

**Exam : Cisco 642-081**

**Title :** Business Ready Teleworker  
Solution Fundamentals

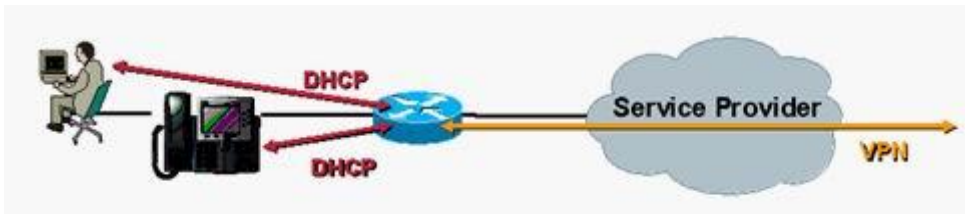
**Update :** Demo

1. Due to limitations affecting voice quality, which of the broadband speeds shown is preferred in order to achieve highest voice quality on a converged data and voice teleworker connection?

- A. DSL with 128k uplink /128k downlink
- B. cable with 256k uplink /256k downlink
- C. DSL with 128k uplink /768k downlink
- D. cable with 256k uplink /1.4M downlink

**Correct: D**

2. Refer to the exhibit. Which of the following statements is a reason the DHCP server is enabled on the Teleworker home router?



- A. allows for workstations to have network values hard-coded
- B. IP network settings cannot be assigned if the VPN tunnel is down
- C. provides IP network settings to be dynamically assigned
- D. requires HTTP access to initiate assignment

**Correct: C**

3. Which integrated security feature is not provided by the Cisco Business Ready Teleworker solution?

- A. Stateful Inspection Firewall
- B. Intrusion Detection System
- C. Spam Filtering
- D. 802.1-based Authentication
- E. Proxy Authentication
- F. URL Filtering

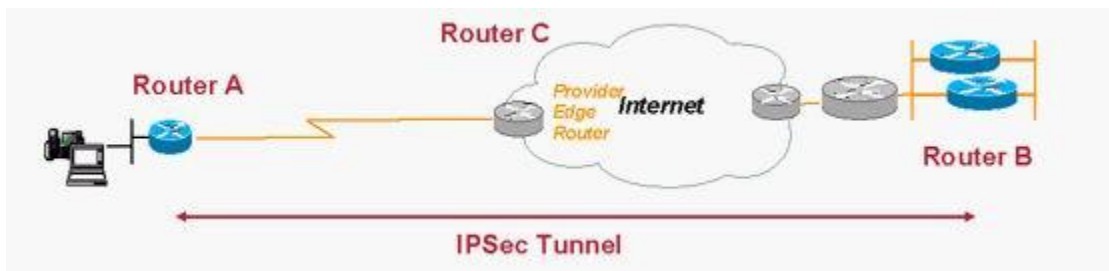
**Correct: C**

4. Why would the network manager elect to implement a configuration that includes GRE tunnels for a teleworker deployment? Choose two.

- A. GRE can use transport mode and save up to twenty bytes per packet.
- B. The corporate network includes many discontinuous blocks of IP networks and requires split tunneling.
- C. The corporation's primary application is based on IP multicast.
- D. Without GRE, there is no means to detect a head-end failure.
- E. GRE would enable path MTU discovery.

**Correct: B C**

5. Refer to the exhibit. Assume Router A is configured for split tunneling. If the Internet Service provider was asked by the customer to provide a guarantee of at least 60 percent of the WAN link between Router A and Router C for encrypted traffic, what would be the best means of identifying this traffic to their QoS Service Policy?



- A.permit esp any permit udp any eq 500 any eq 500
- B.permit udp any eq isakmp any eq isakmp
- C.permit ip 10.81.7.0 0.0.0.7 any
- D.tcp any any eq 22

