Computer Network Services Exam

7/2/2013

1D-2B-3A-4C-5A-6B-7C-8C-9B-10C-11A-12B-13C-14C-15A-16B-17A-18B

1.-MPLS (Multiprotocol Label Switching) architecture is characterized by

A End System that are able to negotiate with the network the label of packets generated
B Intelligent terminals that can personalize service services received from the network
C Routing protocols that are extremely fast in updating routing tables when a topology changes occur in order to ensure fast fault recovery.
D A different mechanism (with respect to pure IP) for selecting the output interface toward which packet should be forwarded.

2.-Which of the following features are part of a voice gateway(or VoIP) Gateway?

A It forwards packets from a public IP network to a private one
B It translates voice streams generated over a packet network (e.g using SIP or H232) into telephone calls over a traditional telephone network
C It encrypts a voice signal arriving from a traditional telephone network before forwarding it over to the internet.
D It synchronizes different RTP stream (lip synch)

3.-The virtual private networks (VPN) are used for

A Transporting private traffic over a shared infrastructure creating the same conditions that one would have by using a private infrastructure
B Dividing a local area network of a company in a set of different subnetworks for different business activities (sales, purchases, engineering, marketing)
C Partitioning a private network (for example the network of the main company with a number of secondary business units) in different network virtually divided

4.-In IPV6 protocol, IP packet header

A. Is a always authenticated through the utilization of proper encryption algorithms in order to increase the security of transmissions.
B Has a small size with respect to IPV4, in order to increase the bandwith efficiency by reducing protocols overhead.
C Includes only fixed size fields that carry the required information in each packet
D. Includes some fields available in IPV4 only as options to offer features that turn to be largely used along the time.

5. What is the SDP role in SIP telephony?

A. It is used to carry the description of the main parameters of the conversation that is about to start.

B. It is used to reserve the required resources to obtain the quality of services needed to call

C. It is used to locate the IP address of the called user

D. It is used to encapsulate the audio/video sample during the phone call

6. What is the role of the NAPTR records in SIP?

A. They are used to discover the names of the sip servers of a given domain

B They are used to discover the SIP services available in a given domain

C They are used to translate the name into the IP addresses of the SIP server.

D They include the IP address of the called SIP user

7. Where scheduling algorithms are used?

A. They are used in access routers to check that the traffic generated by the users is according what they negotiated with the provider.

B. They are used in firewalls to delay packets entering to an enterprise network in order to lessen risk of denial of services attacks.

C. They are used in routers to decide the order of transmission of the pending packets

D. They are used in routers to sequence correctly the configuration commands.

8. Why access virtual Private networks are used?

A. They are used to allow access to public internet using a private access network

B They are used to allow an existing cabling infrastructure to provide wide.band services

C. They are used to build a private infrastructure by using a public one

D They are used to connect two sites of an organization by using a dedicated line

9 What are the differences between the transmission types in IPV4 and IPV6

A. No difference

B. IPV4 does not include anycast (included in IPV6) and it does not include broadcast (not included in IPV6)

C. IPV4 does not include multicast included in IPV6

D. IPV4 does not include anycast and multicast both included in IPv6

10. What is the typical role of IPSec in VPNs?

A. To distribute in a secure way the key required by other protocols to open a tunnel

B. To allow the transmission of authentication information (e.g username and password) by users of access VPN

C To open a magane secure tunnel across the public internet

D To verify the user identity to allow other protocols to open tunnels only with authorized parties.

11.What is the role played by RTCP?

A. It provides control mechanism for RTP
B It may be used to reserve the resources required to obtain a certain quality of services
C It may be used to change the payload type of an RTP stream without restarting it
D. It may be used to distinguish between two streams (e.g audio and video) with the same destination.

12. What is the role of Enum standard?

A. To Locate the sip server in all the inter domains calls
B To translate a phone number into a Sip user name
C To translate Sip user name into phone number
D To register the users with the SIP servers

13. What is the role of GRE protocol?

A. It allows to increase the addressing space
B. It introduces an encryption mechanism for the packets
C It allows to encapsulates a layer 2 frame into an IP packet
D It allows the encapsulation but it is not possible to encapsulate units of lower layers into a layer 3 packet.

14 Does exist a version of DHCP for IPV6?

A. It does not exist because stateless autoconfiguration alone solves the same problem.
B. It does not exist because stateless autoconfiguration and router advertisement solve the same problem.
C. It exists a DHCP IPV6
D. It Does not exist because it is more secure it the host is configured manually.

15 Is fragmentation allowed in IPV6

A. Datagrams may only be fragmented by the sender and re-assembled at the final destination
B. The mechanism is similar to the one included in IPv4
C It is not possible to fragment datagrams, both for routers and for the sender
D Fragmentation is allowed only in routers whenever necessary.

16 Why MPLS is important?

A. In such networks, it is possible to implement routers with a specific support to guarantee the required quality of services.
B It is possible to have a single control plane for different swiching technologies
C It is possible to implement devices that should not be configured
D It is possible to distribute the traffic among severals equivalente servers

17 How popular is the transport of IP over ATm networks

A. It is possible and currently used, but this technique is going to disaapear
B It is not possible
C It is only available solution for real time traffic (e.g video= over Ip
D It is considered a good solution and it will become more popular

18 What is the goal of PPTP

A. To implement site to site VPNs
B To implement access VPN
C To implement VPN with centralized access
D To implement VPN with distributed access.