



## Implementing Cisco Application Centric Infrastructure (DCACI)



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# **Cisco**

## **Exam 300-620**

### **Implementing Cisco Application Centric Infrastructure (300-620 DCACI)**

**Version: 13.0**

**[ Total Questions: 192 ]**

**Question No : 1**

An engineer configures a Cisco ACI Multi-Pod for disaster recovery. Which action should be taken for the new nodes to be discoverable by the existing Cisco APICs?

- A. Configure IGMPv3 on the interfaces of IPN routers that face the Cisco ACI spine.
- B. Enable subinterfaces with dot1q tagging on all links between the IPN routers.
- C. Enable DHCP relay on all links that are connected to Cisco ACI spines on IPN devices.
- D. Configure BGP as the underlay protocol in IPN.

**Answer: A**

**Question No : 2**

In-band is currently configured and used to manage the Cisco ACI fabric. The requirement is for leaf and spine switches to use out-of-band management for NTP protocol. Which action accomplishes this goal?

- A. Select Out-of-Band as Management EPG in the default DateTimePolicy.
- B. Create an Override Policy with NTP Out-of-Band for leaf and spine switches.
- C. Change the interface used for APIC external connectivity to ooband.
- D. Add a new filter to the utilized Out-of-Band-Contract to allow NTP protocol.

**Answer: A**

**Explanation:** <https://www.cisco.com/c/en/us/support/docs/cloud-systems-management/application-policy-infrastructure-controller-apic/200128-Configuring-NTP-in-ACI-Fabric-Solution.html>

**Question No : 3**

Which attribute should be configured for each user to enable RADIUS for external authentication in Cisco ACI?

- A. cisco-security domain
- B. cisco-auth-features
- C. cisco-aci-role

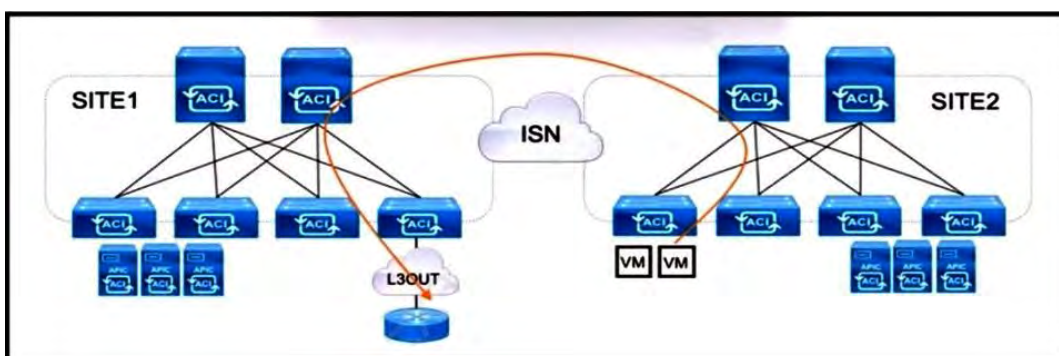
D. cisco-av-pair

**Answer: D**

Reference: [https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/Security\\_config/](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/2-x/Security_config/)

b\_Cisco\_APIC\_Security\_Configuration\_Guide/b\_Cisco\_APIC\_Security\_Guide\_chapter\_01011.html

#### Question No : 4



Refer to the exhibit. An engineer is configuring a production Multi-Site solution to provide connectivity from EPGs from a specific site to networks reachable through a remote site L3OUT. All required schema and template objects are already defined. Which additional configuration must be implemented in the Multi-Site Orchestrator to support the cross-site connectivity?

- A. Configure a routable TEP pool for SITE1.
- B. Enable CloudSec for intersite traffic encryption.
- C. Add a new stretched external EPG to the existing L3OUT.
- D. Implement a policy-based redirect using a service graph.

**Answer: C**

**Explanation:** in order to provide connectivity from EPGs from a specific site to networks reachable through a remote site L3OUT, a new stretched external EPG must be added to the existing L3OUT.

