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Exam : HPE7-A03

**Title : Aruba Certified Campus
Access Architect Exam**

Version : DEMO

1.ACME retail has 38 locations spread out across Ave US states and two provinces in Canada. They are looking to grow 20% over the next two years. They have an HO with a staff of 200 employees. The organization has eight Regional Managers and two VPs who work from home and the road. Stores typically have 17 employees on average per location.

The two warehouses have a remote loading system and 20 employees each to load the trucks and fulfill the online orders. The warehouse has 40-foot ceilings and large metal racks to store inventory. The main location is 240K sq ft (22300 st) m) and the Canadian warehouse is 130K sq ft (12100 sq ml. The forklifts on the loading docks are equipped with a wireless tablet on board.

A typical store is reportedly about 60.000 sq ft (5575 sqm) and smaller stores are planned at 25.000 sq ft '2320 sq mi. The locations need to expand the abilities to vendors that need to add setup displays or Interactive kiosks in the stores. The current Infrastructure was installed in 2015 and used wireless N technology in a coverage model. The wiring is Cat5, and they are unsure of the fiber connections. The inventory is all placed on the floor when it is delivered to the local store.

Inventory control is handled through Zebra barcode scanners, and they have had a lot of issues in getting signals throughout the stores and this makes monthly inventory difficult. The organization has a small help desk to troubleshoot issues that happen at the retail locations and PC support for the office. The company is looking to upgrade away from the current pbx system later this year. With the need to grow and cut costs, they are interested in moving the data to the cloud but need to get almost real-time inventory control for the online service to function.

The network has all been wired over the last ten years, but with the new systems being all wireless, they have seen the trend to offer wireless to all the vendors for their needs but also would like to allow employees, guests, and contractors all to use it. With the new IT director starting next week, the project has been set by the CTO of the company. The marketing group has asked how they can interact with the customers and get more info, while the IT support desk needs to cut staff in half.

The office has an MDF and two IDFs located on floors one and two. The HOF is in the basement, and you have multiple WAN circuits for the HO links. Each store has a local handoff from the cable company (ethernet) in the middle of the store in the office, so distance for the wiring is not an issue.

The customer has budget concerns but does want something that could last 7+ years.

The customer would like to host all the applications at the HO Data Center.

Which design would meet the customer's requirements?

- A. Aruba SD-Branch Architecture
- B. Aruba 10K switch with Pensando
- C. Aruba Instant OS access points
- D. Aruba UXI Sensors
- E. HPE Comware switches

Answer: A

Explanation:

For ACME Retail, which aims to host all applications at the HO Data Center and has multiple locations spread across different geographical areas, the Aruba SD-Branch Architecture would be the most suitable design to meet their requirements. This architecture provides a simplified, integrated branch networking solution combining SD-WAN, LAN, and security features. It enables centralized management and control, allowing ACME Retail to efficiently route traffic from branch locations to the HO Data Center, ensuring secure and reliable access to applications. The SD-Branch solution can accommodate the company's growth and adapt to changing network demands, making it an ideal choice for a scalable and

flexible network infrastructure that supports ACME Retail's business objectives.

2.What documents should be included in the solution proposal? (Place the correct items into the list at the right. Order is not important. Not all options will be used)

POSSIBLE OPTIONS

architect's notes from meetings
as-built rack drawings
assumptions documented in design
bill of materials
data sheets of equipment proposed
proposed topology diagram
quote

CORRECT OPTIONS

Answer:

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architect's notes from meetings
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CORRECT OPTIONS

architect's notes from meetings
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quote

Explanation:

For the solution proposal, the documents that should typically be included are:

