

Cisco

Exam Questions 300-415

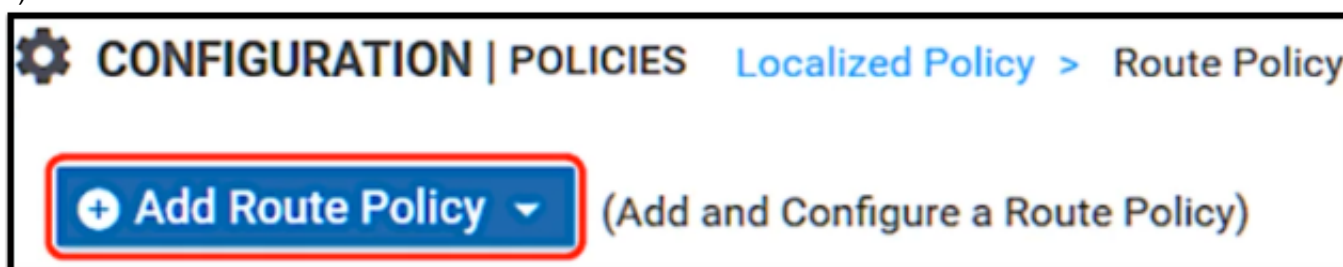
Implementing Cisco SD-WAN Solutions (ENSDWI)



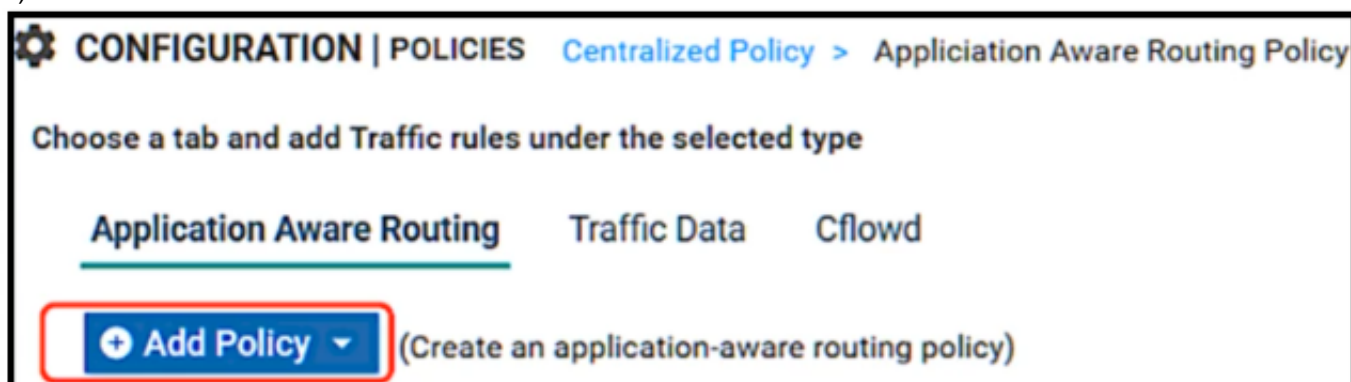
NEW QUESTION 1

An engineer must configure the SD-WAN Edge router to identify DSCP 26 traffic coming from the router's local site and then change the DSCP value to DSCP 18 before sending it over to the SD-WAN fabric. What are the two ways to create the required configuration? (Choose two).

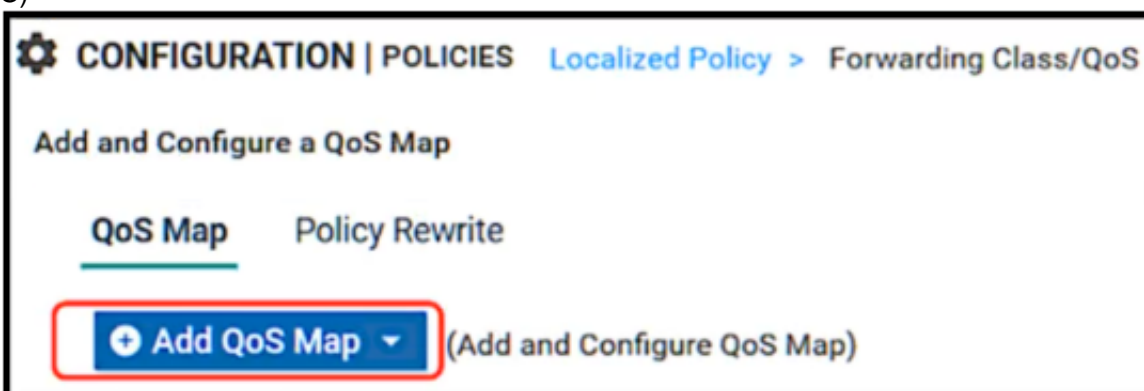
A)



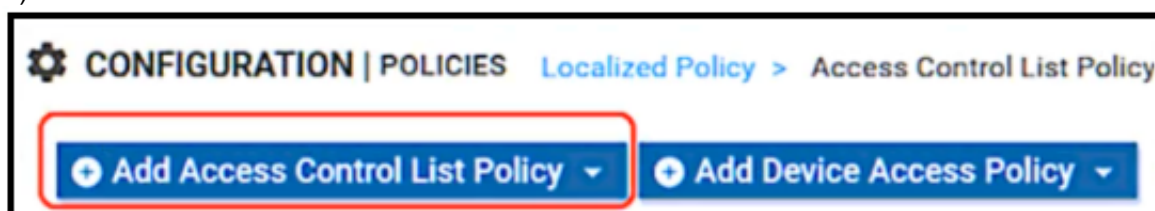
B)



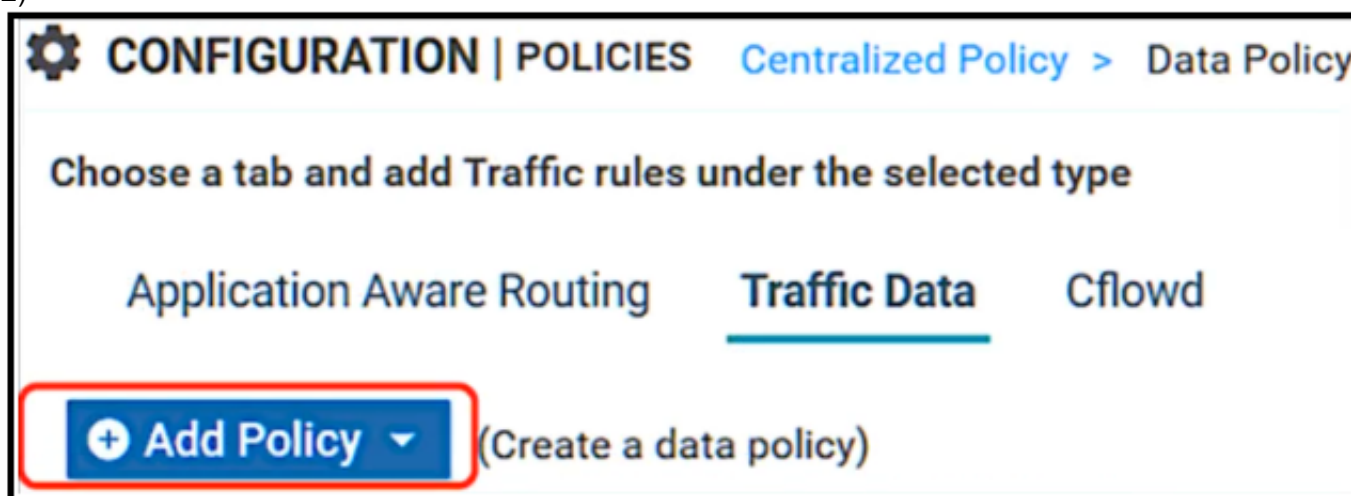
C)



D)



E)

