

# Alcatel-Lucent Border Gateway Protocol

1. Upon the successful establishment of a TCP session between peers, what type of BGP message is exchanged?

A. OpenSent

B. Keepalive

C. Open

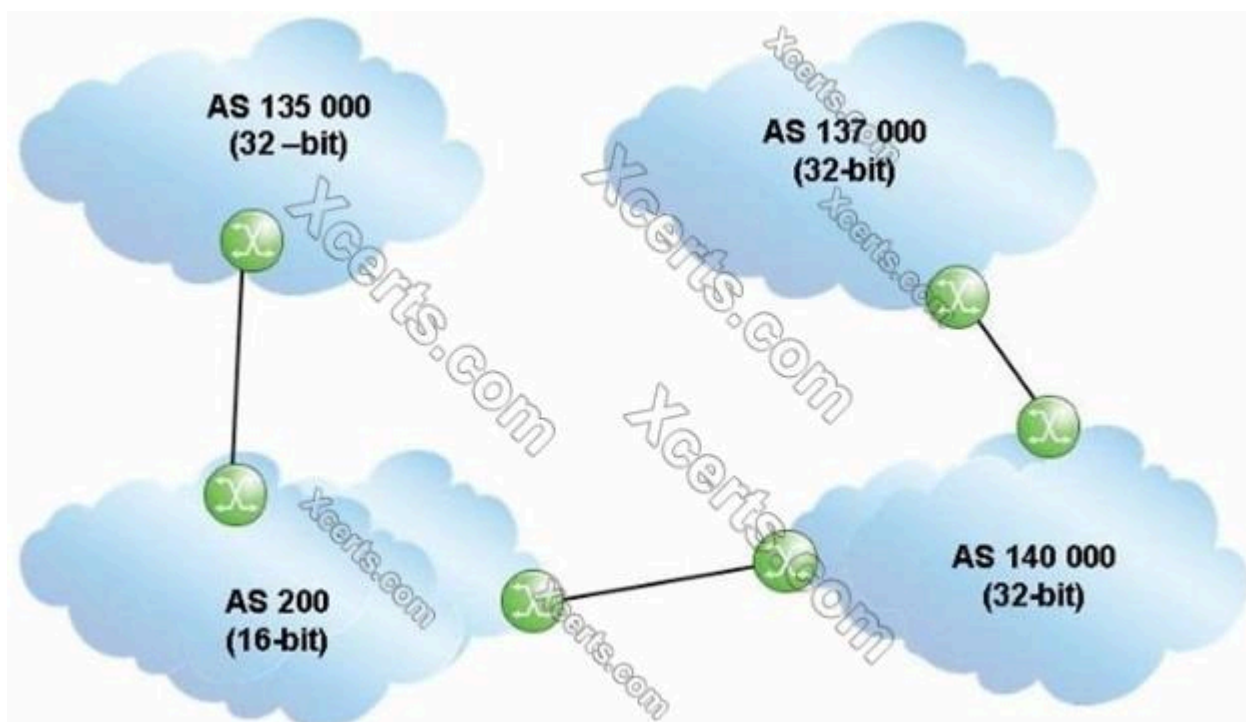
D. Notification

E. Update

Answer(s): C

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2. Click the exhibit.



An update travels from AS 135000 to AS 137000, traversing both 32-bit and 16-bit AS paths. What will the AS Path be when the update reaches AS 137000?

A. 140000 200 135000

B. 137000 140000 200 135000

C. 140000 23456 135000

D. 135000 200 140000

**Answer(s): A**

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3. Which of the following is FALSE regarding the 16-bit public autonomous system numbers?

