Paloalto-Networks

Exam Questions NGFW-Engineer

Palo Alto Networks Next-Generation Firewall Engineer

NEW QUESTION 1
An enterprise uses GlobalProtect with both user- and machine-based certificate authentication and requires pre-logon, OCSP checks, and minimal user disruption. They manage multiple firewalls via Panorama and deploy domain-issued machine certificates via Group Policy.
Which approach ensures continuous, secure connectivity and consistent policy enforcement?

A. Use a wildcard certificate from a public CA, disable all revocation checks to reduce latency, and manage certificate renewals manually on each firewall.
B. Distribute root and intermediate CAs via Panorama template, use distinct certificate profiles for user versus machine certs, reference an internal OCSP responder, and automate certificate deployment with Group Policy.
C. Configure a single certificate profile for both user and machine certificate
D. Rely solely on CRLs for revocation to minimize complexity.
E. Deploy self-signed certificates on each firewall, allow IP-based authentication to override certificate checks, and use default GlobalProtect settings for user / machine identification.

Answer: B

Explanation:
To ensure continuous, secure connectivity and consistent policy enforcement with GlobalProtect in an enterprise environment that uses user- and machine-based certificate authentication, the approach should:
Distribute root and intermediate CAs via Panorama templates: This ensures that all firewalls managed by Panorama share the same trusted certificate authorities for consistency and security.
Use distinct certificate profiles for user vs. machine certificates: This enables separate handling of user and machine authentication, ensuring that both types of certificates are managed and validated appropriately.
Reference an internal OCSP responder: By integrating OCSP checks, the firewall can validate certificate revocation in real-time, meeting the security requirement while minimizing the overhead and latency associated with traditional CRLs (Certificate Revocation Lists).
Automate certificate deployment with Group Policy: This ensures that machine certificates are deployed in a consistent and scalable manner across the enterprise, reducing manual intervention and minimizing user disruption.
This approach supports the requirements for pre-logon, OCSP checks, and minimal user disruption, while maintaining a secure, automated, and consistent authentication process across all firewalls managed via Panorama.

NEW QUESTION 2
An organization runs multiple Kubernetes clusters both on-premises and in public clouds (AWS, Azure, GCP). They want to deploy the Palo Alto Networks CN-Series NGFW to secure east-west traffic within each cluster, maintain consistent Security policies across all environments, and dynamically scale as containerized workloads spin up or down. They also plan to use a centralized Panorama instance for policy management and visibility.
Which approach meets these requirements?

A. Install standalone CN-Series instances in each cluster with local configuration onl
B. Export daily policy configuration snapshots to Panorama for recordkeeping, but do not unify policy enforcement.
C. Configure the CN-Series only in public cloud clusters, and rely on Kubernetes Network Policies for on-premises cluster securit
D. Synchronize partial policy information into Panorama manually as needed.
E. Use Kubernetes-native deployment tools (e.g., Helm) to deploy CN-Series in eachcluster, ensuring local insertion into the service mesh or CN
F. Manage all CN-Series firewalls centrally from Panorama, applying uniform Security policies across on-premises and cloud clusters.
G. Deploy a single CN-Series firewall in the on-premises data center to process traffic for all clusters, connecting remote clusters via VPN or peerin
H. Manage this single instance through Panorama.

Answer: C

Explanation:
This approach meets all the requirements for securing east-west traffic within each Kubernetes cluster, maintaining consistent security policies across on-premises and cloud environments, and allowing for dynamic scaling of the CN-Series NGFWs as containerized workloads spin up or down. By using Kubernetes-native deployment tools (such as Helm), the CN-Series NGFWs can be deployed and scaled dynamically within each cluster. Local insertion into the service mesh or CNI ensures that the NGFW can inspect traffic at the appropriate points within the cluster.
Centralized management via Panorama ensures that security policies are uniform across both on-premises and cloud environments, providing visibility and control across all clusters.

NEW QUESTION 3
What is the purpose of assigning an Admin Role Profile to a user in a Palo Alto Networks NGFW?

