Quiz

Q1 . To perform forwarding, a router must inspect the source address in the arriving packet's header.True or False?

Q2 . IP packet fragmentation:

A. helps speed up data delivery in the Internet

B. cannot be avoided

C. can be avoided by controlling TCP segment size based on path MTU discovery

D. can be avoided by configuring the maximum transfer unit (MTU) of the underlying link layer.

Q3 . Each network interface of a host must be configured with an IP address. True or False?

Q4 . Two hosts connected to the same subnet can reach each other without the help of a router. True or False?

Q5 . In the original "classful" addressing scheme, the network address part of the 32-bit IP address could have a maximum of:

A. 8 bits

B. 10 bits

C. 16 bits

D. 24 bits

Q6 . In today's CIDR addressing scheme, the subnet part of the 32-bit IP address:

A. can only have 24 bits

B. must be at least 8 bits long

C. can have maximum length of 28 bits

D. can have any arbitrary length (<= 32 bit)

Q7 . CIDR addressing scheme could work without the help of subnet masks. True or False?

Q8 . How many IP addresses belong to the subnet 128.119.254.0/26?

A.16

B. 32

C. 64

D. 128

Q9 . What are the IP addresses at the two end-points of the subnet 128.119.254.0/26 ?

A. 128.119.254.0 and 128.119.254.63

B. 128.119.254.0 and 128.119.254.128

C. 128.119.254.63 and 128.119.254.128

D. 128.119.254.0 and 128.119.254.64

Q10 . Without DHCP, a host cannot be configured with an IP address. True or False?

Q11 . From IP address, one can guess the geographic location of the device. True or False?

Q12 . The two subnets 128.119.245.128/25 and 128.119.245.0/26 have overlapping IP addresses. True or False?

Q13 . One of the advantages of NAT is that the organisation can change addresses of the devices within its local network

without notifying the outside world. True or False?

Q14 . NAT violates layering principle. True or False?

Q15 . For NAT to work, we need at least two public IP addresses. True or False?

Resource created 4 months ago (Wednesday 04 September 2019, 06:45:28 PM), last modified 2 months ago (Saturday 26 October 2019, 02:59:53 PM).

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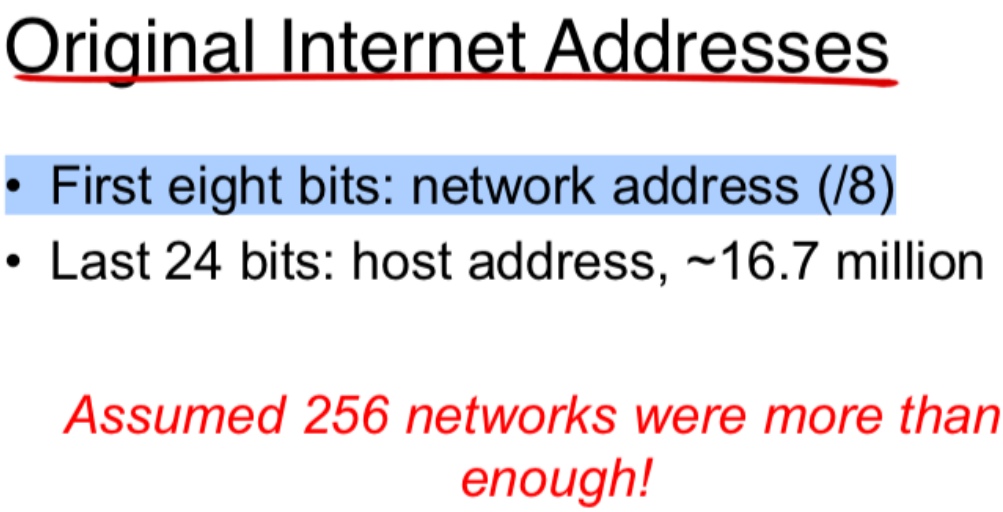
Saloni Goda (/users/z5215272) 29 days ago (Sun Dec 01 2019 00:26:20 GMT+0800 (中国标准时间))

q3 - why is it true? can't you get IP address dynamically via DHCP server?

q5 - isn't it A?