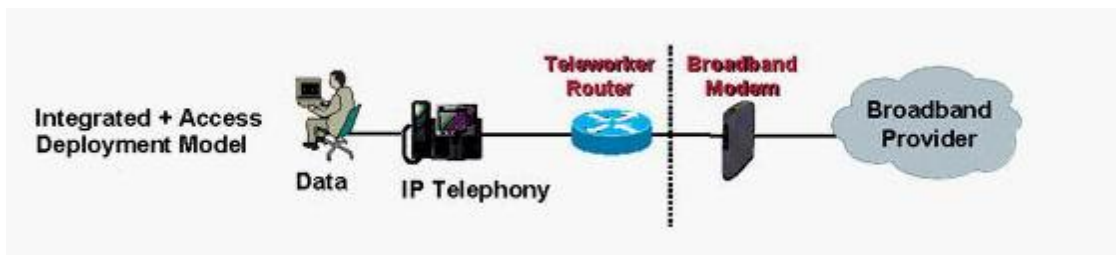
**Correct:A**

**6.What is the best way to ensure that IKE/ISAKMP packets are not dropped when QoS is enabled on the uplink interface of the Teleworker router?**

- A.QoS and IPsec should never be used together.
- B.IKE/ISAKMP packets are DiffSERV codepoint CS6, so the traffic is never dropped.
- C.Source IKE/ISAKMP packets off the loop-back address.
- D.Classify IKE/ISAKMP packets so they are appropriately prioritized.

**Correct:D**

**7.Refer to the exhibit. Given this deployment model and the Enterprise applications, the Teleworker Router provides which functions? Choose two.**



- A.Broadband access termination
- B.IPsec tunnel termination
- C.H.323 Signaling termination
- D.Traffic Shaping
- E.Compressed RTP(cRTP)for bandwidth optimization

**Correct:B D**

**8.Easy VPN operates in two modes. Although Client Mode has advantages, there are environments where it should not be used. Choose two.**

- A.Teleworker devices must be accessed from the central site (server, printers).
- B.IP addressing is simplified.
- C.The Teleworker LAN is a transit networking for routing.
- D.An Enterprise application does not function with Network Address Translation.
- E.The Teleworker router is an MPLS PE node.

**Correct:A**

**9.Refer to the exhibit. A customer indicates their teleworkers plan to use IP phones in their home**

offices. The IT department has surveyed the planned teleworkers, resulting in the user groupings shown in the exhibit. To provide the highest voice quality, the best recommendations to this customer are \_\_\_\_\_. Choose two.

Group	Percent of Users	Broadband	Uplink	Downlink
A	15%	DSL	128k	128k
B	25%	DSL	128k	768k
C	60%	Cable	256k	1.4M

- A. Deploy all three groups with a QoS service policy, choosing the parameters for Traffic Shaping based on the average uplink speed across the three groups.
- B. Teleworkers in Groups A and B should inquire with their DSL providers for subscriptions with higher uplink bandwidths.
- C. Teleworkers in Group C should change their subscriptions to DSL for deployment consistency.
- D. Teleworkers in Group A should upgrade their subscription to obtain static IP addresses
- E. Teleworkers in Group A should inquire with their DSL providers for subscriptions with higher downlink bandwidths.

**Correct: B E**

**10. When should you enable Network Address Translation Transparency (NAT-T) on the Teleworker?**

- A. when a router between the Teleworker router and the head-end VPN router is doing NAT/pNAT and does not support IPSec pass-through
- B. when the Teleworker router itself is doing NAT/pNAT
- C. always
- D. never

**Correct: A**

**11. Choose the true statement regarding QoS pre-classify.**

- A. QoS pre-classify permits making QoS decisions based on elements from the unencrypted IP packet.
- B. QoS pre-classify is required when encrypting voice.
- C. QoS pre-classify is an advantage to Service Providers transporting encrypted packets.
- D. QoS pre-classify is not designed for IPSec/GRE configurations.

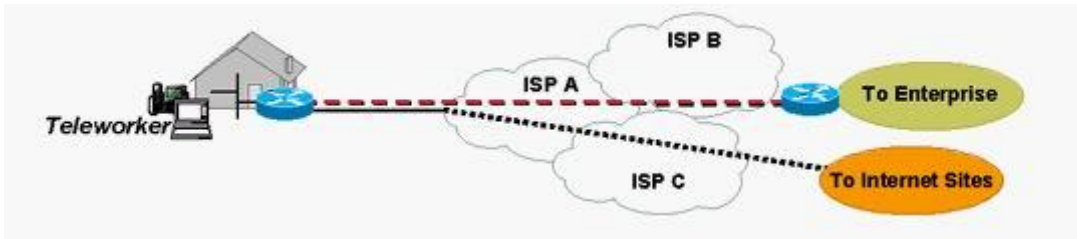
**Correct: A**

**12. The LAN-side of the Teleworker router is assigned private IP address space (RFC1918), and the VPN topology is IPSec-only (no GRE protocol). When is it required to configure NAT/pNAT on the Teleworker router?**

