

Cisco  
640-878

## Building Cisco Service Provider Next- Generation Networks Part 2



**QUESTION & ANSWERS**

# Cisco

## Exam 640-878

**Building Cisco Service Provider Next-Generation Networks, Part 2**

Verson: Demo

**[ Total Questions: 10 ]**

**Question No : 1**

On Cisco IOS XR software, which set of commands enables OSPF area 0 on the Gi0/0/0/0 interface that has an IPv4 IP address of 192.168.1.1/24?

- A.** router ospf 1  
network 192.168.1.1 0.0.0.0 area 0
- B.** router ospf 1  
network 192.168.1.1 255.255.255.255 area 0
- C.** router ospf 1  
area 0  
interface gi0/0/0/0
- D.** router ospfv3 1  
network 192.168.1.1 0.0.0.0 area 0
- E.** router ospfv3 1  
network 192.168.1.1 255.255.255.255 area 0
- F.** router ospfv3 1  
area 0  
network 192.168.1.0
- G.** router ospfv3 1  
area 0  
interface gi0/0/0/0

**Answer: C**

**Question No : 2**

Which two statements about NAT444 are true? (Choose two.)

- A.** NAT444 packets are translated three times.
- B.** NAT packets traverse three IPv4 addressing domains.
- C.** NAT444 needs to work together with DNS64.
- D.** There are two types of NAT444 (stateful or stateless).
- E.** NAT is performed by the CPE and also by the service provider router.

**Answer: B,E**

**Explanation:** Explanation/Reference:

Carrier-grade NAT (CGN), also known as large-scale NAT (LSN), is an approach to IPv4 network design in which end sites, in particular residential networks, are configured with private network addresses that are translated to public IPv4 addresses by middlebox network address translator devices embedded in the network operator's network, permitting

the sharing of small pools of public addresses among many end sites. This shifts the NAT function and configuration thereof from the customer premises to the Internet service provider network.

Carrier-grade NAT has been proposed as an approach for mitigating IPv4 address exhaustion.[1]

Critics of carrier-grade NAT argue the following aspects:

Like any form of NAT, it breaks the end-to-end principle.[2]

It has significant security, scalability, and reliability problems, by virtue of being stateful.

It makes record keeping for law-enforcement operations more difficult.

It makes it impossible to host services on well known ports.

It does not solve the IPv4 address exhaustion problem when a routable IP address is needed, such as in web hosting.

One use scenario of CGN can be described as NAT444,[3] because some customer's connections to public servers would pass through three different IPv4 addressing domains: the customer's own private network, the carrier's private network, and the public Internet.

Another CGN scenario is Dual-Stack Lite, in which the carrier's network uses IPv6 and thus only two IPv4 addressing domains are needed.

### Question No : 3

Which Cisco IOS-XR command is used to unpack a package on the local router?

- A. install boot
- B. install commit
- C. install add
- D. install package

**Answer: C**

### Question No : 4

What is dual IOS mode on the Cisco ASR 1001 Router?

- A. redundant IOS processes that are running on the active RP and standby RP
- B. active and standby IOS processes that are running on a single RP

- C. separate Cisco IOS XE and IOS XR processes that are running on a single RP
- D. separate Cisco IOS XE and IOS XR processes that are running on two different RPs
- E. checkpointed redundant IOS processes that are running on two different RPs in active/active mode

**Answer: B**

**Explanation:** Explanation/Reference:

**Question No : 5**

Which procedure is used as the last resort disaster recovery procedure to completely replace the currently installed IOS XR software on Cisco IOS XR routers?

- A. netboot
- B. turboboot
- C. install recovery
- D. install rollback
- E. install add and install activate

**Answer: B**

**Explanation:** Explanation/Reference:

[http://www.cisco.com/en/US/docs/routers/crs/software/crs\\_r4.0/migration/guide/tbugapp.pdf](http://www.cisco.com/en/US/docs/routers/crs/software/crs_r4.0/migration/guide/tbugapp.pdf)

**Question No : 6**

On Cisco IOS XR software, how is LDP enabled on an interface?

- A. LDP is automatically enabled globally on all interfaces, when ip cef is enabled globally.
- B. LDP is enabled on each interface, using the mpls ip interface configuration command.
- C. LDP is enabled on each interface, using the interface command under mpls ldp (MPLS LDP configuration mode).
- D. LDP is enabled globally on all interfaces, using the mpls ldp global configuration command.

E. LDP is enabled globally on all interfaces, using the mpls ip global configuration command.

**Answer: C**

**Explanation:** Explanation/Reference:

[http://www.cisco.com/en/US/docs/ios-xml/ios/mp\\_ldp/configuration/12-4m/mp-ldp-12-4m-book.pdf](http://www.cisco.com/en/US/docs/ios-xml/ios/mp_ldp/configuration/12-4m/mp-ldp-12-4m-book.pdf)

**Question No : 7**

Which two statements about NAT64 are true? (Choose two.)

- A. NAT64 packets traverse two IPv4 addressing domains.
- B. NAT64 packets are translated two times.
- C. There are two types of NAT64 (stateful or stateless).
- D. NAT is performed by the CPE and also by the service provider edge router.
- E. The DNS64 server embeds the IPv4 address from the DNS A record with a preconfigured IPv6 translation prefix.

**Answer: C,E**

**Explanation:** Explanation/Reference:

[http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6553/white\\_paper\\_c11-676278.html](http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6553/white_paper_c11-676278.html)

All viable translation scenarios are supported by NAT64, and therefore NAT64 is becoming the most sought translation technology. AFT using NAT64 technology can be achieved by either stateless or stateful means:

- Stateless NAT64, defined in RFC 6145, is a translation mechanism for algorithmically mapping IPv6 addresses to IPv4 addresses, and IPv4 addresses to IPv6 addresses. Like NAT44, it does not maintain any bindings or session state while performing translation, and it supports both IPv6-initiated and IPv4-initiated communications.
- Stateful NAT64, defined in RFC 6146, is a stateful translation mechanism for translating IPv6 addresses to IPv4 addresses, and IPv4 addresses to IPv6 addresses. Like NAT44, it is called stateful because it creates or modifies bindings or session state while performing translation. It supports both IPv6-initiated and IPv4-initiated communications using static or manual mappings.

DNS64, an optional component defined in RFC 6147, when used in conjunction with

NAT64, would trick the IPv6 hosts into thinking that the IPv4 destination as an IPv6 address, by synthesizing AAAA (quad A) resource records from A resource records.

**Question No : 8**

Refer to the exhibit.

The access list has been configured on the Gi0/0/0/0 interface in the inbound direction. Which two packets that are sourced from 172.16.1.1 TCP port 1050, if they are routed to the Gi0/0/0/0 interface, will be permitted? (Choose two)

- A. destination IP address: 10.10.192.201, destination TCP port: 80
- B. destination IP address: 10.10.193.255, destination TCP port: 80
- C. destination IP address: 10.10.196.1, destination TCP port: 80
- D. destination IP address: 10.10.195.254, destination TCP port: 23
- E. destination IP address: 10.10.193.145, destination TCP port: 23
- F. destination IP address: 10.10.197.32, destination TCP port: 23

**Answer: A,B**

**Question No : 9**

Which number range is allocated to private Autonomous Systems by the Internet Assigned Numbers Authority?

- A. 65535 to 65545
- B. 64535 to 64536
- C. 64512 to 65535
- D. 65535 to 66001
- E. 63512 to 64535

**Answer: C**

**Question No : 10 DRAG DROP**

**Answer:**