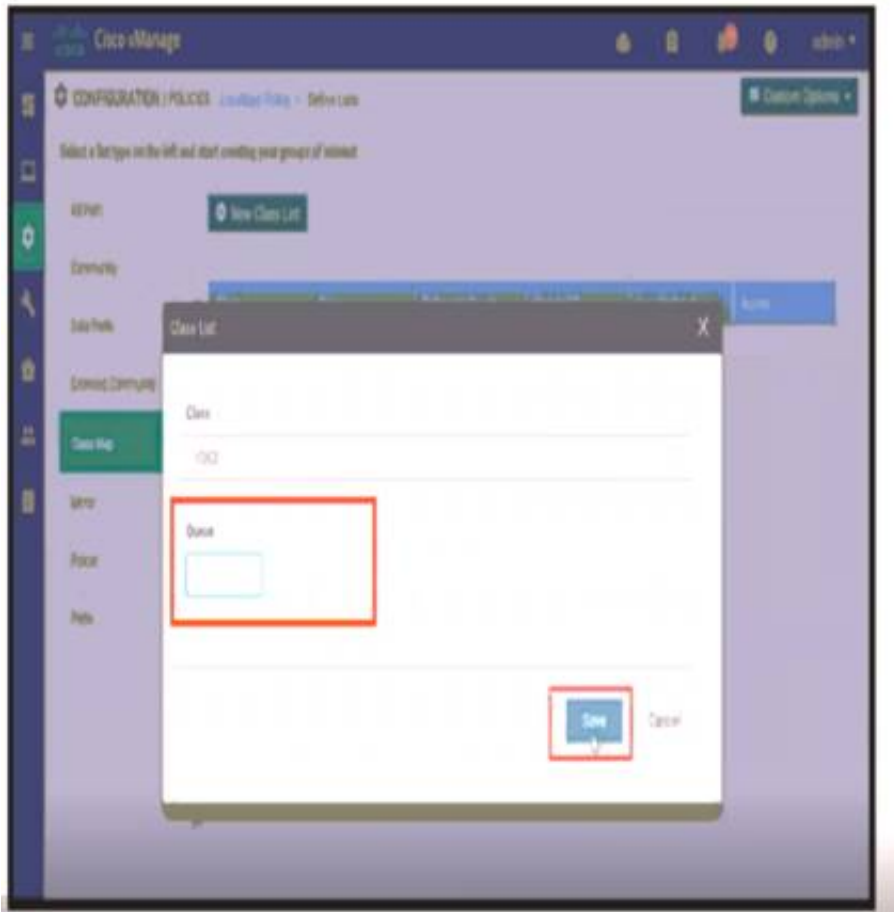


- A. Option A
- B. Option B
- C. Option C
- D. Option D
- E. Option E

Answer: AC

NEW QUESTION 2

Refer to the exhibit.



A network administrator is setting the queueing value for voice traffic for one of the WAN Edge routers using vManager GUI. Which queue value must be set to accomplish this task?

- A. 1
- B. 2
- C. 3

Answer: A

NEW QUESTION 3

What is the default value (in milliseconds) set for the poll interval in the BFD basic configuration?

- A. 300,000
- B. 600,000
- C. 900,000
- D. 1,200,000

Answer: B

Explanation:

https://sdwan-docs.cisco.com/Product_Documentation/vManage_Help/Release_18.2/Configuration/Templates/B

NEW QUESTION 4

What are the two protocols redistributed into OMP? (Choose two.)

- A. OSPF
- B. RIP
- C. LDP
- D. RSVP
- E. EIGRP

Answer: AE

Explanation:

Supported Protocols

This section explains the protocols supported for unicast routing.

- OMP Routing Protocol
- BGP and OSPF Routing Protocols
- OSPFv3
- EIGRP

<https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/routing/ios-xe-17/routing-book-xe/m-unicas>

NEW QUESTION 5

An engineer is configuring a data policy for IPv4 prefixes for a single WAN Edge device on a site with multiple WAN Edge devices. How is this policy added using the policy configuration wizard?

- A. In vManage NMS, select the configure policies screen, select the localized policy tab and click add policy
- B. In vSmart controller, select the configure policies screen, select the localized policy ta

- C. and click add policy
- D. In vManage NM
- E. select the configure policies screen select the centralized policy tab and click add policy
- F. In vBond orchestrator
- G. select the configure policies screen, select the localized policy tab and click add policy
- H. and click add policy

Answer: A

NEW QUESTION 6

Which two different states of a WAN Edge certificate are shown on vManage? (Choose two.)

- A. inactive
- B. active
- C. staging
- D. invalid
- E. provisioned

Answer: BE

NEW QUESTION 7

Refer to the exhibit

PEER TYPE	PEER PROTOCOL	PEER SYSTEM	SITE IP	DOMAIN ID	PEER ID	PRIVATE IP	PRIVATE PORT	PRIVATE IP	PUBLIC IP	PUBLIC PORT	LOCAL COLOR	STATE	LOCAL ERROR	REMOTE ERROR	REPEAT COUNT
vbond	dtls	-	0	0	209.165.200.230	12346	209.165.200.230	12346	biz-internet	tear_down	CTORGNMMIS	NOERR	14		
vbond	dtls	-	0	0	209.165.201.137	12346	209.165.201.137	12346	biz-internet	tear_down	CTORGNMMIS	NOERR	13		

An engineer is getting a CTORGNMMIS error on a controller connection. Which action resolves this issue?

- A. Configure a valid serial number on the WAN Edge
- B. Configure a valid organization name
- C. Configure a valid certificate on vSMART
- D. Configure a valid product ID

Answer: B

NEW QUESTION 8

Refer to the exhibit.

```
LAB-ROUTER#show ip route vrf 100
Gateway of last resort is 10.1.9.2 to network 0.0.0.0

m* 0.0.0.0/0 [251/0] via 10.1.9.2, 06:10:53
    [251/0] via 10.1.9.3, 06:10:53
O   10.80.6.0/24
    [110/300] via 172.19.75.78, 20:35:33, GigabitEthernet0/0/2.10
    [110/300] via 172.19.75.66, 1w0d, GigabitEthernet0/0/1.11
O   10.80.56.0/24
    [110/300] via 172.19.75.78, 20:35:33, GigabitEthernet0/0/2.10
    [110/300] via 172.19.75.66, 1w0d, GigabitEthernet0/0/1.11
```

The network administrator has configured a centralized topology policy that results in the displayed routing table at a branch office. Which two configurations are verified by the output? [Choose two.]

- A. The routing table is for the transport VPN.
- B. The default route is learned via OMP.
- C. This routing table is from a cEdge router.
- D. The default route is configured locally.
- E. The configured policy is adding a route tag of 300 to learned routes.

Answer: BC

NEW QUESTION 9

An engineer is adding a tenant with location ID 399533345 in vManage. What is the maximum number of alphanumeric characters that is accepted in the tenant name field?

- A. 64
- B. 128
- C. 256
- D. 8

Answer: B

Explanation:

In the Add Tenant window:

- a. Enter a name for the tenant. It can be up to 128 characters and can contain only alphanumeric characters.

NEW QUESTION 10

What are two benefits of installing Cisco SD-WAN controllers on cloud-hosted services? (Choose two.)

- A. utilizes well-known cloud services such as Azur
- B. AW
- C. and GCP
- D. accelerates Cisco SD-WAN deployment
- E. allows integration of the WAN Edge devices In the cloud
- F. installs the controllers in two cloud regions in a primary and backup setup
- G. automatically Implements zone-based firewalling on the controllers

Answer: BD

NEW QUESTION 10

Which two virtualized environments are available for a company to install the controllers using the on-premises model? (Choose two)

- A. VMware vSphere ESXi
- B. VMware Workstation
- C. kernel-based virtual machine
- D. OpenStack
- E. Microsoft Hyper-V

Answer: AD

NEW QUESTION 14

What are the two impacts of losing vManage connectivity to fabric in the Cisco SD-WAN network? (Choose two)

- A. Policy changes propagation stops
- B. Statistics collection stops
- C. BFD peering between WAN Edge devices are unestablished
- D. Creation of templates is impossible
- E. IPsec tunnels tear down for WAN Edge devices.

Answer: AB

NEW QUESTION 15

Drag and drop the devices from the left into order on the right to upgrade the software from version 19 to version 20.

WAN Edge	1
vBond	2
vManage	3
vSmart	4

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 19

A network administrator configures SNMPv3 on a Cisco WAN Edge router from CLI for monitoring purposes How many characters are supported by the snmp user <username> command?

- A. from 1 to 8
- B. from 1 to 16
- C. from 1 to 32
- D. from 1 to 48

Answer: C

NEW QUESTION 23

An engineer is configuring a shaping rate of 1 Mbps on the WAN link of a WAN Edge router Which configuration accomplishes this task’?

- ☒ vpn vpn-id
interface interface-name
shaping-rate 1000000
- ☐ vpn vpn-id
interface interface-name
shaping-rate 1000
- ☐ interface interface-name
vpn vpn-id
shaping-rate 1000000
- ☒ interface interface-name
vpn vpn-id
shaping-rate 1000

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 27

Which third-party Enterprise CA server must be used (or a cloud-based vSmart controller)?

- A. RootCert
- B. Microsoft
- C. RADIUS
- D. VeriSign

Answer: A

NEW QUESTION 31

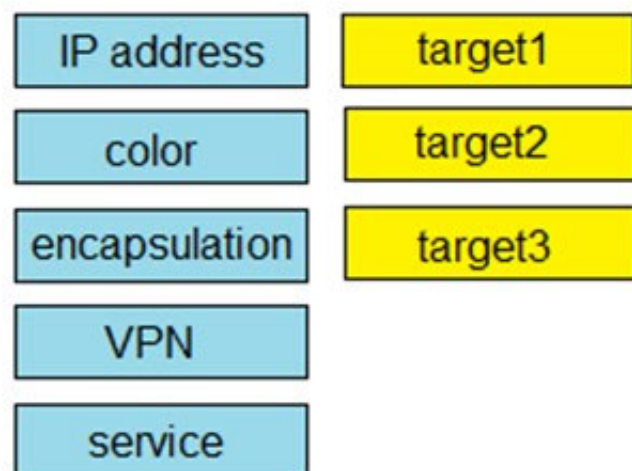
Which pathway under Monitor > Network > Select Device is used to verify service insertion configuration?