A. They are allocated to the RIRs by ICANN/IAN

B. They are used when connecting ASs on the Internet.

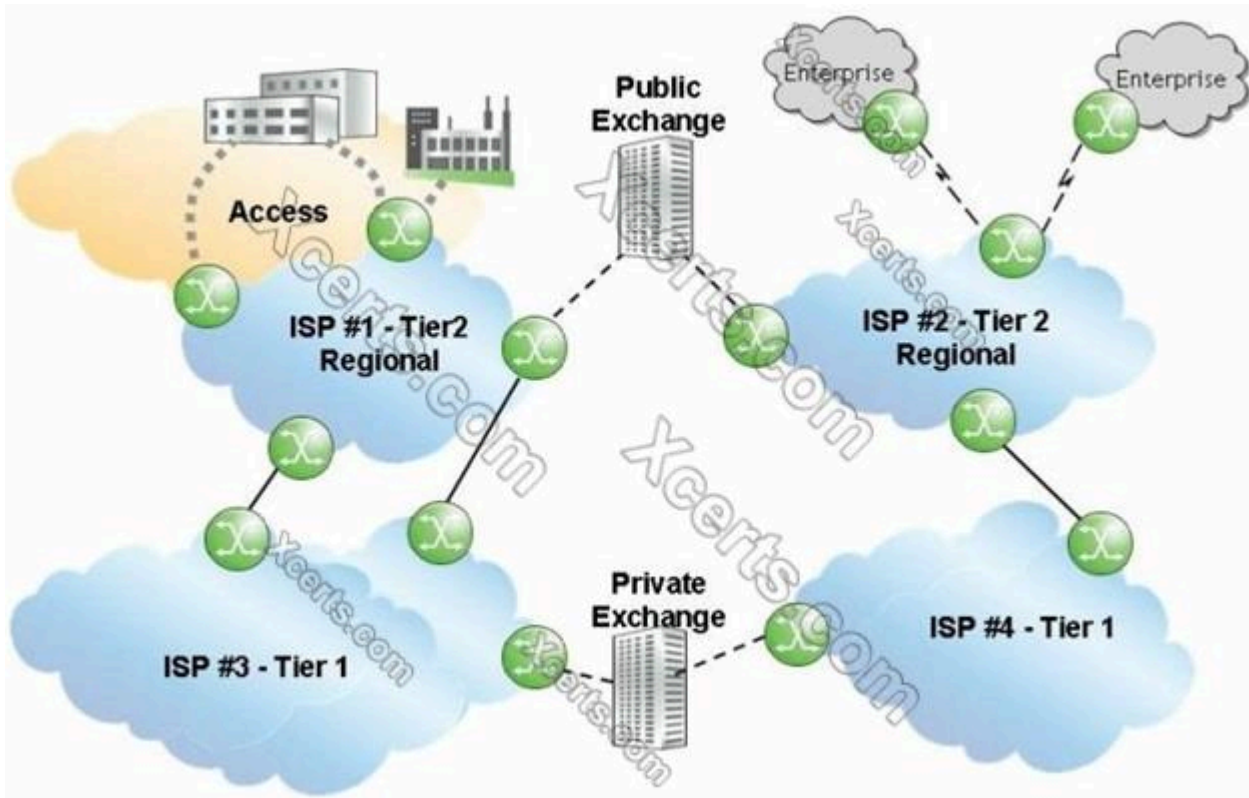
C. They range from 1 to 56319.

D. They are assigned by the ISPs for enterprise networks.

**Answer(s): D**

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4. Click the exhibit.



Given that ISP 1 and ISP 2 are Tier 2 providers, and that ISP 3 and ISP 4 are Tier 1 providers, what is the most likely relationship between the ISPs?

A. ISP 1 and ISP 2 have a public transit relationship, while ISP 3 and ISP 4 have a private transit relationship.

B. ISP 1 and ISP 2 have a private transit relationship, while ISP 3 and ISP 4 have a public transit relationship.

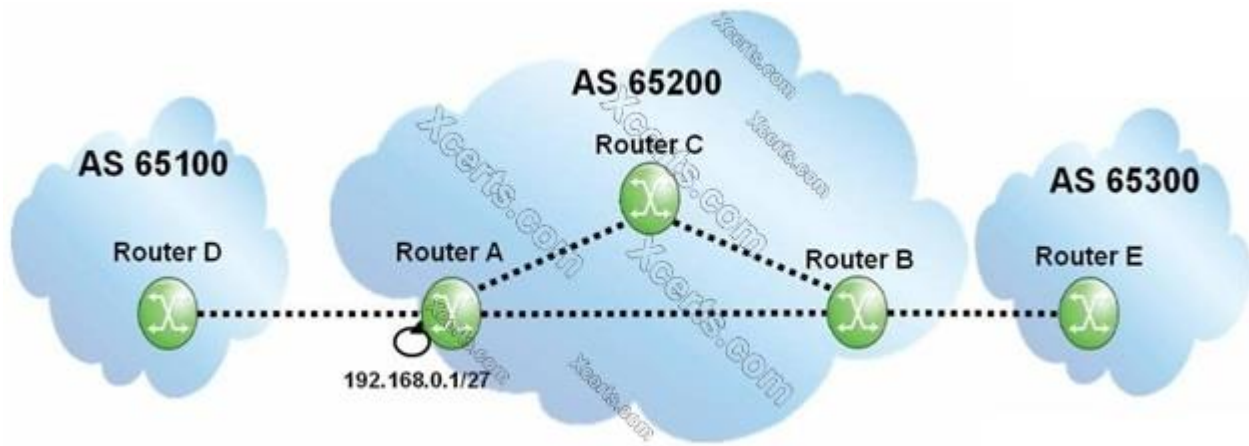
C. ISP 1 and ISP 2 have a private peering relationship, while ISP 3 and ISP 4 have a public peering relationship.

D. ISP 1 and ISP 2 have a public peering relationship, while ISP 3 and ISP 4 have a private peering relationship.

**Answer(s): D**

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5. Click the exhibit.



If router A originates an update for prefix 192.168.0.1/27, what will the update contain when it reaches router B?

A. AS Path of 65200, local-preference of 100.

B. AS Path of 65200, local-preference of None.

C. Null AS Path, local-preference of 100.

D. Null AS Path, local-preference of None.

**Answer(s): C**

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6. BGP is configured on two peers, routers A and B. Router A is configured with a Hold Time timer of 60 seconds and a Keepalive timer of 25 seconds. Router B is configured with a Hold Time timer of 90 seconds and a Keepalive timer of 70 seconds. What will the active Keepalive timer be on router B?

A. 70 seconds

B. 25 seconds

C. 20 seconds

D. 30 seconds

**Answer(s): C**

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7. Which of the following statements regarding the Internet is FALSE?

A. It is a global network relying on interconnections provided by Internet service providers.

B. It is a continuous and interconnected set of public IP networks, advertised and shared across the globe.

C. It is a settlement-free global network that provides interconnection between Internet service providers.

D. It is a network that allows any Internet service provider to reach every other Internet service provider in the world.

**Answer(s): C**

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8. Which of the following is the minimum requirement for an AS to be considered multi-homed?

A. A single connection to a single service provider.

B. Two connections to a single service provider.

C. Two connections to two different service providers.

D. Multiple connections to different service providers.

**Answer(s): B**

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9. What are the well-known mandatory BGP attributes?

A. Origin, Next Hop and Local Preference.

B. Local preference, AS Path and Next Hop.

C. Aggregator, Next Hop and AS Path.

D. AS Path, Next Hop and Origin.

**Answer(s): D**

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10. Which of the following best describes the relationship between locally configured policies and the direction of traffic?

A. Import policies affect the way the local AS receives traffic, while export policies affect the way it sends traffic.

B. Import policies affect the way the local AS sends traffic, while export policies affect the way it receives traffic.

C. Both import and export policies affect the way the local AS receives traffic, but not the way it sends traffic.

D. Both import and export policies affect the way the local AS sends traffic, but not the way it receives traffic.

**Answer(s): B**

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11. What kind of BGP attribute is the Local Preference?

A. Optional transitive attribute.

B. Optional non-transitive attribute.

C. Well-known mandatory attribute.

D. Well-known discretionary attribute.

**Answer(s): D**

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12. Which of the following is TRUE?

A. There can only be one community associated with a route.

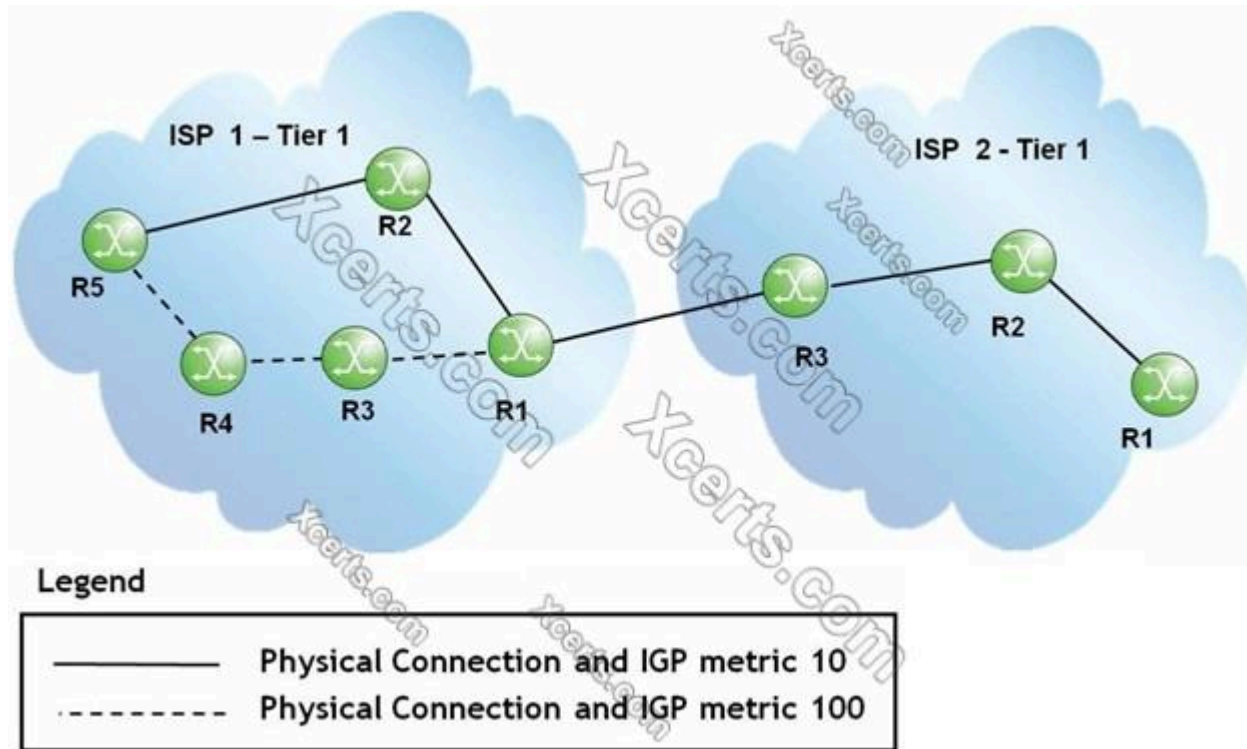
B. Community is an optional non-transitive attribute.

C. Community is an optional transitive attribute.

D. Community is a well-known discretionary attribute.

Answer(s): C

13. Click the exhibit.



Assuming a full iBGP mesh in ISP 1, how does router R1 in ISP 1 handle a BGP update received from ISP 2?