Reply

Salil Kanhere (/users/z3116703) 29 days ago (Sun Dec 01 2019 07:10:28 GMT+0800 (中国标准时间))

3. The question is not asking about the method (static vs dynamic) used for assigning the IP Address but whether an IP address must be assigned in the first place.

5. Note the word "maximum" in the question.

Reply

Keyu Yang (/users/z5177443) about a month ago (Wed Nov 27 2019 18:37:14 GMT+0800 (中国标准时间))

could you explain q9?

Reply

Salil Kanhere (/users/z3116703) about a month ago (Wed Nov 27 2019 19:09:19 GMT+0800 (中国标准时间))

the last 6 (32-26) bits would all be 0's for one end of the range and all be 1's for the other end

Reply

Xianlei Wang (/users/z5182667) about a month ago (Tue Nov 19 2019 15:56:59 GMT+0800 (中国标准时间))

For Q1， why it is false?

For Q 10,why it is false?

For Q11,WHY it is true,I think NAT can hide the true IP address

Reply

Nadeem Ahmed (/users/z3003139) about a month ago (Tue Nov 19 2019 16:55:54 GMT+0800 (中国标准时间))

Q1: Note "source address". Router uses destination IP address.

Q10: A system admin can assign IP address manually.

Q11: "Guess". NAT changes source IP but then you can guess the location of the NAT box (most probably in the same domain)

Reply

Nadeem Ahmed (/users/z3003139) about a month ago (Mon Nov 18 2019 14:19:56 GMT+0800 (中国标准时间))

Solution:

Q1: False

Q2: C

Q3: True

Q4: True

Q5: D

Q6: D

Q7: False

Q8: C

Q9: A

Q10: False

Q11: True

Q12: False

Q13: True

Q14: True

Q15: False

Reply

Jiahui Luo (/users/z5158415) about a month ago (Wed Nov 27 2019 17:21:16 GMT+0800 (中国标准时间))

why 7 false? I thought subnet mask is used for figure out how many bits in network part, which already included in CIDR ip.

Reply

Nadeem Ahmed (/users/z3003139) about a month ago (Wed Nov 27 2019 17:29:53 GMT+0800 (中国标准时间))

A CIDR address is never complete without the prefix part e.g., 129.100.0.0/17.

Reply

Jiahui Luo (/users/z5158415) about a month ago (Wed Nov 27 2019 23:30:34 GMT+0800 (中国标准时间)), last modified about a month ago (Wed Nov 27 2019 23:30:44 GMT+0800 (中国标准时间))

Sorry I still can't get it. You mean 129.100.0.0/17 is complete or not? I think the subnet mask is used to get how many higher order bits, but when we use CIDR, we can know that from the number at the end, eg. there are 17 bits in network part for 129.100.0.0/17. Is that because the slash notation only used for convinence but not included in actual packet?

Reply

Salil Kanhere (/users/z3116703) about a month ago (Thu Nov 28 2019 17:14:38 GMT+0800 (中国标准时间))

The /X in CIDR subnet representation is essentially the equivalent of a subnet mask. When a device is allocated an IP address by the DHCP server, it is also told of the subnet mask (e.g., 255.255.255.0 - which equates to a /24 address).

Reply

Xianlei Wang (/users/z5182667) about a month ago (Mon Nov 18 2019 13:47:53 GMT+0800 (中国标准时间))

Could you release the answer for the quiz

Reply

Xianlei Wang (/users/z5182667) 2 months ago (Mon Nov 11 2019 21:33:56 GMT+0800 (中国标准时间))

Q1：T

Q2：D

Q3：T

Q4：F

Q5：A

Q6：D

Q7：False

Q8：C

Q9：A

Q10：False

Q11：T

Q12：F

Q13:T

Q14:T

Q15:F

Reply