

# Fortinet

## Exam Questions NSE7\_EFW-7.0

Fortinet NSE 7 - Enterprise Firewall 7.0



### NEW QUESTION 1

Examine the output from the BGP real time debug shown in the exhibit, then the answer the question below:

```
# diagnose ip router bgp all enable
# diagnose ip router bgp level info
# diagnose debug enable
"BGP: 10.200.3.1-Outgoing [DECODE] KAlive: Received!"
"BGP: 10.200.3.1-Outgoing [FSM] State: OpenConfirm Event: 26"
"BGP: 10.200.3.1-Outgoing [DECODE] Msg-Hdr: type 2, length 56"
"BGP: 10.200.3.1-Outgoing [DECODE] Update: Starting UPDATE decoding... Byte
(37), msg_size (37)"
"BGP: 10.200.3.1-Outgoing [DECODE] Update: NLRI Len(13)"
"BGP: 10.200.3.1-Outgoing [FSM] State: Established Event: 27"
"BGP: 10.200.3.1-Outgoing [RIB] Update: Received Prefix 0.0.0.0/0"
"BGP: 10.200.3.1-Outgoing [RIB] Update: Received Prefix 10.200.4.0/24"
"BGP: 10.200.3.1-Outgoing [RIB] Update: Received Prefix 10.200.3.0/24"
"BGP: 10.200.3.1-Outgoing [RIB] Update: Received Prefix 10.0.2.0/24"
"BGP: 10.200.3.1-Outgoing [FSM] State: Established Event: 34"
"BGP: 10.200.3.1-Outgoing [ENCODE] Msg-Hdr: Type 2"
"BGP: 10.200.3.1-Outgoing [ENCODE] Attr IP-Unicast: Tot-attr-len 20"
"BGP: 10.200.3.1-Outgoing [ENCODE] Update: Msg #5 Size 55"
"BGP: 10.200.3.1-Outgoing [FSM] State: Established Event: 34"
```

Which statements are true regarding the output in the exhibit? (Choose two.)

- A. BGP peers have successfully interchanged Open and Keepalive messages.
- B. Local BGP peer received a prefix for a default route.
- C. The state of the remote BGP peer is OpenConfirm.
- D. The state of the remote BGP peer will go to Connect after it confirms the received prefixes.

**Answer: AB**

### NEW QUESTION 2

Which two conditions must be met for a static route to be active in the routing table? (Choose two.)

- A. The link health monitor (if configured) is up.
- B. There is no other route, to the same destination, with a higher distance.
- C. The outgoing interface is up.
- D. The next-hop IP address is up.

**Answer: AC**

### NEW QUESTION 3

Examine the IPsec configuration shown in the exhibit; then answer the question below.

Name	<input type="text" value="Remote"/>	
Comments	<input type="text" value="Comments"/>	
<b>Network</b>		
IP Version	<input checked="" type="radio"/> IPv4	<input type="radio"/> IPv6
Remote Gateway	<input type="text" value="Static IP Address"/>	<input checked="" type="checkbox"/>
IP Address	<input type="text" value="10.0.10.1"/>	
Interface	<input type="text" value="port1"/>	<input checked="" type="checkbox"/>
Mode Config	<input type="checkbox"/>	
NAT Traversal	<input checked="" type="checkbox"/>	
Keepalive Frequency	<input type="text" value="10"/>	
Dead Peer Detection	<input checked="" type="checkbox"/>	

An administrator wants to monitor the VPN by enabling the IKE real time debug using these commands: diagnose vpn ike log-filter src-addr4 10.0.10.1  
 diagnose debug application ike -1 diagnose debug enable  
 The VPN is currently up, there is no traffic crossing the tunnel and DPD packets are being interchanged between both IPsec gateways. However, the IKE real time debug does NOT show any output. Why isn't there any output?

- A. The IKE real time shows the phases 1 and 2 negotiations onl
- B. It does not show any more output once the tunnel is up.
- C. The log-filter setting is set incorrectl
- D. The VPN's traffic does not match this filter.
- E. The IKE real time debug shows the phase 1 negotiation onl
- F. For information after that, the administrator must use the IPsec real time debug instead: diagnose debug application ipsec -1.
- G. The IKE real time debug shows error messages onl
- H. If it does not provide any output, it indicates that the tunnel is operating normally.

**Answer: B**

#### NEW QUESTION 4

Refer to the exhibit, which shows a session table entry.

```
FGT # diagnose sys session list
session info: proto=6 proto_state=11 duration=35 expire=265 timeout=300 flags=00000000
sockflag=00000000 sockport=0 av_idx=0 use=4
origin-shaper=
reply-shaper=
per_ip_shaper=
class_id=0 ha_id=0 policy_dir=0 tunnel=/ vlan_cos=0/255
state=redir local may_dirty none app_ntf
statistic(bytes/packets/allow_err): org=3208/25/1 reply=11144/29/1 tuples=2
tx speed(Bps/kbps): 0/0 rx speed(Bps/kbps): 0/0
origin->sink: org pre->post, reply pre->post dev=7->6/6->7 gwy=172.20.121.2/10.0.0.2
hook=post dir=org act=snat 192.167.1.100:49545->216.58.216.238:443(172.20.121.96:49545)
hook=pre dir=reply act=dnat 216.58.216.238:443->172.20.121.96:49545(192.167.1.100:49545)
pos/(before,after) 0/(0,0), 0/(0,0)
src_mac=08:5b:0e:6c:7b:7a
misc=0 policy_id=21 auth_info=0 chk_client_info=0 vd=0
serial=007f2948 tos=ff/ff app_list=0 app=0 url_cat=41
rpd_b_link_id = 00000000
dd_type=0 dd_mode=0
npu_state=00000000
npu info: flag=0x00/0x00, offload=0/0, ips_offload=0/0, epid=0/0, ipid=0/0, vlan=0x0000/0x0000
vlifid=0/0, vtag_in=0x0000/0x0000 in_npu=0/0, out_npu=0/0, fwd_en=0/0, qid=0/0
```

Which statement about FortiGate behavior relating to this session is true?

- A. FortiGate redirected the client to the captive portal to authenticate, so that a correct policy match could be made.
- B. FortiGate forwarded this session without any inspection.
- C. FortiGate is performing security profile inspection using the CP



D. FortiGate applied only IPS inspection to this session.

**Answer:** C

**Explanation:**

Enterprise\_Firewall\_7.0\_Study\_Guide-Online.pdf p 91, 92 First digit of "proto\_state" value at 1 and considering all counters are at 0 for HW acceleration means CPU usage

**NEW QUESTION 5**

Refer to the exhibit, which contains the output of a BGP debug command.

```
FGT # get router info bgp summary
BGP router identifier 0.0.0.117, local AS number 65117
BGP table version is 104
3 BGP AS-PATH entries
0 BGP community entries

Neighbor      V    AS  MsgRcvd MsgSent  TblVer  InQ  OutQ  Up/Down  State/PfxRcd
10.125.0.60    4  65060  1698    1756    103    0    0    03:02:49      1
10.127.0.75    4  65075  2206    2250    102    0    0    02:45:55      1
100.64.3.1     4  65501   101     115      0    0    0      never      Active

Total number of neighbors 3
```

Which statement about the exhibit is true?

- A. The local router has received a total of three BGP prefixes from all peers.
- B. The local router has not established a TCP session with 100.64.3.1.
- C. Since the counters were last reset, the 10.200.3.1 peer has never been down.
- D. The local router BGP state is OpenConfirm with the 10.127.0.75 peer.

**Answer:** B

**NEW QUESTION 6**

Refer to the exhibit, which shows a central management configuration.

```
config system central-management
    set type fortimanager
    set fmg "10.0.1.242"
    config server-list
        edit 1
            set server-type rating
            set addr-type ipv4
            set server-address 10.0.1.240
        next
        edit 2
            set server-type update
            set addr-type ipv4
            set server-address 10.0.1.243
        next
        edit 3
            set server-type rating
            set addr-type ipv4
            set server-address 10.0.1.244
        next
    end
    set include-default-servers enable
end
```

Which server will FortiGate choose for web filter rating requests, if 10.0.1.240 is experiencing an outage?

- A. Public FortiGuard servers
- B. 10.0.1.243
- C. 10.0.1.242
- D. 10.0.1.244

**Answer:** D

**Explanation:**

by default,( include-default-servers ) enabled .this allows fortigate to communicate with the public fortiguard servers , if the fortimanager devices (configured in server-list) are unavailable .

**NEW QUESTION 7**

A FortiGate is rebooting unexpectedly without any apparent reason. What troubleshooting tools could an administrator use to get more information about the problem? (Choose two.)

- A. Firewall monitor.
- B. Policy monitor.
- C. Logs.
- D. Crashlogs.

**Answer:** CD

#### NEW QUESTION 8

An administrator has decreased all the TCP session timers to optimize the FortiGate memory usage. However, after the changes, one network application started to have problems. During the troubleshooting, the administrator noticed that the FortiGate deletes the sessions after the clients send the SYN packets, and before the arrival of the SYN/ACKs. When the SYN/ACK packets arrive to the FortiGate, the unit has already deleted the respective sessions. Which TCP session timer must be increased to fix this problem?

- A. TCP half open.
- B. TCP half close.
- C. TCP time wait.
- D. TCP session time to live.