#### Question No : 5

An engineer must limit management access to the Cisco ACI fabric that originates from a single subnet where the NOC operates. Access should be limited to SSH and HTTPS only.

Where should the policy be configured on the Cisco APIC to meet the requirements?

- A. policy In the management tenant
- B. policy on the management VLAN
- C. ACL on the management interface of the APIC
- D. ACL on the console interface

**Answer: A**

**Explanation:** [https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/Operating\\_ACI/guide/b\\_Cisco\\_Operating\\_ACI/b\\_Cisco\\_Operating\\_ACI\\_chapter\\_0111.html](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/Operating_ACI/guide/b_Cisco_Operating_ACI/b_Cisco_Operating_ACI_chapter_0111.html)

3. Mgmt—The management tenant provides convenient means to configure access policies for fabric nodes. While fabric nodes are accessible and configurable through the APIC, they can also be accessed directly using in-band and out-of band connections. **In-band and out-of-band policies are configured under the mgmt tenant:**

- In-Band Management Access
- Out-of-Band Management Access

#### Question No : 6

Where is the COOP database located?

- A. leaf
- B. spine
- C. APIC
- D. endpoint

**Answer: B**

Reference: <https://www.cisco.com/c/en/us/solutions/collateral/data-center-virtualization/application-centric-infrastructure/white-paper-c11-739989.html>

#### Question No : 7

What happens to the traffic flow when the Cisco ACI fabric has a stale endpoint entry for the destination

endpoint?

- A. The leaf switch does not learn the source endpoint through data plane learning.
- B. The leaf switch drops the traffic that is destined to the endpoint.
- C. The leaf switch floods the traffic to the endpoint throughout the fabric.
- D. The leaf switch sends the traffic to the wrong destination leaf.

**Answer: B**

Reference:

<https://www.ciscolive.com/c/dam/r/ciscolive/us/docs/2019/pdf/BRKACI-2641.pdf>

#### **Question No : 8**

When configuring Cisco ACI VMM domain integration with VMware vCenter, which object is created in vCenter?

- A. datacenter
- B. VMware vSphere Standard vSwitch
- C. VMware vSphere Distributed Switch
- D. cluster

**Answer: C**

#### **Question No : 9**

An engineer is implementing a Cisco ACI environment that consists of more than 20 servers. Two of the servers support only Cisco Discovery Protocol with no order link discovery protocol. The engineer wants the servers to be discovered automatically by the Cisco ACI fabric when connected. Which action must be taken to meet this requirement?

- A. Create an override policy that enables Cisco Discovery Protocol after LLDP is enabled in the default policy group.
- B. Configure a higher order interface policy that enables Cisco Discovery Protocol for the interface on the desired leaf switch.
- C. Configure a lower order policy group that enables Cisco Discovery Protocol for the interface on the desired leaf switch.
- D. Create an interface profile for the interface that disables LLDP on the desired switch that is referenced by the interface policy group.

**Answer: B**

**Question No : 10**

A customer creates Layer 3 connectivity to the outside network. However, only border leaf switches start receiving destination updates to other networks from the newly created L3Out. The updates must also be propagated to other Cisco ACI leaf switches. The L3Out is linked with the EPGs via a contract. Which action must be taken in the pod policy group to accomplish this goal?

- A. Apply a BGP route reflector policy.
- B. Enable a COOP policy.
- C. Configure an IS-IS policy.
- D. Implement an access management policy.

