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200-310

Designing for Cisco Internetwork Solutions

Version 6.0

Exam A

QUESTION 1
You want to gather as much detail as possible during a network audit, to include data time stamping across a large number of interfaces, customized according to interface, with a minimal impact on the network devices themselves. Which tool would you use to meet these requirements?

A. RMON
B. SNMPv3
C. NetFlow
D. Cisco Discovery Protocol

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

NetFlow provides extremely granular and accurate traffic measurements and a high-level collection of aggregated traffic. The output of netflow information is displayed via the show ip cache flow command on routers. The Table shows a description of the fields for NetFlow output.
Table. Netflow Output escription

Field	Description
Bytes	Number of bytes of memory that are used by the NetFlow cache
Active	Number of active flows
Inactive	Number of flow buffers that are allocated in the Netflow cache
Added	Number of flows that have been created since the start of the summary
Exporting flows	IP address and UDP port number of the workstation to which flows are exported
Flows exported	Total number of flows export and the total number of UDP datagrams
Protocol	IP protocol and well-known port number
Total Flows	Number of flows for this protocol since the last time that statistics were cleared
Flows/sec	Average number of flows this protocol per second
Packets/flow	Average number of packets per flow per second
Bytes/pkt	Average number of bytes for this protocol
Packets/sec	Average number of packets for this protocol per second

QUESTION 2
You want to gather as much detail as possible during a network audit with a minimal impact on the network devices themselves. Which tool would you use to include data time stamping across a large number of interfaces while being customized according to each interface?

A. RMON
B. SNMPv3
C. NetFlow
D. Cisco Discovery Protocol

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 3
In which phase of PPDIOO are the network requirements identified?

A. Design
B. Plan
C. Prepare
D. Implement
E. Operate
F. Optimize

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

PPDIOO Phase	Description
Prepare	Establishes organization and business requirements, develops a network strategy, and proposes a high-level architecture
Plan	Identifies the network requirements by characterizing and assessing the network, performing a gap analysis
Design	Provides high availability, reliability, security, scalability, and performance
Implement	Installation and configuration of new equipment
Operate	Day-to-day network operations
Optimize	Proactive network management; modifications to the design

Plan Phase
The Plan phase identifies the network requirements based on goals, facilities, and user needs. This phase characterizes sites and assesses the network, performs a gap analysis against best-practice architectures, and looks at the operational environment. A project plan is developed to manage the tasks, responsible parties, milestones, and resources to do the design and implementation. The project plan aligns with the scope, cost, and resource parameters established with the original business requirements. This project plan is followed (and updated) during all phases of the cycle.

QUESTION 4
Which is part of the Prepare phase of PPDIOO?

A. Obtain site contact information
B. Perform network audit
C. Identify customer requirements
D. Perform gap analysis

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

PPDIOO Phase	Description
Prepare	Establishes organization and business requirements, develops a network strategy, and proposes a high-level architecture
Plan	Identifies the network requirements by characterizing and assessing the network, performing a gap analysis
Design	Provides high availability, reliability, security, scalability, and performance
Implement	Installation and configuration of new equipment
Operate	Day-to-day network operations
Optimize	Proactive network management; modifications to the design

Prepare Phase
The Prepare phase establishes organization and business requirements, develops a network strategy, and proposes a high-level conceptual architecture to support the strategy. Technologies that support the architecture are identified. This phase creates a business case to establish a financial justification for a network strategy.

QUESTION 5
When designing the identity and access control portions for the enterprise campus network, which of these solutions would be the most appropriate solution to consider?

A. 802.1X
B. ACLs in the core layer
C. Cisco Security MARS
D. NetFlow

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Field	Description
Bytes	Number of bytes of memory that are used by the NetFlow cache
Active	Number of active flows
Inactive	Number of flow buffers that are allocated in the Netflow cache
Added	Number of flows that have been created since the start of the summary
Exporting flows	IP address and UDP port number of the workstation to which flows are exported
Flows exported	Total number of flows export and the total number of UDP datagrams
Protocol	IP protocol and well-known port number
Total Flows	Number of flows for this protocol since the last time that statistics were cleared
Flows/sec	Average number of flows this protocol per second
Packets/flow	Average number of packets per flow per second
Bytes/pkt	Average number of bytes for this protocol
Packets/sec	Average number of packets for this protocol per second

QUESTION 6

Which is the purpose of the Cisco NAC Profiler?

A. Automates discovery and inventory of all LAN attached devices
B. Generates a profile based on username and group
C. Learns and creates a database of virus definitions based on LAN traffic
D. A database used to map user VPN accounts

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Cisco NAC Profiler: Enables network administrators to keep a real-time, contextual inventory of all devices in a network. It greatly facilitates the deployment and management of Cisco Network Admission Control (NAC) systems by discovering and tracking the location and type of all LAN-attached endpoints, including those that are not capable of authenticating. It also uses the information about the device to determine the correct policies for NAC to apply.

QUESTION 7
Cisco Identity-Based Networking Services relies heavily on the 802.1X protocol. Which other authentication solution is used hand-in-hand with 802.1X to authenticate users for network access?

A. RADIUS
B. LEAP
C. IPsec
D. TACACS
E. ISAKMP

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Cisco Identity-Based Network Services
The Cisco Identity-Based Network Services solution is a way to authenticate host access based on policy for admission to the network. IBNS supports identity authentication, dynamic provisioning of VLANs on a per-user basis, guest VLANs, and 802.1X with port security.
The 802.1 X protocol is a standards-based protocol for authenticating network clients by permitting or denying access to the network. The 802.1 X protocol operates between the end-user client seeking access and an Ethernet switch or wireless access point (AP) providing the connection to the

network. In 802.1 X terminology, clients are called supplicants, and switches and APs are called authenticates. A back-end RADIUS server such as a Cisco Access Control Server (ACS) provides the user account database used to apply authentication and authorization.