**Answer:** A

#### Explanation:

[http://docs-legacy.fortinet.com/fos40hlp/43prev/wwhelp/wwhimpl/common/html/wwhelp.htm?context=fgt&file=CLI\\_get\\_Commands.58.25.html](http://docs-legacy.fortinet.com/fos40hlp/43prev/wwhelp/wwhimpl/common/html/wwhelp.htm?context=fgt&file=CLI_get_Commands.58.25.html)

The tcp-halfopen-timer controls for how long, after a SYN packet, a session without SYN/ACK remains in the table.

The tcp-halfclose-timer controls for how long, after a FIN packet, a session without FIN/ACK remains in the table.

The tcp-timewait-timer controls for how long, after a FIN/ACK packet, a session remains in the table. A closed session remains in the session table for a few seconds more to allow any out-of-sequence packet.

#### NEW QUESTION 9

Refer to the exhibit, which shows partial outputs from two routing debug commands.

```
FortiGate # get router info kernel
tab=254 vf=0 scope=0 type=1 proto=11 prio=0 0.0.0.0/0.0.0.0/0->0.0.0.0/0 pref=0.0.0.0 gwy=100.64.1.254 dev=3(port1)
tab=254 vf=0 scope=0 type=1 proto=11 prio=10 0.0.0.0/0.0.0.0/0->0.0.0.0/0 pref=0.0.0.0 gwy=100.64.2.254 dev=6(port2)
tab=254 vf=0 scope=253 type=1 proto=2 prio=0 0.0.0.0/0.0.0.0/0->10.1.0.0/24 pref=10.1.0.254 gwy=0.0.0.0 dev=9(port3)

FortiGate # get router info routing-table all

Routing table for VRF=0
S*   0.0.0.0/0 [10/0] via 100.64.1.254, port1
      [10/0] via 100.64.2.254, port2, [10/0]
C    10.1.0.0/24 is directly connected, port3
S    10.1.10.0/24 [10/0] via 10.1.0.1, port3
C    100.64.1.0/24 is directly connected, port1
C    100.64.2.0/24 is directly connected, port2
```

Which change must an administrator make on FortiGate to route web traffic from internal users to the internet, using ECMP?

- A. Set the priority of the static default route using port1 to 10. Most Voted
- B. Set the priority of the static default route using port2 to 1.
- C. Set preserve-session-route to enable.
- D. Set snat-route-change to enable.

**Answer:** A

#### Explanation:

ECMP pre-requisite is "routes must have the same destination and costs. In the case of static routes, costs include distance and priority". In this case traffic is routed through port 1 because of the lower priority. If we raise priority on port 1 to the value of 10 the traffic should be routed through both ports 1 and 2.

<https://docs.fortinet.com/document/fortigate/7.0.1/administration-guide/25967/equal-cost-multi-path>

#### NEW QUESTION 10

Refer to the exhibit, which contains partial output from an IKE real-time debug.



```
ike 0: comes 10.0.0.2:500->10.0.0.1:500, ifindex=7. . .
ike 0: IKEv2 exchange=Aggressive id=a2fbd6bb6394401a/06b89c022d4df682 len=426
ike 0: Remotesite:3: initiator: aggressive mode get 1st response. . .
ike 0: Remotesite:3: VID DPD AFCAD71368A1F1C96B8696FC77570100
ike 0: Remotesite:3: DPD negotiated
ike 0: Remotesite:3: VID FORTIGATE 8299031757A36082C6A621DE00000000
ike 0: Remotesite:3: peer is FortiGate/FortiOS (v0 b0)
ike 0: Remotesite:3: VID FRAGMENTATION 4048B7D56EBCE88525E7DE7F00D6C2D3
ike 0: Remotesite:3: VID FRAGMENTATION 4048B7D56EBCE88525E7DE7F00D6C2D3C0000000
ike 0: Remotesite:3: received peer identifier FQDN 'remote'
ike 0: Remotesite:3: negotiation result
ike 0: Remotesite:3: proposal id = 1:
ike 0: Remotesite:3:     protocol id = ISAKMP:
ike 0: Remotesite:3:     trans_id = KEY_IKE.
ike 0: Remotesite:3:     encapsulation = IKE/none.
ike 0: Remotesite:3:     type=OAKLEY_ENCRYPT_ALG, val=AES_CBC, key-len=128
ike 0: Remotesite:3:     type=OAKLEY_HASH_ALG, val=SHA.
ike 0: Remotesite:3:     type=AUTH_METHOD, val=PRESHARED_KEY.
ike 0: Remotesite:3:     type=OAKLEY_GROUP, val=MODP1024.
ike 0: Remotesite:3: ISAKMP SA lifetime=86400
ike 0: Remotesite:3: NAT-T unavailable
ike 0: Remotesite:3: ISAKMP SA a2fbd6bb6394401a/06b89c022d4df682 key
16:39915120ED73ED73E520787C801DE3678916
ike 0: Remotesite:3: PSK authentication succeeded
ike 0: Remotesite:3: authentication OK
ike 0: Remotesite:3: add INITIAL-CONTACT
ike 0: Remotesite:3: enc
A2FBD6BB6394401A06B89C022D4DF6820810040100000000000000500B000018882A07BE09026CA8B2
ike 0: Remotesite:3: out
A2FBD6BB6394401A06B89C022D4DF68208100401000000000000005C64D5CBA90B873F150CB8B5CC2A
ike 0: Remotesite:3: sent IKE msg (agg_i2send): 10.0.0.1:500->10.0.0.2:500, len=140,
id=a2fbd6bb6394401a/
ike 0: Remotesite:3: established IKE SA a2fbd6bb6394401a/06b89c022d4df682
```

Which two statements about this debug output are correct? (Choose two.)

- A. The remote gateway IP address is 10.0.0.1.
- B. The initiator provided remote as its IPsec peer ID.
- C. It shows a phase 1 negotiation.
- D. The negotiation is using AES128 encryption with CBC hash.

**Answer:** BC

#### NEW QUESTION 10

Refer to the exhibit, which contains partial output from an IKE real-time debug.

```
ike 0:H2S_0_1:1249: notify msg received: SHORTCUT-QUERY
ike 0:H2S_0_1:  rcv shortcut-query 12594932268010586978 4384dd592d62cd52/0000000000000000 100.64.3.1
10.1.1.254->10.1.2.254 psk 64 ppk 0 ttl 32 nat 0 ver 1 mode 0
ike 0:H2S_0: iif 13 10.1.1.254->10.1.2.254 route lookup oif 13
ike 0:H2S_0_0: forward shortcut-query 12594932268010586978 4384dd592d62cd52/0000000000000000
100.64.3.1 10.1.1.254->10.1.2.254 psk 64 ppk 0 ttl 31 ver 1 mode 0, ext-ma
ike 0:H2S_0_0:1248: sent IKE msg (SHORTCUT-QUERY): 100.64.1.1:500->100.64.5.1:500, len=236,
id=e2beec89f13c7074/06a73dfb3a5d3b54:340a645c
ike 0: comes 100.64.5.1:500->100.64.1.1:500, ifindex=3. . .
ike 0: IKEv1 exchange=Informational id=e2beec89f13c7074/06a73dfb3a5d3b5d:26254ae9 len=236
ike 0:H2S_0_0:1248: notify msg received: SHORTCUT-REPLY
ike 0:H2S_0_0: rcv shortcut-reply 12594932268010586978 4384dd592d62cd52/89bf040f5f7408c0 100.64.5.1
to 10.1.1.254 psk 64 ppk 0 ver 1 mode 0 ext-mapping 100.64.3.1:500
ike 0:H2S_0: iif 13.10.1.2.254->10.1.1.254 route lookup oif 13
ike 0:H2S_0_1: forward shortcut-reply 12594932268010586978 4384dd592d62cd52/89bf040f5f7408c0
100.64.5.1 to 10.1.1.254 psk 64 ppk 0 ttl 31 ver 1 mode 0 ext-mapping 100.
```

Based on the debug output, which phase 1 setting is enabled in the configuration of this VPN?

- A. auto-discovery-shortcut
- B. auto-discovery-forwarder
- C. auto-discovery-sender
- D. auto-discovery-receiver

**Answer:** D

#### NEW QUESTION 11

View the IPS exit log, and then answer the question below.

# diagnose test application ipsmonitor 3 ipsengine exit log"

pid = 93 (cfg), duration = 5605322 (s) at Wed Apr 19 09:57:26 2017 code = 11, reason: manual

What is the status of IPS on this FortiGate?



- A. IPS engine memory consumption has exceeded the model-specific predefined value.
- B. IPS daemon experienced a crash.
- C. There are communication problems between the IPS engine and the management database.
- D. All IPS-related features have been disabled in FortiGate's configuration.

**Answer: D**

**Explanation:**

The command `diagnose test application ipsmonitor` includes many options that are useful for troubleshooting purposes. Option 3 displays the log entries generated every time an IPS engine process stopped. There are various reasons why these logs are generated: Manual: Because of the configuration, IPS no longer needs to run (that is, all IPS-related features have been disabled)

**NEW QUESTION 16**

Examine the output of the 'diagnose ips anomaly list' command shown in the exhibit; then answer the question below.

```
# diagnose ips anomaly list
```

```
list nids meter:
```

id=ip_dst_session	ip=192.168.1.10	dos_id=2	exp=3646	pps=0	freq=0
id=udp_dst_session	ip=192.168.1.10	dos_id=2	exp=3646	pps=0	freq=0
id=udp_scan	ip=192.168.1.110	dos_id=1	exp=649	pps=0	freq=0
id=udp_flood	ip=192.168.1.110	dos_id=2	exp=653	pps=0	freq=0
id=tcp_src_session	ip=192.168.1.110	dos_id=1	exp=5175	pps=0	freq=8
id=tcp_port_scan	ip=192.168.1.110	dos_id=1	exp=175	pps=0	freq=0
id=ip_src_session	ip=192.168.1.110	dos_id=1	exp=5649	pps=0	freq=30
id=udp_src_session	ip=192.168.1.110	dos_id=1	exp=5649	pps=0	freq=22

Which IP addresses are included in the output of this command?