- A. when all access to the Internet is through the IPSec tunnel
- B. when there is direct Internet access via split-tunneling
- C. when there is no Internet access configured through the Teleworker router
- D. whenever you have IOS-Firewall (CBAC) configured

**Correct: B**

**13. Refer to the exhibit. Asymmetric broadband service with significantly greater downstream bandwidth is recommended for Teleworker deployment. Which reason is the most accurate?**



- A. Most ISPs do not provide QoS for residential broadband. Asymmetric bandwidth reduces the chance of downstream congestion when traffic from Internet sites competes for bandwidth with IP voice traffic.
- B. Additional downstream bandwidth compensates for insufficient upstream bandwidth. The aggregate bandwidth provides the same result.
- C. The additional bandwidth is needed to access more than one site. Most HTTP traffic is downstream.
- D. The additional downstream bandwidth allows the Enterprise VPN device to send the IP voice packets much faster, allowing them to reach the Teleworker network with less latency.

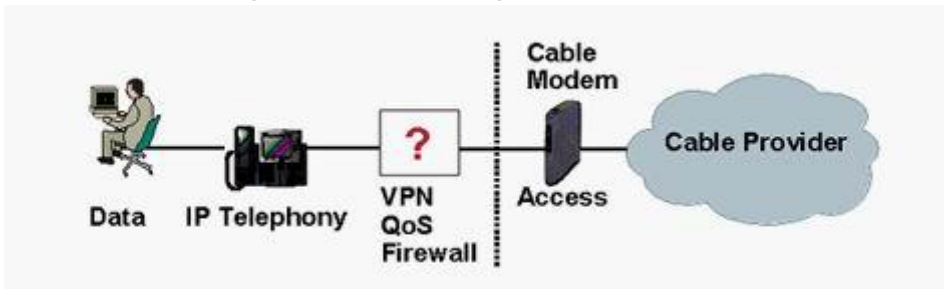
**Correct:A**

**14. Select a key benefit of DSL.**

- A. TCP packet sizes can be optimized by the router so there is no IPSec or AAL5 padding.
- B. The local loop is a dedicated connection for a single subscriber to the DSLAM.
- C. Access to the WAN media uses a poll/response mechanism so no two subscribers transmit at the same time.
- D. There are no distance requirements from the Central Office (CO).

**Correct:B**

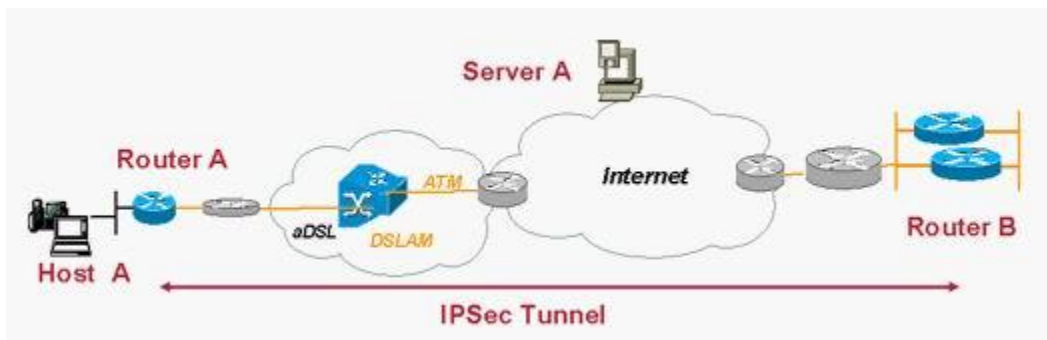
**15. Refer to the exhibit. Given the CPE deployment model, the Enterprise applications shown, and the functions being provided as designated, the appropriate product choice is \_\_\_\_\_.**



- A. Cisco PIX 501 Firewall
- B. Cisco 831 router
- C. Cisco 837 router
- D. Cisco VPN3002 Hardware Client
- E. Cisco ubr925 cable modem
- F. Cisco SW VPN Client

**Correct:B**

**16. Refer to the exhibit. Assume Router A is configured for split tunneling. For Host A to download a file from Server A, what would best describe the path the packets would traverse from the server to the host?**



- A. Server A to Router B, unencrypted to Router A to Host A.
- B. Server A to Router B, encrypted to Router A to Host A.
- C. The packets are encrypted between Server A and Router A.
- D. Unencrypted from Server A through Router A to Host A.
- E. Host A could not download a file from Server A.

**Correct: D**

**17. Your Service Provider does not support Link Fragmentation and Interleave, but upstream serialization delay on your broadband link is affecting voice quality. Which two mitigation strategies are viable? Choose two.**

- A. Upgrade your residential broadband service to at least 768kbps uplink.
- B. Switch your home router to use PPP encapsulation.
- C. Use the ip tcp adjust-mss interface command.
- D. Employ QoS techniques to drop large data packets.
- E. Use traffic shaping to interrupt large data packets.

**Correct: A C**

**18. Authentication for user data traffic is important, but so is authentication for IP voice traffic. The Cisco 830 802.1 feature provides an easier method for allowing IP voice traffic through the VPN, because it \_\_\_\_\_. Choose two.**

- A. requires access lists to identify the voice traffic
- B. can allow traffic from a device without 802.1X authentication, by MAC address
- C. can allow traffic from Cisco IP phones by listening to their CDP advertisements
- D. allows all packets marked with a ToS of 5 to bypass authentication
- E. allows all IP voice packets to bypass authentication via stateful inspection

**Correct: B C**

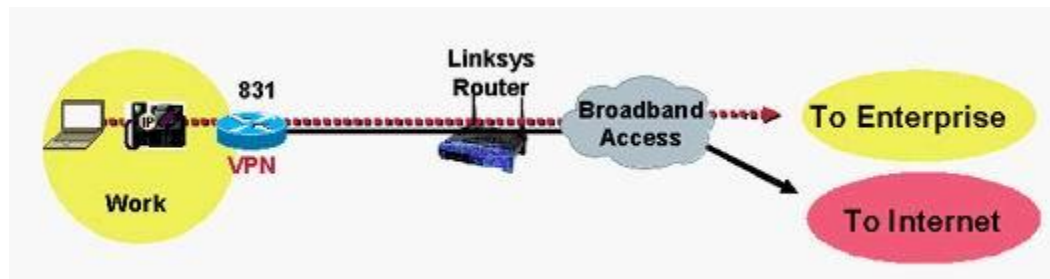
**19. Refer to the exhibit. A Teleworker router is deployed behind a broadband Cable service. If the Teleworker router has the configuration shown, what will be the DNS server selected for DHCP clients on the LAN-side interface?**

```
ip dhcp pool CPE-CLIENT
import all
network 10.112.12.0 255.255.255.0
default-router 10.112.12.1
option 150 ip 10.59.138.51
```

- A.DHCP clients will automatically default to the DNS root servers for all DNS requests in the IP stacks locally.
- B.DHCP clients will use the IP set in the option 150 command.
- C.DHCP clients will use the DNS entry assigned by the ISP.
- D.DHCP clients will have no DNS server set in the IP stack.

**Correct:C**

**20.Refer to the exhibit. The Linksys router in the diagram is performing pNAT (port network address translation). What hash algorithm should you choose and why?**



- A.Use hash MD5 to ensure that IKE works through NAT.
- B.Use ah-sha-hmac, as it does not check the integrity of the IP header. The IP header will change due to NAT.
- C.Use 3DES, as it will encrypt the IPSec header IP addresses and bypass addressing issues.
- D.Use esp-sha-hmac, as it does not check the integrity of the IP header. The IP header will change due to NAT.

**Correct:C**

**21.An important limitation of the Cisco Business Ready Teleworker solution is \_\_\_\_\_.**

- A.IP phone extensions for teleworkers must be chosen carefully so not to duplicate campus phone extensions.
- B.More security exposure exists due to lack of support for Intrusion Detection System and URL filtering for teleworker originated traffic.
- C.Compressed RTP and IPSec are not compatible and result in no bandwidth savings.
- D.Broadband modems must support Quality of Service for adequate voice quality.