With an IBNS solution, the host uses 802.IX and Extensible Authentication Protocol over LANs (EAPoL) to send the credentials and initiate a session to the network. After the host and switch establish LAN connectivity, username and password credentials are requested. The client host then sends the credentials to the switch, which forwards them to the RADIUS ACS.

The RADIUS ACS performs a lookup on the username and password to determine the credentials' validity. If the username and password are correct, an accept message is sent to the switch or AP to allow access to the client host. If the username and password are incorrect, the server sends a message to the switch or AP to block the host port.

Figure 13-4 illustrates the communication flow of two hosts using 802.1X and KAPoL with the switch, AP, and back-end RADIUS server.

QUESTION 8
Which protocol is used for voice bearer traffic?

A. MGCP
B. RTP
C. SCCP
D. CDP
E. ICMP

Correct Answer: B
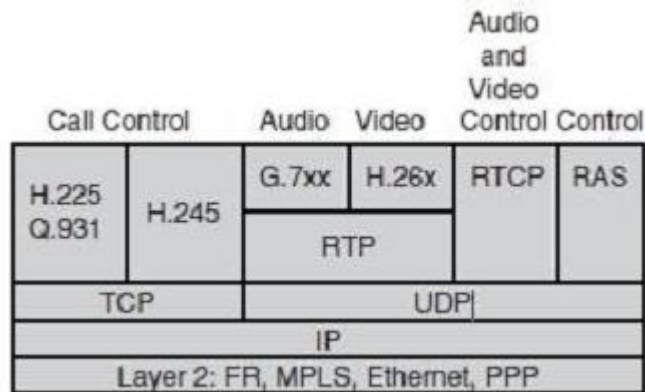**Section: (none)**
Explanation

Explanation/Reference:
Explanation:

VoIP Control and Transport Protocols
A number of different protocols are used in a VoIP environment for call control, device provisioning, and addressing.
Figure 14-15 shows those protocols focused on VoIP control and transport.

QUESTION 9
Which protocol is used to reserve bandwidth for the transport of a particular application data flow across the network?

A. cRTP
B. IEEE 802.1P
C. RSVP
D. LFI
E. Auto QOS

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

RSVP Signaling protocol that enables end stations or applications to obtain guaranteed bandwidth and low delays for their data flows.

QUESTION 10
Which two features are supported by single wireless controller deployments? (Choose two.)

A. automatic detection and configuration of LWAPPs
B. LWAPP support across multiple floors and buildings
C. automatic detection and configuration of RF parameters
D. Layer 2 and Layer 3 roaming

E. controller redundancy

F. mobility groups

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 11
Which four services does the architecture for Media Services contain? (Choose four.)

A. access services

B. transport services

C. storage services

D. forwarding services

E. session control services

F. security services

G. filtering services

H. remote access services

Correct Answer: ABCE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

An architecture framework for media services supports different models of video models. As shown in Figure 14-13, the network provides service to video media in the Media Services Framework. Those services are access services, transport services, bridging services, storage servers, and session control services, which arc provided to endpoints.