- A. Those whose traffic matches a DoS policy.
- B. Those whose traffic matches an IPS sensor.
- C. Those whose traffic exceeded a threshold of a matching DoS policy.
- D. Those whose traffic was detected as an anomaly by an IPS sensor.

**Answer: A**

**NEW QUESTION 17**

Refer to the exhibit, which contains partial output from an IKE real-time debug.

```
ike 0:253000:27: responder: main mode get 1st message...
ike 0:253000:27: VID DPD AFCAD71368A1F1C96B88696FC77570100
ike 0:253000:27: VID FRAGMENTATION 4048B7D56EBCE88525E7DE7F00D6C2D3
ike 0:253000:27: VID FRAGMENTATION 4048B7D56EBCE88525E7DE7F00D6C2D3C0000000
ike 0:253000:27: VID FORTIGATE 8299031757A36082C6A621DE00000000
ike 0:253000:27: incoming proposal:
ike 0:253000:27: proposal id = 0:
ike 0:253000:27:   protocol id = ISAKMP:
ike 0:253000:27:   trans_id = KEY_IKE.
ike 0:253000:27:   encapsulation = IKE/none
ike 0:253000:27:   type=OAKLEY_ENCRYPT_ALG, val=AES_CBC, key-len=256
ike 0:253000:27:   type=OAKLEY_HASH_ALG, val=SHA2_256.
ike 0:253000:27:   type=AUTH_METHOD, val=PRESHARED_KEY.
ike 0:253000:27:   type=OAKLEY_GROUP, val=MODP1536.
ike 0:253000:27: ISAKMP SA lifetime=86400
ike 0:253000:27: my proposal, gw Remotesite:
ike 0:253000:27: proposal id = 1:
ike 0:253000:27:   protocol id = ISAKMP:
ike 0:253000:27:   trans_id = KEY_IKE.
ike 0:253000:27:   encapsulation = IKE/none
ike 0:253000:27:   type=OAKLEY_ENCRYPT_ALG, val=AES_CBC, key-len=128
ike 0:253000:27:   type=OAKLEY_HASH_ALG, val=SHA.
ike 0:253000:27:   type=AUTH_METHOD, val=PRESHARED_KEY.
ike 0:253000:27:   type=OAKLEY_GROUP, val=MODP1536.
ike 0:253000:27: ISAKMP SA lifetime=86400
ike 0:253000:27: negotiation failure
ike Negot:253a8cbe6335e6fd/0000000000000000:27: no SA proposal chosen
```

Why did the tunnel not come up?

- A. The local gateway has configured less secure encryption and hashing algorithms compared to the remote gateway.

- B. The Diffie-Hellman group does not match on the local and remote gateways.
- C. The proposal ID does not match between local and remote gateways.
- D. The encapsulation method for phase 2 is set to none on local and remote gateways.

**Answer:** A

**Explanation:**

local gateway: encryption AES-128, hash SHA remote gateway: encryption AES-256, hash SHA-256 So local gateway has less secure settings

**NEW QUESTION 21**

View the exhibit, which contains a session entry, and then answer the question below.

```
session info: proto=1 proto_state=00 duration=1 expire=59 timeout=0 flags=00000000
sockflag=00000000 sockport=0 av_idx=0 use=3
origin-shaper=
reply-shaper=
per_ip_shaper=
ha_id=0 policy_dir=0 tunnel=/ vlan_cos=0/255
state=log may_dirty none
statistic(bytes/packets/allow_err): org=168/2/1 reply=168/2/1 tuples=2
tx speed(Bps/kbps): 97/0 rx speed(Bps/kbps): 97/0
origin->sink: org pre->post, reply pre->post dev=9->3/3->9 gwy=10.200.1.254/10.1.0.1
hook=post dir=org act=snat 10.1.10.10:40602->10.200.5.1:8(10.200.1.254/10.1.0.1
hook=pre dir=reply act=dnat 10.200.5.1:60430->10.200.1.1:0(10.1.10.10:40602)
misc=0 policy_id=1 auth_info=0 chk_client_info=0 vd=0
serial=0002a5c9 tos=ff/ff app_list=0 app=0 url_cat=0
dd_type=0 dd_mode=0
```

Which statement is correct regarding this session?

- A. It is an ICMP session from 10.1.10.10 to 10.200.1.1.
- B. It is an ICMP session from 10.1.10.10 to 10.200.5.1.
- C. It is a TCP session in ESTABLISHED state from 10.1.10.10 to 10.200.5.1.
- D. It is a TCP session in CLOSE\_WAIT state from 10.1.10.10 to 10.200.1.1.

**Answer:** B

**NEW QUESTION 26**

What is the diagnose test application ipsmonitor 5 command used for?

- A. To enable IPS bypass mode
- B. To disable the IPS engine
- C. To restart all IPS engines and monitors
- D. To provide information regarding IPS sessions

**Answer:** A

**Explanation:**

# diagnose test application ipsmonitor 5: Toggle bypass status

\* 13: IPS session list

\* 98: Stop all IPS engines

\* 99: Restart all IPS engines and monitor

**NEW QUESTION 30**

View the exhibit, which contains the output of a diagnose command, and then answer the question below.



```
# diagnose debug rating
Locale      : english
License     : Contract
Expiration   : Thu Sep 28 17:00:00 20xx
-- Server List (Thu Apr 19 10:41:32 20xx) --
IP          Weight  RTT   Flags  TZ   Packets  Curr Lost  Total Lost
64.26.151.37 10      45    -5     -5   262432   0          846
64.26.151.35 10      46    -5     -5   329072   0          6806
66.117.56.37 10      75    -5     -5   71638    0          275
65.210.95.240 20      71    -8     -8   36875    0          92
209.222.147.36 20      103   DI     -8   34784    0          1070
208.91.112.194 20      107   D      -8   35170    0          1533
96.45.33.65 60      144    0      0   33728    0          120
80.85.69.41 71      226    1      1   33797    0          192
62.209.40.74 150     97     9      9   33754    0          145
121.111.236.179 45      44    F      -5   26410   26226     26227
```

Which statements are true regarding the output in the exhibit? (Choose two.)

- A. FortiGate will probe 121.111.236.179 every fifteen minutes for a response.
- B. Servers with the D flag are considered to be down.
- C. Servers with a negative TZ value are experiencing a service outage.
- D. FortiGate used 209.222.147.3 as the initial server to validate its contract.

**Answer:** AD

**Explanation:**

\* A – because flag is Failed so fortigate will check if server is available every 15 min  
 D-state is I , contact to validate contract info

### NEW QUESTION 31

Examine the output of the 'get router info ospf interface' command shown in the exhibit; then answer the question below.

```
# get router info ospf interface port4
port4 is up, line protocol is up
  Internet Address 172.20.121.236/24, Area 0.0.0.0, MTU 1500
  Process ID 0, Router ID 0.0.0.4, Network Type BROADCAST, Cost: 1
  Transmit Delay is 1 sec, State DROther, Priority 1
  Designated Router (ID) 172.20.140.2, Interface Address 172.20.121.2
  Backup Designated Router (ID) 0.0.0.1, Interface Address
  172.20.121.239
  Timer intervals configured, Hello 10.000, Dead 40, Wait 40, Retransmit
  5
    Hello due in 00:00:05
    Neighbor Count is 4, Adjacent neighbor count is 2
    Crypt Sequence Number is 411
    Hello received 106, sent 27, DD received 7 sent 9
    LS-Req received 2 sent 2, LS-Upd received 7 sent 5
    LS-Ack received 4 sent 3, Discarded 1
```

Which statements are true regarding the above output? (Choose two.)

- A. The port4 interface is connected to the OSPF backbone area.
- B. The local FortiGate has been elected as the OSPF backup designated router.
- C. There are at least 5 OSPF routers connected to the port4 network.
- D. Two OSPF routers are down in the port4 network.

**Answer:** AC

**Explanation:**

on BROADCAST network there are 4 neighbors, among which 1\*DR +1\*BDR. So our FG has 4 neighbors, but create adjacency only with 2 (with DR and BDR). 2 neighbors DROther (not down).

### NEW QUESTION 35

View the exhibit, which contains the output of a debug command, and then answer the question below.

```
#dia hardware sysinfo shm
SHM counter:          150
SHM allocated:         0
SHM total:           625057792
conserve mode: on - mem
system last entered: Mon Apr 24 16:36:37 2017
sys fd last entered: n/a
SHM FS total:   641236992
SHM FS free:    641208320
SHM FS avail:   641208320
SHM FS alloc:   28672
```

What statement is correct about this FortiGate?

- A. It is currently in system conserve mode because of high CPU usage.
- B. It is currently in FD conserve mode.
- C. It is currently in kernel conserve mode because of high memory usage.
- D. It is currently in system conserve mode because of high memory usage.

**Answer: D**

#### NEW QUESTION 36

Which configuration can be used to reduce the number of BGP sessions in an IBGP network?

