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NEW QUESTION: 1

Which of the following statements correctly describes downstream and upstream transmission in a GPON network?

- A. Downstream traffic uses time slots assigned individually by each ONT, while upstream traffic is broadcast to all ONTs.
- B. Both downstream and upstream traffic are continuously broadcast without coordination by the OLT.
- C. Downstream traffic is broadcast from the OLT toward the ONTs, while upstream transmissions use OLT-controlled time slots.
- D. Downstream and upstream traffic require separate optical fibers between the OLT and each ONT.

Answer: C (LEAVE A REPLY)

GPON uses different transmission methods in the downstream and upstream directions. In the downstream direction, the OLT sends a continuous stream through the passive optical splitter. This stream reaches every connected ONT, but each ONT processes only the frames intended for it. Encryption can protect subscriber traffic from other ONTs on the same PON. In the upstream direction, several ONTs share the same optical fiber and cannot transmit simultaneously without coordination. The OLT therefore assigns transmission opportunities using Time Division Multiple Access. Dynamic Bandwidth Allocation can adjust these upstream grants according to traffic demand and service requirements. Separate fibers are not required for each subscriber because GPON commonly uses wavelength separation to carry downstream and upstream traffic over the same fiber infrastructure.

NEW QUESTION: 2

Which Corteca component is intended primarily for use by the subscriber during Wi-Fi installation and management?

- A. Corteca mobile application
- B. OLT network termination card
- C. IPFIX collecting process
- D. NETCONF candidate datastore

Answer: A ([LEAVE A REPLY](#))

The Corteca mobile application provides subscriber-facing capabilities that can support self-installation and home Wi-Fi management. Depending on the enabled service, the subscriber can receive installation guidance, view the home network, manage connected devices, and perform supported troubleshooting or configuration tasks. The service provider uses other Corteca platform components for centralized service management, visibility, and operational control. An OLT network termination card provides access-node network connectivity and is not a subscriber application. An IPFIX collector receives traffic-flow records, while a NETCONF candidate datastore holds proposed device configuration before it is committed. Separating subscriber-facing and operator-facing functions allows the provider to offer controlled self-service capabilities without exposing the complete network-management environment or low-level access-device configuration to the end user.

NEW QUESTION: 3

A provider wants to separate every subscriber's traffic throughout the access network, even when subscribers use the same service. Which VLAN model best meets this requirement?

- A. VLAN per subscriber
- B. VLAN per service
- C. One untagged VLAN for the entire access network
- D. One VLAN for every multicast channel

Answer: ([SHOW ANSWER](#))

A VLAN-per-subscriber model assigns a distinct VLAN context to each subscriber, providing clear Layer 2 separation between subscribers even when they consume the same service. This can simplify subscriber identification and support individual policy or forwarding treatment, but it requires the network to accommodate a larger number of VLANs. In a VLAN-per-service model, multiple subscribers using the same service can share a service VLAN toward the aggregation network. The access node must then preserve subscriber isolation through other forwarding controls and map traffic correctly between subscriber-facing and network-facing interfaces. Using one untagged VLAN for the entire access network provides insufficient segmentation. Assigning a VLAN to each multicast channel categorizes content rather than uniquely separating individual subscribers and therefore does not meet the stated requirement.

NEW QUESTION: 4

In a Lightspan High-Speed Internet service architecture, what is the role of the HSI VPLS on the IHUB?

- A. It switches HSI traffic between service forwarders and network-facing interfaces.
- B. It converts optical signals into analog telephone signals.
- C. It assigns Wi-Fi channels to residential gateways.
- D. It performs DSL crosstalk cancellation on copper pairs.

Answer: A (LEAVE A REPLY)

The HSI VPLS on the integrated hub provides the Layer 2 switching context used to carry High-Speed Internet traffic between HSI forwarders and the network-facing side of the access node. Subscriber traffic arriving through an ONT is associated with an HSI forwarder on the relevant line termination resources. The forwarder connects that traffic to the HSI VPLS, which then switches it toward one or more NNIs leading to the aggregation network. The VPLS does not perform optical-to-analog voice conversion, Wi-Fi radio management, or DSL vectoring. Those functions belong to different service components or technologies. This logical service architecture allows subscriber-facing resources and network-facing interfaces to participate in a controlled Ethernet forwarding domain while supporting the required service separation and policies.

NEW QUESTION: 5

In intent-based networking, what does an operator primarily specify through an intent?