A. Allow access to all resources without restrictions.
B. Enable multi-factor authentication (MFA) for administrator access.
C. Define granular permissions for management tasks.
D. Restrict access to sensitive report data.

Answer: C

Explanation:
Assigning an Admin Role Profile to a user in a Palo Alto Networks NGFW is used to define granular permissions for management tasks. This allows administrators to control what actions a user can perform on the firewall, such as configuration changes, monitoring, and logging. By assigning different admin roles, you can ensure that users have access only to the areas and tasks they need, enforcing the principle of least privilege.

NEW QUESTION 4
An NGFW engineer is configuring multiple Panorama-managed firewalls to start sending all logs to Strata Logging Service. The Strata Logging Service instance has been provisioned, the required device certificates have been installed, and Panorama and the firewalls have been successfully onboarded to Strata Logging Service.
Which configuration task must be performed to start sending the logs to Strata Logging Service and continue forwarding them to the Panorama log collectors as well?

A. Modify all active Log Forwarding profiles to select the ??Cloud Logging?? option in each profile match list in the appropriate device groups.
B. Enable the ??Panorama/Cloud Logging?? option in the Logging and Reporting Settings section under Device --> Setup --> Management in the appropriate

templates.
C. Select the ??Enable Duplicate Logging?? option in the Cloud Logging section under Device--> Setup --> Management in the appropriate templates.
D. Select the ??Enable Cloud Logging?? option in the Cloud Logging section under Device --> Setup --> Management in the appropriate templates.

Answer: D

Explanation:
To begin sending logs to Strata Logging Service while continuing to forward them to Panorama log collectors, the necessary configuration is to enable Cloud Logging. This option is configured in the Cloud Logging section under Device Setup Management in the appropriate templates. Once enabled, this ensures that logs are directed both to the Strata Logging Service (cloud) and to the Panorama log collectors.

NEW QUESTION 5
Which statement applies to the relationship between Panorama-pushed Security policy and local firewall Security policy?

A. When a policy match is found in a local firewall policy, if any Panorama shared post-rule is configured, it will still be evaluated.
B. Local firewall rules are evaluated after Panorama pre-rules and before Panorama post- rules.
C. Panorama post-rules can be configured to be evaluated before local firewall policy for the purpose of troubleshooting.
D. The order of policy evaluation can be configured differently in different device groups.

Answer: B

Explanation:
Local firewall rules are evaluated after Panorama pre-rules (those applied before the firewall??s local policies) and before Panorama post-rules (those applied after the firewall??s local policies). This ensures that the local firewall rules do not override the central Panorama policy and are only applied in the appropriate order within the policy evaluation sequence.

NEW QUESTION 6
By default, which type of traffic is configured by service route configuration to use the management interface?

A. Security zone
B. IPSec tunnel
C. Virtual system (VSYS)
D. Autonomous Digital Experience Manager (ADEM)

Answer: D

Explanation:
By default, the Autonomous Digital Experience Manager (ADEM) traffic is configured to use the management interface in a Palo Alto Networks firewall. The management interface is typically used for management-related traffic, such as monitoring and logging, and it is configured to handle ADEM-related traffic for the optimal performance of digital experience monitoring features.
This default configuration helps ensure that ADEM traffic does not interfere with regular traffic that may traverse other interfaces, such as traffic from security zones or IPSec tunnels.

NEW QUESTION 7
Which interface types should be used to configure link monitoring for a high availability (HA) deployment on a Palo Alto Networks NGFW?

A. HA, Virtual Wire, and Layer 2
B. Tap, Virtual Wire, and Layer 3
C. Virtual Wire, Layer 2, and Layer 3
D. HA, Layer 2. and Layer 3

Answer: C

Explanation:
When configuring link monitoring for high availability (HA) on a Palo Alto Networks NGFW, the following interface types are supported:
Virtual Wire: Used when you have a transparent mode firewall deployment, where the firewall operates at Layer 2 to monitor traffic between two network segments.
Layer 2: Also used in transparent mode, where the firewall operates as a Layer 2 device and can be configured for link monitoring.
Layer 3: Used in routed mode, where the firewall is involved in routing traffic and can also be configured to monitor links.