▪ Access services provide identity of end devices, mobility, and location services.
▪ Transport services provide QoS for reliable packet delivery.
▪ Bridging services provide transcoding, conferencing, and recording services of media streams.
▪ Storage services provide capture and storage of media streams and content management and distribution.
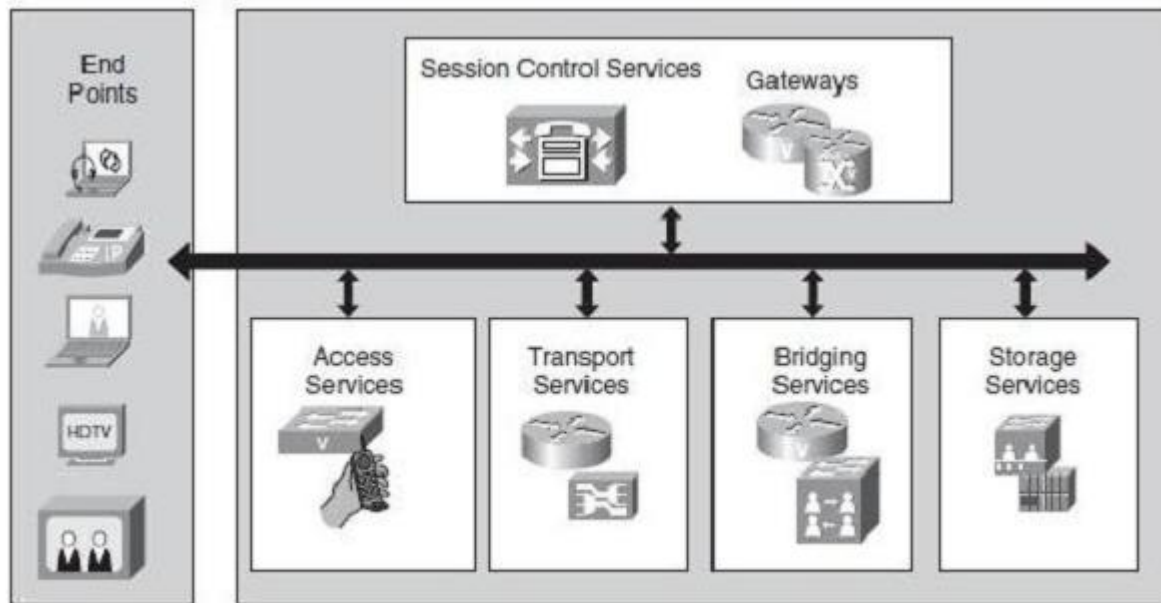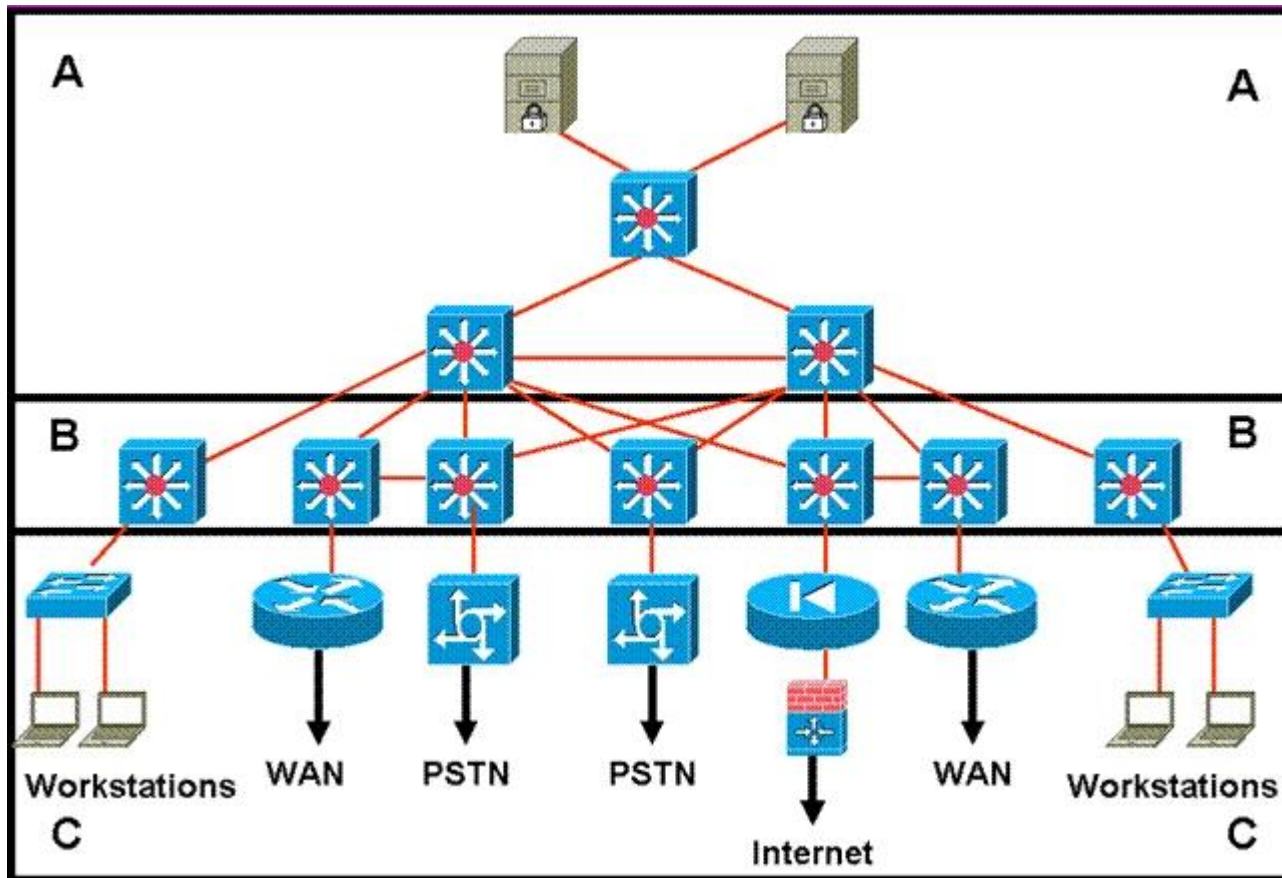▪ Session control services provide session signaling and control and gateway services.

Figure 14-13 *Media Services Architectural Framework*

QUESTION 12
Refer to the exhibit.

Which layer is the distribution layer?

A. Layer A
B. Layer B
C. Layer C
D. Layers A and B form a consolidated core and distribution layer

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Explanation:

QUESTION 13
Which IPv6 feature enables routing to distribute connection requests to the nearest content server?

A. Link-local
B. Site-local
C. Anycast
D. Multicast
E. Global aggregatable

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Any cast is a network addressing and routing methodology in which data grams from a single sender are routed to the topologically nearest node in a group of potential receivers all identified by the same destination address.
Link: http://en.wikipedia.org/wiki/Anycast

QUESTION 14
What is the recommended spanning tree protocol to use for all Layer 2 deployments in a branch office environment?