- A. The desired network outcome or state
- B. Every electrical characteristic of each hardware component
- C. The optical power measured at every point in the fiber
- D. A list of packets that must be forwarded individually

Answer: A (LEAVE A REPLY)

An intent describes the desired network outcome or target state rather than requiring the operator to manually enter every device-level command. The intent system maps the requested outcome to the configurations and resources needed on the relevant network elements. It can then compare the intended state with the observed operational state and take corrective action when supported. Intent types, profiles, and associated models provide the logic and parameters required for this translation. An intent does not normally specify the electrical construction of hardware or list every packet to be forwarded. Optical measurements may be used as operational inputs, but they are not the general definition of an intent. This abstraction improves consistency, supports automation, and reduces repetitive device-by-device configuration work.

NEW QUESTION: 6

A subscriber installs several coordinated Wi-Fi access points to provide consistent coverage throughout a large home. What type of solution is this?

- A. Wi-Fi mesh system
- B. Passive optical network

- C. DSL bonding group
- D. Virtual network function

Answer: (SHOW ANSWER)

A Wi-Fi mesh system uses multiple coordinated Wi-Fi nodes or access points to extend wireless coverage across a home or other large area. The nodes operate as part of one managed system and can steer clients or select paths to improve coverage and user experience. This differs from a single Wi-Fi router, which combines routing, switching, and wireless access functions in one device but may not adequately cover a large property. A passive optical network delivers fiber access and does not describe the in-home wireless topology. DSL bonding combines copper pairs, while a virtual network function is a software implementation of a network function running on virtualized infrastructure. Placement, backhaul quality, interference, and radio-resource management all affect mesh performance.

NEW QUESTION: 7

What is a typical function of the Network Termination card in a Nokia Lightspan access node?

- A. It provides external network-facing interfaces through faceplate connectors or optical cages.
- B. It operates as the passive splitter in the Optical Distribution Network.
- C. It provides Wi-Fi connectivity directly to subscriber mobile devices.
- D. It terminates every analog telephone inside the subscriber's home.

Answer: A (LEAVE A REPLY)

The Network Termination card provides network-facing connectivity for a Lightspan access node. Its faceplate can contain connectors and optical cages used to connect the node to external aggregation, transport, management, synchronization, or other supported interfaces. The card participates in forwarding traffic between subscriber-facing line termination resources and the upstream network. It is an active component and must not be confused with a passive optical splitter in the outside plant. It also does not provide in-home Wi-Fi directly to subscriber devices; that function belongs to a residential gateway or Wi-Fi access point. Analog telephones are normally connected through voice-capable subscriber equipment, such as an ONT with appropriate telephone interfaces, rather than directly to the Lightspan NT card.

NEW QUESTION: 8

Which YANG node type represents multiple scalar values under the same node name without allowing child nodes?

- A. Container
- B. List
- C. Leaf-list
- D. Choice

Answer: C (LEAVE A REPLY)

A YANG leaf-list represents a sequence of scalar values of the same defined type. Like a leaf, each value is terminal and cannot contain child nodes. However, unlike a single leaf, a leaf-list can have multiple entries. A YANG list also supports multiple instances, but each list entry can contain child nodes and is normally identified by one or more key leaves. A container groups related child nodes but does not itself represent a repeated collection of scalar values. A choice defines alternative branches in a data model, allowing one set of nodes from the available cases to be selected. Correctly distinguishing these node types is important when interpreting YANG schemas used to configure and monitor access devices through model-driven management interfaces.

NEW QUESTION: 9

Which traffic-delivery method is commonly used for a live IPTV channel watched simultaneously by many subscribers?

- A.** Multicast delivery
- B.** Separate analog transmission over every copper pair
- C.** NETCONF notifications
- D.** Unicast only, with no packet replication in the network

Answer: A (LEAVE A REPLY)

Live IPTV channels are commonly distributed using multicast because many subscribers may request the same content at the same time. The network carries a shared stream across common paths and replicates packets only where delivery paths branch toward participating receivers. Subscribers signal membership using protocols such as IGMP. This approach is more bandwidth-efficient than delivering a separate unicast copy from the source to every viewer. Video on Demand is commonly delivered using unicast because each viewer may start, pause, or seek through different content independently. NETCONF notifications carry management events rather than television content. IPTV is packet-based and does not require a separate analog transmission for every copper pair. Effective multicast deployment also depends on correct group control, snooping, routing, QoS, and service-forwarding configuration.

NEW QUESTION: 10

Which architectural principle is fundamental to Software-Defined Networking?