NEW QUESTION 8
What must be configured before a firewall administrator can define policy rules based on users and groups?

A. User Mapping profile
B. Authentication profile
C. Group mapping settings
D. LDAP Server profile

Answer: C

Explanation:
Before a firewall administrator can define policy rules based on users and groups, the Group Mapping settings must be configured. These settings enable the firewall to map users to their respective Active Directory (AD) groups. This mapping allows the firewall to use user and group information to create policy rules based on group membership.

NEW QUESTION 9
When integrating Kubernetes with Palo Alto Networks NGFWs, what is used to secure traffic between microservices?

A. Service graph
B. Ansible automation modules
C. Panorama role-based access control
D. CN-Series firewalls

Answer: D

Explanation:
When integrating Kubernetes with Palo Alto Networks NGFWs, the CN-Series firewalls are specifically designed to secure traffic between microservices in containerized environments. These firewalls provide advanced security features like Application Identification (App-ID), URL filtering, and Threat Prevention to secure communication between containers and microservices within a Kubernetes environment.

NEW QUESTION 10
Which type of firewall resource can be assigned when configuring a new firewall virtual system (VSYS)?

A. ICPU
B. Sessions limit
C. Memory
D. Security profile limit

Answer: B

Explanation:
When configuring a new firewall virtual system (VSYS) on a Palo Alto Networks firewall, one of the resources that can be assigned is the sessions limit. This setting allows the administrator to control the number of active sessions that can be handled by the VSYS, ensuring that each virtual system has an appropriate allocation of resources based on its needs.

NEW QUESTION 10
In regard to the Advanced Routing Engine (ARE), what must be enabled first when configuring a logical router on a PAN-OS firewall?

A. License
B. Plugin
C. Content update
D. General setting

Answer: A

Explanation:
To enable the Advanced Routing Engine (ARE) on a Palo Alto Networks firewall, the license for the ARE must be applied first. Without the proper license, the firewall cannot activate and use the advanced routing features provided by ARE, such as support for more complex routing protocols (e.g., BGP, OSPF, etc.). Once the license is applied and validated, the routing engine can be configured, allowing the creation of logical routers and routing policies.

NEW QUESTION 11
An organization has configured GlobalProtect in a hybrid authentication model using both certificate-based authentication for the pre-logon stage and SAML-based multi-factor authentication (MFA) for user logon.
How does the GlobalProtect agent process the authentication flow on Windows endpoints?

A. The GlobalProtect agent uses the machine certificate to establish a pre-logon tunnel; upon user sign-in, it prompts for SAML-based MFA credentials, ensuring both device and user identities are validated before granting full access.
B. The GlobalProtect agent uses the machine certificate during pre-logon for initial tunnel establishment, and then seamlessly reuses the same machine certificate for user-based authentication without requiring MFA.
C. Once the machine certificate is validated at pre-logon, the Windows endpoint completes MFA on behalf of the user by passing existing Windows Credential Provider details to the GlobalProtect gateway without prompting the user.
D. GlobalProtect requires the user to log in first for SAML-based MFA before establishing the pre-logon tunnel, rendering the pre-logon certificate authentication (CA) flow redundant.

Answer: A

Explanation:
In a hybrid authentication model with both certificate-based authentication for pre-logon and SAML-based multi-factor authentication (MFA) for user logon, the GlobalProtect agent processes the flow as follows:
During the pre-logon stage, the agent uses the machine certificate to authenticate and establish the initial VPN tunnel.
Once the user logs in (after the machine is connected), the agent then triggers SAML- based MFA to ensure the user is authenticated with multi-factor authentication, validating both the device and the user identity before granting full access.
This method ensures that both the device and user are properly authenticated and validated in the hybrid authentication model.

NEW QUESTION 15
An engineer is implementing a new rollout of SAML for administrator authentication across a company??s Palo Alto Networks NGFWs. User authentication on company firewalls is currently performed with RADIUS, which will remain available for six months, until it is decommissioned. The company wants both authentication types to be running in parallel during the transition to SAML.
Which two actions meet the criteria? (Choose two.)

