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Exam Code: PCNSE
Exam Name: Palo Alto Networks Certified Network Security Engineer



Exam A

QUESTION 1

An administrator has configured the Palo Alto Networks NGFW's management interface to connect to the internet through a dedicated path that does not traverse back through the NGFW itself.

Which configuration setting or step will allow the firewall to get automatic application signature updates?

- A. A scheduler will need to be configured for application signatures.
- B. A Security policy rule will need to be configured to allow the update requests from the firewall to the update servers.
- C. A Threat Prevention license will need to be installed.
- D. A service route will need to be configured.

Correct Answer: A

Section:

Explanation:

Reference: <https://www.paloaltonetworks.com/documentation/80/pan-os/web-interface-help/device/device-dynamic-updates>

QUESTION 2

Before an administrator of a VM-500 can enable DoS and zone protection, what actions need to be taken?

- A. Measure and monitor the CPU consumption of the firewall data plane to ensure that each firewall is properly sized to support DoS and zone protection
- B. Create a zone protection profile with flood protection configured to defend an entire egress zone against SYN, ICMP, ICMPv6, UDP, and other IP flood attacks
- C. Add a WildFire subscription to activate DoS and zone protection features
- D. Replace the hardware firewall because DoS and zone protection are not available with VM-Series systems

Correct Answer: A

Section:

Explanation:

1 - <https://docs.paloaltonetworks.com/best-practices/8-1/dos-and-zone-protection-best-practices/dos-and-zone-protection-best-practices/deploy-dos-and-zone-protection-using-bestpractices.html#:~:text=DoS%20and%20Zone%20Protection%20help,device%20at%20the%20internet%20perimeter>.

2 - <https://docs.paloaltonetworks.com/pan-os/8-1/pan-os-admin/zone-protection-and-dosprotection/zone-defense/take-baseline-cps-measurements-for-setting-flood-thresholds/how-to-measure-cps.html>

<https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/zone-protection-and-dosprotection.html>

QUESTION 3

An engineer wants to implement the Palo Alto Networks firewall in VWire mode on the internet gateway and wants to be sure of the functions that are supported on the vwire interface. What are three supported functions on the VWire interface? (Choose three)

- A. NAT
- B. QoS
- C. IPSec
- D. OSPF
- E. SSL Decryption

Correct Answer: A, B, E

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/networking/configure-interfaces/virtual-wire-interfaces>"The virtual wire supports blocking or allowing traffic based on virtual LAN (VLAN) tags, in addition to supporting security policy rules, App-ID, Content-ID, User-ID, decryption, LLDP, active/passive and active/active HA, QoS, zone protection (with some exceptions), non-IP protocol protection, DoS protection, packet buffer protection, tunnel content inspection, and NAT."

QUESTION 4

An engineer decides to use Panorama to upgrade devices to PAN-OS 10.2. Which three platforms support PAN-OS 10.2? (Choose three.)

- A. PA-5000 Series
- B. PA-500
- C. PA-3400Series
- D. PA-220
- E. PA-800 Series

Correct Answer: C, D, E

Section:

QUESTION 5

An engineer manages a high availability network and requires fast failover of the routing protocols. The engineer decides to implement BFD. Which three dynamic routing protocols support BFD? (Choose three.)

- A. OSPF
- B. RIP
- C. BGP
- D. IGRP
- E. OSPFv3 virtual link

Correct Answer: A, B, C

Section:

QUESTION 6

Refer to the exhibit.



```
#####  
admin@Lab33-111-PA-3060(active)>show routing fib
```

id	destination	nexthop	flags	interface	mtu
47	0.0.0.0/0	10.46.40.1	ug	ethernet1/3	1500
46	10.46.40.0/23	0.0.0.0	u	ethernet1/3	1500
45	10.46.41.111/32	0.0.0.0	uh	ethernet1/3	1500
70	10.46.41.113/32	10.46.40.1	ug	ethernet1/3	1500
51	192.168.111.0/24	0.0.0.0	u	ethernet1/6	1500
50	192.168.111.2/32	0.0.0.0	uh	ethernet1/6	1500

```
#####  
admin@Lab33-111-PA-3060(active)>show virtual-wire all
```

total virtual-wire shown:
flags: m-multicast firewalling
p= link state pass-through
s- vlan sub-interface
i- ip+vlan sub-interface
t-tenant sub-interface

name	interface1	interface2	flags	allowed-tags
VW-1	ethernet1/7	ethernet1/5	p	



Which will be the egress interface if the traffic's ingress interface is ethernet1/7 sourcing from 192.168.111.3 and to the destination 10.46.41.113?

- A. ethernet1/6
- B. ethernet1/3
- C. ethernet1/7
- D. ethernet1/5

Correct Answer: D
Section:

QUESTION 7

An engineer is configuring a template in Panorama which will contain settings that need to be applied to all firewalls in production. Which three parts of a template an engineer can configure? (Choose three.)

- A. NTP Server Address
- B. Antivirus Profile
- C. Authentication Profile

- D. Service Route Configuration
- E. Dynamic Address Groups

Correct Answer: A, C, D

Section:

Explanation:

NTP Server Address D.Service Route Configuration Short Explanation of Correct Answer Only: These parts of a template can be configured on Panorama1.An antivirus profile and an authentication profile are not parts of a template, but parts of a device group2. Reference:1: <https://docs.paloaltonetworks.com/panorama/10-1/panorama-admin/manage-firewalls/manage-templates-and-template-stacks/templates-and-template-stacks-overview2>: <https://docs.paloaltonetworks.com/panorama/10-1/panorama-admin/manage-firewalls/manage-device-groups/device-group-overview>

QUESTION 8

A security engineer needs firewall management access on a trusted interface.

Which three settings are required on an SSL/TLS Service Profile to provide secure Web UI authentication? (Choose three.)

- A. Minimum TLS version
- B. Certificate
- C. Encryption Algorithm
- D. Maximum TLS version
- E. Authentication Algorithm

Correct Answer: A, B, D

Section:

QUESTION 9

An administrator notices that an interface configuration has been overridden locally on a firewall. They require all configuration to be managed from Panorama and overrides are not allowed. What is one way the administrator can meet this requirement?

- A. Perform a commit force from the CLI of the firewall.
- B. Perform a template commit push from Panorama using the 'Force Template Values' option.
- C. Perform a device-group commit push from Panorama using the 'Include Device and Network Templates' option.
- D. Reload the running configuration and perform a Firewall local commit

Correct Answer: B

Section:

Explanation:

This option will overwrite any local configuration on the firewall with the template configuration from Panorama1.Performing a commit force from the CLI of the firewall will not remove the local override2.Performing a device-group commit push from Panorama using the "Include Device and Network Templates" option will not remove the local override3.Reload the running configuration and performing a Firewall local commit will not remove the local override. Reference:1: <https://docs.paloaltonetworks.com/panorama/10-1/panorama-admin/manage-firewalls/manage-templates-and-template-stacks/force-template-values2>: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-cli-quick-start/use-the-cli/commit-changes3>: <https://docs.paloaltonetworks.com/panorama/10-1/panorama-admin/manage-firewalls/manage-device-groups/push-policy-and-configuration-to-firewalls> : <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/firewall-administration/manage-firewall-configurations/revert-to-a-previous-configuration>

QUESTION 10

A firewall engineer reviews the PAN-OS GlobalProtect application and sees that it implicitly uses web-browsing and depends on SSL.

When creating a new rule, what is needed to allow the application to resolve dependencies?

- A. Add SSL and web-browsing applications to the same rule.
- B. Add web-browsing application to the same rule.
- C. Add SSL application to the same rule.
- D. SSL and web-browsing must both be explicitly allowed

Correct Answer: C

Section:

QUESTION 11

An administrator has configured OSPF with Advanced Routing enabled on a Palo Alto Networks firewall running PAN-OS 10.2. After OSPF was configured, the administrator noticed that OSPF routes were not being learned.

Which two actions could an administrator take to troubleshoot this issue? (Choose two.)

- A. Run the CLI command `show advanced-routing ospf neighbor`
- B. In the WebUI, view the Runtime Stats in the logical router.
- C. In the WebUI, view the Runtime Stats in the virtual router.
- D. Look for configuration problems in Network > virtual router > OSPF
- E.

Correct Answer: A, C

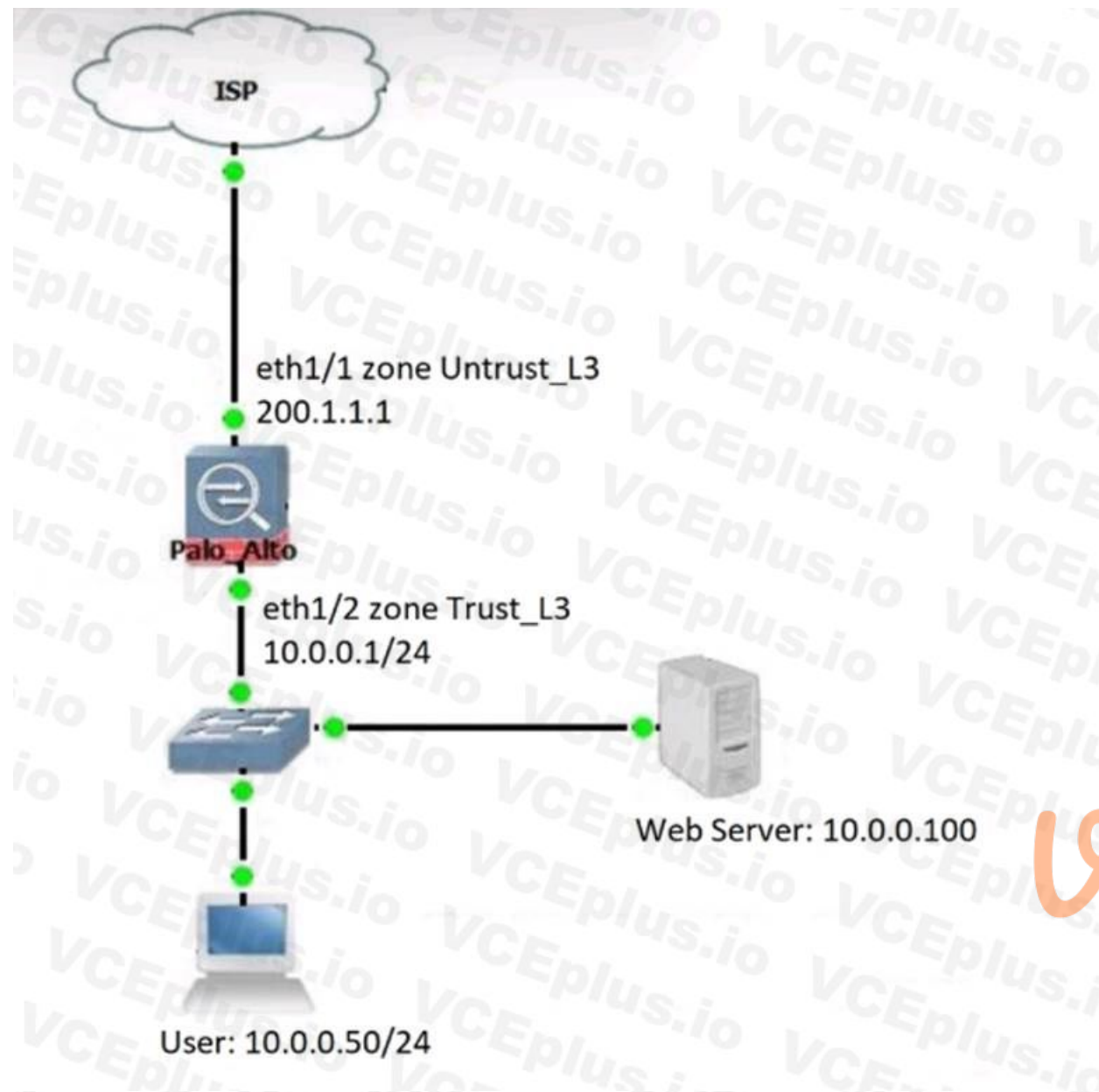
Section:

QUESTION 12

Review the information below. A firewall engineer creates a U-NAT rule to allow users in the trust zone access to a server in the same zone by using an external, public NAT IP for that server.

Given the rule below, what change should be made to make sure the NAT works as expected?





Vdumps

ID	NAME	TAGS	Original Packet						
			SOURCE ZONE	DESTINATION ZONE	DESTINATION INTERFACE	SOURCE ADDRESS	DESTINATION ADDRESS	SERVICE	SOURCE TRANSLATION
1	same zone U-Turn NAT	none	Trust_L3	Untrust_L3	any	10.0.0.50	web-server-pu...	any	none

- A. Change destination NAT zone to Trust_L3.
- B. Change destination translation to Dynamic IP (with session distribution) using firewall eth1/2 address.
- C. Change Source NAT zone to Untrust_L3.
- D. Add source Translation to translate original source IP to the firewall eth1/2 interface translation.

Correct Answer: D

Section:

QUESTION 13

Where is information about packet buffer protection logged?

- A. Alert entries are in the Alarms log. Entries for dropped traffic, discarded sessions, and blocked IP address are in the Threat log
- B. All entries are in the System log
- C. Alert entries are in the System log. Entries for dropped traffic, discarded sessions and blocked IP addresses are in the Threat log
- D. All entries are in the Alarms log

Correct Answer: D

Section:

Explanation:

WHICH SYSTEM LOGS AND THREAT LOGS ARE GENERATED WHEN PACKET BUFFER PROTECTION

Created On 10/29/19 15:51 PM - Last Modified 04/27/20 22:13 PM

ZONE PROTECTION ZONE AND DOS PROTECTION 8.1 8.0 9.0 HARDWARE

Question
Which system logs and threat logs are generated when packet buffer protection is enabled?

Environment

- PAN-OS 8.x
- PBP

Answer
The firewall records alert events in the System log and events for dropped traffic, discarded sessions, and blocked IP address in the Threat log.

- System logs:
Logs:
Monitor>System
Packet buffer congestion
Severity: Informational
- Threat logs:

Vdumps

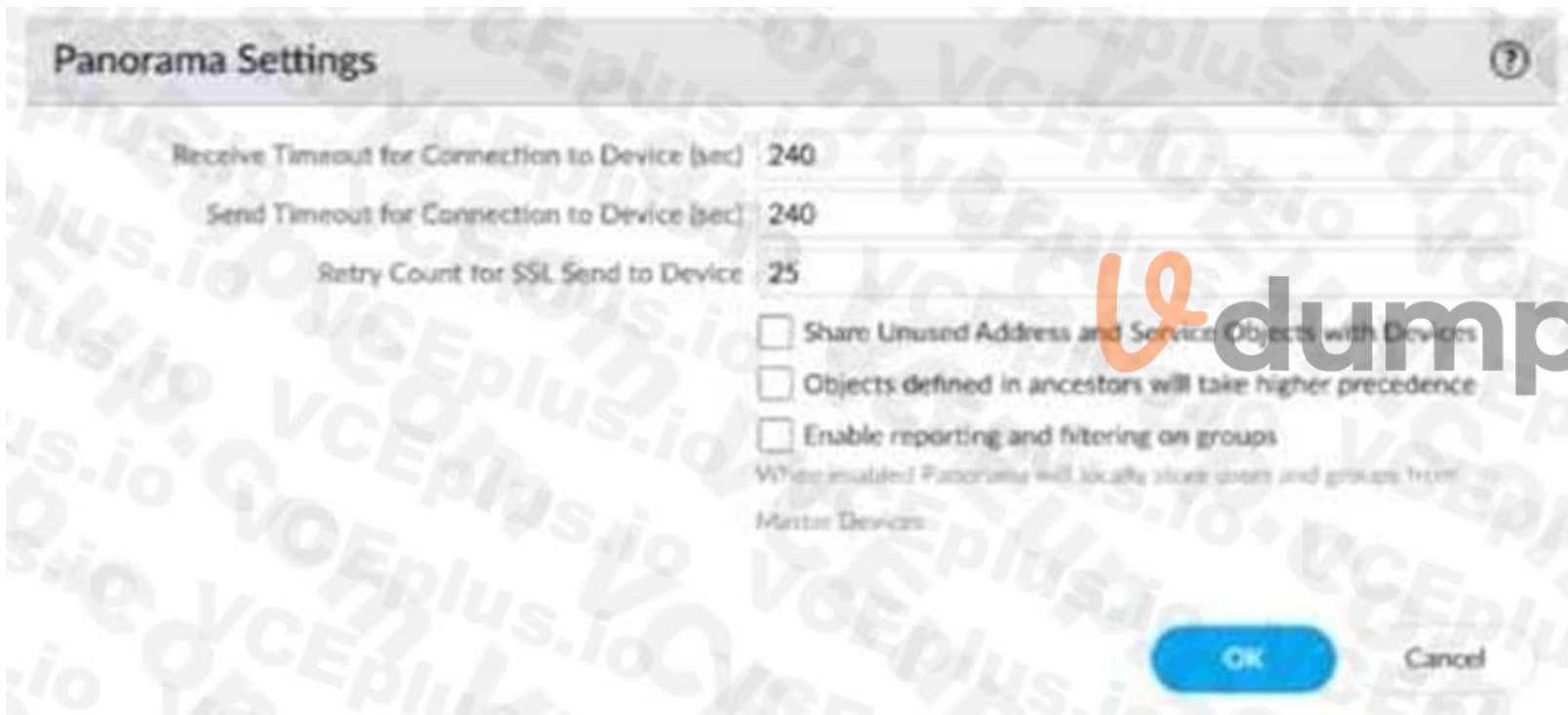
QUESTION 14

An administrator can not see any Traffic logs from the Palo Alto Networks NGFW in Panorama reports. The configuration problem seems to be on the firewall. Which settings, if configured incorrectly, most likely would stop only Traffic logs from being sent from the NGFW to Panorama?

- A.



B.



C.



D.



- E. Option A
- F. Option B
- G. Option C
- H. Option D

Correct Answer: C

Section:

QUESTION 15

Which statement is true regarding a Best Practice Assessment?

- A. It shows how your current configuration compares to Palo Alto Networks recommendations
- B. It runs only on firewalls
- C. When guided by an authorized sales engineer, it helps determine the areas of greatest risk where you should focus prevention activities.
- D. It provides a set of questionnaires that help uncover security risk prevention gaps across all areas of network and security architecture

Correct Answer: A

Section:

Explanation:

The Best Practice Assessment (BPA) tool compares the configuration of firewalls and Panorama to the Palo Alto Networks best practice recommendations. Run the BPA periodically to identify security weaknesses, see the best practice settings, and implement them to improve your security posture. <https://docs.paloaltonetworks.com/best-practices/10-2/bpa-getting-started>

QUESTION 16

A network administrator plans a Prisma Access deployment with three service connections, each with a BGP peering to a CPE. The administrator needs to minimize the BGP configuration and management overhead on on-prem network devices.

What should the administrator implement?

- A. target service connection for traffic steering
- B. summarized BGP routes before advertising
- C. hot potato routing
- D. default routing

Correct Answer: B

Section:

Explanation:

The best way to minimize the BGP configuration and management overhead on on-prem network devices is to summarize BGP routes before advertising them. Route summarization is a technique that reduces the number of routes in a routing table by aggregating multiple routes into a single route with a less specific prefix. This reduces the size of routing updates and the memory and CPU usage of routers. Prisma Access supports route summarization for service connections and remote network connections that use BGP routing¹. You should not implement target service connection for traffic steering, as this is a feature that allows you to select a specific service connection for traffic from a remote network connection or a mobile user based on destination IP address or application. This does not affect the BGP configuration or management on on-prem network devices². You should not implement hot potato routing, as this is a routing technique that selects the closest exit point to the destination network based on the number of hops or the lowest IGP metric. This does not affect the BGP configuration or management on on-prem network devices³. You should not implement default routing, as this is a routing technique that uses a default route to forward packets to an unknown destination. This does not affect the BGP configuration or management on on-prem network devices, and it may not provide optimal routing for Prisma Access traffic⁴. Reference: 1: <https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-panorama-admin/prepare-the-prisma-access-infrastructure/service-connection-overview/configure-route-summarization-for-service-connections> 2: <https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-panorama-admin/prepare-the-prisma-access-infrastructure/service-connection-overview/target-service-connection-for-traffic-steering> 3: <https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-cloud-managed-admin/prisma-access-service-connections/service-connection-routing> 4: <https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-cloud-managed-admin/prisma-access-service-connections/service-connection-routing/routing-for-service-connection-traffic-cloud-management.html>

QUESTION 17

Using multiple templates in a stack to manage many firewalls provides which two advantages?

(Choose two.)

- A. inherit address-objects from templates
- B. define a common standard template configuration for firewalls
- C. standardize server profiles and authentication configuration across all stacks
- D. standardize log-forwarding profiles for security policies across all stacks

Correct Answer: B, C

Section:



Explanation:

Using multiple templates in a stack to manage many firewalls provides the advantages of defining a common standard template configuration for firewalls and standardizing server profiles and authentication configuration across all stacks.

A template stack is a container for multiple templates that you can assign to firewalls and firewall groups. The templates in a stack are prioritized so that the settings in a higher-priority template override the same settings in a lower-priority template. This allows you to create a hierarchy of templates that define common settings for all firewalls and specific settings for different groups of firewalls.

Reference: <https://docs.paloaltonetworks.com/panorama/9-1/panorama-admin/manage-firewalls/manage-templates-and-template-stacks>

QUESTION 18

A network security engineer is attempting to peer a virtual router on a PAN-OS firewall with an external router using the BGP protocol. The peer relationship is not establishing. What command could the engineer run to see the current state of the BGP state between the two devices?

- A. show routing protocol bgp state
- B. show routing protocol bgp peer
- C. show routing protocol bgp summary
- D. show routing protocol bgp rib-out

Correct Answer: C

Section:**Explanation:**

The show routing protocol bgp summary command displays the current state of the BGP peer relationship between the firewall and other BGP routers. The output includes the peer IP address, AS number, uptime, prefix count, state, and status codes. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-cli-quick-start/use-the-cli/show-the-routing-table-and-statistics>

QUESTION 19

A network security engineer must implement Quality of Service policies to ensure specific levels of delivery guarantees for various applications in the environment. They want to ensure that they know as much as they can about QoS before deploying.

Which statement about the QoS feature is correct?

- A. QoS is only supported on firewalls that have a single virtual system configured
- B. QoS can be used in conjunction with SSL decryption
- C. QoS is only supported on hardware firewalls
- D. QoS can be used on firewalls with multiple virtual systems configured

Correct Answer: D

Section:**Explanation:**

The correct answer is D - QoS can be used on firewalls with multiple virtual systems configured. QoS is a feature that enables network administrators to prioritize and manage network traffic to ensure that critical applications receive the necessary bandwidth and quality of service. This feature can be used on firewalls with multiple virtual systems, allowing administrators to configure policies on a per-Virtual System basis. Additionally, QoS can be used in conjunction with SSL decryption to ensure that applications running over SSL receive appropriate treatment.

QUESTION 20

Which statement regarding HA timer settings is true?

- A. Use the Recommended profile for typical failover timer settings
- B. Use the Moderate profile for typical failover timer settings
- C. Use the Aggressive profile for slower failover timer settings.
- D. Use the Critical profile for faster failover timer settings.

Correct Answer: A

Section:**Explanation:**

The Recommended profile is the default profile that provides typical failover timer settings for most deployments. The other profiles are designed for specific scenarios where faster or slower failover is desired. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/high-availability/ha-concepts/ha-timers>

QUESTION 21

When you navigate to Network: > GlobalProtect > Portals > Method section, which three options are available? (Choose three)

- A. user-logon (always on)
- B. pre-logon then on-demand
- C. on-demand (manual user initiated connection)
- D. post-logon (always on)
- E. certificate-logon

Correct Answer: A, B, C

Section:**Explanation:**

The Method section of the GlobalProtect portal configuration allows you to specify how users connect to the portal. The options are: user-logon (always on): The agent connects to the portal as soon as the user logs in to the endpoint. pre-logon then on-demand: The agent connects to the portal before the user logs in to the endpoint and then switches to on-demand mode after the user logs in. on-demand (manual user initiated connection): The agent connects to the portal only when the user initiates the connection manually. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/globalprotect/configure-the-globalprotect-portal/configure-the-agent/configure-the-app-tab.html>

QUESTION 22

An engineer must configure the Decryption Broker feature
Which Decryption Broker security chain supports bi-directional traffic flow?

- A. Layer 2 security chain
- B. Layer 3 security chain
- C. Transparent Bridge security chain
- D. Transparent Proxy security chain

Correct Answer: B

Section:**Explanation:**

Together, the primary and secondary interfaces form a pair of decryption forwarding interfaces. Only interfaces that you have enabled to be Decrypt Forward interfaces are displayed here. Your security chain type (Layer 3 or Transparent Bridge) and the traffic flow direction (unidirectional or bidirectional) determine which of the two interfaces forwards allowed, clear text traffic to the security chain, and which interface receives the traffic back from the security chain after it has undergone additional enforcement.

QUESTION 23

When configuring forward error correction (FEC) for PAN-OS SD-WAN, an administrator would turn on the feature inside which type of SD-WAN profile?

- A. Certificate profile
- B. Path Quality profile
- C. SD-WAN Interface profile
- D. Traffic Distribution profile

Correct Answer: C

Section:

Explanation:

To enable forward error correction (FEC) for PAN-OS SD-WAN, you need to create an SD-WAN Interface Profile that specifies Eligible for Error Correction Profile interface selection and apply the profile to one or more interfaces. Then you need to create an Error Correction Profile to implement FEC or packet duplication. Reference: <https://docs.paloaltonetworks.com/sd-wan/2-0/sd-wan-admin/configure-sd-wan/create-an-error-correction-profile>

QUESTION 24

What is the best description of the HA4 Keep-Alive Threshold (ms)?

- A. the maximum interval between hello packets that are sent to verify that the HA functionality on the other firewall is operational.
- B. The time that a passive or active-secondary firewall will wait before taking over as the active or active-primary firewall
- C. the timeframe within which the firewall must receive keepalives from a cluster member to know that the cluster member is functional.
- D. The timeframe that the local firewall wait before going to Active state when another cluster member is preventing the cluster from fully synchronizing.

Correct Answer: C

Section:

QUESTION 25

What happens when an A/P firewall cluster synchronizes IPsec tunnel security associations (SAs)?

- A. Phase 2 SAs are synchronized over HA2 links
- B. Phase 1 and Phase 2 SAs are synchronized over HA2 links
- C. Phase 1 SAs are synchronized over HA1 links
- D. Phase 1 and Phase 2 SAs are synchronized over HA3 links

Correct Answer: A

Section:

QUESTION 26

A standalone firewall with local objects and policies needs to be migrated into Panorama. What procedure should you use so Panorama is fully managing the firewall?

- A. Use the "import Panorama configuration snapshot" operation, then perform a device-group commit push with "include device and network templates"
- B. Use the "import device configuration to Panorama" operation, then "export or push device config bundle" to push the configuration
- C. Use the "import Panorama configuration snapshot" operation, then "export or push device config bundle" to push the configuration
- D. Use the "import device configuration to Panorama" operation, then perform a device-group commit push with "include device and network templates"

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/panorama/9-1/panorama-admin/manage-firewalls/transition-a-firewall-to-panorama-management/migrate-a-firewall-to-panorama-management.html>

QUESTION 27

Before you upgrade a Palo Alto Networks NGFW, what must you do?

- A. Make sure that the PAN-OS support contract is valid for at least another year
- B. Export a device state of the firewall
- C. Make sure that the firewall is running a version of antivirus software and a version of WildFire that support the licensed subscriptions.
- D. Make sure that the firewall is running a supported version of the app + threat update



Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-upgrade/upgrade-pan-os/pan-os-upgrade-checklist#id53a2bc2b-f86e-4ee5-93d7-b06aff837a00> "Verify the minimum content release version." Before you upgrade, make sure the firewall is running a version of app + threat (content version) that meets the minimum requirement of the new PAN-OS <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000CIRrCAK>

QUESTION 28

A prospect is eager to conduct a Security Lifecycle Review (SLR) with the aid of the Palo Alto Networks NGFW.

Which interface type is best suited to provide the raw data for an SLR from the network in a way that is minimally invasive?

- A. Layer 3
- B. Virtual Wire
- C. Tap
- D. Layer 2

Correct Answer: C

Section:

Explanation:

A tap interface is best suited to provide the raw data for an SLR from the network in a way that is minimally invasive. A tap interface allows the firewall to passively monitor network traffic without affecting the flow of traffic. The firewall can analyze the traffic and generate reports based on the application, user, content, and threat information. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/networking/configure-interfaces/configure-a-tap-interface>

QUESTION 29

A remote administrator needs firewall access on an untrusted interface. Which two components are required on the firewall to configure certificate-based administrator authentication to the web UI? (Choose two)

- A. client certificate
- B. certificate profile
- C. certificate authority (CA) certificate
- D. server certificate

Correct Answer: B, C

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/firewall-administration/managefirewall-administrators/configure-administrative-accounts-and-authentication/configure-certificatebased-administrator-authentication-to-the-web-interface.html>

QUESTION 30

When planning to configure SSL Forward Proxy on a PA 5260, a user asks how SSL decryption can be implemented using phased approach in alignment with Palo Alto Networks best practices What should you recommend?

- A. Enable SSL decryption for known malicious source IP addresses
- B. Enable SSL decryption for source users and known malicious URL categories
- C. Enable SSL decryption for malicious source users
- D. Enable SSL decryption for known malicious destination IP addresses

Correct Answer: B

Section:

Explanation:

According to the Palo Alto Networks best practices, one of the ways to implement SSL decryption using a phased approach is to enable SSL decryption for source users and known malicious URL categories. This will allow you to block or alert on traffic that is likely to be malicious or risky, while minimizing the impact on legitimate traffic and user privacy. Reference: <https://docs.paloaltonetworks.com/best-practices/9-1/decryption-best-practices/decryption-best-practices/deploy-ssl-decryption-using-a-phased-approach>

QUESTION 31

What would allow a network security administrator to authenticate and identify a user with a new BYOD-type device that is not joined to the corporate domain'?

- A. a Security policy with 'known-user' selected in the Source User field
- B. an Authentication policy with 'unknown' selected in the Source User field
- C. a Security policy with 'unknown' selected in the Source User field
- D. an Authentication policy with 'known-user' selected in the Source User field

Correct Answer: B

Section:

Explanation:

An Authentication policy with 'unknown' selected in the Source User field would allow a network security administrator to authenticate and identify a user with a new BYOD-type device that is not joined to the corporate domain. This policy would prompt the user to enter their credentials when they access a web-based application or service that requires authentication. The firewall would then use User-ID to map the user to the device and apply the appropriate security policies based on the user identity. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/authentication/configure-an-authentication-policy>

QUESTION 32

What are three valid qualifiers for a Decryption Policy Rule match? (Choose three.)