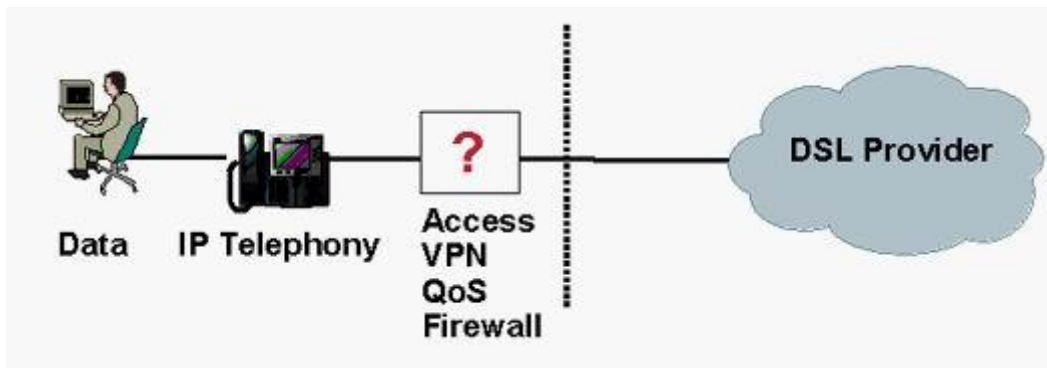
**Correct:C**

**22.What method in a Cisco IOS router can confirm that packets marked for a particular QoS marking are being matched?**

- A.Issue a show policy-map interface command.
- B.Assuming Netflow is enabled, issue a show ip cache verbose flow command.
- C.Issue a show crypto ipsec session command.
- D.Issue a debug qos set command and a terminal monitor command.

**Correct:A**

**23.Refer to the exhibit. Given the CPE deployment model, the Enterprise applications shown, and the functions being provided as designated, the appropriate product choice is \_\_\_\_\_.**



- A. Cisco PIX 501 Firewall
- B. Cisco 831 router
- C. Cisco 837 router
- D. Cisco VPN3002 Hardware Client
- E. Cisco SW VPN Client

**Correct: C**

**24. When implementing 802.1X on Teleworker routers and using separate DHCP address pools for Teleworker and Home-user devices, traffic between devices can be restricted. How can you best accomplish this?**

- A. Access Lists between the inside interface and loopback interface
- B. Context Based Access Control
- C. Dynamic Host Configuration Protocol
- D. Network Address translation

**Correct: A**

**25. For best packet switching performance with crypto, what is the recommended packet switching path in a Cisco Teleworker Router?**

- A. Process Switching
- B. Silicon Switching
- C. Cisco Express Forwarding (CEF) Switching
- D. Autonomous Switching

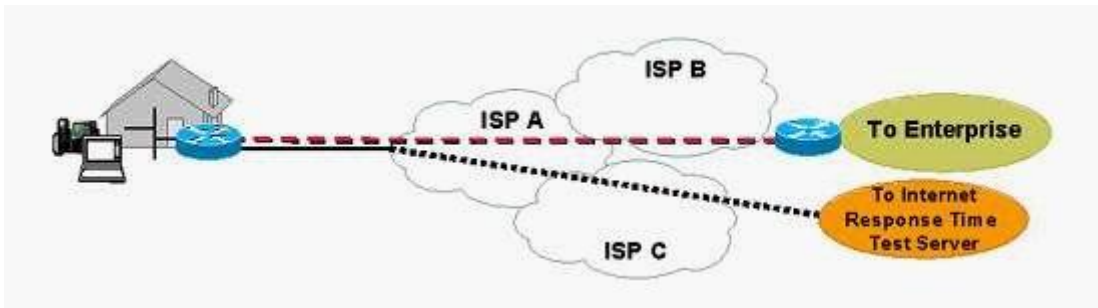
**Correct: C**

**26. What is the minimum recommended uplink/downlink speed to support a single encrypted IP voice Teleworker call?**

- A. 256kbps / 1024kbps
- B. 256kbps / 1544kbps
- C. 160kbps / 768kbps
- D. 384kbps / 384kbps
- E. 128kbps / 512kbps