- A.** Separating the control plane from the data-forwarding plane
- B.** Requiring every forwarding device to make all policy decisions independently
- C.** Removing programmability and APIs from network management
- D.** Combining all hardware and software into one fixed proprietary component

Answer: A (LEAVE A REPLY)

A central principle of Software-Defined Networking is the separation of control logic from packet-forwarding functions. The data plane remains responsible for forwarding traffic, while logically centralized control software determines policies and programs network

behavior through defined interfaces. Logically centralized does not necessarily mean that all controller functions run on one physical server; they may be distributed for scalability and resilience while presenting a coordinated control view. SDN emphasizes programmability, automation, abstraction, and the use of APIs. It does not require every forwarding device to independently make all high-level policy decisions. It also avoids tightly coupling every function into one fixed proprietary system. In fixed-access networks, these concepts help operators automate service delivery and manage different access devices through common models and controller applications.

NEW QUESTION: 11

What is the primary purpose of Zero-Touch Provisioning for a newly installed residential Wi-Fi gateway?

- A.** To require a technician to configure every parameter locally
- B.** To allow the gateway to obtain its required configuration automatically
- C.** To prevent the gateway from contacting a management platform
- D.** To convert the gateway into a passive optical splitter

Answer: [\(SHOW ANSWER\)](#)

Zero-Touch Provisioning allows a newly connected gateway or Wi-Fi device to discover the appropriate management environment and obtain its required configuration with minimal manual intervention. This reduces installation time, lowers the chance of configuration errors, and makes subscriber self-installation more practical. In a managed home-network solution, the device can be associated with the subscriber, receive service parameters, and become visible to the provider's management platform. Zero-Touch Provisioning does not mean that no configuration exists; it means the configuration is delivered automatically instead of being entered locally by a technician. It also does not prevent management communication or turn an active gateway into a passive device. Successful provisioning still depends on network connectivity, device identity, authorization, and compatible management procedures.

NEW QUESTION: 12

Which Lightspan interface type normally connects an access node directly to subscriber-facing equipment?

- A.** User Network Interface
- B.** Network-to-Network Interface
- C.** Subtending interface
- D.** Management loopback interface

Answer: **A** [\(LEAVE A REPLY\)](#)

A User Network Interface is the subscriber-facing interface through which an access node connects to customer-side equipment or services. Depending on the access technology, this relationship can involve ONTs, subscriber ports, or other access termination functions. A Network-to-Network Interface connects the access node toward another network device,

typically the Ethernet aggregation or transport network. A subtending interface is used when one access node is connected through another access node, allowing the downstream node's traffic to reach the aggregation network through the upstream node. A loopback interface is a logical interface generally used for management, routing identification, or testing and is not a physical subscriber connection. Correctly distinguishing UNI, NNI, and subtending roles is essential when interpreting an access-node datapath.

NEW QUESTION: 13

Which Wi-Fi 7 capability allows a compatible device to use more than one frequency-band link as part of the same connection?

- A. Dynamic Bandwidth Allocation
- B. Multi-Link Operation
- C. DSL vectoring
- D. VLAN stacking

Answer: B (LEAVE A REPLY)

Multi-Link Operation is a major Wi-Fi 7 capability that enables compatible devices to establish and coordinate multiple radio links, potentially across frequency bands such as 5 GHz and 6 GHz. Depending on the implementation, traffic can be distributed across links to increase throughput or moved between links to reduce latency and avoid interference. Earlier Wi-Fi generations generally treated a client's band connection more independently. Dynamic Bandwidth Allocation schedules upstream PON capacity, DSL vectoring mitigates copper-pair crosstalk, and VLAN stacking carries multiple VLAN identifiers in Ethernet frames. Multi-Link Operation requires support from both the access point and client. Actual performance also depends on spectrum availability, channel conditions, device capabilities, regulatory constraints, and the capacity of the access point's wired or wireless backhaul.

NEW QUESTION: 14

Why does an access automation platform store operational state, logs, and telemetry in a common data lake?

- A. To support centralized analysis, monitoring, and automation
- B. To replace every physical access device with stored records
- C. To prevent applications from accessing historical information
- D. To convert unicast subscriber traffic into multicast traffic

Answer: A (LEAVE A REPLY)

A common data lake provides a centralized location for operational state, telemetry, logs, alarms, and other information collected from access-network devices and applications. Centralized data enables monitoring tools to correlate information across multiple nodes, evaluate network health, identify trends, and support analytics-driven automation. Historical data can also assist with troubleshooting, performance baselining, capacity

planning, and detection of abnormal behavior. The data lake does not replace physical access devices; it stores information describing their operation. It is intended to make relevant information available to authorized applications rather than prevent historical access. It also does not automatically transform subscriber unicast traffic into multicast. Forwarding behavior is controlled through service and network configuration, whereas the data lake supports visibility, analysis, and operational decision-making.

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