- A. Destination Zone
- B. App-ID
- C. Custom URL Category
- D. User-ID
- E. Source Interface

Correct Answer: A, C, D

Section:

Explanation:

The valid qualifiers for a Decryption Policy Rule match are: Source Zone Destination Zone Source Address Destination Address Source User Destination User Source Region Destination Region Service/URL Category Custom URL Category URL Filtering Profile Therefore, out of the options given, Destination Zone, Custom URL Category, and User-ID are valid qualifiers. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/decryption/configure-decryption-policies.html>

QUESTION 33

What are two common reasons to use a "No Decrypt" action to exclude traffic from SSL decryption? (Choose two.)

- A. the website matches a category that is not allowed for most users
- B. the website matches a high-risk category
- C. the web server requires mutual authentication
- D. the website matches a sensitive category

Correct Answer: C, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/decryption/decryptionexclusions/palo-alto-networks-predefined-decryption-exclusions.html> The firewall provides a predefined SSL Decryption Exclusion list to



exclude from decryption commonly used sites that break decryption because of technical reasons such as pinned certificates and mutual authentication.

QUESTION 34

An administrator has a PA-820 firewall with an active Threat Prevention subscription. The administrator is considering adding a WildFire subscription. How does adding the WildFire subscription improve the security posture of the organization?

- A. Protection against unknown malware can be provided in near real-time
- B. WildFire and Threat Prevention combine to provide the utmost security posture for the firewall
- C. After 24 hours WildFire signatures are included in the antivirus update
- D. WildFire and Threat Prevention combine to minimize the attack surface

Correct Answer: A

Section:

Explanation:

Adding a WildFire subscription can improve the security posture of the organization by providing protection against unknown malware in near real-time. With a WildFire subscription, the firewall can forward various file types for WildFire analysis, and can retrieve WildFire signatures for newly-discovered malware as soon as they are generated by the WildFire public cloud or a private cloud appliance. This reduces the exposure window and prevents further infection by the same malware. Reference: <https://docs.paloaltonetworks.com/wildfire/9-1/wildfire-admin/wildfire-overview/wildfire-subscription>

QUESTION 35

What are two valid deployment options for Decryption Broker? (Choose two)

- A. Transparent Bridge Security Chain
- B. Layer 3 Security Chain
- C. Layer 2 Security Chain
- D. Transparent Mirror Security Chain

Correct Answer: A, B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-0/pan-os-admin/decryption/decryption-broker/decryption-broker-concepts>

QUESTION 36

An administrator needs to assign a specific DNS server to one firewall within a device group. Where would the administrator go to edit a template variable at the device level?

- A. Variable CSV export under Panorama > templates
- B. PDF Export under Panorama > templates
- C. Manage variables under Panorama > templates
- D. Managed Devices > Device Association

Correct Answer: C

Section:

Explanation:

To edit a template variable at the device level, you need to go to Manage variables under Panorama > templates. This allows you to override the default value of a variable for a specific device or device group. For example, you can assign a specific DNS server to one firewall within a device group by editing the `$(dns-primary)` variable for that device. Reference: <https://docs.paloaltonetworks.com/panorama/10-1/panorama-admin/manage-firewalls/manage-templates/use-template-variables.html>

QUESTION 37

A customer wants to set up a VLAN interface for a Layer 2 Ethernet port.



Which two mandatory options are used to configure a VLAN interface? (Choose two.)

- A. Virtual router
- B. Security zone
- C. ARP entries
- D. Netflow Profile

Correct Answer: A, B

Section:

Explanation:

Reference: <https://www.paloaltonetworks.com/documentation/80/pan-os/web-interfacehelp/network/network-interfaces/pa-7000-series-layer-2-interface#idd2bcaacc-54b9-4ec9-a1dd-8064499f5b9d>
<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClRqCAK> VLAN interface is not necessary but in this scenario we assume it is. Create VLAN object, VLAN interface and VLAN Zone. Attach VLAN interface to VLAN object together with two L2 interfaces then attach VLAN interface to virtual router. Without VLAN interface you can pass traffic between interfaces on the same network and with VLAN interface you can route traffic to other networks.

QUESTION 38

A network administrator troubleshoots a VPN issue and suspects an IKE Crypto mismatch between peers. Where can the administrator find the corresponding logs after running a test command to initiate the VPN?

- A. Configuration logs
- B. System logs
- C. Traffic logs
- D. Tunnel Inspection logs

Correct Answer: B

Section:

Explanation:

According to the Palo Alto Networks documentation, "To view IKE and IPsec Crypto profiles in the logs, filter the System log for eventid equal to vpn (Monitor > Logs > System)."
Reference: <https://docs.paloaltonetworks.com/pan-os/10-0/pan-os-admin/vpn/set-up-site-to-site-vpn/set-up-ike-crypto-profiles.html>

QUESTION 39

An administrator is using Panorama to manage me and suspects an IKE Crypto mismatch between peers, from the firewalls to Panorama. However, pre-existing logs from the firewalls are not appearing in Panorama. Which action should be taken to enable the firewalls to send their pre-existing logs to Panorama?

- A. Export the log database.
- B. Use the import option to pull logs.
- C. Use the ACC to consolidate the logs.
- D. Use the scp logdb export command.

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-cli-quick-start/use-the-cli/use-secure-copy-to-import-and-export-files/export-and-import-a-complete-log-database-logdb>

QUESTION 40

A firewall administrator is trying to identify active routes learned via BGP in the virtual router runtime stats within the GUI. Where can they find this information?

- A. routes listed in the routing table with flags Oi
- B. routes listed in the routing table with flags A?B

- C. under the BGP Summary tab
- D. routes listed in the forwarding table with BGP in the Protocol column

Correct Answer: B

Section:

Explanation:

Flags

A?BóActive and learned via BGP

A CóActive and a result of an internal interface (connected) - Destination = network

A HóActive and a result of an internal interface (connected) - Destination = Host only

A RóActive and learned via RIP

A SóActive and static

SóInactive (because this route has a higher metric) and static

O1óOSPF external type-1

O2óOSPF external type-2

OióOSPF intra-area

OoóOSPF inter-area

QUESTION 41

A bootstrap USB flash drive has been prepared using a Windows workstation to load the initial configuration of a Palo Alto Networks firewall that was previously being used in a lab. The USB flash drive was formatted using file system FAT32 and the initial configuration is stored in a file named initcfg.txt. The firewall is currently running PAN-OS 10.0 and using a lab config. The contents of init-cfg.txt in the USB flash drive are as follows:



```
type=dhcp-client
ip-address=
default-gateway=
netmask=
ipv6-address=
ipv6-default-gateway=
hostname=Ca-FW-DC1
panorama-server=10.5.107.20
panorama-server-2=10.5.107.21
tplname=FINANCE_TG4
dgname=finance_dg
dns-primary=10.5.6.6
dns-secondary=10.5.6.7
op-command-modes=multi-vsys,jumbo-frame
dhcp-send-hostname=yes
dhcp-send-client-id=yes
dhcp-accept-server-hostname=yes
dhcp-accept-server-domain=yes
```

 **Vdumps**

The USB flash drive has been inserted in the firewalls' USB port, and the firewall has been restarted using command:> request resort system Upon restart, the firewall fails to begin the bootstrapping process. The failure is caused because

- A. Firewall must be in factory default state or have all private data deleted for bootstrapping
- B. The hostname is a required parameter, but it is missing in init-cfg.txt
- C. The USB must be formatted using the ext3 file system, FAT32 is not supported
- D. PANOS version must be 91.x at a minimum but the firewall is running 10.0.x
- E. The bootstrap.xml file is a required file but it is missing

Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/8-1/pan-os-admin/firewall-administration/bootstrap-the-firewall/bootstrap-a-firewall-using-a-usb-flash-drive.html#id8378007f-d6e5-4f2d-84a4-5d50b0b3ad7d>

QUESTION 42

A network security engineer wants to prevent resource-consumption issues on the firewall.

Which strategy is consistent with decryption best practices to ensure consistent performance?

- A. Use RSA in a Decryption profile for higher-priority and higher-risk traffic, and use less processor-intensive decryption methods for lower-risk traffic
- B. Use PFS in a Decryption profile for higher-priority and higher-risk traffic, and use less processor-intensive decryption methods for lower-risk traffic
- C. Use Decryption profiles to downgrade processor-intensive ciphers to ciphers that are less processor-intensive
- D. Use Decryption profiles to drop traffic that uses processor-intensive ciphers

Correct Answer: C

Section:

Explanation:

According to the Palo Alto Networks documentation, "Decryption Profiles define the cipher suite settings the firewall accepts so you can protect against vulnerable, weak protocols and algorithms. You can also use Decryption Profiles to downgrade processor-intensive ciphers to ciphers that are less processor-intensive." Reference: <https://docs.paloaltonetworks.com/best-practices/10-2/decryption-best-practices/decryption-best-practices/data-center-decryption-profile.html>

QUESTION 43

An engineer is in the planning stages of deploying User-ID in a diverse directory services environment.

Which server OS platforms can be used for server monitoring with User-ID?

- A. Microsoft Terminal Server, Red Hat Linux, and Microsoft Active Directory
- B. Microsoft Active Directory, Red Hat Linux, and Microsoft Exchange
- C. Microsoft Exchange, Microsoft Active Directory, and Novell eDirectory
- D. Novell eDirectory, Microsoft Terminal Server, and Microsoft Active Directory

Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/compatibility-matrix/user-id-agent/which-servers-can-the-user-id-agent-monitor>

QUESTION 44

What are three reasons for excluding a site from SSL decryption? (Choose three.)

- A. the website is not present in English



- B. unsupported ciphers
- C. certificate pinning
- D. unsupported browser version
- E. mutual authentication

Correct Answer: B, C, E

Section:

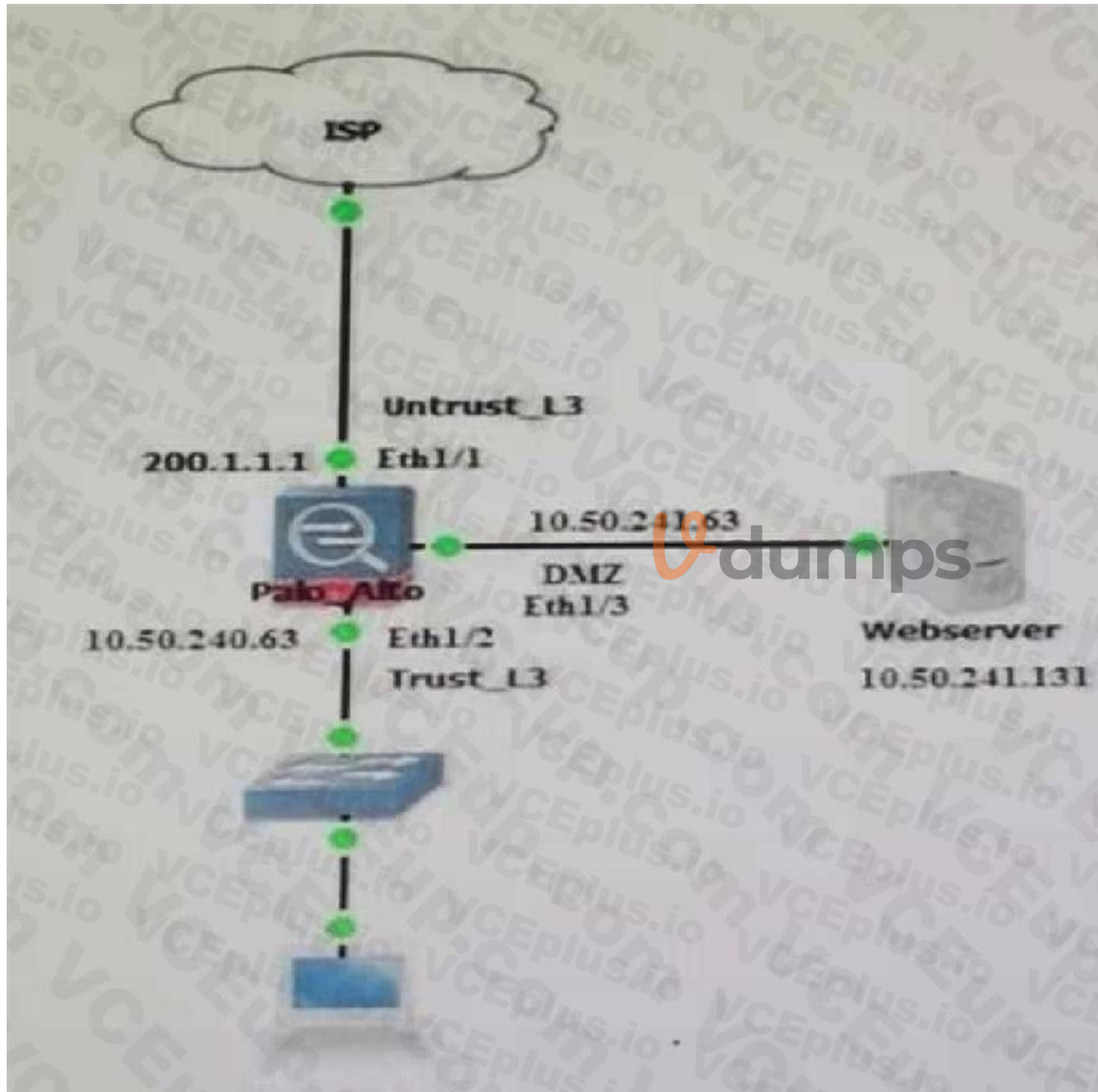
Explanation:

Reasons that sites break decryption technically include pinned certificates, client authentication, incomplete certificate chains, and unsupported ciphers. <https://docs.paloaltonetworks.com/panos/10-1/pan-os-admin/decryption/decryption-exclusions/exclude-a-server-from-decryption.html>

QUESTION 45

A user at an internal system queries the DNS server for their web server with a private IP of 10.250.241.131 in the. The DNS server returns an address of the web server's public address, 200.1.1.10. In order to reach the web server, which security rule and U-Turn NAT rule must be configured on the firewall?





A.

NAT Rule:
Source Zone: Trust_L3
Source IP: Any
Destination Zone: Untrust_L3
Destination IP: 200.1.1.10
Destination Translation address: 10.250.241.131

Security Rule:
Source Zone: Trust-L3
Source IP: Any
Destination Zone: DMZ
Destination IP: 200.1.1.10

B.

NAT Rule:
Source Zone: Untrust_L3
Source IP: Any
Destination Zone: DMZ
Destination IP: 200.1.1.10
Destination Translation address: 10.250.241.131

Security Rule:
Source Zone: Trust-L3
Source IP: Any
Destination Zone: DMZ
Destination IP: 10.250.241.131

C.

NAT Rule:

Source Zone: Trust_L3

Source IP: Any

Destination Zone: DMZ

Destination IP: 200.1.1.10

Destination Translation address: 10.250.241.131

Security Rule:

Source Zone: Untrust-L3

Source IP: Any

Destination Zone: DMZ

Destination IP: 10.250.241.131

D.

NAT Rule:

Source Zone: Untrust_L3

Source IP: Any

Destination Zone: Untrust_L3

Destination IP: 200.1.1.10

Destination Translation address: 10.250.241.131

Security Rule:

Source Zone: Untrust-L3

Source IP: Any

Destination Zone: DMZ

Destination IP: 10.250.241.131

Correct Answer: A

Section:

QUESTION 46

An administrator device-group commit push is tailing due to a new URL category How should the administrator correct this issue?

A. verify that the URL seed Tile has been downloaded and activated on the firewall

- B. change the new category action to alert" and push the configuration again
- C. update the Firewall Apps and Threat version to match the version of Panorama
- D. ensure that the firewall can communicate with the URL cloud

Correct Answer: C

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000PNqw>

QUESTION 47

SAML SLO is supported for which two firewall features? (Choose two.)

- A. GlobalProtect Portal
- B. CaptivePortal
- C. WebUI
- D. CLI

Correct Answer: A, B

Section:

Explanation:

SSO is available to administrators who access the web interface and to end users who access applications through GlobalProtect or Captive Portal. SLO is available to administrators and GlobalProtect end users, but not to Captive Portal end users.

<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/authentication/authentication-types/saml>

<https://docs.paloaltonetworks.com/pan-os/10-0/pan-os-web-interface-help/device/device-server-profiles-saml-identity-provider>

QUESTION 48

The manager of the network security team has asked you to help configure the company's Security Profiles according to Palo Alto Networks best practice. As part of that effort, the manager has assigned you the Vulnerability Protection profile for the internet gateway firewall.

Which action and packet-capture setting for items of high severity and critical severity best matches Palo Alto Networks best practice?

- A. action 'reset-both' and packet capture 'extended-capture'
- B. action 'default' and packet capture 'single-packet'
- C. action 'reset-both' and packet capture 'single-packet'
- D. action 'reset-server' and packet capture 'disable'

Correct Answer: C

Section:

QUESTION 49

The following objects and policies are defined in a device group hierarchy



Dallas-Branch has Dallas-FW as a member of the Dallas-Branch device-group
 NYC-DC has NYC-FW as a member of the NYC-DC device-group
 What objects and policies will the Dallas-FW receive if "Share Unused Address and Service Objects" is enabled in Panorama?

A.



Address Objects
- Shared Address1
- Shared Address2
- Branch Address1
Policies
- Shared Policy1
- Branch Policy1



B.



Address Objects

- Shared Address1

- Shared Address2

- Branch Address1

- DC Address1

Policies

- Shared Policy1

- Shared Policy2

- Branch Policy1

 **vdumps**

- C. Address Objects
 - Shared Address 1
 - Branch Address2 Policies
 - Shared Polic1 I
 - Branch Policy1
- D. Address Objects -Shared Address1 -Shared Address2 -Branch Address1 Policies -Shared Policy1 -Shared Policy2 -Branch Policy1

Correct Answer: A

Section:

QUESTION 50

An administrator is attempting to create policies for deployment of a device group and template stack. When creating the policies, the zone drop down list does not include the required zone. What must the administrator do to correct this issue?

- A. Specify the target device as the master device in the device group
- B. Enable "Share Unused Address and Service Objects with Devices" in Panorama settings
- C. Add the template as a reference template in the device group
- D. Add a firewall to both the device group and the template

Correct Answer: C

Section:

Explanation:

Short According to the Palo Alto Networks documentation, "To use a template stack for a device group, you must add the template stack as a reference template in the device group. This enables you to use zones and interfaces defined in the template stack when creating policies for the device group." Reference: <https://docs.paloaltonetworks.com/panorama/9-1/panorama-admin/manage-firewalls/manage-templates-and-template-stacks>

QUESTION 51

An administrator allocates bandwidth to a Prisma Access Remote Networks compute location with three remote networks. What is the minimum amount of bandwidth the administrator could configure at the compute location?

- A. 90Mbps
- B. 300 Mbps
- C. 75Mbps
- D. 50Mbps

Correct Answer: D

Section:

Explanation:

The number you specify for the bandwidth applies to both the egress and ingress traffic for the remote network connection. If you specify a bandwidth of 50 Mbps, Prisma Access provides you with a remote network connection with 50 Mbps of bandwidth on ingress and 50 Mbps on egress. Your bandwidth speeds can go up to 10% over the specified amount without traffic being dropped; for a 50 Mbps connection, the maximum bandwidth allocation is 55 Mbps on ingress and 55 Mbps on egress (50 Mbps plus 10% overage allocation).

<https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-panorama-admin/prismaaccess-for-networks/how-to-calculate-network-bandwidth>

QUESTION 52

What best describes the HA Promotion Hold Time?

- A. the time that is recommended to avoid an HA failover due to the occasional flapping of neighboring devices

- B. the time that is recommended to avoid a failover when both firewalls experience the same link/path monitor failure simultaneously
- C. the time that the passive firewall will wait before taking over as the active firewall after communications with the HA peer have been lost
- D. the time that a passive firewall with a low device priority will wait before taking over as the active firewall if the firewall is operational again

Correct Answer: C

Section:

Explanation:

HA Promotion Hold Time is the time that the passive firewall will wait before taking over as the active firewall after communications with the HA peer have been lost 2. Reference: 2: PAN-OS Æ New Features Guide

QUESTION 53

How would an administrator monitor/capture traffic on the management interface of the Palo Alto Networks NGFW?

- A. Use the debug dataplane packet-diag set capture stage firewall file command.
- B. Enable all four stages of traffic capture (TX, RX, DROP, Firewall).
- C. Use the debug dataplane packet-diag set capture stage management file command.
- D. Use the tcpdump command.

Correct Answer: D

Section:

Explanation:

Reference: <https://live.paloaltonetworks.com/t5/Learning-Articles/How-to-Run-a-Packet-Capture/ta-p/62390>

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/monitoring/take-packet-captures/take-a-packet-capture-on-the-management-interface.html>

QUESTION 54

What is the best description of the HA4 Keep-Alive Threshold (ms)?



- A. the maximum interval between hello packets that are sent to verify that the HA functionality on the other firewall is operational.
- B. The time that a passive or active-secondary firewall will wait before taking over as the active or active-primary firewall
- C. the timeframe within which the firewall must receive keepalives from a cluster member to know that the cluster member is functional.
- D. The timeframe that the local firewall wait before going to Active state when another cluster member is preventing the cluster from fully synchronizing.

Correct Answer: C

Section:

QUESTION 55

An internal system is not functioning. The firewall administrator has determined that the incorrect egress interface is being used. After looking at the configuration, the administrator believes that the firewall is not using a static route.

What are two reasons why the firewall might not use a static route? (Choose two.)

- A. no install on the route
- B. duplicate static route
- C. path monitoring on the static route
- D. disabling of the static route

Correct Answer: A, C

Section:

Explanation:

Reference: <https://docs.paloaltonetworks.com/pan-os/8-1/pan-os-admin/networking/static-routes/static-route-removal-based-on-path-monitoring.html>
<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/networking/static-routes/configure-a-static-route.html>

QUESTION 56

An administrator has configured PAN-OS SD-WAN and has received a request to find out the reason for a session failover for a session that has already ended. Where would you find this in Panorama or firewall logs?

- A. Traffic Logs
- B. System Logs
- C. Session Browser
- D. You cannot find failover details on closed sessions

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/sd-wan/1-0/sd-wan-admin/configure-sd-wan/sd-wan-traffic-distribution-profiles>

QUESTION 57

SSL Forward Proxy decryption is configured but the firewall uses Untrusted-CA to sign the website <https://www.important-website.com>. End-users are receiving the warning "security certificate is not trusted". Without SSL decryption, the web browser shows that the website certificate is trusted and signed by a well-known certificate chain: Well-Known-Intermediate and Well-Known-Root-CA.

The network security administrator who represents the customer requires the following two behaviors when SSL Forward Proxy is enabled:

1. End-users must not get the warning for the <https://www.very-important-website.com> website.
2. End-users should get the warning for any other untrusted website.

Which approach meets the two customer requirements?

- A. Navigate to Device > Certificate Management > Certificates > Device Certificates, import Well-Known-Intermediate-CA and Well-Known-Root-CA, select the Trusted Root CA checkbox, and commit the configuration.
- B. Install the Well-Known-Intermediate-CA and Well-Known-Root-CA certificates on all end-user systems in the user and local computer stores.
- C. Navigate to Device > Certificate Management - Certificates > Default Trusted Certificate Authorities, import Well-Known-Intermediate-CA and Well-Known-Root-CA, select the Trusted Root CA checkbox, and commit the configuration.
- D. Clear the Forward Untrust Certificate checkbox on the Untrusted-CA certificate and commit the configuration.

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-web-interface-help/device/device-certificate-management-certificates/manage-default-trusted-certificate-authorities>

QUESTION 58

Given the following snippet of a WildFire submission log, did the end-user get access to the requested information and why or why not?

TYPE	APPLICATION	ACTION	RULE	RULE UUID	BYTES	SEVERITY	CATEGORY	URL CATEGORY LIST	VERDICT
wildfire	smtp-base	allow	Watch Public DNS and SMTP	d96eb449-2...		high			malicious
wildfire	smtp-base	allow	Watch Public DNS and SMTP	d96eb449-2...		high			malicious
wildfire	smtp-base	allow	Watch Public DNS and SMTP	d96eb449-2...		high			malicious
wildfire	smtp-base	allow	Watch Public DNS and SMTP	d96eb449-2...		high			malicious
wildfire	smtp-base	allow	Watch Public DNS and SMTP	d96eb449-2...		high			malicious
file	smtp-base	alert	Watch Public DNS and SMTP	d96eb449-2...		low	any		
file	smtp-base	alert	Watch Public DNS and SMTP	d96eb449-2...		low	any		

- A. Yes. because the action is set to "allow "
- B. No because WildFire categorized a file with the verdict "malicious"
- C. Yes because the action is set to "alert"
- D. No because WildFire classified the severity as "high."

Correct Answer: A

Section:

Explanation:

Threats that have the ability to become critical but have mitigating factors; for example, they may be difficult to exploit, do not result in elevated privileges, or do not have a large victim pool. WildFire Submissions log entries with a malicious verdict and an action set to allow are logged as High. <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/monitoring/view-and-manage-logs/log-types-and-severity-levels/threat-logs#id5cea1511-a153-4005-9d5f-ab2482e838ae>

QUESTION 59

Which configuration task is best for reducing load on the management plane?

- A. Disable logging on the default deny rule
- B. Enable session logging at start
- C. Disable pre-defined reports
- D. Set the URL filtering action to send alerts

Correct Answer: C

Section:

Explanation:

Report generation can also consume considerable resources, while some pre-defined reports may not be useful to the organization, or they've been replaced by a custom report. These pre-defined reports can be disabled from Device >

Setup > Logging and Reporting Settings <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000CISvCAK>

QUESTION 60

The UDP-4501 protocol-port is used between which two GlobalProtect components?

- A. GlobalProtect app and GlobalProtect gateway
- B. GlobalProtect portal and GlobalProtect gateway

- C. GlobalProtect app and GlobalProtect satellite
- D. GlobalProtect app and GlobalProtect portal

Correct Answer: A

Section:

Explanation:

UDP 4501 Used for IPSec tunnel connections between GlobalProtect apps and gateways.

<https://docs.paloaltonetworks.com/pan-os/8-1/pan-os-admin/firewall-administration/reference-port-number-usage/ports-used-for-globalprotect.html>

QUESTION 61

A company wants to install a PA-3060 firewall between two core switches on a VLAN trunk link. They need to assign each VLAN to its own zone and to assign untagged (native) traffic to its own zone which options differentiates multiple VLAN into separate zones?

- A. Create V-Wire objects with two V-Wire interfaces and define a range of "0-4096" in the "Tag Allowed" field of the V-Wire object.
- B. Create V-Wire objects with two V-Wire subinterfaces and assign only a single VLAN ID to the "Tag Allowed" field of the V-Wire object. Repeat for every additional VLAN and use a VLAN ID of 0 for untagged traffic. Assign each interface/ sub interface to a unique zone.
- C. Create Layer 3 subinterfaces that are each assigned to a single VLAN ID and a common virtual router. The physical Layer 3 interface would handle untagged traffic. Assign each interface/subinterface to a unique zone. Do not assign any interface an IP address.
- D. Create VLAN objects for each VLAN and assign VLAN interfaces matching each VLAN ID. Repeat for every additional VLAN and use a VLAN ID of 0 for untagged traffic. Assign each interface/sub interface to a unique zone.

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/networking/configure-interfaces/virtual-wire-interfaces/vlan-tagged-traffic> Virtual wire interfaces by default allow all untagged traffic. You can, however, use a virtual wire to connect two interfaces and configure either interface to block or allow traffic based on the virtual LAN (VLAN) tags. VLAN tag 0 indicates untagged traffic.

You can also create multiple subinterfaces, add them into different zones, and then classify traffic according to a VLAN tag or a combination of a VLAN tag with IP classifiers (address, range, or subnet) to apply granular policy control for specific VLAN tags or for VLAN tags from a specific source IP address, range, or subnet.

QUESTION 62

In a Panorama template which three types of objects are configurable? (Choose three)

- A. certificate profiles
- B. HIP objects
- C. QoS profiles
- D. security profiles
- E. interface management profiles

Correct Answer: A, C, E

Section:

QUESTION 63

An enterprise information Security team has deployed policies based on AD groups to restrict user access to critical infrastructure systems However a recent phishing campaign against the organization has prompted Information Security to look for more controls that can secure access to critical assets For users that need to access these systems Information Security wants to use PAN-OS multi-factor authentication (MFA) integration to enforce MFA.

What should the enterprise do to use PAN-OS MFA?

- A. Configure a Captive Portal authentication policy that uses an authentication profile that references a RADIUS profile
- B. Create an authentication profile and assign another authentication factor to be used by a Captive Portal authentication policy

- C. Configure a Captive Portal authentication policy that uses an authentication sequence
- D. Use a Credential Phishing agent to detect prevent and mitigate credential phishing campaigns

Correct Answer: C

Section:

Explanation:

QUESTION 64

PBF can address which two scenarios? (Select Two)

- A. forwarding all traffic by using source port 78249 to a specific egress interface
- B. providing application connectivity the primary circuit fails
- C. enabling the firewall to bypass Layer 7 inspection
- D. routing FTP to a backup ISP link to save bandwidth on the primary ISP link

Correct Answer: B, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/policy/policy-based-forwarding/use-case-pbf-for-outbound-access-with-dual-isps>

QUESTION 65

Which data flow describes redistribution of user mappings?