A. CST
B. RSPT
C. PVST
D. MISTP
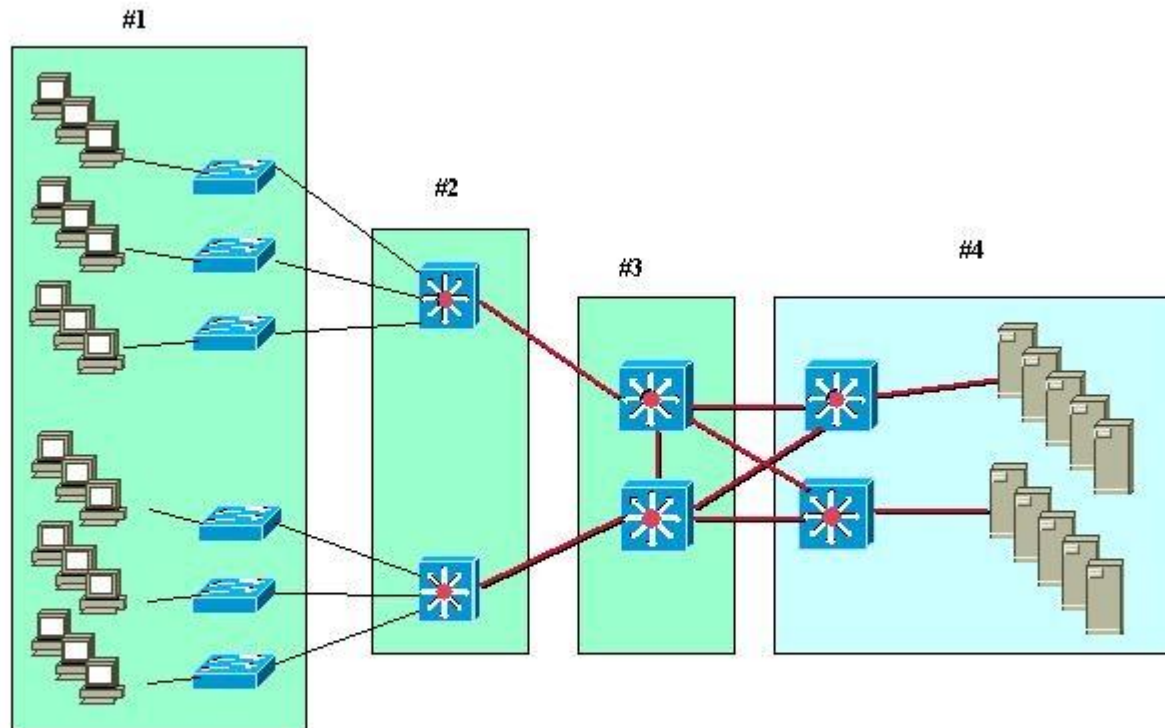E. Rapid PVST +

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 15
Refer to the exhibit.

A standard, Layer 2 campus network design is pictured. Which numbered box represents the distribution layer?

A. #1
B. #2
C. #3

D. #4

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 16
Which two are types of network virtualization? (Choose two.)

A. VSS: Virtual Switching System
B. VRF: virtual routing and forwarding
C. VCI: virtual channel identifier
D. VLSM: variable length subnet masking
E. VM: virtual machine
F. VMP: Virtual Memory Pool

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Network virtualization encompasses logical isolated network segments that share the same physical infrastructure. Each segment operates independently and is logically separate from the other segments. Each network segment appears with its own privacy, security, independent set of policies, QoS levels, and independent routing paths.
Here are some examples of network virtualization technologies:

   VLAN: Virtual local-area network
   VSAN: Virtual storage-area network
   VRF: Virtual routing and forwarding
   VPN: Virtual private network
   VPC: Virtual Port Channel

QUESTION 17
You are tasked with designing a new branch office that will support 75 users with possible expansion in the future and will need a highly available network. Which of the branch design profiles should be implemented?

A. large branch design
B. medium branch design
C. teleworker design
D. small branch design

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Medium Branch Design
The medium branch design is recommended for branch offices of 50 to 100 users, which is similar to the small branch but with an additional access router in the WAN edge (slightly larger) allowing for redundancy services. Typically, two 2921 or 2951 routers are used to support the WAN, and separate access switches are used to provide LAN connectivity.

QUESTION 18
Which two can be used as a branch office WAN solution? (Choose two.)

A. frame relay
B. MPLS
C. Metro Ethernet
D. GPRS
E. dial-up modem
F. 3G USB modems

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Frame relay is old 'shared' technology today's sites use some flavor or Metro E or MPLS/VPN

QUESTION 19
What is the acceptable amount of one-way network delay for voice and video applications?

A. 300 bytes

B. 1 sec

C. 150 ms

D. 500 ms

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Delay Components in VoIP Networks
The ITU's G.I 14 recommendation specifics that the one-way delay between endpoints should not exceed 150 ms to be acceptable, commercial voice quality. In private networks, somewhat longer delays might be acceptable for economic reasons. The ITU G.114 recommendation specifics that 151-ms to 400-ms one-way delay might be acceptable provided that organizations are aware that the transmission time will affect the quality of user applications. One-way delays of above 400 ms are unacceptable for general network planning purposes.

QUESTION 20
Which mode is used to exclusively look for unauthorized access points?

A. monitor mode

B. sniffer mode

C. rogue detector mode

D. local mode

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

AP Mode	Description
Monitor mode	
Rogue Detector mode	
Sniffer mode	
Bridge mode	

Interference detection and avoidance: As Cisco LWAPs monitor all channels, interference is detected by a predefined threshold (10 percent by default). Interference can be generated by rogue APs, microwaves, cordless telephones, Bluetooth devices, neighboring WLANs, or other electronic devices.

QUESTION 21
Which of the following three options represents the components of the Teleworker Solution? (Choose three.)

A. Cisco Unified IP Phone
B. Cisco 880 Series Router
C. Aironet Office Extend Access Point
D. Catalyst 3560 Series Switch
E. Cisco 2900 Series Router
F. MPLS Layer 3 VPN
G. Leased lines

Correct Answer: ABE
Section: (none)
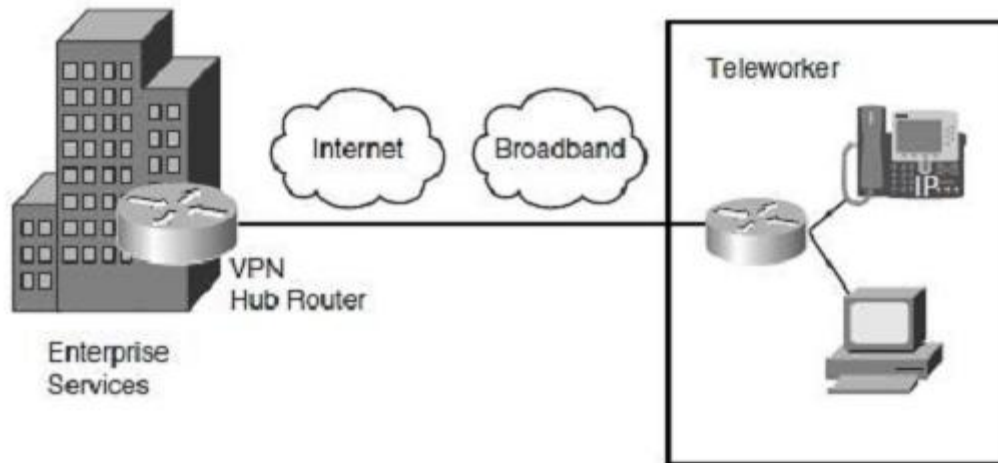**Explanation**

