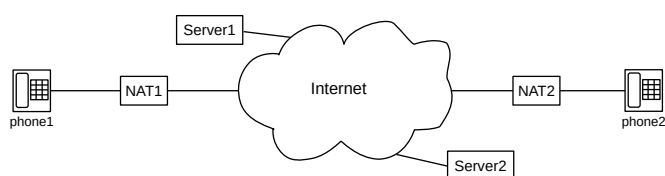


RAT Test Run

Question 1: A NAT router:

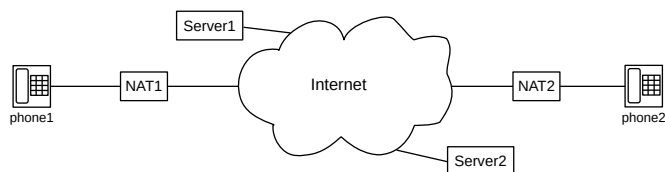
- A allows a connection generated in the outside world to reach an internal network
- B typically connects to the Internet on one side and to public IP addresses on the other
- C creates new TCP connections from the internal network in order to reach the Internet with a public IP address
- D typically connects to the Internet on one side and to an internal network on the other

Question 2: Considering the following picture and assuming an existing connection between *server1-phone1* and *server2-phone2*, which statement is correct?



- A *phone1* can create a P2P connection with *phone2*.
- B *server2* can create a P2P connection with *phone1*.
- C *server2* can create a P2P connection with *phone1* with the support of *server1*.
- D *server2* can create a P2P connection with *phone1* with the support of *phone2*.

Question 3: Considering the following picture and assuming no connection has been made yet, which statement is correct?



- A *phone2* cannot directly contact *server1*
- B *phone1* cannot directly contact *server2*
- C *phone1* can directly contact *phone2*
- D *phone2* cannot directly contact *phone1*

Question 4: Consider the following options and select the one that could serve as a fully functional NAT forwarding table (remote or destination).

- A a remote host address, an inside host address, an inside port
- B a remote port, an outside source port, an inside port
- C a remote host address, a remote port, an outside source port, an inside host address, an inside port
- D a remote host address, a remote port, an inside port

Question 5: A typical DHCP lease for a standard network configuration (i.e. capable of connecting to normal Internet services) contains:

- A an IP address and a subnet mask
- B an IP address, a subnet mask and a default router
- C different fields depending on the DHCP lease negotiation
- D an IP address, a subnet mask, a default router and a DNS server

Question 6: Assume (CIDR) IPv4 address 223.1.2.0/*xx*. If we need about 500 IP addresses available for hosts and router interfaces in our network, what is the largest value we can use for *xx*?

- A 25
- B 24
- C 26
- D 23

Question 7: Considering the subnet address 10.12.4.32/28, which option is correct?

- A The mask of this subnet can be represented as 255.255.255.128
- B The mask of this subnet can be represented as 255.255.255.0
- C This subnet includes 16 IP addresses (14 hosts), from 10.12.4.32 to 10.12.4.47
- D This subnet includes 32 IP addresses (30 hosts), from 10.12.4.0 to 10.12.4.31

Question 8: Considering the differences between IPv4 and IPv6 select the correct option:

- A IPv6 fragments must be reassembled at each network element before the datagram can be forwarded, while in IPv4 they are reassembled at the destination host.
- B Despite increasing the address space from 32 to 128 bit addresses, IPv6 processing at routers can be faster than IPv4 because of its fixed length header among other changes.
- C Despite its fixed length header and other changes, IPv6 processing at routers is slower because of its increased address space from 32 to 128 bit addresses.
- D IP fragmentation and checksums can be found both in IPv4 and IPv6 versions.

Question 9: A newly attached host has no valid IPv4 configuration yet. Which statement is correct?

- A the host must already know the IP address of a DHCP server before it can start DHCP
- B the host can use DNS to find a DHCP server before sending DHCPDISCOVER
- C the host must first learn the default gateway before it can request an IP address
- D the host can send a DHCPDISCOVER on the local link even before it knows its own IP address

Question 10: Assume phone1 and phone2 are each behind their own NAT, while server1 and server2 each have public IP addresses. No prior connections exist. Which statement is correct?

- A phone2 can directly initiate a connection to phone1 through server2 without any prior state or coordination
- B phone1 can directly initiate a connection to server2
- C server2 can directly initiate a connection to phone1
- D phone1 can directly initiate a connection to phone2