- A. User-ID agent to firewall
- B. firewall to firewall
- C. Domain Controller to User-ID agent
- D. User-ID agent to Panorama

Correct Answer: B

Section:

Explanation:

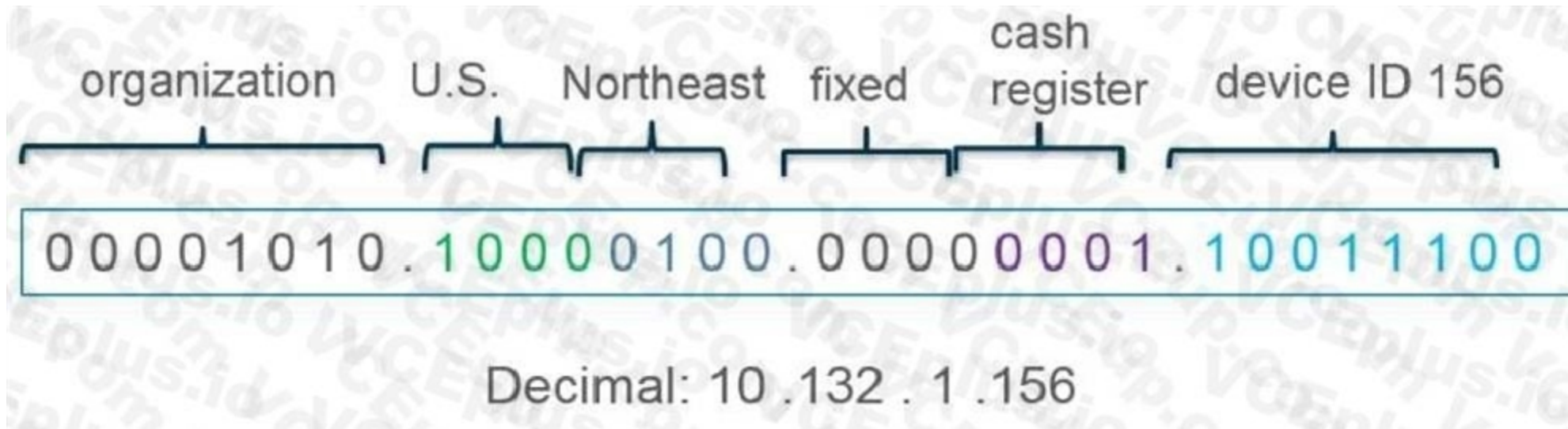
<https://www.paloaltonetworks.com/documentation/71/pan-os/pan-os/user-id/configure-firewalls-to-redistribute-user-mapping-information>

<https://docs.paloaltonetworks.com/pan-os/8-1/pan-os-admin/user-id/deploy-user-id-in-a-large-scale-network/redistribute-user-mappings-and-authentication-timestamps/firewall-deployment-for-user-id-redistribution.html#id3661b46-4722-4936-bb9b-181679306809>

QUESTION 66

What type of address object would be useful for internal devices where the addressing structure assigns meaning to certain bits in the address, as illustrated in the diagram?





- A. IP Netmask
- B. IP Wildcard Mask
- C. IP Address
- D. IP Range

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/policy/use-address-object-to-represent-ip-addresses/address-objects>An IP Wildcard Mask address object is useful for internal devices where the addressing structure assigns meaning to certain bits in the address, as illustrated in the diagram. An IP Wildcard Mask address object specifies which source or destination addresses are subject to a Security policy rule. A zero (0) bit in the mask indicates that the bit being compared must match the bit in the IP address that is covered by the zero. A one (1) bit in the mask (a wildcard bit) indicates that the bit being compared need not match the bit in the IP address. For example, if you want to match all cash registers in the northeastern U.S., you can use an IP Wildcard Mask address object of 10.132.1.0/0.0.2.255, which will match any IP address from 10.132.1.0 to 10.132.3.255. Reference: 1: <https://docs.paloaltonetworks.com/network-security/security-policy/objects/addresses>

QUESTION 67

What are two best practices for incorporating new and modified App-IDs? (Choose two.)

- A. Run the latest PAN-OS version in a supported release tree to have the best performance for the new App-IDs
- B. Configure a security policy rule to allow new App-IDs that might have network-wide impact
- C. Perform a Best Practice Assessment to evaluate the impact of the new or modified App-IDs
- D. Study the release notes and install new App-IDs if they are determined to have low impact

Correct Answer: B, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/app-id/manage-new-app-ids-introduced-in-content-releases/app-id-updates-workflow.html>

QUESTION 68

An administrator needs to evaluate a recent policy change that was committed and pushed to a firewall device group. How should the administrator identify the configuration changes?

- A. review the configuration logs on the Monitor tab
- B. click Preview Changes under Push Scope
- C. use Test Policy Match to review the policies in Panorama

D. context-switch to the affected firewall and use the configuration audit tool

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/8-1/pan-os-web-interface-help/panorama-web-interface/panorama-commit-operations.html>

QUESTION 69

An administrator needs firewall access on a trusted interface. Which two components are required to configure certificate based, secure authentication to the web UI? (Choose two)

- A. certificate profile
- B. server certificate
- C. SSH Service Profile
- D. SSL/TLS Service Profile

Correct Answer: A, B

Section:

Explanation:

To configure certificate-based, secure authentication to the web UI, two components are required: a certificate profile and a server certificate. A certificate profile defines the trusted certificate authorities (CAs) for verifying client certificates and server certificates¹. A server certificate is a digital certificate that identifies the firewall to clients and servers². The firewall can use a self-signed certificate or a certificate signed by an external CA as the server certificate for web UI access³. The server certificate must be assigned to an SSL/TLS service profile, which specifies the SSL/TLS protocol version and cipher suites for secure communication⁴. The SSL/TLS service profile must be selected in the general settings of the firewall management interface. Reference: 1: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/certificate-management/certificate-profiles> 2: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/certificate-management/generate-a-certificate-on-the-firewall> 3: <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g00000C1FGCA0> 4: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/certificate-management/ssl-tls-service-profiles> ; <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/firewall-administration/manage-firewall-administrators/configure-administrative-accounts-and-authentication/configure-certificate-based-administrator-authentication-to-the-web-interface>

QUESTION 70

Which two actions would be part of an automatic solution that would block sites with untrusted certificates without enabling SSL Forward Proxy? (Choose two.)

- A. Create a no-decrypt Decryption Policy rule.
- B. Configure an EDL to pull IP addresses of known sites resolved from a CRL.
- C. Create a Dynamic Address Group for untrusted sites
- D. Create a Security Policy rule with vulnerability Security Profile attached.
- E. Enable the "Block sessions with untrusted issuers" setting.

Correct Answer: A, D

Section:

Explanation:

You can use the No Decryption tab to enable settings to block traffic that is matched to a decryption policy configured with the No Decrypt action (Policies > Decryption > Action). Use these options to control server certificates for the session, though the firewall does not decrypt and inspect the session traffic. <https://docs.paloaltonetworks.com/pan-os/7-1/pan-os-web-interface-help/objects/objects-decryption-profile>

QUESTION 71

Which statement is correct given the following message from the PanGPA log on the GlobalProtect app?

Failed to connect to server at port:47 67

- A. The PanGPS process failed to connect to the PanGPA process on port 4767
- B. The GlobalProtect app failed to connect to the GlobalProtect Portal on port 4767
- C. The PanGPA process failed to connect to the PanGPS process on port 4767

D. The GlobalProtect app failed to connect to the GlobalProtect Gateway on port 4767

Correct Answer: C

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000PMiD> The PanGPA log on the GlobalProtect app records the events related to the user interface of the app, such as user actions, messages, and notifications1. The PanGPS log records the events related to the service or daemon process of the app, such as connection attempts, authentication, and tunnel establishment2. The PanGPA process communicates with the PanGPS process on port 47673. Therefore, the message "Failed to connect to server at port:4767" indicates that the PanGPA process failed to connect to the PanGPS process on port 4767. This could be caused by various factors, such as firewall blocking, antivirus interference, corrupted files, or incorrect permissions4. Reference: 1: <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000CIUkCAK> 2: <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClcCCAS> 3: <https://live.paloaltonetworks.com/t5/general-topics/pangps-vs-pangpa-logs-on-globalprotect/td-p/298259> 4: <https://live.paloaltonetworks.com/t5/globalprotect-discussions/pangpa-and-pangps-logs/td-p/459846>

QUESTION 72

Which GlobalProtect component must be configured to enable Clientless VPN?

- A. GlobalProtect satellite
- B. GlobalProtect app
- C. GlobalProtect portal
- D. GlobalProtect gateway

Correct Answer: C

Section:

Explanation:

Creating the GlobalProtect portal is as simple as letting it know if you have accessed it already. A new gateway for accessing the GlobalProtect portal will appear. Client authentication can be used with an existing one. <https://www.nstec.com/how-to-configure-clientless-vpn-in-palo-alto/#5>



QUESTION 73

A customer is replacing their legacy remote access VPN solution. The current solution is in place to secure only internet egress for the connected clients. Prisma Access has been selected to replace the current remote access VPN solution.

During onboarding, the following options and licenses were selected and enabled:

- Prisma Access for Remote Networks 300Mbps
- Prisma Access for Mobile Users 1500 Users
- Cortex Data Lake 2TB
- Trusted Zones trust
- Untrusted Zones untrust
- Parent Device Group shared

How can you configure Prisma Access to provide the same level of access as the current VPN solution?

- A. Configure mobile users with trust-to-untrust Security policy rules to allow the desired traffic outbound to the internet
- B. Configure mobile users with a service connection and trust-to-trust Security policy rules to allow the desired traffic outbound to the internet
- C. Configure remote networks with a service connection and trust-to-untrust Security policy rules to allow the desired traffic outbound to the internet
- D. Configure remote networks with trust-to-trust Security policy rules to allow the desired traffic outbound to the internet

Correct Answer: A

Section:

Explanation:

To provide the same level of access as the current VPN solution, which is to secure only Internet egress for the connected clients, you can configure mobile users with trust-to-untrust Security policy rules to allow the desired traffic outbound to the Internet. This way, the mobile users will be assigned an IP address from a pool that belongs to the trust zone, and they will be able to access the Internet through Prisma Access using a gateway that belongs to the untrust zone1. You do not need to configure a service connection for this scenario, as a service connection is used to enable access between mobile users and remote networks or private apps2. You also do not

need to configure trust-to-trust Security policy rules, as they are used to enable access between mobile users and other trusted resources³. Reference: 1: <https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-panorama-admin/prepare-the-prisma-access-infrastructure/service-connection-overview/create-a-service-connection-to-enable-access-between-users-and-networks> 2: <https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-cloud-managed-admin/prisma-access-service-connections> 3: <https://docs.paloaltonetworks.com/prisma/prisma-access/prisma-access-cloud-managed-admin/prisma-access-mobile-users/mobile-users-globalprotect/globalprotect-features-for-prisma-access.html>

QUESTION 74

What is the best description of the HA4 Keep-Alive Threshold (ms)?

- A. the maximum interval between hello packets that are sent to verify that the HA functionality on the other firewall is operational.
- B. The time that a passive or active-secondary firewall will wait before taking over as the active or active-primary firewall
- C. the timeframe within which the firewall must receive keepalives from a cluster member to know that the cluster member is functional.
- D. The timeframe that the local firewall wait before going to Active state when another cluster member is preventing the cluster from fully synchronizing.

Correct Answer: C

Section:

QUESTION 75

What is the function of a service route?

- A. The service route is the method required to use the firewall's management plane to provide services to applications
- B. The service packets enter the firewall on the port assigned from the external service. The server sends its response to the configured destination interface and destination IP address
- C. The service packets exit the firewall on the port assigned for the external service. The server sends its response to the configured source interface and source IP address
- D. Service routes provide access to external services such as DNS servers external authentication servers or Palo Alto Networks services like the Customer Support Portal

Correct Answer: D

Section:

Explanation:

A service route is the path from an interface on the firewall to a service on a server. Service routes provide access to external services such as DNS servers, external authentication servers or Palo Alto Networks services like the Customer Support Portal¹. By default, the firewall uses the management (MGT) interface to access these services, but you can configure a data port (a regular interface) as an alternative². A service route is not related to the firewall's management plane or the port assigned for the external service. A service route does not affect how the server sends its response to the firewall. Reference: 1: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-networking-admin/service-routes/service-routes-overview> 2: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-networking-admin/service-routes/configure-service-routes>

QUESTION 76

Which three items are import considerations during SD-WAN configuration planning? (Choose three.)

- A. link requirements
- B. the name of the ISP
- C. IP Addresses
- D. branch and hub locations

Correct Answer: A, C, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/sd-wan/1-0/sd-wan-admin/sd-wan-overview/plan-sd-wan-configuration>

QUESTION 77

What is considered the best practice with regards to zone protection?

- A. Review DoS threat activity (ACC > Block Activity) and look for patterns of abuse
- B. Use separate log-forwarding profiles to forward DoS and zone threshold event logs separately from other threat logs
- C. If the levels of zone and DoS protection consume too many firewall resources, disable zone protection
- D. Set the Alarm Rate threshold for event-log messages to high severity or critical severity

Correct Answer: A

Section:

Explanation:

The best practice with regards to zone protection is to review DoS threat activity (ACC > BlockActivity) and look for patterns of abuse. This way, you can identify the sources and types of DoS attacks that target your network zones and adjust your zone protection profiles and policies accordingly¹. You can also use the DoS Protection dashboard widget to monitor the number of sessions that match DoS protection policies². You do not need to use separate log-forwarding profiles to forward DoS and zone threshold event logs separately from other threat logs, as you can use a single log-forwarding profile to forward different types of logs to different destinations³. You shouldn't disable zone protection if the levels of zone and DoS protection consume too many firewall resources, as this would expose your network zones to potential DoS attacks. Instead, you should optimize your zone protection profiles and policies to reduce the resource consumption⁴. You shouldn't set the Alarm Rate threshold for event-log messages to high severity or critical severity, as this would limit the visibility into DoS attacks that have lower severity levels. Instead, you should set the Alarm Rate threshold to a value that is appropriate for your network environment and traffic patterns. Reference: 1: <https://docs.paloaltonetworks.com/best-practices/dos-and-zone-protection-best-practices/dos-and-zone-protection-best-practices/follow-post-deployment-dos-and-zone-protection-best-practices> 2: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/monitoring/use-the-acc-to-monitor-network-activity/use-the-acc-to-monitor-dos-protection> 3: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/monitoring/configure-log-forwarding/log-forwarding-profiles> 4: <https://docs.paloaltonetworks.com/best-practices/dos-and-zone-protection-best-practices/dos-and-zone-protection-best-practices/deploy-dos-and-zone-protection-using-best-practices> : <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/networking/network-profiles/zone-protection-profiles/configure-a-zone-protection-profile>

QUESTION 78



In the screenshot above which two pieces of information can be determined from the ACC configuration shown? (Choose two)

- A. The Network Activity tab will display all applications, including FTP.
- B. Threats with a severity of "high" are always listed at the top of the Threat Name list
- C. Insecure-credentials, brute-force and protocol-anomaly are all a part of the vulnerability Threat Type
- D. The ACC has been filtered to only show the FTP application

Correct Answer: C, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/threat-prevention/threat-signature>

QUESTION 79

A firewall has been assigned to a new template stack that contains both "Global" and "Local" templates in Panorama, and a successful commit and push has been performed. While validating the configuration on the local firewall, the engineer discovers that some settings are not being applied as intended.

The setting values from the "Global" template are applied to the firewall instead of the "Local" template that has different values for the same settings.

What should be done to ensure that the settings in the "Local" template are applied while maintaining settings from both templates?

- A. Move the "Global" template above the "Local" template in the template stack.
- B. Perform a commit and push with the "Force Template Values" option selected.
- C. Move the "Local" template above the "Global" template in the template stack.
- D. Override the values on the local firewall and apply the correct settings for each value.

Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/panorama-overview/centralized-firewall-configuration-and-update-management/templates-and-template-stacks>

QUESTION 80

WildFire will submit for analysis blocked files that match which profile settings?

- A. files matching Anti-Spyware signatures
- B. files that are blocked by URL filtering
- C. files that are blocked by a File Blocking profile
- D. files matching Anti-Virus signatures



Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/wildfire/u-v/wildfire-whats-new/latest-wildfire-cloud-features/wildfire-analysis-of-blocked-files>

QUESTION 81

An administrator needs to build Security rules in a Device Group that allow traffic to specific users and groups defined in Active Directory. What must be configured in order to select users and groups for those rules from Panorama?

- A. The Security rules must be targeted to a firewall in the device group and have Group Mapping configured
- B. A master device with Group Mapping configured must be set in the device group where the Security rules are configured
- C. User-ID Redistribution must be configured on Panorama to ensure that all firewalls have the same mappings
- D. A User-ID Certificate profile must be configured on Panorama

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-web-interface-help/panorama-web-interface/panorama-device-groups>

QUESTION 82

What can you use with Global Protect to assign user-specific client certificates to each GlobalProtect user?

- A. SSL/TLS Service profile
- B. Certificate profile
- C. SCEP
- D. OCSP Responder

Correct Answer: C

Section:

Explanation:

If you have a Simple Certificate Enrollment Protocol (SCEP) server in your enterprise PKI, you can configure a SCEP profile to automate the generation and distribution of unique client certificates. <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/certificate-management/obtain-certificates/deploy-certificates-using-scep>

QUESTION 83

During the process of developing a decryption strategy and evaluating which websites are required for corporate users to access, several sites have been identified that cannot be decrypted due to technical reasons. In this case, the technical reason is unsupported ciphers. Traffic to these sites will therefore be blocked if decrypted. How should the engineer proceed?

- A. Allow the firewall to block the sites to improve the security posture
- B. Add the sites to the SSL Decryption Exclusion list to exempt them from decryption
- C. Install the unsupported cipher into the firewall to allow the sites to be decrypted
- D. Create a Security policy to allow access to those sites

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/decryption/decryption-exclusions> Traffic that breaks decryption for technical reasons, such as using a pinned certificate, an incomplete certificate chain, unsupported ciphers, or mutual authentication (attempting to decrypt the traffic results in blocking the traffic). Palo Alto Networks provides a predefined SSL Decryption Exclusion list (DeviceCertificate ManagementSSL Decryption Exclusion) that excludes hosts with applications and services that are known to break decryption technically from SSL Decryption by default. If you encounter sites that break decryption technically and are not on the SSL Decryption Exclusion list, you can add them to list manually by server hostname. The firewall blocks sites whose applications and services break decryption technically unless you add them to the SSL Decryption Exclusion list.

QUESTION 84

Which function is handled by the management plane (control plane) of a Palo Alto Networks firewall?

- A. signature matching for content inspection
- B. IPSec tunnel standup
- C. Quality of Service
- D. logging

Correct Answer: D

Section:

Explanation:

Logging is a function that is handled by the management plane (control plane) of a Palo Alto Networks firewall. The management plane is responsible for managing and configuring the firewall, as well as generating and storing logs and reports. The management plane communicates with the data plane (also known as the packet forwarding plane) through an internal backplane interface. Signature matching for content inspection, IPSec tunnel standup, and Quality of Service are functions that are handled by the data plane of a Palo Alto Networks firewall. The data plane is responsible for processing and forwarding packets, as well as applying security policies and features to the traffic. The data plane consists of multiple dedicated hardware components, such as the Single-Pass Parallel Processing (SP3) engine, the Security Processing Unit (SPU), and the Network Processing Unit (NPU). Reference: : <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/firewall-administration/manage-firewall-administrators/firewall-management-interfaces> : <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/firewall-administration/firewall-concepts/firewall-overview>

QUESTION 85

In SSL Forward Proxy decryption, which two certificates can be used for certificate signing? (Choose two.)

- A. wildcard server certificate
- B. enterprise CA certificate
- C. client certificate
- D. server certificate
- E. self-signed CA certificate

Correct Answer: B, E

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/decryption/configure-ssl-forward-proxy.html>

QUESTION 86

An organization wishes to roll out decryption but gets some resistance from engineering leadership regarding the guest network. What is a common obstacle for decrypting traffic from guest devices?

- A. Guest devices may not trust the CA certificate used for the forward untrust certificate.
- B. Guests may use operating systems that can't be decrypted.
- C. The organization has no legal authority to decrypt their traffic.
- D. Guest devices may not trust the CA certificate used for the forward trust certificate.

Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/best-practices/10-2/decryption-best-practices/decryption-best-practices/plan-ssl-decryption-best-practice-deployment> <https://live.paloaltonetworks.com/t5/general-topics/decrypt-guest-network-traffic/td-p/119388>

QUESTION 87

Which three items are important considerations during SD-WAN configuration planning? (Choose three.)

- A. link requirements
- B. the name of the ISP
- C. IP Addresses
- D. branch and hub locations

Correct Answer: A, C, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/sd-wan/1-0/sd-wan-admin/sd-wan-overview/plan-sd-wan-configuration>

QUESTION 88

An engineer needs to redistribute User-ID mappings from multiple data centers. Which data flow best describes redistribution of user mappings?

- A. Domain Controller to User-ID agent
- B. User-ID agent to Panorama
- C. User-ID agent to firewall



D. firewall to firewall

Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/user-id/deploy-user-id-in-a-large-scale-network/redistribute-user-mappings-and-authentication-timestamps/firewall-deployment-for-user-id-redistribution#ide3661b46-4722-4936-bb9b-181679306809>

QUESTION 89

An engineer is configuring Packet Buffer Protection on ingress zones to protect from single-session DoS attacks Which sessions does Packet Buffer Protection apply to?

- A. It applies to existing sessions and is not global
- B. It applies to new sessions and is global
- C. It applies to new sessions and is not global
- D. It applies to existing sessions and is global

Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/zone-protection-and-dos-protection/zone-defense/packet-buffer-protection>

QUESTION 90

The administrator for a small company has recently enabled decryption on their Palo Alto Networks firewall using a self-signed root certificate. They have also created a Forward Trust and Forward Untrust certificate and set them as such

The admin has not yet installed the root certificate onto client systems What effect would this have on decryption functionality?

- A. Decryption will function and there will be no effect to end users
- B. Decryption will not function because self-signed root certificates are not supported
- C. Decryption will not function until the certificate is installed on client systems
- D. Decryption will function but users will see certificate warnings for each SSL site they visit

Correct Answer: D

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000CIEZCA0>

QUESTION 91

A firewall has Security policies from three sources

- A. locally created policies
- B. shared device group policies as pre-rules
- C. the firewall's device group as post-rules
How will the rule order populate once pushed to the firewall?
- D. shared device group policies, firewall device group policies. local policies.
- E. firewall device group policies, local policies. shared device group policies
- F. shared device group policies. local policies, firewall device group policies
- G. local policies, firewall device group policies, shared device group policies

Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/manage-firewalls/manage-device-groups/manage-the-rule-hierarchy>

QUESTION 92

Which three use cases are valid reasons for requiring an Active/Active high availability deployment?

(Choose three)

- A. The environment requires real, full-time redundancy from both firewalls at all times
- B. The environment requires Layer 2 interfaces in the deployment
- C. The environment requires that both firewalls maintain their own routing tables for faster dynamic routing protocol convergence
- D. The environment requires that all configuration must be fully synchronized between both members of the HA pair
- E. The environment requires that traffic be load-balanced across both firewalls to handle peak traffic spikes

Correct Answer: A, C, E

Section:

Explanation:

Active/Active high availability is a deployment mode that allows both firewalls in an HA pair to actively process traffic and share the load. Active/Active HA is suitable for environments that require real, full-time redundancy from both firewalls at all times, as there is no failover time or session loss in case of a firewall failure. Active/Active HA is also suitable for environments that require that both firewalls maintain their own routing tables for faster dynamic routing protocol convergence, as each firewall can run its own routing protocols and exchange routes with other routers independently. Active/Active HA is also suitable for environments that require that traffic be load-balanced across both firewalls to handle peak traffic spikes, as each firewall can process a portion of the traffic and increase the overall throughput and performance. Active/Active HA is not suitable for environments that require Layer 2 interfaces in the deployment, as Layer 2 interfaces are not supported in Active/Active HA mode. Active/Active HA is also not suitable for environments that require that all configuration must be fully synchronized between both members of the HA pair, as some configuration settings are not synchronized in Active/Active HA mode, such as virtual router configuration, virtual wire configuration, and QoS configuration.

Reference: : <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/high-availability/set-up-activeactive-ha> : <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/high-availability/set-up-activeactive-ha/determine-your-activeactive-use-case>

QUESTION 93

An administrator is building Security rules within a device group to block traffic to and from malicious locations How should those rules be configured to ensure that they are evaluated with a high priority?

- A. Create the appropriate rules with a Block action and apply them at the top of the Default Rules
- B. Create the appropriate rules with a Block action and apply them at the top of the Security Post- Rules.
- C. Create the appropriate rules with a Block action and apply them at the top of the local firewall Security rules.
- D. Create the appropriate rules with a Block action and apply them at the top of the Security Pre- Rules

Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-web-interface-help/panorama-web-interface/defining-policies-on-panorama>

QUESTION 94

A company requires that a specific set of ciphers be used when remotely managing their Palo Alto Networks appliances. Which profile should be configured in order to achieve this?

- A. SSH Service profile
- B. SSL/TLS Service profile
- C. Decryption profile
- D. Certificate profile

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/certificate-management/configure-an-ssh-service-profile>

QUESTION 95

A company is using wireless controllers to authenticate users. Which source should be used for User- ID mappings?

- A. Syslog
- B. XFF headers
- C. server monitoring
- D. client probing

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/user-id/user-id-overview>

QUESTION 96

An engineer is configuring SSL Inbound Inspection for public access to a company's application. Which certificate(s) need to be installed on the firewall to ensure that inspection is performed successfully?

- A. Self-signed CA and End-entity certificate
- B. Root CA and Intermediate CA(s)
- C. Self-signed certificate with exportable private key
- D. Intermediate CA (s) and End-entity certificate



Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/decryption/configure-ssl-inbound-inspection> We recommend uploading a certificate chain (a single file) to the firewall if your end- entity (leaf) certificate is signed by one or more intermediate certificates and your web server supports TLS 1.2 and Rivest, Shamir, Adleman (RSA) or Perfect Forward Secrecy (PFS) key exchange algorithms. Uploading the chain avoids client-side server certificate authentication issues. You should arrange the certificates in the file as follows: End-entity (leaf) certificate Intermediate certificates (in issuing order) (Optional) Root certificate

QUESTION 97

A firewall administrator needs to be able to inspect inbound HTTPS traffic on servers hosted in their DMZ to prevent the hosted service from being exploited. Which combination of features can allow PAN-OS to detect exploit traffic in a session with TLS encapsulation?

- A. Decryption policy and a Data Filtering profile
- B. a WildFire profile and a File Blocking profile
- C. Vulnerability Protection profile and a Decryption policy
- D. a Vulnerability Protection profile and a QoS policy

Correct Answer: C

Section:

Explanation:

A vulnerability protection profile enables the firewall to detect and prevent exploit attempts against known vulnerabilities in network protocols and applications. A decryption policy allows the firewall to decrypt and inspect inbound HTTPS traffic for potential threats. A data filtering profile is used for detecting and controlling the transfer of sensitive data such as credit card numbers or social security numbers. A WildFire profile is used for

submitting unknown files or email links to the WildFire cloud for analysis and verdict. A file blocking profile is used for blocking or allowing the transfer of files based on their type, direction, or application. A QoS policy is used for managing the bandwidth allocation and priority of network traffic based on various criteria. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/decryption/decryption-concepts/ssl-inbound-inspection> <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/threat-prevention/set-up-vulnerability-protection.html>

QUESTION 98

Which two statements correctly describe Session 380280? (Choose two.)

```
> show session id 380280:
Session      380280
  c2s flow:
    source:    172.17.149.129 [L3-Trust]
    dest:      104.154.89.105
    proto:     6
    sport:     60997
    dport:     443
    state:     ACTIVE
    src user:  unknown
    dst user:  unknown
  s2c flow:
    source:    104.154.89.105 [L3-Untrust]
    dest:      10.46.42.149
    proto:     6
    sport:     443
    dport:     7260
    state:     ACTIVE
    src user:  unknown
    dst user:  unknown

start time      : Tue Feb  9 20:38:42 2021
timeout         : 15 sec
time to live    : 2 sec
total byte count(c2s) : 3330
total byte count(s2c) : 12698
layer7 packet count(c2s) : 14
layer7 packet count(s2c) : 19
vsys           : vsys1
application    : web-browsing
rule           : Trust-to-Untrust
service timeout override(index) : False
session to be logged at end      : True
session in session age          : True
session updated by HA peer       : False
session proxied                  : True
address/port translation        : source
nat-rule                       : Trust-NAT(vsys1)
layer7 processing                : completed
URL filtering enabled            : True
URL category                    : computer-and-internet-info, low-risk
session via syn-cookies         : False
session terminated on host      : False
session traverses tunnel        : False
session terminate tunnel        : False
captive portal session         : False
ingress interface               : ethernet1/6
egress interface                : ethernet1/3
session QoS rule                 : N/A (class 4)
tracker stage 1?proc            : proxy timer expired
end-reason                      : unknown
```



- A. The session went through SSL decryption processing.
- B. The session has ended with the end-reason unknown.
- C. The application has been identified as web-browsing.
- D. The session did not go through SSL decryption processing.

Correct Answer: A, C

Section:

Explanation:

The session went through SSL decryption processing because the Decryption column shows a green check mark, indicating that the firewall decrypted the traffic and applied security policies. The application has been identified as web-browsing because the Application column shows web-browsing as the application name. The session has not ended yet because the Session End Reason column shows N/A, indicating that the session is still active. The session did go through SSL decryption processing, so option D is incorrect. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-web-interface-help/monitor/monitor-network/monitor-sessions>

QUESTION 99

While analyzing the Traffic log, you see that some entries show "unknown-tcp" in the Application column. What best explains these occurrences?

- A. A handshake took place, but no data packets were sent prior to the timeout.
- B. A handshake took place; however, there were not enough packets to identify the application.
- C. A handshake did take place, but the application could not be identified.
- D. A handshake did not take place, and the application could not be identified.

Correct Answer: C

Section:

Explanation:

[https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClbCAC#:~:text=un known%20tcp%3A,firewall%20does%20not%20have%20signatures](https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClbCAC#:~:text=un%20known%20tcp%3A,firewall%20does%20not%20have%20signatures). Unknown-tcp means the firewall captured the three-way TCP handshake, but the application was not identified. This may be due to the use of a custom application for which the firewall does not have signatures.

QUESTION 100

A firewall should be advertising the static route 10.2.0.0/24 into OSPF. The configuration on the neighbor is correct, but the route is not in the neighbor's routing table. Which two configurations should you check on the firewall? (Choose two.)

- A. In the OSPF configuration, ensure that the correct redistribution profile is selected in the OSPF Export Rules section.
- B. Within the redistribution profile ensure that Redist is selected.
- C. Ensure that the OSPF neighbor state is "2-Way."
- D. In the redistribution profile check that the source type is set to "ospf."

Correct Answer: A, B

Section:

Explanation:

A redistribution profile defines which routes from one routing protocol are redistributed into another routing protocol. In the OSPF configuration, the OSPF Export Rules section allows you to select which redistribution profiles to apply for exporting routes into OSPF. Within the redistribution profile, you need to select Redist as the option to redistribute the routes that match the profile filter. If you select No Redist, the routes that match the profile filter will not be redistributed.