**Answer: A**

**Question No : 11**

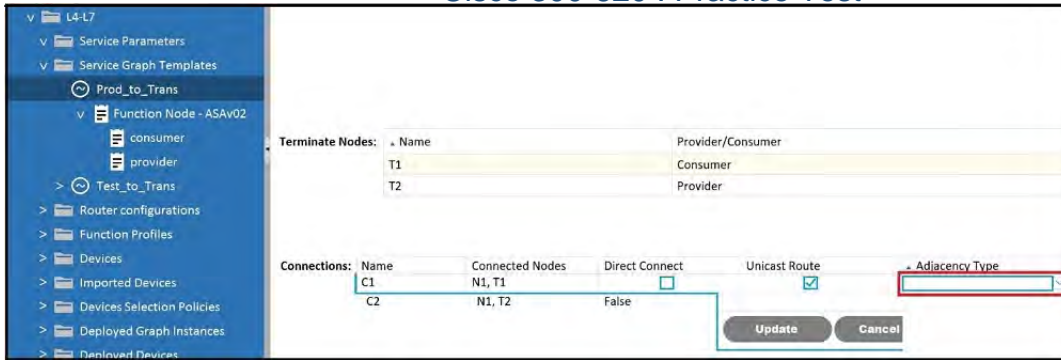
What two actions should be taken to deploy a new Cisco ACI Multi-Pod setup? (Choose two.)

- A. Configure MP-BGP on IPN routers that face the Cisco ACI spines.
- B. Connect all spines to the IPN.
- C. Configure anycast RP for the underlying multicast protocol
- D. Configure the TEP pool of the new pod to be routable across the IPN.
- E. Increase interface MTU for all IPN routers to support VXLAN traffic.

**Answer: B,E**

**Question No : 12**

Refer to the exhibit.



Which Adjacency Type value should be set when the client endpoint and the service node interface are in a different subnet?

- A. Routed
- B. Unicast
- C. L3Out
- D. L3

**Answer: D**

### Question No : 13

An engineer is implementing a connection that represents an external bridged network. Which two configurations are used? (Choose two.)

- A. Layer 2 remote fabric
- B. Layer 2 outside
- C. Layers 2 internal
- D. Static path binding
- E. VXLAN outside

**Answer: B,D**

### Question No : 14

The existing network and ACI fabric have been connected to support workload migration. Servers will physically terminate at the Cisco ACI, but their gateway must stay in the existing network. The solution needs to adhere to Cisco's best practices. The engineer started configuring the relevant Bridge Domain and needs to complete the configuration.



Which group of settings are required to meet these requirements?

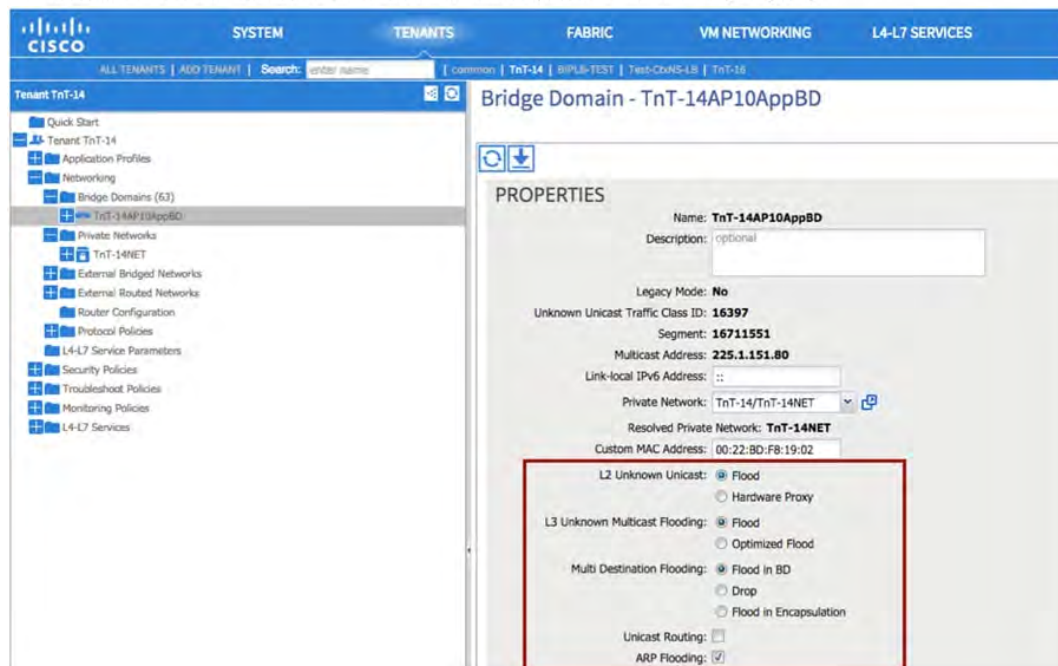
- A.** L2 Unknown Unicast: Hardware Proxy  
L3 Unknown Multicast Flooding: Flood  
Multi Destination Flooding: Flood in BD  
ARP Flooding: Enable
- B.** L2 Unknown Unicast: Flood  
L3 Unknown Multicast Flooding: Flood  
Multi Destination Flooding: Flood in BD  
ARP Flooding: Enable
- C.** L2 Unknown Unicast: Flood  
L3 Unknown Multicast Flooding: Optimize Flood  
Multi Destination Flooding: Flood in BD  
ARP Flooding: Disable
- D.** L2 Unknown Unicast: Hardware Proxy  
L3 Unknown Multicast Flooding: Optimize Flood  
Multi Destination Flooding: Flood in BD  
ARP Flooding: Disable

**Answer: B**

#### Explanation:

[https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/migration\\_guides/migrating\\_existing\\_networks\\_to\\_aci.html](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/migration_guides/migrating_existing_networks_to_aci.html)  
Default Gateway Migration Considerations

The default gateway used by the workloads to establish communication outside their IP subnet is initially maintained in the Brownfield network; this implies that the ACI fabric initially provides only Layer 2 services for devices part of EPG1, and the workloads already migrated to the ACI fabric send traffic to the Brownfield network when they need to communicate with devices external to their IP subnet (shown in the following diagram).



Related image,

diagram or screenshot

**Question No : 15**

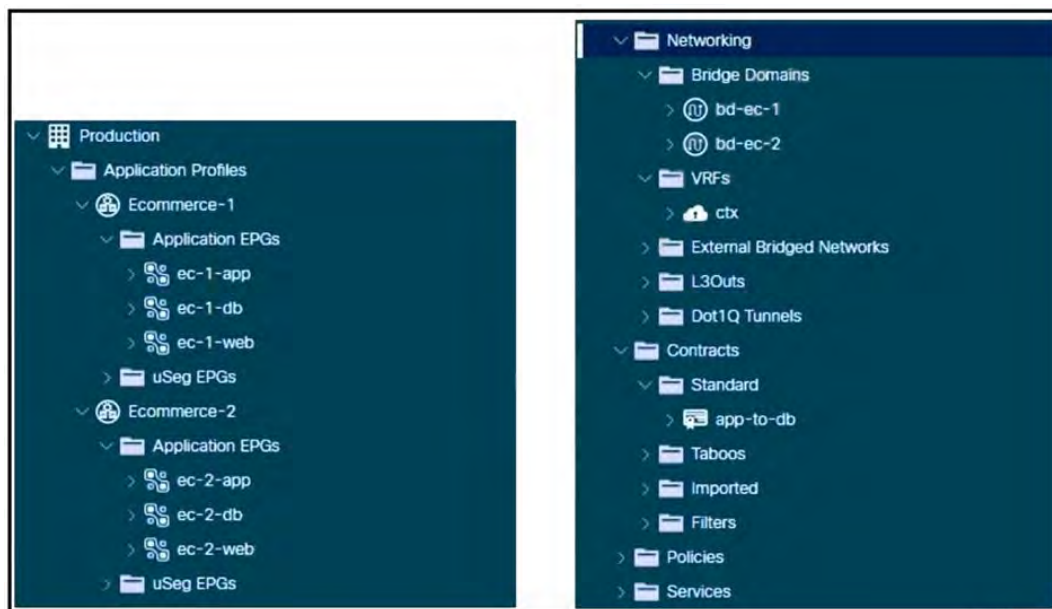
New ESXi hosts are procured in a data center compute expansion project. An engineer must update the

configuration on the Cisco APIC controllers to support the addition of the new servers to the existing VMM

domain. Which action should be taken to support this change?

- A. Create a range of internal VLANs in the associated VLAN pool.
- B. Set the encapsulation mode as VXLAN.
- C. Enable infrastructure VLAN in the associated AEP.
- D. Map the leaf interface selector to the AEP that is associated with the VMM domain.

**Answer: D**

**Question No : 16**

Refer to the exhibit. A Cisco ACI environment hosts two e-commerce applications. The default contract from a common tenant between different application tiers is used, and the applications work as expected. The customer wants to move to more specific contracts to prevent unwanted traffic between EPGs. A network administrator creates the app-to-db contract to meet this objective for the application and database tiers. The application EPGs

must communicate only with their respective database EPGs. How should this contract be configured to meet this requirement?

- A. Set the app-to-db scope to Global.
- B. Set the app-to-db scope to Application Profile.
- C. Implement the app-to-db scope as VRF.
- D. Implement the app-to-db as a Taboo contract.

**Answer: D**

**Question No : 17**

Which protocol does ACI use to securely save the configuration in a remote location?

- A. SCP
- B. HTTPS
- C. TFTP
- D. FTP

**Answer: A**

Reference: [https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/kb/b\\_KB\\_Using\\_Import\\_Export\\_to\\_Recover\\_Config\\_States.html](https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/kb/b_KB_Using_Import_Export_to_Recover_Config_States.html)

**Question No : 18**

An engineer deploys a two-pod Cisco ACI Multi-Pod environment. Why should no more than two Cisco APIC controllers be deployed in the same pod?

- A. to enable equal capacity to scale in each pod
- B. to avoid losing all replicas of a shard if a pod fails
- C. to avoid hair-pinning traffic that is destined for the primary APIC controller between pods
- D. to ensure that all nodes in all pods have local access to a controller

**Answer: A**

**Question No : 19**

Which feature dynamically assigns or modifies the EPG association of virtual machines based on their attributes?

- A. vzAny contracts
- B. standard contracts
- C. application EPGs
- D. uSeg EPGs

**Answer: D**

**Question No : 20**

When does the Cisco ACI leaf learn a source IP or MAC as a remote endpoint?

- A. When VXLAN traffic arrives on a leaf fabric port from the spine and outer source IP is in the Layer 3 Out EPG subnet range.
- B. When VXLAN traffic arrives on a leaf fabric port from the spine and outer source IP is in the bridge domain subnets range.
- C. When VXLAN traffic arrives on a leaf fabric port from the spine and inner source IP is in the Layer 3 Out EPG subnet range.
- D. When VXLAN traffic arrives on a leaf fabric port from the spine and inner source IP is in the bridge domain subnets range.

**Answer: D**

**Question No : 21**

Which two protocols support accessing backup files on a remote location from the APIC?  
(Choose two.)

- A. TFTP
- B. FTP
- C. SFTP
- D. SMB
- E. HTTPS

**Answer: B,C**

Reference: <https://www.cisco.com/c/en/us/td/docs/switches/datacenter/aci/apic/sw/1-x/troubleshooting/>

**Question No : 22**

An engineer must advertise a selection of external networks learned from a BGP neighbor into the ACI fabric. Which L3Out subnet configuration option creates an inbound route map for route filtering?

- A. External Subnets for the External EPG
- B. Shared Route Control Subnet
- C. Import Route Control Subnet
- D. Shared Security Import Subnet

**Answer: C**

**Question No : 23**

A Cisco ACI endpoint group must have its gateway address migrated out of the ACI fabric. An engineer configures EPG-TEST with a static port binding and configures the encap VLAN with the required VLAN. Which configuration set must be used on the bridge domain to meet these requirements?

- A.**  
L2 Unknown Unicast: Hardware Proxy  
Unicast Routing: Disabled  
ARP Flooding: Enabled
- B.**  
L2 Unknown Unicast: Hardware Proxy  
Unicast Routing: Disabled  
ARP Flooding: Disabled
- C.**  
L2 Unknown Unicast: Flood  
Unicast Routing: Disabled  
ARP Flooding: Enabled
- D.**  
L2 Unknown Unicast: Flood  
Unicast Routing: Enabled  
ARP Flooding: Enabled

Answer: A

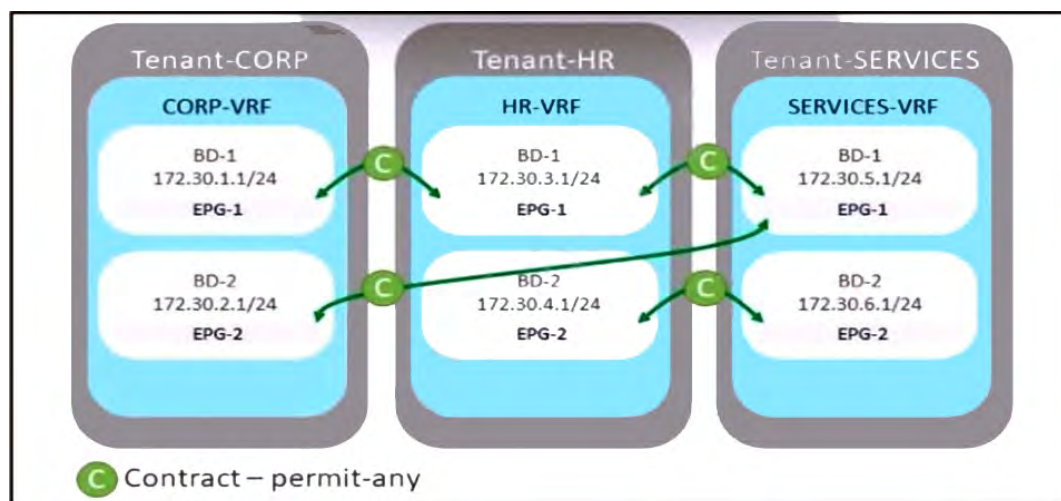
**Question No : 24**

Which endpoint learning operation is completed on the ingress leaf switch when traffic is received from a Layer 3 Out?

- A. The source MAC address of the traffic is learned as a local endpoint.
- B. The source MAC address of the traffic is learned as a remote endpoint.
- C. The source IP address of the traffic is learned as a remote endpoint.
- D. The source IP address of the traffic is learned as a local endpoint.

Answer: B

**Question No : 25**



Refer to the exhibit. A company merges three of its departments: CORP, HR, and SERVICES. Currently, the connectivity between departments is achieved by using VRF route leaking. The requirement is to redesign the Cisco ACI networking architecture to communicate between EPGs and BDs from any tenant without configuring contracts or VRF route leaking. Which configuration meets these criteria?

- A. Configure an unenforced VRF in the user tenant and map all required EPGs to it.
- B. Implement an enforced VRF in the common tenant and map all required BDs to it.
- C. Configure an enforced VRF in the user tenant and map all required EPGs to it.
- D. Implement an unenforced VRF in the common tenant and map all required BDs to it.

Answer: C

**Question No : 26**

A bridge domain for an EPC called “Web Servers” must be created in the Cisco APIC. The configuration must meet these requirements:

- ✍ Only traffic to known Mac addresses must be allowed to reduce noise.
- ✍ The multicast traffic must be limited to the ports that are participating in multicast routing.
- ✍ The endpoints within the bridge domain must be kept in the endpoint table for 20 minutes without any updates.

Which set of steps configures the bridge domain that satisfies the requirements?

**A.** Select the ARP Flooding checkbox.

Create an Endpoint Retention Policy with a Remote Endpoint Aging Interval of 20 minutes.  
Set L3 Unknown Multicast Flooding to Optimized Flooding

**B.** Set L2 Unknown Unicast to Hardware Proxy.

Configure L3 Unknown Multicast Flooding to Optimized Flood.

Create an Endpoint Retention Policy with a Local Endpoint Aging interval of 1200 seconds.

**C.** Switch L2 Unknown Unicast to Flood.

Select the default Endpoint Retention Policy and set the Local Endpoint Aging to 20 minutes.

Set Multicast Destination Flooding to Flood in Encapsulation.

**D.** Multicast Destination Flooding should be set to Flood in BD.

Set L3 Unknown Multicast Flooding to Flood.

Select the default Endpoint Retention Policy with a Local Endpoint Aging Interval of 1200 seconds.

**Answer: B**

**Question No : 27**

Refer to the exhibit.

## Edit Stats Threshold

**transmit B2B credit cumulative**

Normal Value:

Threshold Direction: Both **Rising** Falling

Rising Thresholds to Config: ☒ ☐

☒ Critical  
☐ Major  
☐ Minor  
☒ Warning

Rising

	Set	Reset
Critical	<input type="text" value="500"/>	<input type="text"/>
Major		
Minor		
Warning	<input type="text" value="400"/>	<input type="text" value="300"/>

A client reports that the ACI domain connectivity to the fiber channel storage is experiencing a B2B credit oversubscription. The environment has a SYSLOG server for state collection messages. Which value should be chosen to clear the critical fault?

- A. 300
- B. 410
- C. 350
- D. 510

**Answer: B**

### Question No : 28

A Solutions Architect is asked to design two data centers based on Cisco ACI technology that can extend L2/ L3, VXLAN, and network policy across locations. ACI Multi-Pod has been selected. Which two requirements must be considered in this design? (Choose two.)

- A. ACI underlay protocols, i.e. COOP, IS-IS and MP-BGP, spans across pods. Create QoS policies to make sure those protocols have higher priority.
- B. A single APIC Cluster is required in a Multi-Pod design. It is important to place the APIC



Controllers in different locations in order to maximize redundancy and reliability.

**C.** ACI Multi-Pod requires an IP Network supporting PIM-Bidir.

**D.** ACI Multi-Pod does not support Firewall Clusters across Pods. Firewall Clusters should always be local.

**E.** Multi-Pod requires multiple APIC Controller Clusters, one per pod. Make sure those clusters can communicate to each other through a highly available connection.

**Answer: B,C**

**Question No : 29**

An engineer is implementing Cisco ACI at a large platform-as-a-service provider using APIC controllers, 9396PX leaf switches, and 9336PQ spine switches. The leaf switch ports are configured as IEEE 802.1p ports. Where does the traffic exit from the EPG in IEEE 802.1p mode in this configuration?

**A.** from leaf ports tagged as VLAN 0

**B.** from leaf ports untagged

**C.** from leaf ports tagged as VLAN 4094

**D.** from leaf ports tagged as VLAN 1

**Answer: A**

**Question No : 30**

An engineer must implement management policy and data plane separation in the Cisco ACI fabric. Which ACI object must be created in Cisco APIC to accomplish this goal?

**A.** Application profile

**B.** Tenant

**C.** Contract

**D.** Bridge domain

**Answer: D**

**Question No : 31**

A network engineer must allow secure access to the Cisco ACI out-of-band (OOB) management only from external subnets 10.0.0.0/24 and 192.168.20.0/25. Which configuration set accomplishes this goal?

- Create a L3Out in the MGMT tenant in OOB VRF.  
Set External Management Network Instance Profile as a consumer of the OOB contract.  
Create an External EPG with two subnet entries with the external subnets.
- Create a PBR service graph in the MGMT tenant.  
Create a management Profile with the required OOB EPG.  
Redirect all traffic going into ACI management to the external firewall.  
Create two subnet entries under the OOB Bridge domain with the required subnets.
- Create an OOB contract that allows the required ports.  
Provide the contract from the OOB EPG.  
Consume the contract by the OOB External Management Network Instance Profile.  
Create two subnet entries in the External Management Network Profile with the required subnets.
- Create an EPG and BD in the MGMT tenant in OOB VRF.  
Set OOB VRF to provide the contract.  
Set a new EPG to consume the OOB contract.