A. The update is sent to router R2 in ISP 1.

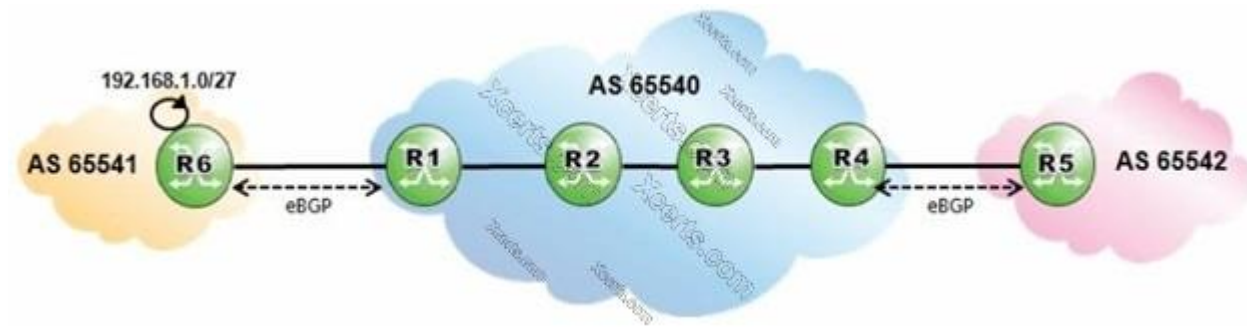
B. The update is sent to routers R2 and R3 in ISP 1.

C. The update is sent to all routers in ISP 1.

D. The update is sent to routers R2 and R3 in ISP 1, and to router R3 in ISP 2.

Answer(s): C

14. Click on the exhibit.



AS 65540 is using MPLS to provide BGP shortcuts for its iBGP routing. Which routers must be configured with the "configure router bgp igp-shortcuts rsvp-te" command?

A. Routers R6, R1, R4 and R5.

B. Routers R1 and R4.

C. Routers R1, R2, R3 and R4.

D. Routers R2 and R3.

**Answer(s): B**

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15. Which of the following is TRUE if the state of one BGP neighbor shows Active?

A. The neighbor will send a Keepalive message.

B. The router is trying to initiate a TCP connection to that neighbor.

C. The router received an Open message with the correct parameters.

D. The router is actively exchanging updates with that neighbor.

**Answer(s): B**

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16. Which of the following about default BGP behavior is FALSE?



A. Next Hop is modified in iBGP updates.

B. Origin Code is NOT modified in eBGP updates.

C. AS Path is modified in eBGP updates.

D. Local Preference is NOT modified in iBGP updates.

**Answer(s):** A

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17. Why is a full mesh of iBGP peers required?

A. To ensure proper route propagation inside a transit AS.

B. To ensure that all routers are directly connected.

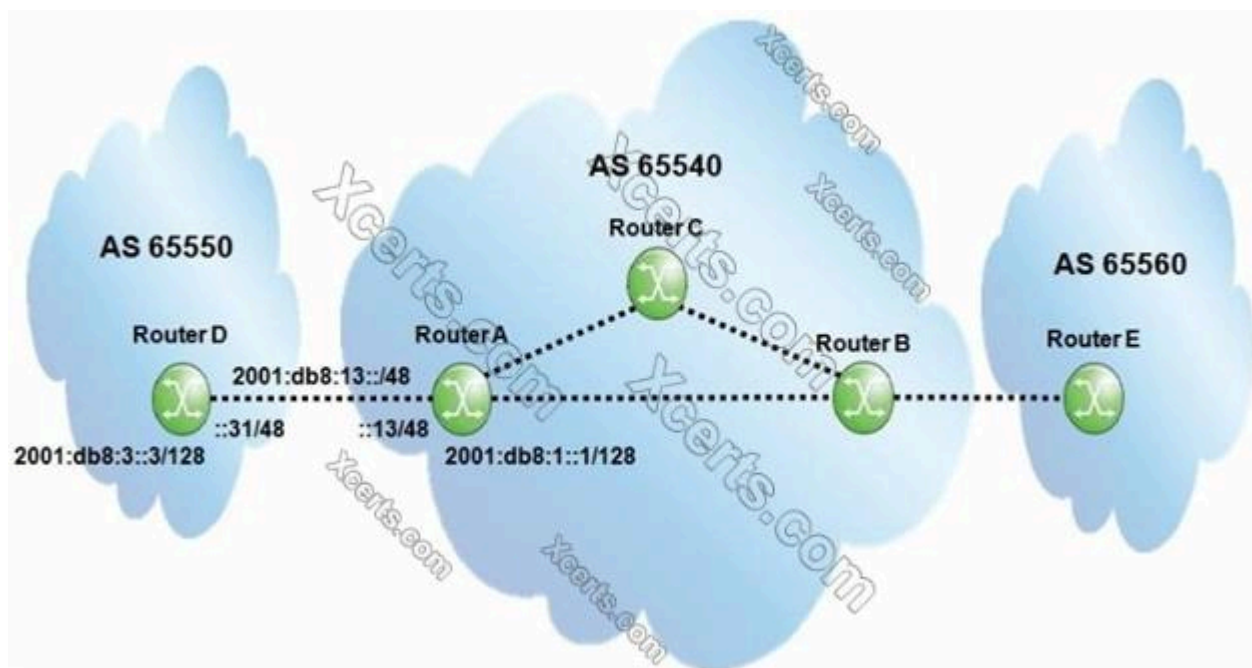
C. To ensure that all routers run iBGP inside a transit AS.

D. To maximize control plane scalability.

**Answer(s):** A

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18. Click the exhibit.



Assume all router-IDs are properly configured. Which of the following configurations is required

on the Alcatel- Lucent 7750 SR router A to establish an IPv6 BGP session to router D?

- A. 

```
group "IPv6_eBGP"  
  family ipv6  
  type external  
  peer-as 65550  
  neighbor 2001:DB8:3::3  
  exit  
exit
```
- B. 

```
group "IPv6_eBGP"  
  type external  
  peer-as 65550  
  neighbor 2001:DB8:3::3  
  exit  
exit
```
- C. 

```
group "IPv6_eBGP"  
  family ipv6  
  peer-as 65550  
  neighbor 2001:DB8:13::31  
  exit  
exit
```
- D. 

```
group "IPv6_eBGP"  
  type external  
  peer-as 65550  
  neighbor 2001:DB8:13::31  
  exit  
exit
```

A. Option A

B. Option B

C. Option C

D. Option D

**Answer(s):** C

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19. Consider two Alcatel-Lucent 7750 SRs in AS 65540. Router R1 has system address 10.10.10.1, and router R2 has system address 10.10.10.2. Which of the following configurations

on router R2 can establish a BGP session with router R1?

A. R2>config>router>bgp# info

```
-----  
group "iBGP"  
  family ipv4  
  peer-as 65540  
  neighbor 10.10.10.1  
    peer-as 65550  
  exit  
exit
```

B. R2>config>router>bgp# info

```
-----  
group "iBGP"  
  family ipv6  
  peer-as 65540  
  neighbor 10.10.10.1  
    family ipv4  
  exit  
exit
```

C. R2>config>router>bgp# info

```
-----  
group "iBGP"  
  family ipv4  
  peer-as 65540  
  neighbor 10.10.10.1  
    family ipv4  
    local-address 10.10.10.1  
  exit  
exit
```

D. R2>config>router>bgp# info

```
-----  
group "iBGP"  
  family ipv4  
  local-as 65540  
  local-address 10.10.10.2  
  neighbor 10.10.10.1  
  exit  
exit
```

A. Option A

B. Option B

C. Option C

D. Option D

Answer(s): B

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**20.** A router in AS 65100 receives three routes for 138.120.0.0/16. The first route has an AS Path of 65200 65400 65300 and a local preference of 150. The second route has an AS Path of 65200 65300 and a local preference of 100. The third route has an AS path of 65600 65300 and a local preference of 200. Which route will appear in the RIB-In?

A. Only the first route will appear in the RIB-In.

B. Only the second route will appear in the RIB-In.

C. Only the third route will appear in the RIB-In.

D. All routes will appear in the RIB-In.

**Answer(s):** D

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