Ensuring that the OSPF neighbor state is "2-Way" is not relevant for advertising a static route into OSPF, as this state indicates that the neighbor relationship is established but not synchronized. In the redistribution profile, the source type should be set to "static" if you want to redistribute a static route into OSPF, not "ospf". Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-networking-admin/route-redistribution/configure-route-redistribution> <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClfnCAC>

QUESTION 101

Which statement best describes the Automated Commit Recovery feature?

- A. It performs a connectivity check between the firewall and Panorama after every configuration commit on the firewall. It reverts the configuration changes on the firewall if the check fails.
- B. It restores the running configuration on a firewall and Panorama if the last configuration commit fails.
- C. It performs a connectivity check between the firewall and Panorama after every configuration commit on the firewall. It reverts the configuration changes on the firewall and on Panorama if the check fails.
- D. It restores the running configuration on a firewall if the last configuration commit fails.

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/administer-panorama/enable-automated-commit-recovery>The Automated Commit Recovery feature enables the firewall to automatically revert to a previous configuration if a commit operation causes connectivity loss between the firewall and Panorama. The feature performs a connectivity check between the firewall and Panorama after every configuration commit on the firewall. If the check fails, the firewall reverts to the last known good configuration and restores connectivity with Panorama. The feature does not restore the running configuration on a firewall or Panorama if the last commit fails, as this would require manual intervention. The feature does not revert the configuration changes on Panorama, as Panorama is not affected by the commit operation on the firewall. Reference: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-new-features/panorama-features/automatic-panorama-connection-recovery> <https://docs.paloaltonetworks.com/panorama/10-1/panorama-admin/administer-panorama/enable-automated-commit-recovery>

QUESTION 102

A firewall administrator wants to avoid overflowing the company syslog server with traffic logs. What should the administrator do to prevent the forwarding of DNS traffic logs to syslog?

- A. Disable logging on security rules allowing DNS.
- B. Go to the Log Forwarding profile used to forward traffic logs to syslog. Then, under traffic logs match list, create a new filter with application not equal to DNS.
- C. Create a security rule to deny DNS traffic with the syslog server in the destination
- D. Go to the Log Forwarding profile used to forward traffic logs to syslog. Then, under traffic logs match list, create a new filter with application equal to DNS.

Correct Answer: B

Section:

Explanation:

A log forwarding profile defines which logs are forwarded to which destinations, such as syslog servers. By creating a filter with application not equal to DNS, the log forwarding profile will exclude DNS traffic logs from being forwarded to syslog. Disabling logging on security rules allowing DNS will prevent the firewall from generating any logs for DNS traffic, which may not be desirable. Creating a security rule to deny DNS traffic with the syslog server in the destination will block the communication between the firewall and the syslog server, which may affect other logs. Creating a filter with application equal to DNS will forward only DNS traffic logs to syslog, which is the opposite of what is required.

Reference: <https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/monitoring/configure-log-forwarding> <https://docs.paloaltonetworks.com/network-security/security-policy/objects/log-forwarding>

QUESTION 103

An engineer is planning an SSL decryption implementation. Which of the following statements is a best practice for SSL decryption?

- A. Use the same Forward Trust certificate on all firewalls in the network.
- B. Obtain a certificate from a publicly trusted root CA for the Forward Trust certificate.
- C. Obtain an enterprise CA-signed certificate for the Forward Trust certificate.
- D. Use an enterprise CA-signed certificate for the Forward Untrust certificate.

Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/decryption/configure-ssl-forward-proxy>(Best Practice) Enterprise CA-signed CertificatesóAn enterprise CA can issue a signing certificate that the firewall can use to sign the certificates for sites which require SSL decryption. When the firewall trusts the CA that signed the certificate of the destination server, the firewall can send a copy of the destination server certificate to the client, signed by the enterprise CA. This is a best practice because usually all network devices already trust the Enterprise CA (it is usually already installed in the devices' CA Trust storage), so you don't need to deploy the certificate on the endpoints, so the rollout process is smoother. <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/decryption/configure-ssl-forward-proxy.html>



QUESTION 104

An administrator needs to optimize traffic to prefer business-critical applications over non-critical applications. QoS natively integrates with which feature to provide service quality?

- A. certificate revocation
- B. Content-ID
- C. App-ID
- D. port inspection

Correct Answer: C

Section:

Explanation:

QoS natively integrates with App-ID, which is a feature that identifies applications based on their unique characteristics and behaviors, regardless of port, protocol, encryption, or evasive tactics. By using App-ID, QoS can prioritize or limit traffic based on the application name, category, subcategory, technology, or risk level. Certificate revocation is a process of invalidating digital certificates that are no longer trusted or secure. Content-ID is a feature that scans content and data within allowed applications for threats and sensitive data. Port inspection is a method of identifying applications based on the TCP or UDP port numbers they use, which is not reliable or granular enough for QoS purposes. Reference:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/quality-of-service/configure-qos> <https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/app-id>

QUESTION 105

An administrator is required to create an application-based Security policy rule to allow Evernote.

The Evernote application implicitly uses SSL and web browsing. What is the minimum the administrator needs to configure in the Security rule to allow only Evernote?

- A. Add the Evernote application to the Security policy rule, then add a second Security policy rule containing both HTTP and SSL.
- B. Add the HTTP, SSL, and Evernote applications to the same Security policy
- C. Add only the Evernote application to the Security policy rule.
- D. Create an Application Override using TCP ports 443 and 80.



Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/app-id/applications-with-implicit-supportion>:

QUESTION 106

DRAG DROP

An engineer is troubleshooting traffic routing through the virtual router. The firewall uses multiple routing protocols, and the engineer is trying to determine routing priority. Match the default Administrative Distances for each routing protocol.

Select and Place:

Static	Answer Area		20
OSPF External			120
EBGP			10
RIP			110

Correct Answer:

	Answer Area	EBGP	20
		RIP	120
		Static	10
		OSPF External	110

Section:

Explanation:

QUESTION 107

Your company occupies one floor in a single building. You have two Active Directory domain controllers on a single network. The firewall's management-plane resources are lightly utilized. Given the size of this environment, which User-ID collection method is sufficient?

- A. Citrix terminal server agent deployed on the network
- B. Windows-based agent deployed on each domain controller
- C. PAN-OS integrated agent deployed on the firewall
- D. a syslog listener

Correct Answer: C

Section:

QUESTION 108

An engineer needs to permit XML API access to a firewall for automation on a network segment that is routed through a Layer 3 sub interface on a Palo Alto Networks firewall. However this network segment cannot access the dedicated management interface due to the Security policy Without changing the existing access to the management interface how can the engineer fulfill this request?

- A. Enable HTTPS in an Interface Management profile on the sub interface
- B. Add the network segment's IP range to the Permitted IP Addresses list
- C. Specify the subinterface as a management interface in Setup > Device > Interfaces
- D. Configure a service route for HTTP to use the subinterface

Correct Answer: A

Section:

QUESTION 109

A Panorama administrator configures a new zone and uses the zone in a new Security policy.

After the administrator commits the configuration to Panorama, which device-group commit push operation should the administrator use to ensure that the push is successful?

- A. force template values
- B. merge with candidate config
- C. specify the template as a reference template
- D. include device and network templates

Correct Answer: D

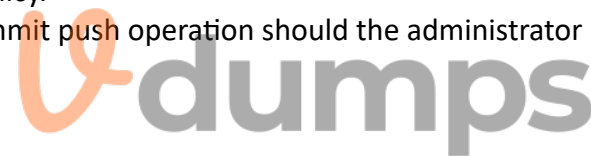
Section:

QUESTION 110

An administrator cannot see any Traffic logs from the Palo Alto Networks NGFW in Panorama reports.

The configuration problem seems to be on the firewall. Which settings if configured incorrectly most likely would stop only Traffic logs from being sent from the NGFW to Panorama?

- A.



Panorama Settings

Panorama Servers

10.99.1.21

Enable pushing device monitoring data to Panorama

Receive Timeout for Connection to Panorama (sec): 240

Send Timeout for Connection to Panorama (sec): 240

Retry Count for SSL Send to Panorama: 25

Enable automatic commit necessary

Number of attempts to check for Panorama connectivity: 1

Interval between retries (sec): 10

B.

Security Policy Rule

Log of Session Start
 Log of Session End

Share Utilized Address and Service Objects with Devices
 Objects defined in ancestors will take higher precedence
 Enable reporting and filtering on groups

When enabled, Panorama will locally store users and groups from Hybrid Devices

Vdumps

C.

Syslog Server Profile

Name: SyslogProfile1

Servers Custom Log Format

NAME	SYSDLOG SERVER	TRANSPORT	PORT	FORMAT	FACILITY
SyslogServer1	192.168.228.17	UDP	514	BSD	LOG_USER

Enter the IP address or FQDN of the Syslog server

D.



Correct Answer: B

Section:

QUESTION 111

A network administrator configured a site-to-site VPN tunnel where the peer device will act as initiator. None of the peer addresses are known. What can the administrator configure to establish the VPN connection?

- A. Set up certificate authentication
- B. Enable Passive Mode
- C. Use the Dynamic IP address type
- D. Configure the peer address as an FQDN

Correct Answer: C

Section:

QUESTION 112

DRAG DROP

Place the steps to onboard a ZTP firewall into Panorama/CSP/ZTP-Service in the correct order.

Select and Place:



Answer Area

Installer or IT administrator registers ZTP firewalls by adding them to Panorama using firewall serial number and claim key.

After connecting to the internet, the ZTP firewall requests a device certificate from the CSP in order to connect to the ZTP service.

The ZTP firewalls connect to Panorama and the device group and template configurations are pushed from Panorama to the ZTP firewalls.

The ZTP service pushes the Panorama IP or FQDN to the ZTP firewalls.

Panorama registers the firewalls with the CSP. After the firewalls are successfully registered, the firewall is associated with the same ZTP tenant as the Panorama in the ZTP service.

[Empty dashed box for answer]

FIRST

[Empty dashed box for answer]

SECOND

[Empty dashed box for answer]

THIRD

[Empty dashed box for answer]

FOURTH

[Empty dashed box for answer]

FIFTH



Correct Answer:

Answer Area

	Installer or IT administrator registers ZTP firewalls by adding them to Panorama using firewall serial number and claim key.	FIRST
	Panorama registers the firewalls with the CSP. After the firewalls are successfully registered, the firewall is associated with the same ZTP tenant as the Panorama in the ZTP service.	SECOND
	After connecting to the internet, the ZTP firewall requests a device certificate from the CSP in order to connect to the ZTP service.	THIRD
	The ZTP service pushes the Panorama IP or FQDN to the ZTP firewalls.	FOURTH
	The ZTP firewalls connect to Panorama and the device group and template configurations are pushed from Panorama to the ZTP firewalls.	FIFTH

Section:

Explanation:

Reference: <https://docs.paloaltonetworks.com/panorama/9-1/panorama-admin/manage-firewalls/set-up-zero-touchprovisioning/ztp-overview/ztp-configuration-elements.html>

QUESTION 113

DRAG DROP

Match each GlobalProtect component to the purpose of that component.

Select and Place:

Answer Area

GlobalProtect Gateway

GlobalProtect clientless

GlobalProtect Portal

GlobalProtect app

management functions for
GlobalProtect infrastructure

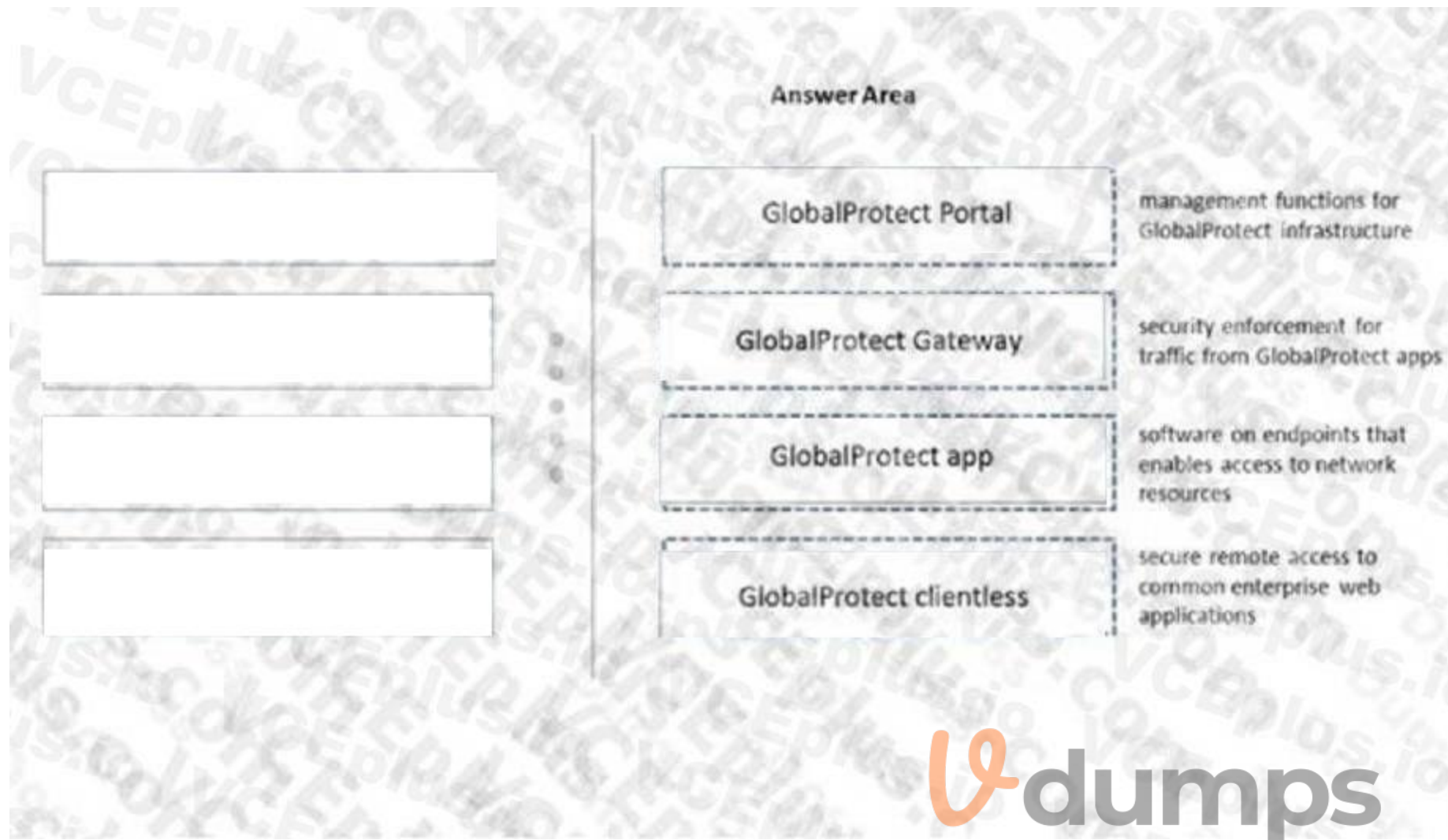
security enforcement for
traffic from GlobalProtect apps

software on endpoints that
enables access to network
resources

secure remote access to
common enterprise web
applications

 **vdumps**

Correct Answer:



Section:

Explanation:

Reference: <https://docs.paloaltonetworks.com/globalprotect/8-1/globalprotect-admin/globalprotect-overview/about-theglobalprotect-components.html>

QUESTION 114

DRAG DROP

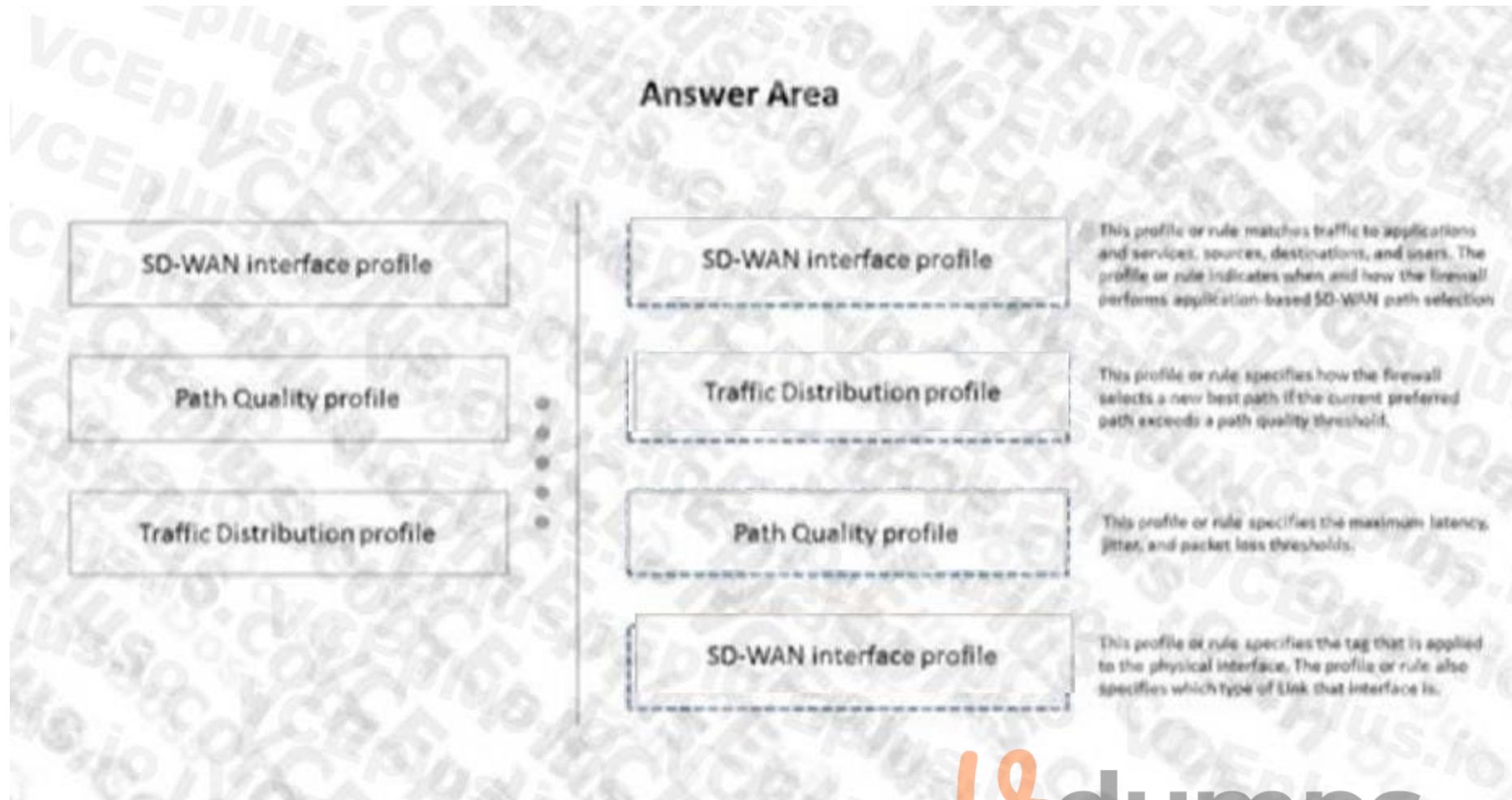
Match each SD-WAN configuration element to the description of that element.

Select and Place:



Correct Answer:





Section:

Explanation:

QUESTION 115

DRAG DROP

Place the steps in the WildFire process workflow in their correct order.

Select and Place:



The firewall hashes the file and looks for a match in the WildFire database. However, the firewall does not find a match.		FIRST
Wildfire uses static analysis based on machine learning to analyze the file in order to classify malicious features.		SECOND
Regardless of the verdict, WildFire uses a heuristic engine to examine the file and determines that the file exhibits suspicious behavior.		THIRD
WildFire generates a new DNS, URL categorization, and antivirus signature for the new threat.		FOURTH

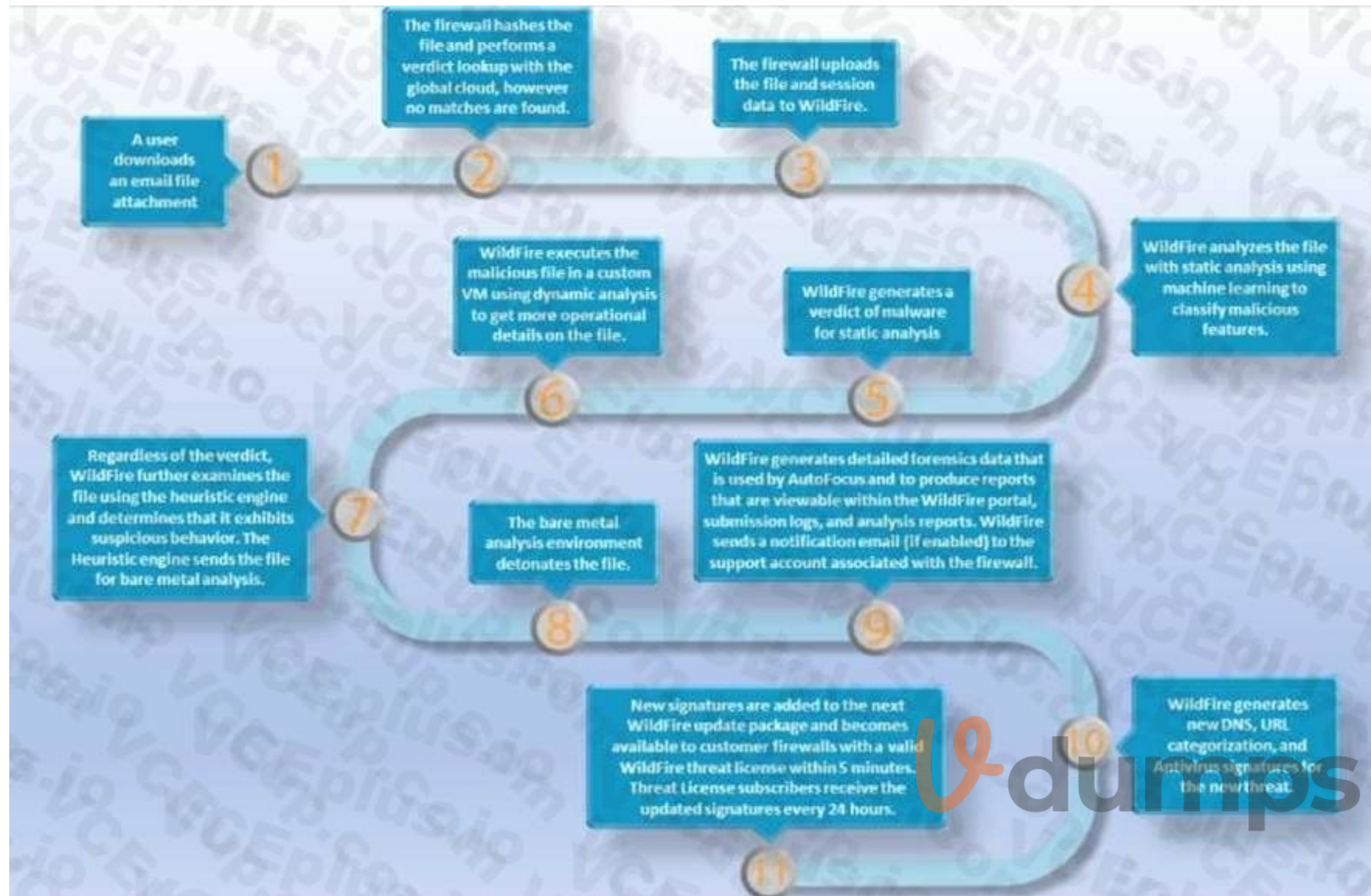
Correct Answer:

	The firewall hashes the file and looks for a match in the WildFire database. However, the firewall does not find a match.	FIRST
	Wildfire uses static analysis based on machine learning to analyze the file in order to classify malicious features.	SECOND
	Regardless of the verdict, WildFire uses a heuristic engine to examine the file and determines that the file exhibits suspicious behavior.	THIRD
	WildFire generates a new DNS, URL categorization, and antivirus signature for the new threat.	FOURTH

Section:

Explanation:

Reference: <https://docs.paloaltonetworks.com/wildfire/9-1/wildfire-admin/wildfire-overview/about-wildfire.html>

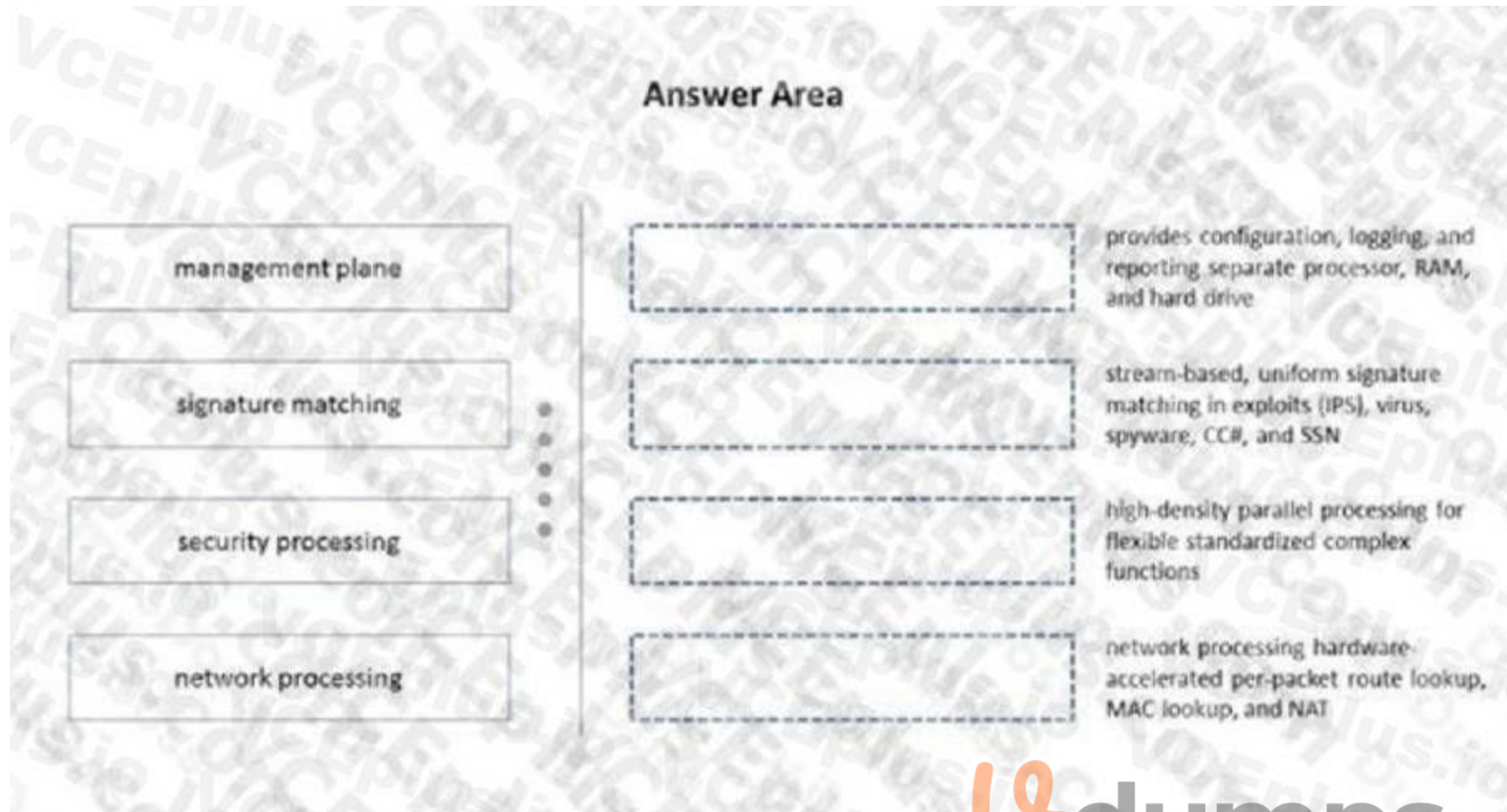


QUESTION 116

DRAG DROP

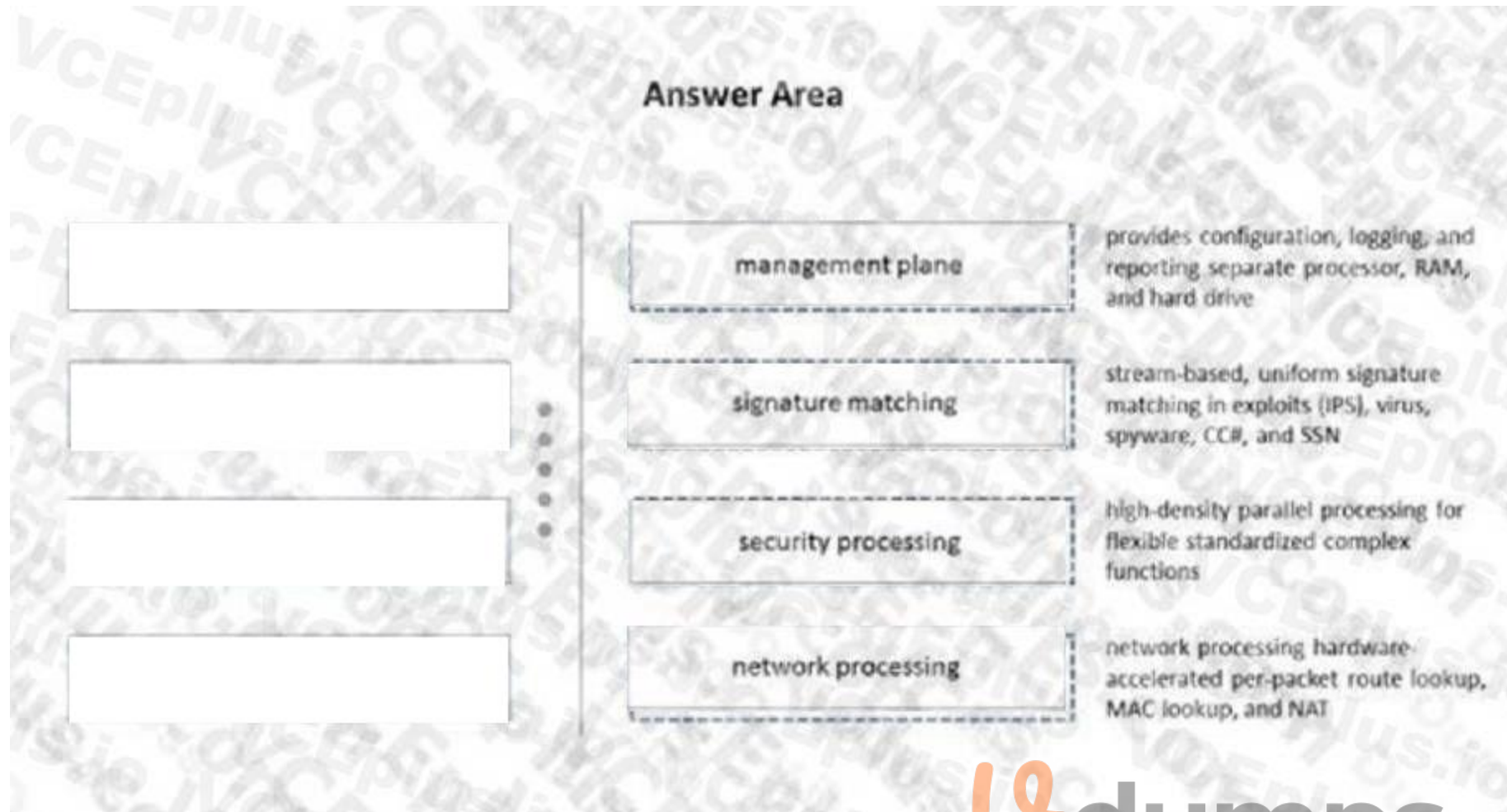
Please match the terms to their corresponding definitions.