- A. System Status
- B. Troubleshooting
- C. Real Time
- D. Events

Answer: B

NEW QUESTION 36

Drag and drop the attributes from the left that make each transport location unique onto the right. Not all options are used.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A TLOC, or Transport Location, is the attachment point where a WAN Edge router connects to the WAN transport network. A TLOC is uniquely identified and represented by a three-tuple, consisting of system IP address, link color, and encapsulation (Generic Routing Encapsulation [GRE] or IPsec).

NEW QUESTION 40

A Cisco SD-WAN customer has a requirement to calculate the SHA value for files as they pass through the device to see the returned disposition and determine if the file is good, unknown or malicious. The customer also wants to perform real-time traffic analysis and generate alerts when threats are detected Which two Cisco SD-WAN solutions meet the requirements? (Choose two.)

- A. Cisco Trust Anchor Module
- B. Cisco Threat Grid
- C. Cisco Snort IPS
- D. Cisco AMP
- E. Cisco Secure Endpoint

Answer: CD

NEW QUESTION 41

When VPNs are grouped to create destination zone in Zone-Based Firewall, how many zones can a single VPN be part of?

- A. two
- B. four
- C. one
- D. three

Answer: C

NEW QUESTION 44

Refer to the exhibit



The network team must configure application-aware routing for the Service VPN 50.0.0.0/16

The SLA must prefer MPLS for video traffic but the remaining traffic must use a public network What must be defined other than applications before the application-aware policy is create?

- A. SLA Class, Site VP
- B. Prefix
- C. Data Prefix, Site VPN TLOC
- D. Application, SLA VP
- E. Prefix
- F. Color, SLA Class, Sue, VPN

Answer: A

NEW QUESTION 47

Which device information is required on PNP/ZTP to support the zero-touch onboarding process?

- A. interface IP address
- B. system IP address
- C. public DNS entry
- D. serial and chassis numbers

Answer: D

NEW QUESTION 49

What is a requirement for a WAN Edge to reach vManage, vBond, and vSmart controllers in a data center?

- A. IGP
- B. QoS
- C. TLS
- D. OMP

Answer: A

Explanation:

<https://www.cisco.com/c/dam/en/us/td/docs/solutions/CVD/SDWAN/sdwan-wan-edge-onboarding-deploy-guid>

NEW QUESTION 54

Which combination of platforms are managed by vManage?

- A. ISR4321, ASR1001, ENCS, ISRV
- B. ISR4351, ASR1002HX, vEdge2000, vEdge Cloud

- C. ISR4321, ASR1001, Nexus, ENCS
- D. ISR435I, ASR1009, vEdge2000, CSR1000v

Answer: A

NEW QUESTION 58

What problem happens on a device with two serial numbers, a unique device identifier (UDI), and secure unique device identifier (SUDI) when an engineer provisions ISR 4000 by PnP using only a UDI?

- A. It encounters spanning tree issues
- B. It faces interface buffer overflow patterns
- C. It encounters redirection problems.
- D. It encounters memory overload problems

Answer: D

NEW QUESTION 60

An engineer must configure two branch WAN Edge devices where an Internet connection is available and the controllers are in the headquarters. The requirement is to have IPsec VPN tunnels established between the same colors. Which configuration meets the requirement on both WAN Edge devices?

WAN Edge 1

```
vpn 0
interface ge0/0
ip address 10.0.0.1/24
ipv6 dhcp-client
tunnel-interface
color biz-internet restrict
encapsulation ipsec
```

WAN Edge 2

```
vpn 0
interface ge0/0
ip address 10.0.0.2/24
ipv6 dhcp-client
tunnel-interface
color default
encapsulation ipsec
```

WAN Edge 1

```
vpn 0
interface ge0/0
ip address 10.0.0.1/24
ipv6 dhcp-client
tunnel-interface
color default
encapsulation ipsec
```

WAN Edge 2

```
vpn 0
interface ge0/0
ip address 10.0.0.2/24
ipv6 dhcp-client
tunnel-interface
color default
encapsulation ipsec
```

WAN Edge 1

```
vpn 0
interface ge0/0
ip address 10.0.0.1/24
ipv6 dhcp-client
tunnel-interface
color public-internet restrict
encapsulation ipsec
```

WAN Edge 2

```
vpn 0
interface ge0/0
ip address 10.0.0.2/24
ipv6 dhcp-client
tunnel-interface
color gold restrict
encapsulation ipsec
```

WAN Edge 1

```
vpn 0
interface ge0/0
ip address 10.0.0.1/24
ipv6 dhcp-client
tunnel-interface
color gold restrict
encapsulation ipsec
```

WAN Edge 2

```
vpn 0
interface ge0/0
ip address 10.0.0.2/24
ipv6 dhcp-client
tunnel-interface
color gold restrict
encapsulation ipsec
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 65

Which protocol is used between redundant vSmart controllers to establish a permanent communication channel?

- A. IPsec
- B. HTTPs
- C. DTLS
- D. SSL

Answer: C

NEW QUESTION 69

An engineer must avoid routing loops on the SD-WAN fabric for routes advertised between data center sites Which BGP loop prevention attribute must be configured on the routers to meet this requirement?

- A. same OMP overlay-as on WAN Edge routers of all data centers
- B. static routing on al WAN Edge routers instead of BGP
- C. same BGP AS between all WAN Edge routers and CE routers
- D. same BGP AS between all CE and PE routers

Answer: A

NEW QUESTION 74

Which protocol is used for the vManage to connect to the vSmart Controller hosted in Cloud?

- A. PnP Server
- B. ZTP
- C. NETCONF
- D. HTTP

Answer: C

Explanation:

Netconf and CLI—Netconf is a standards-based protocol used by Cisco vManage to provision a Cisco vSmart Controller.

NEW QUESTION 77

Which two services are critical for zero touch provisioning on-boarding? (Choose two)

- A. SNMP
- B. DNS
- C. DHCP
- D. AAA
- E. EMAIL

Answer: BC

NEW QUESTION 79

How many vCPUs and how much RAM are recommended to run the vSmart controller on the KVM server for 251 to 1000 devices in software version 20.4.x?

- A. 4vCPU

- B. 16 GB
- C. 4 vCPU
- D. 8 GB
- E. 8vCPU
- F. 16 GB
- G. 2vCPUs.4GB

Answer: B

NEW QUESTION 81

Which set of elements are verified by the controller to confirm the identity of edge devices?

- A. certificates, organization name and serial number of the device
- B. organization name serial number and system IP of the device
- C. certificates, organization name, and vBond domain
- D. certificates, system IP, and vBond domain

Answer: A

NEW QUESTION 85

Which plane builds and maintains the network topology and makes decisions on traffic flows?

- A. orchestration
- B. management
- C. control
- D. data

Answer: C

NEW QUESTION 86

What is the threshold to generate a warning alert about CPU or memory usage on a WAN Edge router?

- A. 70 to 85 percent
- B. 70 to 90 percent
- C. 75 to 85 percent
- D. 75 to 90 percent

Answer: C

NEW QUESTION 89

Which policy blocks TLOCs from remotes and allows TLOCs from the data center to form hub-and-spoke peering?

- A. localized control policy
- B. localized data policy
- C. centralized data policy
- D. centralized control policy

Answer: C

Explanation:

Centralized Policy

Centralized policy refers to policy provisioned on Cisco vSmart Controllers, which are the centralized controllers in the Cisco SD-WAN overlay network. Centralized policy comprises two components:

- Control policy, which affects the overlay network-wide routing of traffic
- Data policy, which affects the data traffic flow throughout the VPN segments in the network

NEW QUESTION 90

What is the maximum number of IPsec that are temporarily created and converged on a new set of IPsec SAs in the pairwise keys process during a simultaneous rekey?

- A. 2
- B. 4
- C. 6
- D. 8

Answer: B

NEW QUESTION 95

What must an engineer consider when deploying an SD-WAN on-premises architecture based on ESXi hypervisor?

- A. Cisco must provision the backup and snapshots platform for the SD-WAN architecture

- B. The managed service provider must provision controllers with their appropriate certificates
- C. The IT team is required to provision the SD-WAN controllers and is responsible for backups and disaster recovery implementation
- D. The IT team will be given access by Cisco to a vManage for configuration templates and policies

Answer: C

NEW QUESTION 98

In which file format is a critical severity report downloaded from the MONITOR | ALARM tab in the vManage GUI?

- A. .txt
- B. .pdf
- C. .csv
- D. .xlsx

Answer: C

NEW QUESTION 101

Which alarm setting is configured to monitor serious events that affect but do not shut down, the operation of a network function?

- A. Minor
- B. Major
- C. Medium
- D. Critical

Answer: B

NEW QUESTION 103

How should the IP addresses be assigned for all members of a Cisco vManage cluster located in the same data center?

- A. in the same subnet
- B. in overlapping IPs
- C. in each controller with a /32 subnet
- D. in different subnets

Answer: A

NEW QUESTION 106

An engineer creates a data policy to prevent communication from the 172.20.21.0/24 network to the 172.20.41.0/24 network. Which configuration accomplishes this task?