A. Create a testing and rollback plan for the transition from Radius to SAML, as the two authentication profiles cannot be run in tandem.
B. Create an authentication sequence that includes both the ??RADIUS?? Server Profile and ??SAML Identity Provider?? Server Profile to run the two services in tandem.
C. Create and apply an authentication profile with the ??SAML Identity Provider?? Server Profile.
D. Create and add the ??SAML Identity Provider?? Server Profile to the authentication profile for the ??RADIUS?? Server Profile.

Answer: BD

Explanation:
To enable both RADIUS and SAML authentication to run in parallel during the transition period, you need to configure an authentication sequence and an authentication profile that includes both authentication methods.
By creating an authentication sequence that includes both RADIUS and SAML server profiles, the firewall will attempt authentication with RADIUS first and, if that fails, will fall back to SAML. This enables both authentication types to function simultaneously during the transition period.
You can also configure an authentication profile that includes both the RADIUS Server Profile and the SAML Identity Provider server profile. This setup allows the firewall to use both RADIUS and SAML for authentication requests, and it will check both authentication methods in parallel.

NEW QUESTION 16
Without performing a context switch, which set of operations can be performed that will affect the operation of a connected firewall on the Panorama GUI?

A. Restarting the local firewall, running a packet capture, accessing the firewall CLI
B. Modification of local security rules, modification of a Layer 3 interface, modification of the firewall device hostname
C. Modification of pre-security rules, modification of a virtual router, modification of an IKE Gateway Network Profile
D. Modification of post NAT rules, creation of new views on the local firewall ACC tab, creation of local custom reports

Answer: B

Explanation:
In Panorama, without performing a context switch, the administrator can perform local configuration tasks directly on the connected firewall. The following operations can be done:
Modification of local security rules: Security rules can be modified directly on the connected firewall from the Panorama GUI.
Modification of a Layer 3 interface: Changes to the Layer 3 interfaces on the connected firewall can be done from Panorama, without needing to switch to the firewall's local interface.
Modification of the firewall device hostname: The firewall's hostname can be changed via Panorama.

NEW QUESTION 17
What are the phases of the Palo Alto Networks AI Runtime Security: Network Intercept solution?

A. Scanning, Isolation, Whitelisting, Logging
B. Discovery, Deployment, Detection, Prevention
C. Policy Generation, Discovery, Enforcement, Logging
D. Profiling, Policy Generation, Enforcement, Reporting

Answer: B

Explanation:
The phases of the Palo Alto Networks AI Runtime Security: Network Intercept solution are designed to help identify and protect against potential threats in real time by using AI to detect and prevent malicious activities within the network.
Discovery: Identifying applications, services, and behaviors within the network to understand baseline activity.
Deployment: Implementing the solution into the network and integrating with existing security measures.
Detection: Monitoring traffic and activities to identify abnormal or malicious behavior. Prevention: Taking action to stop threats once detected, such as blocking malicious traffic or stopping exploit attempts.

NEW QUESTION 19
In a hybrid cloud deployment, what is the primary function of Ansible in managing Palo Alto Networks NGFWs?

A. It provides a web interface for managing NGFW hardware clusters.
B. It enables centralized log collection and correlation for NGFWs.
C. It facilitates dynamic updates to NGFW threat databases.
D. It automates NGFW policy updates and configurations through playbooks.

Answer: D

Explanation:
In a hybrid cloud deployment, Ansible is primarily used for automating configurations and policy updates on Palo Alto Networks Next-Generation Firewalls (NGFWs). Through the use of playbooks, Ansible can automate the process of deploying security policies, updating configurations, and managing the firewall's state, which enhances efficiency and consistency across multiple NGFWs in a large or hybrid cloud environment.

NEW QUESTION 24
How does a Palo Alto Networks NGFW respond when the preemptive hold time is set to 0 minutes during configuration of route monitoring?

A. It does not accept the configuration.
B. It accepts the configuration but throws a warning message.
C. It removes the static route because 0 is a NULL value
D. It reinstalls the route into the routing information base (RIB) as soon as the path comes up.

Answer: D

Explanation:
When the preemptive hold time is set to 0 minutes in route monitoring, the firewall is configured to immediately reinstall the route into the Routing Information Base (RIB) as soon as the monitored path comes up. This essentially means that the firewall will not wait for any predefined hold time before reestablishing the route once the monitoring condition is met, ensuring a faster recovery of the route.

NEW QUESTION 26
Which forwarding methods can be used on the Objects tab when configuring the Log Forwarding profile?

A. Panorama, syslog, email
B. Syslog, HTTP, NetFlow
C. Panorama, ADEM, syslog
D. SNMP, HTTP, RADIUS

Answer: A

Explanation:
When configuring the Log Forwarding profile on a Palo Alto Networks firewall, the forwarding methods available include:
Panorama: For forwarding logs to a Panorama management system. Syslog: For forwarding logs to a syslog server.
Email: For sending logs via email.

NEW QUESTION 27
Which two actions in the IKE Gateways will allow implementation of post-quantum cryptography when building VPNs between multiple Palo Alto Networks NGFWs? (Choose two.)

A. Select IKE v2, enable the Advanced Options • PQ PPK, then set a 64+ character string for the post-quantum pre shared key.
B. Ensure Authentication is set to ??certificate,?? then import a post-quantum derived certificate.
C. Select IKE v2 Preferred, enable the Advanced Options • PQ KEM, then add one or more ??Rounds.??
D. Select IKE v2, enable the Advanced Options • PQ KEM, then create an IKE Crypto Profile with Advanced Options adding one or more ??Rounds.??

Answer: CD

Explanation:
To implement post-quantum cryptography (PQC) in VPNs between Palo Alto Networks NGFWs, you would enable the PQ KEM (Post-Quantum Key Encapsulation Mechanism) in the IKE gateway configuration. This enables the firewall to use quantum-resistant encryption for key exchange, which is an essential part of securing communications against the potential future threats posed by quantum computing.
By selecting IKE v2 Preferred and enabling the PQ KEM option under Advanced Options, you can add specific Rounds for the post-quantum cryptography process, which will help in implementing quantum-resistant key exchange methods.
This option similarly selects IKE v2 and enables PQ KEM while also creating a dedicated IKE Crypto Profile with the necessary Rounds configured for post-quantum cryptography.

NEW QUESTION 30
An administrator plans to upgrade a pair of active/passive firewalls to a new PAN-OS release. The environment is highly sensitive, and downtime must be minimized.
What is the recommended upgrade process for minimal disruption in this high availability (HA) scenario?

A. Suspend the active firewall to trigger a failover to the passive firewal
B. With traffic now running on the former passive unit, upgrade the suspended (now passive) firewall and confirm proper operatio
C. Then fail traffic back and upgrade the remaining firewall.
D. Shut down the currently active firewall and upgrade it offline, allowing the passive firewall to handle all traffi
E. Once the active firewall finishes upgrading, bring it back online and rejoin the HA cluste
F. Finally, upgrade the passive firewall while the newly upgraded unit remains active.
G. Isolate both firewalls from the production environment and upgrade them in a separate, offline setu
H. Reconnect them only after validating the new software version, resuming HA functionality once both units are fully upgraded and tested.
I. Push the new PAN-OS version simultaneously to both firewalls, having them upgrade and reboot in paralle
J. Rely on automated HA reconvergence to restore normal operations without manually failing over traffic.

Answer: A

Explanation:
In an active/passive HA setup, the recommended process for upgrading involves minimizing downtime and ensuring traffic continuity by using the failover process:
Suspend the active firewall: This triggers a failover to the passive unit, making it the active unit.
Upgrade the former passive (now active) unit: With traffic now running on the previously passive unit, upgrade the suspended unit while the active unit continues handling traffic. Confirm proper operation: Once the upgrade is complete, verify that the upgraded unit is functioning properly.
Fail traffic back: Once the upgraded firewall is confirmed to be working, fail the traffic back to the original active unit and upgrade the remaining firewall.

NEW QUESTION 31
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