Architect's notes from meetings

As-built rack drawings

Assumptions documented in design

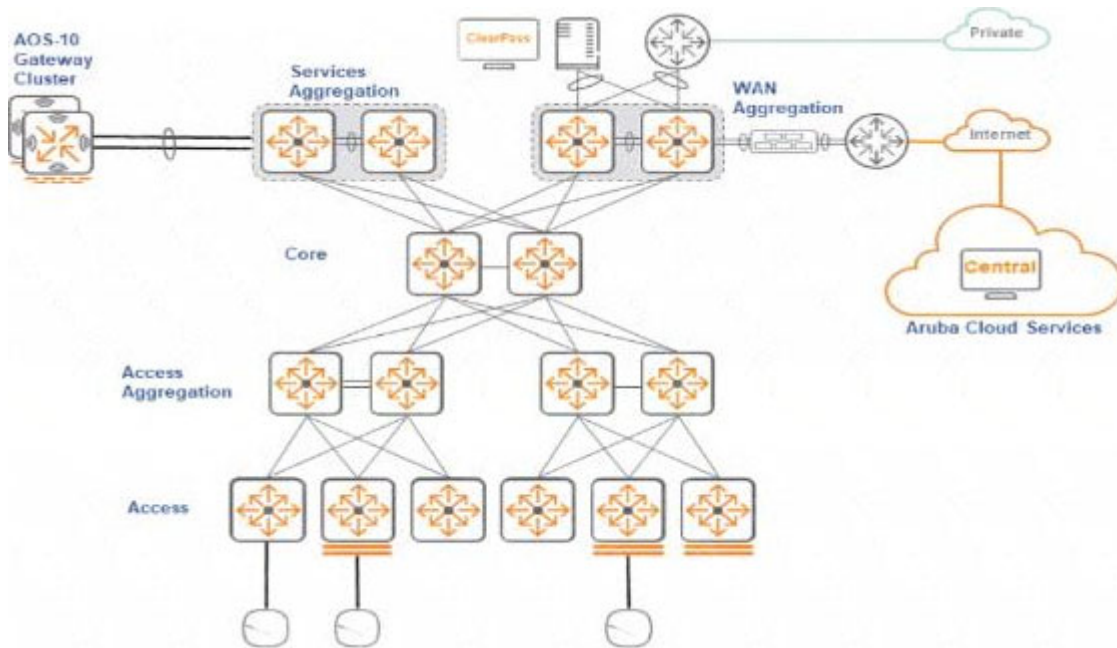
Bill of materials

Data sheets of equipment proposed

Proposed topology diagram

Quote

3.Based on this campus design, click on the layer that is the most appropriate to be designed as a Stub Persona, considering an EVPN VXLAN Fabric?

**Answer:**

In an EVPN VXLAN Fabric, the most appropriate layer to be designed as a Stub Persona, which typically refers to the edge or endpoint of a network with simplified routing and forwarding, would be the "Access" layer. This is where endpoints, such as user devices, connect to the network, and it's where you would typically implement simplified network protocols that do not require full routing information.

The Access layer is the entry point for endpoints into the network fabric, and it benefits from EVPN VXLAN by segmenting traffic and providing layer 2 connectivity over a layer 3 fabric without the need for complex routing protocols. The stub would not need the full capabilities of the core or aggregation layers, making the Access layer the ideal candidate.

4. A large multinational financial institution has contracted you to design a new full-stack wired and wireless network for their new 6-story regional office building. The bottom two floors of this facility will be retail space for a large banking branch. The upper floors will be carpeted office space for corporate users, each floor being approximately 100,000 sq ft (9290 sqm). Data centers are all off site and will be out of scope for this project. The customer is underserved by its existing L2-based network infrastructure and would like to take advantage of modern best practices in the new design. The network should be fully resilient and fault-tolerant, with dynamic segmentation at the edge.

The retail space will include public guest Wi-Fi access. Retail associates will have corporate tablets for customer service, and there will be a mix of wired and wireless devices throughout the retail floors. The corporate users will primarily use wireless for connectivity, but several wired clients, printers, and hard VoIP phones will be in use.

The customer is also planning on renovating the corporate office space in order to take advantage of "smart office" technology. These improvements will drive blue-dot wayfinding, presence analytics, and other location-based services.

The client would like to ensure redundant RADIUS resources in each of their three geographical regions (AMER, EMEA, and APAC). A large office location is available in each region with sufficient VMware resources available.

- Each region has 5,000 clients, all of which will need to do either 802.11x wired or wireless

authentications as well as 802.1 x authentication for a single personal device on Wi-Fi.