**Correct: C**

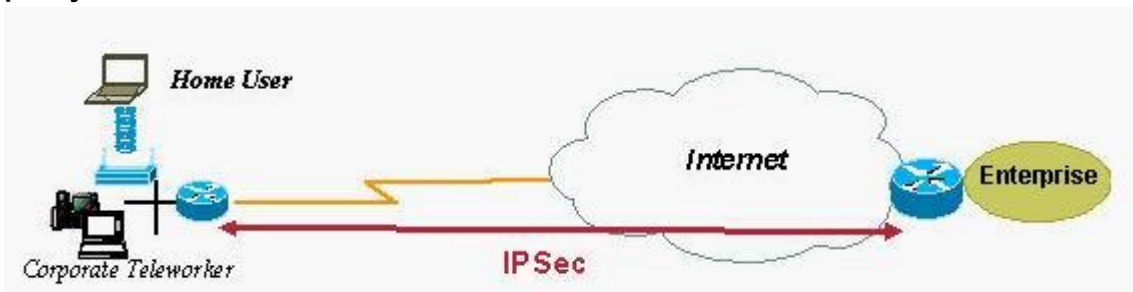
**27. Refer to the exhibit. Available public Internet sites are sometimes used for estimating performance. Which statement regarding their use for estimating VPN performance is correct?**



- A. Throughput results are valid as a value from the Teleworker's home to the corporate site, regardless of the location of the public test server.
- B. Throughput results may not be valid due to the public server's location on the Internet and fluctuations based on the use of the public server.
- C. Throughput values are not affected by the choice of split tunneling or Internet access through the VPN.
- D. Throughput results are unrelated to the Teleworker PC configuration or current PC use.

**Correct: B**

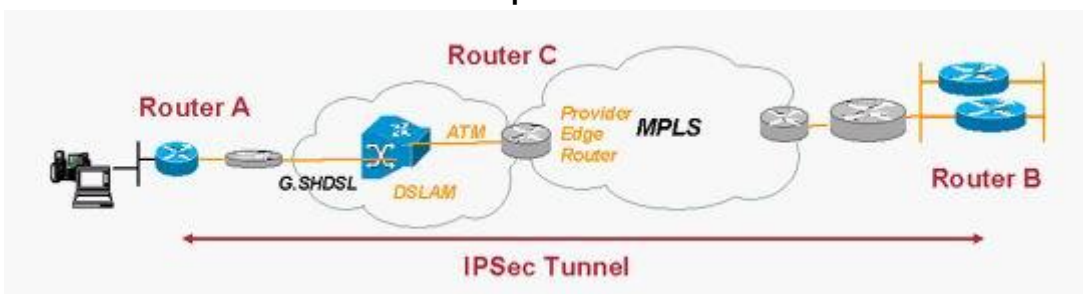
**28. Refer to the exhibit. An enterprise's security policy disallows the use of wireless on a Teleworker PC. Choose the most appropriate 830 security feature to use to enforce the security policy.**



- A. 802.1X authentication
- B. authentication proxy
- C. Context Based Access Control
- D. Lock and Key authentication

**Correct: A**

**29. Refer to the exhibit. With an IPsec tunnel established between remote Router A and head-end router B, how can the Service Provider Edge Router identify Voice over IP packets flowing through the IPsec tunnel from a Cisco 7960 IP phone?**



- A. UDP ports 16384 through 32727
- B. ESP packets less than 113 bytes
- C. DiffServ codepoint EF Expedited Forwarding

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D.RTP ports 6970 through 6999

**Correct:C**

**30.What are the DSL-specific factors that require additional bandwidth when supporting Voice-over-IP over an IPSec VPN? Choose three.**

A.A voice packet is sent via multiple fixed-length cells; a portion of the last cell is padding, requiring more bandwidth.

B.ADSL typically uses PPPoE encapsulation, which adds additional overhead to each voice packet.

C.A voice packet is sent via multiple fixed-length cells; each cell has about 10% Layer-2 header overhead.

D.IPSec requires additional overhead for the header and hash.

E.ADSL carrier band requires additional bits to be carried over the wire to the DSL Access Concentrator.

**Correct:A B C**