- A. route-reflector enable
- B. route-reflector-server enable
- C. route-reflector-client enable
- D. route-reflector-peer enable

**Answer: C**

#### Explanation:

[https://docs.fortinet.com/document/fortigate/7.0.11/cli-reference/572620/config-router-bgp-set-route-reflector-client \[enable|disable\]](https://docs.fortinet.com/document/fortigate/7.0.11/cli-reference/572620/config-router-bgp-set-route-reflector-client-[enable|disable])

#### NEW QUESTION 40

An administrator added the following Ipsec VPN to a FortiGate configuration:

```
configvpn ipsec phase1 -interface edit "RemoteSite"
set type dynamic
set interface "port1"
set mode main
set psksecret ENC LCVkCiK2E2PhVUzZe next
end
config vpn ipsec phase2-interface edit "RemoteSite"
set phase1 name "RemoteSite" set proposal 3des-sha256
next end
```

However, the phase 1 negotiation is failing. The administrator executed the IKF real time debug while attempting the Ipsec connection. The output is shown in the exhibit.

```
ike 0: comes 10.200.3.1:500->10.200.1.1:500, ifindex=2....
ike 0: IKEv1 exchange=Identity Protection id=xxx/xxx len=716
ike 0:xxx/xxx:16: responder: main mode get 1st message...
ike 0:xxx/xxx:16: VID RFC 3947 4A131C81070358455C5728F20E95452F
...
ike 0:xxx/xxx:16: negotiation result
ike 0:xxx/xxx:16: proposal id = 1:
ike 0:xxx/xxx:16:   protocol id = ISAKMP:
ike 0:xxx/xxx:16:     trans_id = KEY_IKE.
ike 0:xxx/xxx:16:     encapsulation = IKE/none
ike 0:xxx/xxx:16:       type=OAKLEY_ENCRYPT_ALG, val=AES_CBC.
ike 0:xxx/xxx:16:       type=OAKLEY_HASH_ALG, val=SHA2_256.
ike 0:xxx/xxx:16:       type=AUTH_METHOD, val=PRE_SHARED_KEY.
ike 0:xxx/xxx:16:       type=OAKLEY_GROUP, val=MODP2048.
ike 0:xxx/xxx:16: ISAKMP SA lifetime=86400
ike 0:xxx/xxx:16: SA proposal chosen, matched gateway DialUpUsers
...
ike 0:DialUpUsers:16: sent IKE msg (ident_r1send): 10.200.1.1:500->10.200.3.1:500, len
id=xxx/xxx
```



```
ike 0: comes 10.200.3.1:500->10.200.1.1:500,ifindex=2....
ike 0: IKEv1 exchange=Identity Protection id=xxx/xxx len=380
ike 0:DialUpUsers:16: responder:main mode get 2nd message...
ike 0:DialUpUsers:16: NAT not detected
ike 0:DialUpUsers:16: sent IKE msg (ident_r2send): 10.200.1.1:500->10.200.3.1:500, len
id=xxx/xxx
ike 0:DialUpUsers:16: ISAKMP SA xxx/xxx key 16:3D33E2EF00BE927701B5C25B05A62415
ike 0: comes 10.200.3.1:500->10.200.1.1:500,ifindex=2....
ike 0: IKEv1 exchange=Identity Protection id=xxx/xxx len=108
ike 0:DialUpUsers:16: responder: main mode get 3rd message...
ike 0:DialUpUsers:16: probable pre-shared secret mismatch
ike 0:DialUpUsers:16: unable to parse msg
```

What is causing the IPsec problem in the phase 1 ?

- A. The incoming IPsec connection is matching the wrong VPN configuration
- B. The phrase-1 mode must be changed to aggressive
- C. The pre-shared key is wrong
- D. NAT-T settings do not match

**Answer: C**

#### NEW QUESTION 42

Refer to the exhibit, which shows the output of a BGP debug command.

```
FGT # get router info bgp summary
BGP router identifier 10.200.1.1, local AS number 655
BGP table version is 2
1 BGP AS-PATH entries
0 BGP community entries

Neighbor      V    AS      MsgRcvd MsgSent   TblVer
10.200.3.1    4 65501      92      1756      0

Total number of neighbors 1
```

Which statement explains why the state of the 10.200.3.1 peer is Connect?

- A. The local router has a different AS number than the remote peer.
- B. The local router is receiving BGP keepalives from the remote peer, but the local peer has not received the openConfirm yet.
- C. The local router initiated the BGP session to 10.200.3.1 but did not receive a response.
- D. The router 10.200.3.1 has authentication configured for BGP and the local router does not.

**Answer: C**

#### NEW QUESTION 43

Refer to the exhibit, which shows a session entry. Which statement about this session is true?

```
session info: proto=1 proto_state=00 duration=1 expire=59 timeout
sockflag=00000000 sockport=0 av_idx=0 use=3
origin-shaper=
reply-shaper=
per_ip_shaper=
ha_id=0 policy_dir=0 tunnel=/ vlan_cos=0/255
state=log may_dirty none
statistic(bytes/packets/allow_err): org=168/2/1 reply=168/2/1 tup
tx speed(Bps/kbps): 97/0 rx speed(Bps/kbps): 97/0
origin->sink: org pre->post, reply pre->post dev=9->3/3->9 gwy=10.
hook=post dir=org act=snat 10.1.10.10:40602->10.200.5.1:8(10.200.
hook=pre dir=reply act=dnat 10.200.5.1:60430->10.200.1.1:0(10.1.1
misc=0 policy_id=1 auth_info=0 chk_client_info=0 vd=0
serial=0002a5c9 tos=ff/ff app_list=0 app=0 url_cat=0
dd_type=0 dd_mode=0
```

- A. It is an ICMP session from 10.1.10.10 to 10.200.5. 1.
- B. It is a TCP session in close\_wait state, from 10.
- C. 10.10 to 10.200.1.1.
- D. It is an ICMP session from 10.1.10.10 to 10.200.1.1.
- E. It is a TCP session in the established state, from 10.1.10.10 to 10.200.5.1.

**Answer: A**

**Explanation:**

<https://community.fortinet.com/t5/FortiGate/Troubleshooting-Tip-FortiGate-session-table-information/ta-p/1969>

#### NEW QUESTION 48

An administrator has created a VPN community within VPN Manager on FortiManager. They also added gateways to the VPN community and are now trying to

create firewall policies to permit traffic over the tunnel; however, the VPN interfaces are not listed as available options. What step must the administrator take to resolve this issue?

- A. Install the VPN community and gateway configuration to the FortiGate devices, in order for the interfaces to be displayed within Policy & Objects on FortiManager
- B. Set up all of the phase 1 settings in the VPN community that they neglected to set up initiall
- C. The interfaces will be automatically generated after the administrator configures all of the required settings.
- D. Refresh the device status from the Device Manager so that FortiGate will populate the IPsec interfaces.
- E. Create interface mappings for the IPsec VPN interfaces, before they can be used in a policy.

**Answer: A**

**Explanation:**

\* - Create a VPN Community 2- Install VPN Configuration 3- Add IPsec Firewall Policies 4- Install the Policies

**NEW QUESTION 53**

When does a RADIUS server send an Access-Challenge packet?

- A. The server does not have the user credentials yet.
- B. The server requires more information from the user, such as the token code for two-factor authentication.
- C. The user credentials are wrong.
- D. The user account is not found in the server.

**Answer: B**

**NEW QUESTION 55**

Refer to the exhibit, which shows the output of a debug command.

```
FGT # get router info ospf interface port4
port4 is up, line protocol is up
  Internet Address 172.20.121.236/24, Area 0.0.0.0, MTU 1500
  Process ID 0, Router ID 0.0.0.4, Network Type BROADCAST, Cost: 1
  Transmit Delay is 1 sec, State DROther, Priority 1
  Designated Router (ID) 172.20.140.2, Interface Address 172.20.121.2
  Backup Designated Router (ID) 0.0.0.1, Interface Address 172.20.121.239
  Timer intervals configured, Hello 10.000, Dead 40, Wait 40, Retransmit 5
    Hello due in 00:00:05
  Neighbor Count is 4, Adjacent neighbor count is 2
  Crypt Sequence Number is 411
  Hello received 106 sent 27, DD received 6 sent 3
  LS-Req received 2 sent 2, LS-Upd received 7 sent 17
  LS-Ack received 4 sent 3, Discarded 1
```

Which two statements about the output are true? (Choose two.)

- A. In the network connected to port 4, two OSPF routers are down.
- B. Based on the network type of port 4, OSPF hello packets will be sent to 224.0.0.5.
- C. Based on the network type of port 4, OSPF hello packets will be sent to 224.0.0.6.
- D. There are a total of 5 OSPF routers attached to the Port4 network segment.

**Answer: BD**

**NEW QUESTION 59**

A FortiGate has two default routes:

```
config router static
  edit 1
    set gateway 10.200.1.254
    set priority 5
    set device "port1"
  next
  edit2
    set gateway 10.200.2.254
    set priority 10
    set device "port2"
  next
end
```

All Internet traffic is currently using port1. The exhibit shows partial information for one sample session of Internet traffic from an internal user:



```
# diagnose sys session list
Session info: proto=6 proto_state=01 duration =17 expire=7 timeout=3600
flags= 00000000 sockflag=00000000 sockport=0 av idx=0 use=3
ha_id=0 policy_dir=0 tunnel=/
state=may_dirty none app_ntf
statistic (bytes/packets/allow_err): org=575/7/1 reply=23367/19/1 tuples=2
origin->sink: org pre->post, reply pre->post dev=4->2/2->4
gwy=10.200.1.254/10.0.1.10
hook=post dir=org act=snat 10.0.1.10:64907-
>54.239.158.170:80(10.200.1.1:64907)
hook=pre dir=reply act=dnat 54.239.158.170:80-
>10.200.1.1:64907(10.0.1.10:64907)
pos/(before, after) 0/(0,0), 0/(0,0)
misc=0 policy_id=1 auth_info=0 chk_client_info=0 vd=0
serial=00000294 tos=ff/ff ips_view=0 app_list=0 app=0
dd_type=0 dd_mode=0
```

What would happen with the traffic matching the above session if the priority on the first default route (IDd1) were changed from 5 to 20?

- A. The session would be deleted, and the client would need to start a new session.
- B. The session would remain in the session table, and its traffic would start to egress from port2.
- C. The session would remain in the session table, but its traffic would now egress from both port1 and port2.
- D. The session would remain in the session table, and its traffic would still egress from port1.

**Answer:** D

#### NEW QUESTION 64

What are two functions of automation stitches? (Choose two.)

- A. Automation stitches can be configured on any FortiGate device in a Security Fabric environment.
- B. An automation stitch configured to execute actions sequentially can take parameters from previous actions as input for the current action.
- C. Automation stitches can be created to run diagnostic commands and attach the results to an email message when CPU or memory usage exceeds specified thresholds.
- D. An automation stitch configured to execute actions in parallel can be set to insert a specific delay between actions.

**Answer:** BC

#### Explanation:

Enterprise\_Firewall\_7.0\_Study\_Guide-Online.pdf p 23, 26

#### NEW QUESTION 69

Examine the following traffic log; then answer the question below.

```
date=20xx-02-01 time=19:52:01 devname=master device_id="xxxxxxx" log_id=0100020007 type=event subtype=system pri critical vd=root service=kemel
status=failure msg="NAT port is exhausted."
```

What does the log mean?

- A. There is not enough available memory in the system to create a new entry in the NAT port table.
- B. The limit for the maximum number of simultaneous sessions sharing the same NAT port has been reached.
- C. FortiGate does not have any available NAT port for a new connection.
- D. The limit for the maximum number of entries in the NAT port table has been reached.

**Answer:** B

#### NEW QUESTION 72

View the exhibit, which contains the output of a debug command, and then answer the question below.

```
# diagnose hardware sysinfo conserve
memory conserve mode: on
total RAM: 3040 MB
memory used: 2706 MB 89% of total RAM
Memory freeable: 334 MB 11% of total RAM
memory used + freeable threshold extreme: 2887 MB 95% of total RAM
memory used threshold red: 2675 MB 88% of total RAM
memory used threshold green: 2492 MB 82% of total RAM
```

Which one of the following statements about this FortiGate is correct?

- A. It is currently in system conserve mode because of high CPU usage.
- B. It is currently in extreme conserve mode because of high memory usage.
- C. It is currently in proxy conserve mode because of high memory usage.
- D. It is currently in memory conserve mode because of high memory usage.

**Answer:** D

#### NEW QUESTION 76

Refer to the exhibit, which contains the debug output of diagnose dvm device list.

```
FMG-VM64# diagnose dvm device list
There are currently 1 devices/vdoms managed:
TYPE      OID      SN      HA      IP      NAME      ADOM      IPS  FIRMWARE
fmg/      217      FGVM01... -      10.200.1.1 Local-FortiGate My_ADOM 15.0.0831 6.0 MR4 (1579)
faz enabled
|- STATUS: db: modified; conf: in sync; cond: pending; dm: retrieved; conn: up

|- vdom: [3] root flags:0 adom:My_ADOM pkg: [imported] Local-FortiGate_root
```

Which two statements about the output shown in the exhibit are correct? (Choose two.)

- A. ADOMs are disabled on the FortiManager
- B. The FortiGate configuration is in sync with latest running revision history.
- C. There are pending device-level changes yet to be installed on Local-FortiGate.
- D. The policy package has been modified for Local-FortiGate.

**Answer:** BC

### NEW QUESTION 81

An administrator has configured two FortiGate devices for an HA cluster. While testing HA failover, the administrator notices that some of the switches in the network continue to send traffic to the former primary device. What can the administrator do to fix this problem?

- A. Configure remote link monitoring to detect an issue in the forwarding path.
- B. Configure set send-garp-on-failover enable under config system ha on both cluster members.
- C. Verify that the speed and duplex settings match between the FortiGate interfaces and the connected switch ports.
- D. Configure set link-failed-signal enable under config system ha on both cluster members.

**Answer:** D

### Explanation:

Virtual MAC Address and Failover - The new primary broadcasts Gratuitous ARP packets to notify the network that each virtual MAC is now reachable through a different switch port. - Some high-end switches might not clear their MAC table correctly after a failover - Solution: Force former primary to shut down all its interfaces for one second when the failover happens (excluding heartbeat and reserved management interfaces): #Config system ha set link-failed-signal enable end - This simulates a link failure that clears the related entries from MAC table of the switches.

### NEW QUESTION 83

Refer to the exhibit, which shows the output of a web filtering diagnose command.

```
# diagnose webfilter fortiguard statistics list
Rating Statistics:
=====
DNS failures          :      273
DNS lookups           :      280
Data send failures    :        0
Data read failures    :        0
Wrong package type    :        0
Hash table miss       :        0
Unknown server        :        0
Incorrect CRC         :        0
Proxy request failures :        0
Request timeout       :        1
Total requests        :    2409
Requests to FortiGuard servers :    1182
Server errored responses :        0
Relayed rating        :        0
Invalid profile       :        0

Allowed              :    1021
Blocked              :    3909
Logged               :    3927
Blocked Errors       :     565
Allowed Errors       :        0
Monitors             :        0
Authenticates        :        0
Warnings:            :     18
Ovrd request timeout :        0
Ovrd send failures   :        0
Ovrd read failures    :        0
Ovrd errored responses :        0
...

Cache Statistics:
=====
Maximum memory       :        0
Memory usage         :        0

Nodes                :        0
Leaves               :        0
Prefix nodes         :        0
Exact nodes          :        0

Requests             :        0
Misses               :        0
Hits                 :        0
Prefix hits          :        0
Exact hits           :        0

No cache directives  :        0
Add after prefix     :        0
Invalid DB put       :        0
DB updates           :        0

Percent full         :        0%
Branches             :        0%
Leaves               :        0%
Prefix nodes         :        0%
Exact nodes          :        0%

Miss rate            :        0%
Hit rate             :        0%
Prefix hits          :        0%
Exact hits           :        0%
```

Which configuration change would result in non-zero results in the cache statistics section?

- A. set server-type rating under config system central-management
- B. set webfilter-cache enable under config system fortiguard
- C. set webfilter-force-off disable under config system fortiguard
- D. set ngfw-mode policy-based under config system settings

**Answer:** B

### Explanation:

Enterprise\_Firewall\_7.0\_Study\_Guide-Online.pdf p 362



### NEW QUESTION 85

View the exhibit, which contains the partial output of an IKE real-time debug, and then answer the question below.

```
ike 0:c49e59846861b0f6/0000000000000000:278: responder: main mode get 1st message...
ike 0:c49e59846861b0f6/0000000000000000:278: incoming proposal:
ike 0:c49e59846861b0f6/0000000000000000:278: proposal id = 0:
ike 0:c49e59846861b0f6/0000000000000000:278:   protocol id = ISAKMP:
ike 0:c49e59846861b0f6/0000000000000000:278:   trans_id = KEY_IKE.
ike 0:c49e59846861b0f6/0000000000000000:278:   encapsulation = IKE/none
ike 0:c49e59846861b0f6/0000000000000000:278:   type=OAKLEY_ENCRYPT_ALG, val=3DES_CBC.
ike 0:c49e59846861b0f6/0000000000000000:278:   type=OAKLEY_HASH_ALG, val=SHA2_256.
ike 0:c49e59846861b0f6/0000000000000000:278:   type=AUTH_METHOD, val=PRESHARED_KEY.
ike 0:c49e59846861b0f6/0000000000000000:278:   type=OAKLEY_GROUP, val=MODP2048.
ike 0:c49e59846861b0f6/0000000000000000:278: ISAKMP SA lifetime=86400
...
ike 0:c49e59846861b0f6/0000000000000000:278: my proposal, gw VPN:
ike 0:c49e59846861b0f6/0000000000000000:278: proposal id = 1:
ike 0:c49e59846861b0f6/0000000000000000:278:   protocol id = ISAKMP:
ike 0:c49e59846861b0f6/0000000000000000:278:   trans_id = KEY_IKE.
ike 0:c49e59846861b0f6/0000000000000000:278:   encapsulation = IKE/none
ike 0:c49e59846861b0f6/0000000000000000:278:   type=OAKLEY_ENCRYPT_ALG, val=AES_CBC,
key-len=256
ike 0:c49e59846861b0f6/0000000000000000:278:   type=OAKLEY_HASH_ALG, val=SHA2_256.
ike 0:c49e59846861b0f6/0000000000000000:278:   type=AUTH_METHOD, val=PRESHARED_KEY.
ike 0:c49e59846861b0f6/0000000000000000:278:   type=OAKLEY_GROUP, val=MODP2048.
ike 0:c49e59846861b0f6/0000000000000000:278: ISAKMP SA lifetime=86400
...
ike 0:c49e59846861b0f6/0000000000000000:278: negotiation failure
ike Negotiate ISAKMP SA Error: ike 0:c49e59846861b0f6/0000000000000000:278:
proposal chosen
...
```

Why didn't the tunnel come up?

- A. The pre-shared keys do not match.
- B. The remote gateway's phase 2 configuration does not match the local gateway's phase 2 configuration.
- C. The remote gateway's phase 1 configuration does not match the local gateway's phase 1 configuration.
- D. The remote gateway is using aggressive mode and the local gateway is configured to use man mode.

**Answer: C**

### NEW QUESTION 88

View the exhibit, which contains a partial routing table, and then answer the question below.

```
FGT # get router info routing-table all
...
Routing table for VRF=7
C    10.73.9.0/24 is directly connected, port2

Routing table for VRF=12
C    10.1.0.0/24 is directly connected, port3
S    10.10.4.0/24 [10/0] via 10.1.0.100, port3
C    10.64.1.0/24 is directly connected, port1

Routing table for VRF=21
S    10.1.0.0/24 [10/0] via 10.72.3.254, port4
C    10.72.3.0/24 is directly connected, port4
S    192.168.2.0/24 [10/0] via 10.72.3.254, port4
...
```

Assuming all the appropriate firewall policies are configured, which of the following pings will FortiGate route? (Choose two.)

- A. Source IP address 10.1.0.24, Destination IP address 10.72.3.20.
- B. Source IP address 10.72.3.27, Destination IP address 10.1.0.52.
- C. Source IP address 10.72.3.52, Destination IP address 10.1.0.254.
- D. Source IP address 10.73.9.10, Destination IP address 10.72.3.15.

**Answer: BC**

### NEW QUESTION 89

Which the following events can trigger the election of a new primary unit in a HA cluster? (Choose two.)

- A. Primary unit stops sending HA heartbeat keepalives.
- B. The FortiGuard license for the primary unit is updated.
- C. One of the monitored interfaces in the primary unit is disconnected.
- D. A secondary unit is removed from the HA cluster.

**Answer: AC**

#### NEW QUESTION 90

Which statement about the designated router (DR) and backup designated router (BDR) in an OSPF multi-access network is true?

- A. FortiGate first checks the OSPF ID to elect a DR.
- B. Non-DR and non-BDR routers will form full adjacencies to DR and BDR only.
- C. BDR is responsible for forwarding link state information from one router to another.
- D. Only the DR receives link state information from non-DR routers.

**Answer:** B

#### NEW QUESTION 93

Which real time debug should an administrator enable to troubleshoot RADIUS authentication problems?

- A. Diagnose debug application radius -1.
- B. Diagnose debug application fnbamd -1.
- C. Diagnose authd console -log enable.
- D. Diagnose radius console -log enable.

**Answer:** B

#### Explanation:

<https://kb.fortinet.com/kb/documentLink.do?externalID=FD32838>

#### NEW QUESTION 96

What does the dirty flag mean in a FortiGate session configured for NGFW policy mode?

- A. The existing session table entry has been updated with the app\_id and the firewall policy table needs to be checked for a match.
- B. The application or URL category is unknown and needs to be rescanned by the IPS engine to try to identify the Layer 7 details.
- C. The URL category for this session has been updated by FortiGuard and the session needs to be checked against the policy again to ensure proper web filtering is applied.
- D. Traffic has been identified as coming from an application that is not allowed and the relevant replacement message needs to be displayed to the user, if configured.

**Answer:** A

#### Explanation:

Enterprise\_Firewall\_7.0\_Study\_Guide-Online.pdf p 99

#### NEW QUESTION 97

View the exhibit, which contains the output of a BGP debug command, and then answer the question below.

```
# get router info bgp summary
BGP router identifier 0.0.0.117, local AS number 65117
BGP table version is 104
3 BGP AS-PATH entries
0 BGP community entries

Neighbor    V    AS  MsgRcvd  MsgSent  TblVer  InQ  OutQ  Up/Down  State/PfxRcd
10.125.0.60  4   65060   1698      1756    103   0     0  03:02:49        1
10.127.0.75  4   65075   2206      2250    102   0     0  02:45:55        1
10.200.3.1   4   65501    101       115     0     0     0  never        Active

Total number of neighbors 3
```

Which of the following statements about the exhibit are true? (Choose two.)

- A. For the peer 10.125.0.60, the BGP state of is Established.
- B. The local BGP peer has received a total of three BGP prefixes.
- C. Since the BGP counters were last reset, the BGP peer 10.200.3.1 has never been down.
- D. The local BGP peer has not established a TCP session to the BGP peer 10.200.3.1.

**Answer:** AD

#### NEW QUESTION 102

Refer to the exhibit, which shows the output of a diagnose command.



```
# diagnose sys session list expectation

session info: proto=6 proto_state=00 duration=3 expire=26 timeout=3600 flags=00000000
sockflag=00000000 sockport=0 av_idx=0 use=3
origin-shaper=
reply-shaper=
per_ip_shaper=
ha_id=0 policy_dir=1 tunnel=/
state=new complex
statistic(bytes/packets/allow_err): org=0/0/0 reply=0/0/0 tuples=2
orgin->sink: org pre->post, reply pre->post dev=2->4/4->2 gwy=10.0.1.10/10.200.1.254
hook=pre dir=org act=dnat 10.171.121.38:0->10.200.1.1:60426(10.0.1.10:50365)
hook=pre dir=org act=noop 0.0.0.0:0->0.0.0.0:0(0.0.0.0:0)
pos/(before,after) 0/(0,0), 0/(0,0)
misc=0 policy_id=1 auth_info=0 chk_client_info=0 vd=0
serial=000000e9 tos=ff/ff ips_view=0 app_list=0 app=0
dd_type=0 dd_mode=0
```

What can you conclude from the output shown in the exhibit? (Choose two.)

- A. This is a pinhole session created to allow traffic for a protocol that requires additional sessions to operate through FortiGate.
- B. This is an expected session created by the IPS engine.
- C. Traffic in the original direction (coming from the IP address 10.171.121.38) will be routed to the next-hop IP address 10.200.1.1.
- D. Traffic in the original direction (coming from the IP address 10.171.121.38) will be routed to the next-hop IP address 10.0.1.10.

**Answer:** AD

**Explanation:**

Enterprise\_Firewall\_7.0\_Study\_Guide-Online.pdf p 110, 111, 115

#### NEW QUESTION 104

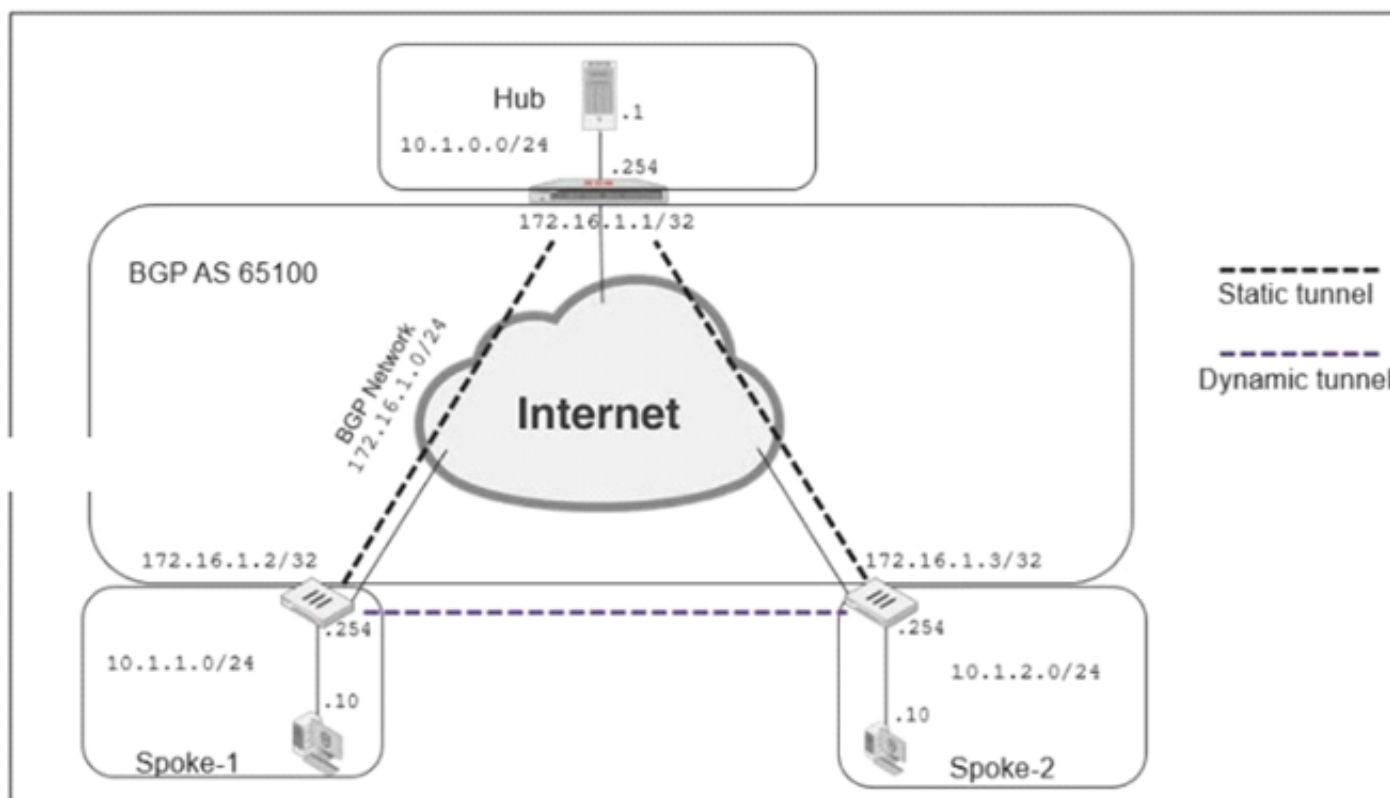
Which two statements about an auxiliary session are true? (Choose two.)

- A. With the auxiliary session setting disabled, only auxiliary sessions are offloaded.
- B. With the auxiliary session setting enabled, two sessions are created in case of routing change.
- C. With the auxiliary session setting enabled, ECMP traffic is accelerated to the NP6 processor.
- D. With the auxiliary session setting disabled, for each traffic path, FortiGate uses the same auxiliary session.

**Answer:** BC

#### NEW QUESTION 108

Exhibits:



```
show router bgp
router bgp
  as 65100
  router-id 172.16.1.1
  fig neighbor-group
    edit "advpn"
      set remote-as 65100

      set route-reflector-client disable
    next

  fig neighbor-range
    edit 1
      set prefix 172.16.1.0 255.255.255.0
      set neighbor-group "advpn"
    next
```

Refer to the exhibits, which contain the network topology and BGP configuration for a hub.

An administrator is trying to configure ADVPN with a hub-spoke VPN setup using iBGP. All the VPNs are up and connected to the hub. The hub is receiving route information from both spokes over iBGP; however, the spokes are not receiving route information from each other.

What change must the administrator make to the hub BGP configuration so that the routes learned by one spoke are forwarded to the other spokes?

- A. Configure an individual neighbor and remove neighbor-range configuration.
- B. Configure the hub as a route reflector client.
- C. Change the router id to 10.1.0.254.
- D. Make the configuration of remote-as different from the configuration of local-as.

**Answer: B**

**Explanation:**

Source:

<https://community.fortinet.com/t5/FortiGate/Technical-Tip-Configuring-BGP-route-reflector/ta-p/191503> Source 2: RFC 4456

**NEW QUESTION 112**

An administrator has configured two FortiGate devices for an HA cluster. While testing the HA failover, the administrator noticed that some of the switches in the network continue to send traffic to the former primary unit. The administrator decides to enable the setting link-failed-signal to fix the problem. Which statement is correct regarding this command?

- A. Forces the former primary device to shut down all its non-heartbeat interfaces for one second while the failover occurs.
- B. Sends an ARP packet to all connected devices, indicating that the HA virtual MAC address is reachable through a new master after a failover.
- C. Sends a link failed signal to all connected devices.
- D. Disables all the non-heartbeat interfaces in all the HA members for two seconds after a failover.

**Answer: A**

**NEW QUESTION 117**

Which two statements about the Security Fabric are true? (Choose two.)

- A. Only the root FortiGate collects network topology information and forwards it to FortiAnalyzer.
- B. Only the root FortiGate sends logs to FortiAnalyzer.
- C. Only FortiGate devices with fabric-object-unification set to default will receive and synchronize global CMDB objects sent by the root FortiGate.
- D. FortiGate uses FortiTelemetry protocol to communicate with FortiAnalyzer.

**Answer: AC**

**Explanation:**

FortiGate's to Root uses FortiTelemetry (TCP-8013) FortiTelemetry is also used for FortiClient communication Root Fortigate to FortiAnalyzer uses API (TCP-443)

**NEW QUESTION 122**

View these partial outputs from two routing debug commands:



```
# get router info kernel
tab=254 vf=0 scope=0 type=1 proto=11 prio=0 0.0.0.0/0.0.0.0/0->0.0.0.0/0 pref=0.0.0.0 gwy=10.200.1.254
dev=2(port1)
tab=254 vf=0 scope=0 type=1 proto=11 prio=0 0.0.0.0/0.0.0.0/0->0.0.0.0/0 pref=0.0.0.0 gwy=10.200.2.254
dev=3(port2)
tab=254 vf=0 scope=253 type=1 proto=2 prio=0 0.0.0.0/0.0.0.0/0->10.0.1.0/24 pref=10.0.1.254 gwy=0.0.0.0
dev=4(port3)
# get router info routing-table all
S*      0.0.0.0/0 [10/0] via 10.200.1.254, port1
        [10/0] via 10.200.2.254, port2, [10/0]
C       10.0.1.0/24 is directly connected, port3
C       10.200.1.0/24 is directly connected, port1
C       10.200.2.0/24 is directly connected, port2
```

Which outbound interface will FortiGate use to route web traffic from internal users to the Internet?

- A. Both port1 and port2
- B. port3
- C. port1
- D. port2

**Answer:** C

#### NEW QUESTION 125

In which two ways does FortiManager function when it is deployed as a local FDS? (Choose two.)

- A. It provides VM license validation services.
- B. It supports rating requests from non-FortiGate devices.
- C. It caches available firmware updates for unmanaged devices.
- D. It can be configured as an update server, a rating server, or both.

**Answer:** AD

#### NEW QUESTION 130

Refer to the exhibit, which contains the output of the diagnose vpn tunnel list. Which command will capture ESP traffic for the VPN named DialUp\_0?

- A. diagnose sniffer packet any 'esp and host 10.200.3.2'
- B. diagnose sniffer packet any 'ip proto 50'
- C. diagnose sniffer packet any 'host 10.0.10.10'
- D. diagnose sniffer packet any 'port 4500'

**Answer:** D

#### NEW QUESTION 131

You have configured FortiManager as a local FDS to provide FortiGate AV and IPS updates, but FortiGate devices are not receiving updates to their AV signature databases, IPS engines, or IPS signature databases.

Which two settings need to be verified for these features to function? (Choose two.)

- A. FortiGate needs to have the server list entry for FortiManager set to server-type update under config system central-management.
- B. FortiManager needs to be the license validation server for FortiGate devices trying to retrieve updated AV and IPS packages.
- C. Service access needs to be enabled on FortiManager under System Settings > Network.
- D. FortiGate needs to have include-default-servers disabled under config system central-management.

**Answer:** AC

#### Explanation:

NSE 7.0 Guide page 184-185

#### NEW QUESTION 134

Which of the following conditions must be met for a static route to be active in the routing table? (Choose three.)

- A. The next-hop IP address is up.
- B. There is no other route, to the same destination, with a higher distance.
- C. The link health monitor (if configured) is up.
- D. The next-hop IP address belongs to one of the outgoing interface subnets.
- E. The outgoing interface is up.

**Answer:** CDE

#### Explanation:

A configured static route only goes to routing table from routing database when all the following are met :

- The outgoing interface is up
- There is no other matching route with a lower distance

- The link health monitor (if configured) is successful
- The next-hop IP address belongs to one of the outgoing interface subnets

#### NEW QUESTION 137

An administrator has been assigned the task of creating a set of firewall policies which must be evaluated before any custom policies defined within the policy packages of managed FortiGate devices, across all 25 ADOMs in FortiManager. How should the administrator accomplish this task?

- A. Create a footer policy in the Global ADOM containing the firewall policies that must be evaluated first, and then assign this footer policy to all other ADOMs.
- B. Create a header policy in the Global ADOM containing the firewall policies that must be evaluated first, and then assign this header policy to all other ADOMs.
- C. Move the FortiGate devices into a single globally scoped ADOM, and merge policy packages, inserting the new firewall policies at the top.
- D. Use a CLI script from the root ADOM on FortiManager to push these new policies to all FortiGate devices, through the FGFM tunnel.

**Answer:** B

#### Explanation:

Enterprise\_Firewall\_7.0\_Study\_Guide-Online.pdf p 244

#### NEW QUESTION 142

Which statement about NGFW policy-based application filtering is true?

- A. After the application has been identified, the kernel uses only the Layer 4 header to match the traffic.
- B. The IPS security profile is the only security option you can apply to the security policy with the action set to ACCEPT.
- C. After IPS identifies the application, it adds an entry to a dynamic ISDB table.
- D. FortiGate will drop all packets until the application can be identified.

**Answer:** D

#### NEW QUESTION 146

An administrator has enabled HA session synchronization in a HA cluster with two members. Which flag is added to a primary unit's session to indicate that it has been synchronized to the secondary unit?

- A. redir.
- B. dirty.
- C. synced
- D. nds.

**Answer:** C

#### Explanation:

The synced sessions have the 'synced' flag. The command 'diag sys session list' can be used to see the sessions on the member, with the associated flags.

#### NEW QUESTION 151

An administrator has configured a dial-up IPsec VPN with one phase 2, extended authentication (XAuth) and IKE mode configuration. The administrator has also enabled the IKE real time debug:

diagnose debug application ike-1 diagnose debug enable

In which order is each step and phase displayed in the debug output each time a new dial-up user is connecting to the VPN?

- A. Phase1; IKE mode configuration; XAuth; phase 2.
- B. Phase1; XAuth; IKE mode configuration; phase2.
- C. Phase1; XAuth; phase 2; IKE mode configuration.
- D. Phase1; IKE mode configuration; phase 2; XAuth.

**Answer:** B

#### Explanation:

[https://help.fortinet.com/fos50hlp/54/Content/FortiOS/fortigate-ipsecvpn-54/IPsec\\_VPN\\_Concepts/IKE\\_Packet](https://help.fortinet.com/fos50hlp/54/Content/FortiOS/fortigate-ipsecvpn-54/IPsec_VPN_Concepts/IKE_Packet)

#### NEW QUESTION 156

An administrator has configured a FortiGate device with two VDOMs: root and internal. The administrator has also created an inter-VDOM link that connects both VDOMs. The objective is to have each VDOM advertise some routes to the other VDOM via OSPF through the inter-VDOM link. What OSPF configuration settings must match in both VDOMs to have the OSPF adjacency successfully forming? (Choose three.)

- A. Router ID.
- B. OSPF interface area.
- C. OSPF interface cost.
- D. OSPF interface MTU.
- E. Interface subnet mask.

**Answer:** BDE

#### NEW QUESTION 160

Refer to the exhibit, which shows partial outputs from two routing debug commands.



```
FortiGate # get router info routing-table database

Routing table for VRF=0
S      0.0.0.0/0 [20/0] via 100.64.2.254, port2, [10/0]
S      *> 0.0.0.0/0 [10/0] via 100.64.1.254, port1

FortiGate # get router info routing-table all

Routing table for VRF=0
S*      0.0.0.0/0 [10/0] via 100.64.1.254, port1
```

Why is the port2 default route not in the second command output?

- A. The port2 interface is disabled in the FortiGate configuration.
- B. The port1 default route has a lower distance than the default route using port2.
- C. The port1 default route has a higher priority value than the default route using port2.
- D. The port1 default route has a lower priority value than the default route using port2.

Answer: B

#### NEW QUESTION 163

Refer to the exhibit, which shows the output of a BGP debug command.

```
FGT # get router info bgp summary
BGP router identifier 0.0.0.117, local AS number 65117
BGP table version is 104
3 BGP AS-PATH entries
0 BGP community entries

Neighbor      V    AS      MsgRcvd MsgSent   TblVer  InQ OutQ   Up/Down   State/PfxRcd
10.125.0.60    4  65060    1698    1756     103     0    0    03:02:49      1
10.127.0.75    4  65075    2206    2250     102     0    0    02:45:55      1
100.64.3.1     4  65501     101     115      0       0    0    never        Active

Total number of neighbors 3
```

What can be concluded about the router in this scenario?

- A. The router 100.64.3.1 needs to update the local AS number in its BGP configuration in order to bring up the BGP session with the local router.
- B. The State/PfxRcd for neighbor 100.64.3.1 will not change until an administrator on the local router adjusts the inbound route filtering so that prefixes received can be added to the RIB.
- C. All of the neighbors displayed are part of a single BGP configuration on the local router with the neighbor-range set to a value of 4.
- D. The BGP session with peer 10.127.0.75 is up.

Answer: D

#### NEW QUESTION 164

Refer to the exhibit, which shows the output of a diagnose command.

```
FGT # diagnose debug rating
Locale       : english
Service      : Web-filter
Status       : Enable
License      : Contract
Service      : Antispam
Status       : Disable
Service      : Virus Outbreak Prevention
Status       : Disable

-- Server List (Mon Apr 19 10:41:32 20xx) --
IP           Weight  RTT    Flags  TZ  Packets  Curr  Lost   Total Lost
64.26.151.37  10      45     -5     -5  262432   0     846
64.26.151.35  10      46     -5     -5  329072   0     6806
66.117.56.37  10      75     -5     -5  71638    0     275
65.210.95.240 20      71     -8     -8  36875    0     92
209.222.147.36 20     103     DI     -8  34784    0    1070
208.91.112.194 20     107     D      -8  35170    0    1533
96.45.33.65   60     144     0      0  33728    0     120
80.85.69.41   71     226     1      1  33797    0     192
62.209.40.74  150     97     9      9  33754    0     145
121.111.236.179 45     44     F     -5  26410   26226  26227
```

What can be concluded about the debug output in this scenario?

- A. Servers with a negative TZ value are less preferred for rating requests.
- B. There is a natural correlation between the value in the Packets field and the value in the Weight field.
- C. FortiGate used 64.26.151.37 as the initial server to validate its contract.
- D. The first server provided to FortiGate when it performed a DNS query looking for a list of rating servers, was 121.111.236.179.

**Answer:** B

#### NEW QUESTION 168

In which two states is a given session categorized as ephemeral? (Choose two.)

- A. A TCP session waiting for FIN ACK
- B. A UDP session with packets sent and received
- C. A UDP session with only one packet received
- D. A TCP session waiting for the SYN ACK

**Answer:** CD

#### NEW QUESTION 171

View the exhibit, which contains the output of a real-time debug, Which statement about this output is true?

```
FGT # diagnose debug application urlfilter -1
FGT # diagnose debug enable

msg="received a request /tmp/.wad512_0_0.url.socket, addr_len=30:
d=training.fortinet.com:443, id=687, cat=255, vfname='root', vfid=0,
profile='default', type=0, client=10.1.10.1, url_source=1, url="/"
action=9(ftgd-allow) wf-act=5(ALLOW) user="N/A" src=10.1.10.1 sport=58334
dst=13.226.142.41 dport=443 service="https" cat=52 url_cat=52 ip_cat=0
hostname="training.fortinet.com" url="/"
```

Which of the following statements is true regarding this output?

- A. The requested URL belongs to category ID 255.
- B. The server hostname is training.fortinet.com.
- C. FortiGate found the requested URL in its local cache.
- D. This web request was inspected using the ftgd-allow web filter profile.

**Answer:** C

#### Explanation:

Example log for no local cache case: #id=93000 msg="pid=57 urlfilter\_main-723 in main.c received pkt:count=91 "IPS and WAD will only send request to urlfilter daemon when cache is missed. " So the WAD process by itself found the URL rating in the local cache and didn't ask for help from the URL process as in the example.

#### NEW QUESTION 172

Refer to the exhibits, which show the configuration on FortiGate and partial session information for internet traffic from a user on the internal network.

```
config system global
    set snat-route-change disable
end
config router static
    edit 1
        set gateway 10.200.1.254
        set priority 5
        set device "port1"
    next
    edit 2
        set gateway 10.200.2.254
        set priority 10
        set device "port2"
    next
end
```



```
FGT # diagnose sys session list
session info: proto=6 proto_state=01 duration=600 expire=3179 timeout=3600 flags=00000000
sockflag=00000000 sockport=0 av_idx=0 use=4
origin-shaper=
reply-shaper=
per_ip_shaper=
class_id=0 ha_id=0 policy_dir=0 tunnel=/ vlan_cos=0/255
state=log may_dirty npu f00
statistic (bytes/packets/allow_err): org=3208/25/1 reply=11144/29/1 tuples=2
tx speed (Bps/kbps): 0/0 rx speed (Bps/kbps): 0/0
origin->sink: org pre->post, reply pre->post dev=4->2/2->4 gwy=10.200.1.254/10.0.1.10
hook=post dir=org act=snat 10.0.1.10:64907 -> 54.239.158.170.80(10.200.1.1:64907)
hook=pre dir=reply act=dnat 54.239.158.170:80->10.200.1.1:64907(10.0.1.10:64907)
pos/ (before, after) 0/(0,0), 0/(0,0)
src_mac=b4:f7a1:e9:91:97
misc=0 policy_id=1 auth_info=0 chk_client_info=0 vd=0
serial=00317c5b tos=ff/ff app_list=0 app=0 url_cat=0
rpd_b_link_id = 00000000
dd_type=0 dd_mode=0
npu_state=0x000c00
npu info: flag=0x00/0x00, offload=0/0, ips_offload=0/0, epid=0/0, ipid=0/0, vlan=0x0000/0x0000
vlifid=0/0, vtag_in=0x0000/0x000 in_npu=0/0, out_npu=0/0, fwd_en=0/0, qid=0/0
no_ofld_reason:
```

If the priority on route ID 2 were changed from 10 to 0, what would happen to traffic matching that user session?

- A. The session would remain in the session table, but its traffic would now egress from both port1 and port2.
- B. The session would remain in the session table, and its traffic would egress from port2.
- C. The session would be deleted, and the client would need to start a new session.
- D. The session would remain in the session table, and its traffic would egress from port1.

**Answer:** D

**Explanation:**

<https://community.fortinet.com/t5/FortiGate/Technical-Tip-Using-SNAT-route-change-to-update-existing-NAT/>

#### NEW QUESTION 176

Which two tasks are automated using the Import Configuration wizard on FortiManager? (Choose two.)

- A. Importing firewall address objects from managed devices
- B. Importing interface mappings from managed devices
- C. Importing static and dynamic route configurations from managed devices
- D. Importing devices to FortiManager

**Answer:** AB

**Explanation:**

<https://docs.fortinet.com/document/fortimanager/7.0.5/administration-guide/337348>

#### NEW QUESTION 180

What does the dirty flag mean in a FortiGate session?

- A. Traffic has been blocked by the antivirus inspection.
- B. The next packet must be re-evaluated against the firewall policies.
- C. The session must be removed from the former primary unit after an HA failover.
- D. Traffic has been identified as from an application that is not allowed.

**Answer:** B

**Explanation:**

<https://kb.fortinet.com/kb/viewContent.do?externalId=FD40119&sliceId=1>

#### NEW QUESTION 183

An administrator cannot connect to the GUI of a FortiGate unit with the IP address 10.0.1.254. The administrator runs the debug flow while attempting the connection using HTTP. The output of the debug flow is shown in the exhibit:

```
# diagnose debug flow filter port 80
# diagnose debug flow trace start 5
# diagnose debug enable

id=20085 trace_id=5 msg="vd-root received a packet(proto=6,
10.0.1.10:57459->10.0.1.254:80) from port3. flag [S], seq 3190430861, ack
0, win 8192"
id=20085 trace_id=5 msg="allocate a new session-0000008c"
id=20085 trace_id=5 msg="iprope_in_check() check failed on policy 0, drop"
```

Based on the error displayed by the debug flow, which are valid reasons for this problem? (Choose two.)

- A. HTTP administrative access is disabled in the FortiGate interface with the IP address 10.0.1.254.
- B. Redirection of HTTP to HTTPS administrative access is disabled.
- C. HTTP administrative access is configured with a port number different than 80.
- D. The packet is denied because of reverse path forwarding check.

**Answer:** AC

#### NEW QUESTION 187

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