- All of the non-personal devices will also need to validate health with a local agent.
- A total of 500 guests are expected to be connected on average with a maximum of 700 simultaneous connections making use of Guest Portal for access to the Internet.
- TACACS authentication will also be configured for a total of 1,200 evenly dispersed NADs.

In order to support virtual IPs and server redundancy in each region how many Virtual Policy Manager Licenses will be needed?

- A. six licenses. C3000V
- B. six licenses. C2000V
- C. three licenses. C3000V
- D. three licenses. C2000V

Answer: A

Explanation:

In a scenario requiring redundant RADIUS resources across three geographical regions, with the scale of operations as described, opting for six C3000V Virtual Policy Manager licenses would ensure adequate capacity and redundancy. The C3000V model is designed to cater to larger deployments, offering high-capacity RADIUS services suitable for environments with thousands of clients and devices requiring authentication and health validation. By deploying two C3000V instances in each region (AMER, EMEA, and APAC), the financial institution can achieve both high availability and load balancing, ensuring that authentication services remain uninterrupted and efficient, even in the event of a server failure or during maintenance periods. This approach aligns with best practices for enterprise network design, emphasizing resilience and reliability in critical infrastructure components like authentication services.

5.A global cruise line company needs to refresh its current fleet. They will refresh the insides' of the ship to be cost-effective and increase their sustain ability. They will replace the complete WLAN/LAN hardware of the ship. In this refresh, the company will not refresh its current security requirements. The CIO also wants to limit the number of unused ports in the switches. Future expansion will always mean a refresh of hardware. They start with the smallest ship with a maximum of 800 guests

Each ship has a LAN infrastructure consisting of two core switches, up to 10 redundant distribution switches, and up to 500 access switches (400 cabins. 100 technical rooms). The Core switches are located in the MDF of the ship and the distribution switches are located in the IDFs of the ship. Each cabin and technical room gets one single access switch.

The cabling structure of the ship will not be refreshed. Each IDF is connected to the MDF by SMF. of which two pairs are available for the interconnect between the core and distribution. The length of SM fiber between MDF and IDF is less than 300 meters (930 ft) and the type used is OS1. Each cabin is connected by a single OM2 pair to the IDF. the maximum length is 60 meters (200 ft). Each technical room is connected by a single OM2 pair to the IDF. with lengths between 100 and 150 meters (320 and 500 ft).

For each cabin/technical room the customer is looking to replace their current fan-less 2530/2540 without changing the requirements, except they need to upgrade the uplink to distribution switch to 10GbE to handle the increased network traffic, and the technical rooms need redundant power.

The WLAN infrastructure will be 1:1 refreshed without new cabling or new AP locations. Their WLAN Infrastructure is based on the 200/300 series Indoor and outdoor APs running 802.11n (less than 300

APs). the customer has no change in WLAN requirements.

The cruise line company will replace its current Internet connection before the LAN/WLAN refresh. The new Internet connection will provide a 99.8% uptime, which is needed to ensure the paid guest Wi-Fi is always operational. With this new internet connection, the CIO of the cruise line wants to base the design on the ESP architecture from Aruba because Internet connection is guaranteed.

Based on the best practices, what should you recommend as the correct optic type for the connection between the IDF and the cabins?

- A. Aruba 10G SFP- LC LRM 220 m MMF Transceiver
- B. Aruba 10GBASE-T SFP- RJ--35 30 m Cat6A Transceiver
- C. Aruba 10G SFP- LC SR 300 m MMF Transceiver
- D. Aruba 10G LC BiDi 40 km-D 1330/1270 XCVR

Answer: C

Explanation:

For the connection between the IDF and the cabins, which requires supporting distances up to 60 meters on OM2 fiber, the most appropriate optic type is the Aruba 10G SFP+ LC SR 300 m MMF Transceiver.

This transceiver is compatible with multi-mode fiber (MMF) and is capable of supporting the required distance for connections to the cabins, making it a suitable choice based on the company's existing cabling structure and the need for 10GbE uplink capabilities to manage increased network traffic. The SR (Short Range) designation indicates that this transceiver is optimized for short to medium distances, which aligns with the maximum 60-meter distance from IDF to cabins, ensuring reliable and high-speed connectivity for the ship's LAN infrastructure within the given physical constraints.