Select and Place:



Correct Answer:





Section:

Explanation:



QUESTION 117

DRAG DROP

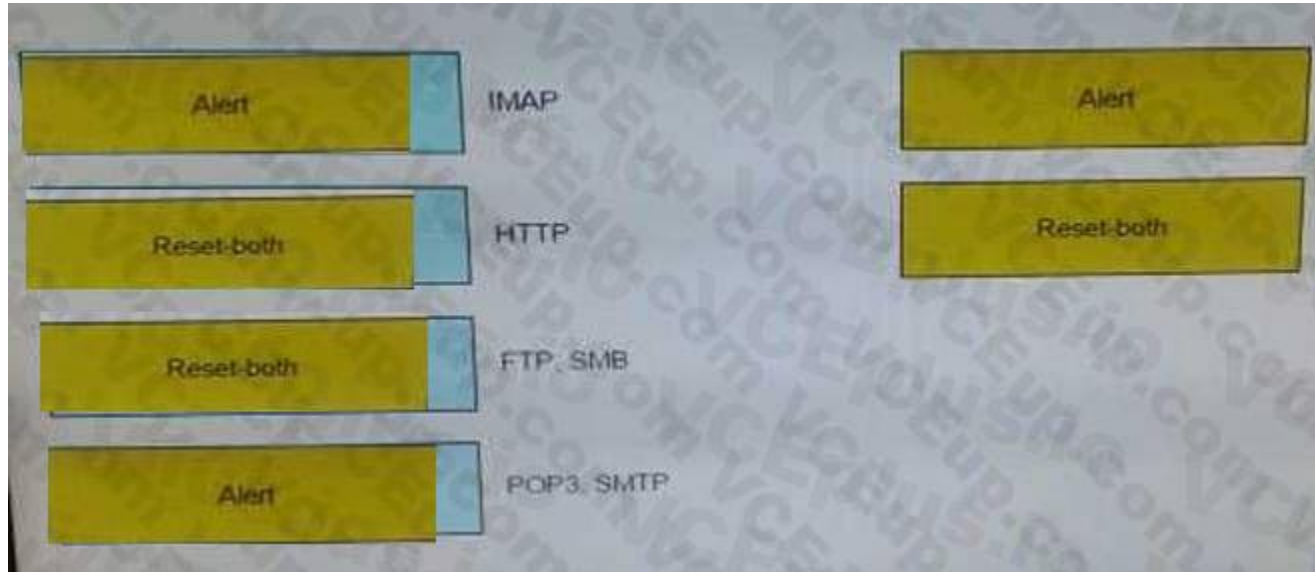
When using the predefined default profile, the policy will inspect for viruses on the decoders. Match each decoder with its default action.

Answer options may be used more than once or not at all.

Select and Place:

1.	IMAP	
2.	HTTP	Alert
3.	FTP, SMB	Reset-both
4.	POP3, SMTP	

Correct Answer:



Section:

Explanation:

QUESTION 118

A user at an external system with the IP address 65.124.57.5 queries the DNS server at 4.2.2.2 for the IP address of the web server www.xyz.com. The DNS server returns an address of 172.16.15.1. In order to reach the web server, which

Security rule and NAT rule must be configured on the firewall?





A.

NAT Rule:
Untrust-L3 (any) - Trust-L3 (172.16.15.1) Destination Translation : 192.168.15.47
Security Rule:
Untrust-L3 (any) - Trust-L3 (192.168.15.47) - Application : Web-browsing

B.

NAT Rule:
Untrust-L3 (any) - Trust-L3 (172.16.15.1) Destination Translation : 192.168.15.47
Security Rule:
Untrust-L3 (any) - Trust-L3 (172.16.15.1) - Application : Web-browsing

C.

NAT Rule:
Untrust-L3 (any) - Untrust-L3 (any) Destination Translation : 192.168.15.1
Security Rule:
Untrust-L3 (any) - Trust-L3 (172.16.15.1) - Application : Web-browsing

D.

NAT Rule:
Untrust-L3 (any) - Untrust-L3 (172.16.15.1) Destination Translation : 192.168.15.47
Security Rule:
Untrust-L3 (any) - Trust-L3 (172.16.15.1) - Application : Web-browsing

Correct Answer: D

Section:

QUESTION 119

An administrator has left a firewall to use the default port for all management services. Which three functions are performed by the dataplane?

- A. NTP
- B. Antivirus
- C. Wildfire updates
- D. NAT
- E. File tracking

Correct Answer: A, C, D

Section:

QUESTION 120

Which two events trigger the operation of automatic commit recovery? (Choose two.)

- A. when an aggregate Ethernet interface component fails
- B. when Panorama pushes a configuration
- C. when a firewall HA pair fails over
- D. when a firewall performs a local commit

Correct Answer: B, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-new-features/panoramafeatures/automatic-panorama-connection-recovery.html> Automatic commit recovery allows you to configure the firewall to attempt a specified number of connectivity tests after:

- 1- you push a configuration from Panorama or
- 2- commit a configuration change locally on the firewall.

Additionally, the firewall checks connectivity to Panorama every hour to ensure consistent communication in the event unrelated network configuration changes have disrupted connectivity between the firewall and Panorama or if implications to a pushed committed configuration may have affected connectivity.

QUESTION 121

Panorama provides which two SD-WAN functions? (Choose two.)

- A. data plane
- B. physical network links
- C. network monitoring
- D. control plane

Correct Answer: C, D

Section:

Explanation:

<https://www.paloaltonetworks.com/resources/guides/sd-wan-architecture-guide>

<https://docs.paloaltonetworks.com/sd-wan/1-0/sd-wan-admin/sd-wan-overview/about-sdwan.html>

(Network Monitoring & Control Plane). Data plane & Physical Interfaces are directly taken care through Firewalls where SD WAN is enabled.



QUESTION 122

A user's traffic traversing a Palo Alto Networks NGFW sometimes can reach <http://www.company.com>. At other times the session times out. The NGFW has been configured with a PBF rule that the user traffic matches when it goes to <http://www.company.com>. How can the firewall be configured to automatically disable the PBF rule if the next hop goes down?

- A. Create and add a monitor profile with an action of fail over in the PBF rule in question
- B. Create and add a monitor profile with an action of wait recover in the PBF rule in question
- C. Configure path monitoring for the next hop gateway on the default route in the virtual router
- D. Enable and configure a link monitoring profile for the external interface of the firewall

Correct Answer: A

Section:

QUESTION 123

The Aggregate Ethernet interface is showing down on a passive PA-7050 firewall of an active/passive HA pair. The HA Passive Link State is set to "Auto" under Device > High Availability > General > Active/Passive Settings. The AE interface is configured with LACP enabled and is up only on the active firewall.

Why is the AE interface showing down on the passive firewall?

- A. It does not perform pre-negotiation LACP unless "Enable in HA Passive State" is selected under the High Availability Options on the LACP tab of the AE Interface.
- B. It does not participate in LACP negotiation unless Fast Failover is selected under the Enable LACP selection on the LACP tab of the AE Interface.
- C. It participates in LACP negotiation when Fast is selected for Transmission Rate under the Enable LACP selection on the LACP tab of the AE Interface.
- D. It performs pre-negotiation of LACP when the mode Passive is selected under the Enable LACP selection on the LACP tab of the AE Interface.

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/high-availability/set-up-activepassive-ha/configure-activepassive-ha>

**QUESTION 124**

An engineer needs to configure SSL Forward Proxy to decrypt traffic on a PA-5260. The engineer uses a forward trust certificate from the enterprise PKI that expires December 31, 2025. The validity date on the PA-generated certificate is taken from what?

- A. The trusted certificate
- B. The server certificate
- C. The untrusted certificate
- D. The root CA

Correct Answer: B

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000Cm8wCA>"The validity date on the Palo Alto Networks firewall generated certificate is taken from the validity date on the real server certificate."

QUESTION 125

Refer to the exhibit.

NAME ^		Device Group: DATACENTER_DG				Device Group: Shared					
		NAME	LOCATION	TAGS	TYPE	NAME	LOCATION	TAGS	TYPE		
<input type="checkbox"/>	Shared	1	intrazone-default	DATACENTER_DG	none	intrazone	1	intrazone-default	Shared	none	intrazone
<input type="checkbox"/>	DATACENTER_DG	2	interzone-default	Predefined	none	interzone	2	interzone-default	Predefined	none	interzone

Based on the screenshots above what is the correct order in which the various rules are deployed to firewalls inside the DATACENTER_DG device group?

- A. shared pre-rules
DATACENTER DG pre rules
rules configured locally on the firewall
shared post-rules
DATACENTER_DG post-rules
DATACENTER.DG default rules
- B. shared pre-rules
DATACENTER_DG pre-rules
rules configured locally on the firewall
shared post-rules
DATACENTER.DG post-rules
shared default rules
- C. shared pre-rules
DATACENTER_DG pre-rules
rules configured locally on the firewall
DATACENTER_DG post-rules
shared post-rules
shared default rules
- D. shared pre-rules
DATACENTER_DG pre-rules
rules configured locally on the firewall
DATACENTER_DG post-rules
shared post-rules
DATACENTER_DG default rules



Correct Answer: A
Section:

QUESTION 126

How can Panorama help with troubleshooting problems such as high CPU or resource exhaustion on a managed firewall?

- A. Firewalls send SNMP traps to Panorama when resource exhaustion is detected Panorama generates a system log and can send email alerts
- B. Panorama provides visibility into all the system and traffic logs received from firewalls it does not offer any ability to see or monitor resource utilization on managed firewalls
- C. Panorama monitors all firewalls using SNMP It generates a system log and can send email alerts when resource exhaustion is detected on a managed firewall
- D. Panorama provides information about system resources of the managed devices in the Managed Devices > Health menu

Correct Answer: D

Section:

Explanation:

Panorama can help with troubleshooting problems such as high CPU or resource exhaustion on a managed firewall by providing information about system resources of the managed devices in the Managed Devices > Health menu. This is explained in the Palo Alto Networks PCNSE Study Guide in Chapter 13: Panorama, under the section "Monitoring Managed Firewalls with Panorama": "The Panorama web interface provides information about the system resources of the managed devices. In the Managed Devices > Health menu, you can view the CPU, memory, and disk usage of each managed device. This information can help you troubleshoot problems such as high CPU or resource exhaustion on a managed firewall."

QUESTION 127

Four configuration choices are listed, and each could be used to block access to a specific URL. If you configured each choice to block the same URL, then which choice would be evaluated last in the processing order to block access to the URL?

- A. PAN-DB URL category in URL Filtering profile
- B. Custom URL category in Security policy rule
- C. Custom URL category in URL Filtering profile
- D. EDL in URL Filtering profile

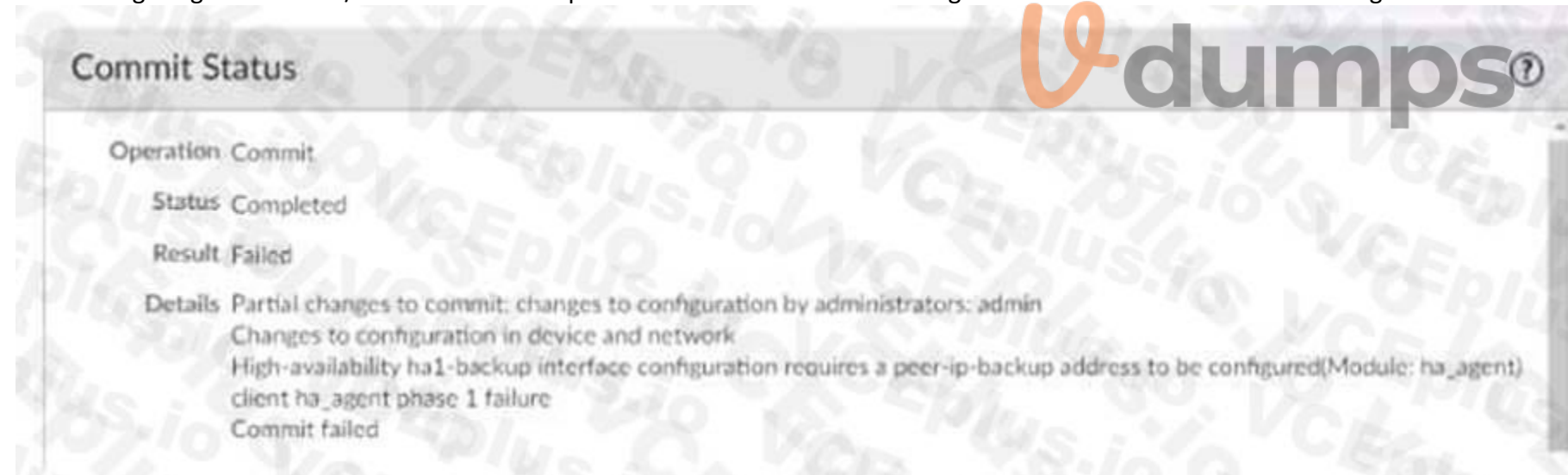
Correct Answer: A

Section:

Explanation:

QUESTION 128

After configuring HA in Active/Passive mode on a pair of firewalls the administrator gets a failed commit with the following details.



What are two causes for this type of issue? (Choose two)

- A. The peer IP is not included in the permit list on Management Interface Settings
- B. The Backup Peer HA1 IP Address was not configured when the commit was issued
- C. Either management or a data-plane interface is used as HA1-backup
- D. One of the firewalls has gone into the suspended state

Correct Answer: B, C

Section:

Explanation:

Cause The issue is seen when the HA1-backup is configured with either management (MGT) or an in-band interface. The "Backup Peer HA1 IP Address" is not configured : <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?>

QUESTION 129

A company with already deployed Palo Alto firewalls has purchased their first Panorama server. The security team has already configured all firewalls with the Panorama IP address and added all the firewall serial numbers in Panorama.

What are the next steps to migrate configuration from the firewalls to Panorama?

- A. Use API calls to retrieve the configuration directly from the managed devices
- B. Export Named Configuration Snapshot on each firewall followed by Import Named Configuration Snapshot in Panorama
- C. Import Device Configuration to Panorama followed by Export or Push Device Config Bundle
- D. Use the Firewall Migration plugin to retrieve the configuration directly from the managed devices

Correct Answer: C

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000CloRCAS>

QUESTION 130

Which log type would provide information about traffic blocked by a Zone Protection profile?

- A. Data Filtering
- B. IP-Tag
- C. Traffic
- D. Threat

Correct Answer: D

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000Clm9CACZone> Protection profile is a set of security policies that you can apply to an interface or zone to protect it from reconnaissance, flooding, brute force, and other types of attacks. The log type that would provide information about traffic blocked by a Zone Protection profile is Threat4. This log type records events such as packet-based attacks, spyware, viruses, vulnerability exploits, and URL filtering.

QUESTION 131

An engineer is creating a template and wants to use variables to standardize the configuration across a large number of devices. Which two variable types can be defined? (Choose two.)

- A. Path group
- B. Zone
- C. IP netmask
- D. FQDN

Correct Answer: C, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-web-interface-help/panorama-web-interface/panorama-templates/panorama-templates-template-variable>

QUESTION 132

An engineer is bootstrapping a VM-Series Firewall. Other than the 'config' folder, which three directories are mandatory as part of the bootstrap package directory structure? (Choose three.)



- A. /software
- B. /opt
- C. /license
- D. /content
- E. /plugins

Correct Answer: A, C, D

Section:

Explanation:

<https://docs.paloaltonetworks.com/vm-series/9-1/vm-series-deployment/bootstrap-the-vm-series-firewall/prepare-the-bootstrap-package>

QUESTION 133

Review the screenshot of the Certificates page.

NAME	SUBJECT	ISSUER	CA	KEY	EXPIRES	STATUS	ALGO.	USAGE
Self-Signed Root CA	C = US, ST = CA, O = Small Business LLC, CN = 192.168.127.14	C = US, ST = CA, O = Small Business LLC, CN = 192.168.127.14, emailAddress = admin@smallbusiness.com	Yes	Yes	Dec 13 03:26:17 2022 GMT	valid	RSA	Trusted Root CA Certificate
Forward Untrust	CN = 192.168.127.14	CN = 192.168.127.14	Yes	Yes	Dec 13 03:28:10 2022 GMT	valid	RSA	Forward Untrust Certificate
Forward Trust	CN = 192.168.127.14	CN = 192.168.127.14	Yes	Yes	Dec 13 03:31:09 2022 GMT	valid	RSA	Forward Trust Certificate

An administrator for a small LLC has created a series of certificates as shown, to use for a planned Decryption roll out. The administrator has also installed the self-signed root certificate on all client systems. When testing, they noticed that every time a user visited an SSL site they received unsecured website warnings. What is the cause of the unsecured website warnings?

- A. The forward trust certificate has not been signed by the self-signed root CA certificate
- B. The self-signed CA certificate has the same CN as the forward trust and untrust certificates
- C. The forward untrust certificate has not been signed by the self-signed root CA certificate
- D. The forward trust certificate has not been installed in client systems

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/decryption/configure-ssl-forward-proxy>

QUESTION 134

Which statement about High Availability timer settings is true?

- A. Use the Moderate timer for typical failover timer settings.
- B. Use the Critical timer for faster failover timer settings.
- C. Use the Recommended timer for faster failover timer settings.
- D. Use the Aggressive timer for faster failover timer settings.

Correct Answer: B

Section:

Explanation:

QUESTION 135

What are two best practices for incorporating new and modified App-IDs? (Choose two)

- A. Configure a security policy rule to allow new App-IDs that might have network-wide impact
- B. Study the release notes and install new App-IDs if they are determined to have low impact
- C. Perform a Best Practice Assessment to evaluate the impact of the new or modified App-IDs
- D. Run the latest PAN-OS version in a supported release tree to have the best performance for the new App-IDs

Correct Answer: A, B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-upgrade/software-and-content-updates/best-practices-for-app-and-threat-content-updates/best-practices-security-first#id184AH00F06E>

QUESTION 136

Which three firewall multi-factor authentication factors are supported by PAN-OS? (Choose three)

- A. SSH key
- B. User logon
- C. Short message service
- D. One-Time Password
- E. Push

Correct Answer: B, D, E

Section:

Explanation:

According to Palo Alto Networks documentation¹²³, multi-factor authentication (MFA) is a method of verifying a user's identity using two or more factors, such as something they know, something they have, or something they are. The firewall supports MFA for administrative access, GlobalProtect VPN access, and Captive Portal access. The firewall can integrate with external MFA providers such as RSA SecurID, Duo Security, or Okta Verify. The three firewall MFA factors that are supported by PAN-OS are: User logon: This is something the user knows, such as a username and password. One-Time Password: This is something the user has, such as a code generated by an app or sent by email or SMS. Push: This is something the user is, such as a biometric verification or a device approval.

QUESTION 137

An engineer has been given approval to upgrade their environment to PAN-OS 10.2. The environment consists of both physical and virtual firewalls, a virtual Panorama HA pair, and virtual log collectors. What is the recommended order when upgrading to PAN-OS 10.2?

- A. Upgrade Panorama, upgrade the log collectors, upgrade the firewalls
- B. Upgrade the firewalls, upgrade log collectors, upgrade Panorama
- C. Upgrade the firewalls, upgrade Panorama, upgrade the log collectors
- D. Upgrade the log collectors, upgrade the firewalls, upgrade Panorama

Correct Answer: A

Section:

Explanation:

Make sure Panorama is running the same or a later PAN-OS version than you are upgrading to. You must upgrade Panorama and its Log Collectors to 10.2 before upgrading the managed firewalls to this version. In addition, when upgrading Log Collectors to 10.2, you must upgrade all Log Collectors at the same time due to changes in the logging infrastructure. <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-upgrade/upgrade-pan-os/upgrade-the-firewall-pan-os/upgrade-firewalls-using-panorama>

QUESTION 138

Which benefit do policy rule UUIDs provide?

- A. An audit trail across a policy's lifespan
- B. Functionality for scheduling policy actions
- C. The use of user IP mapping and groups in policies
- D. Cloning of policies between device-groups

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/policy/enumeration-of-rules-within-a-rulebase> To keep track of rules within a rulebase, you can refer to the rule number, which changes depending on the order of a rule in the rulebase. The rule number determines the order in which the firewall applies the rule. The universally unique identifier (UUID) for a rule never changes even if you modify the rule, such as when you change the rule name. The UUID allows you to track the rule across rule bases even after you deleted the rule.

QUESTION 139

A network security administrator wants to begin inspecting bulk user HTTPS traffic flows egressing out of the internet edge firewall. Which certificate is the best choice to configure as an SSL ForwardTrust certificate?

- A. A self-signed Certificate Authority certificate generated by the firewall
- B. A Machine Certificate for the firewall signed by the organization's PKI
- C. A web server certificate signed by the organization's PKI
- D. A subordinate Certificate Authority certificate signed by the organization's PKI

Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/decryption/configure-ssl-forward-proxy>



QUESTION 140

During a laptop-replacement project, remote users must be able to establish a GlobalProtect VPN connection to the corporate network before logging in to their new Windows 10 endpoints.

The new laptops have the 5.2.10 GlobalProtect Agent installed, so the administrator chooses to use the Connect Before Logon feature to solve this issue.

What must be configured to enable the Connect Before Logon feature?

- A. The GlobalProtect Portal Agent App Settings Connect Method to Pre-logon then On-demand.
- B. Registry keys on the Windows system.
- C. X-Auth Support in the GlobalProtect Gateway Tunnel Settings.
- D. The Certificate profile in the GlobalProtect Portal Authentication Settings.

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/globalprotect/5-2/globalprotect-app-new-features/new-features-released-in-gp-app/connect-before-logon> "To use Connect Before Logon, you must enable the settings in the Windows registry and choose the authentication method"

QUESTION 141

The decision to upgrade to PAN-OS 10.2 has been approved. The engineer begins the process by upgrading the Panorama servers, but gets an error when trying to install.

When performing an upgrade on Panorama to PAN-OS 10.2, what is the potential cause of a failed install?

- A. Management only mode
- B. Expired certificates

- C. Outdated plugins
- D. GlobalProtect agent version

Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/11-0/pan-os-upgrade/upgrade-panorama-plugins/panorama-plugins-upgrade-downgrade-considerations> Before you upgrade to PAN-OS 11.0, you must download the Panorama plugin version supported on PAN-OS 11.0 for all plugins installed on Panorama. This is required to successfully upgrade to PAN-OS 11.0. See the Compatibility Matrix for more information.

QUESTION 142

An engineer needs to collect User-ID mappings from the company's existing proxies. What two methods can be used to pull this data from third party proxies? (Choose two.)

- A. Syslog
- B. XFF Headers
- C. Client probing
- D. Server Monitoring

Correct Answer: A, B

Section:

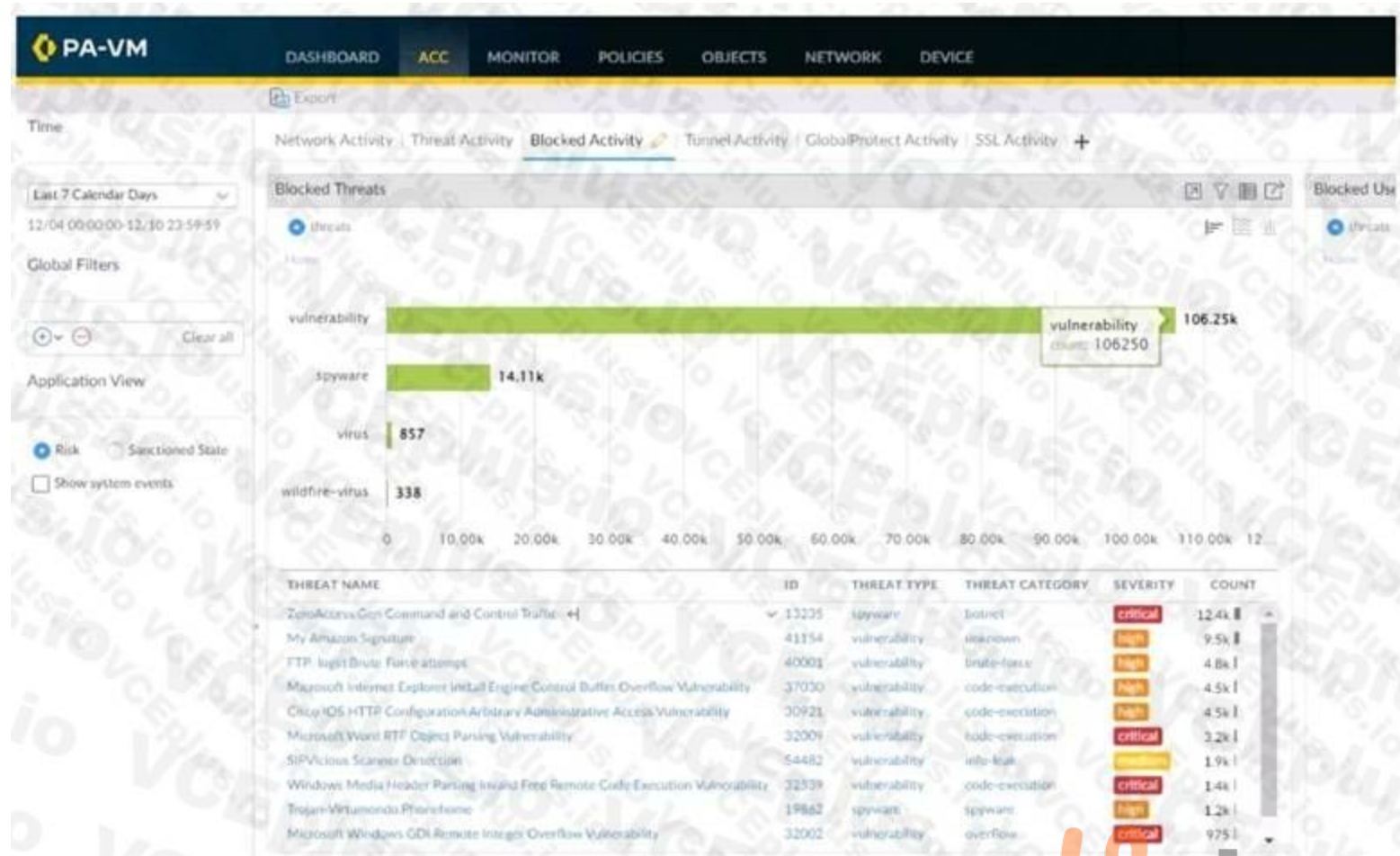
Explanation:

<https://docs.paloaltonetworks.com/pan-os/11-0/pan-os-admin/user-id/user-id-concepts/user-mapping/xff-headers#idf60a278d-2285-4b19-9cc3-95a4b88d5c51> <https://docs.paloaltonetworks.com/pan-os/11-0/pan-os-admin/user-id/user-id-concepts/user-mapping/syslog#idee459093-72c1-4ca5-9e44-2c4f359090bb>

QUESTION 143

Refer to the exhibit.





Using the above screenshot of the ACC, what is the best method to set a global filter, narrow down Blocked User Activity, and locate the user(s) that could be compromised by a botnet?

- A. Click the hyperlink for the Zero Access.Gen threat.
- B. Click the left arrow beside the Zero Access.Gen threat.
- C. Click the source user with the highest threat count.
- D. Click the hyperlink for the hotport threat Category.

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/monitoring/use-the-application-command-center/interact-with-the-acc#id5cc39dae-04cf-4936-9916-1a4b0f3179b9>

QUESTION 144

An administrator creates an application-based security policy rule and commits the change to the firewall. Which two methods should be used to identify the dependent applications for the respective rule? (Choose two.)

- A. Use the show predefined xpath <value> command and review the output.
- B. Review the App Dependency application list from the Commit Status view.
- C. Open the security policy rule and review the Depends On application list.
- D. Reference another application group containing similar applications.

Correct Answer: B, C

Section:

Explanation:

These two methods allow the administrator to see the dependent applications for a security policy rule that uses application-based criteria. The App Dependency application list shows the applications that are required for

the rule to function properly¹. The Depends On application list shows the applications that are implicitly added to the rule based on the predefined dependencies². Reference: 1: <https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-new-features/app-id-features/simplified-application-dependency-workflow> 2: <https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/app-id/use-application-objects-in-policy/resolve-application-dependencies>

QUESTION 145

What happens when an A/P firewall cluster synchronizes IPsec tunnel security associations (SAs)?

- A. Phase 1 and Phase 2 SAs are synchronized over HA3 links.
- B. Phase 1 SAs are synchronized over HA1 links.
- C. Phase 2 SAs are synchronized over HA2 links.
- D. Phase 1 and Phase 2 SAs are synchronized over HA2 links.

Correct Answer: C

Section:

Explanation:

From the Palo Alto documentation below, "when a VPN is terminated on a Palo Alto firewall HA pair, not all IPSEC related information is synchronized between the firewalls... This is an expected behavior. IKE phase 1 SA information is NOT synchronized between the HA firewalls." And from the second link, "Data link (HA2) is used to sync sessions, forwarding tables, IPsec security associations, and ARP tables between firewalls in the HA pair. Data flow on the HA2 link is always unidirectional (except for the HA2 keep-alive). It flows from the active firewall to the passive firewall." https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA14u000000HAuZCAW&lang=en_US%E2%80%A9&refURL=http%3A%2F%2Fknowledgebase.paloaltonetworks.com%2FKCSArticleDetailhttps://help.aryaka.com/display/public/KNOW/Palo+Alto+Networks+NFV+Technical+Brief

QUESTION 146

An engineer is designing a deployment of multi-vsyst firewalls.

What must be taken into consideration when designing the device group structure?

