



Vendor: Huawei

Exam Code: H12-893_V1.0

Exam Name: HCIP-Data Center Network V1.0

Version: DEMO

QUESTION 1

V-STP prevents loops caused by incorrect configurations or connections in an M-LAG.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

V-STP (Virtual Spanning Tree Protocol) is a Huawei-specific enhancement of the Spanning Tree Protocol (STP) designed to prevent Layer 2 loops in complex network topologies, including Multi-Chassis Link Aggregation (M-LAG) deployments on Huawei CloudEngine (CE) series switches.

M-LAG Overview: M-LAG allows two switches to appear as a single logical device, connecting to downstream devices via Link Aggregation Groups (LAGs). Without proper loop prevention, incorrect configurations (e.g., misconfigured ports) or physical connections (e.g., redundant links) can cause broadcast storms.

V-STP Role: V-STP extends STP to handle virtualized environments and M-LAG scenarios. It ensures that only one path is active in a loop-prone topology by blocking redundant links, preventing loops caused by misconfigurations or unintended connections. In M-LAG, V-STP coordinates with the peer-link to maintain a loop-free topology.

The statement is TRUE (A) because V-STP is designed to prevent loops in M-LAG deployments due to incorrect configurations or connections.

QUESTION 2

Which of the following statements is false about M-LAG deployment?

- A. Multi-level M-LAG is mainly used to construct a large Layer 2 network in a DCN or directly connect DCNs at Layer 2.
- B. In multi-level M-LAG networking, you can manually configure the root bridge to prevent STP loops.
- C. Multi-level M-LAG must be configured based on V-STP.
- D. M-LAG networking can be classified into single-level M-LAG networking and multi-level M-LAG networking.

Answer: C

Explanation:

M-LAG (Multi-Chassis Link Aggregation) on Huawei CE series switches enhances high availability and load balancing by making two switches appear as one. Let's evaluate each statement:

A. Multi-level M-LAG is mainly used to construct a large Layer 2 network in a DCN or directly connect DCNs at Layer 2: This is true. Multi-level M-LAG extends the topology across multiple layers or data centers, facilitating large Layer 2 domains, a common use case in Huawei DCNs. TRUE.

B. In multi-level M-LAG networking, you can manually configure the root bridge to prevent STP loops: This is true. Manual configuration of the root bridge (e.g., using STP priority) is supported to optimize path selection and prevent loops, especially in complex M-LAG setups. TRUE.

C. Multi-level M-LAG must be configured based on V-STP: This is false. While V-STP can be used to prevent loops, M-LAG does not require V-STP specifically. Standard STP, RSTP, or MSTP can also be configured, depending on the network design. The requirement is loop

prevention, not a mandatory V-STP dependency. FALSE.

D. M-LAG networking can be classified into single-level M-LAG networking and multi-level M-LAG networking: This is true. Single-level M-LAG connects two switches directly to devices, while multi-level M-LAG extends across additional layers or devices, a recognized classification in Huawei documentation. TRUE.

Thus, C is the false statement because multi-level M-LAG does not mandate V-STP configuration.

QUESTION 3

After an M-LAG works properly, the two member devices synchronize information with each other in real time. Which of the following pieces of information are synchronized between devices? (Select All that Apply)

- A. ACL information
- B. STP status
- C. Device name
- D. LACP information

Answer: BD

Explanation:

In Huawei's M-LAG (Multi-Chassis Link Aggregation) on CE series switches, the two member devices synchronize critical information over the peer-link to ensure seamless operation and failover. Let's evaluate each option:

A. ACL information: Access Control List (ACL) configurations are typically not synchronized in M-LAG, as they are device-specific security policies. Synchronization of ACLs is not a standard feature in Huawei's M-LAG implementation. NOT SYNCHRONIZED.

B. STP status: Spanning Tree Protocol (STP) status (e.g., port roles, states) is synchronized to maintain a consistent loop-free topology across M-LAG peers, especially when V-STP or other STP variants are used. SYNCHRONIZED.

C. Device name: Device names are administrative identifiers and are not synchronized, as they do not impact traffic forwarding or M-LAG functionality. NOT SYNCHRONIZED.

D. LACP information: Link Aggregation Control Protocol (LACP) status (e.g., link states, aggregation details) is synchronized to ensure both M-LAG devices present a unified LAG to downstream devices, supporting load balancing and failover. SYNCHRONIZED.

Thus, B (STP status) and D (LACP information) are synchronized between M-LAG devices.

QUESTION 4

Both M-LAG and stacking technologies can overcome the disadvantages of traditional DCNs. However, M-LAG is a better choice to ensure 24/7 service continuity.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Traditional data center networks (DCNs) often suffer from single points of failure, limited

scalability, and traffic bottlenecks. Both M-LAG and stacking address these issues, but their suitability for 24/7 service continuity differs.

M-LAG Benefits: M-LAG (Multi-Chassis Link Aggregation) on Huawei CE switches allows two devices to act as a single logical switch, providing active-active forwarding, high availability, and rapid failover (e.g., via peer-link synchronization). It supports non-stop service during device failures, making it ideal for 24/7 continuity.

Stacking Benefits: Stacking combines multiple switches into a single logical unit, sharing a control plane. While it improves scalability and simplifies management, a stack master failure can disrupt the entire stack unless redundancy is perfectly configured, potentially affecting service continuity.

Comparison: M-LAG's decentralized design and real-time synchronization offer better fault isolation and recovery compared to stacking, where a master switch failure impacts the stack. Huawei documentation highlights M-LAG's superiority for high-availability scenarios like 24/7 operations.

The statement is TRUE (A) because M-LAG is indeed a better choice than stacking for ensuring 24/7 service continuity due to its robust failover and redundancy features.

QUESTION 5

M-LAG configuration consistency check classifies device configurations into key configurations (Type 1) and common configurations (Type 2). This check can be performed in strict or loose mode based on the processing mode when key configurations are inconsistent. Which of the following statements is false about M-LAG configuration consistency check?

- A. In loose mode, if Type 1 configurations of the two M-LAG member devices are inconsistent, the member interface on the M-LAG backup device is in Error-Down state and an alarm is generated, indicating that Type 1 configurations on the two devices are inconsistent.
- B. If Type 1 configurations of the two M-LAG member devices are inconsistent, certain problems may occur, such as loops and long-period packet loss when the status is normal.
- C. If Type 2 configurations of the two M-LAG member devices are inconsistent, the M-LAG running status may be abnormal. Compared with Type 1 configuration problems, Type 2 configuration problems are more likely to be detected and have less impact on the network.
- D. If Type 2 configurations of the two M-LAG member devices are inconsistent, an alarm that indicates key and common configuration inconsistencies is generated.

Answer: D

Explanation:

If Type 2 configurations of the two M-LAG member devices are inconsistent, an alarm that indicates key and common configuration inconsistencies is generated. Evaluation: This statement is false. While Type 2 (common) configuration inconsistencies are detected during consistency checks, they do not typically trigger alarms, especially alarms that specifically indicate both key and common configuration inconsistencies. According to Huawei M-LAG Configuration Guide and Arista M-LAG Documentation, Type 2 inconsistencies may be logged or reported in system logs but are not severe enough to generate critical alarms unless they significantly impact network operation. Alarms are more commonly associated with Type 1 (key) configuration inconsistencies, as they pose a higher risk to M-LAG functionality.

QUESTION 6

Which of the following statements are false about heartbeat link faults in an M-LAG? (Select All that Apply)

- A. The fault that two master devices exist cannot be detected in the case of a peer-link fault.
- B. An alarm is triggered.
- C. The fault protection mechanism is triggered.
- D. Services are affected.

Answer: AD

Explanation:

In Huawei's M-LAG (Multi-Chassis Link Aggregation), the heartbeat link (or peer-link) ensures communication between member devices. A fault in this link can impact M-LAG operation. Let's evaluate each statement:

A. The fault that two master devices exist cannot be detected in the case of a peer-link fault: This is false. A peer-link fault can be detected, and mechanisms like dual-master detection (e.g., via Inter-Chassis Communication Link or ICC) can identify if both devices assume master roles, triggering corrective actions. FALSE.

B. An alarm is triggered: This is true. A peer-link fault generates an alarm to notify administrators, as it's a critical failure in M-LAG operation, per Huawei's fault management system. TRUE.

C. The fault protection mechanism is triggered: This is true. Huawei M-LAG includes protection mechanisms (e.g., failover to backup links or shutdown of conflicting interfaces) to mitigate peer-link faults and maintain service continuity. TRUE.

D. Services are affected: This is false. With proper configuration (e.g., redundant links or fast failover), services should not be affected by a peer-link fault, as M-LAG is designed for high availability. Impact depends on redundancy, but the design goal is uninterrupted service. FALSE.

Thus, A and D are false statements because dual-master faults can be detected, and services are not necessarily affected with adequate redundancy.