```
policy
lists
  vpn-list VPN1
  vpn 1
!
  data-prefix-list LosAngeles-Net1
  ip-prefix 172.20.21.0/24
  data-prefix-list Rome-Net1
  ip-prefix 172.20.41.0/24
!
data-policy FILTER-POLICY
  vpn-list VPN1
  sequence 1
  match
    source-data-prefix-list LosAngeles-Net1
  action drop
!
  sequence 11
  match
    source-data-prefix-list Rome-Net1
  action drop
!
default-action accept
```

- ☐ policy
 - lists
 - vpn-list VPN1
 - vpn 1
 - !
 - data-prefix-list LosAngeles-Net1
 - ip-prefix 172.20.21.0/24
 - data-prefix-list Rome-Net1
 - ip-prefix 172.20.41.0/24
 - !
 - data-policy FILTER-POLICY
 - vpn-list VPN1
 - sequence 1
 - match
 - source-data-prefix-list LosAngeles-Net1
 - destination-data-prefix-list Rome-Net1
 - action drop
 - !
 - default-action accept
- ☐ policy
 - lists
 - vpn-list VPN1
 - vpn 1
 - !
 - data-prefix-list LosAngeles-Net1
 - ip-prefix 172.20.0.0/16
 - data-prefix-list Rome-Net1
 - ip-prefix 172.20.0.0/16
 - !
 - data-policy FILTER-POLICY
 - vpn-list VPN1
 - sequence 1
 - match
 - source-data-prefix-list LosAngeles-Net1
 - destination-data-prefix-list Rome-Net1
 - action drop
 - !
 - default-action accept
- ☐ policy
 - lists
 - vpn-list VPN1
 - vpn 1
 - !
 - data-prefix-list LosAngeles-Net1
 - ip-prefix 172.20.21.0/24
 - data-prefix-list Rome-Net1
 - ip-prefix 172.20.41.0/24
 - !
 - data-policy FILTER-POLICY
 - vpn-list VPN1
 - sequence 1
 - match
 - source-data-prefix-list LosAngeles-Net1
 - destination-data-prefix-list Rome-Net1
 - action accept
 - !
 - default-action drop

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 110

An administrator wants to create a policy to add a traffic policer called "politer-ccnp" to police data traffic on the WAN Edge. Which configuration accomplishes this task in vSmart?

- A.

vpn 1
interface ge 0/4
policer policer-ccnp in
- B.

policy
data-policy policy-ccnp
vpn-list list-ccnp
sequence number
action accept
set policer policer-ccnp
- C.

policy
access-list list-ccnp
sequence number
action accept
policer policer-ccnp
- D.

vpn 1
interface ge 0/4
policer policer-ccnp out

- A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

NEW QUESTION 113

After deploying Cisco SD-WAN the company realized that by default, all sites built direct IPsec VPN tunnels to each other In their previous topology all spoke sites used the head office as their next hop for the LAN segment that belongs to network 40.0.0.0/16 The company wants to deploy its previous policy, which allows the 40.0.0.0/16 network that originates at the hub to advertise to the spokes. Which configuration meets the requirement?

A)

Manage Preference and Prefix Lists

Choose hub preference and add prefix lists as desired.

☐ All hubs are equal (All Spokes Sites connect to all Hubs)

☒ Advertise Hub TLOCs

Hub_TLOCs x

Spoke Sites

Associated Hub Sites

Prefix Lists (Optional)

↑↓ Drag & drop to reorder

Hub

= Spokes

LAN_Segment x

B)

Manage Preference and Prefix Lists

Choose hub preference and add prefix lists as desired.

☒ All hubs are equal (All Spokes Sites connect to all Hubs)

☐ Advertise Hub TLOCs

Spoke Sites

Associated Hub Sites

Prefix Lists (Optional)

Spokes

Hub

LAN_Segment x

C)

Manage Preference and Prefix Lists

Choose hub preference and add prefix lists as desired.

☐ All hubs are equal (All Spokes Sites connect to all Hubs) ☒ Advertise Hub TLOCs Hub_TLOCs x

Spoke Sites	Associated Hub Sites	Prefix Lists (Optional)	Drag & drop to reorder
Spokes	Hub	LAN_Segment x	

D)

Manage Preference and Prefix Lists

Choose hub preference and add prefix lists as desired.

☐ All hubs are equal (All Spokes Sites connect to all Hubs) ☒ Advertise Hub TLOCs Hub_TLOCs x

Spoke Sites	Associated Hub Sites	Prefix Lists (Optional)	Drag & drop to reorder
Spokes	Hub	Select one or more prefix lists	

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 118

Which encryption algorithm is used for encrypting SD-WAN data plane traffic?

- A. Triple DES
- B. IPsec
- C. AES-128
- D. AES-256 GCM

Answer: D

NEW QUESTION 123

Which command on a WAN Edge device displays the information about the colors present in the fabric that are learned from vSmart via OMP?

- A. show omp tlocs
- B. show omp sessions
- C. show omp peers
- D. show omp route

Answer: A

NEW QUESTION 124

A network administrator is configuring Qos on a vEdge 5000 router and needs to enable it on the transport side interface. Which policy setting must be selected to accomplish this goal?

- A. Cloud QoS Service side
- B. Cloud QoS
- C. NetFlow
- D. Application

Answer: B

Explanation:

9. Since the DC routers are vEdge 5000s, select the **Cloud QoS** checkbox to enable QoS on the transport side.

NEW QUESTION 129

What is the main purpose of using TLOC extensions in WAN Edge router configuration?

- A. creates hardware-level transport redundancy at the local site

- B. creates an IPsec tunnel from WAN Edge to vBond Orchestrator
- C. transports control traffic to a redundant vSmart Controller
- D. transports control traffic w remote-site WAN Edge routers

Answer: D

NEW QUESTION 134

Which vBond system configuration under VPN 0 allows for a routable public IP address even if the DNS name, hostname, or IP address of the vBond orchestrator are omitted?

- A. local
- B. vbond-only
- C. dns-name
- D. WAN

Answer: A

NEW QUESTION 135

An enterprise deployed a Cisco SD-WAN solution with hub-and-spoke topology using MPLS as the preferred network over the Internet. A network engineer must implement an application-aware routing policy to allow ICMP traffic to be load-balanced over both the available links. Which configuration meets the requirement?

A)

```
app-route-policy _VPN_10_AAR
vpn-list VPN_50
sequence 21
match
app-list ICMP
source-ip 0.0.0.0/0
!
action
sla-class ICMP_SLA preferred-color public-internet
sla-class ICMP_SLA preferred-color mpls
```

B)

```
app-route-policy _VPN_10_AAR
vpn-list VPN_50
sequence 21
match
app-list ICMP
source-ip 0.0.0.0/0
!
action
sla-class ICMP_SLA
```

C)

```
app-route-policy _VPN_10_AAR
vpn-list VPN_50
sequence 21
match
app-list ICMP
source-ip 0.0.0.0/0
!
action
sla-class ICMP_SLA preferred-color mpls
backup-sla-preferred-color public-internet
```

D)

```
app-route-policy _VPN_10_AAR
vpn-list VPN_50
sequence 21
match
app-list ICMP
source-ip 0.0.0.0/0
!
action
sla-class ICMP_SLA preferred-color mpls public-internet
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 140

Which controller is used for provisioning and configuration in a Cisco SD-WAN solution?

- A. vBond
- B. Manage
- C. WAN Edge router
- D. vSmart

Answer: B

NEW QUESTION 141

Drag and drop the actions from the left into the correct sequence on the right to create a data policy to direct traffic to the Internet exit.

Apply data policy	Step 1
Enable NAT functionality	Step 2
Create centralized data policy	Step 3
Identify VPN and match criteria	Step 4

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Step 1 – Enable NAT Functionality Step 2 – Create centralized data policy
Step 3 – Identify VPN and match criteria Step 4 – Apply data policy

NEW QUESTION 145

In Cisco SD-WAN, what protocol is used for control connections between SD-WAN devices?

- A. DTLS
- B. OMP
- C. BGP
- D. OSPF

Answer: A

Explanation:

<https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/security/vedge/security-book/security-overv>

NEW QUESTION 148

Which protocol is used to propagate multicast join requests over the Cisco SD-WAN fabric?

- A. ARP
- B. Auto-RP
- C. OMP
- D. IGMP

Answer: D

NEW QUESTION 152

Which website allows access to visualize the geography screen from vManager using the internet?

- A. *.opcnstreetmaps.org
- B. *.fullstreetmaps.org
- C. *.callstreelmaps.org
- D. *.globaistreetmaps.org

Answer: A

NEW QUESTION 155

Drag and drop the REST API calls from the left onto the functions on the right.

PUT	Retrieve or read.
GET	Update an object.
POST	Create an object.
DELETE	Remove an object.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

- GET: Get resource from the server.
- POST: Create resource to the server.
- PATCH or PUT: Update existing resource on the server.
- DELETE: Delete existing resource from the server.

NEW QUESTION 160

Drag and drop the vManage policy configuration procedures from the left onto the correct definitions on the right.

Create groups of interest	Create the network structure to which the policy applies
Configure traffic rules	Create lists that group together related items that an engineer can call in the match or action components of a policy
Configure topology	Associate a policy with sites and VPNs in the overlay network
Apply policies to sites and VPNs	Create the match and action conditions of a policy

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Configure topology
Create groups of interest
Apply policies to sites and VPNs
Configure traffic rules

NEW QUESTION 162

A customer must upgrade the cisco SD-WAN devices and controllers from version 19.2 to version 20.3. The devices include WAN Edge cloud, vManage, vSmart, and vBond. Which types of image types of image files are needed for this upgrade?

- A. one file for vManage and one file for all other devices with extension tar.gz
- B. one file for vManage, one for vSmart and one for vBond + WAN Edge Cloud with extension.bin
- C. one file for vManaga, one for vSmart and one for vBond + WAN Edge Cloud with extension tar.gz
- D. one file for vManaga and one file for all other devices with extension .bin

Answer: C

Explanation:

<https://software.cisco.com/download/home/286320995/type/286321394/release/20.3.3.1>

NEW QUESTION 163

Refer to the exhibit.

#Branch1-Edge1	#Branch1-Edge2
vpn 0	vpn 0
!	...
interface ge0/1	interface ge0/2
ip address	no shutdown
172.17.113.241/28	!
tunnel-interface	interface ge0/2.704
encapsulation ipsec	ip address 10.113.4.1/30
color mpls restrict	tunnel-interface
!	encapsulation ipsec
no shutdown	color mpls restrict
!	mtu 1496
interface ge0/2.704	no shutdown
ip address 10.113.4.2/30	!
tloc-extension ge0/2	ip route 0.0.0.0/0 10.113.4.2

Which configuration change is needed to configure the tloc-extention on Branch1-Edge1?

- A. interface ge0/2.704
ip address 10.113.4.1/30
tunnel-interface
encapsulation ipsec
color mpls restrict
no shutdown
- B. interface ge0/2.704
ip address 10.113.4.2/30
mtu 1496
tloc-extension ge0/1
- C. interface ge0/2.704
ip address 10.113.4.2/30
mtu 1496
tloc-extension ge0/2
- D. interface ge0/2.704
ip address 10.113.4.1/30
tunnel-interface
encapsulation ipsec
color mpls restrict
mtu 1496
tloc-extension ge0/2
no shutdown

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 164

What is the result during a WAN Edge software upgrade process if the version of the WAN Edge software is higher than the one running on a controller device?

- A. The upgrade button is greyed out
- B. The upgrade proceeds with no warning message.
- C. The upgrade fails with a warning message
- D. The upgrade proceeds with a warning message

Answer: D

NEW QUESTION 168

How are custom application ports monitored in Cisco SD-WAN controllers?

- A. Customers add custom application ports in vAnalytics and vManage.
- B. Customers add custom application ports in vAnalytics and vSmart.
- C. Cisco adds custom application ports in vAnalytics and vManage.
- D. Cisco adds custom application ports in vAnalytics and vSmart.

Answer: A

NEW QUESTION 170

A policy is created to influence routing path in the network using a group of prefixes. What policy application will achieve this goal when applied to a site List?

- A. vpn-membership policy
- B. cflowd-template
- C. app-route policy
- D. control-policy

Answer: D

NEW QUESTION 171

Which VManage dashboard is used to monitor the next-hop reachability between two devices traversing through OMP for a service VPN?

- A. Troubleshooting > App Route Visualization
- B. Troubleshooting > Tunnel Health
- C. Troubleshooting > Simulate Flows
- D. Troubleshooting > Packet Capture

Answer: C

NEW QUESTION 174

An engineer builds a three-node vManage cluster and then realizes that multiple nodes are unnecessary for the size of the company. How should the engineer revert the setup to a single vManage?

- A. Remove two node from the three-node vManage cluster
- B. Use the cluster conversion utility to convert to standalone vManage
- C. Restore vManage from the backup VM snapshot
- D. Leave the cluster as is and point to one vManage

Answer: B

NEW QUESTION 178

What are two attributes of vRoute? (Choose two)

- A. originator
- B. service
- C. encapsulation
- D. carrier
- E. domain ID

Answer: AB

NEW QUESTION 181

In which VPN is the NAT operation on an outgoing interface configured for direct Internet access?

- A. 1
- B. 10
- C. 512

Answer: D

NEW QUESTION 182

What are the two functions of vSmart? (Choose two)

- A. It orchestrates connectivity between WAN Edge routers using policies to create network topology
- B. It ensures that valid WAN Edge routers can build the control plane connectivity
- C. It uses TLOCs to uniquely identify the circuit interface to control plane and data plane information
- D. It validates that the WAN Edge trying to join the overlay is authorized to join.
- E. It builds control plane connections with WAN Edge routers using ILS or ULS

Answer: DE

NEW QUESTION 187

An engineer configures policing with a rate of 125 Bps and a burst rate of 8000 bits, as shown here:

```

policy
policer p1
rate
burst
exceed drop
!
access-list acl1
sequence 1
match
source-ip 2.2.0.0/16
destination-ip 10.1.1.0/24 100.1.1.0/24
destination-port 20 30
protocol 6 17 23
!
action accept
policer p1
!
default-action drop
!
vpn 1
interface ge0/4
description Policy ID: B413:A88D:76G7::4
ip address 10.20.24.15/24
no shutdown
access-list acl1 out
!

```

Which configuration completes this task?

- A. Configure 125 for rate and 1000 for burst.
- B. Configure 1000 for rate and 64000 for burst
- C. Configure 125 for rate and 8000 for burst
- D. Configure 1000 for rate and 1000 for burst

Answer: D

NEW QUESTION 191

An engineer creates this data policy for DIA for VPN 10:

```

data-policy DIA
vpn-list VPN-10
sequence 10
match
destination-data-prefix-list INTERNAL-NETWORKS
!
action accept

```

Which policy sequence enables DIA for external networks?

- ☐ sequence 5


```

match
source-ip 0.0.0.0/0
!
action accept
nat use-vpn 0

```
- ☐ sequence 5


```

match
destination-ip 0.0.0.0/0
!
action reject
!
!
default-action accept

```
- ☐ sequence 20


```

match
destination-ip 0.0.0.0/0
!
action accept
nat use-vpn 0

```
- ☐ sequence 20


```

match
source-ip 0.0.0.0/0
!
action reject
!
!
default-action accept

```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 192

What is a description of vManage NMS?

- A. It is accessible only from VPN 512 (the management VPN).
- B. A cluster requires device templates to be created on and attached to the same server
- C. It is a software process on a dedicated WAN Edge router in the network.
- D. A cluster consists of a minimum of two vManage NMSs

Answer: B

Explanation:

<https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/optimization-ha/vedge/network-optimization-ha-vedge.html>

NEW QUESTION 197

How is a TLOC uniquely identified from a WAN Edge router to the SD-WAN transport network?

- A. system IP address
- B. VPN ID
- C. OMP
- D. SD-WAN site ID

Answer: A

NEW QUESTION 199

A network administrator is tasked to make sure that an OMP peer session is closed after missing three consecutive keepalive messages in 3 minutes. Additionally, route updates must be sent every minute. If a WAN Edge router becomes unavailable, the peer must use last known information to forward packets for 12 hours. Which set of configuration commands accomplishes this task?

- ☒ `omp
timers
advertisement-interval 60
holdtime 180
graceful-restart-timer 43200`
- ☐ `omp
timers
advertisement-interval 1
holdtime 180
graceful-restart-timer 43200`
- ☐ `omp
timers
advertisement-interval 1
holdtime 180
graceful-restart-timer 720`
- ☐ `omp
timers
advertisement-interval 60
holdtime 60
graceful-restart-timer 720`

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

Explanation:

https://sdwan-docs.cisco.com/Product_Documentation/vManage_Help/Release_17.2/Configuration/Templates/OMP.html

NEW QUESTION 203

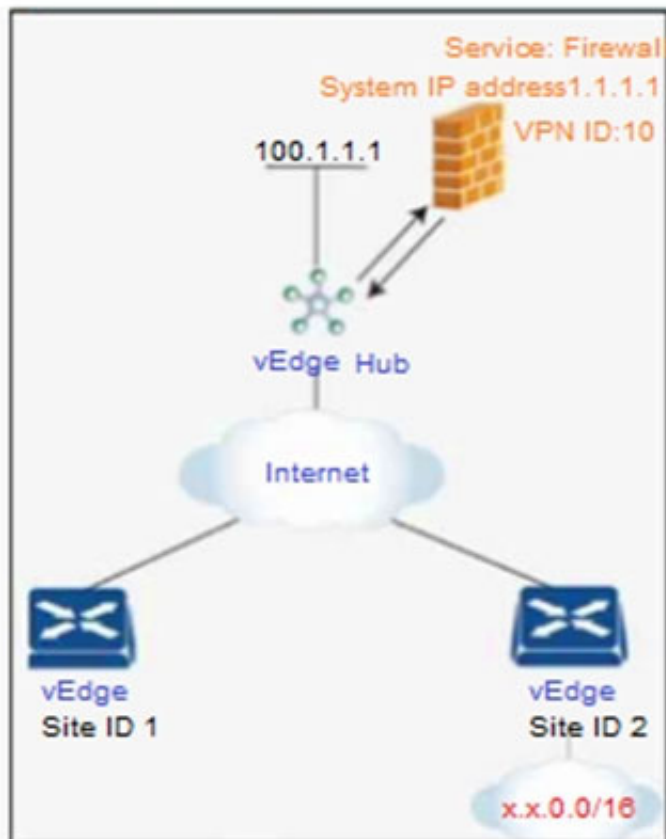
How are policies deployed on cloud-hosted Cisco SD-WAN controllers?

- A. Policies are created on vSmart and enforced by vSmart
- B. Policies are created on vSmart and enforced by vManage
- C. Policies are created on vManage and enforced by vManage.
- D. Policies are created on vManage and enforced by vSmart

Answer: A

NEW QUESTION 207

Refer to the exhibit.



An engineer is configuring service chaining. Which set of configurations is required for all traffic from Site ID 1 going toward Site ID 2 to get filtered through the firewall on the hub site?

A)

```
vpn 20
service FW address 1.1.1.1
policy
lists
site-list firewall-sites
site-id 1
control-policy firewall-service
sequence 10
match route
site-id 2
action accept
set service FW vpn 20
default-action accept
apply-policy
site-list firewall-sites control-policy firewall-service out
```

B)

```
vpn 10
service FW address 1.1.1.1
policy
lists
site-list firewall-sites
site-id 1
control-policy firewall-service
sequence 10
match route
site-id 2
action accept
set service FW vpn 10
default-action accept
apply-policy
site-list firewall-sites control-policy firewall-service out
```

C)

```
vpn 10
service FW address 1.1.1.1
policy
lists
site-list firewall-sites
site-id 1
control-policy firewall-service
sequence 10
match route
site-id 2
action accept
set service FW vpn 20
default-action accept
apply-policy
site-list firewall-sites control-policy firewall-service out
```

D)

```
vpn 10
service FW address 1.1.1.2
policy
lists
site-list firewall-sites
site-id 1
control-policy firewall-service
sequence 10
match route
site-id 2
action accept
set service FW vpn 10
default-action accept
apply-policy
site-list firewall-sites control-policy firewall-service out
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

Explanation:

<https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/policies/vedge/policies-book/service-chainin>

NEW QUESTION 212

Which scheduling method is configured by default for the eight queues in the cloud vEdge router1?

- A. low latency queue
- B. priority queue
- C. weighted random early detection
- D. weighted round robin

Answer: D

NEW QUESTION 215

Which two mechanisms are used by vManage to ensure that the certificate serial number of the WAN Edge router that is needed to authenticate is listed in the WAN Edge Authorized Serial Number Hst' (Choose two)

- A. Synchronize to the PnP
- B. Manually upload it to vManage
- C. The devices register to vManage directly as the devices come online
- D. The vManage is shipped with the list
- E. Synchronize to the Smart Account

Answer: BE

NEW QUESTION 220

Which two features does the application firewall provide? (Choose two.)

- A. classification of 1400+ layer 7 applications
- B. blocks traffic by application or application-family
- C. numbered sequences of match-action pairs
- D. classification of 1000+ layer 4 applications
- E. application match parameters

Answer: AB

Explanation:

This application aware firewall feature provides the following benefits:

- Application visibility and granular control
- Classification of 1400+ layer 7 applications
- Allows or blocks traffic by application, category, application-family or application-group

NEW QUESTION 224

Which on-the-box security feature supported by the Cisco ISR 4451 SD-WAN device and not on vEdge?

- A. Cloud Express service
- B. Enterprise Firewall with Application Awareness
- C. reverse proxy
- D. IPsec/GRE cloud proxy

Answer: B

Explanation:

<https://www.cisco.com/c/en/us/products/collateral/software/one-wan-subscription/guide-c07-740642.html#Step2>

NEW QUESTION 228

Refer to the exhibit

PEER PRIVATE IP	PEER PRIVATE PORT	PEER PUBLIC IP	PEER PUBLIC PORT	REMOTE COLOR	STATE	LOCAL ERROR
10.0.2.73	23456	10.0.2.73	23456	default	trying	DCONFALL

Cisco SD-WAN is deployed with controllers hosted in a data center All branches have WAN Edge devices with dual connections to the data center one via Internet and the other using MPLS Three branches out of 20 have issues with their control connections on MPLS circuit The local error refers to Control Connection Failure Which action resolves the issue*?

- A. Rectify any issues with the underlay routing configuration
- B. Match the TLOC color on the controllers and all WAN Edge devices
- C. Match certificates for the DTLS connection and Root CA must be installed first on WAN Edge devices
- D. Update the system IP on vManage and then resend it to the controllers

Answer: A

NEW QUESTION 230

Drag and drop the definitions from the left to the configuration on the right.

matching condition that allows traffic flow between two zones	destination zone
grouping of VPNs where the data traffic flows originate	firewall policy
container that associates forwarding and blocking decisions	source zone
grouping of VPNs where the data traffic flows terminate	zone pair

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

- **Source zone**—A grouping of VPNs where the data traffic flows originate.
- **Destination zone**—A grouping of VPNs where the data traffic flows terminate. A VPN can be part of only one zone
- **Zone-based firewall policy**—A data policy, similar to a localized data policy, that defines the conditions that the data traffic flow from the source zone must match to allow the flow to continue to the destination zone. Zone-based firewalls can match IP prefixes, IP ports, and protocols TCP, UDP, and ICMP. Matching flows can be accepted or dropped, and the packet headers can be logged. Nonmatching flows are dropped by default.
- **Zone pair**—A container that associates a source zone with a destination zone and that applies a zone-based firewall policy to the traffic that flows between zones.

Service Chaining
Traffic Flow Monitoring with Cflow

NEW QUESTION 232

Which device information is required on PNP/ZTP to support the zero-touch onboarding process?

- A. serial and chassis numbers
- B. interface IP address
- C. public DNS entry
- D. system IP address

Answer: A

Explanation:

<https://www.cisco.com/c/dam/en/us/td/docs/solutions/CVD/SDWAN/sd-wan-wan-edge-onboarding-deploy-guid>

NEW QUESTION 234

Which OSPF command makes the WAN Edge router a less preferred exit from a site with a dual WAN Edge design?

A)

```
vpn vpn-id
router
ospf
area number
range prefix/length
```

B)

```
vpn vpn-id
router
ospf
max-metric
```

C)


```
vpn vpn-id
router
ospf
area number
no-summary
```

D)

```
vpn vpn-id
router
ospf
area number
nssa
no-summary
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

NEW QUESTION 236

Which routing protocol is used to exchange control plane information between vSmart controllers and WAN Edge routers in the Cisco SD-WAN secure extensible network?