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

**Answer: C**

**Question No : 32**

```

Fault Code: F3222
Severity: warning
Last Transition: 2021-02-08T22:08:45.469+00:00
Lifecycle: Raised
Affected Object: id/obj-DefaultS/ns-cnat-west-vmm-vlp
Description: Fault delegate Resource Pool has been used till the threshold
Type: Operational
Cause: resource-pool-consumed
Change Set: usageStatus (Old: green New: red)
Created: 2021-02-08T21:59:45.876+00:00
Code: F3222
Number of Occurrences: 2
Original Severity: warning
Previous Severity: cleared
Highest Severity: warning

```

Refer to the exhibit. A Cisco APIC raises an error when the EPG must accept endpoints from a VMM domain created. Which action clears the fault?

- A. Expand the VLAN pool for the VMM domain.
- B. Create a bridge domain for the VMM domain.
- C. Associate the EPG with the VMM domain.
- D. Associate the VLAN pool with the VMM domain.

**Answer: A**

### Question No : 33

```

leaf-102# show interface brief
!snip
-----
Port-channel VLAN   Type Mode   Status Reason                Speed   Protocol
Interface
-----
Po3           46      eth trunk down  mac-pinning             inherit(D lacp
Po11          --      eth fabric up    none                    10G(D)   none
Po12           0      eth trunk down  mcp-loop-err-disable    inherit(D none

```

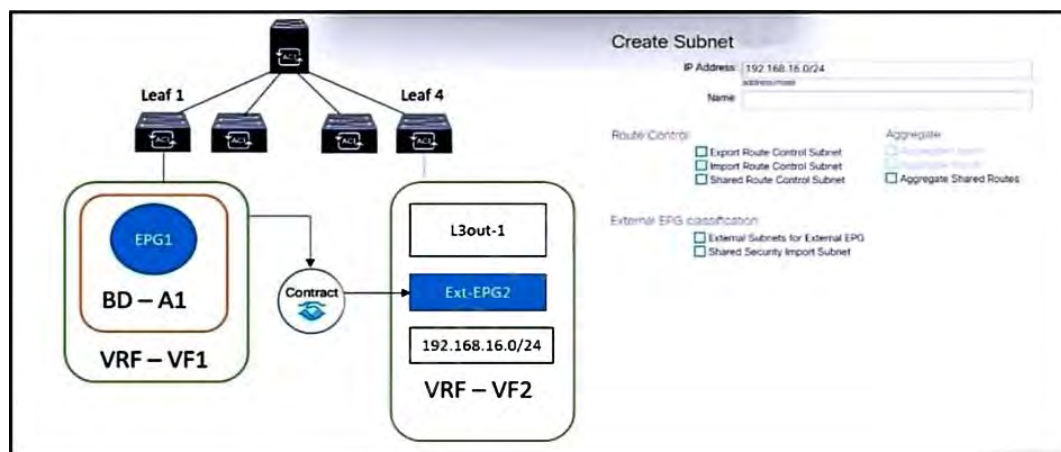
Refer to the exhibit. Which two configuration steps are completed before this output is generated? (Choose two.)

- A. MCP policy for the interface policy group for Port-channel 12 is enabled.
- B. MCP Instance Policy default in the global access policies is enabled.
- C. Error Disabled Recovery Policy for Loop Indication by MCP is set to True.

- D. BPDU Guard is enabled for the interface policy group for Port-channel 12.  
 E. Spanning Tree Policy Region STP\_4CAF232E48FF20 is added to the spanning-tree policy of the switch.

**Answer: A,D**

**Question No : 34**



Refer to the exhibit. The external subnet and internal EPG1 must communicate with each other, and the L3Out traffic must leak into the VRF named "VF1". Which configuration set accomplishes these goals?

- A.**  
 Export Route Control Subnet  
 Import Route Control Subnet  
 Aggregate Shared Routes
- B.**  
 External Subnets for External EPG  
 Shared Route Control Subnet  
 Shared Security Import Subnet
- C.**  
 External Subnets for External EPG  
 Import Route Control Subnet  
 Shared Route Control Subnet
- D.**  
 Export Route Control Subnet  
 Shared Security Import Subnet  
 Aggregate Shared Routes

**Answer: C**