Explanation/Reference:
Explanation:

A Cisco ASR is used to terminate Teleworker solutions, not a 2900 series router.
Hybrid teleworker uses Aironet, Advanced teleworker uses 880, both use IP phones.
google: "at_a_glance_c45-652500.pdf" for details

The Cisco Virtual Office Solution for the Enterprise Teleworker is implemented using the Cisco 800 series ISRs. Each ISR has integrated switch ports that then connect to the user's broadband connection. The solution uses a permanent always-on IPsec VPN tunnel back to the corporate network. This architecture provides for centralized IT security management, corporate-pushed security policies, and integrated identity services. In addition, this solution supports the enterprise teleworker needs through advanced applications such as voice and video. For example, the enterprise teleworker can take advantage of toll bypass, voicemail, and advanced IP phone features not available in the PSTN.

Enterprise Teleworker Module
The enterprise teleworker module consists of a small office or a mobile user who needs to access services of the enterprise campus. As shown in Figure 2-14, mobile users connect from their homes, hotels, or other locations using dialup or Internet access lines. VPN clients are used to allow mobile users to securely access enterprise applications. The Cisco Virtual Office solution provides a solution for teleworkers that is centrally managed using small integrated service routers (ISR) in the VPN solution. IP phone capabilities are also provided in the Cisco Virtual Office solution, providing corporate voice services for mobile users.

QUESTION 22
Which three types of WAN topologies can be deployed in the Service Provider Module? (Choose three.)

A. ring
B. star
C. full mesh
D. core/edge
E. collapsed core
F. partial mesh

Correct Answer: BCF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 23
DRAG DROP
Drag the WAN characteristics on the left to the branch office model where it would most likely to be used on the right.

Select and Place:

Drag the WAN characteristics on the left to the branch office model where it would most likely to be used on the right.

Small Office

Redundant devices

MPLS Deployment model

Medium Office

Redundant Links

Redundant Links and Devices

Large Office

Private WAN deployment

Internet Deployment Model

Correct Answer:

Drag the WAN characteristics on the left to the branch office model where it would most likely to be used on the right.

	Small Office
	Redundant Links
	Internet Deployment Model
	Medium Office
	Redundant devices
	Private WAN deployment
	Large Office
	Redundant Links and Devices
	MPLS Deployment model

Section: (none)
Explanation

Explanation/Reference:
Small Branch Design
The *small branch design* is recommended for branch offices that do not require hardware redundancy and that have a small user base supporting up to 50 users. This profile consists of an access router providing WAN services and connections for the LAN services.

The Layer 3 WAN services are based on the WAN and Internet deployment model. A T1 is used for the primary link, and an ADSL secondary link is used for backup. Other network fundamentals are supported, such as EIGRP, floating static routes, and QoS for bandwidth protection.

Medium Branch Design
The *medium branch design* is recommended for branch offices of 50 to 100 users, which is similar to the small branch but with an additional access router in the WAN edge (slightly larger) allowing for redundancy services.

Large Branch Design
The *large branch design* is the largest of the branch profiles, supporting between 100 and 1000 users. This design profile is similar to the medium branch design in that it also provides dual access routers in the WAN edge. In addition, dual Adaptive Security Appliances (ASA) are used for stateful

firewall filtering, and dual distribution switches provide the multilayer switching component. The WAN services use an MPLS deployment model with dual WAN links into the WAN cloud.

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QUESTION 24
Which statement describes the recommended deployment of DNS and DHCP servers in the Cisco Network Architecture for the Enterprise?

A. Place the DHCP and DNS servers in the Enterprise Campus Access layer and Enterprise branch.
B. Place the DHCP and DNS servers in the Enterprise Campus Server Farm layer and Enterprise branch.
C. Place the DHCP server in the Enterprise Campus Core layer and Remote Access_VPN module with the DNS server in the Internet Connectivity module.
D. Place the DHCP server in the Enterprise Campus Distribution layer with the DNS server in the Internet Connectivity module.
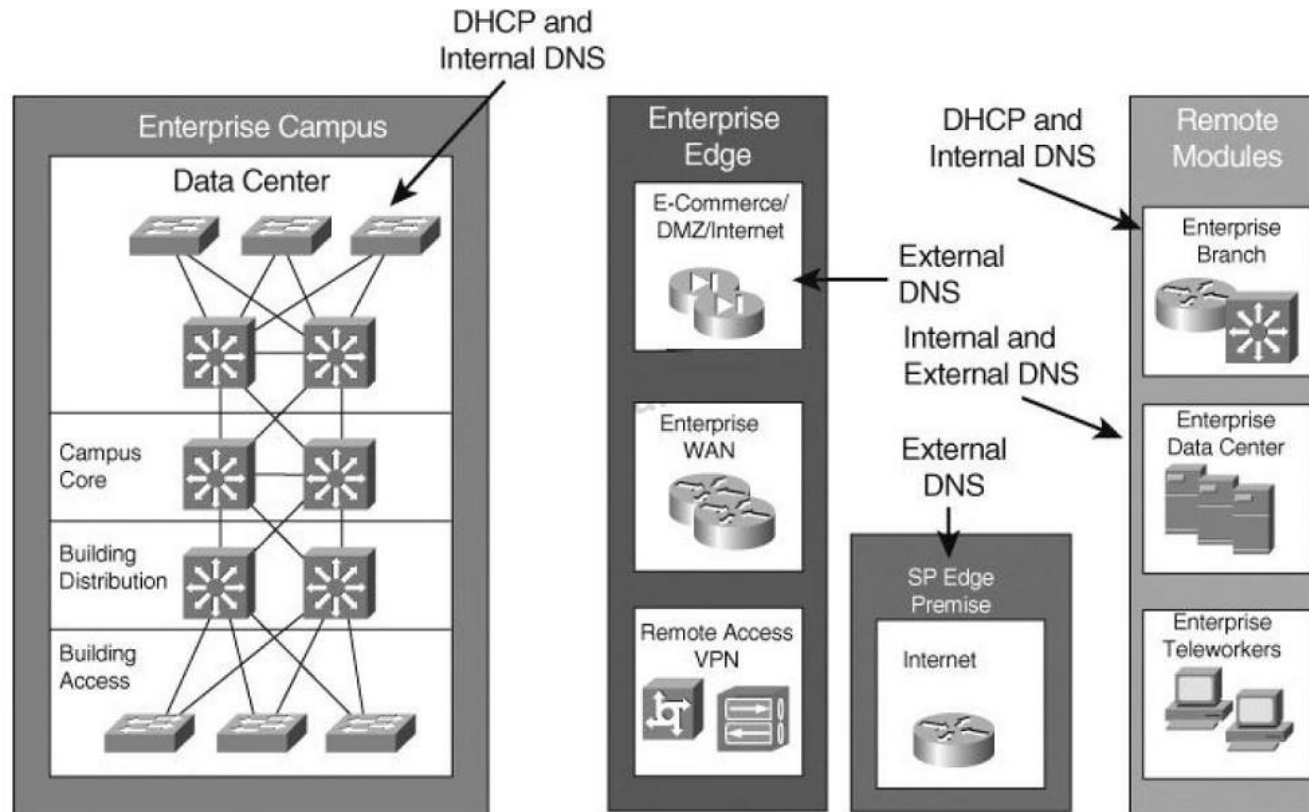
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
For the Enterprise Campus, DHCP and internal DNS servers should be located in the Server Farm and they should be redundant. External DNS servers can be placed redundantly at the service provider facility and at the Enterprise branch.