- A. Multiple vsys and firewalls can be assigned to a device group, and a multi-vsyst firewall must have all its vsys in a single device group.
- B. Only one vsys or one firewall can be assigned to a device group, except for a multi-vsyst firewall, which must have all its vsys in a single device group.
- C. Multiple vsys and firewalls can be assigned to a device group, and a multi-vsyst firewall can have each vsyst in a different device group.
- D. Only one vsys or one firewall can be assigned to a device group, and a multi-vsyst firewall can have each vsyst in a different device group.

Correct Answer: C

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000CIETCA0>

QUESTION 147

An administrator creates a custom application containing Layer 7 signatures. The latest application and threat dynamic update is downloaded to the same firewall. The update contains an application that matches the same traffic signatures as the custom application.

Which application will be used to identify traffic traversing the firewall?

- A. Custom application
- B. Unknown application
- C. Incomplete application
- D. Downloaded application

Correct Answer: A

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/u-v/custom-app-id-and-threat-signatures/custom-application-and-threat-signatures/about-custom-application-signatures.html>

QUESTION 148

What happens, by default, when the GlobalProtect app fails to establish an IPSec tunnel to the GlobalProtect gateway?

- A. It stops the tunnel-establishment processing to the GlobalProtect gateway immediately.
- B. It tries to establish a tunnel to the GlobalProtect gateway using SSL/TLS.
- C. It keeps trying to establish an IPSec tunnel to the GlobalProtect gateway.
- D. It tries to establish a tunnel to the GlobalProtect portal using SSL/TLS.

Correct Answer: B

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClfoCAC> "Should the IPSec connection fail, VPN will fall back to SSL protocol."

QUESTION 149

An engineer wants to configure aggregate interfaces to increase bandwidth and redundancy between the firewall and switch. Which statement is correct about the configuration of the interfaces assigned to an aggregate interface group?

- A. They can have a different bandwidth.
- B. They can have a different interface type such as Layer 3 or Layer 2.
- C. They can have a different interface type from an aggregate interface group.
- D. They can have different hardware media such as the ability to mix fiber optic and copper.

Correct Answer: D

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/networking/configure-interfaces/configure-an-aggregate-interface-group>

**QUESTION 150**

What is a key step in implementing WildFire best practices?

- A. In a mission-critical network, increase the WildFire size limits to the maximum value.
- B. Configure the firewall to retrieve content updates every minute.
- C. In a security-first network, set the WildFire size limits to the minimum value.
- D. Ensure that a Threat Prevention subscription is active.

Correct Answer: D

Section:

Explanation:

In the WildFire best practices linked below, the first step is to "... make sure that you have an active Threat Prevention subscription. Together, WildFireÆ and Threat Prevention enable comprehensivethreat detection and prevention." [https:// docs.paloaltonetworks.com/wildfire/10-1/wildfire- admin/wildfire-deployment-best-practices/wildfire-best-practices.html](https://docs.paloaltonetworks.com/wildfire/10-1/wildfire-admin/wildfire-deployment-best-practices/wildfire-best-practices.html)

QUESTION 151

An administrator is attempting to create policies for deployment of a device group and template stack. When creating the policies, the zone drop-down list does not include the required zone. What can the administrator do to correct this issue?

- A. Enable "Share Unused Address and Service Objects with Devices" in Panorama settings.
- B. Add a firewall to both the device group and the template.

- C. Specify the target device as the master device in the device group.
- D. Add the template as a reference template in the device group.

Correct Answer: D

Section:

Explanation:

Short According to the Palo Alto Networks documentation, "To use a template stack for a device group, you must add the template stack as a reference template in the device group. This enables you to use zones and interfaces defined in the template stack when creating policies for the device group." Reference: <https://docs.paloaltonetworks.com/panorama/9-1/panorama-admin/manage-firewalls/manage-templates-and-template-stacks>

QUESTION 152

Review the images.



A firewall policy that permits web traffic includes the What is the result of traffic that matches the "Alert - Threats" Profile Match List?

- A. The source address of SMTP traffic that matches a threat is automatically blocked as BadGuys for 180 minutes.
- B. The source address of traffic that matches a threat is automatically blocked as BadGuys for 180 minutes.
- C. The source address of traffic that matches a threat is automatically tagged as BadGuys for 180 minutes.
- D. The source address of SMTP traffic that matches a threat is automatically tagged as BadGuys for 180 minutes.

Correct Answer: C

Section:

Explanation:

The threat profile has the action set to "alert" which means that the traffic is allowed but logged. The profile also has the "Tag Source IP" option enabled with the tag name "BadGuys" and the timeout value of 180 minutes.

This means that any source IP address that matches a threat signature will be tagged with "BadGuys" for 180 minutes. The tag can be used for dynamic address groups or external dynamic lists to enforce policy actions based on the tag. Reference: [https:// docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/threat-prevention/set-up-antivirus- anti-spyware-and-vulnerability-protection/tag-source-ip-addresses-that-trigger-threat-signatures](https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/threat-prevention/set-up-antivirus-anti-spyware-and-vulnerability-protection/tag-source-ip-addresses-that-trigger-threat-signatures)

QUESTION 153

A system administrator runs a port scan using the company tool as part of vulnerability check. The administrator finds that the scan is identified as a threat and is dropped by the firewall. After further investigating the logs, the administrator finds that the scan is dropped in the Threat Logs.

What should the administrator do to allow the tool to scan through the firewall?

- A. Remove the Zone Protection profile from the zone setting.
- B. Add the tool IP address to the reconnaissance protection source address exclusion in the Zone Protection profile.
- C. Add the tool IP address to the reconnaissance protection source address exclusion in the DoS Protection profile.
- D. Change the TCP port scan action from Block to Alert in the Zone Protection profile.

Correct Answer: B

Section:

Explanation:

The administrator should add the tool IP address to the reconnaissance protection source address exclusion in the Zone Protection profile to allow the tool to scan through the firewall. Reconnaissance protection is a feature of Zone Protection profiles that allows the firewall to detect and block network reconnaissance attempts, such as port scans. The source address exclusion list allows the administrator to whitelist up to 20 IP addresses or netmask address objects that are exempt from reconnaissance protection¹. Option A is incorrect because removing the Zone Protection profile from the zone setting would disable all the zone protection features, not just reconnaissance protection. This would reduce the security of the zone and expose it to other types of attacks. Option C is incorrect because adding the tool IP address to the reconnaissance protection source address exclusion in the DoS Protection profile would not have any effect. DoS Protection profiles are used to protect against excessive traffic volume, not network reconnaissance attempts. Option D is incorrect because changing the TCP port scan action from Block to Alert in the Zone Protection profile would only affect TCP port scans, not other types of scans. It would also affect all TCP port scans, not just those from the tool IP address. [https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/zone-protection-and-dos- protection/configure-zone-protection-to-increase-network-security/configure-reconnaissance- protection](https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/zone-protection-and-dos-protection/configure-zone-protection-to-increase-network-security/configure-reconnaissance-protection)

QUESTION 154

An administrator has 750 firewalls. The administrator's central-management Panorama instance deploys dynamic updates to the firewalls. The administrator notices that the dynamic updates from Panorama do not appear on some of the firewalls.

If Panorama pushes the configuration of a dynamic update schedule to managed firewalls, but the configuration does not appear, what is the root cause?

- A. Panorama does not have valid licenses to push the dynamic updates.
- B. Panorama has no connection to Palo Alto Networks update servers.
- C. No service route is configured on the firewalls to Palo Alto Networks update servers.
- D. Locally-defined dynamic update settings take precedence over the settings that Panorama pushed.

Correct Answer: D

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000CIKQCA0> "Locally defined dynamic updates setting on a managed Palo Alto Networks firewall take preference over the Panorama pushed setting."

QUESTION 155

An administrator wants to enable WildFire inline machine learning.

Which three file types does WildFire inline ML analyze? (Choose three.)

- A. MS Office
- B. ELF
- C. APK
- D. VBscripts
- E. Powershell scripts

Correct Answer: A, B, E

Section:

QUESTION 156

A network security administrator has been tasked with deploying User-ID in their organization. What are three valid methods of collecting User-ID information in a network? (Choose three.)

- A. Windows User-ID agent
- B. GlobalProtect
- C. XMLAPI
- D. External dynamic list
- E. Dynamic user groups

Correct Answer: A, B, C

Section:

Explanation:

User-ID is a feature that enables the firewall to identify users and groups based on their IP addresses, usernames, or other attributes.

There are three valid methods of collecting User-ID information in a network:

Windows User-ID agent: This is a software agent that runs on a Windows server and collects user mapping information from Active Directory, Exchange servers, or other sources.

GlobalProtect: This is a VPN solution that provides secure remote access for users and devices. It also collects user mapping information from endpoints that connect to the firewall using GlobalProtect.

XMLAPI: This is an application programming interface that allows third-party applications or scripts to send user mapping information to the firewall using XML format.

QUESTION 157

What steps should a user take to increase the NAT oversubscription rate from the default platform setting?

- A. Navigate to Device > Setup > TCP Settings > NAT Oversubscription Rate
- B. Navigate to Policies > NAT > Destination Address Translation > Dynamic IP (with session distribution)
- C. Navigate to Policies > NAT > Source Address Translation > Dynamic IP (with session distribution)
- D. Navigate to Device > Setup > Session Settings > NAT Oversubscription Rate

Correct Answer: D

Section:

Explanation:

NAT oversubscription is a feature that allows you to reuse a translated IP address and port for multiple source devices. This can help you conserve public IP addresses and increase the number of sessions that can be translated by a NAT rule.

QUESTION 158

A network administrator is trying to prevent domain username and password submissions to phishing sites on some allowed URL categories Which set of steps does the administrator need to take in the URL Filtering profile to prevent credential phishing on the firewall?

- A. Choose the URL categories on Site Access column and set action to block Click the User credential Detection tab and select IP User Mapping Commit
- B. Choose the URL categories in the User Credential Submission column and set action to block Select the User credential Detection tab and select use IP User Mapping Commit
- C. Choose the URL categories in the User Credential Submission column and set action to block Select the URL filtering settings and enable Domain Credential Filter Commit
- D. Choose the URL categories in the User Credential Submission column and set action to block Select the User credential Detection tab and select Use Domain Credential Filter Commit

Correct Answer: D

Section:

QUESTION 159

An engineer is deploying multiple firewalls with common configuration in Panorama.
What are two benefits of using nested device groups? (Choose two.)

- A. Inherit settings from the Shared group
- B. Inherit IPSec crypto profiles
- C. Inherit all Security policy rules and objects
- D. Inherit parent Security policy rules and objects

Correct Answer: B, D

Section:

Explanation:

B. Inherit IPSec crypto profiles

This is correct because IPSec crypto profiles are one of the objects that can be inherited from a parent device group¹. You can also create IPSec crypto profiles for use in shared or device group policy¹.

D. Inherit parent Security policy rules and objects

This is correct because Security policy rules and objects are also inheritable from a parent device group¹. You can also create Security policy rules and objects for use in shared or device group policy¹.

QUESTION 160

A security engineer received multiple reports of an IPSec VPN tunnel going down the night before.
The engineer couldn't find any events related to VPN under system togs.
What is the likely cause?

- A. Dead Peer Detection is not enabled.
- B. Tunnel Inspection settings are misconfigured.
- C. The Tunnel Monitor is not configured.
- D. The log quota for GTP and Tunnel needs to be adjusted



Correct Answer: C

Section:

Explanation:

This means that the firewall does not have a mechanism to monitor the status of the IPSec VPN tunnel and generate logs when it goes down or up. The Tunnel Monitor is an optional feature that can be enabled on each IPSec tunnel interface and it uses ICMP probes to check the connectivity of the tunnel peer. If the firewall does not receive a response from the peer after a specified number of retries, it marks the tunnel as down and logs an event¹.

QUESTION 161

How should an administrator enable the Advance Routing Engine on a Palo Alto Networks firewall?

- A. Enable Advanced Routing Engine in Device > Setup > Session > Session Settings, then commit and reboot.
- B. Enable Advanced Routing in Network > Virtual Routers > Redistribution Profiles and then commit.
- C. Enable Advanced Routing in Network > Virtual Routers > Router Settings > General, then commit and reboot.
- D. Enable Advanced Routing in General Settings of Device > Setup > Management, then commit and reboot

Correct Answer: C

Section:

Explanation:

Enable Advanced Routing in Network > Virtual Routers > Router Settings > General, then commit and reboot¹. This means that the administrator can enable advanced routing features such as RIB filtering, BFD, multicast, and redistribution profiles for each virtual router on the firewall. The firewall requires a reboot after enabling advanced routing to apply the changes.

QUESTION 162

A firewall engineer creates a new App-ID report under Monitor > Reports > Application Reports > New Application to monitor new applications on the network and better assess any Security policy updates the engineer might want to make.

How does the firewall identify the New App-ID characteristic?

- A. It matches to the New App-IDs downloaded in the last 30 days.
- B. It matches to the New App-IDs downloaded in the last 90 days
- C. It matches to the New App-IDs installed since the last time the firewall was rebooted
- D. It matches to the New App-IDs in the most recently installed content releases.

Correct Answer: D

Section:

Explanation:

When creating a new App-ID report under Monitor > Reports > Application Reports > New Application, the firewall identifies new applications based on the New App-IDs in the most recently installed content releases. The New App-IDs are the application signatures that have been added in the latest content release, which can be found under Objects > Security Profiles > Application. This allows the engineer to monitor any new applications that have been added to the firewall's database and evaluate whether to allow or block them with a Security policy update.

QUESTION 163

An organization conducts research on the benefits of leveraging the Web Proxy feature of PAN-OS 11.0.

What are two benefits of using an explicit proxy method versus a transparent proxy method?

(Choose two.)

- A. No client configuration is required for explicit proxy, which simplifies the deployment complexity.
- B. Explicit proxy allows for easier troubleshooting, since the client browser is aware of the existence of the proxy.
- C. Explicit proxy supports interception of traffic using non-standard HTTPS ports.
- D. It supports the X-Authenticated-User (XAU) header, which contains the authenticated username in the outgoing request

Correct Answer: B, C

Section:

Explanation:

B. Explicit proxy allows for easier troubleshooting, since the client browser is aware of the existence of the proxy¹². This means that the client can see the proxy's IP address and port number, and can use tools like ping or traceroute to check connectivity and latency issues. Transparent proxies are invisible to the client browser, which makes it harder to diagnose problems.

C. Explicit proxy supports interception of traffic using non-standard HTTPS ports³. This means that the proxy can handle HTTPS requests that use ports other than 443, which may be required by some applications or websites. Transparent proxies can only intercept HTTPS traffic on port 443, which limits their functionality.

QUESTION 164

What is the best definition of the Heartbeat Interval?

- A. The interval in milliseconds between hello packets
- B. The frequency at which the HA peers check link or path availability
- C. The frequency at which the HA peers exchange ping
- D. The interval during which the firewall will remain active following a link monitor failure

Correct Answer: A

Section:

Explanation:

According to the Palo Alto Networks Knowledge Base¹², the best definition of the Heartbeat Interval is A. The interval in milliseconds between hello packets.

The Heartbeat Interval is a CLI command that configures how often an HA peer sends an ICMP ping to its partner through the HA control link. The ping verifies network connectivity and ensures that the peer kernel is

responsive. The default value is 1000ms for all Palo Alto Networks platforms.

QUESTION 165

An administrator wants to configure the Palo Alto Networks Windows User-ID agent to map IP addresses to usernames. The company uses four Microsoft Active Directory servers and two Microsoft Exchange servers, which can provide logs for login events.

All six servers have IP addresses assigned from the following subnet: 192.168.28.32/27. The Microsoft Active Directory servers reside in 192.168.28.32/28. and the Microsoft Exchange servers reside in 192.168.28.48/28. What information does the administrator need to provide in the User Identification > Discovery section?

- A. The IP-address and corresponding server type (Microsoft Active Directory or Microsoft Exchange) for each of the six servers
- B. Network 192.168.28.32/28 with server type Microsoft Active Directory and network 192.168.28.48/28 with server type Microsoft Exchange
- C. Network 192.168.28.32/27 with server type Microsoft
- D. One IP address of a Microsoft Active Directory server and "Auto Discover" enabled to automatically obtain all five of the other servers

Correct Answer: A

Section:

Explanation:

The administrator needs to provide the IP address and corresponding server type (Microsoft Active Directory or Microsoft Exchange) for each of the six servers in the User Identification > Discovery section. The administrator should enter the network address of 192.168.28.32/28 and select "Microsoft Active Directory" as the server type for the four Active Directory servers and enter the network address of 192.168.28.48/28 and select "Microsoft Exchange" as the server type for the two Exchange servers. This will allow the User-ID agent to discover and map the IP address of each server to the corresponding username.

QUESTION 166

A network engineer troubleshoots a VPN Phase 2 mismatch and decides that PFS (Perfect Forward Secrecy) needs to be enabled.

What action should the engineer take?

- A. Add an authentication algorithm in the IPSec Crypto profile.
- B. Enable PFS under the IPSec Tunnel advanced options.
- C. Select the appropriate DH Group under the IPSec Crypto profile.
- D. Enable PFS under the IKE gateway advanced options



Correct Answer: C

Section:

Explanation:

PFS (Perfect Forward Secrecy) is a feature that ensures that the encryption keys used for each IPSec session are not derived from previous keys. This provides more security in case one key is compromised. To enable PFS, the administrator needs to select the appropriate DH (Diffie-Hellman) Group under the IPSec Crypto profile that is applied to the IPSec tunnel. The DH Group determines the strength of the key exchange and should match on both ends of the tunnel. The other options do not enable PFS. The authentication algorithm in the IPSec Crypto profile is used to verify the integrity of the IPSec packets. The PFS option under the IPSec Tunnel advanced options or the IKE gateway advanced options does not exist in the WebUI. Reference: 1: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/vpn/site-to-site-vpn/configure-the-ipsec-crypto-profile>

QUESTION 167

A network security engineer configured IP multicast in the virtual router to support a new application. Users in different network segments are reporting that they are unable to access the application.

What must be enabled to allow an interface to forward multicast traffic?

- A. IGMP
- B. PIM
- C. BFD
- D. SSM

Correct Answer: B

Section:

Explanation:

A protocol that enables routers to forward multicast traffic efficiently based on the source and destination addresses. PIM can operate in two modes: sparse mode (PIM-SM) or dense mode (PIMDM).

PIM-SM uses a rendezvous point (RP) as a central point for distributing multicast traffic, while PIM-DM uses flooding and pruning techniques². to enable PIM on the interface which allows routers to forward multicast traffic using either sparse mode or dense mode depending on your network topology and requirements.

QUESTION 168

A super user is tasked with creating administrator accounts for three contractors. For compliance purposes, all three contractors will be working with different device-groups in their hierarchy to deploy policies and objects. Which type of role-based access is most appropriate for this project?

- A. Create a Dynamic Admin with the Panorama Administrator role.
- B. Create a Device Group and Template Admin.
- C. Create a Custom Panorama Admin.
- D. Create a Dynamic Read only superuser

Correct Answer: B

Section:**Explanation:**

A Device Group and Template Admin is a type of role-based access that allows the administrator to assign different privileges for different device groups and templates. This is useful for managing multiple firewalls with different configuration needs. For example, the administrator can create a Device Group and Template Admin role that allows the contractors to deploy policies and objects only to their assigned device groups and templates¹.

The other options are not suitable for this project. A Dynamic Admin with the Panorama Administrator role has full access to all device groups and templates². A Custom Panorama Admin can have limited access to device groups and templates, but cannot have different privileges for different device groups and templates³. A Dynamic Read only superuser can only view the configuration and logs, but cannot deploy policies and objects.

Reference: 1: <https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/panorama-overview/role-based-access-control/administrative-roles/device-group-and-template-admin>

2: <https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/panorama-overview/role-based-access-control/administrative-roles/dynamic-admin> 3: <https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/panorama-overview/role-based-access-control/administrative-roles/custom-panorama-admin>

4: <https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/panorama-overview/role-based-access-control/administrative-roles/dynamic-read-only-superuser>

QUESTION 169

An engineer receives reports from users that applications are not working and that websites are only partially loading in an asymmetric environment. After investigating, the engineer observes the flow_tcp_non_syn_drop counter increasing in the show counters global output.

Which troubleshooting command should the engineer use to work around this issue?

- A. set deviceconfig setting tcp asymmetric-path drop
- B. set deviceconfig setting session tcp-reject-non-syn no
- C. set session tcp-reject-non-syn yes
- D. set deviceconfig setting tcp asymmetric-path bypass

Correct Answer: B

Section:**Explanation:**

To work around this issue, one possible troubleshooting command is set deviceconfig setting session tcp-reject-non-syn no which disables TCP reject non-SYN temporarily (until reboot)⁴. This command allows non-SYN first packet through without dropping it.

The flow_tcp_non_syn_drop counter increases when the firewall receives packets with the ACK flag set, but not the SYN flag, which indicates asymmetric traffic flow. The tcp-reject-non-syn option enables or disables the firewall to drop non-SYN TCP packets. In this case, disabling the tcp-rejectnon-syn option using the "set deviceconfig setting session tcp-reject-non-syn no" command can help work around the issue. This allows the firewall to accept non-SYN packets and create a session for the existing flow.

QUESTION 170

In an existing deployment, an administrator with numerous firewalls and Panorama does not see any WildFire logs in Panorama. Each firewall has an active WildFire subscription On each firewall. WildFire logs are available. This issue is occurring because forwarding of which type of logs from the firewalls to Panorama is missing?

- A. Threat logs
- B. Traffic logs
- C. System logs
- D. WildFire logs

Correct Answer: A

Section:

Explanation:

Access to the WildFire logs from Panorama requires the following: a WildFire subscription, a File Blocking profile that is attached to a Security rule, and Threat log forwarding to Panorama. <https://docs.paloaltonetworks.com/panorama/10-2/panorama-admin/monitor-network-activity/use-case-respond-to-an-incident-using-panorama/review-wildfire-logs>

QUESTION 171

Which source is the most reliable for collecting User-ID user mapping?

- A. GlobalProtect
- B. Microsoft Active Directory
- C. Microsoft Exchange
- D. Syslog Listener

Correct Answer: B

Section:

Explanation:

For collecting User-ID user mapping information, the most reliable and commonly used source is directory services, with Microsoft Active Directory being the predominant choice in many organizational environments.

C) Microsoft Active Directory:

Microsoft Active Directory is a directory service used for user authentication and authorization. It provides a comprehensive database of user accounts, groups, and other objects within an organization's network. Palo Alto Networks firewalls can integrate with Active Directory to obtain real-time user mapping information, which is crucial for implementing security policies based on user identity.

The integration involves monitoring Active Directory domain controllers for security logs that contain user login events, IP address mappings, and other relevant information. This allows the firewall to accurately and dynamically map user identities to IP addresses, enhancing the granularity and effectiveness of security policies.

Compared to other sources like Syslog Listener, Microsoft Exchange, or GlobalProtect, Active Directory offers direct and comprehensive insights into user activities and is therefore considered the most reliable source for User-ID user mapping in Palo Alto Networks environments.

QUESTION 172

Where is Palo Alto Networks Device Telemetry data stored on a firewall with a device certificate installed?

- A. Cortex Data Lake
- B. Panorama
- C. On Palo Alto Networks Update Servers
- D. M600 Log Collectors

Correct Answer: C

Section:

Explanation:

Palo Alto Networks Device Telemetry data, collected from firewalls with a device certificate installed, is stored on Palo Alto Networks Update Servers. This telemetry data includes information about threats, device health, and other operational metrics that are crucial for the continuous improvement of security services and threat intelligence. The collected data is anonymized and securely transmitted to Palo Alto Networks, where it is used to enhance the overall effectiveness of threat identification and prevention capabilities across all deployed devices. This collaborative approach helps in keeping the security ecosystem updated and resilient against emerging

threats.

QUESTION 173

An engineer decides to use Panorama to upgrade devices to PAN-OS 10.2. Which three platforms support PAN-OS 10.2? (Choose three.)

- A. PA-5000 Series
- B. PA-500
- C. PA-800 Series
- D. PA-220
- E. PA-3400 Series

Correct Answer: C, D, E

Section:

Explanation:

According to the Palo Alto Networks Compatibility Matrix¹, the three platforms that support PAN-OS 10.2 are:

PA-800 Series²

PA-2202

PA-3400 Series²

The PA-5000 Series and PA-500 do not support PAN-OS 10.2.

To upgrade devices to PAN-OS 10.2 using Panorama, you need to determine the upgrade path³, upgrade Panorama itself⁴, and then upgrade the firewalls using Panorama⁵.

QUESTION 174

An engineer configures SSL decryption in order to have more visibility to the internal users' traffic when it is regressing the firewall.

Which three types of interfaces support SSL Forward Proxy? (Choose three.)

- A. High availability (HA)
- B. Layer
- C. Virtual Wire
- D. Tap
- E. Layer 3

Correct Answer: B, C, E

Section:

Explanation:

SSL Forward Proxy is a feature that allows the firewall to decrypt and inspect outbound SSL traffic from internal users to external servers¹. The firewall acts as a proxy (MITM) generating a new certificate for the accessed URL and presenting it to the client during SSL handshake².

SSL Forward Proxy can be configured on any interface type that supports security policies, which are Layer 2, Virtual Wire, and Layer 3 interfaces¹. These interface types allow the firewall to apply security profiles and URL filtering on the decrypted SSL traffic.

QUESTION 175

An organization is interested in migrating from their existing web proxy architecture to the Web Proxy feature of their PAN-OS 11.0 firewalls. Currently, HTTP and SSL requests contain the c IP address of the web server and the client browser is redirected to the proxy Which PAN-OS proxy method should be configured to maintain this type of traffic flow?

- A. DNS proxy
- B. Explicit proxy

- C. SSL forward proxy
- D. Transparent proxy

Correct Answer: D

Section:

Explanation:

A transparent proxy is a type of web proxy that intercepts and redirects HTTP and HTTPS requests without requiring any configuration on the client browser¹. The firewall acts as a gateway between the client and the web server, and performs security checks on the traffic.

A transparent proxy can be configured on PAN-OS 11.0 firewalls by performing the following steps¹:

Enable Web Proxy under Device > Setup > Services

Select Transparent Proxy as the Proxy Type

Configure a Service Route for Web Proxy

Configure SSL/TLS Service Profile for Web Proxy

Configure Security Policy Rules for Web Proxy Traffic

By configuring a transparent proxy on PAN-OS 11.0 firewalls, an organization can migrate from their existing web proxy architecture without changing their network topology or client settings². The firewall will maintain the same type of traffic flow as before, where HTTP and HTTPS requests contain the IP address of the web server and the client browser is redirected to the proxy¹.

Answer A is not correct because DNS proxy is a type of web proxy that intercepts DNS queries from clients and resolves them using an external DNS server³. This type of proxy does not redirect HTTP or HTTPS requests to the firewall.

QUESTION 176

A company is deploying User-ID in their network. The firewall learn needs to have the ability to see and choose from a list of usernames and user groups directly inside the Panorama policies when creating new security rules. How can this be achieved?

- A. By configuring Data Redistribution Client in Panorama > Data Redistribution
- B. By configuring User-ID source device in Panorama > Managed Devices
- C. By configuring User-ID group mapping in Panorama > User Identification
- D. By configuring Master Device in Panorama > Device Groups



Correct Answer: C

Section:

Explanation:

User-ID group mapping is a feature that allows Panorama to retrieve user and group information from directory services such as LDAP or Active Directory¹. This information can be used to enforce security policies based on user identity and group membership.

To configure User-ID group mapping on Panorama, you need to perform the following steps¹:

Select Panorama > User Identification > Group Mapping Settings

Click Add and enter a name for the server profile

Select a Server Type (LDAP or Active Directory)

Click Add and enter the server details (IP address, port number, etc.)

Click OK

Select Group Include List and click Add

Select the groups that you want to include in the group mapping

Click OK

Commit your changes

By configuring User-ID group mapping on Panorama, you can see and choose from a list of usernames and user groups directly inside the Panorama policies when creating new security rules².

QUESTION 177

After importing a pre-configured firewall configuration to Panorama, what step is required to ensure a commit/push is successful without duplicating local configurations?

- A. Ensure Force Template Values is checked when pushing configuration.

- B. Push the Template first, then push Device Group to the newly managed firewall.
- C. Perform the Export or push Device Config Bundle to the newly managed firewall.
- D. Push the Device Group first, then push Template to the newly managed firewall

Correct Answer: C

Section:

Explanation:

When importing a pre-configured firewall configuration to Panorama, you need to perform the following steps¹²:

Add the serial number of the firewall under Panorama > Managed Devices In Panorama, import the firewall's configuration bundle under Panorama > Setup > Operations > Import device configuration to Panorama Make changes to the imported firewall configuration within Panorama Commit the changes you made to Panorama Perform an Export or push Device Config Bundle operation under Panorama > Setup > Operations The Export or push Device Config Bundle operation allows you to push a complete configuration bundle from Panorama to a managed firewall without duplicating local configurations³. This operation ensures that any local settings on the firewall are preserved and merged with the settings from Panorama.

QUESTION 178

An engineer creates a set of rules in a Device Group (Panorama) to permit traffic to various services for a specific LDAP user group. What needs to be configured to ensure Panorama can retrieve user and group information for use in these rules?

- A. A service route to the LDAP server
- B. A Master Device
- C. Authentication Portal
- D. A User-ID agent on the LDAP server

Correct Answer: A

Section:

Explanation:

To configure LDAP authentication on Panorama, you need to²³:

Define an LDAP server profile that specifies the connection details and credentials for accessing the LDAP server.

Define an authentication profile that references the LDAP server profile and defines how users authenticate to Panorama (such as username format and password expiration).

Define an authentication sequence (optional) that allows users to authenticate using multiple methods (such as local database, LDAP, RADIUS, etc.).

Assign the authentication profile or sequence to a Panorama administrator role or a device group role.



QUESTION 179

An engineer is tasked with configuring SSL forward proxy for traffic going to external sites. Which of the following statements is consistent with SSL decryption best practices?

- A. The forward trust certificate should not be stored on an HSM.
- B. The forward untrust certificate should be signed by a certificate authority that is trusted by the clients.
- C. Check both the Forward Trust and Forward Untrust boxes when adding a certificate for use with SSL decryption
- D. The forward untrust certificate should not be signed by a Trusted Root CA

Correct Answer: B

Section:

Explanation:

According to the PCNSE Study Guide¹, SSL forward proxy is a feature that allows the firewall to decrypt and inspect SSL traffic going to external sites. The firewall acts as a proxy between the client and the server, generating a certificate on the fly for each site.

The best practices for configuring SSL forward proxy are²³:

Use a forward trust certificate that is signed by a certificate authority (CA) that is trusted by the clients. This certificate is used to sign certificates for sites that have valid certificates from trusted CAs. The clients will not see any certificate errors if they trust the forward trust certificate.

Use a forward untrust certificate that is not signed by a trusted CA. This certificate is used to sign certificates for sites that have invalid or untrusted certificates. The clients will see certificate errors if they do not trust the forward untrust certificate. This helps alert users of potential risks and prevent man-in-the-middle attacks.

Do not store the forward trust or untrust certificates on an HSM (hardware security module). The HSM does not support on-the-fly signing of certificates, which is required for SSL forward proxy.

QUESTION 180

Which three methods are supported for split tunneling in the GlobalProtect Gateway? (Choose three.)

- A. Video Streaming Application
- B. Destination Domain
- C. Client Application Process
- D. Source Domain
- E. URL Category

Correct Answer: B, C, E

Section:

Explanation:

The GlobalProtect Gateway supports three methods for split tunneling²³:

Access Route ó You can define a list of IP addresses or subnets that are accessible through the VPN tunnel. All other traffic goes directly to the internet.

Domain and Application ó You can define a list of domains or applications that are accessible through the VPN tunnel. All other traffic goes directly to the internet. You can also use this method to exclude specific domains or applications from the VPN tunnel.

Video Traffic ó You can exclude video streaming traffic from the VPN tunnel based on predefined categories or custom URLs. This method reduces latency and jitter for video streaming applications.

QUESTION 181

An engineer discovers the management interface is not routable to the User-ID agent. What configuration is needed to allow the firewall to communicate to the User-ID agent?

- A. Create a NAT policy for the User-ID agent server
- B. Add a Policy Based Forwarding (PBF) policy to the User-ID agent IP
- C. Create a custom service route for the UID Agent
- D. Add a static route to the virtual router

Correct Answer: C

Section:

Explanation:

To allow the firewall to communicate with the User-ID agent, you need to configure a custom service route for the UID Agent²³. A custom service route allows you to specify which interface and source IP address the firewall uses to connect to a specific destination service. By default, the firewall uses its management interface for services such as User-ID, but you can override this behavior by creating a custom service route.

To configure a custom service route for the UID Agent, you need to do the following steps:

Go to Device > Setup > Services and click Service Route Configuration.

In the Service column, select User-ID Agent from the drop-down list.

In the Interface column, select an interface that can reach the User-ID agent server from the dropdown list.

In the Source Address column, select an IP address that belongs to that interface from the drop-down list.

Click OK and Commit your changes.

The correct answer is C. Create a custom service route for UID Agent

QUESTION 182

Which log type will help the engineer verify whether packet buffer protection was activated?

- A. Data Filtering
- B. Configuration

- C. Threat
- D. Traffic

Correct Answer: C

Section:

Explanation:

The log type that will help the engineer verify whether packet buffer protection was activated is Threat Logs. Threat Logs are logs generated by the Palo Alto Networks firewall when it detects a malicious activity on the network. These logs contain information about the source, destination, and type of threat detected. They also contain information about the packet buffer protection that was activated in response to the detected threat. This information can help the engineer verify that packet buffer protection was activated and determine which actions were taken in response to the detected threat. Packet buffer protection is a feature that prevents packet buffer exhaustion by dropping packets, discarding sessions, or blocking source IP addresses when the packet buffer utilization exceeds a certain threshold. The firewall records these events in the threat log with different threat IDs and names¹. The system log also records an alert event when the packet buffer congestion reaches the alert threshold². The other types of logs do not show packet buffer protection events. Reference:

1: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/zone-protection-and-dos-protection/zone-defense/packet-buffer-protection> 2: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/monitoring/use-syslog-for-monitoring/syslog-field-descriptions/system-log-fields>

QUESTION 183

Which GlobalProtect gateway setting is required to enable split-tunneling by access route, destination domain, and application?

- A. No Direct Access to local networks
- B. Tunnel mode
- C. iPSec mode
- D. Satellite mode

Correct Answer: B

Section:

Explanation:

To enable split-tunneling by access route, destination domain, and application, you need to configure a split tunnel based on the domain and application on your GlobalProtect gateway². This allows you to specify which domains and applications are included or excluded from the VPN tunnel.

QUESTION 184

Which three multi-factor authentication methods can be used to authenticate access to the firewall?

(Choose three.)

- A. One-time password
- B. User certificate
- C. Voice
- D. SMS
- E. Fingerprint

Correct Answer: A, B, D

Section:

Explanation:

These three methods are examples of multi-factor authentication that can be used to authenticate access to the firewall. A one-time password is a code that is generated by an authentication app or sent by email or SMS and expires after a single use. A user certificate is a digital credential that is issued by a trusted authority and stored on the user's device. SMS is a text message that is sent to the user's phone number with a code or a link to verify their identity¹. The other methods are not supported by the firewall for multi-factor authentication. Voice and fingerprint are biometric factors that require special hardware and software to capture and analyze. Reference: 1: <https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/authentication/configure-multi-factor-authentication>

QUESTION 185

A firewall administrator is investigating high packet buffer utilization in the company firewall. After looking at the threat logs and seeing many flood attacks coming from a single source that are dropped by the firewall, the

administrator decides to enable packet buffer protection to protect against similar attacks. The administrator enables packet buffer protection globally in the firewall but still sees a high packet buffer utilization rate. What else should the administrator do to stop packet buffers from being overflowed?

- A. Add the default Vulnerability Protection profile to all security rules that allow traffic from outside.
- B. Enable packet buffer protection for the affected zones.
- C. Add a Zone Protection profile to the affected zones.
- D. Apply DOS profile to security rules allow traffic from outside.

Correct Answer: B

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/10-2/pan-os-admin/zone-protection-and-dosprotection/zone-defense/packet-buffer-protection>

QUESTION 186

Which CLI command displays the physical media that are connected to ethernet1/8?

- A. > show system state filter-pretty sys.si.p8.stats
- B. > show system state filter-pretty sys.sl.p8.phy
- C. > show interface ethernet1/8
- D. > show system state filter-pretty sys.sl.p8.med

Correct Answer: B

Section:

Explanation:

Example output:

```
> show system state filter-pretty sys.s1.p1.phy
```

```
sys.s1.p1.phy: {  
link-partner: { },  
media: CAT5,  
type: Ethernet,  
}
```

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000Cld3CAC>

QUESTION 187





Which time determines how long the passive firewall will wait before taking over as the active firewall after losing communications with the HA peer?

- A. Heartbeat Interval
- B. Additional Master Hold Up Time
- C. Promotion Hold Time
- D. Monitor Fail Hold Up Time



Correct Answer: C

Section:

Explanation:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/high-availability/ha-concepts/ha-timers>

QUESTION 188

An engineer must configure the Decryption Broker feature. To which router must the engineer assign the decryption forwarding interfaces that are used in Decryption Broker security chain?

- A. A virtual router that has no additional interfaces for passing data-type traffic and no other configured routes than those used for the security chain.
- B. The default virtual router. If there is no default virtual router, the engineer must create one during setup.
- C. A virtual router that is configured with at least one dynamic routing protocol and has at least one entry in the RIB
- D. The virtual router that routes the traffic that the Decryption Broker security chain inspects.

Correct Answer: D

Section:

Explanation:

Decryption Broker is a feature that allows you to use a Palo Alto Networks firewall as a decryption broker for other security devices in your network¹. It works by decrypting traffic on one interface and forwarding it to another interface where it can be inspected by other devices before being reencrypted and sent to its destination². The firewall acts as a transparent bridge between the two interfaces and does not change the source or destination IP addresses of the traffic².

To configure Decryption Broker, you need to assign decryption forwarding interfaces (DFIs) to the virtual router that routes the traffic that you want to inspect. The DFIs are used to forward decrypted traffic from one interface to another in a security chain³. A security chain is a set of devices that perform different security functions on the same traffic flow³. You can have multiple security chains for different types of traffic or different segments of your network³.

The reason why you need to assign DFIs to the virtual router that routes the traffic is because Decryption Broker uses routing tables to determine which DFI belongs to which security chain and how to forward traffic between them. If you assign DFIs to a different virtual router than the one that routes the traffic, Decryption Broker will not be able to find them or forward traffic correctly.

QUESTION 189

An administrator wants to enable WildFire inline machine learning. Which three file types does WildFire inline ML analyze? (Choose three.)

- A. MS Office
- B. ELF
- C. Powershell scripts
- D. VBscripts
- E. APK

Correct Answer: A, B, C

Section:

QUESTION 190

A network security administrator wants to enable Packet-Based Attack Protection in a Zone Protection profile. What are two valid ways to enable Packet-Based Attack Protection? (Choose two.)

- A. ICMP Drop
- B. TCP Drop
- C. TCP Port Scan Block
- D. SYN Random Early Drop

Correct Answer: B, D

Section:

Explanation:

Packet-Based Attack Protection is a feature of Zone Protection Profiles that allows the firewall to drop packets that are malformed, spoofed, or part of a port scan. TCP Drop and SYN Random Early Drop are two options under Packet-Based

Attack Protection that can be enabled to protect against TCPbased attacks. TCP Drop enables the firewall to check for spoofed IP addresses, mismatched overlapping TCP segments, and invalid IP options. SYN Random Early Drop enables the firewall to drop SYN packets randomly when the SYN queue is full, preventing SYN flood attacks. ICMP Drop and TCP Port Scan Block are not valid options under Packet-Based Attack Protection

QUESTION 191

Where can a service route be configured for a specific destination IP?

- A. Use Network > Virtual Routers, select the Virtual Router > Static Routes > IPv4
- B. Use Device > Setup > Services > Services
- C. Use Device > Setup > Services > Service Route Configuration > Customize > Destination
- D. Use Device > Setup > Services > Service Route Configuration > Customize > IPv4

Correct Answer: C

Section:

Explanation:

A service route is the path from the interface to the service on a server. By default, the firewall uses the management interface to communicate to various servers, including DNS, Email, Palo Alto Updates, User-ID agent, Syslog, Panorama, dynamic updates, URL updates, licenses, and AutoFocus.

etc. Sometimes, it is necessary to use an alternative path other than Firewall management IP due to many restrictions. To configure service routes for non-predefined services, the destination addresses can be manually entered in the Destination section under Device > Setup > Services > Service Route Configuration > Customize. Option A is incorrect because it is used to configure static routes for network traffic, not service routes for



firewall services. Option B is incorrect because it is used to configure general service settings such as NTP server and proxy server, not service routes for specific destinations. Option D is incorrect because it is used to configure service routes for predefined services such as DNS and Syslog, not service routes for non-predefined services².

QUESTION 192

Which feature of Panorama allows an administrator to create a single network configuration that can be reused repeatedly for large-scale deployments even if values of configured objects, such as routes and interface addresses, change?

- A. Template stacks
- B. Template variables
- C. The Shared device group
- D. A device group

Correct Answer: B

Section:

Explanation:

Template variables are placeholders that you can use in a template or a template stack to represent values that differ across firewalls, such as IP addresses, hostnames, or interface names. Template variables allow you to create a single network configuration that can be reused repeatedly for largescale deployments even if values of configured objects change¹. Option A is incorrect because template stacks are used to group multiple templates together and apply them to firewalls or device groups. Template stacks do not allow you to use variables for different values². Option C is incorrect because the Shared device group is used to push policies and objects that are common across all firewalls managed by Panoram a. The Shared device group does not allow you to use variables for different values³. Option D is incorrect because a device group is used to group firewalls that require similar policies and objects. A device group does not allow you to use variables for different values³.

QUESTION 193

A firewall administrator wants to have visibility on one segment of the company network. The traffic on the segment is routed on the Backbone switch. The administrator is planning to apply Security rules on segment X after getting the visibility.

There is already a PAN-OS firewall used in L3 mode as an internet gateway, and there are enough system resources to get extra traffic on the firewall. The administrator needs to complete this operation with minimum service interruptions and without making any IP changes.

What is the best option for the administrator to take?

- A. Configure the TAP interface for segment X on the firewall.
- B. Configure vwire interfaces for segment X on the firewall.
- C. Configure a Layer 3 interface for segment X on the firewall.
- D. Configure a new vsys for segment X on the firewall.

Correct Answer: A

Section:

Explanation:

A TAP interface is a dedicated interface on the firewall that can be connected to a switch SPAN or mirror port to passively monitor traffic flows across a network. A TAP interface provides application visibility and threat detection without being in the flow of network traffic. A TAP interface does not require any IP changes or service interruptions on the network segment¹. Option B is incorrect because vwire interfaces are used to create virtual wires that transparently connect two network segments. Vwire interfaces require physical cabling changes and may cause service interruptions on the network segment². Option C is incorrect because a Layer 3 interface is used to route traffic between different subnets. A Layer 3 interface requires IP changes and may cause service interruptions on the network segment². Option D is incorrect because a new vsys is used to create a virtual system that can have its own set of policies and objects. A new vsys does not provide visibility or security for a specific network segment³.

QUESTION 194

Refer to the exhibit.



An organization has Palo Alto Networks NGFWs that send logs to remote monitoring and security management platforms. The network team has reported excessive traffic on the corporate WAN. How could the Palo Alto Networks NGFW administrator reduce WAN traffic while maintaining support for all the existing monitoring/security platforms?

- A. Forward logs from firewalls only to Panorama and have Panorama forward logs to other external services
- B. Configure log compression and optimization features on all remote firewalls
- C. Any configuration on an M-500 would address the insufficient bandwidth concerns
- D. Forward logs from external sources to Panorama for correlation, and from Panorama send them to the NGFW

Correct Answer: A

Section:

Explanation:

Forwarding logs from firewalls only to Panorama and having Panorama forward logs to other external services is the best option for the administrator to reduce WAN traffic while maintaining support for all the existing monitoring/security platforms. This option minimizes the number of log forwarding destinations on each firewall and consolidates log forwarding on Panorama. Panorama can forward logs to external destinations such as syslog servers, email servers, SNMP trap receivers, HTTP servers, or AutoFocus1. Option B is incorrect because configuring log compression and optimization features on all remote firewalls may reduce the size of log files but does not reduce the number of log forwarding destinations. Option C is incorrect because any configuration on an M-500 would not address the insufficient bandwidth concerns. An M-500 is a dedicated log collector that can store logs from multiple firewalls and Panorama appliances. However, it does not reduce the WAN traffic generated by log forwarding2. Option D is incorrect because forwarding logs from external sources to Panorama for correlation, and from Panorama send them to the NGFW does not reduce WAN traffic while maintaining support for all the existing monitoring/security platforms. This option would increase the WAN traffic by sending logs back and forth between Panorama and the NGFW1.

QUESTION 195

An ISP manages a Palo Alto Networks firewall with multiple virtual systems for its tenants. Where on this firewall can the ISP configure unique service routes for different tenants?

- A. Setup > Services > Virtual Systems > Set Location > Service Route Configuration > Inherit Global Service Route Configuration
- B. Setup > Services > Global > Service Route Configuration > Customize
- C. Setup > Services > Virtual Systems > Set Location > Service Route Configuration > Customize
- D. Setup > Services > Global > Service Route Configuration > Use Management Interface for all

Correct Answer: C

Section:**Explanation:**

The best option for the ISP to configure unique service routes for different tenants is to use the Setup > Services > Virtual Systems > Set Location > Service Route Configuration > Customize option on the firewall. This option allows the ISP to customize the service routes for each virtual system that represents a tenant. A service route is the path from the interface to the service on a server, such as DNS, email, or Panorama. By customizing the service routes for each virtual system, the ISP can ensure that each tenant uses a different interface or IP address to access these services¹. Option A is incorrect because it is used to inherit the global service route configuration for a virtual system, not to customize it.

Option B is incorrect because it is used to customize the global service route configuration for all virtual systems, not for a specific one. Option D is incorrect because it is used to use the management interface for all service routes, not to customize them¹.

QUESTION 196

In the New App Viewer under Policy Optimizer, what does the compare option for a specific rule allow an administrator to compare?

- A. The running configuration with the candidate configuration of the firewall
- B. Applications configured in the rule with their dependencies
- C. Applications configured in the rule with applications seen from traffic matching the same rule
- D. The security rule with any other security rule selected

Correct Answer: C

Section:**Explanation:**

The compare option for a specific rule in the New App Viewer under Policy Optimizer allows an administrator to compare the applications configured in the rule with the applications seen from traffic matching the same rule. This option helps the administrator to identify any discrepancies between the intended and actual applications allowed by the rule. The administrator can then optimize the rule by adding or removing applications as needed¹. Option A is incorrect because the compare option does not compare the running configuration with the candidate configuration of the firewall. That is done by using the Commit > Commit and Push option². Option B is incorrect because the compare option does not compare applications configured in the rule with their dependencies. That is done by using the App Dependencies tab under Policy Optimizer¹. Option D is incorrect because the compare option does not compare the security rule with any other security rule selected. That is done by using the Compare Rules option under Policies > Security³.

QUESTION 197

Which three external authentication services can the firewall use to authenticate admins into the Palo Alto Networks NGFW without creating administrator account on the firewall? (Choose three.)

- A. RADIUS
- B. TACACS+
- C. Kerberos
- D. LDAP
- E. SAML

Correct Answer: A, B, E

Section:**Explanation:**

According to the Palo Alto Networks documentation¹, the firewall can use three external authentication services to authenticate admins into the Palo Alto Networks NGFW without creating administrator accounts on the firewall: RADIUS, TACACS+, and SAML. These services allow the firewall to verify the credentials of admins against an external server and grant them access based on their assigned roles and permissions. Therefore, the correct answer is A, B, and E.

The other options are not external authentication services that the firewall can use to authenticate admins:

Kerberos: This option is not an external authentication service that the firewall can use to authenticate admins. Kerberos is a protocol that allows users to access network resources using a single sign-on mechanism. The firewall can use

Kerberos to authenticate users for GlobalProtect VPN or Captive Portal, but not for admin access².

LDAP: This option is not an external authentication service that the firewall can use to authenticate admins. LDAP is a protocol that allows querying and modifying directory services over a network. The firewall can use LDAP to retrieve user and group information from an external server, but not to authenticate admins³.

Reference: 1: <https://docs.paloaltonetworks.com/pan-os/9-1/pan-osadmin/authentication/authentication-types/external-authentication-services> 2:

<https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/authentication/authenticationtypes/kerberos-authentication> 3:
<https://docs.paloaltonetworks.com/pan-os/9-1/pan-osadmin/user-id/map-ip-addresses-to-users/map-ip-addresses-to-users-using-an-ldap-server>

QUESTION 198

In a security-first network, what is the recommended threshold value for apps and threats to be dynamically updated?

- A. 1 to 4 hours
- B. 6 to 12 hours
- C. 24 hours
- D. 36 hours

Correct Answer: A

Section:

Explanation:

According to the best practices for content updates for security-first networks, the recommended threshold value for apps and threats to be dynamically updated is 1 to 4 hours. This ensures that the network is protected against the latest threats and exploits as soon as possible. Reference: 1 Best Practices for Content UpdatesóSecurity-First - Palo Alto Networks <https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/software-and-content-updates/bestpractices-for-app-and-threat-content-updates/best-practices-security-first>

QUESTION 199

Which DoS Protection Profile detects and prevents session exhaustion attacks against specific destinations?

- A. Resource Protection
- B. TCP Port Scan Protection
- C. Packet Based Attack Protection
- D. Packet Buffer Protection

Correct Answer: A

Section:

Explanation:

According to the documentation, resource protection detects and prevents session exhaustion attacks against specific destinations. This type of attack uses a large number of hosts to establish as many fully established sessions as possible to consume all of a system's resources. Resource protection defines the maximum number of concurrent connections for a destination IP address or zone. Reference: 1 Security Profile: DoS Protection Profile - Palo Alto Networks <https://docs.paloaltonetworks.com/network-security/security-policy/security-profiles/securityprofile-dos-protection-profile>

QUESTION 200

Why would a traffic log list an application as "not-applicable"?

- A. The firewall denied the traffic before the application match could be performed.
- B. The TCP connection terminated without identifying any application data
- C. There was not enough application data after the TCP connection was established
- D. The application is not a known Palo Alto Networks App-ID.

Correct Answer: A

Section:

Explanation:

According to the documentation, not-applicable means that the Palo Alto device has received data that will be discarded because the port or service that the traffic is coming in on is not allowed, or there is no rule or policy allowing that port or service. This occurs because the traffic was dropped or denied before the application match could be performed. Reference: 1 Not-applicable in Traffic Logs Palo Alto Networks 2 Not-Applicable, Incomplete, Insufficient Data in the Application Field - Palo Alto Networks



<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClspCAC>

QUESTION 201

A network administrator configured a site-to-site VPN tunnel where the peer device will act as initiator None of the peer addresses are known What can the administrator configure to establish the VPN connection?

- A. Set up certificate authentication.
- B. Use the Dynamic IP address type.
- C. Enable Passive Mode
- D. Configure the peer address as an FQDN.

Correct Answer: B

Section:

Explanation:

<https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000ClIGCA0>

QUESTION 202

An administrator wants to enable WildFire inline machine learning. Which three file types does WildFire inline ML analyze? (Choose three.)

- A. MS Office
- B. ELF
- C. APK
- D. VBscripts
- E. Powershell scripts

Correct Answer: A, B, E

Section:

Explanation:

"The WildFire inline ML option present in the Antivirus profile enables the firewall dataplane to apply machine learning on PE (portable executable), ELF (executable and linked format) and MS Office files, and PowerShell and shell scripts in real-time." from <https://docs.paloaltonetworks.com/pan-os/102/pan-os-admin/threat-prevention/wildfire-inline-ml>



QUESTION 203

DRAG DROP

Match the terms to their corresponding definitions

Select and Place:

- Security processing
- Network processing
- Management plane
- Signature matching

Answer Area

Four empty dashed boxes for matching terms to definitions.

Provides configuration, logging, and reporting functions on a separate processor, RAM, and hard drive

Stream-based, uniform signature matching including vulnerability exploits (IPS), virus, spyware, CC#, and SSN

High-density parallel processing for flexible hardware acceleration for standardized complex functions

Hardware-accelerated per-packet route lookup, MAC lookup, and NAT

Answer:

Answer Area

Management plane
Signature matching
Security processing
Network processing

Provides configuration, logging, and reporting functions on a separate processor, RAM, and hard drive

Stream-based, uniform signature matching including vulnerability exploits (IPS), virus, spyware, CC#, and SSN

High-density parallel processing for flexible hardware acceleration for standardized complex functions

Hardware-accelerated per-packet route lookup, MAC lookup, and NAT

Select and Place:

Security processing
Network processing
Management plane
Signature matching

Answer Area

Provides configuration, logging, and reporting functions on a separate processor, RAM, and hard drive

Stream-based, uniform signature matching including vulnerability exploits (IPS), virus, spyware, CC#, and SSN

High-density parallel processing for flexible hardware acceleration for standardized complex functions

Hardware-accelerated per-packet route lookup, MAC lookup, and NAT

Correct Answer:

Answer Area

Management plane
Signature matching
Security processing
Network processing

Provides configuration, logging, and reporting functions on a separate processor, RAM, and hard drive

Stream-based, uniform signature matching including vulnerability exploits (IPS), virus, spyware, CC#, and SSN

High-density parallel processing for flexible hardware acceleration for standardized complex functions

Hardware-accelerated per-packet route lookup, MAC lookup, and NAT

Section:

Explanation:

QUESTION 204

Which protocol is supported by GlobalProtect Clientless VPN?

- A. FTP
- B. RDP
- C. SSH
- D. HTTPS

Correct Answer: D

Section:

QUESTION 205

What are three tasks that cannot be configured from Panorama by using a template stack? (Choose three.)

- A. Change the firewall management IP address
- B. Configure a device block list
- C. Add administrator accounts
- D. Rename a vsys on a multi-vsys firewall
- E. Enable operational modes such as normal mode, multi-vsys mode, or FIPS-CC mode

Correct Answer: A, C, E

Section:

Explanation:

Change the firewall management IP address C. Add administrator accounts E.Enable operational modes such as normal mode, multi-vsys mode, or FIPS-CC mode Short Explanation of Correct Answer Only: These tasks cannot be configured from Panorama by using a template stack because they are device-specific settings that must be configured locally on each firewall1.A template stack can only configure settings that are common to multiple firewalls2.

Reference:1: <https://docs.paloaltonetworks.com/panorama/9-1/panorama-admin/panorama-overview/centralized-firewall-configuration-and-update-management/templates-and-template-stacks>2: <https://docs.paloaltonetworks.com/best-practices/10-1/best-practices-for-managing-firewalls-with-panorama/configuration-management/template-and-template-stack-management>

QUESTION 206

An engineer must configure a new SSL decryption deployment.

Which profile or certificate is required before any traffic that matches an SSL decryption rule is decrypted?

- A. There must be a certificate with both the Forward Trust option and Forward Untrust option selected.
- B. A Decryption profile must be attached to the Security policy that the traffic matches.
- C. A Decryption profile must be attached to the Decryption policy that the traffic matches.
- D. There must be a certificate with only the Forward Trust option selected.

Correct Answer: C

Section:

Explanation:

QUESTION 207

An administrator needs to identify which NAT policy is being used for internet traffic.

From the Monitor tab of the firewall GUI, how can the administrator identify which NAT policy is in use for a traffic flow?

- A. Click Session Browser and review the session details.
- B. Click Traffic view and review the information in the detailed log view.
- C. Click Traffic view; ensure that the Source or Destination NAT columns are included and review the information in the detailed log view.
- D. Click App Scope > Network Monitor and filter the report for NAT rules

Correct Answer: C

Section:

QUESTION 208

An administrator troubleshoots an issue that causes packet drops.

Which log type will help the engineer verify whether packet buffer protection was activated?

- A. Data Filtering
- B. Threat
- C. Traffic
- D. Configuration

Correct Answer: B

Section:

Explanation:

The firewall records alert events in the System log and events for dropped traffic, discarded sessions, and blocked IP address in the Threat log when packet buffer protection is activated¹². Packet buffer protection is a feature that helps prevent packet buffer exhaustion by identifying and dropping traffic from sources that consume excessive packet buffers³. Reference: ³: <https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/zone-protection-and-dos-protection/zone-defense/packet-buffer-protection>¹: https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA14u000000oNB7CAM&lang=en_US2: <https://knowledgebase.paloaltonetworks.com/KCSArticleDetail?id=kA10g000000PNGFCA4>

QUESTION 209

Which two policy components are required to block traffic in real time using a dynamic user group (DUG)? (Choose two.)

- A. A Deny policy for the tagged traffic
- B. An Allow policy for the initial traffic
- C. A Decryption policy to decrypt the traffic and see the tag
- D. A Deny policy with the 'tag' App-ID to block the tagged traffic



Correct Answer: A, B

Section:

QUESTION 210

A network security administrator wants to inspect HTTPS traffic from users as it egresses through a firewall to the Internet/Untrust zone from trusted network zones.

The security admin wishes to ensure that if users are presented with invalid or untrusted security certificates, the user will see an untrusted certificate warning.

What is the best choice for an SSL Forward Untrust certificate?

- A. A web server certificate signed by the organization's PKI
- B. A self-signed certificate generated on the firewall
- C. A subordinate Certificate Authority certificate signed by the organization's PKI
- D. A web server certificate signed by an external Certificate Authority

Correct Answer: B

Section:

QUESTION 211

Based on the screenshots above, and with no configuration inside the Template Stack itself, what access will the device permit on its Management port?

IP Type Static DHCP Client

IP Address: None

Netmask: None

Default Gateway: None

IPv6 Address/Prefix Length: None

Default IPv6 Gateway: None

Speed: auto-negotiate

MTU: 1500

Administrative Management Services

HTTP HTTPS

Telnet SSH

Network Services

HTTP OCSP Ping

SNMP User-ID

User-ID Syslog Listener-SSL User-ID Syslog Listener-UDP

<input checked="" type="checkbox"/> PERMITTED IP ADDRESSES ^	DESCRIPTION
<input type="checkbox"/> Spermited-subnet-1	

DEVICE_TEMP
Template

IP Type Static DHCP Client

IP Address: None

Netmask: None

Default Gateway: None

IPv6 Address/Prefix Length: None

Default IPv6 Gateway: None

Speed: auto-negotiate

MTU: 1500

Administrative Management Services

HTTP HTTPS

Telnet SSH

Network Services

HTTP OCSP Ping

SNMP User-ID

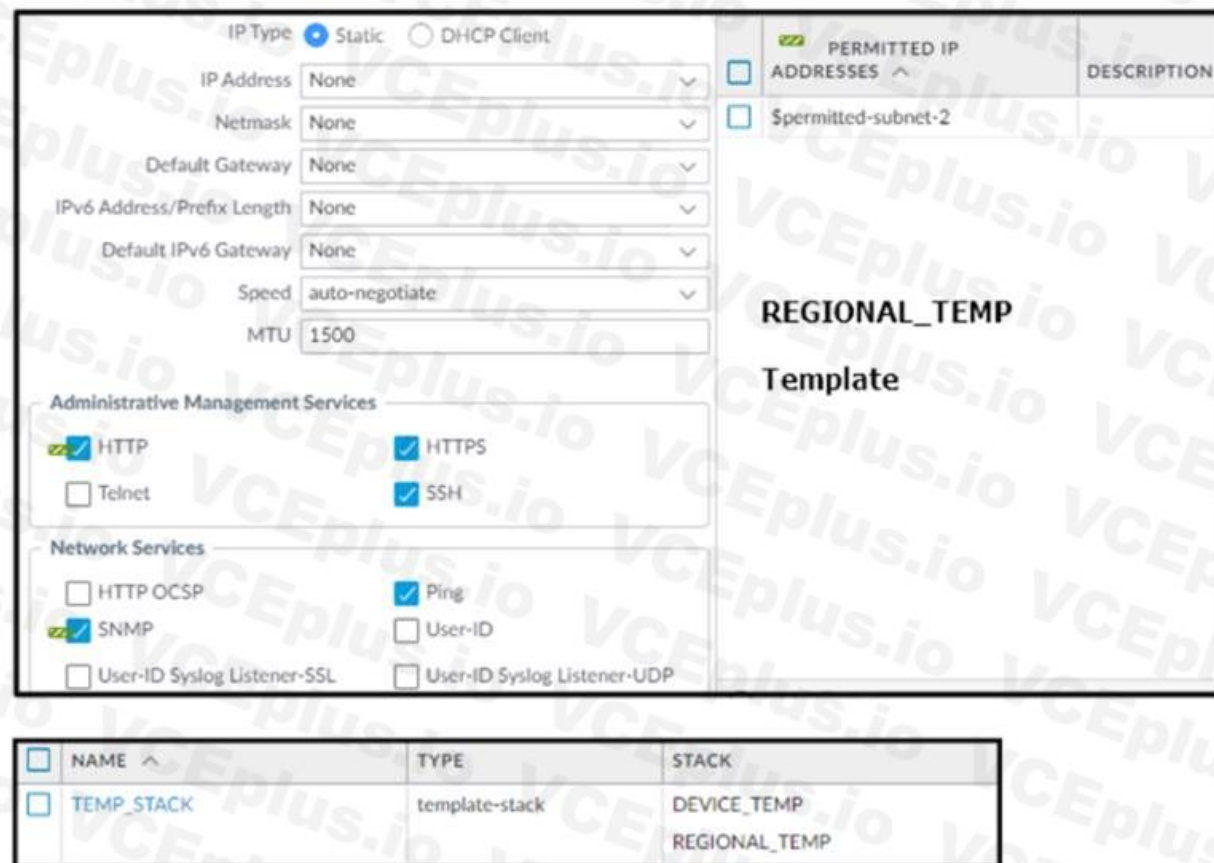
User-ID Syslog Listener-SSL User-ID Syslog Listener-UDP

<input checked="" type="checkbox"/> PERMITTED IP ADDRESSES ^	DESCRIPTION
<input type="checkbox"/> Spermited-subnet-2	

REGIONAL_TEMP
Template

<input type="checkbox"/> NAME ^	TYPE	STACK
<input type="checkbox"/> TEMP_STACK	template-stack	DEVICE_TEMP REGIONAL_TEMP

 **vdumps**



- A. The firewall will allow HTTP, Telnet, HTTPS, SSH, and Ping from IP addresses defined as \$permitted-subnet-2.
- B. The firewall will allow HTTP, Telnet, HTTPS, SSH, and Ping from IP addresses defined as \$permitted-subnet-1 and \$permitted-subnet-2.
- C. The firewall will allow HTTP, Telnet, HTTPS, SSH, and Ping from IP addresses defined as \$permitted-subnet-1.
- D. The firewall will allow HTTP, Telnet, SNMP, HTTPS, SSH, and Ping from IP addresses defined as \$permitted-subnet-1 and \$permitted-subnet-2.