- A. BGP
- B. OSPF
- C. BFD
- D. OMP

Answer: D

NEW QUESTION 240

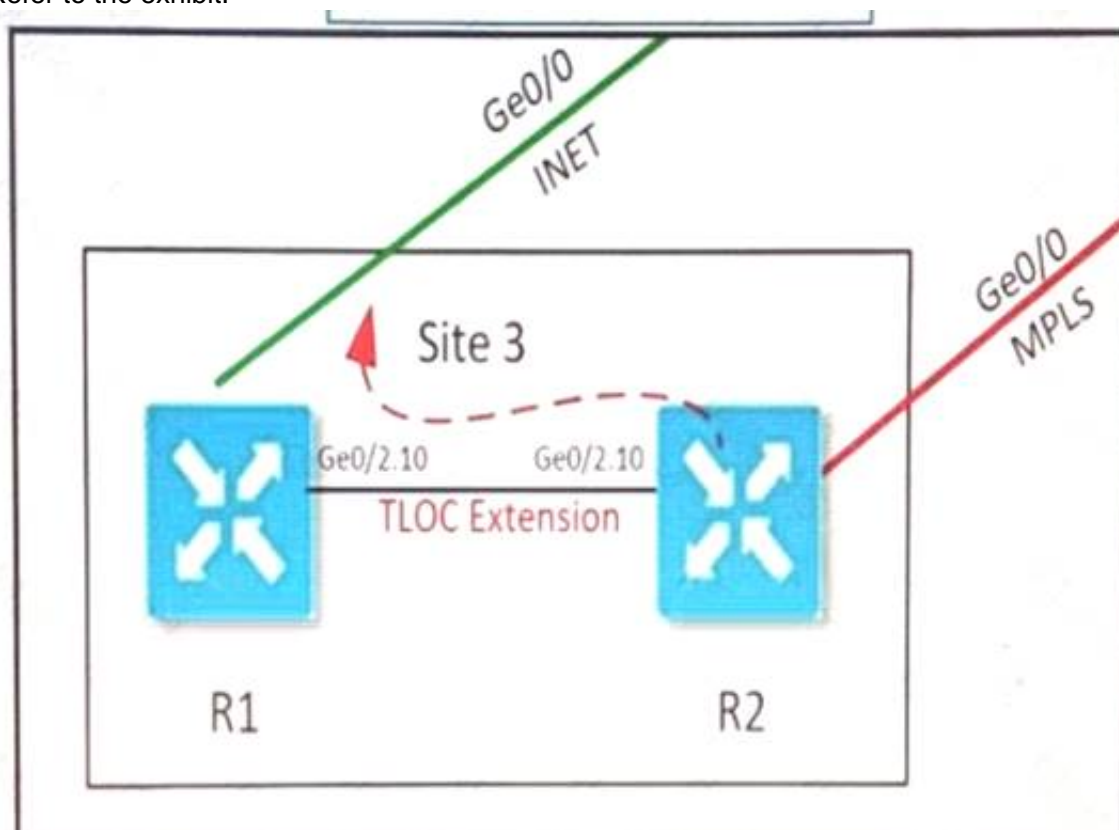
The network administrator is configuring a QoS scheduling policy on traffic received from transport side tunnels on WAN Edge 5000 routers at location 406141498. Which command must be configured on these devices?

- A. cloud-qos
- B. service qos
- C. cloud-mis qos
- D. mis qos

Answer: A

NEW QUESTION 245

Refer to the exhibit.



Which configuration extends the INET interface on R1 to be used by R2 for control and data connections?

A)

```
R1
interface ge0/2
no shutdown
interface ge0/2.10
ip address 43.43.43.2/30
tloc-extension ge0/0
```

```
R2
interface ge0/2
no shutdown
interface ge0/2.10
ip address 43.43.43.1/30
tloc-extension ge0/0
```

B)

```
R1
interface ge0/2
interface ge0/2.10
ip address 43.43.43.2/30
tloc-extension ge0/0
tunnel-interface
color public-internet
```

```
R2
interface ge0/2
interface ge0/2.10
ip address 43.43.43.1/30
tunnel-interface
color public-internet
```

C)

```
R1
interface ge0/2
mtu 1504
no shutdown
interface ge0/2.10
ip address 43.43.43.2/30
tloc-extension ge0/0
```

```
R2
interface ge0/2
mtu 1504
no shutdown
interface ge0/2.10
ip address 43.43.43.1/30
tunnel-interface
color public-internet
```

- A. Option A
- B. Option B
- C. Option C

Answer: C

Explanation:

<https://www.ciscolive.com/c/dam/r/ciscolive/us/docs/2018/pdf/BRKRST-2091.pdf>

Subinterfaces require a physical, parent interface to be defined in VPN 0, and also require the subinterface MTU to be four bytes lower than the physical interface due to the 802.1q tag. It is recommended to configure the parent physical interface for an MTU of 1504 to take care of this requirement.

NEW QUESTION 246

An engineer must configure a centralized policy on a site in which all HTTP traffic should use the Public Internet circuit if the loss on this circuit is below 10%. otherwise MPLS should be used Which configuration wizard fulfils this requirement?

- A. Create Applications or Groups of Interest > Configure Traffic Rules > Apply Policies to Sites and VPNs
- B. Configure VPN Membership > Apply Policies to Sites and VPNs
- C. Create Applications or Groups of interest > Configure Traffic Data > Apply Policies to Sites and VPNs
- D. Configure Topology > Apply Policies to Sites and VPNs

Answer: A

NEW QUESTION 248

In which device state does the WAN edge router create control connections, but data tunnels are not created?

- A. valid
- B. backup
- C. active
- D. staging

Answer: D

Explanation:

Staging – In this state, the WAN Edge device establishes secure control plane connections to the SD-WAN controllers (vBond, vManage, and vSmart) only. It is important to note that no data plane connections are established with other WAN Edge devices in the overlay network.

NEW QUESTION 250

An engineer is tasked to improve throughput for connection-oriented traffic by decreasing round-trip latency. Which configuration will achieve this goal?

- A. turn on "Enable TCP Optimization"
- B. turn off "Enhance ECMP Keying"
- C. turn off "Enable TCP Optimization"
- D. turn on "Enhance ECMP Keying"

Answer: A

Explanation:

TCP optimization fine-tunes the processing of TCP data traffic to decrease round-trip latency and improve throughput.

<https://www.cisco.com/c/dam/en/us/td/docs/routers/sdwan/configuration/config-18-2.pdf#page=530>

NEW QUESTION 254

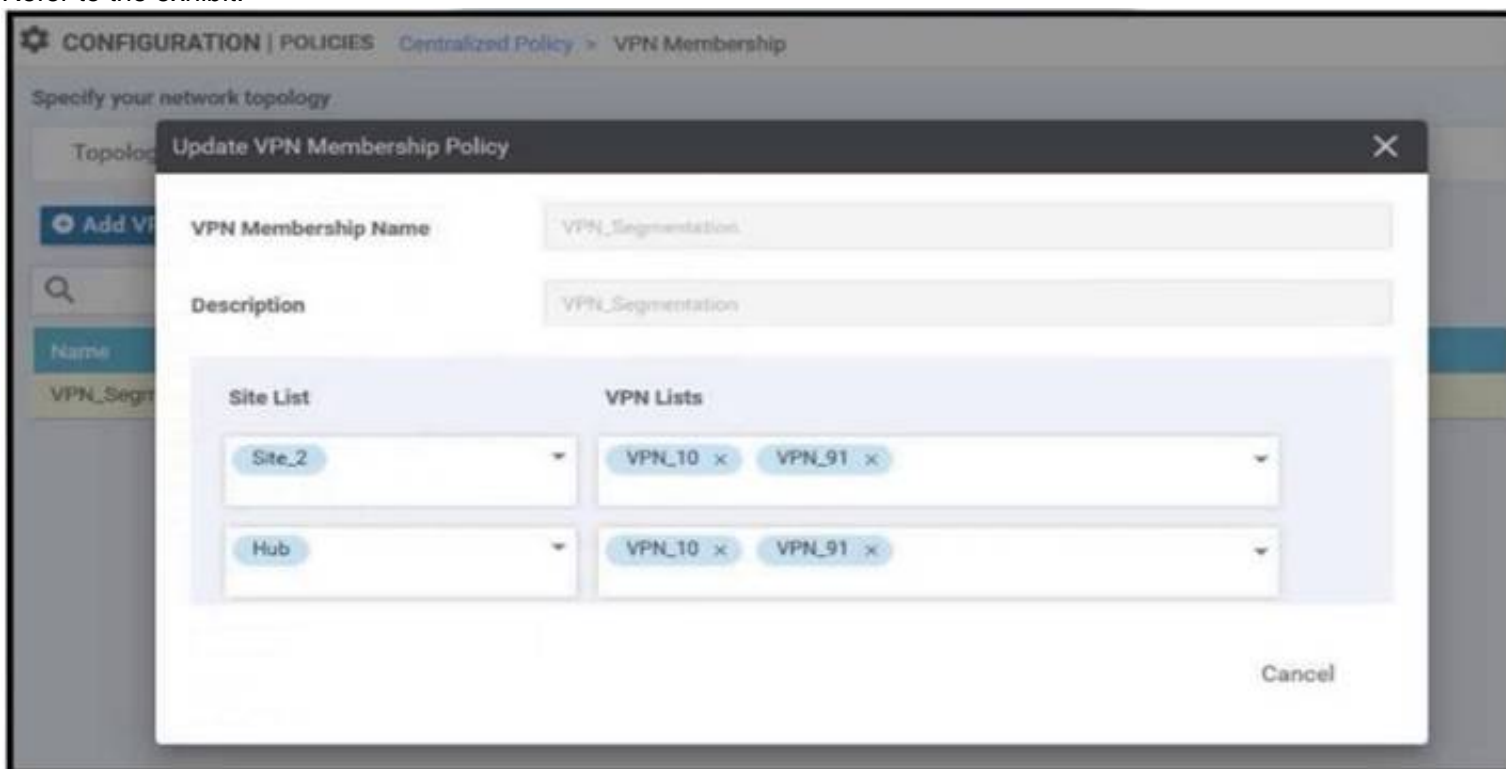
Which SD-WAN component is configured to enforce a policy to redirect branch-to-branch traffic toward a network service such as a firewall or IPS?

- A. vBond
- B. WAN Edge
- C. vSmart
- D. Firewall

Answer: C

NEW QUESTION 256

Refer to the exhibit.



An enterprise has hub and spoke topology where it has several VPNs. An engineer must allow users in VPN91 to reach users in VPN92 and VPN10 to reach VPN91 and VPN92. Which configuration meets these requirements?

A)

Route

Sequence Rule Drag and drop to re-arrange rules

- Match Conditions**

VPN List: VPN_91

VPN Id

Actions

Accept

Export To: VPN_92
- Match Condition**

VPN List: VPN_92

VPN Id

Actions

Accept

Export To: VPN_91
- Match Condition**

VPN List: VPN_91_and_VPN_92

VPN Id

Actions

Accept

Export To: VPN_10

B)

Route

Sequence Rule Drag and drop to re-arrange rules

- Match Conditions**

VPN List: VPN_10

VPN Id

Actions

Accept

Export To: VPN_91_and_VPN_92
- Match Conditions**

VPN List: All_9X_VPNs

VPN Id

Actions

Accept

Export To: All_9X_VPNs
- Match Conditions**

VPN List: VPN_91_and_VPN_92

VPN Id

Actions

Accept

Export To: VPN_10

C)

Route

Sequence Rule Drag and drop to re-arrange rules

- Match Conditions**

VPN List: VPN_10

VPN Id

Actions

Accept

Export To: VPN_91_and_VPN_92
- Match Conditions**

VPN List: VPN_91_and_VPN_92

VPN Id

Actions

Accept

Export To: VPN_91_and_VPN_92
- Match Conditions**

VPN List: VPN_91_and_VPN_92

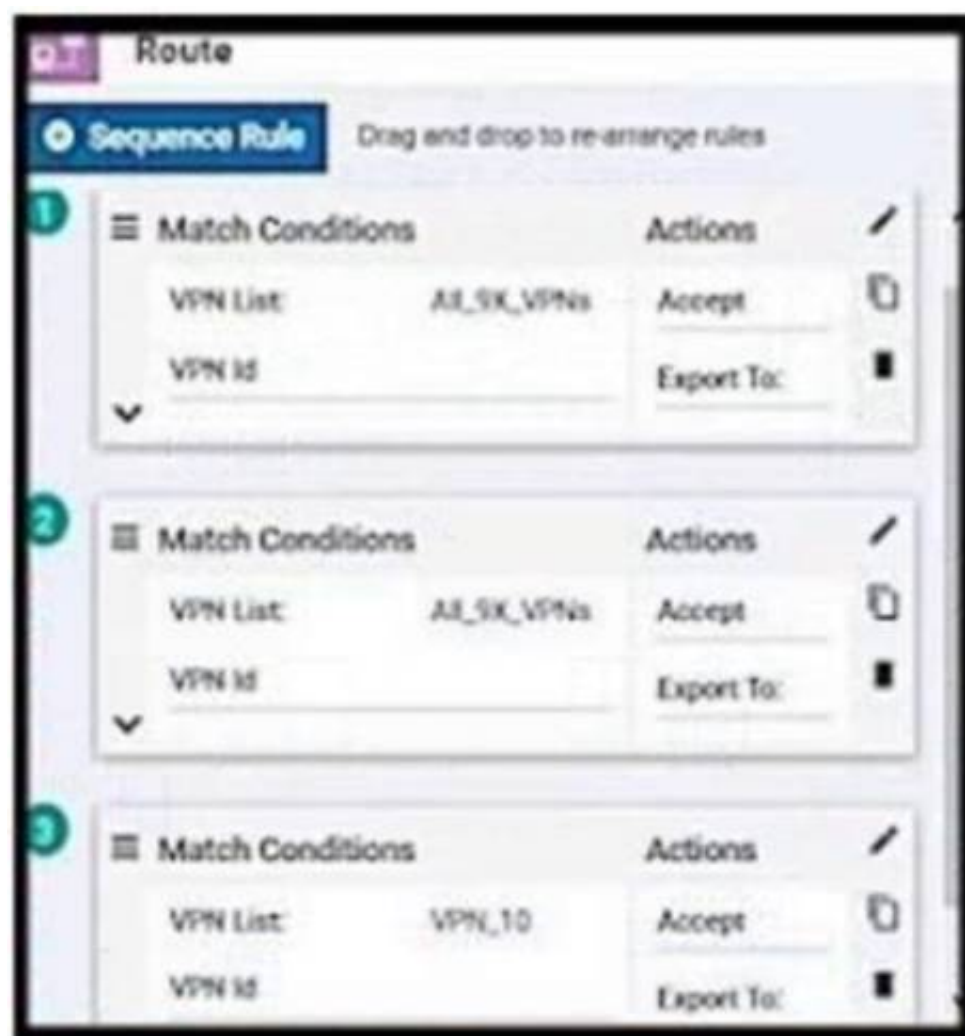
VPN Id

Actions

Accept

Export To: VPN_10

D)

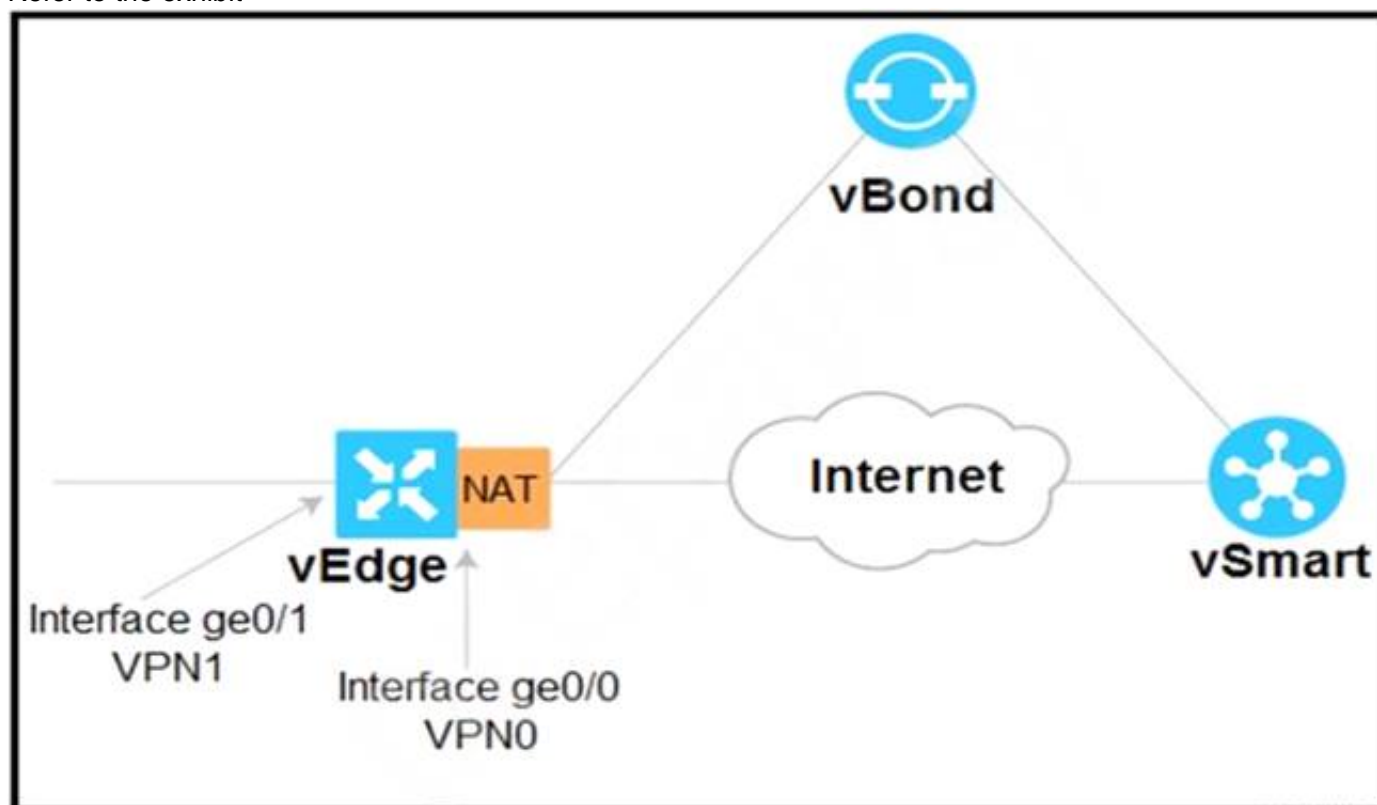


- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

NEW QUESTION 259

Refer to the exhibit



Which configuration sets up direct Internet access for VPN 1?

☒ vpn 1

interface ge0/1

nat
!
no shutdown

vpn 0

ip route 0.0.0.0/0 vpn 1

☒ vpn 1

interface ge0/0
nat
!
no shutdown

vpn 0

ip route 0.0.0.0 vpn 1

☐ vpn 0

interface ge0/1

ip nat
!
no shutdown

vpn 1

ip route 0.0.0.0/0 vpn 0

- A. Option A
- B. Option B
- C. Option C

Answer: C

NEW QUESTION 261

.....

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