Enterprise Campus — Data Center, Campus Core, Building Distribution, Building Access. DHCP and Internal DNS. Enterprise Edge — E-Commerce/DMZ/Internet, Enterprise WAN, Remote Access VPN. External DNS. SP Edge Premise — Internet. Internal and External DNS. Remote Modules — Enterprise Branch, Enterprise Data Center, Enterprise Teleworkers. DHCP and Internal DNS.

QUESTION 25
Your company's Cisco routers are operating with EIGRP. You need to join networks with an acquisition's heterogeneous routers at 3 sites, operating with EIGRP and OSPF. Which describes the best practice for routing protocol deployment?

A. Apply OSPF throughout both networks
B. Apply one-way redistribution exclusively at each location
C. Apply two-way redistribution exclusively at each location
D. Apply two-way redistribution at each location with a route filter at only one location
E. Apply two-way redistribution at each location with a route filter at each location
F. Apply EIGRP with the same autonomous system throughout both networks

Correct Answer: E
Section: (none)

Explanation

Explanation/Reference:
Explanation:
Without filters there is possibility of routing loops.
Link: http://www.cisco.com/en/US/tech/tk365/technologies_tech_note09186a008009487e.shtml

QUESTION 26
Which two routing protocols converge most quickly? (Choose two.)

A. RIPv1
B. RIPv2
C. BGP
D. OSPF
E. EIGRP

Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 27
Which of these is the equation used to derive a 64 Kbps bit rate?

A. 2 x 8 kHz x 4-bit code words
B. 8 kHz x 8-bit code words
C. 2 x 4-bit code words x 8 kHz
D. 2 x 4 kHz x 8-bit code words

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
While the human ear can sense sounds from 20 to 20, 000 Hz, and speech encompasses sounds from about 200 to 9000 Hz, the telephone channel was designed to operate at about 300 to 3400 Hz. This economical range carries enough fidelity to allow callers to identify the party at the far end and sense their mood. Nyquist decided to extend the digitization to 4000 Hz, to capture higher-frequency sounds that the telephone channel may deliver. Therefore, the highest frequency for voice is 4000 Hz. According to Nyquist theory, we must double the highest frequency, so 2x4kHz = 8kHz.

Each sample will be encoded into a 8-bit code. Therefore 8kHz x 8-bit code = 64 Kbps (notice about the unit Kbps: 8kHz = 8000 samples per second so 8000 x 8-bit = 64000 bit per second = 64 Kilobit per second = 64 Kbps)
Link: http://encyclopedia2.thefreedictionary.com/Nyquist+theorem

Note:
Nyquist theory:
"When sampling a signal (e.g., converting from an analog signal to digital), the sampling frequency must be greater than twice the bandwidth of the input signal in order to be able to reconstruct the original perfectly from the sampled version."

QUESTION 28
Which one of these statements is an example of how trust and identity management solutions should be deployed in the enterprise campus network?

A. Authentication validation should be deployed as close to the data center as possible.
B. Use the principle of top-down privilege, which means that each subject should have the privileges that are necessary to perform their defined tasks, as well as all the tasks for those roles below them.
C. Mixed ACL rules, using combinations of specific sources and destinations, should be applied as close to the source as possible.
D. For ease of management, practice defense in isolation - security mechanisms should be in place one time, in one place.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Validating user authentication should be implemented as close to the source as possible, with an emphasis on strong authentication for access from untrusted networks. Access rules should enforce policy deployed throughout the network with the following guidelines:
▪ Source-specific rules with any type destinations should be applied as close to the source as possible.
▪ Destination-specific rules with any type sources should be applied as close to the destination as possible.
▪ Mixed rules integrating both source and destination should be used as close to the source as possible.

An integral part of identity and access control deployments is to allow only the necessary access. Highly distributed rules allow for greater granularity and scalability but, unfortunately, increase the management complexity. On the other hand, centralized rule deployment eases management but lacks flexibility and scalability.