Correct Answer: C

Section:

QUESTION 212

An engineer is configuring a firewall with three interfaces:

- * MGT connects to a switch with internet access.
- * Ethernet1/1 connects to an edge router.
- * Ethernet1/2 connects to a visualization network.

The engineer needs to configure dynamic updates to use a dataplane interface for internet traffic. What should be configured in Setup > Services > Service Route Configuration to allow this traffic?

- A. Set DNS and Palo Alto Networks Services to use the ethernet1/1 source interface.
- B. Set DNS and Palo Alto Networks Services to use the ethernet1/2 source interface.
- C. Set DNS and Palo Alto Networks Services to use the MGT source interface.
- D. Set DDNS and Palo Alto Networks Services to use the MGT source interface

Correct Answer: A

Section:

QUESTION 213

Which type of policy in Palo Alto Networks firewalls can use Device-ID as a match condition?

- A. NAT
- B. DOS protection
- C. QoS
- D. Tunnel inspection

Correct Answer: B

Section:

QUESTION 214

A company wants to add threat prevention to the network without redesigning the network routing. What are two best practice deployment modes for the firewall? (Choose two.)

- A. VirtualWire
- B. Layer3
- C. TAP
- D. Layer2

Correct Answer: A, D

Section:

Explanation:

VirtualWire and Layer2 deployment modes allow the firewall to act as a bump in the wire without changing the existing network routing. In VirtualWire mode, the firewall bridges two interfaces and passes traffic between them without any IP-layer processing. In Layer2 mode, the firewall acts as a transparent switch and processes traffic at Layer2 of the OSI model. Reference:

<https://docs.paloaltonetworks.com/pan-os/10-0/pan-os-admin/networking/configure-interfaces/virtual-wire-deployments.html>

QUESTION 215

Which link is responsible for synchronizing sessions between high availability (HA) peers?

- A. HA1
- B. HA3
- C. HA4
- D. HA2

Correct Answer: D

Section:

QUESTION 216

What are three prerequisites for credential phishing prevention to function? (Choose three.)

- A. In the URL filtering profile, use the drop-down list to enable user credential detection.
- B. Enable Device-ID in the zone.
- C. Select the action for Site Access for each category.
- D. Add the URL filtering profile to one or more Security policy rules.
- E. Set phishing category to block in the URL Filtering profile.

Correct Answer: A, D, E

Section:

QUESTION 217

An engineer is tasked with decrypting web traffic in an environment without an established PKI. When using a self-signed certificate generated on the firewall, which type of certificate should be in? approved web traffic?

- A. An Enterprise Root CA certificate
- B. The same certificate as the Forward Trust certificate
- C. A Public Root CA certificate
- D. The same certificate as the Forward Untrust certificate

Correct Answer: B

Section:

QUESTION 218

A network security engineer is going to enable Zone Protection on several security zones. How can the engineer ensure that Zone Protection events appear in the firewall's logs?

- A. Select the check box 'Log packet-based attack events' in the Zone Protection profile
- B. No action is needed. Zone Protection events appear in the threat logs by default.
- C. Select the check box 'Log Zone Protection events' in the Content-ID settings of the firewall.
- D. Access the CLI in each firewall and enter the command `set system setting additional-threat-log on`

Correct Answer: A

Section:

QUESTION 219

A firewall engineer is managing a Palo Alto Networks NGFW that does not have the DHCP server or DHCP agent configuration. Which interface mode can the broadcast DHCP traffic?

- A. Virtual wire
- B. Tap
- C. Layer 2
- D. Layer 3

Correct Answer: B

Section:

QUESTION 220

An administrator is using Panorama to manage multiple firewalls. After upgrading all devices to the latest PAN-OS software, the administrator enables log forwarding from the firewalls to Panorama. However, pre-existing logs from the firewalls are not appearing in Panorama.

Which action should be taken to enable the firewalls to send their pre-existing logs to Panorama?

- A. Export the log database.
- B. Use the import option to pull logs.
- C. Use the `scp logdb export` command.
- D. Use the ACC to consolidate the logs.

Correct Answer: B

Section:

Explanation:

The import option allows the administrator to pull logs from the firewalls to Panorama. This option is useful when the firewalls have pre-existing logs that were not forwarded to Panorama before. The import option can be configured on Panorama by selecting Device > Log Collection > Import Logs. Reference:

QUESTION 221

An engineer configures a specific service route in an environment with multiple virtual systems instead of using the inherited global service route configuration. What type of service route can be used for this configuration?

- A. IPv6 Source or Destination Address
- B. Destination-Based Service Route
- C. IPv4 Source Interface
- D. Inherit Global Setting

Correct Answer: C

Section:

Explanation:

The IPv4 Source Interface service route allows the administrator to specify a source interface for a service based on the virtual system. This option overrides the inherited global service route configuration and provides more granular control over the service routes for each virtual system. Reference:

<https://docs.paloaltonetworks.com/pan-os/10-1/pan-os-admin/virtual-systems/customize-service-routes-for-a-virtual-system.html>

QUESTION 222

A firewall engineer creates a NAT rule to translate IP address 1.1.1.10 to 192.168.1.10. The engineer also plans to enable DNS rewrite so that the firewall rewrites the IPv4 address in a DNS response based on the original destination IP address and translated destination IP address configured for the rule. The engineer wants the firewall to rewrite a DNS response of 1.1.1.10 to 192.168.1.10.

What should the engineer do to complete the configuration?

- A. Create a U-Turn NAT to translate the destination IP address 192.168.1.10 to 1.1.1.10 with the destination port equal to UDP/53.
- B. Enable DNS rewrite under the destination address translation in the Translated Packet section of the NAT rule with the direction Forward.
- C. Enable DNS rewrite under the destination address translation in the Translated Packet section of the NAT rule with the direction Reverse.
- D. Create a U-Turn NAT to translate the destination IP address 1.1.1.10 to 192.168.1.10 with the destination port equal to UDP/53.

Correct Answer: B

Section:

Explanation:

If the DNS response matches the Original Destination Address in the rule, translate the DNS response using the same translation the rule uses. For example, if the rule translates IP address 1.1.1.10 to 192.168.1.10, the firewall rewrites a DNS response of 1.1.1.10 to 192.168.1.10. <https://docs.paloaltonetworks.com/pan-os/9-1/pan-os-admin/networking/nat/source-nat-and-destination-nat/destination-nat-dns-rewrite-use-cases#id0d85db1b-05b9-4956-a467-f71d558263bb>

QUESTION 223

An organization wants to begin decrypting guest and BYOD traffic.

Which NGFW feature can be used to identify guests and BYOD users, instruct them how to download and install the CA certificate, and clearly notify them that their traffic will be decrypted?

- A. Authentication Portal
- B. SSL Decryption profile
- C. SSL decryption policy
- D. comfort pages

Correct Answer: A

Section:

Explanation:

An authentication portal is a feature that can be used to identify guests and BYOD users, instruct them how to download and install the CA certificate, and clearly notify them that their traffic will be decrypted. An

authentication portal is a web page that the firewall displays to users who need to authenticate before accessing the network or the internet. The authentication portal can be customized to include a welcome message, a login prompt, a disclaimer, a certificate download link, and a logout button. The authentication portal can also be configured to use different authentication methods, such as local database, RADIUS, LDAP, Kerberos, or SAML1. By using an authentication portal, the firewall can redirect BYOD users to a web page where they can learn about the decryption policy, download and install the CA certificate, and agree to the terms of use before accessing the network or the internet2.

An SSL decryption profile is not a feature that can be used to identify guests and BYOD users, instruct them how to download and install the CA certificate, and clearly notify them that their traffic will be decrypted. An SSL decryption profile is a set of options that define how the firewall handles SSL/TLS traffic that it decrypts. An SSL decryption profile can include settings such as certificate verification, unsupported protocol handling, session caching, session resumption, algorithm selection, etc3. An SSL decryption profile does not provide any user identification or notification functions.

An SSL decryption policy is not a feature that can be used to identify guests and BYOD users, instruct them how to download and install the CA certificate, and clearly notify them that their traffic will be decrypted. An SSL decryption policy is a set of rules that determine which traffic the firewall decrypts based on various criteria, such as source and destination zones, addresses, users, applications, services, etc. An SSL decryption policy can also specify which type of decryption to apply to the traffic, such as SSL Forward Proxy, SSL Inbound Inspection, or SSH Proxy4. An SSL decryption policy does not provide any user identification or notification functions.

Comfort pages are not a feature that can be used to identify guests and BYOD users, instruct them how to download and install the CA certificate, and clearly notify them that their traffic will be decrypted. Comfort pages are web pages that the firewall displays to users when it blocks or fails to decrypt certain traffic due to security policy or technical reasons. Comfort pages can include information such as the reason for blocking or failing to decrypt the traffic, the URL of the original site, the firewall serial number, etc5. Comfort pages do not provide any user identification or notification functions before decrypting the traffic.

QUESTION 224

A firewall engineer is configuring quality of service (QoS) policy for the IP address of a specific server in an effort to limit the bandwidth consumed by frequent downloads of large files from the internet. Which combination of pre-NAT and / or post-NAT information should be used in the QoS rule?

- A. Post-NAT source IP address Pre-NAT source zone
- B. Post-NAT source IP address Post-NAT source zone
- C. Pre-NAT source IP address Post-NAT source zone
- D. Pre-NAT source IP address Pre-NAT source zone

Correct Answer: D

Section:

Explanation:

When configuring Quality of Service (QoS) policies, particularly for traffic going to or from specific IP addresses and involving NAT, it's important to base the rule on how the firewall processes the traffic. For QoS, the firewall evaluates traffic using pre-NAT IP addresses and zones because QoS policies typically need to be applied before the NAT action occurs. This is especially true for inbound traffic, where the goal is to limit bandwidth before the destination IP is translated.

The correct combination for a QoS rule in this scenario, where the aim is to limit bandwidth for downloads from a specific server (implying inbound traffic to the server), would be:

D. Pre-NAT source IP address Pre-NAT source zone: Pre-NAT source IP address: This refers to the original IP address of the client or source device before any NAT rules are applied. Since QoS policies are evaluated before NAT, using the pre-NAT IP address ensures that the policy applies to the correct traffic. Pre-NAT source zone: This is the zone associated with the source interface before NAT takes place. Using the pre-NAT zone ensures that the QoS policy is applied to traffic as it enters the firewall, before any translations or routing decisions are made. By configuring the QoS rule with pre-NAT information, the firewall can accurately apply bandwidth limitations to the intended traffic, ensuring efficient use of network resources and mitigating the impact of large file downloads from the specified server. For detailed guidelines on configuring QoS policies, refer to the Palo Alto Networks documentation, which provides comprehensive instructions and best practices for managing bandwidth and traffic priorities on the network.

QUESTION 225

A firewall engineer creates a source NAT rule to allow the company's internal private network 10.0.0.0/23 to access the internet. However, for security reasons, one server in that subnet (10.0.0.10/32) should not be allowed to access the internet, and therefore should not be translated with the NAT rule.

Which set of steps should the engineer take to accomplish this objective?

- A. 1. Create a source NAT rule (NAT-Rule-1) to translate 10.0.0.0/23 with source address translation set to dynamic IP and port. 2. Create another NAT rule (NAT-Rule-2) with source IP address in the original packet set to 10.0.0.10/32 and source translation set to none. 3. Place (NAT-Rule-1) above (NAT-Rule-2).
- B. 1- Create a NAT rule (NAT-Rule-1) and set the source address in the original packet to 10.0.0.0/23. 2. Check the box for negate option to negate this IP subnet from NAT translation.
- C. 1. Create a source NAT rule (NAT-Rule-1) to translate 10.0.0.0/23 with source address translation set to dynamic IP and port. 2. Create another NAT rule (NAT-Rule-2) with source IP address in the original packet set to 10.0.0.10/32 and source translation set to none. 3. Place (NAT-Rule-2) above (NAT-Rule-1).
- D. 1. Create a NAT rule (NAT-Rule-1) and set the source address in the original packet to 10.0.0.10/32. 2. Check the box for negate option to negate this IP from the NAT translation.

Correct Answer: C



Section:**Explanation:**

In Palo Alto Networks firewalls, the processing of NAT rules occurs in a top-down fashion, similar to security policies. To exclude a specific IP address from a broader source NAT rule, a more specific NAT rule must be placed above the broader rule.

C) Place a more specific NAT rule above the broader one:

Create a source NAT rule (NAT-Rule-1) to translate the broader network range (10.0.0.0/23) with dynamic IP and port translation. This rule allows the majority of the subnet to access the internet through NAT.

Create another NAT rule (NAT-Rule-2) with the source IP address in the original packet set specifically to the IP address that should not be translated (10.0.0.10/32). In this rule, set the source translation to none, indicating that this traffic should not be translated and thus not allowed to access the internet.

Place NAT-Rule-2 above NAT-Rule-1 in the NAT policy list. This ensures that the more specific rule (NAT-Rule-2) is evaluated first. If traffic matches NAT-Rule-2, it will not be translated or allowed to the internet, effectively excluding the specific server from internet access.

This configuration leverages the principle of specificity and the order of operation in NAT policies to exclude a specific IP address from source NAT translation, thereby preventing it from accessing the internet.

QUESTION 226

Which rule type controls end user SSL traffic to external websites?

- A. SSL Outbound Proxyless Inspection
- B. SSL Forward Proxy
- C. SSH Proxy
- D. SSL Inbound Inspection

Correct Answer: B

Section:**Explanation:**

The SSL Forward Proxy rule type is designed to control and inspect SSL traffic from internal users to external websites. When an internal user attempts to access an HTTPS site, the Palo Alto Networks firewall, acting as an SSL Forward Proxy, intercepts the SSL request. It then establishes an SSL connection with the requested website on behalf of the user. Simultaneously, the firewall establishes a separate SSL connection with the user. This setup allows the firewall to decrypt and inspect the traffic for threats and compliance with security policies before re-encrypting and forwarding the traffic to its destination.

This process is transparent to the end user and ensures that potentially harmful content delivered over encrypted SSL connections can be identified and blocked. SSL Forward Proxy is a critical component of a comprehensive security strategy, allowing organizations to enforce security policies and protect against threats in encrypted traffic.

QUESTION 227

Forwarding of which two log types is configured in Device > Log Settings? (Choose two.)

- A. Threat
- B. HIP Match
- C. Traffic
- D. Configuration

Correct Answer: A, C

Section:**QUESTION 228**

A security team has enabled real-time WildFire signature lookup on all its firewalls. Which additional action will further reduce the likelihood of newly discovered malware being allowed through the firewalls?

- A. increase the frequency of the applications and threats dynamic updates.
- B. Increase the frequency of the antivirus dynamic updates
- C. Enable the 'Hold Mode' option in Objects > Security Profiles > Antivirus.
- D. Enable the 'Report Grayware Files' option in Device > Setup > WildFire.

Correct Answer: B

Section:

QUESTION 229

A company is expanding its existing log storage and alerting solutions. All company Palo Alto Networks firewalls currently forward logs to Panorama. Which two additional log forwarding methods will PAN-OS support? (Choose two)

- A. SSL
- B. TLS
- C. HTTP
- D. Email

Correct Answer: C, D

Section:

QUESTION 230

A firewall administrator manages sets of firewalls which have two unique idle timeout values. Datacenter firewalls need to be set to 20 minutes and BranchOffice firewalls need to be set to 30 minutes. How can the administrator assign these settings through the use of template stacks?

- A. Create one template stack and place the BranchOffice_Template in higher priority than Datacenter_Template.
- B. Create one template stack and place the Datacenter_Template in higher priority than BranchOffice_template.
- C. Create two separate template stacks one each for Datacenter and BranchOffice, and verify that Datacenter_Template and BranchOffice_template are at the bottom of their stack.
- D. Create two separate template stacks one each for Datacenter and BranchOffice, and verify that Datacenter_template are at the top of their stack.

Correct Answer: D

Section:

QUESTION 231

Exhibit.



Device Group: DATACENTER_DG

NAME	LOCATION	ADDRESS
Server-1	DATACENTER_DG	2.2.2.2
Server-1	Shared	1.1.1.1

Device Group: DC_FW_DG

NAME	LOCATION	ADDRESS
Server-1	DC_FW_DG	3.3.3.3
Server-1	Shared	1.1.1.1

Device Group: FW-1_DG

NAME	LOCATION	ADDRESS
Server-1	FW-1_DG	4.4.4.4
Server-1	Shared	1.1.1.1

Review the screenshots and consider the following information

1. FW-1 is assigned to the FW-1_DG device group, and FW-2 is assigned to OFFICE_FW_DC
2. There are no objects configured in REGIONAL_DG and OFFICE_FW_DG device groups

Which IP address will be pushed to the firewalls inside Address Object Server-1?

- A. Server-1 on FW-1 will have IP 4.4.4.4. Server-1 on FW-2 will have IP 1.1.1.1
- B. Server-1 on FW-1 will have IP 1.1.1.1. Server-1 will not be pushed to FW-2.
- C. Server-1 on FW-1 will have IP 2.2.2.2. Server-1 will not be pushed to FW-2.
- D. Server-1 on FW-1 will have IP 3.3.3.3. Server-1 will not be pushed to FW-2.



Correct Answer: A

Section:

Explanation:

Device Group Hierarchy

Shared

DATACENTER_DG

DC_FW_DG

REGIONAL_DG

OFFICE_FW_DG

FW-1_DG

Analysis

Considerations:

FW-1 is assigned to the FW-1_DG device group.

FW-2 is assigned to the OFFICE_FW_DG device group.

There are no objects configured in REGIONAL_DG and OFFICE_FW_DG device groups.

The address object Server-1 appears in multiple device groups with different IP addresses. The device groups have a hierarchy, which means objects can be inherited from parent groups unless overridden in the child group.

FW-1_DG:

Server-1 has IP 4.4.4.4, which will be pushed to FW-1 because it is in the FW-1_DG device group.

OFFICE_FW_DG (for FW-2):

Since there are no objects in OFFICE_FW_DG and REGIONAL_DG, FW-2 will inherit from Shared.
In the Shared group, Server-1 has IP 1.1.1.1.

QUESTION 232

An administrator is configuring a Panorama device group. Which two objects are configurable? (Choose two.)

- A. DNS Proxy
- B. SSL/TLS profiles
- C. address groups
- D. URL Filtering profiles

Correct Answer: C, D

Section:

QUESTION 233

Refer to the exhibit.

View the screenshots

QoS Profile

Profile

Profile Name: General-QoS

Egress Max: 1000

Egress Guaranteed: 0

Classes

Class Bandwidth Type: Mbps Percentage

<input type="checkbox"/>	CLASS	PRIORITY	EGRESS MAX (MBPS)	EGRESS GUARANTEED (MBPS)
<input type="checkbox"/>	class1	low	0	100
<input type="checkbox"/>	class2	medium	0	400
<input type="checkbox"/>	class3	high	0	400
<input type="checkbox"/>	class4	real-time	0	100

class-4 is the default class

Vdumps

	NAME	Source		Destination		APPLICATION	SERVICE	DSCP/TOS	CLASS
		ZONE	ADDRESS	ZONE	ADDRESS				
1	Class-1Apps	any	any	INTERNET	any	smtp ssh telnet	any	any	1
2	Class-2Apps	any	any	INTERNET	any	google-meet webex zoom	any	any	2
3	Class-3Apps	any	any	INTERNET	any	dns google-video youtube-stre...	any	any	3
4	Class-4Apps	any	any	INTERNET	any	facetime gtalk-voice sip	any	any	4

A QoS profile and policy rules are configured as shown. Based on this information which two statements are correct?

- A. SMTP has a higher priority but lower bandwidth than Zoom.
- B. DNS has a higher priority and more bandwidth than SSH.
- C. google-video has a higher priority and more bandwidth than WebEx.
- D. Facetime has a higher priority but lower bandwidth than Zoom.



Correct Answer: B, D

Section:

QUESTION 234

An administrator wants to use LDAP, TACACS+, and Kerberos as external authentication services for authenticating users. What should the administrator be aware of regarding the authentication sequence, based on the Authentication profile in the order Kerberos LDAP, and TACACS+?

- A. The firewall evaluates the profiles in the alphabetical order the Authentication profiles have been named until one profile successfully authenticates the user.
- B. The firewall evaluates the profiles in top-to-bottom order until one Authentication profile successfully authenticates the user.
- C. The priority assigned to the Authentication profile defines the order of the sequence.
- D. If the authentication times out for the first Authentication profile in the authentication sequence, no further authentication attempts will be made.

Correct Answer: B

Section:

QUESTION 235

A firewall administrator has been tasked with ensuring that all firewalls forward System logs to Panorama. In which section is this configured?

- A. Monitor > Logs > System

- B. Objects > Log Forwarding
- C. Panorama > Managed Devices
- D. Device > Log Settings

Correct Answer: D

Section:

QUESTION 236

A security engineer needs to mitigate packet floods that occur on a RSF servers behind the internet facing interface of the firewall. Which Security Profile should be applied to a policy to prevent these packet floods?

- A. DoS Protection profile
- B. Data Filtering profile
- C. Vulnerability Protection profile
- D. URL Filtering profile

Correct Answer: A

Section:

QUESTION 237

An administrator pushes a new configuration from Panorama to a pair of firewalls that are configured as an active/passive HA pair. Which NGFW receives the from Panorama?

- A. The active firewall which then synchronizes to the passive firewall
- B. The passive firewall, which then synchronizes to the active firewall
- C. Both the active and passive firewalls which then synchronize with each other
- D. Both the active and passive firewalls independently, with no synchronization afterward



Correct Answer: D

Section:

QUESTION 238

When backing up and saving configuration files, what is achieved using only the firewall and is not available in Panorama?

- A. Export device state
- B. Load configuration version
- C. Load named configuration snapshot
- D. Save candidate config

Correct Answer: A

Section:

QUESTION 239

An engineer is reviewing policies after a PAN-OS upgrade What are the two differences between Highlight Unused Rules and the Rule Usage Hit counters immediately after a reboot?

- A. Highlight Unused Rules will highlight all rules.
- B. Highlight Unused Rules will highlight zero rules.
- C. Rule Usage Hit counter will not be reset
- D. Rule Usage Hit counter will reset

Correct Answer: A, C

Section:

QUESTION 240

An administrator needs to gather information about the CPU utilization on both the management plane and the data plane. Where does the administrator view the desired data?

- A. Support > Resources
- B. Application Command and Control Center
- C. Resources Widget on the Dashboard
- D. Monitor > Utilization

Correct Answer: C

Section:

QUESTION 241

Which are valid ACC GlobalProtect Activity tab widgets? (Choose two.)

- A. Successful GlobalProtect Deployed Activity
- B. GlobalProtect Deployment Activity
- C. GlobalProtect Quarantine Activity
- D. Successful GlobalProtect Connection Activity

Correct Answer: B, D

Section:



QUESTION 242

What does SSL decryption require to establish a firewall as a trusted third party and to establish trust between a client and server to secure an SSL/TLS connection'?

- A. certificates
- B. profiles
- C. link state
- D. stateful firewall connection

Correct Answer: A

Section:

QUESTION 243

A firewall engineer supports a mission-critical network that has zero tolerance for application downtime. A best-practice action taken by the engineer is configure an applications and Threats update schedule with a new App-ID threshold of 48 hours. Which two additional best-practice guideline actions should be taken with regard to dynamic updates? (Choose two.)

- A. Create a Security policy rule with an application filter to always allow certain categories of new App-IDs.
- B. Click 'Review Apps' after application updates are installed in order to assess how the changes might impact Security policy.
- C. Select the action 'download-only' when configuring an Applications and Threats update schedule.
- D. Configure an Applications and Threats update schedule with a threshold of 24 to 48 hours

Correct Answer: B, C

Section:

QUESTION 244

All firewall at a company are currently forwarding logs to Palo Alto Networks log collectors. The company also wants to deploy a syslog server and forward all firewall logs to the syslog server and to the log collectors. There is known logging peak time during the day, and the security team has asked the firewall engineer to determine how many logs per second the current Palo Alto Networking log processing at that particular time. Which method is the most time-efficient to complete this task?

- A. Navigate to Panorama > Managed Collectors, and open the Statistics windows for each Log Collector during the peak time.
- B. Navigate to Monitor > Unified logs, set the filter to the peak time, and browse to the last page to find out how many logs have been received.
- C. Navigate to Panorama> Managed Devices> Health, open the Logging tab for each managed firewall and check the log rates during the peak time.
- D. Navigate to ACC> Network Activity, and determine the total number of sessions and threats during the peak time.

Correct Answer: A

Section:

QUESTION 245

All firewall at a company are currently forwarding logs to Palo Alto Networks log collectors. The company also wants to deploy a syslog server and forward all firewall logs to the syslog server and to the log collectors. There is known logging peak time during the day, and the security team has asked the firewall engineer to determine how many logs per second the current Palo Alto Networking log processing at that particular time. Which method is the most time-efficient to complete this task?

- A. Navigate to Panorama > Managed Collectors, and open the Statistics windows for each Log Collector during the peak time.
- B. Navigate to Monitor > Unified logs, set the filter to the peak time, and browse to the last page to find out how many logs have been received.
- C. Navigate to Panorama> Managed Devices> Health, open the Logging tab for each managed firewall and check the log rates during the peak time.
- D. Navigate to ACC> Network Activity, and determine the total number of sessions and threats during the peak time.

Correct Answer: A

Section:

**QUESTION 246**

An administrator is assisting a security engineering team with a decryption rollout for inbound and forward proxy traffic. Incorrect firewall sizing is preventing the team from decrypting all of the traffic they want to decrypt. Which three items should be prioritized for decryption? (Choose three.)

- A. Financial, health, and government traffic categories
- B. Known traffic categories
- C. Known malicious IP space
- D. Public-facing servers,
- E. Less-trusted internal IP subnets

Correct Answer: B, C, D

Section:

QUESTION 247

A firewall administrator wants to be able to see all NAT sessions that are going through a firewall with source NAT. Which CLI command can the administrator use?

- A. show session all filter nat-rule-source
- B. show running nat-rule-ippool rule 'rule_name
- C. show running nat-policy
- D. show session all filter nat source

Correct Answer: D

Section:

QUESTION 248

Following a review of firewall logs for traffic generated by malicious activity, how can an administrator confirm that WildFire has identified a virus?

- A. By navigating to Monitor > Logs > WildFire Submissions, applying filter '(subtype eq wildfire-virus)'
- B. By navigating to Monitor > Logs > Threat, applying filter '(subtype eq wildfire-virus)'
- C. By navigating to Monitor > Logs > Traffic, applying filter '(subtype eq virus)'
- D. By navigating to Monitor > Logs > Threat, applying filter '(subtype eq virus)'

Correct Answer: A

Section:

QUESTION 249

A customer wants to deploy User-ID on a Palo Alto Network NGFW with multiple vsys. One of the vsys will support a GlobalProtect portal and gateway. the customer uses Windows

- A. Deploy the GlobalProtect as a lee data hub.
- B. Deploy Window User 0 agents on each domain controller.
- C. Deploys AILS integrated Use 10 agent on each vsys.
- D. Deploy a M.200 as a Users-ID collector.

Correct Answer: A

Section:

QUESTION 250

A firewall administrator is changing a packet capture filter to troubleshoot a specific traffic flow Upon opening the newly created packet capture, the administrator still sees traffic for the previous filter What can the administrator do to limit the captured traffic to the newly configured filter?

- A. Command line > debug dataplane packet-diag clear filter-marked-session all
- B. In the GUI under Monitor > Packet Capture > Manage Filters under Ingress Interface select an interface
- C. Command line> debug dataplane packet-diag clear filter all
- D. In the GUI under Monitor > Packet Capture > Manage Filters under the Non-IP field, select 'exclude'

Correct Answer: C

Section:

QUESTION 251

An administrator is informed that the engineer who previously managed all the VPNs has left the company. According to company policies the administrator must update all the IPSec VPNs with new pre-shared keys Where are the pre-shared keys located on the firewall?

- A. Network/IPSec Tunnels
- B. Network/Network Profiles/IKE Gateways
- C. Network/Network Profiles/TIPSec Crypto
- D. Network/Network Profiles/IKE Crypto

Correct Answer: B



Section:

QUESTION 252

Which two are required by IPSec in transport mode? (Choose two.)

- A. Auto generated key
- B. NAT Traversal
- C. IKEv1
- D. DH-group 20 (ECP-384 bits)

Correct Answer: C, D

Section:

