

# **Fortinet**

## **NSE8\_812 Exam**

**Network Security Expert 8 Written Exam  
Questions & Answers  
Demo**

# Version: 4.1

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## Question: 1

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Review the VPN configuration shown in the exhibit.

```
config vpn ipsec fec
  edit "fecprofile"
    config mappings
      edit 1
        set base 8
        set redundant 2
        set packet-loss-threshold 10
      next
      edit 2
        set base 9
        set redundant 3
        set bandwidth-up-threshold 450000
      next
      edit 3
        set base 5
        set redundant 3
        bandwidth-bi-threshold 5000000
      next
    end
  next
end

config vpn ipsec phasel-interface
  edit "vd1-p1"
    set fec-health-check "1"
    set fec-mapping-profile "fecprofile"
    set fec-base 10
    set fec-redundant 1
  next
end
```

What is the Forward Error Correction behavior if the SD-WAN network traffic download is 500 Mbps and has 8% of packet loss in the environment?

- A. 1 redundant packet for every 10 base packets
- B. 3 redundant packet for every 5 base packets
- C. 2 redundant packet for every 8 base packets
- D. 3 redundant packet for every 9 base packets

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**Answer: C**

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Explanation:

The FEC configuration in the exhibit specifies that if the packet loss is greater than 10%, then the FEC mapping will be 8 base packets and 2 redundant packets. The download bandwidth of 500 Mbps is not greater than 950 Mbps, so the FEC mapping is not overridden by the bandwidth setting. Therefore, the FEC behavior will be 2 redundant packets for every 8 base packets.

Here is the explanation of the FEC mappings in the exhibit:

Packet loss greater than 10%: 8 base packets and 2 redundant packets.

Upload bandwidth greater than 950 Mbps: 9 base packets and 3 redundant packets.

The mappings are matched from top to bottom, so the first mapping that matches the conditions will be used. In this case, the first mapping matches because the packet loss is greater than 10%. Therefore, the FEC behavior will be 2 redundant packets for every 8 base packets.

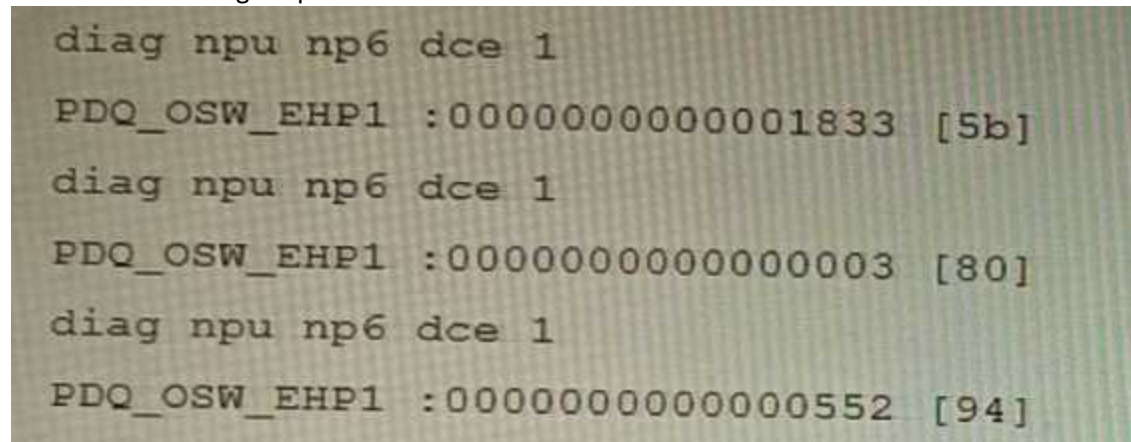
Reference: <https://docs.fortinet.com/document/fortigate/7.0.0/new-features/169010/adaptive-forward-error-correction-7-0-2>

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### Question: 2

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You are running a diagnose command continuously as traffic flows through a platform with NP6 and you obtain the following output:



```
diag npu np6 dce 1
PDQ_OSW_EHP1 :00000000000001833 [5b]
diag npu np6 dce 1
PDQ_OSW_EHP1 :0000000000000003 [80]
diag npu np6 dce 1
PDQ_OSW_EHP1 :00000000000000552 [94]
```

Given the information shown in the output, which two statements are true? (Choose two.)

- A. Enabling bandwidth control between the ISF and the NP will change the output
- B. The output is showing a packet descriptor queue accumulated counter
- C. Enable HPE shaper for the NP6 will change the output
- D. Host-shortcut mode is enabled.
- E. There are packet drops at the XAUI.

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**Answer: BE**

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Explanation:

The diagnose command shown in the output is used to display information about NP6 packet descriptor queues. The output shows that there are 16 NP6 units in total, and each unit has four XAUI ports (XA0-XA3). The output also shows that there are some non-zero values in the columns PDQ ACCU (packet descriptor queue accumulated counter) and PDQ DROP (packet descriptor queue drop counter). These values indicate that there are some packet descriptor queues that have reached their maximum capacity and have dropped some packets at the XAUI ports. This could be caused by congestion or misconfiguration of the XAUI ports or the ISF (Internal Switch Fabric). References: <https://docs.fortinet.com/document/fortigate/7.0.0/cli-reference/19662/diagnose-np6-pdq>

The output is showing a packet descriptor queue accumulated counter, which is a measure of the number of packets that have been dropped by the NP6 due to congestion. The counter will increase if there are more packets than the NP6 can handle, which can happen if the bandwidth between the ISF and the NP is not sufficient or if the HPE shaper is enabled.

The output also shows that there are packet drops at the XAUI, which is the interface between the NP6 and the FortiGate's backplane. This means that the NP6 is not able to keep up with the traffic and is dropping packets.

The other statements are not true. Host-shortcut mode is not enabled, and enabling bandwidth control between the ISF and the NP will not change the output. HPE shaper is a feature that can be enabled to improve performance, but it will not change the output of the diagnose command.

Reference: <https://docs.fortinet.com/document/fortigate/7.4.0/hardware-acceleration/48875/diagnose-npu-np6-dce-np6-id-number-of-dropped-np6-packets>

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**Question: 3**

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Which two methods are supported for importing user defined Lookup Table Data into the FortiSIEM? (Choose two.)

- A. Report
- B. FTP
- C. API
- D. SCP

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**Answer: AC**

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Explanation:

FortiSIEM supports two methods for importing user defined Lookup Table Data:

Report: You can import lookup table data from a report. This is the most common method for importing lookup table data.

API: You can also import lookup table data using the FortiSIEM API. This is a more advanced method that allows you to import lookup table data programmatically.

FTP, SCP, and other file transfer protocols are not supported for importing lookup table data into FortiSIEM.

Reference: [https://help.fortinet.com/fsiem/6-7-4/Online-Help/HTML5\\_Help/importing\\_lookup\\_table\\_data.htm](https://help.fortinet.com/fsiem/6-7-4/Online-Help/HTML5_Help/importing_lookup_table_data.htm)

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**Question: 4**

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What is the benefit of using FortiGate NAC LAN Segments?

- A. It provides support for multiple DHCP servers within the same VLAN.
- B. It provides physical isolation without changing the IP address of hosts.
- C. It provides support for IGMP snooping between hosts within the same VLAN
- D. It allows for assignment of dynamic address objects matching NAC policy.

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**Answer: D**

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Explanation:

FortiGate NAC LAN Segments are a feature that allows users to assign different VLANs to different LAN segments without changing the IP address of hosts or bouncing the switch port. This provides physical isolation while maintaining firewall sessions and avoiding DHCP issues. One benefit of using FortiGate NAC LAN Segments is that it allows for assignment of dynamic address objects matching NAC policy. This means that users can create firewall policies based on dynamic address objects that match the NAC policy criteria, such as device type, OS type, MAC address, etc. This simplifies firewall policy management and enhances security by applying different security profiles to different types of devices.

References: <https://docs.fortinet.com/document/fortigate/7.0.0/new-features/856212/nac-lan-segments-7-0-1>

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**Question: 5**

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You are troubleshooting a FortiMail Cloud service integrated with Office 365 where outgoing emails are not reaching the recipients' mail What are two possible reasons for this problem? (Choose two.)

- A. The FortiMail access control rule to relay from Office 365 servers FQDN is missing.
- B. The FortiMail DKIM key was not set using the Auto Generation option.
- C. The FortiMail access control rules to relay from Office 365 servers public IPs are missing.
- D. A Mail Flow connector from the Exchange Admin Center has not been set properly to the FortiMail Cloud FQDN.

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**Answer: AD**

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Explanation:

A. The FortiMail access control rule to relay from Office 365 servers FQDN is missing.

If the access control rule to relay from Office 365 servers FQDN is missing, then FortiMail will not be able to send emails to Office 365. This is because the access control rule specifies which IP addresses or domains are allowed to relay emails through FortiMail.

D. A Mail Flow connector from the Exchange Admin Center has not been set properly to the FortiMail Cloud FQDN.

If the Mail Flow connector from the Exchange Admin Center is not set properly to the FortiMail Cloud FQDN, then Office 365 will not be able to send emails to FortiMail. This is because the Mail Flow connector specifies which SMTP server is used to send emails to external recipients.