Practicing "defense in depth" by using security mechanisms that back each other up is an important concept to understand. For example, the perimeter Internet routers should use ACLs to filter packets in addition to the firewall inspecting packets at a deeper level.

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QUESTION 29
With deterministic Wireless LAN Controller redundancy design, the different options available to the designer have their own strengths. Which one of these statements is an example of such a strength?

A. Dynamic load balancing, or salt-and-pepper access point design, avoids the potential impact of oversubscription on aggregate network performance.
B. N+N redundancy configuration allows logically grouping access points on controllers to minimize intercontroller roaming events.
C. N+N+1 redundancy configuration has the least impact to system management because all of the controllers are colocated in an NOC or data center.
D. N+1 redundancy configuration uses Layer 3 intercontroller roaming, maintaining traffic on the same subnet for more efficiency.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
With such an arrangement there is no complex mesh of access points & controllers.
Link: http://www.cisco.com/web/learning/le31/le46/cln/qlm/CCDA/design/understanding-wireless-network-controller-technology-3/player.html

N+N WLC Redundancy
With N+N redundancy, shown in Figure 5-14, an equal number of controllers hack up each other. For example, a pair of WLCs on one floor serves as a backup to a second pair on another floor. The top WLC is primary for API and AP2 and secondary for AP3 and AP4. The bottom WLC is primary for AP3 and AP4 and secondary for API and AP2. There should be enough capacity on each controller to manage a failover situation.
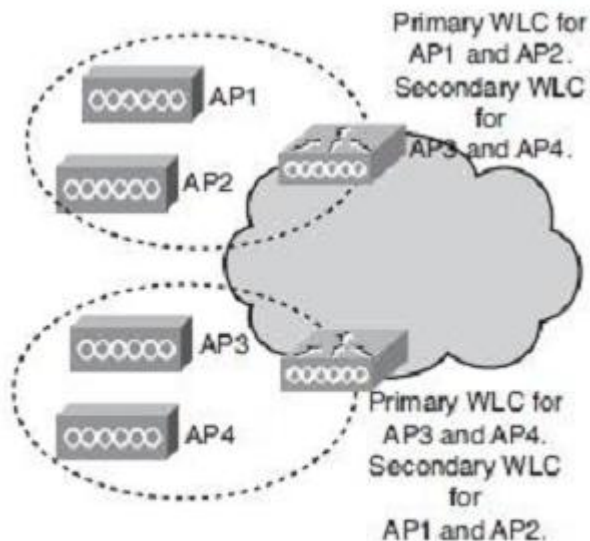

Figure 5-14 *N+N Controller Redundancy*

N+N+1 WLC Redundancy

With N+N+1 redundancy, shown in Figure 5-15, an equal number of controllers back up each other (as with N+N), plus a backup WLC is configured as the tertiary WLC for the APs. N+N+1 redundancy functions the same as N+N redundancy plus a tertiary controller that backs up the secondary controllers. The tertiary WLC is placed in the data center or network operations center
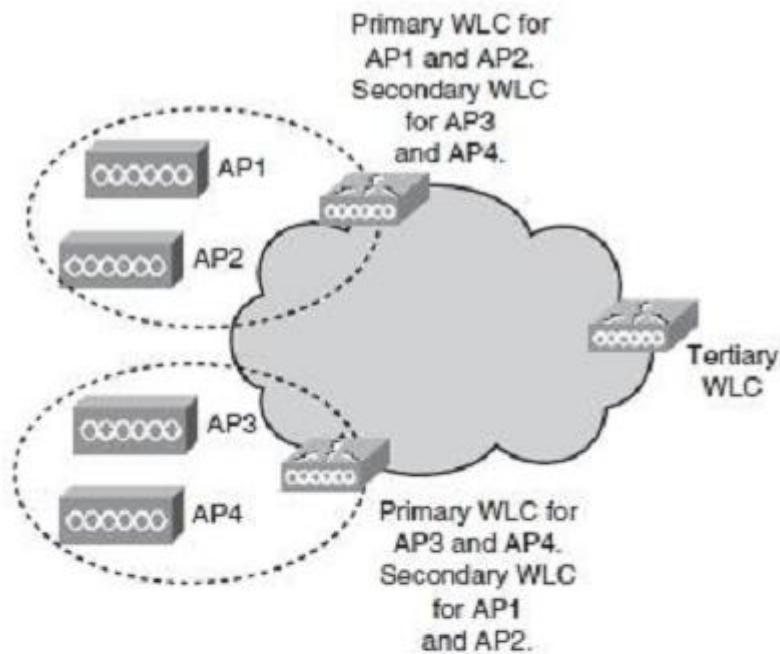
Figure 5-15 *N+N+1 Controller Redundancy*

Table 5-9 covers WLC redundancy.

Table 5-9 *WLC Redundancy*

WLC Redundancy	Description
N+1	A single WLC acts as the backup for multiple WLCs. The backup WLC is configured as the secondary on APs.
N+N	An equal number of controllers back up each other.
N+N+1	An equal number of controllers back up each other. The backup WLC is configured as the tertiary on APs.

QUESTION 30
When designing the threat detection and mitigation portion for the enterprise data center network, which of the following would be the most appropriate solution to consider?

A. 802.1X
B. ACLs in the core layer
C. Cisco Security MARS
D. Cisco Firewall Services Module

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 31
You have a campus network that consists of only Cisco devices. You have been tasked to discover the device platforms, the IOS versions, and an IP address of each device to map the network. Which proprietary protocol will assist you with this task?

A. SNMP
B. TCP
C. CDP
D. ICMP
E. LLDP

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 32
Which three technologies are recommended to be used for WAN connectivity in today's Enterprise Edge designs? (Choose three.)