QUESTION 7

Which of the following statements are true about the tenant service model? (Select All that Apply)

- A. A tenant can apply for independent compute, storage, and network resources.
- B. One logical router is mapped to one VRF.
- C. An EPG can have only one subnet.
- D. A subnet supports the access of only one VM.

Answer: AB

Explanation:

The tenant service model in Huawei's data center networks (e.g., CloudFabric with SDN) organizes resources for multi-tenancy. Let's evaluate each statement:

A. A tenant can apply for independent compute, storage, and network resources: This is true. Tenants in a multi-tenant environment can request isolated compute (VMs), storage (volumes), and network (VLANs/VXLAN VNIs) resources, a core feature of Huawei's tenant isolation model. TRUE.

B. One logical router is mapped to one VRF: This is true. A Virtual Routing and Forwarding (VRF) instance is associated with a logical router to provide isolated Layer 3 routing for a tenant, a standard practice in Huawei's network virtualization. TRUE.

C. An EPG can have only one subnet: This is false. An Endpoint Group (EPG) in Huawei's ACI-like models can span multiple subnets, grouping endpoints (e.g., VMs) based on policies, not

limited to a single subnet. FALSE.

D. A subnet supports the access of only one VM: This is false. A subnet can support multiple VMs, as it defines an IP address range for a network segment, not a one-to-one VM mapping. FALSE.

Thus, A and B are true statements about the tenant service model.

QUESTION 8

Which of the following can be used as the conditions for microsegmentation to divide EPGs? (Select All that Apply)

- A. Operating system
- B. VM name
- C. IP address
- D. MAC address

Answer: ABCD

Explanation:

Microsegmentation in Huawei's data center networks (e.g., CloudFabric with SDN) divides Endpoint Groups (EPGs) to enforce fine-grained security policies. EPGs group endpoints (e.g., VMs) based on attributes. Let's evaluate each option:

A. Operating system: This is true. The OS type (e.g., Linux, Windows) can be used to segment EPGs, enabling policy enforcement based on OS-specific security needs. TRUE.

B. VM name: This is true. VM names can be used as identifiers for microsegmentation, allowing policies to target specific VMs. TRUE.

C. IP address: This is true. IP addresses are commonly used to define EPG boundaries, especially for network-based segmentation. TRUE.

D. MAC address: This is true. MAC addresses can segment EPGs, particularly for Layer 2-based policies or device-specific isolation. TRUE.

All options A, B, C, and D are valid conditions for microsegmentation to divide EPGs in Huawei's implementation.

QUESTION 9

In which of the following phases can CloudFabric implement full-lifecycle automatic network management and control? (Select All that Apply)

- A. Planning and construction
- B. Service provisioning
- C. O&M and monitoring
- D. Change optimization

Answer: ABCD

Explanation:

Huawei's CloudFabric solution provides an SDN-based framework for data center network management, supporting automation across the network lifecycle. Let's evaluate each phase:

A. Planning and construction: This is true. CloudFabric automates network design, resource

allocation, and deployment during the planning and construction phase using tools like iMaster NCE. TRUE.

B. Service provisioning: This is true. Automated service orchestration (e.g., VXLAN tunnel setup, tenant configuration) is a key feature during provisioning. TRUE.

C. O&M and monitoring: This is true. CloudFabric offers real-time monitoring, fault detection, and performance optimization through centralized management. TRUE.

D. Change optimization: This is true. The solution supports automated upgrades, policy adjustments, and optimization based on analytics, covering the change management phase. TRUE.

All phases A, B, C, and D are supported by CloudFabric's full-lifecycle automation.

QUESTION 10

In the spine-leaf DCN architecture, the border leaf node and service leaf node can be deployed on the same device.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

In Huawei's spine-leaf data center network (DCN) architecture, the topology consists of spine nodes (core) and leaf nodes (access/aggregation). Leaf nodes can serve different roles:

Border Leaf Node: Connects the DCN to external networks or other domains, handling Layer 3 routing.

Service Leaf Node: Connects to internal services (e.g., servers, VMs), often handling Layer 2/Layer 3 traffic.

In practice, a single physical device can be configured to perform both roles (border and service) if it has the necessary interfaces and routing capabilities. Huawei's CloudFabric documentation supports this flexibility, allowing a leaf switch to act as both a border and service node based on configuration (e.g., using VRFs or VXLAN gateways). This reduces hardware costs and simplifies deployment in smaller DCNs.

The statement is TRUE (A) because the border leaf and service leaf roles can be deployed on the same device in a spine-leaf architecture.

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