (255.255.255.255 mask) address is the only host.

upvoted 2 times

 **Pkard** 1 year, 6 months ago

I'll be damned..you're right! Thanks!
"32 mask is used only to designate a host, not network"
upvoted 1 times

 **Shamwedge** 1 year, 6 months ago

Selected Answer: C

I feel like the answer should be C.

10.0.1.5/32 would make 10.0.1.5 the network address and not the host address?
10.0.1.4/32 would make 10.0.1.5 the host address

upvoted 1 times

 **Darrien1301** 1 year, 1 month ago

no 255.255.255.255 is a host route
upvoted 1 times

 **Shamwedge** 1 year, 6 months ago

I actually meant to say the answer should be B, but Blazeryf's reply makes sense
upvoted 1 times

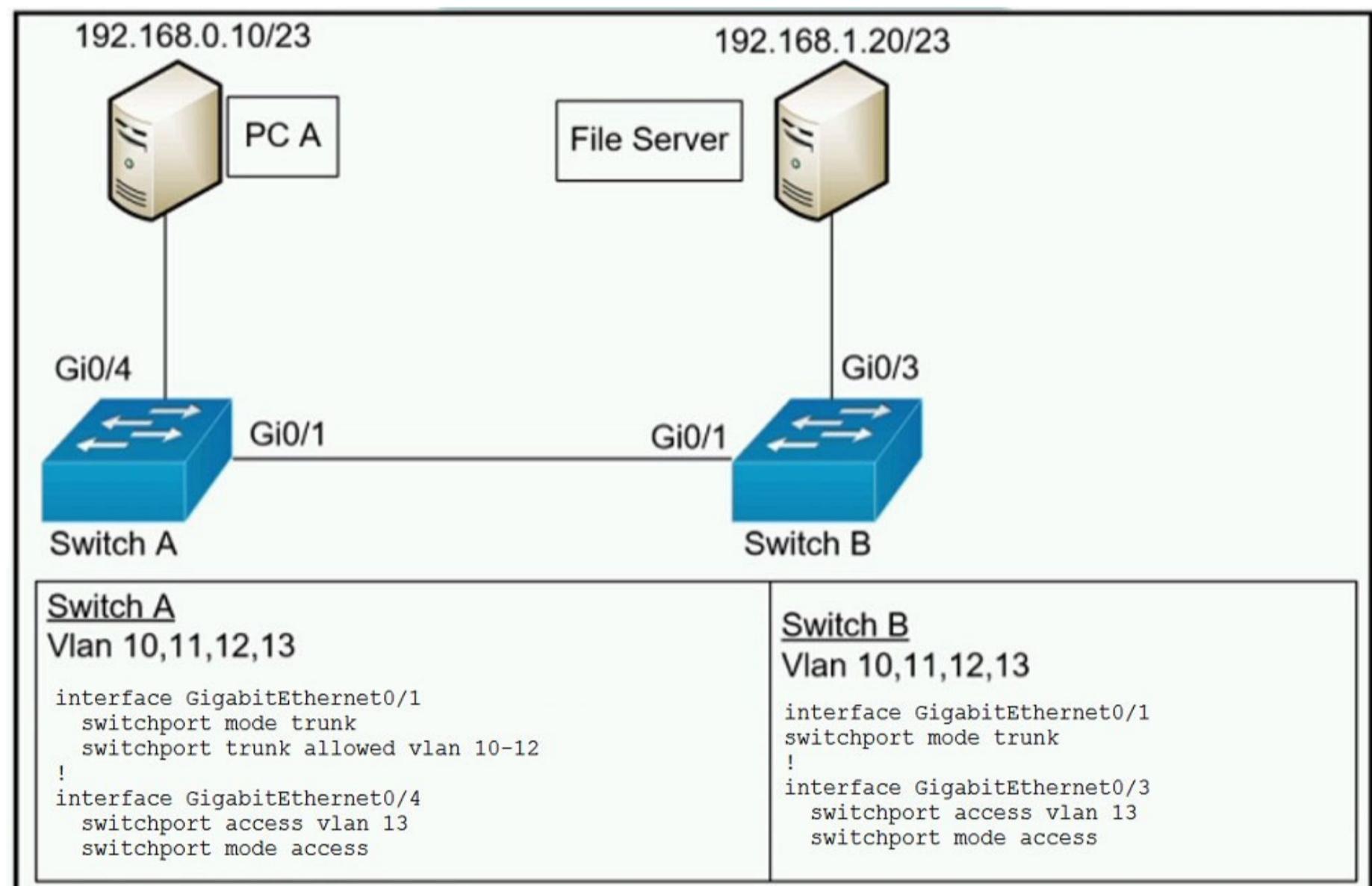
 **wissmail** 1 year, 9 months ago

Why D??

upvoted 1 times

 **DonnerKomet** 1 year, 9 months ago

In the routing tables exist one host route learned by OSPF (.5/32) however within the answers there is a typo .50
upvoted 4 times



Refer to the exhibit. A network administrator assumes a task to complete the connectivity between PC A and the File Server. Switch A and Switch B have been partially configured with VLANs 10, 11, 12, and 13. What is the next step in the configuration?

- A. Add PC A to VLAN 10 and the File Server to VLAN 11 for VLAN segmentation
- B. Add VLAN 13 to the trunk links on Switch A and Switch B for VLAN propagation
- C. Add a router on a stick between Switch A and Switch B allowing for Inter-VLAN routing
- D. Add PC A to the same subnet as the File Server allowing for intra-VLAN communication

Correct Answer: B

DonnerKomet Highly Voted 1 year, 9 months ago
but ALL VLANs are allowed by default in trunks. It would not be needed to add the VLAN 13 in Switch B.
upvoted 7 times

Vilsenil Highly Voted 2 years, 2 months ago
Hosts are in the same subnet /23. Answer B is correct
upvoted 5 times

DUMPLedore Most Recent 5 months, 4 weeks ago
same question with Question #263? choices just worded differently
upvoted 1 times

Garfieldcat 7 months, 3 weeks ago
PC and Server are not in the same IP subnet. the answer should be C. A router is required for inter-VLAN route
upvoted 1 times

Customexit 7 months, 1 week ago
Subnet 192.168.0.10/23 and see what you get.
upvoted 7 times

Rether16 2 months ago
...this made me laugh. ahha!
upvoted 2 times

ScorpionNet 1 year, 1 month ago
B is correct because it's in the same subnet and the Native vlangs send untagged frames to others

upvoted 1 times

 **Mozah** 1 year, 5 months ago

The interfaces between switch A and B are set to trunk mode but the VLAN in which the devices are tagged to is not allowed on the trunk. The given answer "B" is correct, simply allow the VLAN ID (VLAN 13) for them to communicate.

upvoted 3 times

 **KobraKai** 1 year, 9 months ago

switch A interface g0/4 - connected to PC is access mode with vlan13
switch B interface g0/3 - connected to server is access mode with vlan13

The interfaces between switch A and B are set to trunk mode.

So, only thing is missing is adding vlan 13 to the trunk link
in order for PC and server to communicate.

- A. wrong as switches can't do inter-vlan routing (vlan10 - vlan11)
- B. wrong it's not required as both PC and server are in same vlan (router on a stick is for inter-vlan routing)
- C. switches don't do inter-vlan routing

upvoted 1 times

 **Giuseppe_001** 2 years ago

zumy where are u? :-(

upvoted 5 times

 **jerry19** 2 years, 1 month ago

The answer is apparently B, but should be:

Switch A: switchport mode trunk allowed 10-13

Switch B: switchport mode trunk allowed vlan 10-13

Based off switch B's configs no trunks have been allowed, furthermore anytime you are configuring trunks (on router or switch), you must include native vlan as allowed and it must be identified so that non-tagged traffic is allowed. This question was written by an amateur.

upvoted 1 times

 **Samuelpn96** 1 year, 9 months ago

The question asks only to ensure communication between the PC and the Server, and just by adding the vlan 13 to the trunk links of both switches will do it.

I tested this in packet tracer.

upvoted 4 times

 **nenotronix** 2 years, 2 months ago

Answer "C" is the correct one.

the hosts are in different subnets [layer3]. hence, a router [layer3] device is required to cater for inter-vlan routing

upvoted 4 times

 **asd34534** 2 years, 2 months ago

here both devices are in the same vlan also same vlan can be in different subnets.

the problem here is with allowed vlans, either add vlan 13 or remove the limit

upvoted 4 times

 **Pkard** 1 year, 6 months ago

They mention INTRA-VLAN communication, not INTER-VLAN routing

upvoted 1 times

 **UmbertoReed** 2 years, 1 month ago

They are not on different subnets. Subnet 192.168.0.0 /23 has $2^9 = 512$ hosts, which spans an IP range of 192.168.0.0 - 192.168.1.255.

Addresses 192.168.0.10 and 192.168.1.20 are on the same range and their respective interfaces are on the same VLAN. The only problem here is that the trunk link on Switch A doesn't allow VLAN 13, so "B" is correct.

upvoted 11 times

 **Pkard** 1 year, 6 months ago

Good eye, I missed that the first time through

upvoted 1 times

Question #416

Topic 1

DRAG DROP -

A network engineer is configuring an OSPFv2 neighbor adjacency. Drag and drop the parameters from the left onto their required categories on the right. Not all parameters are used.

Select and Place:

Answer Area

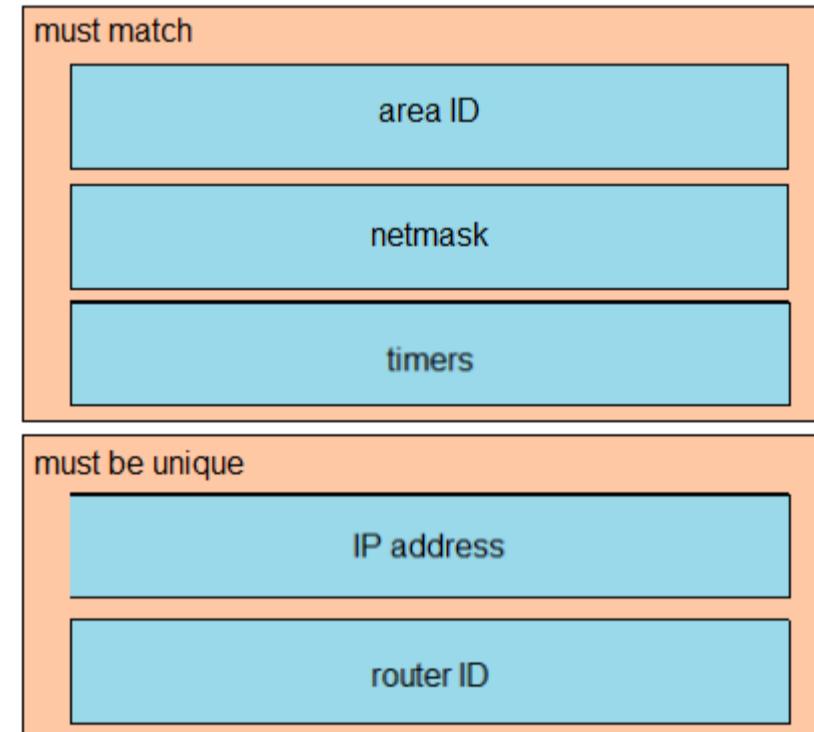
- area ID
- IP address
- netmask
- OSPF process ID
- router ID
- timers



Correct Answer:

Answer Area

- area ID
- IP address
- netmask
- OSPF process ID
- router ID
- timers



ayd33n Highly Voted 2 years, 10 months ago

From the perspective of OSPF, there are a couple of things that must match for a OSPF neighborship to establish; these include:

- The devices must be in the same area
- The devices must have the same authentication configuration
- The devices must be on the same subnet
- The devices hello and dead intervals must match
- The devices must have matching stub flags

<https://www.expertnetworkconsultant.com/configuring/ospf-neighbor-adjacency/>

So:

- Must Match: Area ID, NetMask, Timers
- Must have Unique: IP Address, Router ID

"The OSPF process-id is a numeric value local to the router. It does not have to match process-ids on other routers."
<http://cisco2960.over-blog.com/2014/01/cisco-ospf-process-id.html>

upvoted 20 times

 **ScorpionNet** Most Recent 1 year, 1 month ago

The given is right

upvoted 2 times

Question #417

Topic 1

R1 has learned route 192.168.12.0/24 via IS-IS, OSPF, RIP, and Internal EIGRP. Under normal operating conditions, which routing protocol is installed in the routing table?

- A. IS-IS
- B. Internal EIGRP
- C. RIP
- D. OSPF

Correct Answer: B

With the same route (prefix), the router will choose the routing protocol with lowest Administrative Distance (AD) to install into the routing table.

The AD of Internal

EIGRP (90) is lowest so it would be chosen. The table below lists the ADs of popular routing protocols.

Route Source	Administrative Distance
Directly Connected	0
Static	1
EIGRP	90
EIGRP Summary route	5
OSPF	110
RIP	120

Note: The AD of IS-IS is 115. The "EIGRP" in the table above is "Internal EIGRP". The AD of "External EIGRP" is 170. An EIGRP external route is a route that was redistributed into EIGRP.

 **Yunus_Empire** 6 months ago

Bcz EIGRP Has Lowest AD Value

upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: B

B is correct

upvoted 1 times

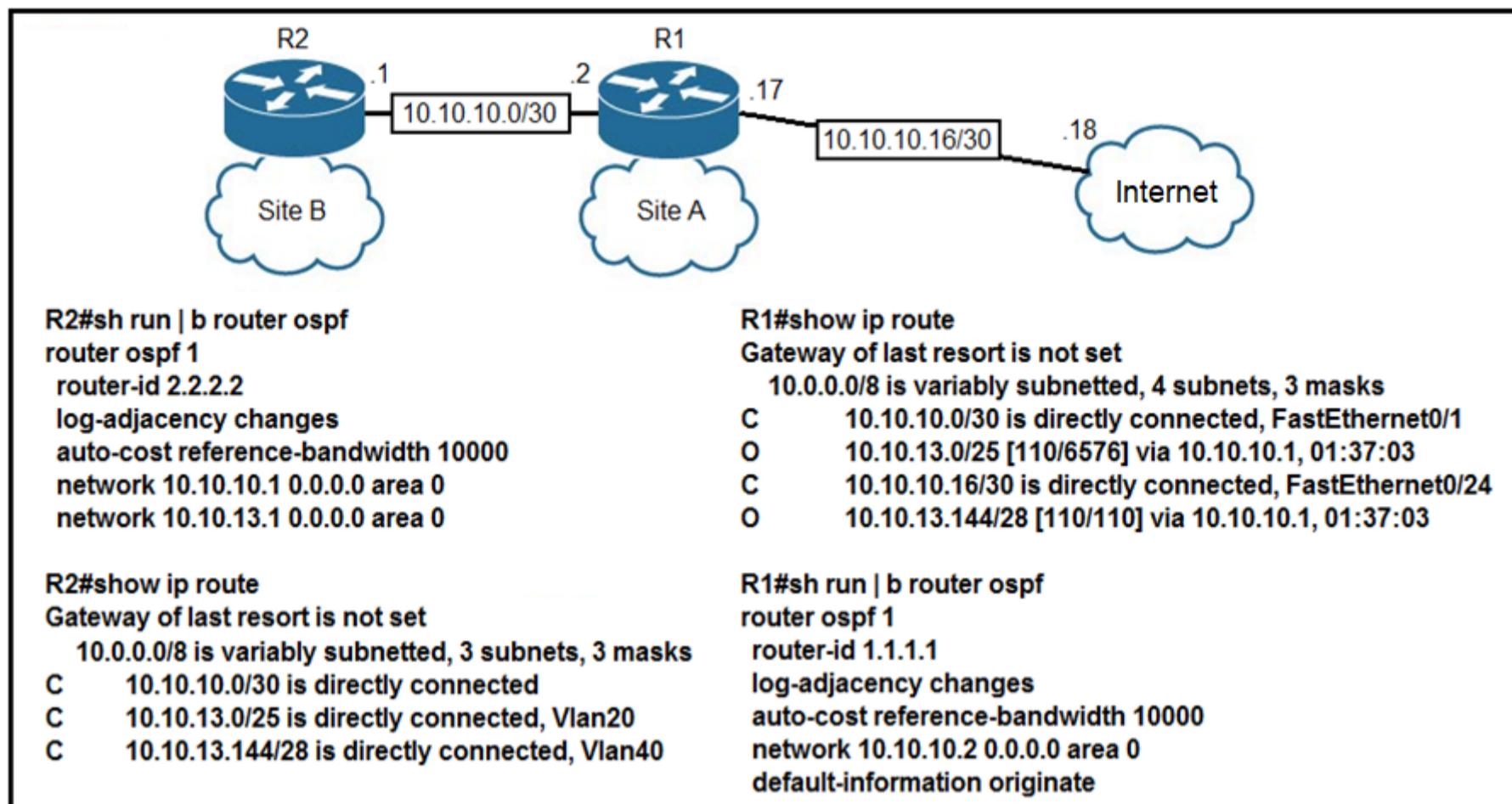
 **ptfish** 11 months ago

Selected Answer: B

The answer is B.

upvoted 1 times

Question #418



Refer to the exhibit. The default-information originate command is configured under the R1 OSPF configuration. After testing, workstations on VLAN 20 at Site

B cannot reach a DNS server on the Internet.

Which action corrects the configuration issue?

- A. Add the default-information originate command on R2.
- B. Add the always keyword to the default-information originate command on R1.
- C. Configure the ip route 0.0.0.0 0.0.0.0 10.10.10.18 command on R1.
- D. Configure the ip route 0.0.0.0 0.0.0.0 10.10.10.2 command on R2.

Correct Answer: C

Nhan Highly Voted 2 years, 3 months ago

B cannot reach a DNS server on the Internet, therefore the static route of the last resort should be configured to point to the internet, therefore the given answer is correct

upvoted 9 times

Pkard 1 year, 6 months ago

That doesn't explain how site B at Router 2 gets routed to Router 1. The DNS server IP wouldn't be on R1 so it would also need to use the default-route.

Someone please tell me how I'm out to lunch here, I understand routing tables

upvoted 1 times

pjvillareal 1 year, 5 months ago

"default-information originate" command results in advertising a default route. But, the router which it was configured should first have a default route.

As you can see, R1 does not have a default route. That's why the answer is correct. Configuring a default route on R1 will result in R1 advertising a default route to R2. R2's net will now have a default route pointing to R1, then to Internet where DNS server resides.

upvoted 15 times

Aleks123 1 year, 5 months ago

Thank you, that really helped!

upvoted 2 times

Pkard 1 year, 6 months ago

Does OSPF distribute the static route? maybe?

upvoted 2 times

yuh Most Recent 1 month ago

both A and B correct?

"default-information originate always" command, a default route can be generated and advertised even if there is no default route.

Of course, also correct to register default route static.
only choose one, answer is C?

upvoted 1 times

Dutch012 2 months, 4 weeks ago

R1 is already got a route to reach the internet, there is no need to add a static route.
Anyway both C and D are correct answers and this is why I hate Cisco.

upvoted 1 times

sdmejia01 4 months ago

Can someone explain why not B? My understanding is that default-information originate always command would make R1 to advertise a default route even if it is not in R1's routing table. The following link explains the above. At this point, I don't see why B and C cannot be both correct answers. Thanks!

<https://medium.com/network-warrior/ospf-default-route-10d8d7c251dc#:~:text=In%20OSPF%2C%20the%20E2%80%9Cdefault%2D,route%20in%20the%20routing%20table.>
upvoted 1 times

ptfish 11 months ago

Below are the keywords.
R1#show ip route
Gateway of last resort is not set

upvoted 2 times

i_am_confused 11 months, 2 weeks ago

Selected Answer: C
R1/R2 needs a default route to the internet. R1 needs to have the default route statically entered. R2 will learn the static route from R1 because R1 already configured with default-information originate.

upvoted 2 times

CCNAEASY 1 year, 1 month ago

Letra correta e a (D) precisa de uma rota para o R1, R1 esta ligado diretamente ao DNS ele responderá!
upvoted 2 times

pjvillareal 1 year, 5 months ago

"default-information originate" command results in advertising a default route. But, the router which it was configured should first have a default route.

As you can see, R1 does not have a default route. That's why the answer is correct. configuring a default route on R1 will result in R1 advertising a default route to R2. R2 nets will now have a default route pointing to R1, then to internet where DNS server resides.

upvoted 2 times

shakyak 1 year, 6 months ago

R1 & R2 can communicate but the computer can't go outside of the intranet because the Router doesn't have a route to internet so we need to add the static route to internet.

upvoted 1 times

shakyak 1 year, 6 months ago

I mean route to internet*
upvoted 2 times

Hodicek 1 year, 6 months ago

default route on r1 to the internet
upvoted 1 times

nenotronix 2 years, 2 months ago

C is correct

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/47868-ospfdb9.html>

<https://medium.com/network-warrior/ospf-default-route-10d8d7c251dc#:~:text=In%20OSPF%2C%20the%20E2%80%9Cdefault%2D,route%20in%20the%20routing%20table.>
upvoted 3 times

Question #419

Topic 1

```
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 [110/38443] 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
    209.165.200.0/24 is variably subnetted, 4 subnets, 2 masks
C   209.165.200.248/30 is directly connected, Serial0/0/0
L   209.165.200.249/32 is directly connected, Serial0/0/0
C   209.165.200.252/30 is directly connected, Serial0/0/1
L   209.165.200.253/32 is directly connected, Serial0/0/1
```

Refer to the exhibit. With which metric was the route to host 172.16.0.202 learned?

- A. 0
- B. 110
- C. 38443
- D. 3184439

Correct Answer: C

Both the line `O 172.16.0.128/25` and `S 172.16.0.0/24` cover the host 172.16.0.202 but with the longest (prefix) match rule the router will choose the first route.

 **uevenasdf** Highly Voted 2 years, 4 months ago

I'm assuming by metric it means to ignore the 110 OSPF AD and select the cost.
A is wrong because the Static route doesn't reach 172.16.0.202
B is wrong because that is the OSPF AD not metric.
Which leaves C/D...

Host - 172.16.0.202 falls under OSPF 172.16.0.128/25
202 in binary 11001[100] .200 - .207
192 in binary 11000[000] .192 - .199

Which means the host can't reach the EIGRP route therefore the OSPF route is used and has a metric of 38443
upvoted 12 times

 **FloridaMan88** 2 years, 4 months ago

The static route DOES reach the host ... 172.16.0.1 - 254,
BUT the keyword is "LEARNED"
a STATIC route isn't "learned" so that leaves us with the closed network route that was learned dynamically....hence 172.16.0.128/28
(172.16.0.129 - 254 hosts) OSPF
upvoted 5 times

 **DARKK** Most Recent 1 year ago

Selected Answer: C
C. Given answer is correct. /29 is 192-200, so not inclusive, leaving /25 which has a metric of 38443
upvoted 2 times

 **Angpz** 1 year, 2 months ago

C. 38443. Because /25 is the highest prefix to reach 172.16.0.202. So just take the metric from there.
upvoted 1 times

 **iGlitch** 1 year, 1 month ago

but it doesn't reach 172.16.0.202, learn some subnetting
upvoted 2 times

 **TA77** 11 months, 1 week ago

It does reach to 172.16.0.202, lol
upvoted 1 times

 **Yozz12** 1 year, 7 months ago

isn't the number 38443 pointing towards the ospf?
upvoted 1 times

✉ **IxlJustinlxl** 2 years ago

regardless of "learned" or not.. prefix takes precedence over AD.. even if you had a static route /24 that the IP falls in and a OSPF of /25 that it also falls in, the OSPF route will be chosen due to prefix.

upvoted 2 times

✉ **Jonfernz** 2 years, 1 month ago

Key word here is "metric". The answer would have been 110 if the question asked about the Administrative Distance (AD). OSPF was the preferred route in this instance because of the longest prefix match.

upvoted 4 times

✉ **sidato** 2 years, 1 month ago

line D 172.16.0.192/29 doesn't cover also the host

upvoted 1 times

✉ **Amarko** 1 year, 7 months ago

because for D to be correct, it should be a different mask in routing table

172.168.0.200/29 hosts: 172.168.0.201-172.168.0.206

upvoted 1 times

✉ **theodorrrr** 1 year, 7 months ago

I don't understand why is not D the correct answer

upvoted 2 times

✉ **Mozah** 1 year, 5 months ago

172.16.0.128/25 has 128 addresses BUT usable hosts are only 126 from 0.129 to 0.255 which means 172.16.0.202 will be in this /25 subnet range

WHILE

172.16.0.192/29 has 8 addresses BUT only six are usable hosts which is from 0.193 to 0.199 means 172.16.0.202 is out of /29 subnet range.

upvoted 2 times

✉ **pouya1** 2 years, 3 months ago

The given answer and reason are correct.

upvoted 2 times

✉ **FloridaMan88** 2 years, 4 months ago

CORRECTION ;)

The static route DOES reach the host ... 172.16.0.1 - 254,

BUT the keyword is "LEARNED"

a STATIC route isn't "learned" so that leaves us with the closest network route that was learned dynamically....hence 172.16.0.128/25 (172.16.0.129 - 254 hosts) OSPF

upvoted 2 times

Question #420

Topic 1

A user configured OSPF in a single area between two routers. A serial interface connecting R1 and R2 is running encapsulation PPP. By default, which OSPF network type is seen on this interface when the user types show ip ospf interface on R1 or R2?

- A. nonbroadcast
- B. point-to-point
- C. point-to-multipoint
- D. broadcast

Correct Answer: B

 **ayd33n** Highly Voted 2 years, 10 months ago

Broadcast default for Ethernet, Point to Point default for serial
upvoted 37 times

 **IxlJustinlxl** Highly Voted 2 years ago

PPP = Point-to-Point Protocol.
Kinda sums it up right there.
upvoted 12 times

 **nicombe** Most Recent 8 months, 2 weeks ago

Selected Answer: B
No one praising 420, im disappointed
upvoted 6 times

 **Cyberops** 1 year ago

serial= Point to Point
upvoted 1 times

 **Retxed** 2 years, 4 months ago

The default OSPF network type for HDLC and PPP on Serial link is point-to-point (while the default OSPF network type for Ethernet link is Broadcast).
upvoted 8 times

Question #421

Topic 1

Which MAC address is recognized as a VRRP virtual address?

- A. 0000.5E00.010a
- B. 0005.3709.8968
- C. 0000.0C07.AC99
- D. 0007.C070.AB01

Correct Answer: A

 **Kaygol** Highly Voted 2 years, 11 months ago

Answer A - 1 VRRP over Ethernet. Over Ethernet, VRRP routers use a common MAC address of the format 00:00:5E: 00:01:XX. The first three octets are derived from the IANA's OUI. The next two octets (00:01) indicate the address block assigned to the VRRP protocol by IANA
upvoted 32 times

 **ismatdmour** Highly Voted 1 year, 2 months ago

Selected Answer: A
0000.5E00.01xx is VRRP virtual MAC (Ans. A with xx=0A group)
0000.0c07.acxx is HSRP virtual MAC address (Ans. C with xx=99)
0007.b400.xyyy is GLBP virtual MAC (Not in the answers), xx is group and yy is AVF
I don't know what B and D are.
upvoted 10 times

 **BraveBadger** Most Recent 1 year, 1 month ago

Any easy way to remember 0C07AC as HSRP and 5E0001 as VRRP? I confuse the two.
upvoted 3 times

 **paolo_brosio** 2 years, 1 month ago

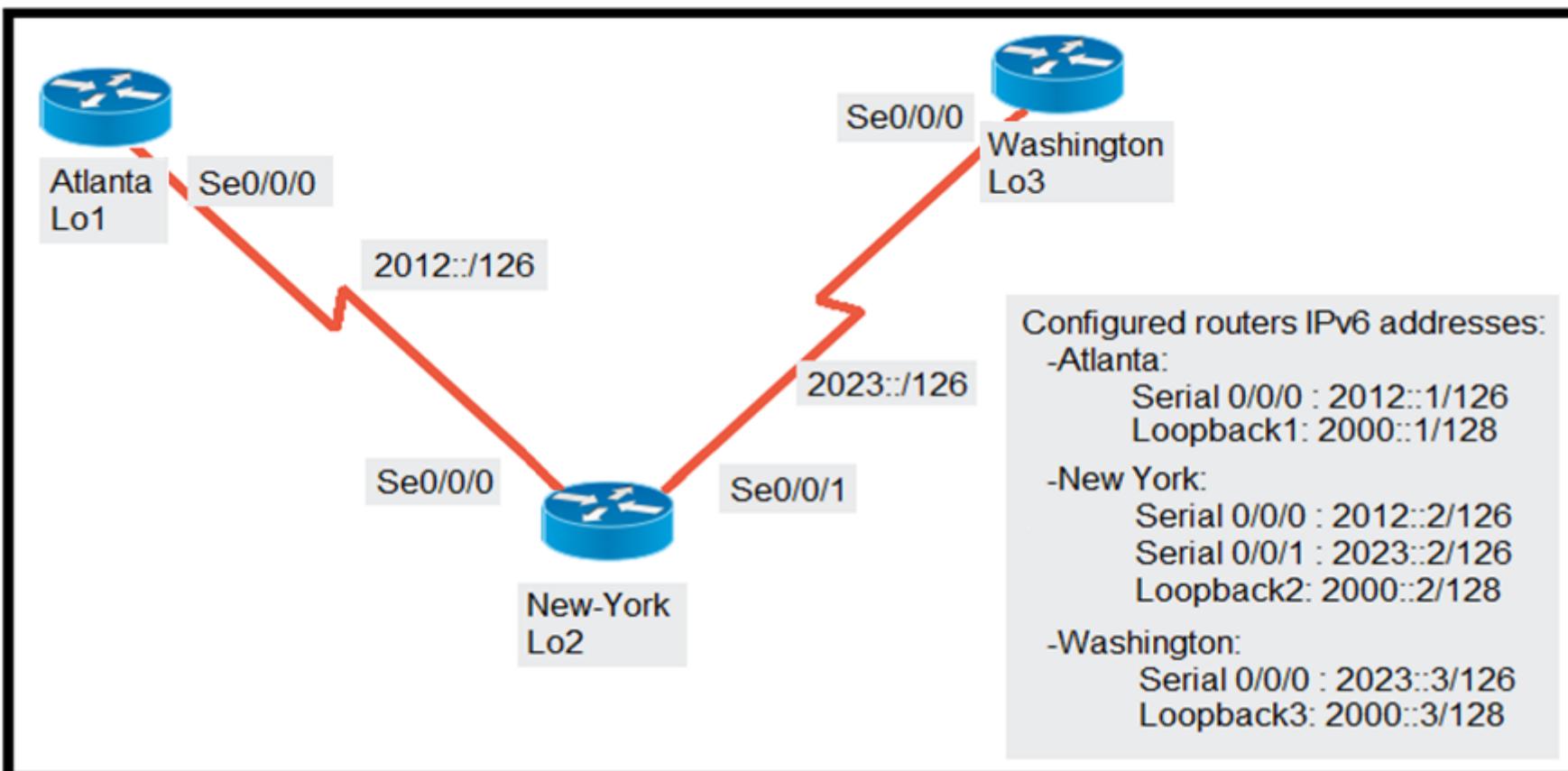
E' la B ma vuole la A nse sa
upvoted 8 times

 **alexiro** 2 years, 9 months ago

Virtual MAC address : A virtual MAC address is automatically generated by taking the last 8 bytes as the VRRP group number in hexadecimal. In VRRP, Mac address used is 0000.5e00.01xx. Here, xx is the VRRP group number in hexadecimal.
<https://www.geeksforgeeks.org/introduction-of-virtual-router-redundancy-protocol-vrrp-and-its-configuration/>
upvoted 5 times

Question #422

Topic 1



Refer to the exhibit. The New York router is configured with static routes pointing to the Atlanta and Washington sites.

Which two tasks must be performed so that the Se0/0/0 interfaces on the Atlanta and Washington routers reach one another? (Choose two.)

- A. Configure the ipv6 route 2023::/126 2012::1 command on the Atlanta router.
- B. Configure the ipv6 route 2012::/126 2023::2 command on the Washington router.
- C. Configure the ipv6 route 2012::/126 2023::1 command on the Washington router.
- D. Configure the ipv6 route 2023::/126 2012::2 command on the Atlanta router.
- E. Configure the ipv6 route 2012::/126 s0/0/0 command on the Atlanta router.

Correct Answer: BD

Aie_7 3 months ago

Answers given are correct

upvoted 2 times

iMo7ed 3 months, 2 weeks ago

Selected Answer: BD

B and D are correct

upvoted 3 times

Question #423

Topic 1

A router running EIGRP has learned the same route from two different paths. Which parameter does the router use to select the best path?

- A. as-path
- B. administrative distance
- C. metric
- D. cost

Correct Answer: D

If a router learns two different paths for the same network from the same routing protocol, it has to decide which route is better and will be placed in the routing table. Metric is the measure used to decide which route is better (lower number is better). Each routing protocol uses its own metric.

For example, RIP uses hop counts as a metric, while OSPF uses cost.

Reference:

<https://study-ccna.com/administrative-distance-metric/>

✉  **Mcsonic00** Highly Voted 2 years, 7 months ago

1 routing protocol for 2 learned paths = Metric
1 learned path from 2 routing protocols = Administrative Distance
upvoted 45 times

✉  **AndrealITALIANO91** 1 year, 10 months ago

are you sure about your second statement?
In many questions, when there are two routing protocols and a path, we look at the prefix length, not the AD.
For example on the page preceding question 227 in the answers an OSPF route is preferred over a static route.
upvoted 3 times

✉  **Mozah** 1 year, 4 months ago

ARE WE ON THE SAME PAGE??

Question #227Topic 1

Which value is used to determine the active router in an HSRP default configuration?

upvoted 1 times

✉  **Anas_Ahmad** 7 months, 2 weeks ago

The default priority is 100
upvoted 1 times

✉  **TheLorenz** 1 year, 2 months ago

Prefix is dominant when the routes are already installed on the routing table (already learned). When a router is choosing which to install on the routing table, it looks at AD. When choosing multiple paths from one protocol, metric.
upvoted 1 times

✉  **TheLorenz** 1 year, 2 months ago

forgot to mention the last statement I made is still when the router is trying to choose what path to install. Only look at prefix when the routes are already installed in the table.
upvoted 1 times

✉  **TripleH** Highly Voted 2 years, 8 months ago

After we use administrative distance, we use metric
upvoted 7 times

✉  **Da_Costa** Most Recent 1 week, 2 days ago

It will use metric
upvoted 1 times

✉  **omikun** 1 month, 1 week ago

When a router running EIGRP learns the same route from multiple paths, it selects the best path based on the metric, not the administrative distance or as-path. Therefore, the correct answer is C. metric.

The EIGRP metric is calculated based on several parameters such as bandwidth, delay, reliability, and load. The router calculates the metric for each path it learns and selects the one with the lowest metric as the best path. The metric can be influenced by adjusting the weights of the individual parameters using the K values.

upvoted 2 times

✉  **Vikramaditya_J** 1 month, 1 week ago

Selected Answer: C

A tricky question. Let me try to explain:

According to the question, the destination is same i.e. same route, but it's learned using two different paths. Normally, router uses administrative distance as a parameter to select the best path when multiple routing protocols are used, but since both paths are running with EIGRP, so both have the same AD (=90) so it's a tie. Next the router will consider the metric value for path selection. So, C should be the correct option here.

upvoted 6 times

DUMPledor 4 months, 2 weeks ago

Selected Answer: C

Metric EIGRP
Cost OSPF
Hop count RIP
upvoted 5 times

Sdiego 4 months, 2 weeks ago

Selected Answer: C

Metric for EIGRP
upvoted 2 times

Dhruv3390 4 months, 3 weeks ago

Guys please dont get confused here in question we are asked Router is only running EIGRP and have multiple path to same destination, If we have multiple protocols we use Longest Prefix to get the most specific route, if multiple routs are there with multiple protocols then we use AD values to decide best route.

When it comes to only 1 protocol is running, we can't use AD, we use Metric. For every protocol we have different Metric.

- 1)Metric for EIGRP is Metric itself, which has been derived by using delay and bandwidth.
- 2)Metric for OSPF is Cost, which has been derived by using reference bandwidth and speed of interface.
- 3)Metric for RIP is Hop counts.

upvoted 5 times

Surves 6 months ago

Selected Answer: C

Metric EIGRP
Cost OSPF
Hop count RIP
upvoted 3 times

Netcmd 6 months, 3 weeks ago

Selected Answer: C

Metric is used EIGRP. OSPF uses cost
upvoted 2 times

Garfieldcat 7 months, 3 weeks ago

The question is telling us the router is running EIGRP, not OSPF. a generic term Metric is acceptable answer.
upvoted 1 times

Murphy2022 8 months ago

Selected Answer: C

OSPF uses Combined Cost as its Metric
EIGRP uses Metric as its Metric
upvoted 1 times

creaguy 8 months, 1 week ago

it's right there in the explanation given. Duh !

"Metric is the measure used to decide which route is better "

upvoted 1 times

[Removed] 8 months, 1 week ago

I'm confused how the suggested answer is D but the explanation suggests C.
upvoted 3 times

splashy 8 months, 3 weeks ago

Selected Answer: C

It's an Enhanced distance vector protocol so metric

<https://www.ccexpert.us/subnetted-subnets/eigrp-metrics.html#:~:text=Like%20IGRP%2C%20EIGRP%20chooses%20a%20route%20based%20primarily,feasible%20distance%20to%20all%20routes%20in%20the%20network>

upvoted 1 times

Eyad_Alotaibi 8 months, 3 weeks ago

Correct answer is C.

If a router learns two different paths for the same network from the same routing protocol, it has to decide which route is better and will be placed

in the routing table. Metric is the measure used to decide which route is better (lower number is better). Each routing protocol uses its own metric. For example, RIP uses hop counts as a metric, while OSPF uses cost.

upvoted 1 times

 **BI1024** 9 months ago

Selected Answer: C

Answer should be c>metric not b>cost

upvoted 1 times

Question #424

Topic 1

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

- A. Init
- B. 2-way
- C. Exchange
- D. Full

Correct Answer: D

✉  **RebWat93** Highly Voted 2 years, 5 months ago

Ans: D = Full is the state for adjacent routers that have fully synchronised databases.

upvoted 9 times

✉  **Demi_UY_Scuti** Highly Voted 2 years, 7 months ago

D is the correct answer. A DR or a BDR router will always need to reach a full state relationship with all neighbours (DROther included!) for correct operation. A 2-way state will only be considered correct and stable between two DROther routers.

upvoted 8 times

✉  **4aynick** Most Recent 1 month, 1 week ago

Selected Answer: B

drother always in 2-way state, here speach go up about DR-other routers , no dr or bdr

upvoted 2 times

✉  **ShravaniKulkarni** 1 year ago

DR and BDR gets selected in 2-way...

upvoted 1 times

✉  **Raman1996** 1 year, 4 months ago

<https://www.computernetworkingnotes.com/ccna-study-guide/ospf-neighbor-states-explained-with-example.html#:~:text=OSPF%20routers%20go%20through%20the,with%20other%20OSPF%20speaking%20routers.>

upvoted 2 times

✉  **Raman1996** 1 year, 4 months ago

Down state
Attempt/Init state
Two ways state
Exstart state
Exchange state
Loading state
Full state

remember it as DATEELF

upvoted 4 times

✉  **LTTAM** 2 years, 5 months ago

D: Full is the correct answer. Source straight from Cisco below:

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13685-13.html>

upvoted 6 times

✉  **Dileesh** 2 years, 8 months ago

Answer B

upvoted 2 times

✉  **Dileesh** 2 years, 8 months ago

sorry "Full is the normal state for an OSPF router"

In this state, routers are fully adjacent with each other. All the router and network LSAs are exchanged and the routers' databases are fully synchronized.

upvoted 4 times

✉  **SALSHOUMER** 2 years, 8 months ago

Correct Answer: B

upvoted 2 times

✉  **ayd33n** 2 years, 10 months ago

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13685-13.html>

upvoted 3 times

Question #425

Topic 1

```
R1# show ip route

D  192.168.16.0/26 [90/2679326] via 192.168.1.1
R  192.168.16.0/24 [120/3] via 192.168.1.2
O  192.168.16.0/21 [110/2] via 192.168.1.3
i L1 192.168.16.0/27 [115/30] via 192.168.1.4
```

Refer to the exhibit. Which route does R1 select for traffic that is destined to 192.168.16.2?

- A. 192.168.16.0/21
- B. 192.168.16.0/24
- C. 192.168.16.0/26
- D. 192.168.16.0/27

Correct Answer: D

The destination IP addresses match all four entries in the routing table but the 192.168.16.0/27 has the longest prefix so it will be chosen. This is called the **longest prefix match rule**.

✉ **Chocobo** Highly Voted 2 years, 3 months ago

D is correct.
Longest prefix is prioritized over lower AD.
upvoted 12 times

✉ **Yunus_Empire** 6 months ago

Yes.. right
upvoted 1 times

✉ **ac891** Most Recent 1 month ago

what is i L1 ?
upvoted 1 times

✉ **ThomasSmith** 3 weeks, 4 days ago

IS-IS (AD 115)
upvoted 1 times

Question #426

Gateway of last resort is 10.12.0.1 to network 0.0.0.0

```
O*E2 0.0.0.0/0 [110/1] via 10.12.0.1, 00:00:01, GigabitEthernet0/0
  10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.0.0.0/24 is directly connected, GigabitEthernet0/0
L    10.0.0.2/32 is directly connected, GigabitEthernet0/0
C    10.13.0.0/24 is directly connected, GigabitEthernet0/1
L    10.13.0.2/32 is directly connected, GigabitEthernet0/1
```

Refer to the exhibit. If configuring a static default route on the router with the ip route 0.0.0.0 0.0.0.0 10.13.0.1 120 command, how does the router respond?

- A. It starts sending traffic without a specific matching entry in the routing table to GigabitEthernet0/1.
- B. It immediately replaces the existing OSPF route in the routing table with the newly configured static route.
- C. It starts load-balancing traffic between the two default routes.
- D. It ignores the new static route until the existing OSPF default route is removed.

Correct Answer: D

Our new static default route has the Administrative Distance (AD) of 120, which is bigger than the AD of OSPF External route (O*E2) so it will not be pushed into the routing table until the current OSPF External route is removed.

For your information, if you don't type the AD of 120 (using the command `ip route 0.0.0.0 0.0.0.0 10.13.0.1`) then the new static default route would replace the

OSPF default route as the default AD of static route is 1. You will see such line in the routing table:

S* 0.0.0.0/0 [1/0] via 10.13.0.1

 **sinear** Highly Voted 2 years, 4 months ago

You really got to see the "120" here to not miss the right answer...

upvoted 10 times

 **mhayek** 7 months, 1 week ago

and this is exactly what i missed

upvoted 4 times

 **cormorant** Most Recent 7 months ago

specifying te administrative distance of 120 means it's a route that will only be used when teh OSPF route is removed, since it has an administrative distance of 110 and therefore should take precedence

upvoted 1 times

 **i_am_confused** 12 months ago

Selected Answer: D

Floating static route with AD 120 is a backup to OSPF route. Won't be used until OSPF route goes down.

upvoted 4 times

 **kaifene** 1 year ago

Selected Answer: D

Because Static route as default has 1 AD but it was manually configured to 120 which is greater than 110. So, it won't be considered until former OSPF route is not removed.

upvoted 1 times

 **Elstak_Dennis** 1 year, 2 months ago

Selected Answer: B

The best approach to answer this vague question is to eliminate the answers which are definitely wrong and these wrong answers are: A, C, E, F which leaves out B and D as the only possible anwers. Since D is a no brainer we have to focus on why B could be right. R1 which is the DR indeed won't establish an adjacency with R3. Adjacency means the that the 2 routers would be in Full state which is the state they will not reach. They will only be able to reach the 2-way state. The routers will be able to have a neighbor relationship but will not form a neighbor adjacency.

upvoted 1 times

 **JonfernZ** 2 years, 1 month ago

the 120 AD makes it a floating static route --- which is added for redundancy in case the OSPF fails.

upvoted 4 times

✉️ **Taku2023** 2 months ago

I think someone needs to explain to me again about floating static. OSPF already has AD of 120. if you configure a floating static isn't supposed to be 121???????????

upvoted 1 times

✉️ **studying_1** 1 month ago

OSPF AD 110

upvoted 1 times

✉️ **Nhan** 2 years, 3 months ago

This is also the method that people setting floating route with ad higher than the default route

upvoted 4 times

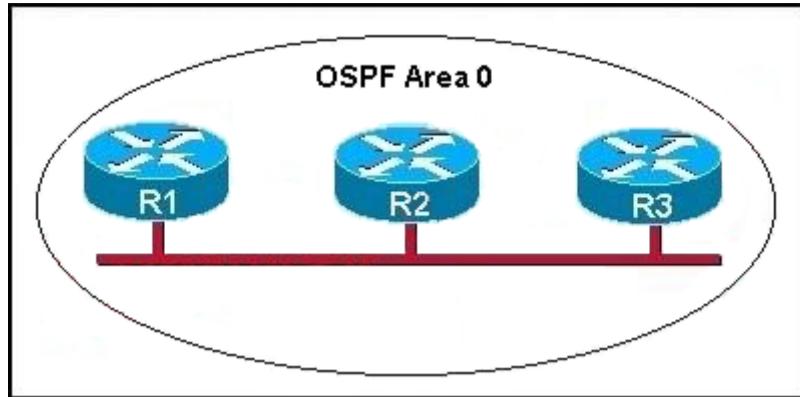
✉️ **uevenasdf** 2 years, 4 months ago

Tricky one can't miss the manually adding the 120 AD....

upvoted 4 times

Question #427

Refer to the graphic. R1 is unable to establish an OSPF neighbor relationship with R3. What are possible reasons for this problem? (Choose two.)



- A. All of the routers need to be configured for backbone Area 1.
- B. R1 and R2 are the DR and BDR, so OSPF will not establish neighbor adjacency with R3.
- C. A static route has been configured from R1 to R3 and prevents the neighbor adjacency from being established.
- D. The hello and dead interval timers are not set to the same values on R1 and R3.
- E. EIGRP is also configured on these routers with a lower administrative distance.
- F. R1 and R3 are configured in different areas.

Correct Answer: DF

This question is to examine the conditions for OSPF to create neighborhood. So as to make the two routers become neighbors, each router must be matched with the following items:

1. The area ID and its types
2. Hello and failure time interval timer
3. OSPF Password (Optional)

xdxp23 Highly Voted 1 year, 9 months ago

I like D and E for this. How is F possible if you can clearly see them in the same area according to the graphic? Thoughts anyone?
upvoted 18 times

DaBest 1 year, 8 months ago

i agree this should be D and E, unless they want us to answer this question based on theory alone then yeah D and F are the answers. they must have answered that without looking at the graphic
upvoted 2 times

daddydagoth 3 months, 2 weeks ago

It can never be E as an answer. Having EIGRP configured with a lower AD (by default the AD is lower already so that's a hint that this is wrong), the only thing that happens is that The router runs both protocols and will prefer EIGRP's routes to the same destination over the OSPF routes. This will not, in any way, disrupt the OSPF adjacencies.
upvoted 2 times

Dante_Dan 1 year, 5 months ago

EIGRP will not prevent OSPF to form an adjacency with other routers. So answer E could not be correct.
upvoted 4 times

mohamed1999 1 year, 9 months ago

what they mean with area is like group. so if you are now in the same group you can't see each other.
upvoted 3 times

nickname_fordiscussions Highly Voted 1 year, 1 month ago

Umm.. They're all clearly in Area 0. There's a huge circle that says Area 0. All of the routers are in the same area..
upvoted 7 times

BraveBadger 1 year, 1 month ago

Yup, but the question basically says "it's not working, what could cause it to not work" I always try to keep in mind that the graphic is solely giving a topology and not necessarily the config. So many tricks they play.
upvoted 6 times

dropspablo Most Recent 2 weeks, 2 days ago

Selected Answer: DF

Correct the answer. EIGRP does not prevent them from forming neighborhood adjacencies, it can only interfere with the routing table. A configuration of areas different from the proposed in the graph would prevent adjacencies.
upvoted 1 times

 **shiv3003** 1 month, 1 week ago

B and D

upvoted 1 times

 **Rether16** 2 months ago

This comment is pure shite! Theyre clearly in the same area as theyre circled as Area 0!

upvoted 1 times

 **Aie_7** 3 months ago

Tricky question. Topology shows AREA 0

upvoted 2 times

 **Dutch012** 3 months, 3 weeks ago

how D & F are correct?

R3 is able to form a neighbor relationship with R2, the same thing with R1 is able to form a neighbor relationship with R2, if D & F were correct these two relations mentioned above should not be created.

upvoted 1 times

 **Goena** 5 months, 1 week ago

Selected Answer: DE

I think D and E.

They're all clearly in Area 0.

Cisco doesn't mention anything about EIGRP. There is a possibility that is configured.

upvoted 1 times

 **Customexit** 7 months, 3 weeks ago

I can see it as, yeah it says area 0 in the picture, but perhaps F is saying it's "configured" in different areas.

upvoted 1 times

 **Nnandes** 1 year ago

D & F are correct.

upvoted 2 times

 **Aleks123** 1 year, 5 months ago

The graphic is such a bait here to make the wrong mistake like the default vlan question where its 1. Noticing a trend here lol?

upvoted 1 times

 **sgashashf** 1 year, 3 months ago

Yeah. Cisco's tests are honestly super scummy.

upvoted 8 times

Question #428

```
Router#show ip route
Codes: L - local, C - connected, S - static, 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
```

Gateway of last resort is 209.165.202.131 to network 0.0.0.0

```
S*   0.0.0.0/0 [1/0] via 209.165.202.131
    209.165.200.0/27 is subnetted, 1 subnets
S     209.165.200.224 [254/0] via 209.165.202.129
    209.165.201.0/27 is subnetted, 1 subnets
S     209.165.201.0 [1/0] via 209.165.202.130
```

Refer to the exhibit. Which command configures a floating static route to provide a backup to the primary link?

- A. ip route 209.165.200.224 255.255.255.224 209.165.202.129 254
- B. ip route 209.165.201.0 255.255.255.224 209.165.202.130
- C. ip route 0.0.0.0 0.0.0.0 209.165.200.224
- D. ip route 0.0.0.0 0.0.0.0 209.165.202.131

Correct Answer: A

 **maw619** Highly Voted 1 year, 9 months ago

A is the only answer that is a static floating route.
upvoted 10 times

 **gaber** 1 year, 5 months ago

yes, the only one with the higher AD specified
upvoted 1 times

 **Pkard** 1 year, 7 months ago

my eyes are tired and i missed that.
upvoted 10 times

 **bwg** Highly Voted 2 years ago

Did no one find that the AD of primary link is also 254 ?
upvoted 6 times

 **Darwyn** 1 year, 11 months ago

there is only one answer that has an AD that is specified in the syntax
upvoted 5 times

 **BooleanPizza** 1 year, 9 months ago

254 is the AD of the backup link aka the floating static route
upvoted 3 times

 **Sonieta** 1 year, 7 months ago

now, I understand, thank you!!
upvoted 1 times

 **Dzhenkov** Most Recent 1 month ago

Selected Answer: A

highest AD

upvoted 1 times

 **Mafix** 11 months ago

The administrative distance is the same on both the primary link as well as the supposedly floating static route! 254 ! Should have been greater than 254 so it can be chosen as a backup, I believe !
upvoted 2 times

 **Nnandes** 1 year ago

A is the correct answer.
upvoted 1 times

 **ismatdmour** 1 year, 2 months ago

Selected Answer: A

A is correct. You will only see one of 2 routes in the the table cause the floating route will be only in the table when the primary route fails and comes as alternate. The route with 254 AD should be the floating route, and the primary route has problems (not in table). I agree with yasuke, the question should have stated " which command configured the floating static route...."

upvoted 3 times

 **yasuke** 1 year, 8 months ago

i think the question should have read " which command configured the floating static route...."
upvoted 3 times

 **sdokmak** 1 year, 11 months ago

Literally spent hours on this one.
All the commands are already on the screen, we need to know which one is the backup and which one is the primary.

The default route is the default route so ignore that.
Leaves us with two routes, one with the lower administrative distance is the primary link:
209.165.201.0 [1/0] via 209.165.202.130
The remaining higher administrative distance is the backup link
209.165.200.224 [254/0] via 209.165.202.129

..honestly not sure.

The primary link is
upvoted 5 times

 **ismatdmour** 1 year, 2 months ago

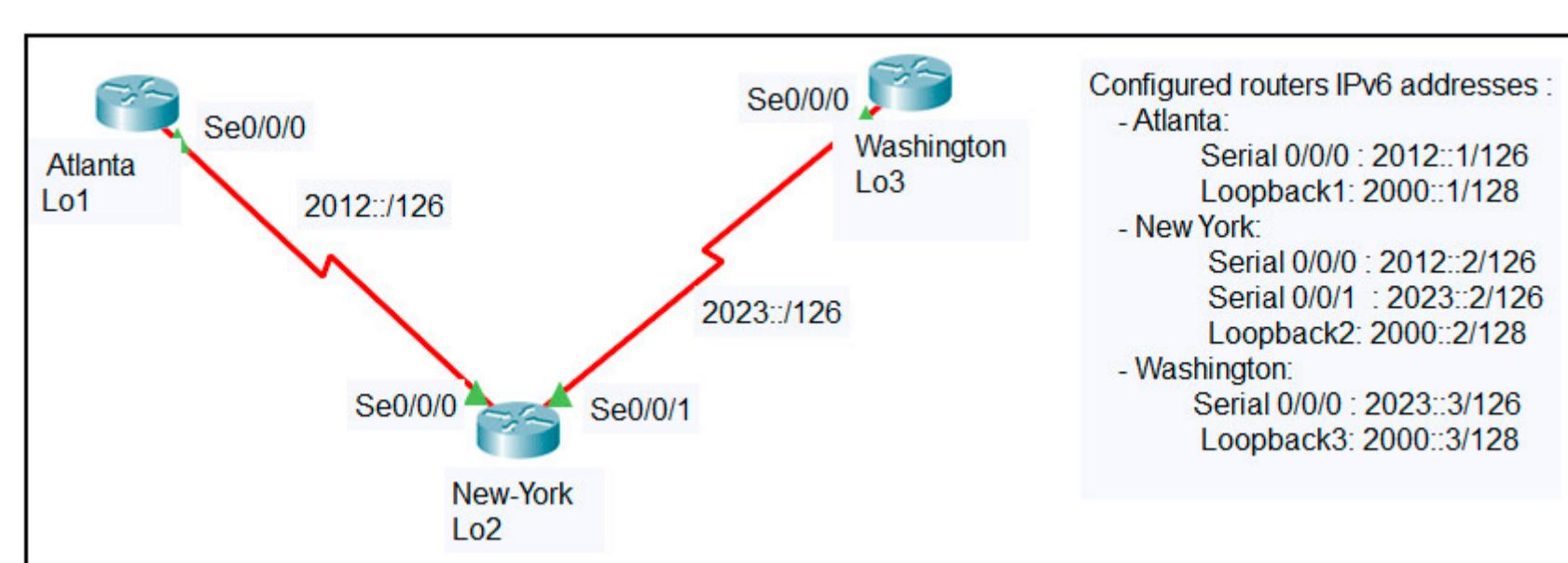
You will only see one of 2 routes in the the table cause the floating route will be only in the table when the primary route fails and comes as alternate.
upvoted 1 times

 **Micah7** 2 years ago

This was an odd question for several reasons:
- The "primary link".....at first I thought it was referring to the default route (gateway of last resort)
- Interesting to note: if there is only 1 route in the subnetted network.....no mask is displayed for the line of the subnetwork....so you have to assume the mask on the line above
- Yes, to agree with bwg: the AD is the same for the answer and the diagram's network.....I would think it needs to be a higher number. Otherwise, other factors being equal (AD)....you are just inserting what the system already has
upvoted 3 times

 **Sten111** 1 year, 11 months ago

Yeah this question is messed up. If the AD value was missing from the end of the A command that would do it because the current route in the routing table would be the floating static. If there is a correct answer here I can't see it.
upvoted 1 times



Refer to the exhibit. An engineer configured the New York router with static routes that point to the Atlanta and Washington sites. Which command must be configured on the Atlanta and Washington routers so that both sites are able to reach the loopback2 interface on the New York router?

- A. ipv6 route::/0 Serial 0/0/0
- B. ipv6 route::/0 Serial 0/0/1
- C. ipv6 route:0/0 Serial 0/0/0
- D. ip route 0.0.0.0 0.0.0.0 Serial 0/0/0
- E. ipv6 route::/0 2000::2

Correct Answer: A

Reference:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_pi/configuration/xe-3s/iri-xe-3s-book/ip6-route-static-xe.html#GUID-85796C3A-3143-4DF7-B9D0-8EC87D0DB08B

kokoyul Highly Voted 1 year, 8 months ago

The static routes are:
Network + Interface (Source interface) or Next Hop (IP Address Neighbor).
So, you have 4 possibilities:
Atlanta = ipv6 route::/0 2012::2/126
or
Atlanta = ipv6 route::/0 Serial 0/0/0

Washington= ipv6 route::/0 2023::2/126
or
Washington= ipv6 route::/0 Serial 0/0/0
upvoted 14 times

Pkard 1 year, 6 months ago

Agree. When you use a interface as the next hop, it is the interface of the sending router.
upvoted 3 times

redivivo 11 months, 4 weeks ago

when you use an interface as the next hop, it's the interface of the next router, not the sending one. As kokoyul stated :
Network (destination) + Exit interface (of the sending router)
OR
Network (destination) + Next hop (ip address of ingress interface of the neighbor router, the next one .
upvoted 2 times

[Removed] Most Recent 8 months, 1 week ago

Are you guys sure its not A (for the Atlanta route) and B (for the Washington route)?
Because i thought the next hop for Atlanta would be Serial 0/0/0 and the next hop for Washington would be Serial 0/0/1.
I may be wrong tho.
upvoted 1 times

A7med97 7 months, 1 week ago

s0/0/0, its exit interface for both Atlanta and Washington
upvoted 2 times

✉ **whojabagooya** 11 months, 2 weeks ago

A is the correct answer.

The answer to this question is in the illustration of question # 209. The answer is the static default route of both routers.

upvoted 1 times

✉ **aike92** 1 year, 4 months ago

IMO i would imagine the actual question stating "(Choose two)" at the end to close out the question leaving the answers to be A & B.. But if the question is given as-is & i could only choose One answer, E is the only choice that can apply to BOTH Atlanta & Washington Routers.
upvoted 3 times

✉ **MED095** 4 months, 3 weeks ago

totally same as u. Cisco play us hard

upvoted 1 times

✉ **Shamwedge** 1 year, 3 months ago

This was my logic and why I chose E

upvoted 5 times

✉ **reagan_donald** 1 year, 3 months ago

First router must know how to reach the loopback interface....1 option is to use next-hop, 2nd option is to use his egress interface (exit interface)

A is correct

upvoted 4 times

✉ **Mozah** 1 year, 5 months ago

ipv6 route ::/0 out interface OR ipv6 route ::/0 next hop IP address

In this case the out int for Atlanta and Washington to New York is s0/0/0 means A its correct

upvoted 2 times

✉ **ProgSnob** 1 year, 6 months ago

I believe it's A. There's no ip route command that calls out the Loopback 2 address directly so we need to use ip route ::/0. The exit interface for each of the routers is Serial 0/0/0.

upvoted 2 times

✉ **Hodicek** 1 year, 6 months ago

I Would say A and B , as we can't use the same command for both 2 routers

upvoted 3 times

✉ **dave1992** 1 year, 8 months ago

E should be the correct answer.

a default static route of ::/0 to reach 2000::2 which is the loopback of the NY router.

trying to make sense of the answer givin is wrong. A is not the correct answer.

otherwise B would also be the correct answer.

upvoted 4 times

✉ **Nicocisco** 1 year, 3 months ago

How Atlanta & Washinton know where is 2002::2?

Just New-york has been was configured

upvoted 2 times

✉ **CozTurk** 1 year, 8 months ago

I am confused with how the answer is A here - Are we sure this is not a typo or a question requiring 2 answers? Can someone please elaborate?

The question is asking to enter the static routes from the perspective of the ATLANTA and WASHINGTON routers hence making the next hop interfaces S0/0/1 for Washington and S0/0/0 for Atlanta. Shouldn't this mean A and B are correct?

upvoted 1 times

✉ **reagan_donald** 1 year, 3 months ago

both of them is using same command, because both of them same egress interfaces, Default route is as well static route.

upvoted 1 times

✉ **Asymptote** 1 year, 10 months ago

it point the ::/0 using both Alanta and Washington serial interface S0/0/0 ,

so both of them using the same command .

upvoted 4 times

✉ **Dibili** 1 year, 10 months ago

If A is correct, why B isn't?

upvoted 3 times

✉ **CiscoTerminator** 1 year, 10 months ago

S0/0/1 is not the exit interface facing New York on both routers hence its wrong.

upvoted 1 times

 **bwg** 2 years ago

Why E is wrong?

upvoted 3 times

 **CiscoTerminator** 1 year, 10 months ago

E is wrong becoz its not the correct next hop IP for both routers. Qstn requires one command that works for both routers.

upvoted 1 times

Question #430

Topic 1

What is the effect when loopback interfaces and the configured router ID are absent during the OSPF Process configuration?

- A. The lowest IP address is incremented by 1 and selected as the router ID.
- B. The router ID 0.0.0.0 is selected and placed in the OSPF process.
- C. No router ID is set, and the OSPF protocol does not run.
- D. The highest up/up physical interface IP address is selected as the router ID.

Correct Answer: D

 **ccna_goat** 7 months, 3 weeks ago

actually correct answer is poorly worded. interface could be in state UP/DOWN and still be eligible for being router ID.

upvoted 1 times

 **Nnandes** 1 year ago

D: is the correct one "The highest up/up physical interface IP address is selected as the router ID."

upvoted 3 times

Question #431

Topic 1

```
R1#show ip route
Codes: C - connected, S - static, 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - ODR, P - periodic downloaded static route
Gateway of last resort is 192.168.30.10 to network 0.0.0.0
  192.168.30.0/29 is subnetted, 2 subnets
C        192.168.30.0 is directly connected, FastEthernet0/0
C        192.168.30.8 is directly connected, Serial0/0.1
          192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
O  IA     192.168.10.32/28 [110/193] via 192.168.30.10, 00:18:49, Serial0/0.1
O  IA     192.168.10.0/27 [110/192] via 192.168.30.10, 00:18:49, Serial0/0.1
          192.168.20.0/30 is subnetted, 1 subnets
O  IA     192.168.20.0 [110/128] via 192.168.30.10, 00:18:49, Serial0/0.1
          192.168.50.0/32 is subnetted, 1 subnets
C        192.168.50.1 is directly connected, Loopback0
O*IA  0.0.0.0/0 [110/84] via 192.168.30.10, 00:10:36, Serial0/0.1
```

Refer to the exhibit. What is the metric of the route to the 192.168.10.33/28 subnet?

- A. 84
- B. 110
- C. 128
- D. 192
- E. 193

Correct Answer: E

 **creaguy** Highly Voted 8 months, 1 week ago

192.168.10.33/28 subnet?

Is this another way they try to trick you ? or is this an actual typo ?

192.168.10.33 Is a host IP and not a subnet ID.

upvoted 6 times

 **virab4** Most Recent 1 month, 2 weeks ago

Selected Answer: E

remember my friend,be very very carefull on exam day

upvoted 4 times

 **JimmiCook** 10 months, 2 weeks ago

Why the metric is 193 ? not 110 as ospf default cost ?

upvoted 1 times

 **BieLey** 8 months, 1 week ago

110 = Administrative Distance

193 = The Metric

upvoted 7 times

 **Nnandes** 1 year ago

The question is "What is the metric of the route to the 192.168.10.33/28 " so this belongs to network 10.32/28 and the metric of this network 193
upvoted 3 times

 **seecos** 1 year ago

tricky ... just cal 192.168.10.32/28 subnet and 192.168.10.33 is the host .

upvoted 2 times

 **Pkard** 1 year, 7 months ago

Someone is going to have to explain this to me...192.168.10.33 is the first available host in the 192.168.10.32/28 network..
So there is no route in the table and it should use the gateway of last resort, right?

upvoted 1 times

 **Stonetales987** 1 year, 6 months ago

What route would you use to send traffic to the 192.168.10.33/28 subnet. 192.168.10.33 is part of the 192.168.10.32/28 subnet and would use that OSPF route. These IPs would also use that same route (.33 - .47)/ (AD/METRIC) (110/193).

upvoted 7 times

✉️  **shakyak** 1 year, 6 months ago

What do you mean by gateway of last resort?

upvoted 1 times

✉️  **Pkard** 1 year, 6 months ago

having looked at this question again, what i meant was the O* route at the bottom. It's just a shitty question because they called it the 192.168.10.33/28 subnet not host

upvoted 4 times

✉️  **gaber** 1 year, 5 months ago

Agreed.

upvoted 1 times

✉️  **Keif** 1 year, 7 months ago

I guess the way you could look at the question is the /28 subnet that .33 belongs to. which is .32 network ID

upvoted 4 times

Question #432

Topic 1

```
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 192.168.3.5 is directly connected, Loopback0
  10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O     10.0.1.3/32 [110/100] via 192.168.0.40, 00:39:08, Serial0
C     10.0.1.0/24 is directly connected, Serial0
O     10.0.1.190/32 [110/5] via 192.168.0.35, 00:39:08, Serial0
O     10.0.1.0/24 [110/10] via 192.168.0.4, 00:39:08, Gigabit Ethernet 0/0
D     10.0.1.0/28 [90/10] via 192.168.0.7, 00:39:08, Gigabit Ethernet 0/0
```

Refer to the exhibit. Traffic sourced from the loopback0 interface is trying to connect via ssh to the host at 10.0.1.15. What is the next hop to the destination address?

- A. 192.168.0.7
- B. 192.168.0.4
- C. 192.168.0.40
- D. 192.168.3.5

Correct Answer: A

The router will choose the route with the longest matching prefix, in this case that is 10.0.1.0/28.

✉ **dicksonpwc** Highly Voted 1 year, 9 months ago

Answer A is incorrect. If select 10.0.1.0/28 and subnet mask is 255.255.255.240. Then, host address range will be 10.10.1.1 to 10.10.1.14. Therefore, it correct answer should be B.

upvoted 46 times

✉ **cortib** 1 year, 8 months ago

Agree, but this is really fucked up question, in real scenario this configuration will cause a lot of problem, should we assume that engineer mistake the configuration? I hope to not find this question in the exam.

upvoted 10 times

✉ **cortib** 1 year, 8 months ago

and assuming this the correct answer is note listed, because we are missing an entry for the serial interface that will be the one used in that casa (i think)

upvoted 4 times

✉ **Dante_Dan** 1 year, 5 months ago

Well, what if its sending a broadcast? 10.0.1.15 still belongs to 10.0.1.0/28 subnet.

Answer: A

upvoted 13 times

✉ **Dante_Dan** 1 year, 5 months ago

Forget the comment above. The question states that is trying to connect to a host via SSH...

Sorry!!

upvoted 7 times

✉ **FALARASTA** 1 month, 1 week ago

Because I think .15 is the broadcast for the /28 network and here its via SSH.. is that what you mean is wrong?

upvoted 1 times

✉ **Dante_Dan** 1 year, 5 months ago

I think even answer B is incorrect. As there is another route in the table stating that 10.0.1.0/24 network is directly connected on Serial0. And if I understand the previous entry correctly, Serial0 interface has 192.168.0.40.

(Probably) Answer C

upvoted 7 times

✉ **ThomasSmith** 3 weeks, 4 days ago

C is 192.168.0.40 - 10.0.1.3/32 via 192.168.0.40. That is not the host, you are looking for 10.0.1.15.

upvoted 1 times

 **DonnerKomet** 1 year, 9 months ago

Well, in the question is not mentioned that the IP is a host, so then you can have .15 as the broadcast IP valid.

upvoted 4 times

 **DonnerKomet** 1 year, 9 months ago

Sorry I didnt see the word "host", you are rite, it would not be a valid IP for host. So then the rite answer is B

upvoted 2 times

 **bruce007**  1 year, 8 months ago

why doesn't it use the directly connected route??

upvoted 12 times

 **ThomasSmith** 3 weeks, 4 days ago

There is no such an answer.

upvoted 1 times

 **daytonadave2011** 1 year, 6 months ago

Agreed. It should be Serial0 IP and none of the options listed is for Serial0.

upvoted 3 times

 **AWSFastLearner** 1 year, 7 months ago

Yes, if people not think the answer is A (192.168.0.7). With same prefix, the next hop should be chosen directly connected with AD=0.

upvoted 1 times

 **dropspablo**  2 weeks, 2 days ago

Selected Answer: A

I tested it on Packet Tracer, it's very simple when sending a command ssh -l name 10.0.1.15 and the final destination is a broadcast (in the routing table), the router normally forwards via 10.0.1.15/28, because within the 10.0.1.0 range - 10.0.1.15 it does not differentiate network id or broadcast.

Do a ping test and you will see, only when it arrives at the destination RT the packet is discarded because it is broadcast and there is no socket for that IP and port (22 SSH), but the pings work, and are forwarded by MASK /28.

You can ping to broadcast destinations or network id, but an SSH will fail, remembering that it is only a broadcast when the destination MAC is FFFF:FFFF:FFFF, in this case the frames would not be broadcast, only the destination location.

upvoted 1 times

 **ac891** 1 month ago

from lab

answer A is correct

#sh ip route 172.26.192.15

Routing entry for 172.26.192.0/28

Known via "bgp", distance 20, metric 10, External Route Tag: 0, best

Last update 04w1d03h ago

upvoted 1 times

 **MRSCARLet** 1 month, 2 weeks ago

B 10.0.1.0(Network) 255.255.255.0/(24) 10.0.1.1~10.0.1.254(Usable IP address) 10.0.1.255(Broadcast)

so 10.0.1.15 is usable IP address in this subnet, can been SSH

and the next hop: 10.0.1.0/24 [110/10] via "192.168.0.4"

A. 10.0.1.0(Network) 255.255.255.240/(28) 10.0.1.1~10.0.1.14(Usable IP address) 10.0.1.15(Broadcast)

so 10.0.1.15 is the broadcast address in this subnet, cannot been SSH

C. 10.0.1.3(Network) 255.255.255.255/(32) NA(Usable IP address) 10.0.1.3(Broadcast)

so 10.0.1.15 not in this subnet, cannot been SSH

D. -_-|||

upvoted 1 times

 **gc999** 2 months, 3 weeks ago

Selected Answer: A

Even it is the broadcast, I still choose "A". Because it is the thumb of rule for the routing decision in the routing table.

upvoted 2 times

 **Webfat** 3 months, 2 weeks ago

This question is a mess, before Seeing the answer, I was thinking is C because static AD > OSPF AD and broadcast bad, but the more I see people comments more I think A is correct

The route doenst care if its a SSH Packet, he is a layer 3 device, so he justs see "hummm, I have this IP, I need to see the valid longest IP addr on my table, wow look at this, I have /28 here, but this way it will be a broadcast address... Well, whatever, broadcast it will go"

The user whos trying to connect via ssh shortly after will receive a error, but the route did his job as per programmed

upvoted 1 times

 **Webfat** 3 months, 2 weeks ago

Just a correction from my comment, I think the router instead of broadcast the traffic, it will drop him, because routers do not propragate broadcast, and he will interpret this ip addr as broadcast

upvoted 1 times

 **iMo7ed** 3 months, 2 weeks ago

Selected Answer: B

It's B, not A

upvoted 1 times

 **daddydagoth** 3 months, 2 weeks ago

Selected Answer: B

You can't assign a broadcast address to a HOST, if you try it, the router will return "bad mask" and it won't work. So if a HOST with the 10.0.1.15 address needs to be reached via SSH, it's not possible that the subnet will be 10.0.1.0 /28, therefore the only correct answer left is B, the /24 subnet as that would allow address 10.0.1.15 to be assigned to a host.

upvoted 3 times

 **siredobu** 3 months, 2 weeks ago

This question is not valid question, it mentioned a single network address (10.0.1.0/24) is connected to two interface types (sSerial0 and Gigabit Ethernet 0/0), which can not exist in reality

upvoted 1 times

 **Ciscoman021** 4 months, 1 week ago

Selected Answer: B

Answer A is incorrect. 10.0.1.0/28 that means 10.0.1.1 - 10.0.1.14 . total host 14 plus network ip and broadcast IP.

Answer B is correct.

upvoted 1 times

 **Ciscoman021** 4 months, 1 week ago

Selected Answer: B

Answer A is incorrect. 10.0.1.0/28 that means 10.0.1.1 - 10.0.1.14 . total host 14 plus network ip and broadcast IP.

Answer B is correct.

upvoted 1 times

 **Ciscoman021** 4 months, 1 week ago

Selected Answer: B

Answer A is incorrect. 10.0.1.0/28 that means 10.0.1.1 - 10.0.1.14 . total host 14 plus network ip and broadcast IP.

Answer B is correct.

upvoted 1 times

 **jnanofrancisco** 4 months, 1 week ago

B is the correct answer.

10.0.1.15 is the broadcast address of 10.0.1.0/28

network add: 10.0.1.0

usable: 10.0.1.1-10.0.1.14

broadcast: 10.0.1.15

next subnet: 10.0.1.16/28

upvoted 1 times

 **Sdiego** 4 months, 2 weeks ago

Selected Answer: B

B is correct. 10.10.1.15 is the broadcast address for network 10.10.1.0/28, it won't be selected by the router.

upvoted 2 times

 **Goena** 5 months ago

Selected Answer: B

Correct answer is B

upvoted 2 times

 **Eyad_Alotaibi** 6 months ago

Selected Answer: B

Correct answer is B

upvoted 1 times

Question #433

Topic 1

When the active router in a VRRP group fails, which router assumes the role and forwards packets?

- A. forwarding
- B. standby
- C. backup
- D. listening

Correct Answer: C

✉  **DaBest** Highly Voted 1 year, 8 months ago

HSRP uses Active/Standby
VRRP uses Master/Backup
these roles are for the routers in the virtual group
upvoted 65 times

✉  **jaaks** 11 months, 1 week ago

On Vol. 2 p260 of the Official Certification Guide, Wendell says that VRRP uses an active/standby, NOT master/backup redundancy approach.
upvoted 4 times

✉  **siredobu** 3 months, 2 weeks ago

which is wrong, DaBest's comment is correct
upvoted 3 times

✉  **DUMPlidore** 4 months, 2 weeks ago

VRRP uses Master/Backup
upvoted 2 times

✉  **dicksonpwc** Highly Voted 1 year, 9 months ago

In a VRRP configuration, one router is elected as the virtual router master, with the other routers acting as backups in case the virtual router master fails
upvoted 7 times

✉  **linuxlife** Most Recent 2 months ago

BACKUP is the proper conventions for VRRP.
https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs_r4-0/addr_serv/configuration/guide/ic40crs1book_chapter10.html#con_IPAddrCG_1279291971985
upvoted 1 times

✉  **checkoboy88** 3 months, 1 week ago

Selected Answer: C
Correc is C... the VRRP uses MASTER and BACKUP.. i've seen it in production, we work with HSRP and VRRP as well... HSRP uses ACTIVE and STANDBY
upvoted 2 times

✉  **gewe** 3 months, 3 weeks ago

this is right :

HSRP uses Active/Standby
VRRP uses Master/Backup
upvoted 3 times

✉  **kobisiva** 4 months ago

Selected Answer: C
back is correct
upvoted 1 times

✉  **Ciscoman021** 5 months ago

Selected Answer: B
If VRRP router fails, another VRRP standby router automatically takes over as master.
upvoted 1 times

✉  **Shansab** 5 months, 2 weeks ago

Selected Answer: C
Backup
upvoted 1 times

✉  **humanbot** 6 months, 3 weeks ago

Selected Answer: C

HSRP uses Active/Standby
VRRP uses Master/Backup
upvoted 1 times

✉  **Netcmd** 6 months, 3 weeks ago

VRRP uses master and Backup
https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs_r4-0/addr_serv/configuration/guide/ic40crs1book_chapter10.html
upvoted 1 times

✉  **Etidic** 7 months, 2 weeks ago

Selected Answer: C
The answer is C
upvoted 1 times

✉  **GigaGremlin** 8 months ago

Selected Answer: B
The VRRP router that forwards packets at any given time is the master. If this VRRP router fails, another VRRP standby router automatically takes over as master.
upvoted 1 times

✉  **GigaGremlin** 8 months ago

The VRRP router that forwards packets at any given time is the master. If this VRRP router fails, another VRRP standby router automatically takes over as master.
upvoted 1 times

✉  **splashy** 8 months, 3 weeks ago

Selected Answer: C
Netacad says C
upvoted 1 times

✉  **AWSEMA** 10 months, 1 week ago

Selected Answer: C
it should be "C"
upvoted 1 times

✉  **ratu68** 11 months ago

Selected Answer: C
VRRP = Master / Backup - so answer is C
upvoted 1 times

✉  **AWSEMA** 11 months, 1 week ago

Selected Answer: B
%100 B
upvoted 1 times

C sorry

upvoted 1 times

Question #434

Topic 1

Which action does the router take as it forwards a packet through the network?

- A. The router encapsulates the original packet and then includes a tag that identifies the source router MAC address and transmits it transparently to the destination.
- B. The router encapsulates the source and destination IP addresses with the sending router IP address as the source and the neighbor IP address as the destination.
- C. The router replaces the original source and destination MAC addresses with the sending router MAC address as the source and neighbor MAC address as the destination.
- D. The router replaces the source and destination labels with the sending router interface label as a source and the next hop router label as a destination.

Correct Answer: C

Reference:

<https://www.freecnastudyguide.com/study-guides/ccna/ch4/ip-routing/>

 **DaBest** Highly Voted 1 year, 8 months ago

C is the correct answer , only mac address gets changed when forwarding, IP address always stays the same

upvoted 21 times

Question #435

Topic 1

```
R2#show ip route
C      192.168.1.0/26 is directly connected, FastEthernet0/1
```

Refer to the exhibit. Which two prefixes are included in this routing table entry? (Choose two.)

- A. 192.168.1.17
- B. 192.168.1.61
- C. 192.168.1.64
- D. 192.168.1.127
- E. 192.168.1.254

Correct Answer: AB

 **netzwork** Highly Voted 8 months ago

If Cisco is wording questions like this, they should take a dive off a cliff
upvoted 11 times

 **splashy** Most Recent 9 months, 1 week ago

Question is written by a edonkey, "prefixes" should be "hosts"
upvoted 3 times

 **DARKK** 1 year ago

Selected Answer: AB

192.168.0-63 because /26 = 64 IP addresses per subnet and 4 subnets (256/64), 0-63, 64-127, 128-191, 192-255. A & B are correct.
upvoted 1 times

 **moses23** 4 months, 2 weeks ago

How does this correlate with the answers?
upvoted 1 times

 **MCMH2000** 1 year ago

Question should be:
"Which two IP addresses are included in this routing table entry?"
upvoted 4 times

Question #436

Topic 1

Which virtual MAC address is used by VRRP group 1?

- A. 0504.0367.4921
- B. 0007.c061.bc01
- C. 0050.0c05.ad81
- D. 0000.5E00.0101

Correct Answer: D

 **DARKK** Highly Voted 1 year ago

Selected Answer: D

VRRP = 0000.5E00.01XX (XX = GROUP ID) -Answer D.
HSRP V1 = 0000.0C07.ACXX (XX = GROUP ID)
HSRP V2 = 0000.0C9F.FXXX (XXX = GROUP ID)
GLBP = 0007.B400.XXYY (XX = GROUP ID) (YY = AVF ID)

upvoted 5 times

 **laurvy36** Most Recent 1 year, 4 months ago

A virtual MAC address is generated by the virtual router based on the virtual router ID. The virtual MAC address format is 00-00-5E-00-01-{VRID} (VRRP) and 00-00-5E-00-02-{VRID}

upvoted 3 times

Question #437

What is the purpose of using First Hop Redundancy Protocol on a specific subnet?

- A. forwards multicast hello messages between routers
- B. sends the default route to the hosts on a network
- C. ensures a loop-free physical topology
- D. filters traffic based on destination IP addressing

Correct Answer: B

The routers in the FHRP group share a virtual MAC and Virtual IP and that acts as the Default Gateway for the HOSTS. It provides redundancy in case a router fails, no need to change the default gateway information.

 **Dante_Dan** Highly Voted  1 year, 4 months ago

Well, among the answers, A is the least incorrect, as I don't think that forwarding multicast hello messages between routers is the PURPOSE of using a First Hop Redundancy Protocol.

The other answers refer to other protocols:

Answer B refers to a DHCP server

Answer C refers to STP

Answer D refers to ACL

upvoted 11 times

 **TheLorenz** 1 year, 2 months ago

B doesn't refer to DHCP. DHCP is responsible for providing IP addresses dynamically to hosts.

upvoted 2 times

 **D0nkey_h0t** 11 months, 3 weeks ago

it does! cause along with ip adresses it provides also subnet masks, default gateways and even DNS servers

upvoted 3 times

 **TA77** Highly Voted  11 months, 1 week ago

I have no idea what is the benefit of twisting words to come up with complicated question, which will not serve in real life.

The purpose of FHRP is to provide redundancy for the gateway. PERIOD!

Anyway, I'm going with option A.

upvoted 7 times

 **sasquatchshrimp** 10 months, 1 week ago

Just in case an enduser finds themselves in your switches, calls in and asks you dumb questions they know nothing about, which will eventually achieve nothing. haha

upvoted 2 times

 **Rether16** Most Recent  2 months ago

Some of these questions by Cisco are really poor. The purpose of FHRP is simply for redundancy. I picked A but It was a lucky guess between that and B if im honest!

upvoted 2 times

 **daddydagoth** 3 months, 2 weeks ago

Selected Answer: A

A is correct. FHRPs do not forward the default gateway to hosts.

upvoted 2 times

 **DUMPlidore** 5 months, 4 weeks ago

Selected Answer: A

I would go with A

upvoted 4 times

 **Eyad_Alotaibi** 6 months ago

FHRP forwards "Hello Messages" and "Hold Time Messages" between routers.

Hello Message : "Active Router" sends "Hello Message" every x second to "Standby Router" to verify if it is there or down.

Hold time : Standby router Wait for "Hello Message" from the "Active Router", if it does not arrive, the "Standby Router" will become "Active Router".

HSRP (cisco protocol)

Hello Message : every 3 sec

Hold Time : waiting 10 sec

VRRP (open standard protocol)

Hello Message : every 1 sec

Hold Time : waiting 3 sec

upvoted 5 times

✉ **Eyad_Alotaibi** 6 months ago

so the correct answer is A

upvoted 1 times

✉ **mzu_sk8** 6 months, 3 weeks ago

Selected Answer: A

on other sites!

upvoted 1 times

✉ **splashy** 8 months, 2 weeks ago

Selected Answer: A

100% A

I thought it was more or too ospf related BUT

With HSRP, there are three types of multicast messages sent between the devices:

Hello

Resign

Coup

<https://study-ccna.com/cisco-hsrp-explained/>

B.Default route? Routers can have them and share them with other routers. = wrong

If it would say default gateway the only thing (we learned) that can send that is a DHCP server. = wrong

C.STP = wrong

D.ACL = wrong

upvoted 5 times

✉ **richtorres333** 8 months, 4 weeks ago

B is possible thinking in layer 2, about host asking by mac of its configured default gateway IP. The protocol sends de virtual mac assigned to active router. Remember reviewing output from wireshark, hosts asking first time o each arp cache timeout for "who is this ip", FHRP answer with the virtual mac.

upvoted 1 times

✉ **iGlitch** 1 year ago

Selected Answer: B

B - It connects to HOSTS with the default gateway (VIP).

It's the most appropriate answer among other answers.

upvoted 3 times

✉ **DARKK** 1 year ago

Selected Answer: B

A just seems wrong, B is correct. The routers in the FHRP group share a virtual MAC and Virtual IP and that acts as the Default Gateway for the HOSTS. It provides redundancy in case a router fails, no need to change the default gateway information. Poorly worded Question, but it is B.

upvoted 2 times

✉ **redivivo** 11 months, 4 weeks ago

sorry but answer B says " sends default route", not default gateway, so I don't get how can be correct. The default route is sent to routers, not hosts, and with a dynamic routing protocol through the "originate" command

upvoted 3 times

✉ **iGlitch** 1 year ago

I agree.

upvoted 1 times

✉ **mantest** 1 year ago

Ans B is correct.

A first hop redundancy protocol (FHRP) is a computer networking protocol which is designed to protect the default gateway used on a subnetwork by allowing two or more routers to provide backup for that address;^{[1][2]} in the event of failure of an active router, the backup router will take over the address, usually within a few seconds

upvoted 2 times

✉ **markdonald** 1 year, 1 month ago

Why am I restricted to the next page;??

Pls I don't have money now for contribution access it too expensive..... someone should help on what to do? My exams is next tomorrow.

upvoted 2 times

✉ **pagamar** 1 year, 1 month ago

Tumble: the RIGHT answer is A; found in a recent Exam, Topic 3, 100% correct.

upvoted 3 times

✉  **ismatdmour** 1 year, 3 months ago

I agree with the comments made before me. This is a Naive question by CISCO and is ill worded. I arrived at A as answer by excluding B (DHCP), C (STP) and D (ACLs). Option A states something correct about HSRP routers in that they exchange hello messages to get to know each other and elect the active one and who is standby as well as to inquire about the health of the Active router so that the standby router can replace him in case it becomes down. Well, this is not the "PURPOSE" of FHRP (Purpose is to provide redundancy) but rather how FHRP is doing its work. Just wondering about those CISCO guys who put the questions, sometimes they are very strict in the question formation and the word they use are very much selected while in many other cases, such as this one, they are even naively using the incorrect word (or otherwise they mean it - to fail more people!!!!-

upvoted 3 times

✉  **TA77** 11 months, 1 week ago

That's why using dumps is essential before taking the exam, lol. If you try to take the exam without studying dumps you'll have high chances of failing. smh!

upvoted 2 times

✉  **LilGhost_404** 1 year, 4 months ago

None of the answer are really valid.

<https://www.cisco.com/c/en/us/products/ios-nx-os-software/first-hop-redundancy-protocol-fhrp/index.html>

it doesn't forward traffic, and it doesn't send a default route. It has nothing to do with loopback and doesn't filter, neither.

upvoted 2 times

✉  **kijken** 1 year, 4 months ago

Selected Answer: B

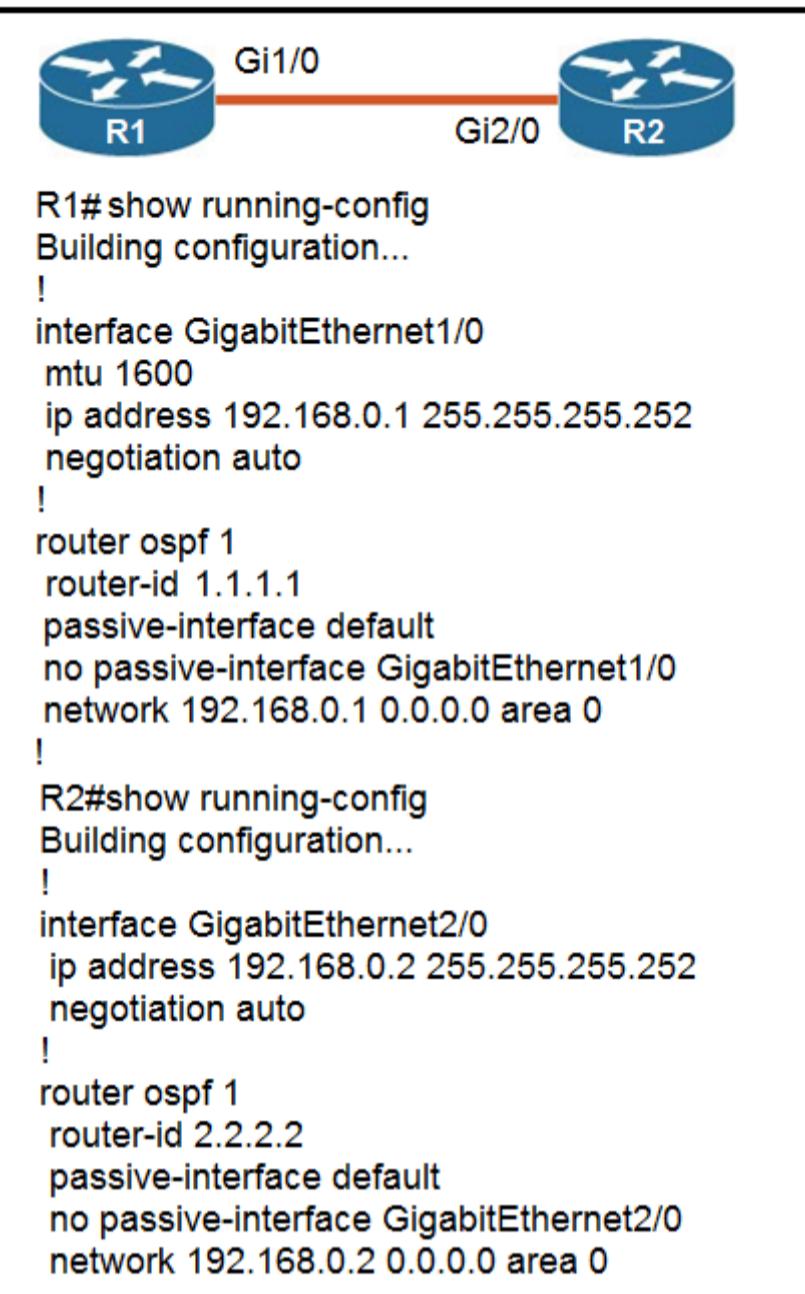
B, see explanation question 303

upvoted 4 times

Question #438

Topic 1

Refer to the exhibit. Which configuration issue is preventing the OSPF neighbor relationship from being established between the two routers?



- A. R1 has an incorrect network command for interface Gi1/0.
- B. R2 should have its network command in area 1.
- C. R1 interface Gi1/0 has a larger MTU size.
- D. R2 is using the passive-interface default command.

Correct Answer: C

oooMooo Highly Voted 2 years, 1 month ago

You can configure OSPF to ignore MTU size: ip ospf mtu-ignore
upvoted 15 times

SScott 1 year, 9 months ago

While true, this is very infrequently configured on business routers. Thus C MTU mismatch is correct.
upvoted 7 times

tyuipo Highly Voted 2 years, 1 month ago

The normal or default MTU size typically used is 1500 bytes.

Ans: "C" is correct
upvoted 9 times

Raman1996 Most Recent 1 year, 4 months ago

is the network command issued with correct network address and wildcard bits?
upvoted 2 times

vannplus11 1 year, 8 months ago

MTU mismatch between neighboring interfaces. show interface <int-type><int-num>

https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13699-29.html?referring_site=bodynav#anc13
upvoted 2 times

✉  **Chocobo** 2 years, 3 months ago

RFC 2328:

If the Interface MTU field in the Database Description packet indicates an IP datagram size that is larger than the router can accept on the receiving interface without fragmentation, the Database Description packet is rejected.

upvoted 6 times

✉  **SScott** 1 year, 9 months ago

C is absolutely right.

Yes, I've experienced this in the field on several occasions ..an odd issue but a definite sneak up and bang factor - your tunnel and consistent traffic be done.

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/116119-technote-ospf-mtu-00.html#:~:text=In%20this%20example%2C%20the%20routers%20have%20GigabitEthernet%20interfaces%20with%20an%20MTU%20set%20to%202000.%20The%20MTU%20of%20the%20L2%20switch%20is%20only%201500%20bytes>

https://www.reddit.com/r/networking/comments/k9hr35/ospf_mtu/

upvoted 2 times

Question #439

Topic 1

```
R1# show ip route
Codes: L - local, C - connected, S - static, 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - ODR, P - periodic downloaded static route, H - NHRP, 1 - LISP
      + - replicated route, % - next hop override

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        10.56.0.0/17 is directly connected, Vlan56
L        10.56.0.19/32 is directly connected, Vlan56
C        10.56.128.0/18 is directly connected, Vlan57
L        10.56.128.19/32 is directly connected, Vlan57
```

Refer to the exhibit. When router R1 is sending traffic to IP address 10.56.192.1, which interface or next hop address does it use to route the packet?

- A. 10.56.0.1
- B. 0.0.0.0/0
- C. Vlan57
- D. 10.56.128.19

Correct Answer: A

 **kentsing** Highly Voted 1 year ago

Like other questions, barely not covered by network routes and falls to default route.

A is correct.

upvoted 6 times

 **john1247** Most Recent 4 days, 20 hours ago

Be careful if you judge by looking at the prefix length. If you are not familiar with it, I recommend calculating the IP address. The calculation will give you 10.56.0.1 not a VLAN57

upvoted 1 times

 **RaselAhmedIT** 3 months, 1 week ago

192.168.192.1 isn't available in the routing table that's why Router# automatically selects *Default Static Route*

upvoted 1 times

 **Webfat** 3 months, 2 weeks ago

There is not Vlan56, but if it was a option should he be the correct answer?

upvoted 1 times

 **studying_1** 2 weeks, 2 days ago

No, it will be sent via the default route, so you need to check the next hop, which is A, 10.56.0.0/17 doesn't cover it, 10.56.0.0 - 10.56.127.254

upvoted 1 times

 **niangbah** 5 months, 1 week ago

why not Vlan 57 (answer C) as the network 10.56.128.0/18 include the ip address 10.56.192.1 and look like it's the longest prefix match?

upvoted 2 times

 **laurvy36** 4 months ago

doesn't include, if you calculate it until 191.254

upvoted 3 times

 **ratu68** 11 months ago

A is correct as other routes in the table doesn't cover the mentioned address

upvoted 2 times

Selected Answer: A

Question #440

Topic 1

```
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
      172.16.0/16 is variably subnetted, 4 subnets, 2 masks
O      172.16.1.3/3 [110/100] via 192.168.7.40, 00:39:08, Serial0
C      172.16.1.0/24 is directly connected, Serial0
O      172.16.1.184/29 [110/5] via 192.168.7.35, 00:39:08, Serial0
O      172.16.3.0/24 [110/10] via 192.168.7.4, 00:39:08, Gigabit Ethernet 0/0
D      172.16.1.0/28 [90/10] via 192.168.7.7, 00:39:08, Gigabit Ethernet 0/0
```

Refer to the exhibit. Load-balanced traffic is coming in from the WAN destined to a host at 172.16.1.190. Which next-hop is used by the router to forward the request?

- A. 192.168.7.4
- B. 192.168.7.7
- C. 192.168.7.35
- D. 192.168.7.40

Correct Answer: C

✉ **DARKK** 1 year ago

Selected Answer: C

Simple way to look at it:

/29 = 8 IPs, 182-191, 190 is the last Assignable IP on that Subnet, so /29 is picked because it is the Longest Prefix route INCLUSIVE of the IP address. And the next hop IP for that is C. 192.168.7.35

upvoted 2 times

✉ **fl_it_guy** 10 months, 3 weeks ago

Did you mistype above? 184-191, with 185-190 usable.

Answer: C

upvoted 3 times

✉ **SVN05** 1 year ago

Excluding all the description about load-balancing traffic, etc etc... the bottom line is what is the next hop of address 172.16.1.190? Answer is C.192.168.7.35.

How I got it?

/29 subnet(/32 minus /29 equals to 3 subnet bits)

Now take 2 to the power of 3 you'll have 8 subnets and for host just minus 2 which is 6 hosts(for network & broadcast subnet ID, ITS A MUST) So, in the network address 172.16.1.184....starting address is 172.16.1.185 all the way to 172.16.1.191 thus the 172.16.1.190 host is able to be allocated to this network ID(172.16.1.184). That's how you'll get your answer. Good Luck to all.

upvoted 2 times

Question #441

Topic 1

What is a benefit of VRRP?

- A. It provides the default gateway redundancy on a LAN using two or more routers.
- B. It provides traffic load balancing to destinations that are more than two hops from the source.
- C. It prevents loops in a Layer 2 LAN by forwarding all traffic to a root bridge, which then makes the final forwarding decision.
- D. It allows neighbors to share routing table information between each other.

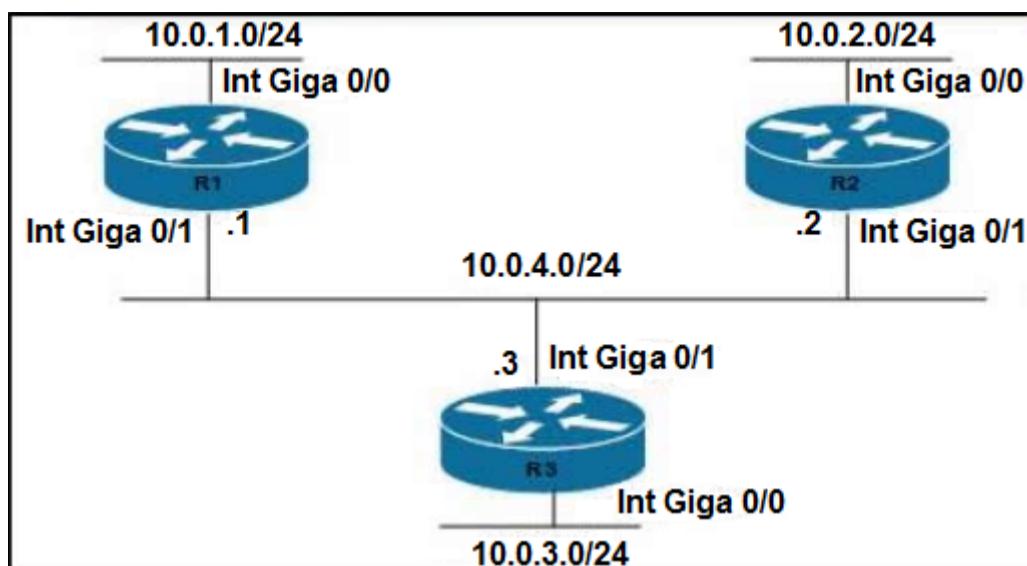
Correct Answer: A

Reference:

https://www.cisco.com/c/en/us/td/docs/routers/crs/software/crs_r4-0/addr_serv/configuration/guide/ic40crs1book_chapter10.html

 **Nnandes**  1 year ago

A is the correct
upvoted 5 times



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?

- A. R3(config)#interface Gig0/0 R3(config-if)#ip ospf priority 100
- B. R3(config)#interface Gig0/0 R3(config-if)#ip ospf priority 1
- C. R3(config)#interface Gig0/1 R3(config-if)#ip ospf priority 0
- D. R3(config)#interface Gig0/1 R3(config-if)#ip ospf priority 100

Correct Answer: D

In the case of OSPF, 0 means you will never be elected as DR or BDR. Default priority is 1. Highest priority will be elected as the DR.

Mili2023 4 months ago

answer is A.

As we need to configure the opposite interface which is G0/0

upvoted 1 times

i_am_confused 11 months, 2 weeks ago

Priority is 100 by default so you actually don't have to configure anything?

upvoted 2 times

i_am_confused 11 months, 2 weeks ago

Sorry, default priority is 1, so you would need to configure.

upvoted 2 times

deeanaho 1 year ago

Why not C the correct answer?

upvoted 1 times

takaman 11 months, 2 weeks ago

This is not spanning tree protocol where 0 becomes the highest priority.

In the case of OSPF, 0 means you will never be elected as DR or BDR. Default priority is 1.

upvoted 6 times

DARKK 1 year ago

Selected Answer: D

Highest Priority interface becomes the DR. So it would be 100 since it is higher than 99 in this case.

upvoted 1 times

jtyphoon 1 year ago

I would have thought setting the loopback on R3 with a higher priority of 100 would have got DR. Why choose setting the main interface with the higher priority?

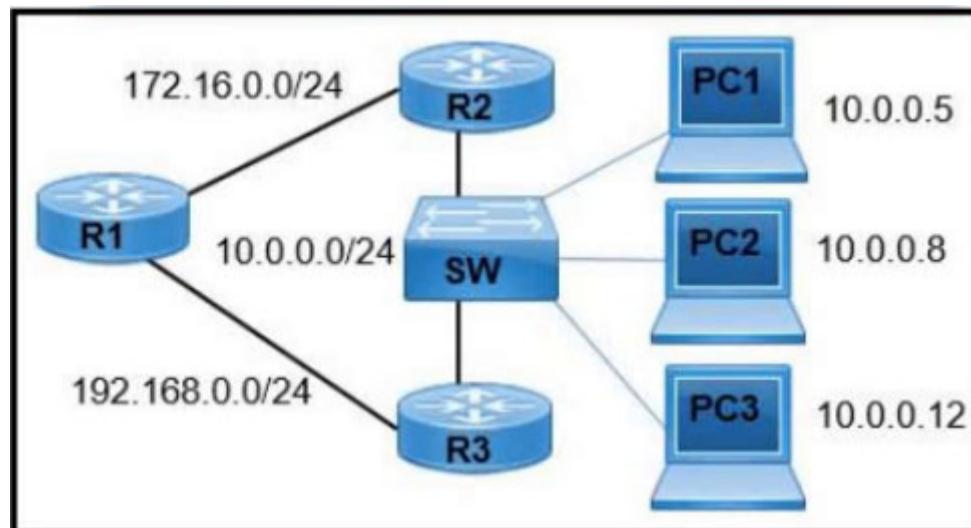
upvoted 1 times

jossyda 1 year, 1 month ago

Los routers en la red seleccionan como DR al router con la prioridad de interfaz más alta. El router con la segunda prioridad de interfaz más alta se elige como BDR.

upvoted 2 times

Question #443



Refer to the exhibit. A network engineer must configure R1 so that it sends all packets destined to the 10.0.0.0/24 network to R3, and all packets destined to PC1 to R2. Which configuration must the engineer implement?

- A. R1(config)#ip route 10.0.0.0 255.255.255.0 172.16.0.2 R1(config)#ip route 10.0.0.5 255.255.255.255 192.168.0.2
- B. R1(config)#ip route 10.0.0.0 255.255.0.0 172.16.0.2 R1(config)#ip route 10.0.0.5 255.255.255.255 192.168.0.2
- C. R1(config)#ip route 10.0.0.0 255.255.255.0 192.168.0.2 R1(config)#ip route 10.0.0.5 255.255.255.255 172.16.0.2
- D. R1(config)#ip route 10.0.0.0 255.255.0.0 192.168.0.2 R1(config)#ip route 10.0.0.5 255.255.255.0 172.16.0.2

Correct Answer: C

StingVN 3 weeks, 5 days ago

Selected Answer: C

Am I the only one notice that the netmask of R1(config)#ip route 10.0.0.5 255.255.255.255 172.16.0.2 should be changed to 255.255.255.0?
upvoted 1 times

studying_1 3 weeks ago

no, it shouldn't, it is a host root, only reach the host(pc), not a network, so it's /32
upvoted 1 times

DARKK 1 year ago

Selected Answer: C

Given answer is Correct
upvoted 1 times

aaandyyy 1 year ago

The question is not finished!! Please fix.

A network engineer must configure R1 so that it sends all packets destined to the 10.0.0.0/24 network to R3, and all packets destined to PC1 to R2 from R2!

upvoted 1 times

aaandyyy 1 year ago

Sorry, delete please)
did not read carefully
upvoted 5 times

Question #444

Topic 1

```
CPE# show ip route
    192.168.1.0/24 is variably subnetted, 3 subnets, 3 masks
B  192.168.1.0/24 [20/1] via 192.168.12.2, 00:00:06
R  192.168.1.128/25 [120/5] via 192.168.13.3, 00:02:35, Ethernet0/1
O  192.168.1.192/26 [110/11] via 192.168.14.4, 00:02:23, Ethernet0/2
D  192.168.1.224/27 [90/1024640] via 192.168.15.5, 00:01:40, Ethernet0/3
```

Refer to the exhibit. All traffic enters the CPE router from interface Serial0/3 with an IP address of 192.168.50.1. Web traffic from the WAN is destined for a LAN network where servers are load-balanced. An IP packet with a destination address of the HTTP virtual IP of 192.168.1.250 must be forwarded. Which routing table entry does the router use?

- A. 192.168.1.0/24 via 192.168.12.2
- B. 192.168.1.128/25 via 192.168.13.3
- C. 192.168.1.192/26 via 192.168.14.4
- D. 192.168.1.224/27 via 192.168.15.5

Correct Answer: D

 **DARKK** Highly Voted 1 year ago

Selected Answer: D

D is right. Longest Prefix route inclusive of the IP Address. /27 = 32, which is inclusive in this case.
upvoted 7 times

 **Drians_21** 11 months, 2 weeks ago

I agree
upvoted 1 times

 **Augusto2332** Highly Voted 6 months, 2 weeks ago

Dont get confused by reading first part of questions, basically CCNA exam creators want you to focus in the beginning of the question which has nothing to do with finding the answer. You need to keep reading until the last part of the question.

This dumps are good way to practice, thanks a lot guys
upvoted 6 times

 **RaselAhmedIT** Most Recent 3 months ago

I think D (192.168.1.224/27 via 192.168.15.5) is the correct answer.
upvoted 1 times

 **gewe** 3 months, 3 weeks ago

beautiful question... really
upvoted 2 times

 **jasmineelly** 6 months ago

thanks for share nice article. <https://newextendersetup.live/192-168-1-250>
upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: D
The answer is D
upvoted 1 times

 **ratu68** 11 months ago

Selected Answer: D
easy answer - D is correct.
upvoted 1 times

 **BitterOldMan** 1 year ago

D: 192.168.1.224/27 wins over 192.168.1.128/25
First IP 192.168.1.225
Last IP 192.168.1.254
upvoted 3 times

 **bongthu** 1 year, 1 month ago

Selected Answer: B

I think its B
upvoted 1 times

 **Etidic** 7 months, 2 weeks ago
B is wrong
upvoted 1 times

 **DARKK** 1 year ago
That is wrong.
upvoted 1 times

 **jossyda** 1 year, 1 month ago
Por la regla longest preffix match. Opción D.
upvoted 1 times

Question #445

Topic 1

```
A# show ip ospf neighbor
Neighbor ID  Pri  State          Dead Time   Address      Interface
172.1.1.1    1    EXCHANGE/ -  00:00:36   172.16.32.1  Serial0.1
```

Refer to the exhibit. An engineer assumes a configuration task from a peer. Router A must establish an OSPF neighbor relationship with neighbor 172.1.1.1. The output displays the status of the adjacency after 2 hours. What is the next step in the configuration process for the routers to establish an adjacency?

- A. Configure router A to use the same MTU size as router B.
- B. Configure a point-to-point link between router A and router B.
- C. Set the router B OSPF ID to the same value as its IP address.
- D. Set the router B OSPF ID to a nonhost address.

Correct Answer: A

Reference:

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13684-12.html#neighbors>

 **Wilasky**  1 year, 1 month ago

In Exstart/Exchange State, when attempting to run OSPF between a Cisco router and another vendor's router. If the router with the higher MTU sends a packet larger than the MTU set on the neighboring router, the neighboring router ignores the packet.
upvoted 22 times

 **Dutch012**  3 months, 2 weeks ago

I think it's A.

the interface is using serial type, and the default configuration for OSPF is broadcast network type, so we must change the network type to point-to-point since it uses a serial connection

upvoted 2 times

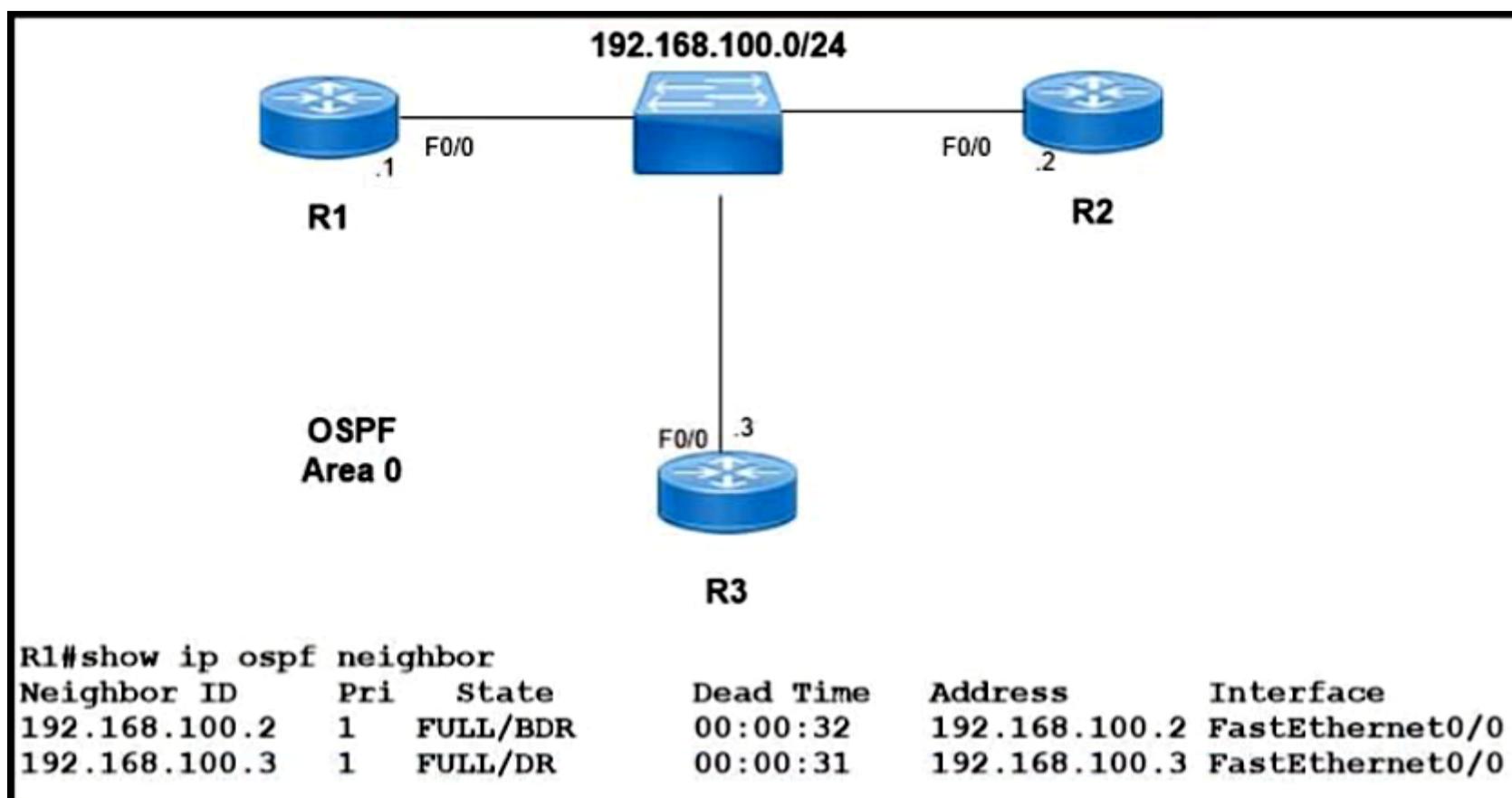
 **Dutch012** 2 months, 4 weeks ago

P-to-P is enabled by default in serial interfaces, I agree with Wilasky

upvoted 1 times

Question #446

Topic 1



Refer to the exhibit. Which two configurations must the engineer apply on this network so that R1 becomes the DR? (Choose two.)

- A. R3(config)#interface fastethernet 0/0 R3(config-if)#ip ospf priority 0
- B. R1(config)#router ospf 1 R1(config-router)#router-id 192.168.100.1
- C. R1(config)#interface fastethernet 0/0 R1(config-if)#ip ospf priority 200
- D. R1(config)#interface fastethernet 0/0 R1(config-if)#ip ospf priority 0
- E. R3(config)#interface fastethernet 0/0 R3(config-if)#ip ospf priority 200

Correct Answer: AC

SVN05 Highly Voted 1 year ago

Answer A is settings router 3 to have priority 0(0 means they are not allowed to participate in DR/BDR election)

Answer C is making R1 to have a higher priority(default is 1 but putting very high number is only for safety reasons to ensure that the R1 is elected DR)

upvoted 11 times

GigaGremlin Most Recent 8 months ago

You can use the command Router(config-if)#ip ospf priority 200 to change the priority to 200 (The default value is 1) and then you use Router# clear ip ospf process command to enforce your changes...

upvoted 3 times

DARKK 1 year ago

Selected Answer: AC

A & C are Correct. R1 must have the Highest priority, and thus R3 a low or lowest Priority.

upvoted 4 times

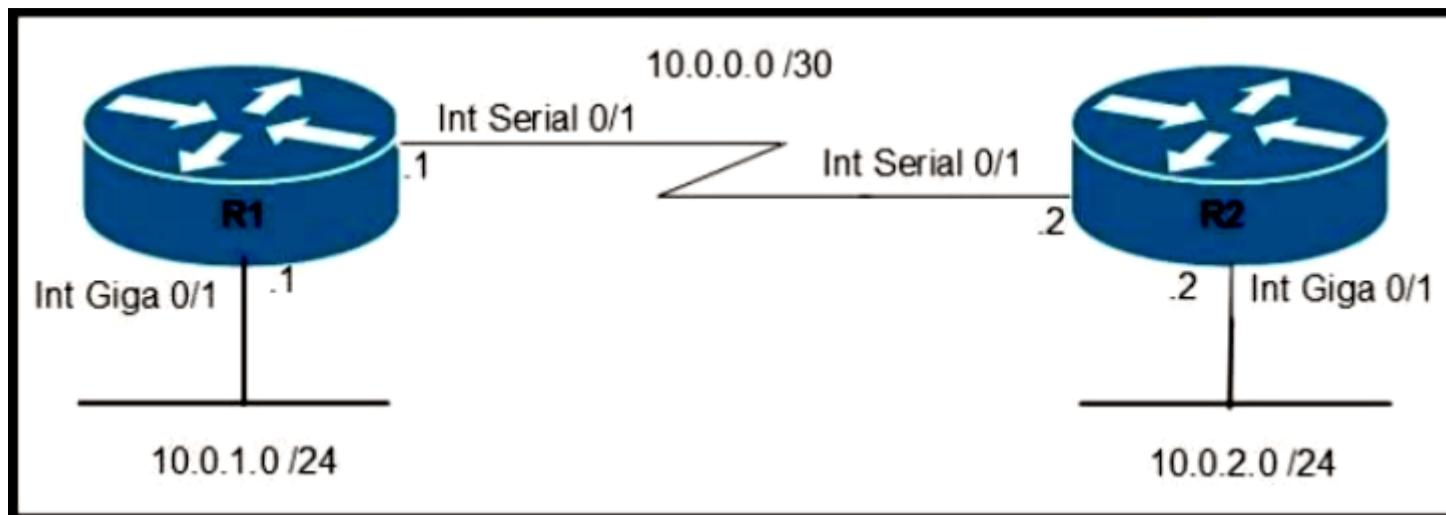
VictorCisco 2 months, 1 week ago

once you configured on R1 priority 200, R3 already has a lower priority. Why it is needed to set it to 0?

upvoted 1 times

Question #447

Topic 1



Refer to the exhibit. Which command configures OSPF on the point-to-point link between routers R1 and R2?

- A. router-id 10.0.0.15
- B. neighbor 10.1.2.0 cost 180
- C. network 10.0.0.0 0.0.0.255 area 0
- D. ip ospf priority 100

Correct Answer: C

Sal34 Highly Voted 1 year ago

The subnet mask seems wrong. Because the wildcard for a /30 should be 0.0.0.3, not 0.0.0.255.
upvoted 13 times

ptfish 10 months, 2 weeks ago

OSPF uses wildcard masks. So only the first 24bits (10.0.0) are checked.
upvoted 2 times

DoBronx 7 months, 1 week ago

yes but a /30 wildcard is 0.0.0.3
upvoted 7 times

Da_Costa Most Recent 1 week, 2 days ago

Confusing.. I thought /30 wild mask is 0.0.0.3 I don't think /24 is appropriate can someone explain better please?
upvoted 1 times

cormorant 7 months ago

ospf command = look for answer with wildcard
upvoted 1 times

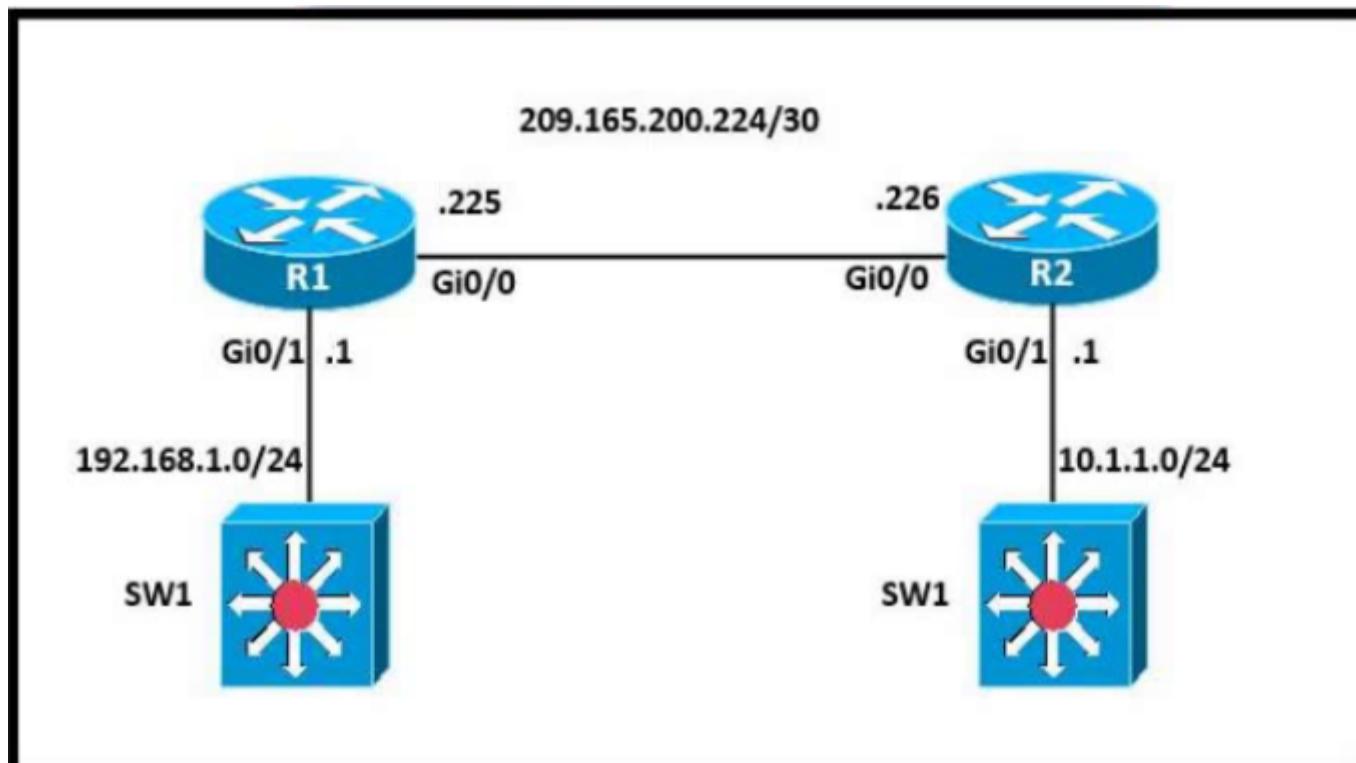
Customexit 7 months, 1 week ago

Despite what the wildcard says and the other answers, the other commands won't configure an OSPF connection with each other.
upvoted 3 times

Ysy 11 months, 2 weeks ago

just needs to match, not be identical
upvoted 4 times

Question #448



Refer to the exhibit. A network engineer is in the process of establishing IP connectivity between two sites. Routers R1 and R2 are partially configured with IP addressing. Both routers have the ability to access devices on their respective LANs. Which command set configures the IP connectivity between devices located on both LANs in each site?

- A. R1 ip route 192.168.1.1 255.255.255.0 GigabitEthernet0/1 R2 ip route 10.1.1.1 255.255.255.0 GigabitEthernet0/1
- B. R1 ip route 192.168.1.0 255.255.255.0 GigabitEthernet0/0 R2 ip route 10.1.1.1 255.255.255.0 GigabitEthernet0/0
- C. R1 ip route 0.0.0.0 0.0.0.0 209.165.200.225 R2 ip route 0.0.0.0 0.0.0.0 209.165.200.226
- D. R1 ip route 0.0.0.0 0.0.0.0 209.165.200.226 R2 ip route 0.0.0.0 0.0.0.0 209.165.200.225

Correct Answer: D

SVN05 Highly Voted 1 year ago

Answer D is correct as it is stating any route goes through next hop of 209.165.200.226(for R1) while any route next hops to 209.165.200.225(On R2)

Answer A and B are not correct as the question states that both routers can access their respective LANs thus having a static route in each own LAN makes no sense.

upvoted 13 times

Jorro99404 Most Recent 4 days, 8 hours ago

Selected Answer: D

D is the correct

upvoted 1 times

iMo7ed 3 months, 2 weeks ago

Selected Answer: D

D is correct

upvoted 1 times

DoBronx 7 months, 1 week ago

Selected Answer: D

D is correct

upvoted 1 times

GigaGremlin 8 months ago

Selected Answer: D

Answer D is correct

Router(config)#ip route 0.0.0.0 0.0.0.0 [exit-interface or IP address of the next-hop]

upvoted 1 times

ShehuUsman 10 months ago

Selected Answer: C

D is wrong. Answer C is correct as it is stating any route goes through 209.165.200.225(for R1) while any route to 209.165.200.226(On R2)

upvoted 1 times

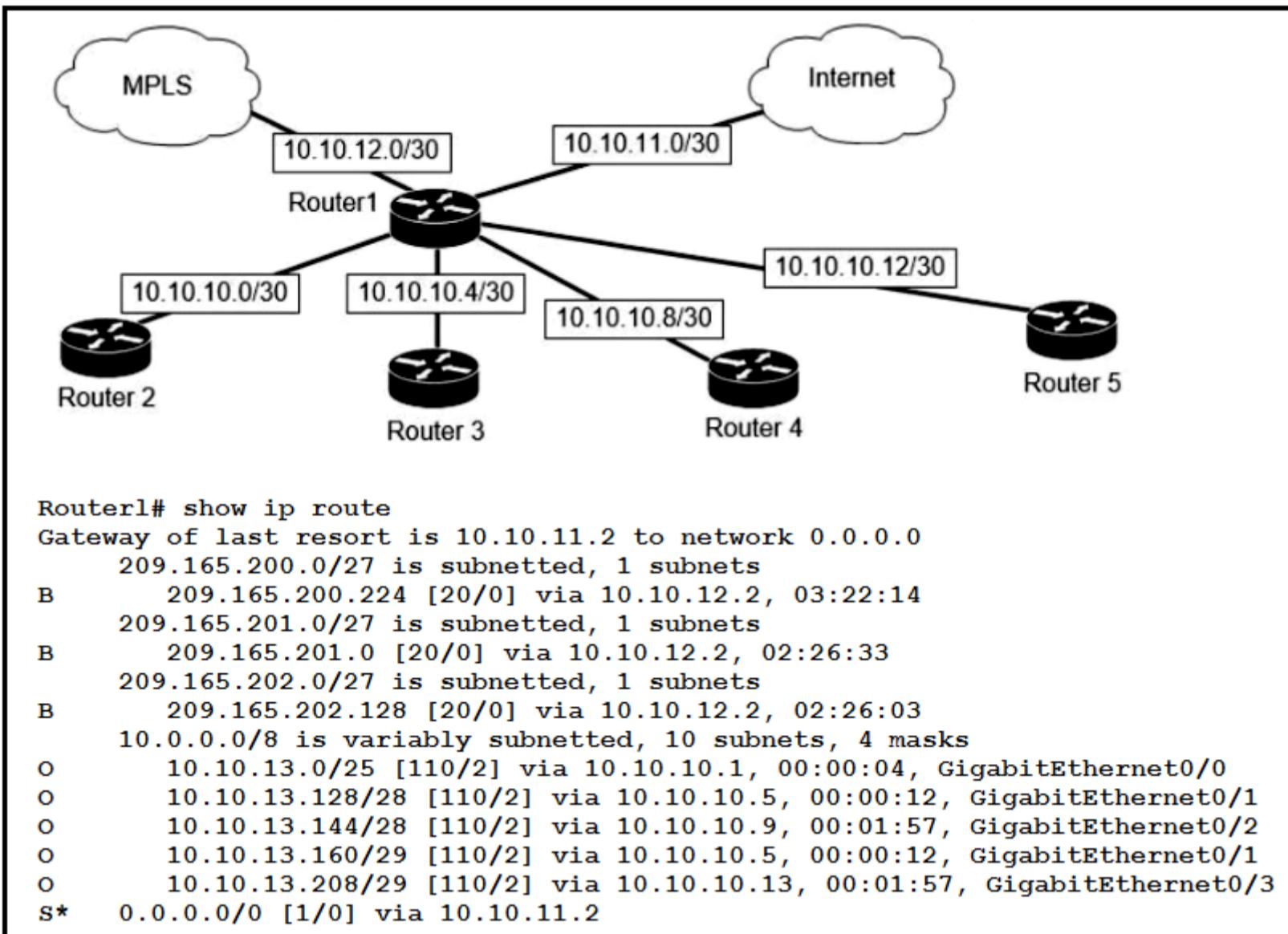
 **Sutokuto** 8 months, 3 weeks ago

No, answer D is correct because after 0.0.0.0 0.0.0.0 you put the next hop, which is router 2 on .226 You don't put the router's own interface.
upvoted 6 times

 **Customexit** 7 months, 1 week ago

IIRC, if you decided to enter the local router's interface, you would put g0/0 in this case.
But the answers use the next-hop.
upvoted 3 times

Question #449



Refer to the exhibit. Which next-hop IP address does Router1 use for packets destined to host 10.10.13.158?

- A. 10.10.10.9
- B. 10.10.10.5
- C. 10.10.11.2
- D. 10.10.12.2

Correct Answer: A

TechJ 5 days, 9 hours ago

Selected Answer: A

I cant believe there is multiple people answer B, how is the host address 158 included in 10.10.13.160 network address????
upvoted 1 times

shumps 3 weeks, 3 days ago

B is wrong because it starts from 160-168 so it has passed the network we want. the increment of it is 8 subtract 2.
upvoted 1 times

yuh 1 month ago

Selected Answer: A

The correct answer is A.
144/28 145-158 (Broadcast 159)
The options below do not cover 10.10.13.158.
128/28 129-142 (Broadcast 143)
160/29 161-166 (Broadcast 167)
208/29 209-214 (Broadcast 215)
upvoted 1 times

Hope_12 1 month ago

Selected Answer: A

10.10.13.144/28 via 10.10.10.9
inc = 16

10.10.13.144(NetAdd) - 10.10.13.159(BroadAdd)
10.10.13.168

10.10.13.145-10.10.13.158 USABLE HOSTS

packet 10.10.130.158 is in range

10.10.13.160/29 via 10.10.10.5

inc = 8

10.10.13.160(NetAdd) - 10.10.13.167(BroadAdd)
10.10.13.168

10.10.13.161-10.10.13.166 USABLE HOSTS
packet 10.10.130.158 is not in range

Answer: A. 10.10.10.9

upvoted 1 times

 **Hope_12** 1 month ago

packet 10.10.13.158

upvoted 1 times

 **bisiyemo1** 1 month, 1 week ago

Selected Answer: B

B is the correct answer based on long prefix rule. 10.0.13.160/29 will be considered

upvoted 1 times

 **ac891** 1 month ago

do you know even how to calculate subnets ?

upvoted 4 times

 **Channaveera** 2 months, 3 weeks ago

IP 0.10.13.158 has presence in both the networks. 10.0.13.160/29 and 10.10.13.144/28, so 10.0.13.160/29 is the longest prefix

upvoted 2 times

 **Myth1977** 4 months, 1 week ago

A is correct. Longest prefix match

upvoted 2 times

 **shabby999** 4 months, 1 week ago

answer is B

upvoted 3 times

 **nathnotnut** 3 months, 1 week ago

it's A, how can we delete your answer here

upvoted 1 times

 **iMo7ed** 3 months, 2 weeks ago

No, it's A (Longest prefix match)

upvoted 1 times

 **Nnandes** 1 year ago

A is the correct.

upvoted 4 times

Question #450

Topic 1

RIP	10.1.1.16/28 [120/5]	via F0/0
OSPF	10.1.1.0/24 [110/30]	via F0/1
OSPF	10.1.1.0/24 [110/40]	via F0/2
EIGRP	10.1.0.0/26 [90/20]	via F0/3
EIGRP	10.0.0.0/8 [90/133]	via F0/4

Refer to the exhibit. Packets received by the router from BGP enter via a serial interface at 209.165.201.1. Each route is present within the routing table. Which interface is used to forward traffic with a destination IP of 10.1.1.19?

- A. F0/0
- B. F0/1
- C. F0/4
- D. F0/3

Correct Answer: A

✉  **DUMPLedore** 4 months, 2 weeks ago

Selected Answer: A

this if for "forwarding traffic" so longest prefix or more specific route
upvoted 4 times

✉  **Goh0503** 8 months, 2 weeks ago

Correct Answer: A
upvoted 1 times

✉  **DANAAH** 5 months, 1 week ago

could you explain how to solve this question in detail please?
upvoted 1 times

✉  **rijstraket** 4 months, 3 weeks ago

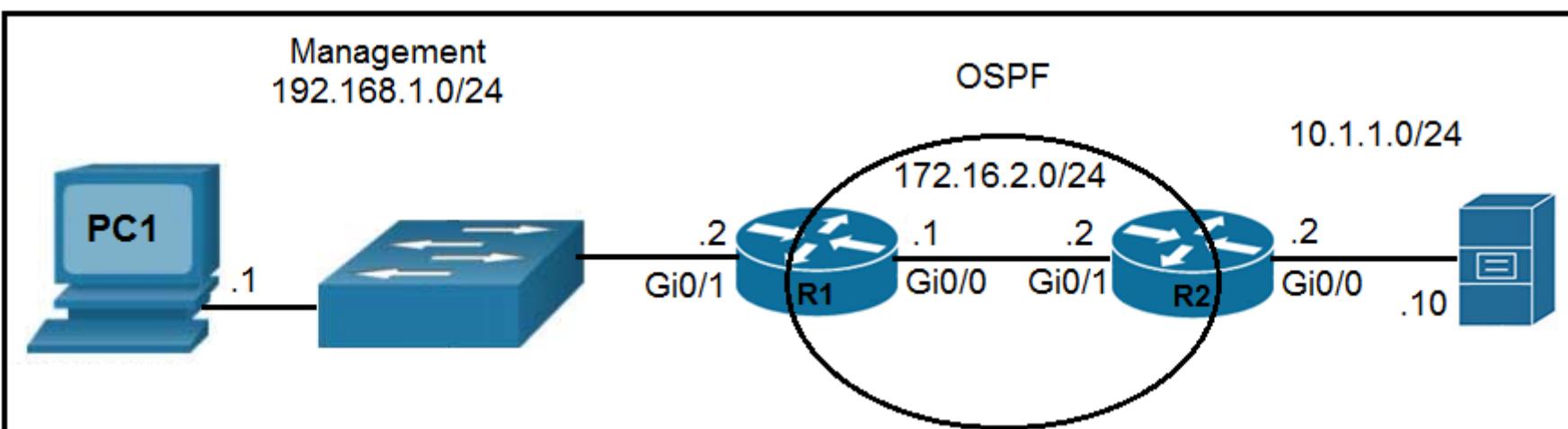
When multiple routes are present that match the destination address, always check for the "more-specific" route first. The smallest subnet (or highest/longest prefix) would be chosen.
upvoted 3 times

✉  **diudiuQldama** 5 months, 1 week ago

longest prefix
upvoted 2 times

Question #451

Topic 1



During outage

```
R1#show ip route 10.1.1.10
%Network not in table
```

Normal operation

```
R1#show ip route 10.1.1.10
Routing entry for 10.1.1.0/24
Known via "ospf 1", distance 110, metric 2, type intra area
  Last update from 172.16.2.2 on GigabitEthernet0/0, 00:00:18 ago
  Routing Descriptor Blocks:
    * 172.16.2.2, from 10.1.1.10, 00:00:18 ago, via GigabitEthernet0/0
      Route metric is 2, traffic share count is 1
```

Refer to the exhibit. Which route must be configured on R1 so that OSPF routing is used when OSPF is up, but the server is still reachable when OSPF goes down?

- A. ip route 10.1.1.10 255.255.255.255 gi0/0 125
- B. ip route 10.1.1.0 255.255.255.0 172.16.2.2 100
- C. ip route 10.1.1.0 255.255.255.0 gi0/1 125
- D. ip route 10.1.1.10 255.255.255.255 172.16.2.2 100

Correct Answer: A

This is an example of a floating static route when the Administrative Distance must be greater than the primary route. Currently the OSPF AD for the route is 110, so if that route was to go away then this route with an AD of 125 would be used.

Netcmd Highly Voted 6 months, 3 weeks ago

Selected Answer: A

Answer C is wrong because it uses the wrong interface id
upvoted 5 times

soRwatches 2 months, 3 weeks ago

the interface used is the R1 exit interface. so A is correct.
upvoted 1 times

vsm97 Most Recent 6 months, 3 weeks ago

why is it 255.255.255.255 when the network is /24? Isn't that 255.255.255.0?
upvoted 3 times

Hope_12 1 month ago

When you are using a host route or specific route.
You can use the 255.255.255.255 /32.
You use /24 if you are pertaining to a network route.
upvoted 1 times

cormorant 7 months ago

this demonic detail answers the question: gi0/0
this is teh interface towards the fateful server 1. the ip route syntax is destination + netmask + next hop. the latter can be replaced by the interface if you want to reach a destination in a more direct manner
upvoted 1 times

 **Customexit** 7 months, 1 week ago

Selected Answer: A

Answer is A.

At a glance, B has a lower manually set AD of 100.

C command is wrong anyway, if you want to use the interface name instead of the next hop, you use the local router's interface which is R1's g0/0. G0/1 is the next hop to R2.

D has a lower AD than 110.

A has the correct command with a static host route directly to the server, a /32 subnet (host route), the local router's exit interface of g0/0, and a higher manually set AD of 125.

upvoted 3 times

 **RougePotatoe** 7 months, 1 week ago

Selected Answer: C

Answer is C because we need to configure a floating static route. Cannot use A because that will configure a static route as OSPF does not have an entry for 10.1.1.10 only the network 10.1.1.0/24. In order for a static route to become a floating static route we need the AD to be higher than the OSPF routing protocol so it will not be put into the routing table. If you configure A you will create a static route for 10.1.1.10 in your routing table which is wrong.

upvoted 2 times

 **splashy** 7 months ago

10.1.1.0 /24 is reachable via ospf -> known via ospf 1

Only the server needs to be reachable if ospf 1 should go down

So A

upvoted 4 times

 **RougePotatoe** 6 months, 3 weeks ago

By configuring a static address to a /32 address you would create an entry in the routing table. When the router tries to route to the server network it will look for the longest matching prefix which would be the /32 (statically configured route). So it would bypass OSPF because the OSPF network is /24. Although C isn't right either since the interface is incorrect.

upvoted 2 times

 **RHER** 3 weeks, 4 days ago

como vas a salir por la interfaz g0/0, si el proximo salto es g0/1 c es correcta

upvoted 1 times

 **RougePotatoe** 6 months, 3 weeks ago

I mean server not server network.

upvoted 1 times

 **RougePotatoe** 6 months, 3 weeks ago

Looking back while A is not the right answer it is the best answer.

upvoted 2 times

Question #452

Topic 1

```
R1# show ip route
Codes: L - local, C - connected, S - static, 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, ia - IS-IS inter area
      * - candidate default, U - per-user static route, o - ODR
      p - periodic downloaded static route

Gateway of last resort is not set
  10.0.0.0/24 is subnetted, 5 subnets
D    10.1.2.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D    10.1.3.0/24 [90/2170112] via 10.165.20.226, 00:01:30, Serial0/0
D    10.1.2.0/25 [90/2170112] via 10.165.20.126, 00:01:30, Serial0/0
D    10.1.3.0/25 [90/2170112] via 10.165.20.146, 00:01:30, Serial0/0
D    10.1.4.0/24 [90/2170112] via 10.165.20.156, 00:01:30, Serial0/0
      192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.18.10.0/24 is directly connected, GigabitEthernet0/0
      192.168.21.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.18.11.0/24 is directly connected, GigabitEthernet0/1
      10.165.20.0/24 is variably subnetted, 2 subnets, 2 masks
C    10.165.20.224/24 is directly connected, Serial0/0
S    10.1.12.112/28 [1/0] via 10.165.20.166
```

Refer to the exhibit. What is the next hop for traffic entering R1 with a destination of 10.1.2.126?

- A. 10.165.20.126
- B. 10.165.20.146
- C. 10.165.20.166
- D. 10.165.20.226

Correct Answer: A

 **yuh** 1 month ago

Selected Answer: C

I think C.
Static route for 10.1.12.112/28.
range 10.1.12.113-10.1.12.126
longestmatch and in range
upvoted 1 times

 **yuh** 1 month ago

sorry i misread the address...
A is right.
upvoted 1 times

 **fak3zito** 1 month, 3 weeks ago

D is the correct answer, the static have the longest prefix, and btw has a ad of 1.
upvoted 1 times

 **MRSCARLet** 3 weeks, 6 days ago

the static is 10.1.12.112/28, /28 is the longest but the destination is 10.1.2.126.
The correct way is via 10.1.2.0/25
upvoted 1 times

 **Ciscoman021** 2 months ago

Selected Answer: A

A is correct.
upvoted 2 times

 **Yannik123** 2 months, 2 weeks ago

Selected Answer: A

Longest prefix. An x.x.x.126 is the last useable address in a /25 subnet.
upvoted 2 times

 **lucantonelli93** 3 months ago

Selected Answer: A

The correct answer it's A

upvoted 1 times

 **iMo7ed** 3 months, 2 weeks ago

D is the correct answer

upvoted 1 times

 **Ciscoman021** 2 months ago

why? can you explain me please? 10.1.2.0/25 is too here. that means 10.1.2.1 - 10.1.2.126
with next hop 10.165.20.126

upvoted 1 times

 **Xenon1337** 3 months, 2 weeks ago

correction, its A, the route with longest prefix is chosen if multiple routes are available in this case /25

upvoted 5 times

Question #453

Topic 1

```
R1# show ip route | begin gateway
Gateway of last resort is not set
    172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
C      172.16.1.0/24 is directly connected, FastEthernet0/0
L      172.16.1.1/32 is directly connected, FastEthernet0/0
EX     172.16.2.0/24 [170/2] via 207.165.200.250, 00:00:25, Serial0/0/0
O      192.168.1.0/24 [110/84437] via 207.165.200.254, 00:00:17, Serial0/0/1
D      192.168.2.0/24 [90/184437] via 207.165.200.254, 00:00:15. Serial0/0/1
E1     192.168.3.0/24 [110/1851437] via 207.165.200.254, 00:00:19, 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. Which prefix did router R1 learn from internal EIGRP?

- A. 192.168.3.0/24
- B. 192.168.1.0/24
- C. 172.16.1.0/24
- D. 192.168.2.0/24

Correct Answer: D

 **Mili2023** 4 months, 1 week ago

you can also get the answer as the AD for internal EIGRP is 90. and External in 170 so in the question they have asked the internal EIGRP which is only with ip address in D.

the AD for OSPF is 110 so options A and B is out of question anyway!

upvoted 2 times

 **Panda_man** 6 months, 1 week ago

Selected Answer: D

D is correct

upvoted 3 times

 **cormorant** 7 months ago

internal EIGRP = D

upvoted 2 times

 **motop9** 8 months ago

EX - EIGRP external

E1 - OSPF external type 1, E2 - OSPF external type 2

upvoted 2 times

 **razif** 8 months, 1 week ago

should be learn from EXTERNAL EIGRP? instead of internal?

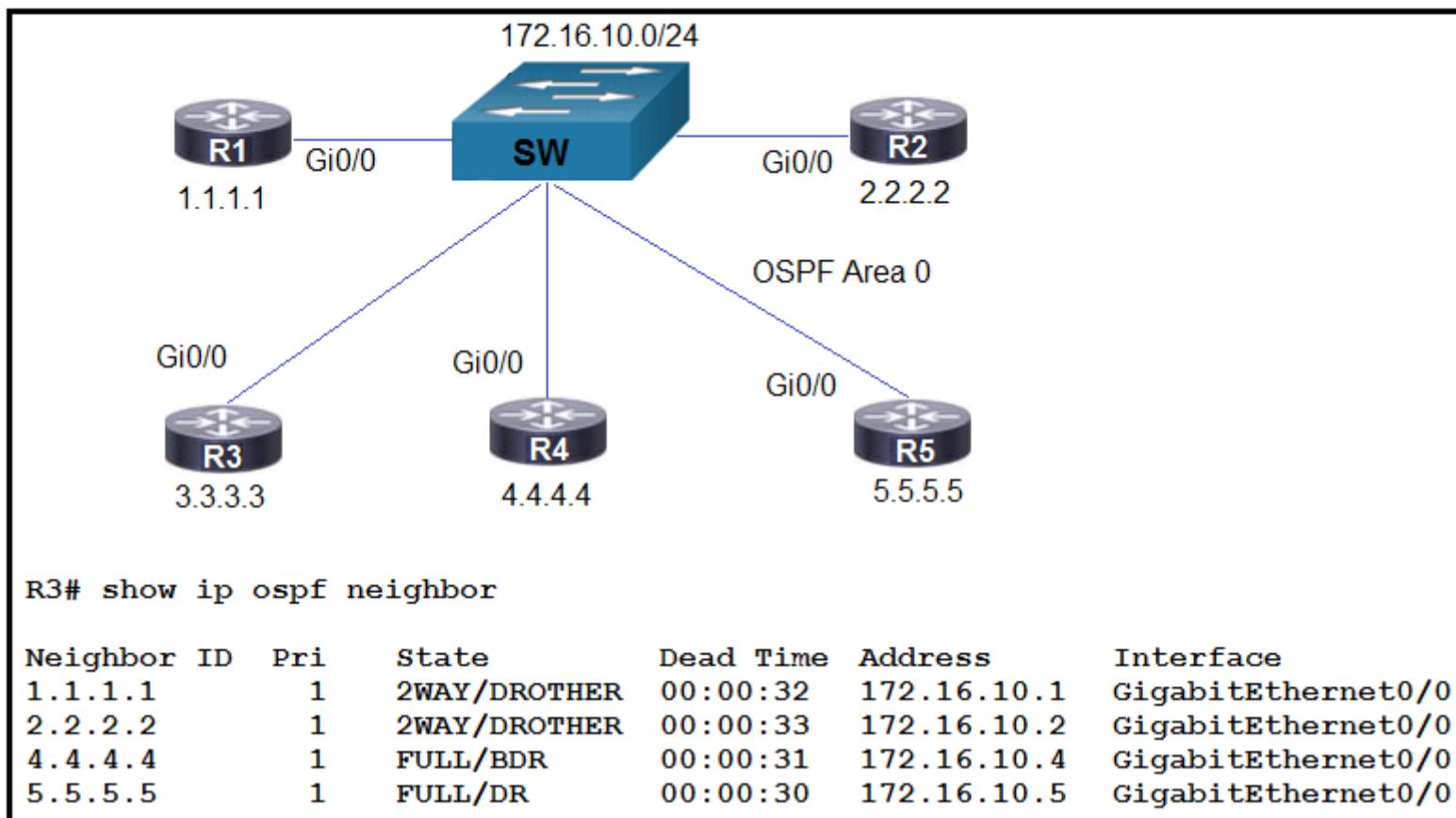
upvoted 2 times

 **Customexit** 7 months, 1 week ago

The question asks for internal EIGRP. That's a code of D in the routing table.

upvoted 1 times

Question #454



Refer to the exhibit. R5 is the current DR on the network, and R4 is the BDR. Their interfaces are flapping, so a network engineer wants the OSPF network to elect a different DR and BDR. Which set of configurations must the engineer implement?

- A. R4(config)#interface gi0/0 R4(config-if)#ip ospf priority 20 R5(config)#interface gi0/0 R5(config-if)#ip ospf priority 10
- B. R5(config)#interface gi0/0 R5(config-if)#ip ospf priority 120 R4(config)#interface gi0/0 R4(config-if)#ip ospf priority 110
- C. R3(config)#interface gi0/0 R3(config-if)#ip ospf priority 255 R2(config)#interface gi0/0 R2(config-if)#ip ospf priority 240
- D. R2(config)#interface gi0/0 R2(config-if)#ip ospf priority 259 R3(config)#interface gi0/0 R3(config-if)#ip ospf priority 256

Correct Answer: C

✉ 4aynick 1 month, 1 week ago

Selected Answer: C

highest metrik is DR.

max 255

upvoted 2 times

✉ Swiz005 2 months, 1 week ago

Selected Answer: C

The answer is C - manually forcing the priority

upvoted 2 times

✉ RougePotatoe 7 months, 1 week ago

Selected Answer: A

This really depends on what the question is trying to ask.

Yes option C will also achieve the same effect but you are manually forcing R3 and R2 to become DR and BDR. The question only asked for you to have OSPF elect a different DR and BDR so I think A fits best as it will leave OSPF to elect a DR and BDR instead of you basically forcing it.

upvoted 2 times

✉ RougePotatoe 7 months, 1 week ago

I messed up OSPF's default priority value is 1 so A would do nothing. ANSWER IS C.

upvoted 3 times

✉ arenjenkins 8 months, 1 week ago

why not D?

upvoted 1 times

✉ EngrRex 8 months, 1 week ago

OSPF priority range is 0-255. D is out of range

upvoted 7 times

✉ MikD4016 8 months, 1 week ago

because the value can go from 0 to 255 (default = 1): with 0 you avoid the election to DR / BDR, with higher values you can drive it at will. If all the routers on the LAN have priority = 0, OSPF will not work

upvoted 6 times

Question #455

Topic 1

```
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    10.0.0.0/8 is directly connected, Loopback0
      10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
O    10.0.1.3/32 [110/100] via 10.0.1.100, 00:39:08, serial0
C    10.0.1.0/24 is directly connected, Serial0
O    10.0.1.5/32 [110/5] via 10.0.1.50, 00:39:08, Serial0
O    10.0.10.0/24 [110/10] via 10.0.1.4, 00:39:08, Gigabit Ethernet 0/0
D    10.0.10.0/24 [90/10] via 10.0.1.5, 00:39:08, Gigabit Ethernet 0/1
```

Refer to the exhibit. Web traffic is coming in from the WAN interface. Which route takes precedence when the router is processing traffic destined for the LAN network at 10.0.10.0/24?

- A. via next-hop 10.0.1.5
- B. via next-hop 10.0.1.4
- C. via next-hop 10.0.1.50
- D. via next-hop 10.0.1.100

Correct Answer: A

 **RougePotatoe** Highly Voted 7 months, 1 week ago

I really need someone to explain to me how there is an OSPF and EIGRP entry for the same network in this routing table.

upvoted 6 times

 **networkin** 5 months, 4 weeks ago

Plain and simple: This is a cooked up table. There can't be.

upvoted 7 times

 **RougePotatoe** 6 months, 2 weeks ago

Since everyone who replied so far doesn't seem to understand my question let me clarify. IRL you should only get one routing entry per network route from the show routing table command; unless you configured load balancing. Obviously EIGRP has lower AD than OSPF which is why only the EIGRP route should be shown in this show command. I'm asking how on earth could there be an OSPF and EIGRP entry in this show command when there should only be 1 entry for the network route as to my knowledge and google there doesn't seem to be a way you can load balance between 2 routing protocols.

upvoted 2 times

 **victor520** 6 months, 4 weeks ago

OSPF AD=110 EIGRP AD=90 ,so i think choose A

upvoted 2 times

 **RougePotatoe** 6 months, 2 weeks ago

You didn't answer my question. IRL you wouldn't even see the OSPF route because the router would've selected the EIGRP route already due to it having a lower AD. So this show command is unrealistic.

upvoted 2 times

 **soRwatches** 2 months, 3 weeks ago

relax, this made just to test the knowledge. just answer the question then your good to go the next question. don't over think.

upvoted 3 times

 **Swiz005** 7 months ago

"Administrative distance is the first criterion that a router uses to determine which routing protocol to use if two protocols provide route information for the same destination. Administrative distance is a measure of the trustworthiness of the source of the routing information" The smaller the AD value, the more reliable the protocol. In this case, EIGRP wins because it has a smaller AD

upvoted 2 times

 **RougePotatoe** 6 months, 2 weeks ago

You didn't answer my question. IRL you wouldn't even see the OSPF route because the router would've selected the EIGRP route already due to it having a lower AD. So this show command is unrealistic.

upvoted 1 times

 **siredobu** 3 months, 1 week ago

networkin answered your question above like this....

Plain and simple: This is a cooked up table. There can't be

upvoted 2 times

 **Myth1977** Most Recent 4 months, 1 week ago

Longest prefix is the same for both route on 10.0.10 network. AD takes the charge to determine the route

upvoted 4 times

Question #456

Topic 1

```
Gateway of last resort is 172.16.2.2 to network 0.0.0.0

  10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    10.10.8.0/28 is directly connected, GigabitEthernet0/0/2
C    10.10.10.0/24 is directly connected, GigabitEthernet0/0/0
L    10.10.10.3.32 is directly connected, GigabitEthernet0/0/0

  172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
S    172.16.1.33/32 is directly connected, GigabitEthernet0/0/1
C    172.16.2.0/23 is directly connected, GigabitEthernet0/0/1
L    172.16.2.1/32 is directly connected, GigabitEthernet0/0/1
S*   0.0.0.0/0 [1/0] via 172.16.2.2
```

Refer to the exhibit. A packet sourced from 10.10.10.1 is destined for 10.10.8.14. What is the subnet mask of the destination route?

- A. 255.255.254.0
- B. 255.255.255.240
- C. 255.255.255.248
- D. 255.255.255.252

Correct Answer: B

 **Tomaszek1234** 3 months, 1 week ago

Selected Answer: B

B is correct

upvoted 3 times

 **iMo7ed** 3 months, 2 weeks ago

Selected Answer: B

B is correct

upvoted 1 times

 **daddydagoth** 3 months, 2 weeks ago

Selected Answer: B

The destination is the last host of the 10.10.8.0/28 subnet. So the mask of the destination is /28 aka 255.255.255.240
upvoted 4 times

 **sdmejia01** 4 months ago

Correct Answer is B. 255.255.255.240, means /28. The IP 10.10.8.14 falls within the 10.10.8.0/28 range, which is: 10.10.8.0 network ID - 10.10.8.15 Broadcast IP.
upvoted 3 times

 **Goena** 4 months, 2 weeks ago

Selected Answer: A

Answer is A

The destination route is default route 172.16.2.2.

172.16.2.0/23 is directly connected g0/0/1

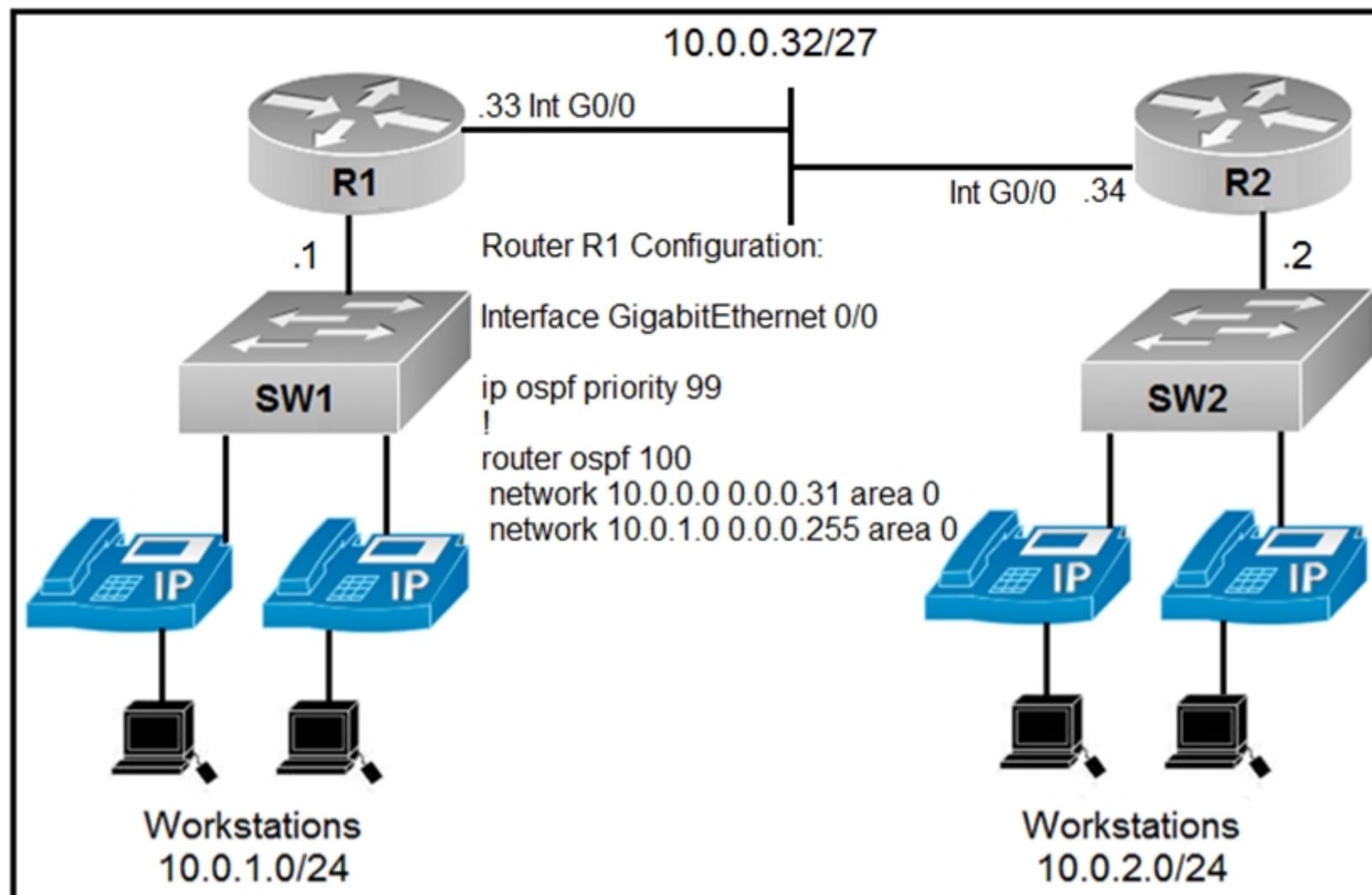
255.255.254.0

upvoted 2 times

 **daddydagoth** 3 months, 2 weeks ago

Wrong! The destination is the last host of the 10.10.8.0/28 subnet. So the mask of the destination is /28 aka 255.255.255.240
upvoted 3 times

Question #457



Refer to the exhibit. An engineer must configure router R2 so it is elected as the DR on the WAN subnet. Which command sequence must be configured?

- A. interface gigabitethernet0/0 ip address 10.0.0.34 255.255.255.248 ip ospf priority 0
- B. interface gigabitethernet0/0 ip address 10.0.0.34 255.255.255.224 ip ospf priority 100
- C. interface gigabitethernet0/0 ip address 10.0.1.1 255.255.255.0 ip ospf priority 255
- D. interface gigabitethernet0/0 ip address 10.0.1.1 255.255.255.224 ip ospf priority 98

Correct Answer: B

molly_zheng 2 weeks, 5 days ago

why not c?

upvoted 1 times

dropspablo 2 weeks, 2 days ago

Because of the IP Address configuration, it needs to be indented from the 10.0.0.32/27 network (host 10.0.0.33 to 10.0.0.62 - Broadcast 10.0.0.63).

Prefix 27 minus 32 = 5 left over used for host (1=2 - 2=4 - 3=8 - 4=16 - 5=32), i.e. we have a range of 32 hosts available in each subnet: Subnet 10.0.0.0 - 10.0.0.32 - 10.0.0.64 - 10.0.0.96 - 10.0.0.128 - 10.0.0.160 - 10.0.0.192 - 10.0.0.224.

upvoted 1 times

Goena 5 months ago

Selected Answer: B

Answer B is correct:

Network on G0/0 is 10.0.0.32/27 ==> 10.0.0.34 255.255.255.224 with priority higher than default (1) , 100

upvoted 2 times

Question #458

Topic 1

An engineer is configuring router R1 with an IPv6 static route for prefix 2019:C15C:0CAF:E001::/64. The next hop must be 2019:C15C:0CAF:E002::1. The route must be reachable via the R1 Gigabit 0/0 interface. Which command configures the designated route?

- A. R1(config-if)#ip route 2019:C15C:0CAF:E001::/64 GigabitEthernet 0/0
- B. R1(config)#ip route 2019:C15C:0CAF:E001::/64 GigabitEthernet 0/0
- C. R1(config-if)#ipv6 route 2019:C15C:0CAF:E001::/64 2019:C15C:0CAF:E002::1
- D. R1(config)#ipv6 route 2019:C15C:0CAF:E001::/64 2019:C15C:0CAF:E002::1

Correct Answer: D

 **Swiz005** Highly Voted 2 months, 1 week ago

Selected Answer: D

C is incorrect because the command is entered in the interface R1(config-if). The default route must be entered in the global config. Making D the correct answer.

upvoted 7 times

 **loco_desk** Most Recent 2 months, 3 weeks ago

Selected Answer: C

It's an ipv6 address and the Answer says this : "The route must be reachable via the R1 Gigabit 0/0 interface." Then then you need to enter the command on G0/0 interface or in global config but adding G0/0 . C is correct.

upvoted 3 times

 **ukguy** 5 months ago

bcz next hop address is global unicast address not link local address

upvoted 1 times

 **EEGentle** 7 months, 2 weeks ago

shouldn't be R1(config)#ipv6 route 2019:C15C:0CAF:E001::/64 g0/1 2019:C15C:0CAF:E002::1 ?

upvoted 3 times

 **daddydagoth** 3 months, 2 weeks ago

A fully specified route would be better, considering the formatting of the question but I suppose the one we were given is the next best, especially considering that the rest of the answers are blatantly wrong.

upvoted 1 times

 **r0m** 7 months, 4 weeks ago

why not C?

upvoted 1 times

 **Customexit** 7 months, 3 weeks ago

Because C shows the command being entered on an interface (config-if).

upvoted 6 times

 **Peter_panda** 2 months ago

C is also valid. Global configuration mode commands (ipv6 route) can be given in interface configuration mode (but not the other way around). I doubt that at the exam they will ask us to choose between exactly these correct options, probably the question here is defective.

upvoted 1 times

 **loco_desk** 2 months, 3 weeks ago

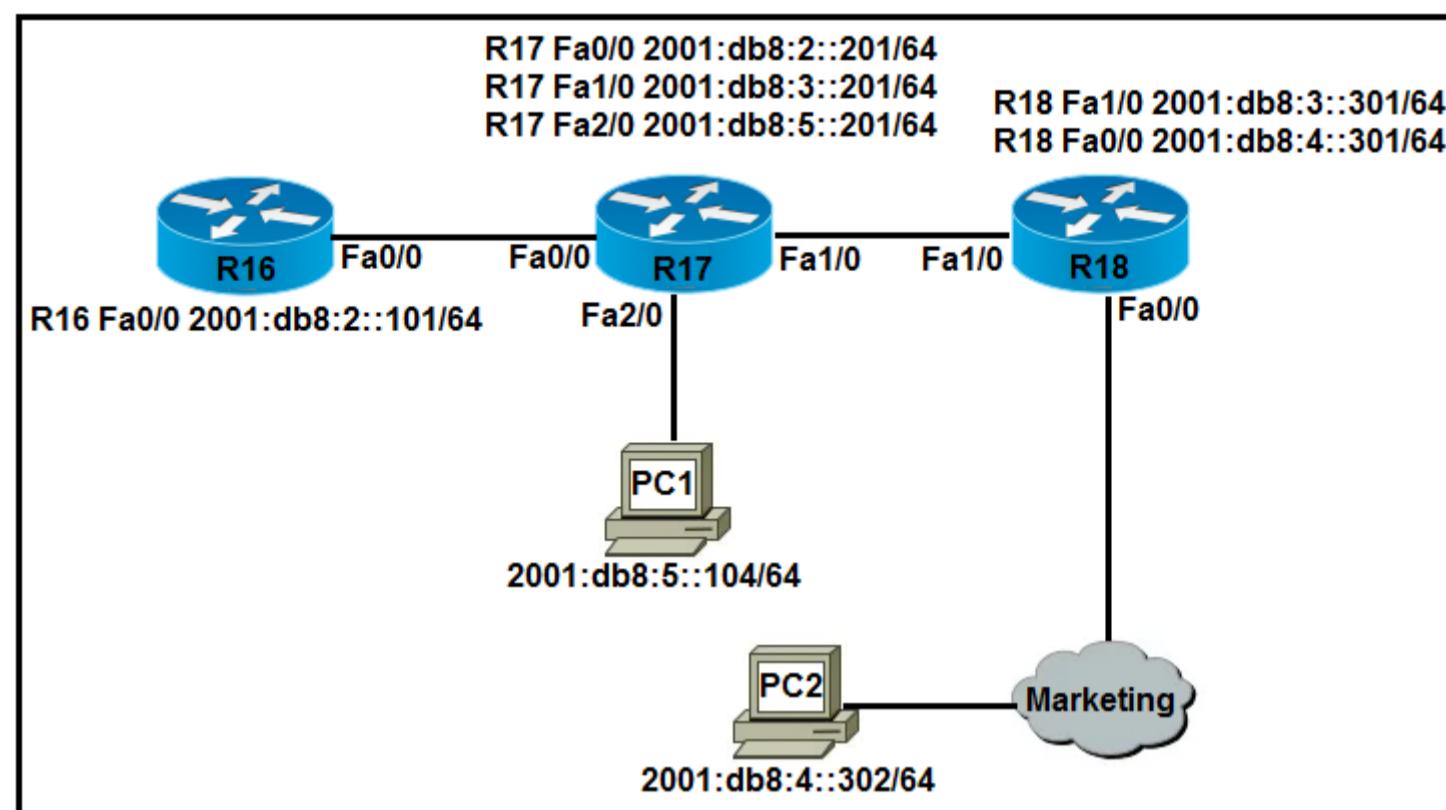
The Answer says this "The route must be reachable via the R1 Gigabit 0/0 interface." Then then you need to enter the command on G0/0 interface. C is correct.

upvoted 1 times

 **soRwatches** 2 months, 3 weeks ago

nope, static route must be configured in global configuration mode. Answer is D which is definitely reachable by G0/0 interface.

upvoted 3 times



Refer to the exhibit. Which IPv6 configuration is required for R17 to successfully ping the WAN interface on R18?

- A. R17# ! no ip domain lookup ip cef ipv6 cef ! interface FastEthernet0/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:2::201/64 ! Interface FastEthernet1/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:3::201/64 ! no cdp log mismatch duplex ipv6 route 2001:DB8:4::/64 2001:DB8:4::302
- B. R17# ! no ip domain lookup ip cef ipv6 unicast-routing ! interface FastEthernet0/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:2::201/64 ! Interface FastEthernet1/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:3::201/64 ! no cdp log mismatch duplex ipv6 route 2001:DB8:4::/64 2001:DB8:3::301
- C. R17# ! no ip domain lookup ip cef ! interface FastEthernet0/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:3::201/64 ! Interface FastEthernet1/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:2::201/64 ! no cdp log mismatch duplex ipv6 route 2001:DB8:4::/64 2001:DB8:5::101
- D. R17# ! no ip domain lookup ip cef ipv6 unicast-routing ! interface FastEthernet0/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:2::201/64 ! Interface FastEthernet1/0 no ip address duplex auto speed auto ipv6 address 2001:DB8:3::201/64 ! no cdp log mismatch duplex ipv6 route 2001:DB8:4::/64 2001:DB8:2::201

Correct Answer: B

tui9 Highly Voted 5 months, 2 weeks ago

A whole load of useless text, check the ipv6 route command in the last bit. :)
upvoted 24 times

bisiyemo1 2 months, 2 weeks ago

Good of you man
upvoted 1 times

MEDO95 4 months, 3 weeks ago

man u saved my life. thx!
upvoted 4 times

soRwatches Highly Voted 2 months, 3 weeks ago

if you will read all the answers in the actual exam you will be waste alot of time.
upvoted 5 times

dropspablo Most Recent 2 weeks, 2 days ago

Selected Answer: B

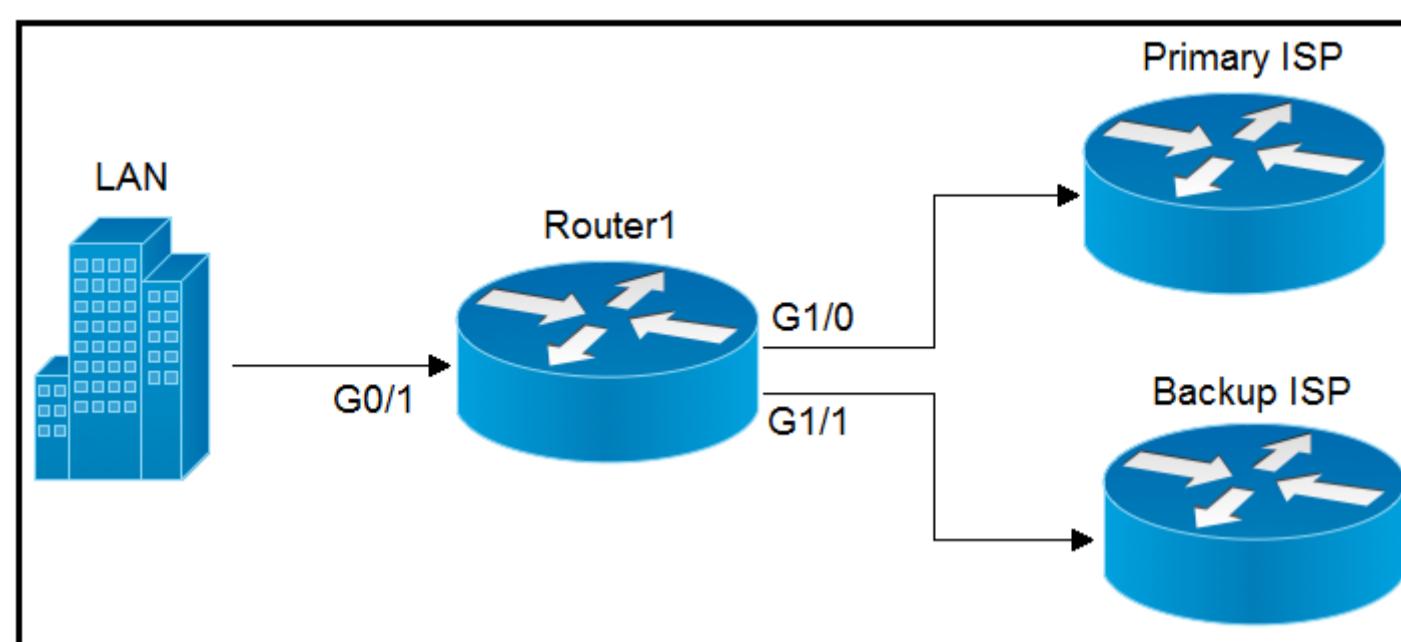
Necessary command "ipv6 unicast-routing" for IPv6 routing, with that we have already eliminated from the beginning the letter "A" and "C" that do not have. Without this command, the IPv6 Routing Table is not created.

upvoted 1 times

FALARASTA 1 month, 1 week ago

Stupidly worded answers...nkt!
upvoted 1 times

 **Dutch012** 2 months, 4 weeks ago
the answer fu.cks
upvoted 2 times



Refer to the exhibit. A company is configuring a failover plan and must implement the default routes in such a way that a floating static route will assume traffic forwarding when the primary link goes down. Which primary route configuration must be used?

- A. ip route 0.0.0.0 0.0.0.0 192.168.0.2
- B. ip route 0.0.0.0 0.0.0.0 192.168.0.2 GigabitEthernet1/0
- C. ip route 0.0.0.0 0.0.0.0 192.168.0.2 floating
- D. ip route 0.0.0.0 0.0.0.0 192.168.0.2 tracked

Correct Answer: A

The primary route should use the default administrative distance, since the AD for static routes is 1.

Dutch012 Highly Voted 3 months, 2 weeks ago

Selected Answer: A

Not B, A is the answer.

a fully specified route is written like that
dest IP | interface | next-hop

upvoted 8 times

Ceruzka 2 months, 3 weeks ago

good point. First comes the outgoing intf than comes next hop-IP, not the other way !!

upvoted 1 times

TechJ Most Recent 5 days, 9 hours ago

100% A, if you really want B to be the correct answer,

it needs to be:

ip route 0.0.0.0 0.0.0.0 GigabitEthernet1/0 192.168.0.2

not:

ip route 0.0.0.0 0.0.0.0 192.168.0.2 GigabitEthernet1/0

notice the different?

upvoted 1 times

dropspable 2 weeks, 2 days ago

Selected Answer: A

(answer B is wrong)

Unlike IPv6, in IPv4 static routing configuration, for the next hop you either enter an IP Address of the neighboring interface or your local interface, BUT NEVER BOTH. Example:

R1(config)# ip route 192.168.20.0 255.255.255.0 10.12.0.2

Or

R1(config)# ip route 192.168.20.0 255.255.255.0 g0/0

upvoted 1 times

j1mlawton 3 months, 4 weeks ago

Selected Answer: B

Surely B as it asks for the primary route

upvoted 1 times

 **Naghini** 4 months, 3 weeks ago

Why not B?

upvoted 1 times

 **4aynick** 4 months, 3 weeks ago

g1/0 is primary

upvoted 1 times

Question #461

Topic 1

OSPF must be configured between routers R1 and R2. Which OSPF configuration must be applied to router R1 to avoid a DR/BDR election?

- A. router ospf 1 network 192.168.1.1 0.0.0.0 area 0 interface e1/1 ip address 192.168.1.1 255.255.255.252 ip ospf cost 0
- B. router ospf 1 network 192.168.1.1 0.0.0.0 area 0 hello interval 15 interface e1/1 ip address 192.168.1.1 255.255.255.252
- C. router ospf 1 network 192.168.1.1 0.0.0.0 area 0 interface e1/1 ip address 192.168.1.1 255.255.255.252 ip ospf network broadcast
- D. router ospf 1 network 192.168.1.1 0.0.0.0 area 0 interface e1/1 ip address 192.168.1.1 255.255.255.252 ip ospf network point-to-point

Correct Answer: D

 **motop9** Highly Voted  8 months ago

Point-to-point has no DR/BDR election.

upvoted 9 times

 **Stichy007** Most Recent  3 months, 2 weeks ago

D is correct

upvoted 1 times

 **SVN05** 4 months ago

It was close between A & D. A could have been the answer but cost doesn't affect DR/BDR. If it were "ip ospf priority 0" then yes it would not join DR/BDR election.

upvoted 3 times

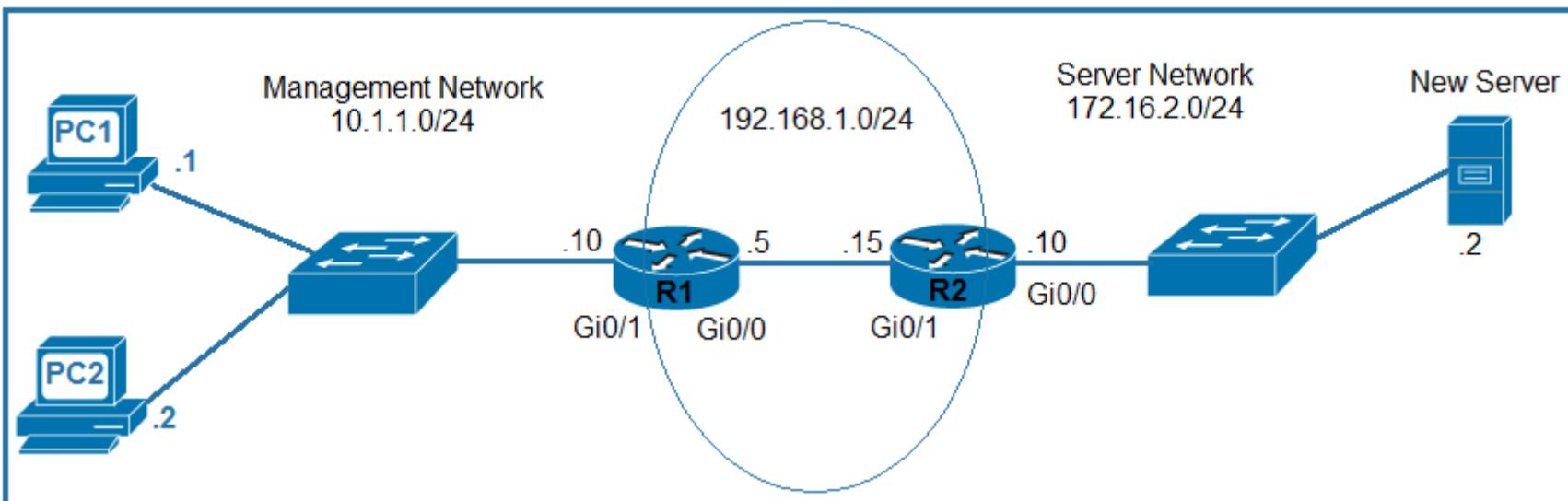
 **Panda_man** 6 months, 1 week ago

Selected Answer: D

D is good

upvoted 3 times

Question #462



Refer to the exhibit. An engineer is updating the R1 configuration to connect a new server to the management network. The PCs on the management network must be blocked from pinging the default gateway of the new server. Which command must be configured on R1 to complete the task?

- A. R1(config)#ip route 172.16.2.0 255.255.255.0 192.168.1.15
- B. R1(config)#ip route 172.16.2.2 255.255.255.248 gi0/1
- C. R1(config)#ip route 172.16.2.2 255.255.255.255 gi0/0
- D. R1(config)#ip route 172.16.2.0 255.255.255.0 192.168.1.5

Correct Answer: C

By specifying the outgoing interface and not the next hop IP address, the Management devices will be able to ping the new server, but not the default gateway of the server.

splashy 4 months, 3 weeks ago

Selected Answer: C

The fact that you specify a host route is the reason you cannot ping any other host than the server in that subnet. Not that you specified the egress interface instead of the next hop address.

I tried both scenarios in PT with a host route and they give exactly the same result, as to be expected.
upvoted 4 times

RougePotatoe 7 months, 1 week ago

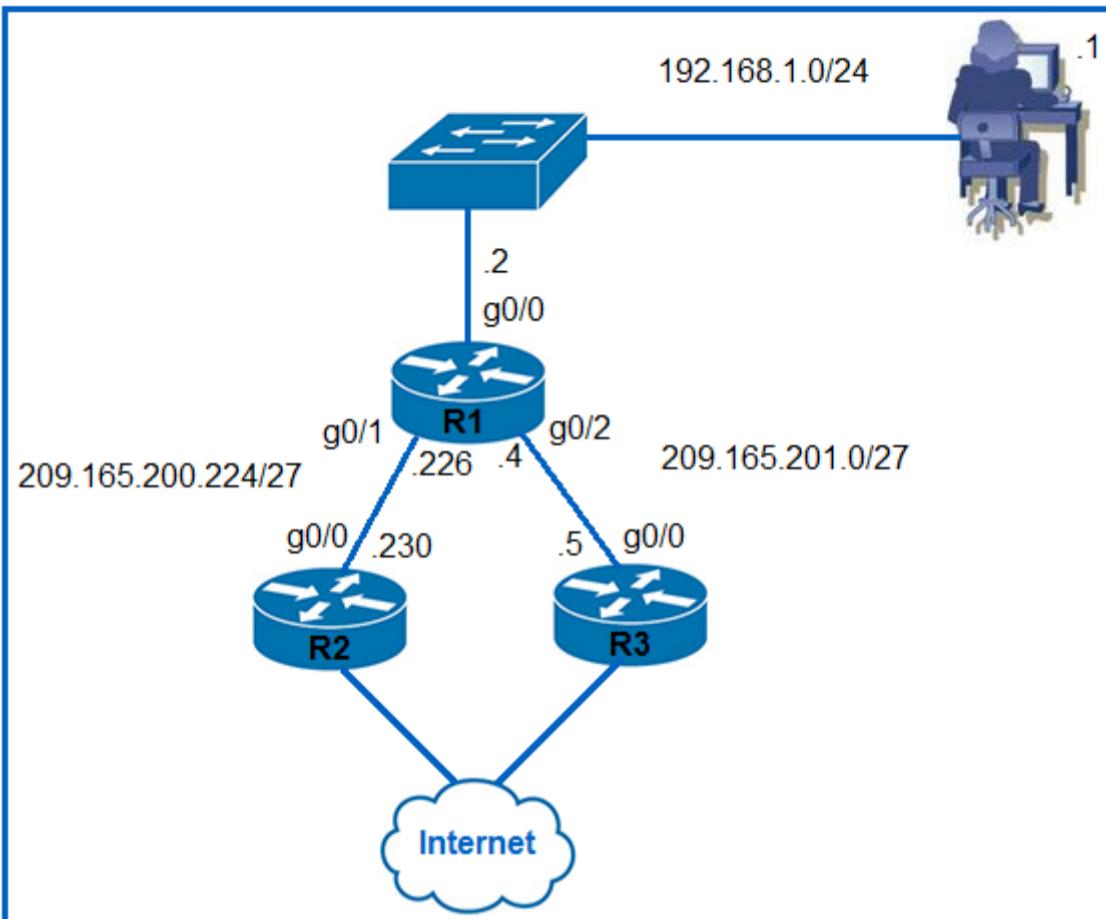
Selected Answer: C

While C is the right answer wouldn't the ideal configuration be ip route 172.16.2.2 255.255.255.255?

C is the right answer because it is a /32 host route so as long as the 172 number isn't advertised by OSPF or configured statically packets from R1 can not reach the 172 gateway.

upvoted 2 times

Question #463



Refer to the exhibit. Router R1 currently is configured to use R3 as the primary route to the internet, and the route uses the default administrative distance settings. A network engineer must configure R1 so that it uses R2 as a backup, but only if R3 goes down. Which command must the engineer configure on R1 so that it correctly uses R2 as a backup route, without changing the administrative distance configuration on the link to R3?

- A. ip route 0.0.0.0 0.0.0.0 209.165.201.5.10
- B. ip route 0.0.0.0 0.0.0.0 g0/1 1
- C. ip route 0.0.0.0 0.0.0.0 209.165.200.226 1
- D. ip route 0.0.0.0 0.0.0.0 g0/1 6

Correct Answer: D

Vikramaditya_J 1 month ago

Selected Answer: D

Important thing to take note of is, the syntax for creating a default static route or connected static route uses the exit interface or output interface of source device (that's the interface on which all packets are sent to the destination network). Some of us may confuse and think to use Gi0/0 interface on R3 in the command, but the interface to configure the backup route here must use the exit interface on the R1 itself i.e. Gi0/1. So command will be:

ip route 0.0.0.0 0.0.0.0 g0/1 6 ("6" here is AD that's greater than the connected route's AD i.e., 1)

upvoted 4 times

BeautifulSmile 2 weeks, 5 days ago

Thank you so much Vikramaditya_J. so educating.

upvoted 1 times

melos 7 months, 1 week ago

"D" es correcto. Porque la AD por defecto es "1". Por lo tanto quien tiene el AD mas alto es "D" en este caso es "6". De esta forma queda configurada la ruta de respaldo

upvoted 3 times

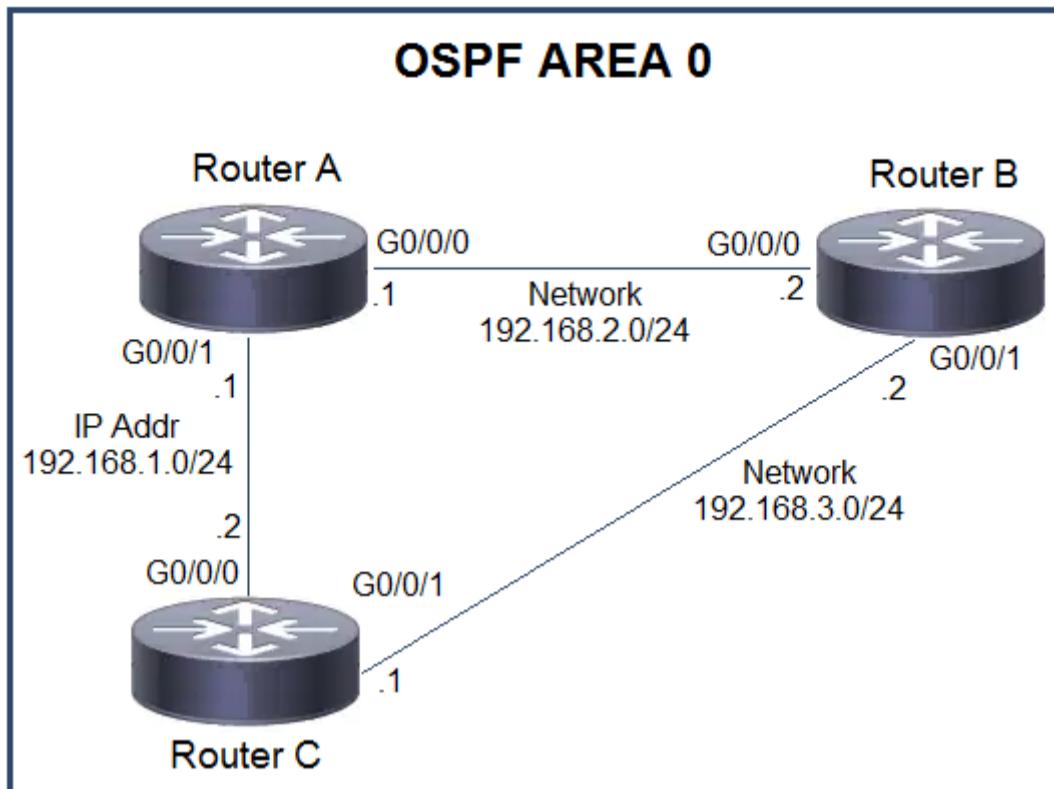
Dutch012 2 months, 4 weeks ago

gracias love

upvoted 1 times

Question #464

Topic 1



Refer to the exhibit. Which action must be taken to ensure that router A is elected as the DR for OSPF area 0?

- A. Configure the router A interfaces with the highest OSPF priority value within the area
- B. Configure router B and router C as OSPF neighbors of router A
- C. Configure the OSPF priority on router A with the lowest value between the three routers.
- D. Configure router A with a fixed OSPF router ID

Correct Answer: A

john1247 4 days, 17 hours ago

Isn't C the answer? Why is A the answer?

upvoted 1 times

jonathan126 1 month, 1 week ago

Answer is correct

upvoted 3 times

Question #465

Topic 1

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?

- A. F0/10
- B. F0/11
- C. F0/12
- D. F0/1

Correct Answer: B

✉ **yousfs1212** 1 month ago

Selected Answer: B

Of course B because the router first choose EIGRP Instead OSPF , then , because all prefix length is equal , router choose to lowest AD upvoted 2 times

✉ **Stichy007** 3 months, 2 weeks ago

Selected Answer: B

metric is lower than 1441
upvoted 2 times

✉ **SVN05** 4 months ago

Dear Danaah,
When installing to routing table is AD and Metric Only
When choosing a route from routing table is Longest Prefix, AD and Metric can play a role

Since the question stats based on routing table means now we have to consider 3 factors(longest prefix, AD and Metric) however all are /24 so longest prefix is out of the question. Now comes the tricky part

If there are 2 or more routes to the same destination using different protocol is AD
If there are 2 or more routes to the same destination using same protocol is Metric

In this case example, OSPF route via F0/13 and EIGRP route via F0/11 are viable options however they ask to choose 1 so in the answer sheet is EIGRP route via F0/11 available thus being the answer.

upvoted 1 times

✉ **kobisiva** 4 months ago

metric looks confuse A & C 1441 B 144
upvoted 1 times

✉ **Panda_man** 6 months, 1 week ago

Selected Answer: B

lowest metric is correct
upvoted 2 times

✉ **DANAAH** 5 months, 1 week ago

could you please explain how to solve this question in detail please?
upvoted 1 times

✉ **joseangelatm** 5 months, 1 week ago

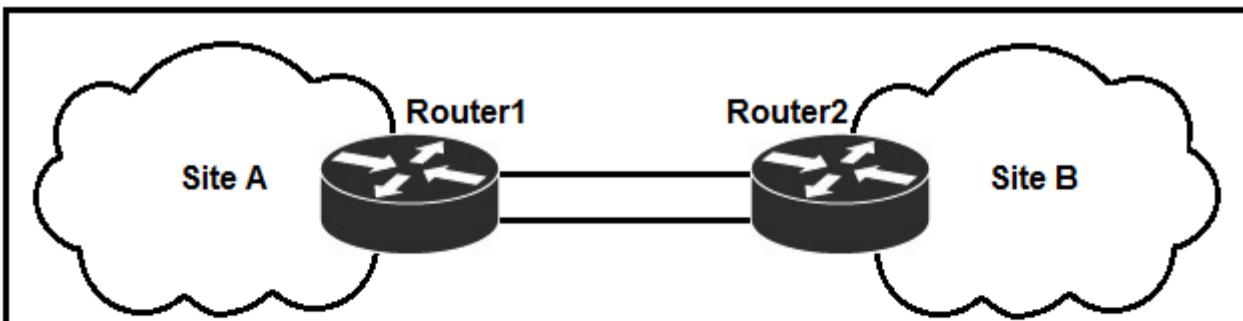
Its easy, first find the lowest AD then the lowest metric.
upvoted 2 times

✉ **motop9** 8 months ago

B. Metric is Small.
upvoted 4 times

Question #466

Topic 1



```
Roter2#show ip route
```

Gateway of last resort is not set

- 10.0.0.0/8 is variably subnetted, 4 subnets, 2 masks
- C 10.10.10.8/30 is directly connected, FastEthernet0/2
- C 10.10.10.12/30 is directly connected, FastEthernet0/1
- O 10.10.13.0/25 [110/11] via 10.10.10.9, 00:00:03, FastEthernet0/2
[110/11] via 10.10.10.13, 00:00:03, FastEthernet0/1
- C 10.10.10.4/30 is directly connected, FastEthernet0/2

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?

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

Correct Answer: D

DoBronx Highly Voted 7 months, 1 week ago

Selected Answer: D

10.10.13.0/25 encompasses .1-.127 and there is no default route configured so answer given is correct
upvoted 12 times

MarioE 1 month, 1 week ago

Yes sir

upvoted 1 times

NICE_ANSWERS 5 days, 8 hours ago

I think it's 0-127... Which is 128 addresses in total...usable ones are 1-126... Please correct me if i'm wrong
upvoted 1 times

Stichy007 Most Recent 3 months, 2 weeks ago

Selected Answer: D

network 10.10.13.128/25, not contained in any of the routing table entries.

upvoted 4 times

Question #467

Topic 1

```
R1#show run
!
router ospf 1
auto-cost reference-bandwidth 100000
!
interface GigabitEthernet0/0
bandwidth 10000000
!
interface GigabitEthernet0/1
bandwidth 100000000
!
interface GigabitEthernet0/2
ip ospf cost 100
!
interface GigabitEthernet0/3
ip ospf cost 1000
end
```

Refer to the exhibit. Router R1 resides in OSPF Area 0. After updating the R1 configuration to influence the paths that it will use to direct traffic, an engineer verified that each of the four Gigabit interfaces has the same route to 10 10.0.0/16.

Which interface will R1 choose to send traffic to reach the route?

- A. GigabitEthernet0/0
- B. GigabitEthernet0/1
- C. GigabitEthernet0/2
- D. GigabitEthernet0/3

Correct Answer: B

 **splashy** Highly Voted  8 months, 1 week ago

Selected Answer: B

ref BW 100000 MB

ref BW BW

G0/0

100000MB divided by 10000MB (or 10000000KB) = 10 cost

G0/1

100000MB divided by 10000MB (or 10000000KB) = 1 cost

upvoted 11 times

 **g_mindset** Highly Voted  9 months ago

Selected Answer: A

Answer should be A.

Ref-bandwidth / bandwidth = ospf cost

note that bandwidth is in kilobits per second, so you need to convert to Mbs to get the accurate cost.

upvoted 5 times

 **Phonon** Most Recent  4 months, 3 weeks ago

This is a trick question, both G0/0 and G0/1 have a cost of 1

In OSPF if the interface has a higher bandwidth than the cost metric it will be 1.

The answer is indeterminate between A and B

upvoted 1 times

 **Netcmd** 6 months, 3 weeks ago

Selected Answer: B

it cannot be A as B has a higher Bandwidth

upvoted 1 times

 **Customexit** 8 months, 1 week ago

to expand to what g_mindset said:
OSPF's metric is called "cost".

When you change an interface's bandwidth, it's in kilobits

```
#R1(config-if)#bandwidth ?  
<1-10000000> Bandwidth in kilobits
```

It's in kilobits.

We can tell G0/0 and G0/1's bandwidth were manually altered because 'auto-cost reference bandwidth' was set to 100000 (it's different).

A router's cost reference bandwidth is default 100mbps.

This is what it looks like when you change the auto-cost reference bandwidth:

```
Router(config-router)#auto-cost reference-bandwidth ?  
<1-4294967> The reference bandwidth in terms of Mbits per second
```

It's in Mbits per second.

Reference-Bandwidth(Mbps) / Interface Bandwidth(Mbps) = OSPF cost

100000000kbps / 1000(Mbps (intG0/0's)) = 10000

10000 / 1000 = 10

Interface GigabitEthernet0/0 has a cost of 10.

upvoted 3 times

 **Customexit** 7 months, 3 weeks ago

Disregard my answer, it is B G0/1.

I miscounted the 0's in the auto-cost reference bandwidth. Refer to splashy's comment.

upvoted 2 times

 **nicombe** 8 months, 2 weeks ago

Selected Answer: B

B is correct because int g0/1 has a higher bandwidth configured than int g0/0 and therefore a lower cost.

upvoted 4 times

Question #468

Topic 1

```
R1# show ip route | begin gateway
Gateway of last resort is 209.165.200.254 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 209.165.200.254, Serial0/0/1
    is directly connected, Serial0/0/1
  172.16.0.0/16 is variably subnetted, 3 subnets, 2 masks
C    172.16.1.0/24 is directly connected, FastEthernet0/0
L    172.16.1.1/32 is directly connected, FastEthernet0/0
R    172.16.2.0/24 [120/2] via 297.165.200.250, 00:00:25, Serial0/0/0
O    192.168.1.0/24 [110/4437] via 207.165.200.254, 00:00:17, Serial0/0/1
D    192.168.2.0/24 [90/84437] via 207.165.200.254, 00:00:15, Serial0/0/1
    207.165.200.0/24 is variably subnetted, 5 subnets, 2 masks
S    207.165.200.244/30 [1/1] via 207.165.200.254, Serial0/0/1
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. Which network prefix was learned via EIGRP?

- A. 172.160.0/16
- B. 207.165.200.0/24
- C. 192.168.1.0/24
- D. 192.168.2.0/24

Correct Answer: D

 **Eyad_Alotaibi** 6 months ago

D = EIGRP
C = connected
S = static
I = IGRP
R = RIP
B = BGP
O = OSPF
E = EGP
i = IS-IS
* = default route
upvoted 4 times

 **Panda_man** 6 months, 1 week ago

Selected Answer: D

D correct
upvoted 1 times

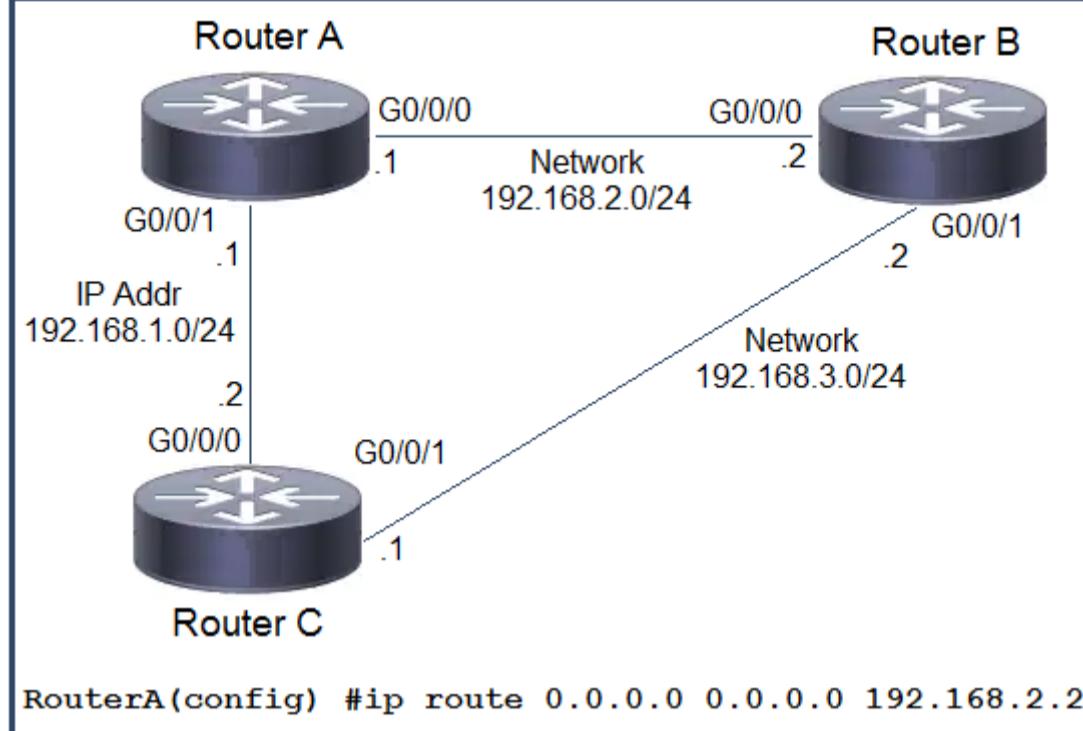
 **ShehuUsman** 8 months, 3 weeks ago

D is correct the AD of eigrp is 90
upvoted 1 times

 **netzwork** 8 months ago

You are right, but also on the IP Route table, you can see the "D" on the left. Dynamically learned via EIGRP
upvoted 2 times

Question #469



Refer to the exhibit. Which command must be issued to enable a floating static default route on router A?

- A. ip route 0.0.0.0 0.0.0.0 192.168.1.2 10
- B. ip route 0.0.0.0 0.0.0.0 192.168.1.2
- C. ip default-gateway 192.168.2.1
- D. ip route 0.0.0.0 0.0.0.0 192.168.2.1 10

Correct Answer: A

Customexit Highly Voted 8 months, 1 week ago

Selected Answer: A

A & D are the only answers with a configured distance metric (10).
A floating static route is meant to be a backup.

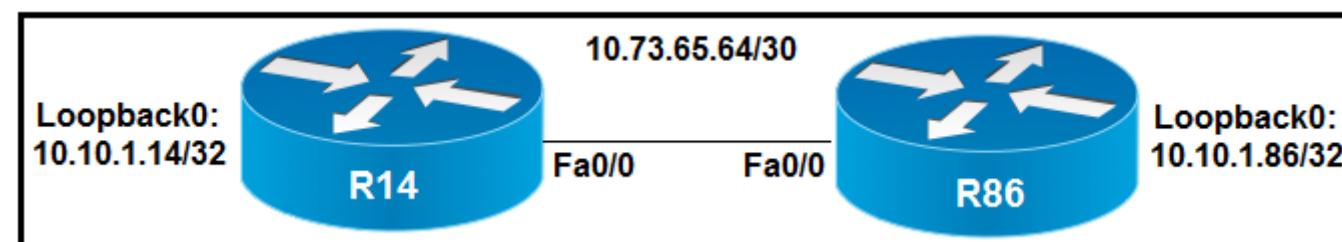
The current route has a route traveling through Router B.
So it would make sense we have our backup (floating static route) going through Router C with a metric higher than a default route (1).
upvoted 10 times

ABCenergo Highly Voted 4 months ago

D is wrong because address is 192.168.2.2 not 2.1
upvoted 5 times

Stichy007 3 months, 2 weeks ago

brilliant observation.
upvoted 1 times



Refer to the exhibit. Which configuration allows routers R14 and R86 to form an OSPFv2 adjacency while acting as a central point for exchanging OSPF information between routers?

- A. R14# interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf network broadcast ip ospf priority 0 ip mtu 1400 router ospf 10 router-id 10.10.1.14 network 10.10.1.14 0.0.0.0 area0 network 10.73.65.64 0.0.0.3 area0 R86# interface Loopback0 ip address 10.10.1.86 255.255.255.255 interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip ospf network broadcast ip mtu 1500 router ospf 10 router-id 10.10.1.86 network 10.10.1.86 0.0.0.0 area 0 network 10.73.65.64 0.0.0.3 area 0
- B. R14# interface Loopback0 ip ospf 10 area 0 interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf network broadcast ip ospf 10 area 0 ip mtu 1500 router ospf 10 ip ospf priority 255 router-id 10.10.1.14 R86# interface Loopback0 ip ospf 10 area 0 interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip ospf network broadcast ip ospf 10 area 0 ip mtu 1500 router ospf 10 router-id 10.10.1.86
- C. R14# interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf network broadcast ip ospf priority 255 ip mtu 1500 router ospf 10 router-id 10.10.1.14 network 10.10.1.14 0.0.0.0 area0 network 10.73.65.64 0.0.0.3 area0 R86# interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip ospf network broadcast ip mtu 1500 router ospf 10 router-id 10.10.1.86 network 10.10.1.86 0.0.0.0 area 0 network 10.73.65.64 0.0.0.3 area 0
- D. R14# interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf network broadcast ip ospf priority 255 ip mtu 1500 router ospf 10 router-id 10.10.1.14 network 10.10.1.14 0.0.0.0 area0 network 10.73.65.64 0.0.0.3 area0 R86# interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip ospf network broadcast ip mtu 1400 router ospf 10 router-id 10.10.1.86 network 10.10.1.86 0.0.0.0 area 0 network 10.73.65.64 0.0.0.3 area 0

Correct Answer: C

Sutokuto Highly Voted 8 months, 3 weeks ago

Anybody else just want to keep scrolling when you see answer choices like this?
upvoted 58 times

Dhruv3390 Highly Voted 4 months, 2 weeks ago

Its C. Answer is straight forward, 1st I noticed mtu are mismatched in A and D, so we will eliminate them, in option B, Network command is missing so, C os is more appropriate.
upvoted 10 times

PacketFapper Most Recent 1 week, 1 day ago

How is B incorrect?
upvoted 1 times

dropspablo 2 weeks, 1 day ago

Selected Answer: C

B. R14# interface Loopback0
* ip ospf 10 area 0
* interface FastEthernet0/0
* ip address 10.73.65.65 255.255.255.252
* ip ospf network broadcast
* ip ospf 10 area 0
* ip mtu 1500
* router ospf 10
* ip ospf priority 255 (**WRONG**)
* router-id 10.10.1.14
* R86# interface Loopback0
* ip ospf 10 area 0
* interface FastEthernet0/0
* ip address 10.73.65.66 255.255.255.252
* ip ospf network broadcast
* ip ospf 10 area 0
* ip mtu 1500
* router ospf 10
* router-id 10.10.1.86

upvoted 1 times

 **dropspablo** 2 weeks, 1 day ago

C. RESPOSTA CERTA)

C. R14# interface FastEthernet0/0
* ip address 10.73.65.65 255.255.255.252
* ip ospf network broadcast
* ip ospf priority 255
* ip mtu 1500
* router ospf 10
* router-id 10.10.1.14
* network 10.10.1.14 0.0.0.0 area0
* network 10.73.65.64 0.0.0.3 area0
* R86# interface FastEthernet0/0
* ip address 10.73.65.66 255.255.255.252
* ip ospf network broadcast
* ip mtu 1500
* router ospf 10
* router-id 10.10.1.86
* network 10.10.1.86 0.0.0.0 area 0
* network 10.73.65.64 0.0.0.3 area 0

upvoted 1 times

 **Drader** 2 months, 2 weeks ago

i swear they could at least format this such that it's easier to read

upvoted 4 times

 **daddydagoth** 3 months, 2 weeks ago

Holy hell, it's C but the amount of text makes me wanna bash my head into the keyboard.

upvoted 4 times

 **McNov14** 6 months, 3 weeks ago

To set the priority of an interface, use the command ip ospf priority value, where value is 0 to 255

upvoted 2 times

 **Ghugs** 8 months, 1 week ago

Why is B incorrect?

upvoted 1 times

 **Ghugs** 8 months, 1 week ago

Nvm I see it, the ip command under router ospf

upvoted 1 times

 **xWhosNext** 5 months, 3 weeks ago

In case someone is still confused like I was.

The command ip ospf priority should be done in interface configuration mode and not router configuration mode.

Correct me if I am wrong.

Correct me if I am wrong.

upvoted 2 times

 **creaguy** 8 months, 1 week ago

Why can't they put these configuration scripts in proper format? Line per line. Is it actually like this on the exam ?

upvoted 5 times

 **dmaster42** 8 months, 2 weeks ago

Many questions like this are present in this 200-301 exam, be well prepared, if I remember correctly this was one of them.

upvoted 3 times

 **osuzu** 9 months ago

c and d are same commands?

upvoted 1 times

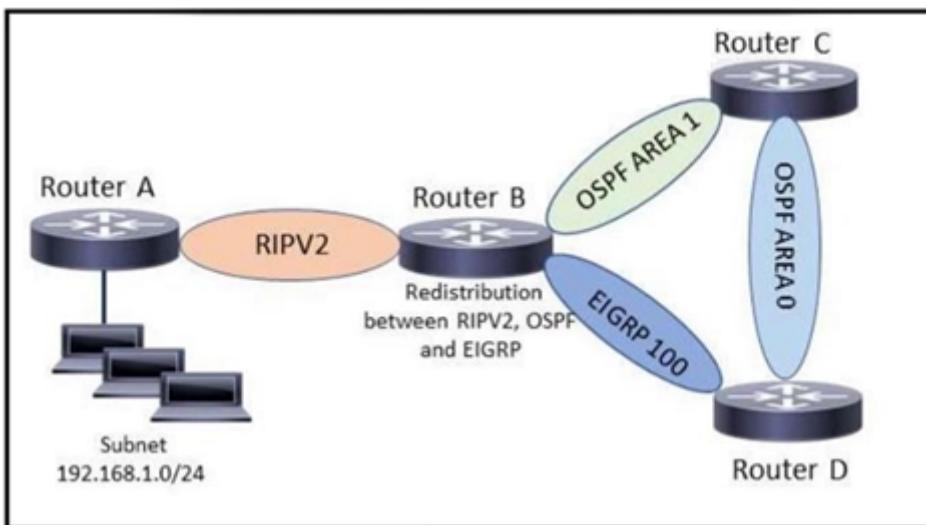
 **MikD4016** 9 months ago

The last MTU change (1400-1500)

upvoted 2 times

Question #471

Topic 1



Refer to the exhibit. When an administrator executes the show ip route command on router D to view its routing table, which value is displayed for the administrative distance for the route to network 192.168 1.0?

- A. 110
- B. 120
- C. 170
- D. 90

Correct Answer: A

EngrRex Highly Voted 8 months, 1 week ago

A is correct because when EIGRP is redistributed the new AD will be 170 (external EIGRP) making OSPF the lowest AD available. Redistribution topic is in CCNP

upvoted 8 times

Ceruzka 2 months, 3 weeks ago

I agree with EngrRex and "A" is correct and definitely it's CCNP topic.

upvoted 2 times

dropspable Most Recent 2 weeks ago

Selected Answer: A

Letter A is correct, it's simple:

If you test in Packet Tracer, you will see that every route redistributed from another protocol (interface X) on the router to (interface Y) OSPF, appears ON THE NEXT router as "O E2", but the administrative distance remains the same "AD 110".

Unlike EIGRP - when a router receives a redistributed route from another protocol (in this case RIPV2), it will appear as an EIGRP route with the initials "D EX", but its administrative distance will no longer be 90, in this case it will appear as "AD 170".

In the question we have both, AD 110 (O E2) or AD 170 (D EX) for the same destination network 192.168 1.0. AD 110 will be the winner and will appear in the routing table of router D... AD 170 will be a backup and will only be displayed if the first one fails.

upvoted 1 times

UDITH_ins8659 2 weeks, 5 days ago

can you explain me correct answer and explain

upvoted 1 times

Panda_man 6 months, 1 week ago

Selected Answer: A

would go with A

upvoted 3 times

rictorres333 8 months, 1 week ago

Selected Answer: C

I tried on my virtual environment. The net 192.168.1.0 comes by RIPV2 to Router B with redistribution between routing protocols, it means that 192.168.1.0 go into EIGRP as external route and go in to Router D as D EX with AD 170.

upvoted 1 times

splashy 8 months, 3 weeks ago

Selected Answer: D

With the knowledge of CCNA which does not include route redistribution the answer should be D

I have read for about an hour and a half about route redistribution between ripv2 & ospf and ripv2 & eigrp on Cisco. And if the redistribution is correctly configured it should also be D.

upvoted 3 times

 **splashy** 7 months, 3 weeks ago

Tried it in PT and the destination shows up as a Dex route with AD 170 so OSPF does win...

A

upvoted 4 times

 **rictorres333** 8 months, 3 weeks ago

It can be because of it comes redistributed and become a external EIGRP AD 170?

upvoted 3 times

 **mrgreat** 8 months, 2 weeks ago

Its correct. See <https://community.cisco.com/t5/switching/eigrp-ad-of-redistributed-routes/td-p/1602887>. Answer is A

upvoted 2 times

 **guynetwork** 8 months, 4 weeks ago

Selected Answer: D

It is D

upvoted 1 times

 **g_mindset** 9 months ago

Selected Answer: D

Someone tell me why the answer is not D here?

upvoted 1 times

 **BI1024** 9 months ago

Should be D, no? Eigrp AD

upvoted 1 times

 **melmiosis** 7 months ago

When redistribution is configured on EIGRP (which is the case here), we get an EXTERNAL EIGRP, which has an AD of 170 thus higher AD than OSPF

upvoted 1 times

 **osuzu** 9 months ago

why...? OSPF?

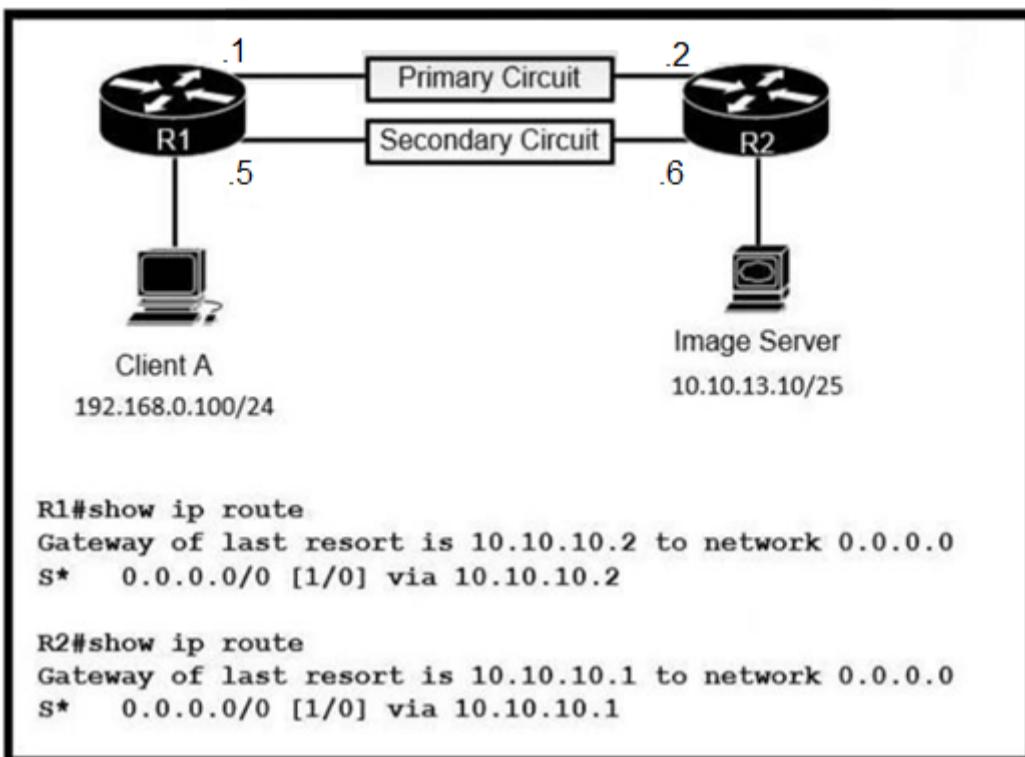
upvoted 2 times

 **THEKYPTONIAN** 8 months ago

EIGRP with redistribute is 170

upvoted 1 times

Question #472



Refer to the exhibit. Routers R1 and R2 have been configured with their respective LAN interfaces. The two circuits are operational and reachable across WAN.

Which command set establishes failover redundancy if the primary circuit goes down?

- A. R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.6 R2(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.5
- B. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.2 R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.1
- C. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.6 R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.5
- D. R1(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.6 2 R2(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.5 2

Correct Answer: D

StreZ 4 months, 1 week ago

Why not C?

upvoted 1 times

Peter_panda 2 months ago

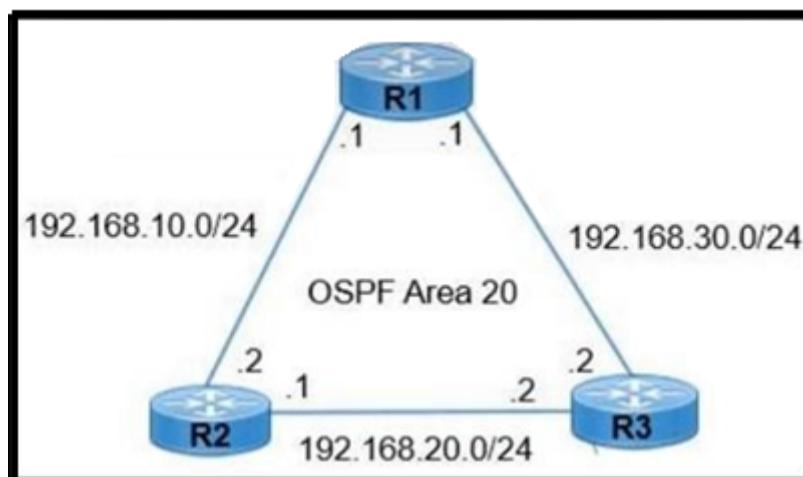
Because it is not a failover route, but a permanent route (traffic will pass through this route even if the default route is functional)
upvoted 3 times

Bugatti 4 months, 1 week ago

We need to configure secondary gateway of last resort. D, is the only one with modified AD value
upvoted 2 times

Question #473

Topic 1



Refer to the exhibit. R1 learns all routes via OSPF. Which command configures a backup static route on R1 to reach the 192.168.20 0/24 network via R3?

- A. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 111
- B. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2 90
- C. R1(config)#ip route 192.168.20.0 255.255.0.0 192.168.30.2
- D. R1(config)#ip route 192.168.20.0 255.255.255.0 192.168.30.2

Correct Answer: A

✉ **BI1024** 9 months ago

B is correct as well.

Why choose A and not B?

upvoted 2 times

✉ **PaulIII** 8 months, 3 weeks ago

I think it's because of the "back-up static route", if everything is learned via OSPF (110), it needs a bigger AD for a back-up one, so 111. This is the way I think, at least.

upvoted 23 times

✉ **shumps** 3 weeks, 1 day ago

You spot on!!

upvoted 1 times

✉ **FALARASTA** 1 month, 1 week ago

thats true

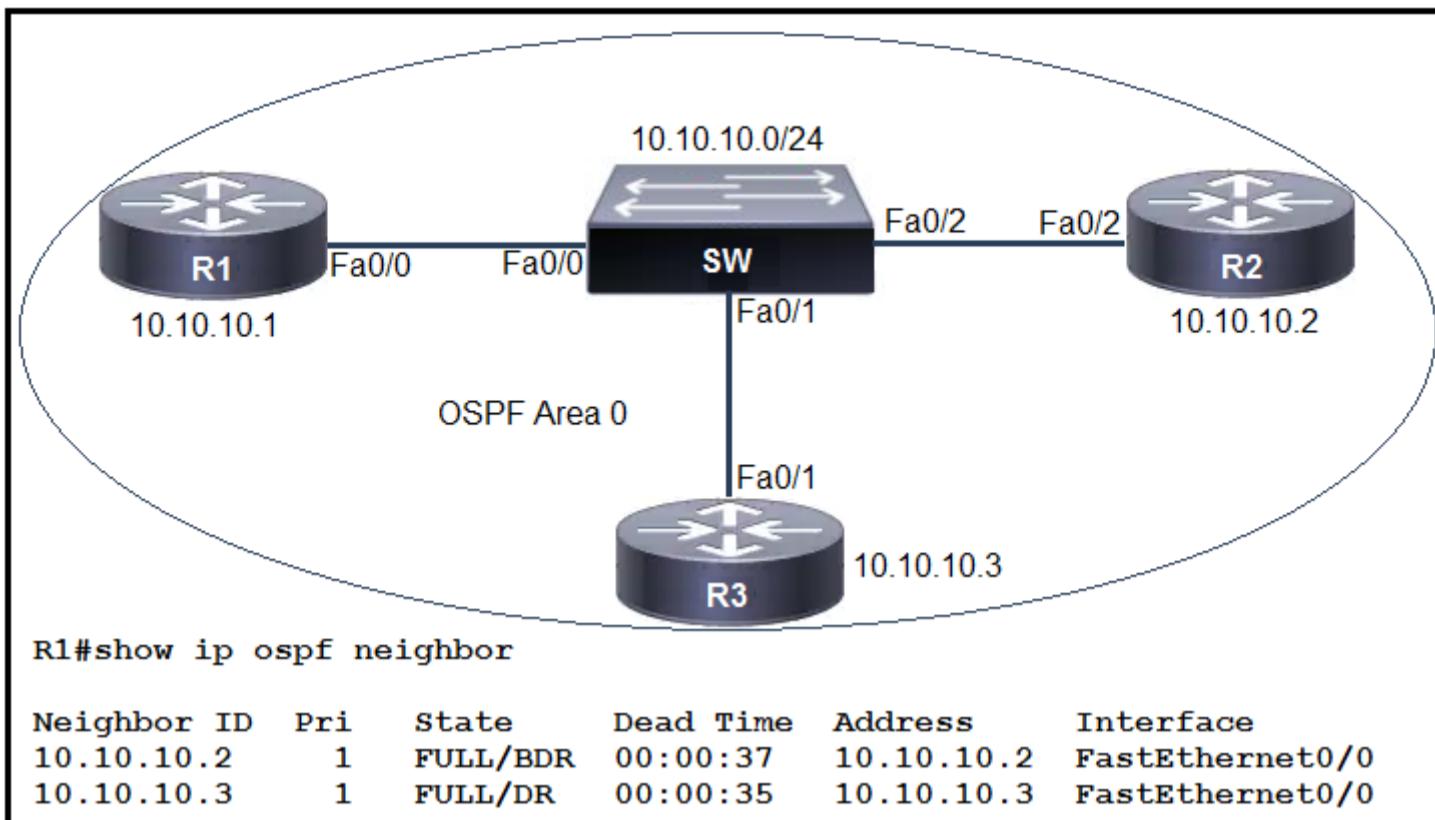
upvoted 2 times

✉ **nicombe** 8 months, 2 weeks ago

This is the way

upvoted 6 times

Question #474



Refer to the exhibit. R1 has taken the DROther role in the OSPF DR/BDR election process. Which configuration must an engineer implement so that R1 is elected as the DR?

- A. R1(config)#interface FastEthernet 0/0 R1(config-if)#ip ospf priority 1 R1#clear ip ospf process
- B. R3(config)#interface FastEthernet 0/1 R3(config-if)#ip ospf priority 200 R3#clear ip ospf process
- C. R2(config)#interface FastEthernet 0/2 R2(config-if)#ip ospf priority 1 R2#clear ip ospf process
- D. R1(config)#interface FastEthernet 0/0 R1(config-if)#ip ospf priority 200 R1#clear ip ospf process

Correct Answer: D

RidzV 3 months, 2 weeks ago

We want R1 to be DR here. Considering all 3 routers are set to use default values for OSPF priority (i.e. value 1) and selection has happened on the basis of highest router ID (highest IP address of its interface), R1 is currently selected as DROther. To make it DR, it needs to have the highest priority. Hence correct answer is D from the given options.

Reason: On LANs, DR and BDR have to be elected. Two rules are used to elect a DR and BDR:

router with the highest OSPF priority will become a DR. By default, all routers have a priority of 1.

if there is a tie, a router with the highest router ID wins the election. The router with the second highest OSPF priority or router ID will become a BDR.

<https://study-ccna.com/designated-backup-designated-router/>
upvoted 2 times

jini4200 3 months, 2 weeks ago

is it correct?? could someone explain it to me?...? why is it not B?
upvoted 1 times

FALARASTA 1 month, 1 week ago

The interface used is also wrong
upvoted 1 times

soRwatches 2 months, 2 weeks ago

D is correct, configure the R1 interface ospf priority to become DR. B is incorrect, the question is to implement the R1 as a DR.
upvoted 2 times

Question #475

Topic 1

Which SDN plane forwards user-generated traffic?

- A. Management plane
- B. Control plane
- C. Policy plane
- D. Data plane

Correct Answer: D

Question #476

Topic 1

An application in the network is being scaled up from 300 servers to 600. Each server requires 3 network connections to support production, backup, and management traffic. Each connection resides on a different subnet. The router configuration for the production network must be configured first using a subnet in the 10.0.0.0/8 network. Which command must be configured on the interface of the router to accommodate the requirements and limit wasted IP address space?

- A. ip address 10.10.10.1 255.255.254.0
- B. ip address 10.10.10.1 255.255.252.0
- C. ip address 10.10.10.1 255.255.240.0
- D. ip address 10.10.10.1 255.255.255.240

Correct Answer: A

 **splashy** Highly Voted 8 months, 3 weeks ago

Selected Answer: B

We need to be able to put 600 hosts 3 different dedicated subnets.

So not 300 existing servers in one subnet and 300 new servers in the next subnet, belonging to production only for example. The subnets must be dedicated.

/22 is the only solution for each subnet.
upvoted 13 times

 **VictorCisco** 2 months, 1 week ago

600 servers, 3 connections on EACH, so 1600 ip are needed. /22 = 1022 ip.
answer is C.
upvoted 2 times

 **Murphy2022** 8 months ago

10.0.0.0 /23
10.0.2.0 /23
10.0.4.0 /23
?
upvoted 1 times

 **RougePotatoe** 6 months, 2 weeks ago

/23 = 510 hosts
/22 = 1020 hosts
3 ip addresses, each on different vlan x 300 servers = 900 ip addresses

IMO this question makes no sense since it asks you to configure an interface on the router. Configuring a .1 will not allow routing for the requested 3 distinct vlan groups since you need a default gateway for each vlan. You would have to configure sub interfaces on this router to enable routing to the 3 distinct vlans.

upvoted 1 times

 **RougePotatoe** 6 months, 2 weeks ago

After some more thought A is starting to make more sense. Remember we are being asked to subnet the /8 network. /22 only provides us with 1 subnet and there is no way you can slice /22 into 3 subnets that support 300 hosts each.

This question is still worded horribly though since A only provides the ip address of only one of the vlan's gateway.
upvoted 2 times

 **JohnJacobJr** 6 months, 2 weeks ago

/8 is a class A address

255.255.254.0 = 32768 subnets
255.255.252.0 = 16384 subnets
255.255.240.0 = 4096 subnets
255.255.255.240 = 16 subnets

We need to accommodate 3 subnets of 600, so we need 10 host bits. 255.255.252.0 gives us exactly 10 host bits so the answer is B.
upvoted 2 times

 **creaguy** Highly Voted 8 months, 1 week ago

Selected Answer: A

300 additional server with 3 connections = 900 connects
each connection will have its own subnet = 3 subnets
900 connections divided by 3 subnets = 300 connections per subnet

/24 = 254 connection/ip's
 /23 = 510 connections/ip's

/23 = 255.255.254.0

So A is the correct answer

upvoted 5 times

 **dropspablo** Most Recent 2 weeks ago

Selected Answer: A

The question asks to add 300 hosts in three subnets, it doesn't make sense to mess with the settings of the servers that already exist (including SWs, Servers, and the whole network). In the case he asked to segment without waste (different from summarizing routes), that is, he would need to deliver to sub-interfaces (router-on-stick) or SVIs (SW L3), then the letter A 10.10.10.1 255.255.254.0 (/23) is correct, for the "Production Network" 10.10.10.0 - 10.10.11.255 (512-2 Hosts) would serve the additional 300 hosts. Example 10.10.12.0/23 for "Backup" and 10.10.14.0/23 for "Management"... on sub-interfaces or SVIs (SW L3).

upvoted 1 times

 **Vikramaditya_J** 3 weeks, 6 days ago

Selected Answer: B

There are already 300 servers divided in 3 subnets. The requirement here is to take up the number of servers from 300 to 600 i.e. increase it by "300" and each of those new 300 servers will need 3 different subnets. Therefore, the requirement is to have 3 new subnets and 900 (300 server x 3 subnets) IP addresses. Only /22 (255.255.252.0) fulfill this requirement by giving us 1024 IP addresses in each subnet.

upvoted 1 times

 **daddydagoth** 3 months, 2 weeks ago

Selected Answer: B

The answers is B.

upvoted 1 times

 **Sdiego** 4 months, 2 weeks ago

Selected Answer: B

/23 can holds 500 hosts aprox, /22 reaches 1000 hosts. B is correct

upvoted 1 times

 **Shansab** 5 months, 2 weeks ago

Selected Answer: B

The question is a little bit tricky. The servers increased from 300 to 600 and each server needs three connections with different subnets, so in this, if we consider /23 we will have only 510 usable IPs, so we should consider /22 (1022) to fulfill the requirement.

upvoted 2 times

 **tui9** 5 months, 2 weeks ago

But the config is for the production subnet, so you can disregard the other 2 subnets. 300 new servers = /23 (510 hosts) to accommodate 300 server hosts. The least possible for this subnet.

upvoted 1 times

 **tui9** 5 months, 2 weeks ago

Actually, it would be 510 per subnet. Still fine.

upvoted 1 times

 **Yadarsh** 5 months, 3 weeks ago

Selected Answer: B

Answer B

upvoted 1 times

 **RougePotatoe** 6 months, 2 weeks ago

Selected Answer: A

This question is worded horribly and makes no sense to begin with since you need multiple default gateways for each subnet. There is no way to configure 1 interface and allow routing to all the subnets you would need to create multiple sub interfaces. Remember you can't route to multiple /in-between vlans, IE subnets, without a router configured with sub interfaces or a L3 switch with SVIs because each vlan is their own network.

upvoted 2 times

 **RougePotatoe** 6 months, 2 weeks ago

Assuming this question is asking us to create 3 subnets that can support 300 hosts each. The only address that can do that efficiently is /23 because /22, while yielding 900 required addresses, cannot be subnetted into 3 vlans that support 300 hosts since /22 = 1022 hosts while /23 = 510 hosts. Needless to say you can only fit 510 into 1022 twice meaning only 2 vlans can be created. Answer A will give us the IP address of 1 of the sub interfaces that would need to be configured. If you are caught up on the last sentence of the question read the above paragraph.

upvoted 2 times

 **dropspablo** 2 weeks ago

RougePotatoe is right, even if we use a summarized route 10.0.0.0/22 it would not serve 3 subnets with 300 each later with VLSM, at most one with 510 host and two with 254 each. Or two of 510 hosts.

(I drew it below, please note without the translation so as not to lose the format.)

Example:

Summary Routes 10.0.0.0/22 (from 10.0.0.0 To 10.0.3.255 [1024-2 hosts])

VLSM

Subinterface .1 = 10.0.0.0/23 (512-2 hosts [300 ok])

Subinterface .2 = 10.0.2.0/23 (512-2 hosts [300 ok])

Subinterface .3 = 10.0.4.0/23 (WRONG - outside subnet 10.0.0.0/22)

Or 10.0.2.0/24 (256-2 hosts [not 300])

10.0.3.0/24 (256-2 hosts [not 300])

upvoted 1 times

 **daddydagoth** 3 months, 2 weeks ago

You need to seriously brush up on how subnet calcs are done dude and stop spreading misinformation. A little helpin hint for you: to calculate the amount of subnets that can be made, do 2 to the power of borrowed host bits and you get the result. We're subnetting a /8 block, that means 14 borrowed bits in a /22 to make subnets. 2 to the power of 14 is 16384. We can make that many addresses from the /22.

upvoted 1 times

 **dropspablo** 2 weeks ago

daddydagoth I'm sorry but what you say doesn't make any sense, $22 - 32 = 10$ bits for Hosts, that is $1024 - 2$. 14 bits would be prefixed with /18 which would give about 16000 hosts, but nobody mentioned 18 or 14 bits borrowed prefix hahaha

upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: B

B is the correct answer

upvoted 1 times

 **JohnJacobJr** 7 months, 3 weeks ago

255.255.254.0 only gives you 2 subnets, we need 3. 255.255.252.0 gives you 4 subnets with 1022 hosts each so B is correct.

upvoted 3 times

 **Customexit** 7 months, 3 weeks ago

Just going to plug this here as it's a good chart:

/32 1

/31 2

/30 4

/29 8

/28 16

/27 32

/26 64

/25 128

/24 256

/23 512

/22 1024

/21 2048

of addresses on the right. -2 = # of hosts

255.255.252.0 is /22

upvoted 1 times

 **clivebarker86** 8 months ago

i selected B, 600 servers need 10bit host and a 255.255.252.0 mask

upvoted 1 times

 **vignesh_cloud** 8 months ago

Selected Answer: A

300 servers : 3 subnets , 300 hosts in each subnet - /23 gives 510 host addresses . So going with A .

upvoted 4 times

 **vladals** 8 months, 3 weeks ago

I believe that the correct answer is B. My justification:

300 new servers, each with 3 network connections. Each connection "resides on a different subnet". So we have $300 \times 3 = 900$ subnets
For this value we will need to have a $2^{10} = 1024$ that we can allocate, so we will need to borrow 10 bits in total, so we will have 11111111.

11111111. 11111100. 00000000

This means 255.255.252.0

upvoted 2 times

 **g_mindset** 9 months ago

Selected Answer: B

B makes sense, at least it supports the 300 devices and more than 3 subnets.

upvoted 1 times

 **mellohella** 9 months ago

From 300 to 600 = increased 300

In order to get 300 new networks we have to use 9 bits, which equal 512.

9 bits for hosts = Has to be all zeros

So => 11111111. 11111111. 11111110. 00000000

= 255. 255.254.0

upvoted 4 times

Question #477

Topic 1

```

Codes: L - local, C - connected, S - static, 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
      i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static route
      o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
      a - application route
      + - replicated route, t - next hop override, p - overrides from Pfr
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
S*   0.0.0.0/0 is directly connected, Null0
      10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C     10.0.12.0/24 is directly connected, GigabitEthernet0/1
L     10.0.12.1/32 is directly connected, GigabitEthernet0/1
C     10.0.13.0/24 is directly connected, GigabitEthernet0/2
L     10.0.13.1/32 is directly connected, GigabitEthernet0/2
C     10.0.14.0/24 is directly connected, GigabitEthernet0/3
L     10.0.14.1/32 is directly connected, GigabitEthernet0/3
D     192.168.0.0/16 [90/130816] via 10.0.13.3, 00:10:09, GigabitEthernet0/2
O     192.168.0.0/23 [110/2] via 10.0.14.4, 00:00:46, GigabitEthernet0/3
S     192.168.0.0/24 [100/0] via 10.0.12.2

```

Refer to the exhibit. Which interface is chosen to forward traffic to the host at 192.168.0.55?

- A. GigabitEthernet0/3
- B. Null0
- C. GigabitEthernet0/1
- D. GigabitEthernet0/2

Correct Answer: C

 **RaselAhmedIT** 3 months, 2 weeks ago

I think Longest Prefix (192.168.0.0/24) is connected via 10.0.12.2 (Static) & 10.0.12.0/24 is connected via G0/1.

upvoted 2 times

 **Myth1977** 4 months, 1 week ago

Here, as far as I understand the longest prefix matches the 192.168.0.0/24 . Since, the /32 for the int g0/1 represents the hosts itself and g0/1 with /24 mask represents the network containing the ".2" interface. The ans is g0/1.

upvoted 1 times

 **Freddy01** 6 months, 2 weeks ago

10.0.12.1 is the IP configured on the router interface Gi0/1, whereas the next hop address is 10.0.12.2 and the route to get to subnet 192.168.0.55 is hanging off the neighbouring router. So, to get that 192.168.0.55 subnet, R1 will send traffic out of its Gi0/1 interface pointing to 10.0.12.2 next hop neighbouring router's interface which will pass it on to the subnet 192.168.0.55 hanging off its LAN interface. The routing table shows you 192.168.0.0/24 via 10.0.12.2 route, which clearly means the next hop address of the neighbouring router and 192.168.0.55 falls in that range of addresses. Hope this clarifies it :)

upvoted 1 times

 **PaulIII** 8 months, 3 weeks ago

I am not sure why, can someone explain?

upvoted 1 times

 **Tylosh** 8 months, 3 weeks ago

I think the reason of answer C is correct is because 192.168.0.55 fit the range of /24 with the longest prefix , while it's via 10.0.12.2 , choosing the longest prefix 10.0.12.1/32. Will get the answer, hope it will help u a bit !!

upvoted 4 times

 **Customexit** 7 months, 3 weeks ago

While I believe C is in fact correct, I don't think it's because of the reason you give.

A /32 in the table means it's a host route. 10.0.12.1 is an end host.

10.0.12.0/24 contains 10.0.12.2 on the G0/1 interface.

Unless I'm understanding wrong

upvoted 3 times

Question #478

Topic 1

```
CPE# show ipv6 route
IPv6 Routing Table - default - 6 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
      B - BGP, R - RIP, H - NHRP, I1 - ISIS L1
      I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary, D - EIGRP
      EX - EIGRP external, ND - ND Default, NDp - ND Prefix, DCE - Destination
      NDr - Redirect, O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1
      OE2 - OSPF ext 2, ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
      la - LISP alt, lr - LISP site-registrations, ld - LISP dyn-eid
      lA - LISP away, le - LISP extranet-policy, lp - LISP publications
ND  ::/0 [2/0]
  via FE80::A8BB:CCFF:FE00:200, Ethernet0/0
NDp 2001:DB8:1234:1::/64 [2/0]
  via Ethernet0/0, directly connected
L  2001:DB8:1234:1:A8BB:CCFF:FE00:100/128 [0/0]
  via Ethernet0/0, receive
C  2001:DB8:1234:2::/64 [0/0]
  via Ethernet0/1, directly connected
L  2001:DB8:1234:2:A8BB:CCFF:FE00:110/128 [0/0]
  via Ethernet0/1, receive
L  FF00::/8 [0/0]
  via Null0, receive
```

Refer to the exhibit. The administrator must configure a floating static default route that points to 2001:db8:1234:2::1 and replaces the current default route only if it fails. Which command must the engineer configure on the CPE?

- A. ipv6 route ::/0 2001:db8:1234:2::1 3
- B. ipv6 route ::/128 2001:db8:1234:2::1 3
- C. ipv6 route ::/0 2001:db8:1234:2::1 1
- D. ipv6 route ::/0 2001:db8:1234:2::1 2

Correct Answer: A

✉ **Goena** Highly Voted 4 months, 1 week ago

Selected Answer: A

Answer A:

- AD has to be higher than 2 so 3.
- Default route is ::/0
- ipv6 route ::/0 2001:db8:1234:2::1 3

upvoted 6 times

✉ **dropspablo** Most Recent 2 weeks ago

Selected Answer: A

ND ::/0 [2/0] - means that the default route was automatically configured with the "ipv6 address autoconfig default" command (interface mode), and will always have AD 2. That's why to have a static default floating route we must include AD 3, if the first route fails, the static will assume with the initials "S ::/0 [3/0]".

Out of the question but taking advantage, we can also see the initials "NDp [2/0]" which represents a configuration of a directly connected interface, however the command "ipv6 address autoconfig" was used, in this case without default.

These are some of the uses of SLAAC and Neighbor Discovery Protocol (NDP) on the router - to configure IPv6 addresses and default route.
upvoted 1 times

✉ **virab4** 1 month, 2 weeks ago

ND is our floating route with 2 ad?

upvoted 1 times

✉ **Ciscoman021** 2 months, 1 week ago

Selected Answer: A

A is correct.

upvoted 1 times

✉ **SVN05** 4 months ago

Anybody can give a detailed explanation on why AD of default route is 2 and not 1 like it always is? Cause i cant see in the table it saying 2. Thanks.
upvoted 1 times

✉ **MRSCARLet** 1 month, 2 weeks ago

I think the picture show the default route is 2

ND ::/0 [2/0]

P.S. Sry for my bad english

upvoted 1 times

✉  **country_rooted** 2 months ago

It was mostlikely manually configured to be that way to throw us off from choosing the correct answer. Youd automatically think that the default is 1 and choose an ans with the AD as 2.

upvoted 1 times

✉  **m4n1** 4 months, 3 weeks ago

why not a?

upvoted 1 times

✉  **ShadyAbdekmalek** 8 months, 2 weeks ago

Why not D?

upvoted 1 times

✉  **EngrRex** 8 months, 2 weeks ago

It is because the current default route AD is 2

upvoted 5 times

Question #479

Topic 1

```

OldR#show ip ospf interface
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.2/24, Area 0
  Process ID 1, Router ID 192.168.1.1, Network Type BROADCAST, Cost: 1
  Transmit Delay is 1 sec, State DROTHER, Priority 1
  Designated Router (ID) 192.168.1.1, Interface address 192.168.1.1
  Backup Designated Router (ID) 192.168.1.1, Interface address 192.168.1.1
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:01
  Index 1/1, flood queue length 0
  Neighbor Count is 1, Adjacent neighbor count is 2

R2#show ip ospf interface
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 192.168.1.1/24, Area 0
  Process ID 1, Router ID 192.168.1.1, Network Type BROADCAST, Cost: 1
  Transmit Delay is 1 sec, State DROTHER, Priority 1
  Designated Router (ID) 192.168.1.1, Interface address 192.168.1.2
  Backup Designated Router (ID) 192.168.1.1, Interface address 192.168.1.2
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:02
  Index 2/2, flood queue length 0
  Neighbor Count is 1, Adjacent neighbor count is 2

```

Refer to the exhibit. Router OldR is replacing another router on the network with the intention of having OldR and R2 exchange routes. After the engineer applied the initial OSPF configuration, the routes were still missing on both devices. Which command sequence must be issued before the clear IP ospf process command is entered to enable the neighbor relationship?

- A. OldR(config)#interface g0/0/0 OldR(config-if)#ip ospf hello-interval 15
- B. OldR(config)#router ospf 1 OldR(config-router)#network 192.168.1.0 255.255.255.0 area 2
- C. OldR(config)#interface g0/0/0 OldR(config-if)#ip ospf dead-interval 15
- D. OldR(config)#router ospf 1 OldR(config-router)#no router-id 192.168.1.1

Correct Answer: D

With OSPF each router must have a unique router ID. Here we see that both routers have a router ID of 192.168.1.1. Removing the router-id command on the OldR will force it to use one of its actual interface IP addresses as the router ID.

 **BieLey** Highly Voted  8 months, 1 week ago

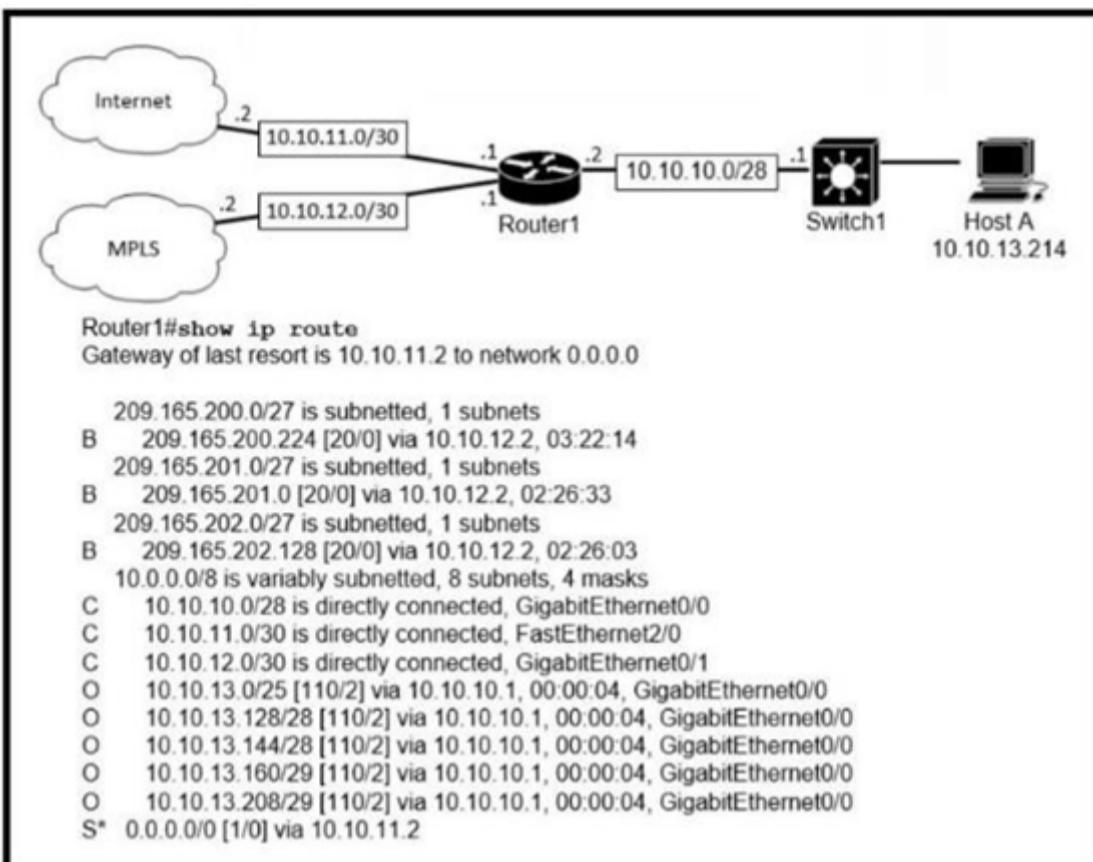
Selected Answer: D

Can even do this with the power elimination
 Hello = matched
 Dead = matched
 Area = matches

Just 1 answer left!
 upvoted 5 times

Question #480

DRAG DROP -



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.

Select and Place:

255.255.255.128	10.10.13.0
255.255.255.224	10.10.13.144
255.255.255.240	10.10.13.160
255.255.255.248	209.165.202.128
255.255.255.252	

255.255.255.128	255.255.255.252
255.255.255.224	255.255.255.248
Correct Answer: 255.255.255.240	255.255.255.224
255.255.255.248	255.255.255.128
255.255.255.252	

✉ MikD4016 Highly Voted 9 months ago

Correct order:

.128
.240
.248
.224

upvoted 42 times

✉ vladals 8 months, 3 weeks ago

I would say the last one is .252

The reason for this is: 209.165.202.128 is reachable via 10.10.12.2 and 10.10.12.2 is part of the 10.10.12.2/30, hence 252

upvoted 23 times

✉ PacketFapper 1 week ago

By that logic, pretty much all of the other prefixes are reachable via 10.10.10.1 and the 10.10.10.0 is /28, hence all of the other selections are wrong. I think you overthunk this one, bud. Answer for last one is .224 /27

upvoted 1 times

✉ clivebarker86 8 months ago

i see 209.165.202.128 as a subnet of (by magic number) 209.165.202.0 - 32 - 64 - 96 - 128..... /27

upvoted 3 times

 **BieLey** 8 months, 1 week ago

Agreeing with vladals here
upvoted 1 times

 **shubhambala** 8 months, 3 weeks ago

Agreed!
upvoted 1 times

 **Yasyas86**  6 months, 2 weeks ago

The Correct order is :

.128
.240
.248

.224 : About this it already stated that the 209.165.202.0/27 is subnetted into 1 subnet which is 209.165.202.128 the 5th available subnet for /27 they go as (first 0-31, second 32-63, third 64-95 , Fourth 96-127 AND the 5th 128-160 etc...)

upvoted 7 times

 **Divino**  7 months, 2 weeks ago

Correct order:

.128
.240
.248
.252

upvoted 5 times

 **purenukeR** 6 months ago

The last one is not .252 but .224
upvoted 2 times

 **chathu123** 7 months, 2 weeks ago

Who is faced exam in this month and passed ?
upvoted 2 times

 **dmaster42** 7 months, 3 weeks ago

i am agree with MikD4016 /27 ----->32 magic number
upvoted 2 times

Question #481

Topic 1

```
R1# show ip route | begin Gateway
Gateway of last resort is 0.0.0.0 to network 0.0.0.0
S* 0.0.0.0/0 is directly connected, Serial0/0/1
    172.16.0.0/16 is variably subnetted, 4 subnets, 2 masks
C      172.16.2.0/24 is directly connected, GigabitEthernet0/0
L      172.16.2.2/32 is directly connected, GigabitEthernet0/0
C      172.16.4.0/21 is directly connected, Serial0/0/1
L      172.16.8.2/26 is directly connected, Serial0/0/1
```

Refer to the exhibit. What is the subnet mask for route 172.16.4.0?

- A. 255.255.255.192
- B. 255.255.254.0
- C. 255.255.248.0
- D. 255.255.240.0

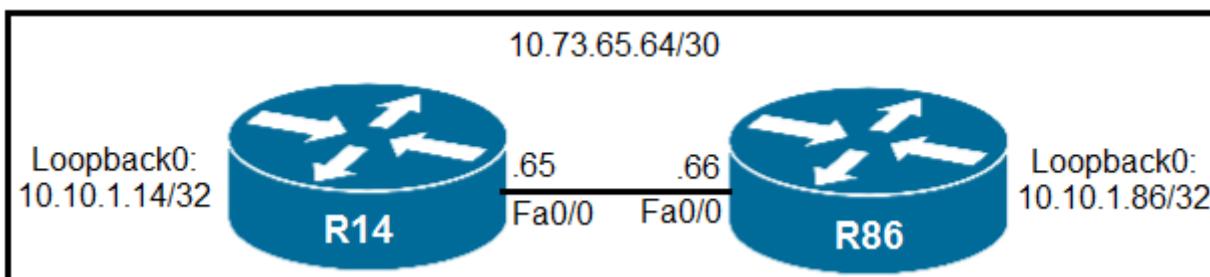
Correct Answer: C

 **f2killer** 3 weeks, 3 days ago

The given answer is correct
upvoted 1 times

Question #482

Topic 1



Refer to the exhibit. A static route must be configured on R14 to forward traffic for the 172.21.34.0/25 network that resides on R86. Which command must be used to fulfill the request?

- A. ip route 172.21.34.0 255.255.255.192 10.73.65.65
- B. ip route 172.21.34.0 255.255.255.128 10.73.65.66
- C. ip route 172.21.34.0 255.255.255.0 10.73.65.65
- D. ip route 172.21.34.0 255.255.128.0 10.73.65.64

Correct Answer: B

Question #483

Topic 1

```
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 192.168.1.1, Network Type POINT-TO-POINT, Cost: 1
  Transmit Delay is 1 sec, State POINT-TO-POINT,
  Timer intervals configured, Hello 15, Dead 40, 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 15, Dead 45, Wait 15, 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?

- A. R2(config)#router ospf 1 R2(config-router)#network 192.168.1.0 255.255.255.0 area 2
- B. R2(config)#interface g0/0/0 R2(config-if)#ip ospf hello-interval 10
- C. R2(config)#interface g0/0/0 R2(config-if)#ip ospf dead-interval 40
- D. R2(config)#router ospf 1 R2(config-router)#router-id 192.168.1.2

Correct Answer: C

For OSPF the hello and dead timers must match to become neighbors. R1 is configured with a dead time of 40 seconds, while R2 is set to 45 seconds.

 rx78_2 2 months ago

Selected Answer: B

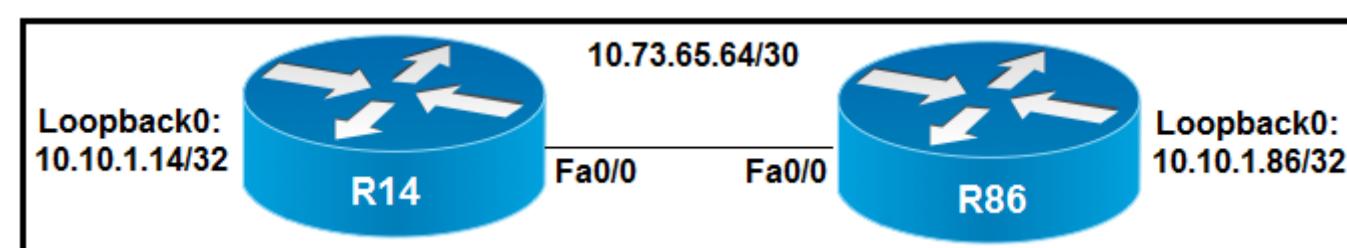
B and C should both be implemented to achieve the result
upvoted 1 times

 studying_1 1 month ago

No, on R2 hello timer is 15, so we only need to change the dead timer
upvoted 1 times

 studying_1 1 month ago

sorry, i meant on R1
upvoted 1 times



Refer to the exhibit. All interfaces are configured with duplex auto and ip ospf network broadcast. Which configuration allows routers R14 and R86 to form an OSPFv2 adjacency and act as a central point for exchanging OSPF information between routers?

- A. R14# interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf priority 255 ip mtu 1500 router ospf 10 router-id 10.10.1.14 network 10.10.1.14 0.0.0.0 area 0 network 10.73.65.64 0.0.0.3 area 0 R86# interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip mtu 1400 router ospf 10 router-id 10.10.1.86 network 10.10.1.86 0.0.0.0 area 0 network 10.73.65.64 0.0.0.3 area 0
- B. R14# interface Loopback0 ip ospf 10 area 0 interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf 10 area 0 ip mtu 1500 router ospf 10 ip ospf priority 255 router-id 10.10.1.14 R86# interface Loopback0 ip ospf 10 area 0 interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip ospf 10 area 0 ip mtu 1500 router ospf 10 router-id 10.10.1.86
- C. R14# interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf priority 0 ip mtu 1500 router ospf 10 router-id 10.10.1.14 network 10.10.1.14 0.0.0.0 area 0 network 10.73.65.64 0.0.0.3 area 0 R86# interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip mtu 1500 router ospf 10 router-id 10.10.1.86 network 10.10.1.86 0.0.0.0 area 0 network 10.73.65.64 0.0.0.3 area 0
- D. R14# interface Loopback0 ip ospf 10 area 0 interface FastEthernet0/0 ip address 10.73.65.65 255.255.255.252 ip ospf priority 255 ip ospf 10 area 0 ip mtu 1500 router ospf 10 router-id 10.10.1.14 R86# interface Loopback0 ip ospf 10 area 0 interface FastEthernet0/0 ip address 10.73.65.66 255.255.255.252 ip ospf 10 area 0 ip mtu 1500 router ospf 10 router-id 10.10.1.86

Correct Answer: A

joondale Highly Voted 9 months ago

Selected Answer: D

Going with D

A is wrong because ip mtu of R14 and R86 are different

B is wrong because because ip ospf priority is configured inside router-config, it should be on the interface

C is wrong because ip ospf priority is 0 on R14 and it makes R14 not participate on ospf dr/bdr election, the network type is broadcast so i assume dr/bdr should be elected otherwise the network type should be point-to-point

D is correct answer - because mtu are same for both routers, participates in dr/bdr election

upvoted 27 times

shubhambala Highly Voted 8 months, 3 weeks ago

Selected Answer: D

A is wrong!

upvoted 6 times

TechJ Most Recent 5 days ago

Selected Answer: D

going with D,

A is clearly wrong due to MTU mismatch

For the people that think D is wrong, you need to look at the entire command line, because I got tricked at the beginning as well.

It does provide "ip ospf 10 area 0" on both the loopback and actual interface (not just loopback only)

upvoted 1 times

krzysiew 1 week, 2 days ago

Selected Answer: C

An OSPF priority of 0 does not prevent the router from establishing OSPF adjacencies.

upvoted 1 times

dropspablo 1 week, 6 days ago

Selected Answer: D

Router with "priority 0" and another with "priority default (1)" formed adjacency and exchanged LSAs and LSDBs normally (I tested it in P.Trace and OSPF dynamic routing works normally), the difference is that there will not be a DR Backup in case fail (that's all). One will be DR Other (neighbor Full/DR) and one DR (neighbor Full/DROther), and BDR appears written that it does not exist, because priority 0 cannot be neither DR nor BDR. (Observation: "point-to-point type" is recommended for this type of connection.)

However, the exercise asks them to act as a central point for exchanging information, in this case "it gives the impression" that he asked us to select a "DR". Letter "D" would be the most correct because using "ip ospf priority 255" (in the interface) we define R14 as DR.

upvoted 1 times

ThomasSmith 3 weeks, 2 days ago

Selected Answer: D

Tested in packet tracer.

- A. OSPF neighborship was established even with mismatched MTU.
- B. You cannot enter this command on R14: router ospf 10 - ip ospf priority 255
- C. OSPF neighborship was established R14 will be FULL/DROTHER, R86 will be DR so it cannot be the central point for exchanging OSPF information between routers
- D. OSPF neighborship was established

upvoted 2 times

MJBM 3 weeks, 2 days ago

- C is for me.
- A is mtu issue
- B is network issue
- D is network issue

upvoted 1 times

linuxlife 1 month, 1 week ago

as per the standard OSPF specification defined in RFC 2328, "OSPF Version 2". Specifically the RFC states the following:

10.6 - Database Description Packet.

If the Interface MTU field in the Database Description packet indicates an IP datagram size that is larger than the router can accept on the receiving interface without fragmentation, the Database Description packet is rejected.

Basically this means that if a router tries to negotiate an adjacency on an interface in which the remote neighbor has a larger MTU, the adjacency will be denied. The idea behind this check is two-fold. The first is to alleviate a problem in the data plane, in which a sending host transmits packets to a receiver that are too large to accept. Typically, Path MTU Discovery (PMTUD) should be implemented on the sender to prevent this case, however this process relies on ICMP messages that could possibly be filtered out in the transit path due to a security policy. The second, and most important issue, is to alleviate a problem in the control plane in which OSPF packets are exchanged.

upvoted 1 times

daddydagoth 3 months, 2 weeks ago

Selected Answer: D

It's absolutely D

upvoted 3 times

gewe 3 months, 3 weeks ago

- option A would be best if MTU match...
- option D has no routes advertised...

upvoted 3 times

Netcmd 6 months, 3 weeks ago

D is wrong because the network cmd is not configured for the networks. How can you form neighbours without it

upvoted 4 times

Ceruzka 2 months, 3 weeks ago

IMHO correct is "C" I agree with Netcmd. @joondale comment: Priority 0 on R14 just mean that this intf will neither be DR nor BDR, but it will work. So for me "C"

upvoted 2 times

Ceruzka 2 months, 3 weeks ago

my BAD, looks like D" is correct.

upvoted 1 times

Ceruzka 2 months, 3 weeks ago

intf are advertised instead with cmd "ip ospf 10 area 0" so no network cmd needed in router ospf process..

upvoted 1 times

mzu_sk8 6 months, 3 weeks ago

ip ospf 10 area 0 subinterface command, does the same , is even better , it has preemption over "network" command

upvoted 7 times

GigaGremlin 8 months ago

Selected Answer: D

D is the correct answer

upvoted 1 times

nicombe 8 months, 2 weeks ago

I'm also going with D. While OSPF Routers can create an adjacency having mismatched MTUs, they won't be able to exchange LSDBs and therefore won't be able to act as a central point for exchanging OSPF information between routers.

upvoted 1 times

g_mindset 9 months ago

Selected Answer: A

A is correct. The IP OSPF priority is key here. The two routers are set as the highest priority making them DR and BDR.
upvoted 1 times

 **arenjenkins** 8 months, 1 week ago
but they have different mtu configured
upvoted 9 times

Question #485

Topic 1

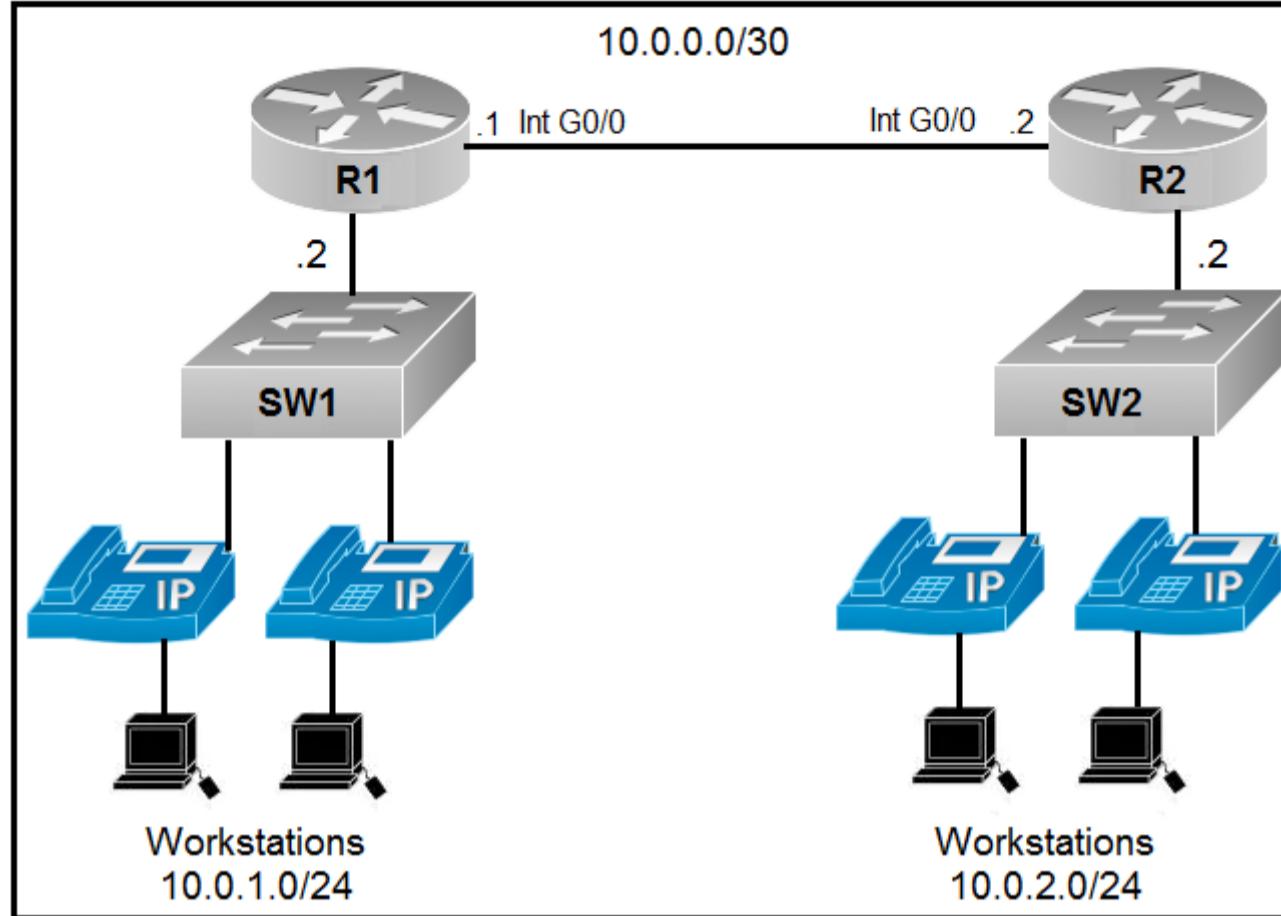
A packet from a company's branch office is destined to host 172.31.0.1 at headquarters. The sending router has three possible matches in its routing table for the packet: prefixes 172.31.0.0/16, 172.31.0.0/24, and 172.31.0.0/25. How does the router handle the packet?

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

Correct Answer: C

 **Goh0503** Highly Voted  7 months, 1 week ago
Answer: C
how a router makes a forwarding decision by
a Longest match >>b Administrative distance >>c Routing protocol metric, in this order
upvoted 5 times

Question #486



Refer to the exhibit. An engineer is asked to configure router R1 so that it forms an OSPF single-area neighbor relationship with R2. Which command sequence must be implemented to configure the router?

- A. router ospf 100 network 10.0.0.0 0.0.0.252 area0 network 10.0.1.0 0.0.0.255 area0
- B. router ospf 100 network 10.0.0.0 0.0.0.3 area0 network 10.0.2.0 255.255.255.0 area0
- C. router ospf 10 network 10.0.0.0 0.0.0.3 area0 network 10.0.1.0 0.0.0.255 area0
- D. router ospf 10 network 10.0.0.0 0.0.0.3 area0 network 10.0.2.0 0.0.0.255 area0

Correct Answer: C

Goena 4 months, 1 week ago

Selected Answer: C

Answer C:

Configure route to 10.0.0.0/30 with wildcard 0.0.0.3

Configure route to 10.0.1.0/24 with wildcard 0.0.0.255

router ospf 10 network 10.0.0.0 0.0.0.3 area0 network 10.0.1.0 0.0.0.255 area0

upvoted 2 times

Sdiego 4 months, 2 weeks ago

Selected Answer: C

Forget about that comment, R1 advertises his networks, so C is correct.

upvoted 4 times

FALARASTA 1 month ago

I understand now about the second part. Thanks

upvoted 1 times

Sdiego 4 months, 2 weeks ago

Selected Answer: D

R1 has to reach 10.0.2.0 network, 10.0.1.0 is directly connected

upvoted 1 times

Sdiego 4 months, 2 weeks ago

Forget about that comment, R1 advertises his networks, so C is correct.

upvoted 1 times

EthanhuntMI6 5 months, 1 week ago

Why not D?

upvoted 4 times

laurvy36 4 months, 1 week ago

Because you need to advertise 10.0.1.0, on R1, no 10.0.2.0, that is on R2.

upvoted 1 times

✉ alejandro12 6 months, 2 weeks ago

Should be a, same format
router ospf 100 network 10.0.0.0 0.0.0.252 area0 network 10.0.1.0 0.0.0.255 area0
upvoted 1 times

✉ andresfjardim 6 months, 1 week ago

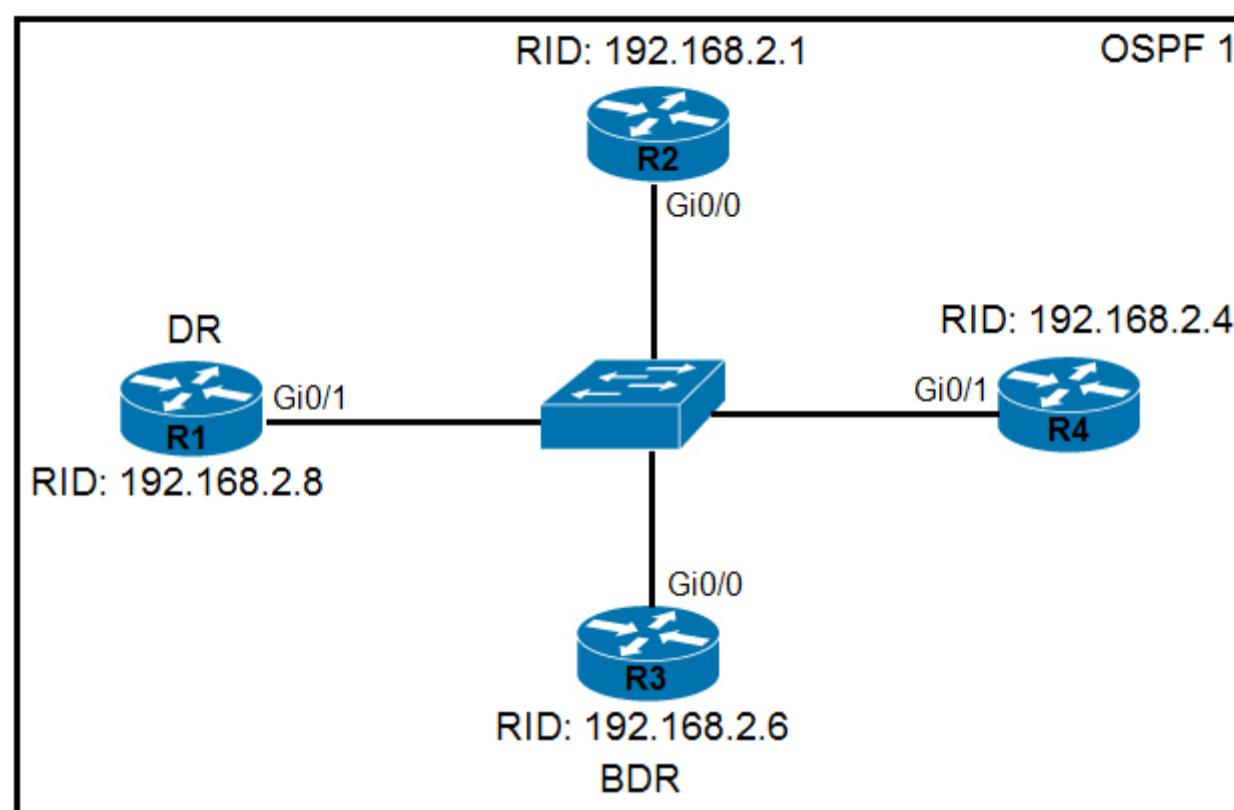
No, C is correct because wildcard mask for 10.0.0.0/30 is 0.0.0.3
upvoted 4 times

✉ MEDO95 4 months, 2 weeks ago

i think d has the same wildcard. why we didnt choose it
upvoted 1 times

✉ laurvy36 4 months, 1 week ago

Because you need to advertise 10.0.1.0, on R1, no 10.0.2.0, that is on R2.
upvoted 1 times



Refer to the exhibit. All routers in the network are configured. R2 must be the DR. After the engineer connected the devices, R1 was elected as the DR. Which command sequence must be configured on R2 to be elected as the DR in the network?

- A. R2(config)#interface gi0/0 R2(config-if)#ip ospf priority 100
- B. R2(config)#router ospf 1 R2(config-router)#router-id 192.168.2.7
- C. R2(config)#router ospf 1 R2(config-router)#router-id 10.100.100.100
- D. R2(config)#interface gi0/0 R2(config-if)#ip ospf priority 1

Correct Answer: A

all4one 1 week, 1 day ago

Selected Answer: A

R1 was initially elected as the DR because they would have the same priority by default (1). The next step in the election process would be the highest IP address which R1 has over R2. Thus, setting the priority of R2 to 100 would elect it as DR. The highest priority wins for DR once it is within scope.

upvoted 1 times

ThomasSmith 3 weeks, 2 days ago

Selected Answer: A

B. R2's new router ID 192.168.2.7 is still lower than R1's 192.168.2.8
 C. R2's new router ID 10.100.100.100 is still lower than R1's 192.168.2.8
 D. The OSPF priority is 1 by default, all routers have the same.

upvoted 1 times

VictorCisco 2 months, 1 week ago

R1 is elected because the highest ID, so if change ID on R2 on higher it will be elected as DR.
 so C is correct. Moreover there is a spelling mistake in A.

upvoted 1 times

Elidor 6 months, 1 week ago

interface
 upvoted 2 times

cormorant 7 months ago

simple. you must specify a priority that is higher (thus lower) than the default 90 of OSPF; then you use priority 100
 upvoted 2 times

purenukeR 6 months ago

You are making a mistake , my friend. AD has nothing to do with priority.

upvoted 6 times

Sara_Yus 6 months ago

do you mean the administrative distance? the ad of ospf is 110. eigrp is 90.
 the port of ospf is 89, but i dont think that is considered in the answer
 upvoted 2 times

 **DoBronx** 7 months, 1 week ago

intergface

upvoted 2 times

 **Customexit** 7 months, 3 weeks ago

intergface

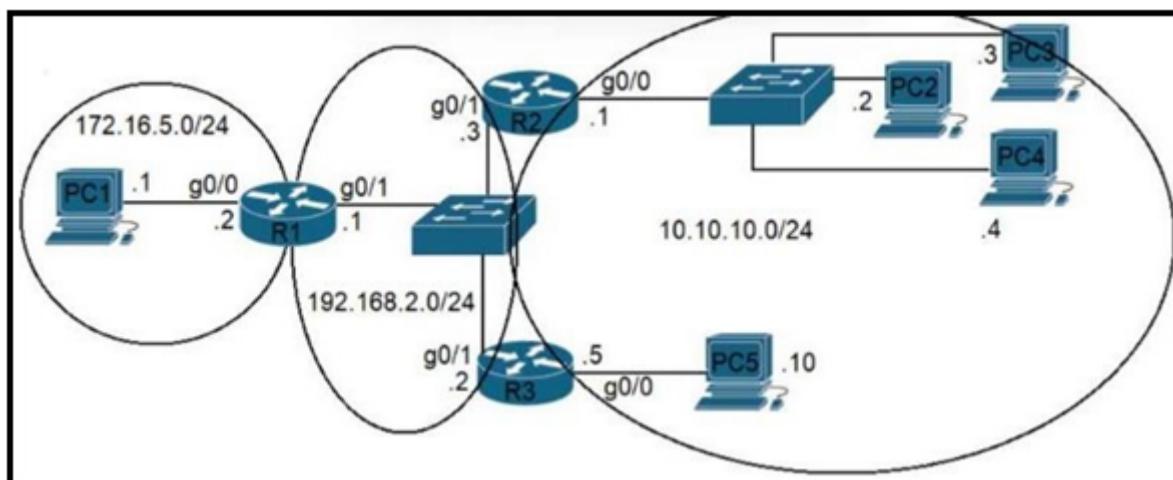
upvoted 2 times

 **Sutokuto** 8 months, 3 weeks ago

intergface

upvoted 4 times

Question #488



Refer to the exhibit. The router R1 is in the process of being configured. Routers R2 and R3 are configured correctly for the new environment. Which two commands must be configured on R1 for PC1 to communicate to all PCs on the 10.10.10.0/24 network? (Choose two.)

- A. ip route 10.10.10.0 255.255.255.0 192.168.2.3
- B. ip route 10.10.10.10 255.255.255.255 192.168.2.2
- C. ip route 10.10.10.10 255.255.255.255 g0/1
- D. ip route 10.10.10.8 255.255.255.248 g0/1
- E. ip route 10.10.10.0 255.255.255.248 192.168.2.2

Correct Answer: AE

Cracked76 Highly Voted 9 months ago

A and B

upvoted 15 times

Freddy01 Highly Voted 6 months, 2 weeks ago

A is 100% correct while the confusion between B and E is down to people missing two important differences for those two options. B is a direct host route and it will show up in the routing table as 10.10.10.10/32 and it is called a host route. Hence subnet mask being 255.255.255.255. Whereas, E option does NOT cover the host 10.10.10.10 address as if you calculate the subnet range for the subnet in option E it only goes up to 10.10.10.0 - 10.10.10.6 and .7 being its broadcast address. It's incrementing in blocks of 8 as the subnet mask clearly states 255.255.255.248 or /29. So, how exactly the router would send traffic to host .10 which is NOT even in the subnet range. Therefore, option E route will NEVER reach .10 host hanging off that router.

Correct answer is A is the network route and B is direct host route, hope this helps :)

upvoted 13 times

gewe Most Recent 3 months, 3 weeks ago

AB is correct.

can't be E coz mask is not appropriate

upvoted 4 times

4aynick 4 months, 3 weeks ago

Selected Answer: AB

10.10.10.0 255.255.255.248

Usable address range 10.10.10.1 to 10.10.10.6

upvoted 2 times

leooel 5 months, 3 weeks ago

Selected Answer: AB

AB is correct

upvoted 1 times

Netcmd 6 months, 3 weeks ago

Selected Answer: AE

A for sure but for our next answer is E

Lets take a look at the other two possible answer below:

B) ip route 10.10.10.10 255.255.255.255 192.168.2.2

E) ip route 10.10.10.0 255.255.255.248 192.168.2.2

B tells the router it can only go to the 10.10.10.10 host. We can see that this is not a valid host.

We are left with E. which if you do subnetting can see you can reach each host that is configured.

The problem with both B and E is that they are configured with the wrong next hop address for the intended network. We will rely on the router to route us over to the correct network

upvoted 1 times

 **enzo86** 1 month, 3 weeks ago

you need to study more if you want to pass that exam
upvoted 3 times

 **Netcmd** 6 months, 2 weeks ago

after looking at this the Answer is AB
upvoted 6 times

 **DoBronx** 7 months, 1 week ago

Selected Answer: AB

AB for sure

upvoted 1 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: AB

A & B is correct

upvoted 1 times

 **payam_avar** 8 months, 1 week ago

This question is false.
A is right, But none other one seems to be correct!
upvoted 3 times

 **[Removed]** 8 months, 1 week ago

I almost punched my computer. Are they purposely trying give us wrong answers? A and B is the answer. E ranges from 10.10.10.0-10.10.10.7.
10.10.10.10 is out of the range.

upvoted 2 times

 **FALARASTA** 1 month ago

10.10.10.10 is in another network
upvoted 1 times

 **arenjenkins** 8 months, 1 week ago

a and b, the subnet of d does not exist
upvoted 1 times

 **ukguy** 8 months, 2 weeks ago

A AND B for sure
upvoted 1 times

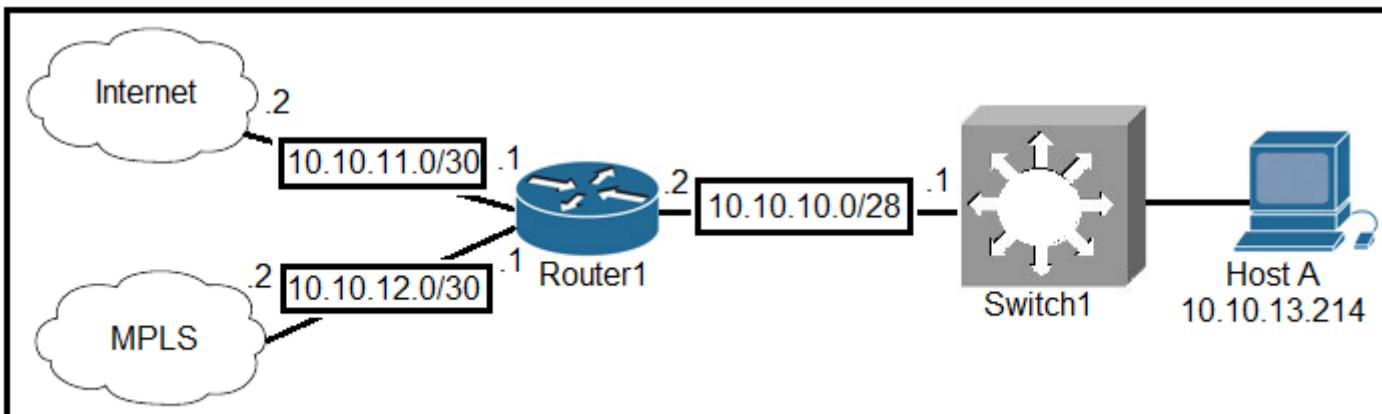
 **g_mindset** 9 months ago

Selected Answer: AB
A & B! Why would it be E??
upvoted 4 times

 **guynetwork** 9 months ago

Selected Answer: AB
its a and b
upvoted 4 times

Question #489



```
Router1#show ip route
Gateway of last resort is 10.10.11.2 to network 0.0.0.0
```

```
209.165.200.0/27 is subnetted, 1 subnets
B 209.165.200.224 [20/0] via 10.10.12.2, 03:22:14
209.165.201.0/27 is subnetted, 1 subnets
B 209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
209.165.202.0/27 is subnetted, 1 subnets
B 209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
  10.0.0.0/8 is variably subnetted, 8 subnets, 4 masks
C 10.10.10.0/28 is directly connected, GigabitEthernet0/0
C 10.10.11.0/30 is directly connected, FastEthernet2/0
C 10.10.12.0/30 is directly connected, GigabitEthernet0/1
O 10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.128/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.144/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.160/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O 10.10.13.208/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
S* 0.0.0.0/0 [1/0] via 10.10.11.2
```

Refer to the exhibit. What is the subnet mask of the route to the 10.10.13.160 prefix?

- A. 255.255.255.240
- B. 255.255.255.128
- C. 255.255.248.0
- D. 255.255.255.248

Correct Answer: D

dozer86 2 months ago

D THE DESTINATION IS THE NETWORK 10.10.13.160 WITH MASK /29 WHICH IS THE ANSWER D. THE OTHER ROUTES DO NOT COVER THE NETWORK.160

upvoted 2 times

Goena 4 months, 1 week ago

Selected Answer: A

Answer A

upvoted 2 times

Vimal_1211 5 months, 2 weeks ago

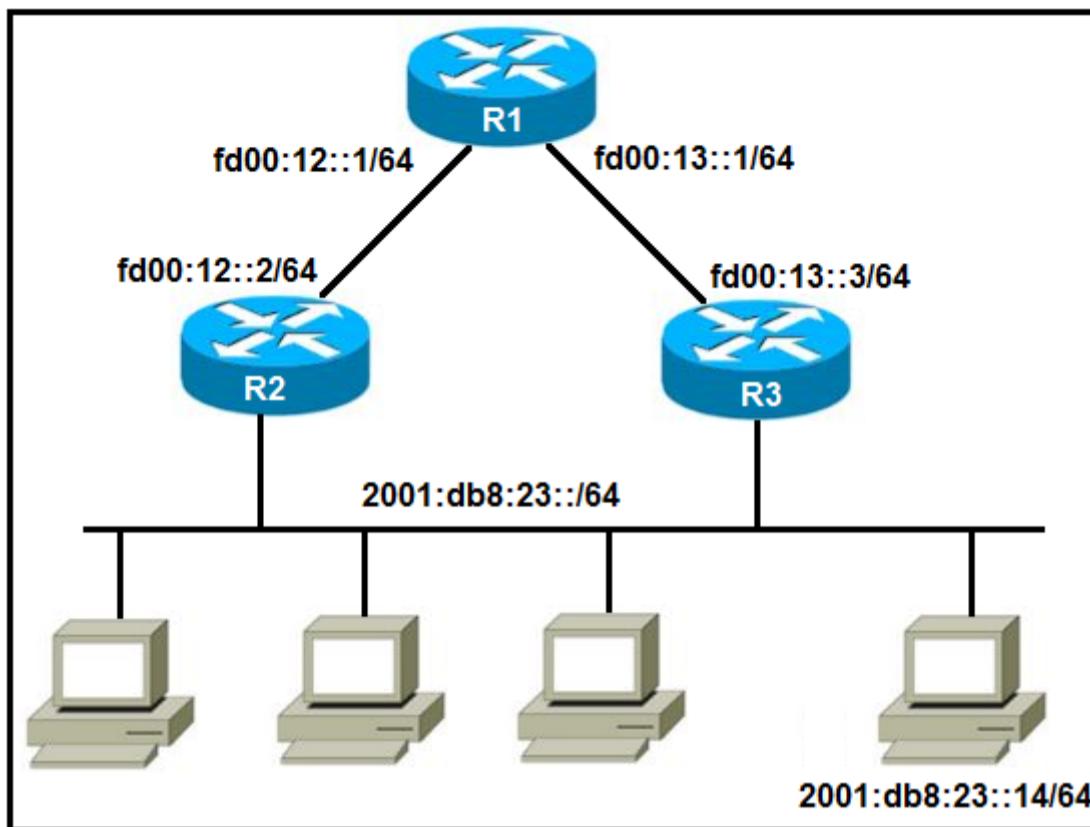
Selected Answer: A

The route is 10.10.10.1 which is the IP address of G0/0. The latter forms part of the 10.10.10.0/28 network.

upvoted 1 times

Question #490

Topic 1



Refer to the exhibit. Which two commands, when configured on router R1, fulfill these requirements? (Choose two.)

- Packets toward the entire network 2001:db8:23::/64 must be forwarded through router R2.
- Packets toward host 2001:db8:23::14 preferably must be forwarded through R3.

- A. `ipv6 route 2001:db8:23::/128 fd00:12::2`
- B. `ipv6 route 2001:db8:23::14/128 fd00:13::3`
- C. `ipv6 route 2001:db8:23::/64 fd00:12::2`
- D. `ipv6 route 2001:db8:23::14/64 fd00:12::2 200`
- E. `ipv6 route 2001:db8:23::14/64 fd00:12::2`

Correct Answer: BC

 **mustdoit** 3 months, 2 weeks ago

C and D

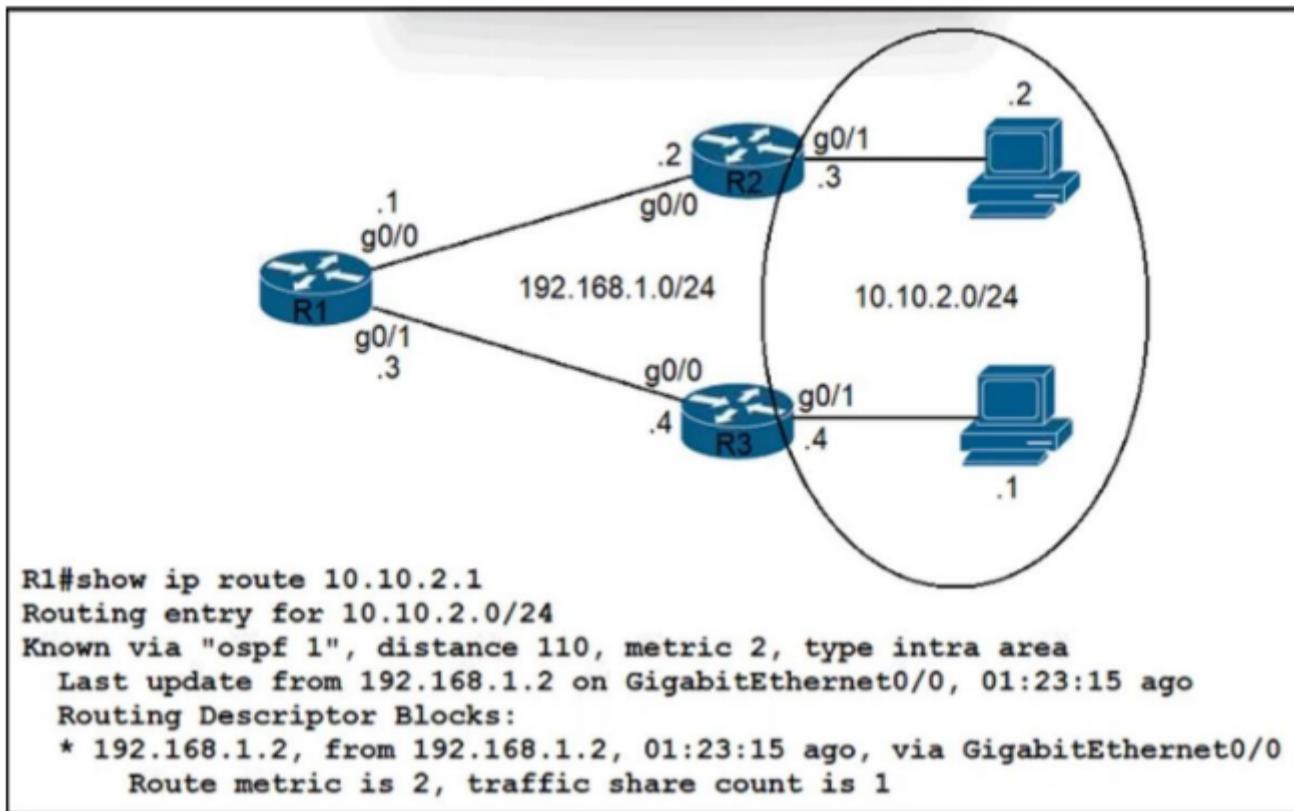
upvoted 1 times

 **Yannik123** 2 months, 2 weeks ago

No B and C are correct

upvoted 4 times

Question #491



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?

- A. ip route 10.10.2.1 255.255.255.255 192.168.1.4115
- B. ip route 10.10.2.0 255.255.255.0 192.168.1.4115
- C. ip route 10.10.2.0 255.255.255.0 192.168.1.4100
- D. ip route 10.10.2.1 255.255.255.255 192.168.1.4100

Correct Answer: D

Here we need to add a host route for the specific 10.10.2.1 host, which means using a subnet mask of 255.255.255.255. We also need to configure an Administrative Distance that is less than the default OSPF AD of 115.

EliasM Highly Voted 7 months, 2 weeks ago

I dont understand why A and D are different. Host routes (/32) win because they have the longest prefix. Here, both A and D include the destination host, but they differ on AD. If you set the AD to 115, its higher than OSPF (110) but it will still prefer the longest prefix route, so i believe that A and D are both correct in this scenario. Correct me if im wrong.

upvoted 11 times

NICE_ANSWERS Most Recent 4 days, 14 hours ago

Am i the only person seeing 192.168.1."4100" please, where from the last octet?

upvoted 1 times

TechJ 5 days ago

Selected Answer: D

I feel like the route would work either with or without the AD(administrative distance).

I can see the reason why the answer is choosing the option with lower AD than 110(AD of OSPF), to prevent 10.10.2.1 route to R2 like all the other hosts in 10.10.2.0 network.

But just like other two comments said, we apply 10.10.2.1/32, the longest mask always wins, so AD shouldnt be necessary.

upvoted 1 times

dropspablo 1 week, 5 days ago

In this case, I don't think the AD makes any difference (it can be anyone), because the longest mask always wins, it has the "/32 prefix", sending it to a specific host 10.10.2.1, it will go through R3 with any AD. And any other host on the 10.10.2.0/24 network will automatically go the OSPF route through R2. You can ignore the ADs, they are for distraction.

upvoted 3 times

danny43213 4 months, 1 week ago

We don't need to change the default AD

upvoted 4 times

 **alejandro12** 6 months, 2 weeks ago

Answer A

The ad should be higher than route 110 ospf learned

upvoted 1 times

 **IAmAlwaysWrongOnExamtopics** 6 months ago

definitely not, if the ad was higher, all the traffic to the subnet would go through R2, and the end host would never get traffic

upvoted 10 times

 **Garfieldcat** 7 months, 3 weeks ago

by the way, AD of OSPF should be 110

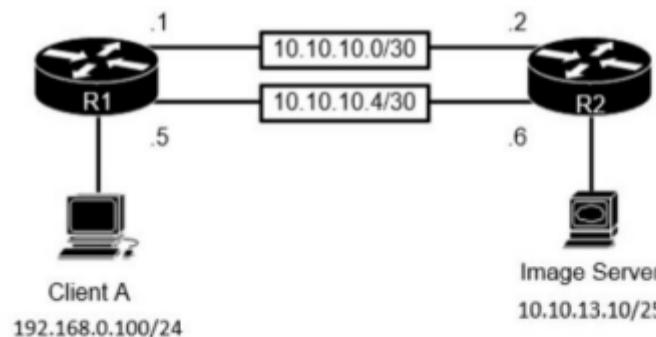
upvoted 3 times

 **Garfieldcat** 7 months, 3 weeks ago

by default static route has AD 1, so no need to change AD to 100 if OSPF AD is 115

upvoted 1 times

Question #492



```
R1#show ip route
Gateway of last resort is 10.10.10.2 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 10.10.10.2
```

```
R2#show ip route
Gateway of last resort is 10.10.10.1 to network 0.0.0.0
S* 0.0.0.0/0 [1/0] via 10.10.10.1
```

Refer to the exhibit. The image server and client A are running an application that transfers an extremely high volume of data between the two. An engineer is configuring a dedicated circuit between R1 and R2. Which set of commands must the engineer apply to the routers so that only traffic between the image server and client A is forced to use the new circuit?

- A. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.6 R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.5
- B. R1(config)#ip route 10.10.13.10 255.255.255.128 10.10.10.6 R2(config)#ip route 192.168.0.100 255.255.255.0 10.10.10.5
- C. R1(config)#ip route 10.10.13.10 255.255.255.252 10.10.10.6 R2(config)#tp route 192.168.0.100 255.255.255.252 10.10.10.5
- D. R1(config)#ip route 10.10.13.10 255.255.255.255 10.10.10.2 R2(config)#ip route 192.168.0.100 255.255.255.255 10.10.10.1

Correct Answer: D

splashy Highly Voted 8 months, 3 weeks ago

Selected Answer: A

D is "old" circuit
Somebody really needs to clean the answers for the new questions tbh...
upvoted 17 times

daddydagoth 3 months, 2 weeks ago

For real man, I imagine how many poor souls have been confused and even learned things wrongly because of the dumb answers on here.
Never do brain dumps if you haven't fully finished studying kids.
upvoted 6 times

NICE_ANSWERS 4 days, 14 hours ago

I guess i'm part of the poor souls for sure

upvoted 1 times

shubhambala Highly Voted 8 months, 3 weeks ago

Selected Answer: A

A answer
upvoted 7 times

czolgczenzo Most Recent 1 month ago

Selected Answer: A

D is the old route, a new one has to be configured
upvoted 1 times

FALARASTA 1 month ago

Selected Answer: A

D is the old route as shown from the configuration. Answer is A
upvoted 1 times

Ciscoman021 2 months ago

Selected Answer: A

a dedicated circuit between R1 and R2.
upvoted 1 times

Ibrahim_32 3 months, 3 weeks ago

A is correct answer

upvoted 1 times

 **gewe** 3 months, 3 weeks ago

A for 100%

upvoted 1 times

 **blue91235** 4 months, 3 weeks ago

Looking at the subnet mask, shouldn't this be B? can somebody explain why is not B ?

upvoted 2 times

 **ddennis123** 4 months, 3 weeks ago

The question states that only traffic between those 2 hosts is supposed to go through the new circuit, therefore you need to use /32 masks

upvoted 4 times

 **NourElMasry** 6 months, 2 weeks ago

Selected Answer: A

"A" is for the new circuit - correct answer

D is the old circuit - wrong answer

upvoted 3 times

 **Etidic** 7 months, 2 weeks ago

Selected Answer: A

The answer is A

upvoted 2 times

 **Etidic** 7 months, 2 weeks ago

The answer is A

upvoted 2 times

 **re_roy** 7 months, 2 weeks ago

Answer is definitely A

upvoted 3 times

 **Garfieldcat** 7 months, 3 weeks ago

Selected Answer: A

host route of D make no difference to default route!!

upvoted 1 times

 **GigaGremlin** 8 months ago

Selected Answer: A

D is the old/existent Route

upvoted 2 times

 **re_roy** 8 months, 1 week ago

Answer is A

upvoted 2 times

 **BieLey** 8 months, 1 week ago

Selected Answer: B

Looking at the subnet mask, shouldn't this be B?

upvoted 2 times

 **BieLey** 8 months, 1 week ago

Nevermind I was too tired when I wrote this. Answer A is right.

upvoted 3 times

 **creaguy** 8 months, 1 week ago

Selected Answer: A

10.10.10.1-2 is already on the route table which indicates it's the existing circuit. So the new circuit is 10.10.10.5-6.

A is the correct answer

upvoted 2 times

Question #493

Topic 1

Gateway of last resort is not set

```
10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C     10.1.1.0/30 is directly connected, GigabitEthernet0/0
L     10.1.1.2/32 is directly connected, GigabitEthernet0/0
S 192.168.0.0/20 [1/0] via 10.1.1.1
    192.168.1.0/30 is subnetted, 1 subnets
S     192.168.1.0/30 [1/0] via 10.1.1.1
    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
S     192.168.2.0/28 [1/0] via 10.1.1.1
S     192.168.2.0/29 [1/0] via 10.1.1.1
```

Refer to the exhibit. An engineer is checking the routing table in the main router to identify the path to a server on the network. Which route does the router use to reach the server at 192.168.2.2?

- A. S 192.168.0.0/20 [1/0] via 10.1.1.1
- B. S 192.168.2.0/29 [1/0] via 10.1.1.1
- C. S 192.168.2.0/28 [1/0] via 10.1.1.1
- D. S 192.168.1.0/30 [1/0] via 10.1.1.1

Correct Answer: B

 **FALARASTA** 1 month ago

SOmeone to explain why /30 is wrong

upvoted 1 times

 **studying_1** 1 month ago

because the range is 192.168.1.0 - 192.168.1.3, destination is 192.168.2.2.... it doesn't cover it, but 192.168.2.0/29 does, 192.168.2.0 - 192.168.2.7,

so correct answer is B, hope that helps :)

upvoted 3 times

 **Hope_12** 1 month ago

192.168.1.0/30

inc=4

192.168.1.0 - 192.168.1.3

192.168.1.4

192.168.1.1 - 192.168.1.2 (Usable hosts)

192.168.2.2 is not in range in 192.168.1.0/30

Answer is B:192.168.2.0/29

upvoted 1 times

 **enzo86** 2 months ago

correct /29

upvoted 1 times

 **Goena** 4 months, 1 week ago

Selected Answer: B

Answer B is correct.

upvoted 3 times

Question #494

Topic 1

Refer to the exhibit. An OSPF neighbor relationship must be configured using these guidelines:

- R1 is only permitted to establish a neighbor with R2.
- R1 will never participate in DR elections.
- R1 will use a router-id of 10.1.1.1.

Which configuration must be used?

A.

```
interface FastEthernet0/0
    ip address 10.100.1.1 255.255.255.252
    ip ospf priority 0
    ip access-group 102 in

router ospf 10
    log-adjacency-changes
    network 10.1.1.1 0.0.0.0 area 0
    network 10.100.1.0 0.0.0.3 area 0
    router-id 10.1.1.1

access-list 102 permit 89 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 89 any any
access-list 102 permit ip any any
```

B.

```
interface Loopback0
    ip address 10.1.1.1 255.255.255.255

interface FastEthernet0/0
    ip address 10.100.1.1 255.255.255.252
    ip ospf priority 100
    ip access-group 102 in

router ospf 10
    log-adjacency-changes
    network 10.1.1.1 0.0.0.0 area 0
    network 10.100.1.0 0.0.0.3 area 0
    ospf router-id 10.1.1.1

access-list 102 permit 88 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 88 any any
access-list 102 permit ip any any
```

C.

```

interface FastEthernet0/0
  ip address 10.100.1.1 255.255.255.252
  ip ospf priority 100
  ip access-group 102 in

router ospf 10
  log-adjacency-changes
  network 10.1.1.1 0.0.0.0 area 0
  network 10.100.1.0 0.0.0.3 area 0
  ospf router-id 10.1.1.1

access-list 102 permit 89 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 89 any any
access-list 102 permit ip any any

D.

interface Loopback0
  ip address 10.1.1.1 255.255.255.255

interface FastEthernet0/0
  ip address 10.100.1.1 255.255.255.252
  ip ospf priority 0
  ip access-group 102 in

router ospf 10
  log-adjacency-changes
  network 10.1.1.1 0.0.0.0 area 0
  network 10.100.1.0 0.0.0.3 area 0
  ospf router-id 10.1.1.1

access-list 102 permit 88 host 10.100.1.2 host 224.0.0.5
access-list 102 deny 88 any any
access-list 102 permit ip any any

```

Correct Answer: A

 **g_mindset** Highly Voted 9 months ago

OSPF uses port 89 and does not use a transport protocol. A is the answer.

EIGRP port 88.

upvoted 20 times

 **f2killer** 2 weeks, 3 days ago

if this is the right answer how the router id is gonna be 10.1.1.1?? In answer D the router id it will assign the loopback.

upvoted 1 times

 **f2killer** 2 weeks, 3 days ago

iam wrong. i see now router id ...

upvoted 1 times

 **EthanhuntMI6** 5 months, 2 weeks ago

Thank you.

upvoted 1 times

 **daddydagoth** Highly Voted 3 months, 2 weeks ago

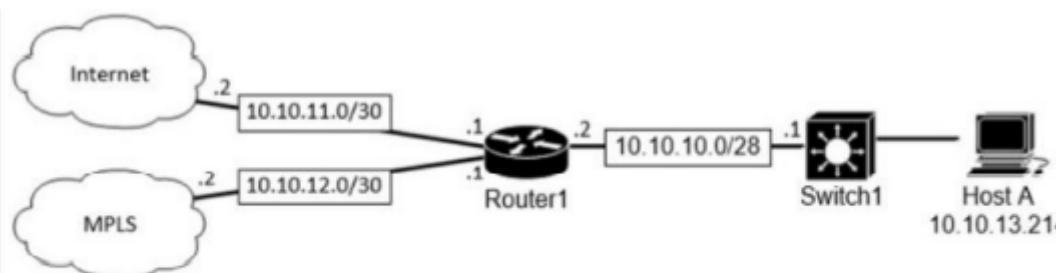
Another thing wrong with answer D is that the command "ospf router ID" is wrong. EIGRP's command is "EIGRP router ID", OSPF uses "Router ID"
upvoted 5 times

 **ThomasSmith** 3 weeks, 2 days ago

B, C, D all use ospf router ID.

upvoted 1 times

Question #495



```

Router1#show ip route
Gateway of last resort is 10.10.11.2 to network 0.0.0.0

 209.165.200.0/27 is subnetted, 1 subnets
B     209.165.200.224 [20/0] via 10.10.12.2, 03:22:14
 209.165.201.0/27 is subnetted, 1 subnets
B     209.165.201.0 [20/0] via 10.10.12.2, 02:26:33
 209.165.202.0/27 is subnetted, 1 subnets
B     209.165.202.128 [20/0] via 10.10.12.2, 02:26:03
 10.0.0.0/8 is variably subnetted, 8 subnets, 4 masks
C     10.10.10.0/28 is directly connected, GigabitEthernet0/0
C     10.10.11.0/30 is directly connected, FastEthernet2/0
C     10.10.12.0/30 is directly connected, GigabitEthernet0/1
O     10.10.13.0/25 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O     10.10.13.128/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O     10.10.13.144/28 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O     10.10.13.160/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
O     10.10.13.208/29 [110/2] via 10.10.10.1, 00:00:04, GigabitEthernet0/0
S*   0.0.0.0/0 [1/0] via 10.10.11.2
  
```

Refer to the exhibit. What is the prefix length for the route that router1 will use to reach host A?

- A. /25
- B. /27
- C. /28
- D. /29

Correct Answer: D

zamklio 2 months, 1 week ago

I think C is the correct one.

The route is 10.10.10.1 (to reach 10.10.13.214) which is the IP address of G0/0. The latter forms part of the 10.10.10.0/28 network. so should not be /28??

upvoted 1 times

daddydagoth 3 months, 2 weeks ago

Selected Answer: D

IT's D

upvoted 3 times

SVN05 4 months ago

Selected Answer: D

Answer D /29 is correct. Why /29 cause lets see why

32 bit mask -29 bit mask=3 bits

2 to the power of 3 is 8 per subnet while 6 host in a subnet(2 power of 3 minus 2)

So 8 bits in a subnet. Take this questions example.

1st Subnet = 10.10.13.0 - 10.10.13.7

2nd Subnet = 10.10.13.8 - 10.10.13.15

3rd Subnet = 10.10.13.16 - 10.10.13.23

....

...

Some numbered Subnet later =10.10.13.208 - 10.10.13.216 so 10.10.13.214 is in the range so that's the answer right there

Reminder

Each subnet has a Network and Broadcast Bit so for knowing how many host in a subnet need to ALWAYS MINUS 2. That's why we minus 2(remember just now with 2 power of 3 minus 2 so yup).

upvoted 4 times

blue91235 4 months, 3 weeks ago

Why is /29 ?

upvoted 1 times

bertholdt 5 months, 3 weeks ago

Selected Answer: C

it's /28 on the routing table not /29

upvoted 2 times

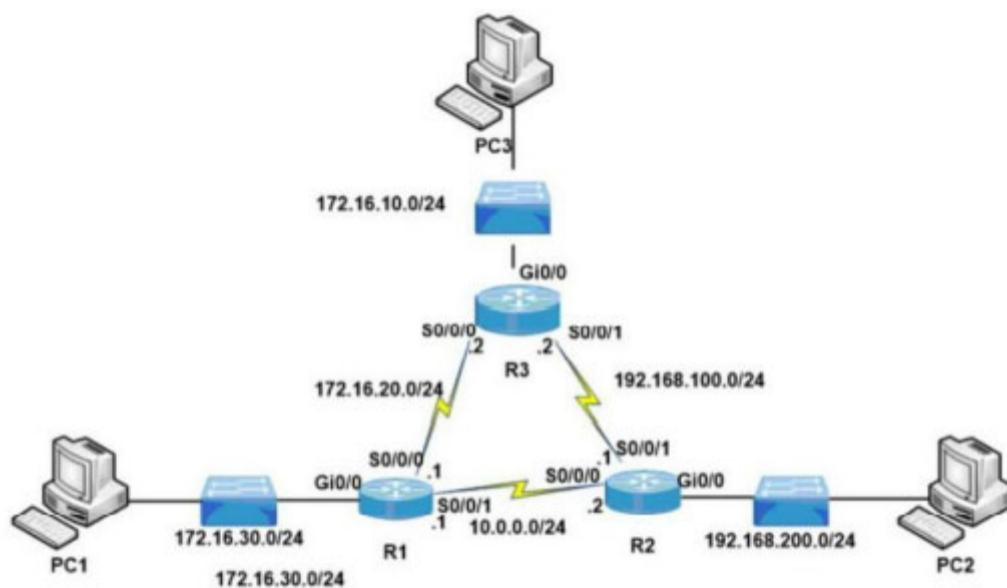
 **braeiv123** 4 months, 1 week ago

D makes sense. 10.10.13.208/29 via 10.1.0.10.1

upvoted 1 times

Question #496

Topic 1



```
R1(config)#ip route 0.0.0.0 .0.0.0.0 172.16.20.2
R1(config)#ip route 0.0.0.0 0.0.0.0 10.0.0.2 20
```

Refer to the exhibit. After applying this configuration to router R1, a network engineer is verifying the implementation. If all links are operating normally, and the engineer sends a series of packets from PC1 to PC3, how are the packets routed?

- A. They are distributed sent round robin to interfaces S0/0/0 and S0/0/1
- B. They are routed to 10.0.0.2
- C. They are routed to 192.168.100.2
- D. They are routed to 172.16.20.2

Correct Answer: D

 **papinski** 3 months, 4 weeks ago

Selected Answer: D

D is correct.

upvoted 3 times

 **dosu01** 6 months ago

if you type the cmd "ip route 0.0.0.0 .0.0.0.0 172.16.20.1" you get "% Invalid input detected at '^' marker.".

upvoted 3 times

 **mell0s** 7 months ago

"D" es correcto

upvoted 1 times

Question #497

Topic 1

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?

- A. Vlan58
- B. Null0
- C. Vlan59
- D. Vlan60

Correct Answer: A

 **blue91235** Highly Voted  4 months, 3 weeks ago

Answer A is the longest prefix and 62 inclusive in /26
upvoted 6 times

 **Chris1225** Most Recent  3 months, 3 weeks ago

Selected Answer: A

I'm sure A is the correct answer
mask /26 seems $2^6 = 64$, so 10.56.0.0/26 means
10.56.0.0 ~ 10.56.0.63 is the range, the broadcast is 10.56.0.63
and 10.56.0.62 is the final address can be used
refer to the routing table, /26 go to vlan 58, so choose A
upvoted 4 times

 **humanbot** 6 months, 2 weeks ago

Selected Answer: D

it uses vlan 60 route because it have the longest prefix length
upvoted 1 times

 **daddydagoth** 3 months, 2 weeks ago

So /24 is longer than /26 in your eyes?
upvoted 4 times

 **humanbot** 6 months, 2 weeks ago

sorry A is the right answer
upvoted 10 times

Question #498

Topic 1

Current Neighbor Relationship

Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.1.1	1	FULL/DR	00:00:33	192.168.1.1	GigabitEthernet0/0

Desired Neighbor Relationship

Neighbor ID	Pri	State	Dead Time	Address	Interface
192.168.1.1	0	FULL/-	00:00:31	192.168.1.1	GigabitEthernet0/0

Refer to the exhibit. How much OSPF be configured on the GigabitEthernet0/0 interface of the neighbor device to achieve the destined neighbor relationship?

- A. Router(config)#interface GigabitEthernet 0/0 Router(config-if)#ip ospf cost 5
- B. Router(config)#interface GigabitEthernet 0/0 Router(config-if)#ip ospf priority 1
- C. Router(config)#interface GigabitEthernet 0/0 Router(config-if)#ip ospf area 2
- D. Router(config)#interface GigabitEthernet 0/0 Router(config-if)#ip ospf network point-to-point

Correct Answer: D

 **Shri_Fcb10** 3 weeks ago

Can we apply p2p on ethernet interface I thought it was for serial int
upvoted 1 times

 **Ciscoman021** 1 month, 3 weeks ago

Selected Answer: D

D is right answer.
upvoted 1 times

 **therandomjoke** 1 month, 3 weeks ago

Selected Answer: D

point to point no dr/bdr election---- connection ppp/hdlc h10 d40
broadcast use dr/bdr election----connection eth/FDDI h10 d40
upvoted 2 times

 **VictorCisco** 2 months, 1 week ago

I'm just curious , if it possible to configure PPP on Ethernet ports? I mean in OSPF?
upvoted 2 times

 **alejandro12** 6 months, 2 weeks ago

Answer D
ip ospf network point-to-point -->no dr/bdr election
B is not correct -->the router would be dr/bdr
upvoted 2 times

 **icecool2019** 7 months, 4 weeks ago

In a point to point routing setup, there would be no need to select DR/BDR, and also priority is 0.
upvoted 3 times

 **GigaGremlin** 8 months ago

Selected Answer: D

It took me a While to understand this Question and it would be very helpful to exchange it like:
How must OSPF be configured on the GigabitEthernet0/0 interface of the neighbor device to achieve the desired neighbor relationship?
upvoted 3 times

 **DoBronx** 7 months, 1 week ago

THIS much OSPF
upvoted 3 times

 **IAmAlwaysWrongOnExamtopics** 6 months ago

That's a lot of ospf
upvoted 1 times

 **Goh0503** 8 months ago

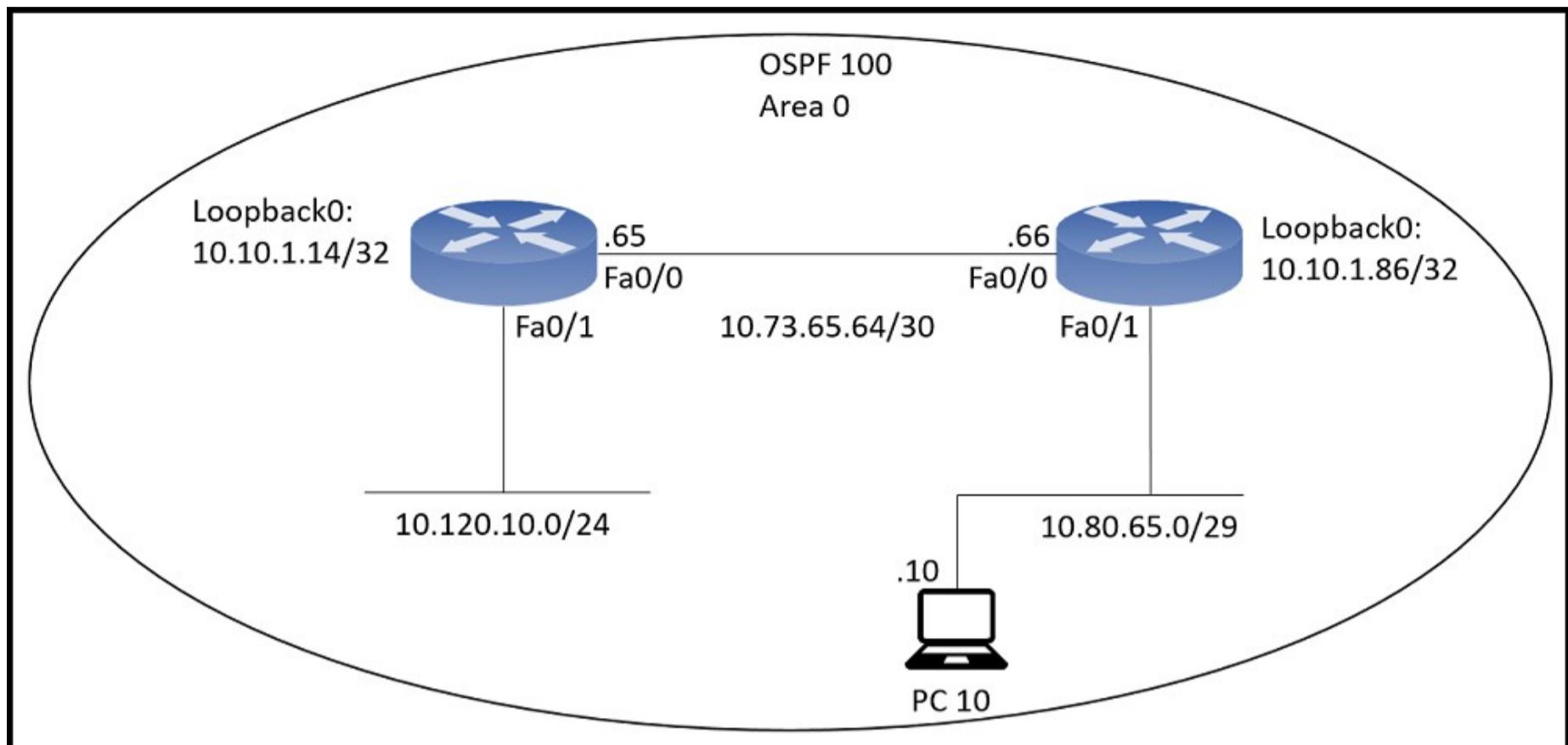
Answer D

<https://study-ccna.com/ospf-network-types/#:~:text=A%20Point%2Dto%2DPoint%20network,always%20have%20precisely%20one%20recipient.>

upvoted 1 times

Question #499

Topic 1



An engineer just installed network 10.120.10.0/24. Which configuration must be applied to the R14 router to add the new network to its OSPF routing table?

- A. Router ospf 100 Network 10.120.10.0 0.0.0.255 area 0
- B. Router ospf 120 Network 10.120.10.0 255.255.255.0 area 0 ip route 10.120.10.0 255.255.255.0 fa0/1
- C. Router ospf 100 area 0 Network 10.120.10.0 0.0.0.255
- D. Router ospf 100 Network 10.120.10.0 255.255.255.0 area 0

Correct Answer: A

shubhambala Highly Voted 8 months, 3 weeks ago

Selected Answer: A

the answer is A and not D because OSPF configuration needs wildcard(inverted bits)

upvoted 12 times

melmiosis 7 months, 1 week ago

Quick and astute observation there Shubhambala

upvoted 2 times

blue91235 Most Recent 4 months, 3 weeks ago

Answer is A

upvoted 1 times

alejandro12 6 months, 2 weeks ago

Answer A

is tricky because the latest versions can use "normal mask"

upvoted 1 times

Question #500

Topic 1

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

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

Correct Answer: DE

✉️  **papibarbu** 5 months ago

yes my man
upvoted 2 times