A. DWDM
B. Metro Ethernet

C. Frame Relay
D. MPLS VPN
E. ISDN
F. DSL
G. Wireless

Correct Answer: ABD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

There is some discussion about whether ISDN not DWDM should be the answer but it does say TODAYS network

QUESTION 33
WAN backup over the Internet is often used to provide primary connection redundancy. Which is the most important consideration when passing corporate traffic over the public Internet?

A. security
B. static versus dynamic routing
C. bandwidth
D. QoS
E. latency

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

WAN Backup over the Internet
Another alternative for WAN backup is to use the Internet as the connectivity transport between sites. However, keep in mind that this type of connection does not support bandwidth guarantees. The enterprise also needs to work closely with the ISP to set up the tunnels and advertise the company's networks internally so that remote offices have reachable IP destinations.
Security is of great importance when you rely on the Internet for network connectivity, so a secure tunnel using IPsec needs to be deployed to protect the data during transport.

QUESTION 34
To provide Layer 2 connectivity between the primary and remote data centers, given that the two data centers are using Layer 3 routed DCIs, which NX-

OS technology can be used to facilitate this requirement?

A. VRF
B. OTV
C. MPLS
D. SPT
E. VPC

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 35
Which WLC interface is dedicated for WLAN client data?

A. virtual interface
B. dynamic interface
C. management interface
D. AP manager interface
E. service port interface

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

WLC Interface Types
A WLC has five interface types:

   Management interface (static, configured at setup, mandatory) is used for in-band management, connectivity to AAA, and Layer 2 discovery and association.
   Service-port interface (static, configured at setup, optional) is used for out-of-band management. It is an optional interface that is statically configured.
   AP manager interface (static, configured at setup, mandatory except for 5508 WLC) is used for Layer 3 discovery and association. It has the source IP address of the AP that is statically configured.
   Dynamic interface (dynamic) is analogous to VLANs and is designated for WLAN client data.
   Virtual interface (static, configured at setup, mandatory) is used for leaver 3 security authentication, DHCP relay support, and mobility management.

QUESTION 36
According to Cisco, which four improvements are the main benefits of the PPDIOO lifecycle approach to network design? (Choose four.)

A. faster ROI
B. improved business agility
C. increased network availability
D. faster access to applications and services
E. lower total cost of network ownership
F. better implementation team engagement

Correct Answer: BCDE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

The PPDIOO life cycle provides four main benefits:

+ It improves business agility by establishing business requirements and technology strategies.
+ It increases network availability by producing a sound network design and validating the network operation.
+ It speeds access to applications and services by improving availability, reliability, security, scalability, and performance.
+ It lowers the total cost of ownership by validating technology requirements and planning for infrastructure changes and resource requirements.
(Reference: Cisco CCDA Official Exam Certification Guide, 3rd Edition) described in the link below. Link: http://www.ciscopress.com/articles/article.asp?
p=1608131&seqNum=3

QUESTION 37
DRAG DROP
The first phase of PPDIOO entails identifying customer requirements. Drag the example on the left to the associated requirement on the right.

Select and Place:

The first phase of PPDIOO entails identifying customer requirements. Drag the example on the left to the associated requirement on the right.

Budget	Identify existing and planned network applications
Email and HTTP	Identify existing and planned network services
Application compatibility	Define organizational constraints
IP telephony and video	Define the technical goals
Security	Define the technical constraints

Correct Answer:

The first phase of PPDIOO entails identifying customer requirements. Drag the example on the left to the associated requirement on the right.

	Email and HTTP
	IP telephony and video
	Budget
	Security
	Application compatibility

Section: (none)
Explanation

Explanation/Reference:

QUESTION 38

During which phase of the PPDIOO model would you conduct interviews with supporting staff to develop and propose a viable solution?

A. Prepare
B. Plan
C. Design
D. Implement
E. Operate
F. Optimize

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

PPDIOO Phase	Description
Prepare	Establishes organization and business requirements, develops a network strategy, and proposes a high-level architecture
Plan	Identifies the network requirements by characterizing and assessing the network, performing a gap analysis
Design	Provides high availability, reliability, security, scalability, and performance
Implement	Installation and configuration of new equipment
Operate	Day-to-day network operations
Optimize	Proactive network management; modifications to the design

Prepare Phase
The Prepare phase establishes organization and business requirements, develops a network strategy, and proposes a high-level conceptual architecture to support the strategy. Technologies that support the architecture are identified. This phase creates a business case to establish a financial justification for a network strategy.

QUESTION 39

Which three are considered as technical constraints when identifying network requirements? (Choose three.)

A. support for legacy applications
B. bandwidth support for new applications
C. limited budget allocation
D. policy limitations
E. limited support staff to complete assessment
F. support for existing legacy equipment
G. limited timeframe to implement

Correct Answer: ABF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Network design might be constrained by parameters that limit the solution. Legacy applications might still exist that must be supported going forward, and these applications might require a legacy protocol that may limit a design. Technical constraints include the following:
▪ Existing wiring does not support new technology.
▪ Bandwidth might not support new applications.
▪ The network must support exiting legacy equipment.
▪ Legacy applications must be supported (application compatibility).

QUESTION 40
DRAG DROP
Drag the description or characteristic on the left to the appropriate technology or protocol on the right.

Select and Place:

Drag the description or characteristic on the left to the appropriate technology or protocol on the right.

provides complete network visibility from the physical layer to the application layer	SNMP
processes larger ACLs efficiently for packet filtering and security services	RMON
defines how information is exchanged between network management applications and agents	CDP
runs over the data link layer using a multicast address	NetFlow

Correct Answer:

Drag the description or characteristic on the left to the appropriate technology or protocol on the right.

	defines how information is exchanged between network management applications and agents
	provides complete network visibility from the physical layer to the application layer
	runs over the data link layer using a multicast address
	processes larger ACLs efficiently for packet filtering and security services

Section: (none)
Explanation

Explanation/Reference: