**{{Customer}}**

**Palo Alto Networks Deployment**

***Network Integration As-Built Document***

***{{Month}},{{Year}}***

Contact Information

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**As Built Template Instructions**

This template is designed as a tool to help generate as built documentation for Palo Alto Networks Professional Services Consultants after completion of a firewall migration. The as built documentation is included in the firewall migration Silver and Gold bundles as a deliverable. Each final document should be highly customized to detail the specific installation and configurations of the Palo Alto Networks Security Platform integration into the customer’s environment. To maintain consistency and completeness, however, this template should be used across all of PSO.

The blue outdented italic notes are instructions for each section. Remove all template instruction notes before generating the final document. The standard blue text is example text for each section. Replace this with a description of customers deployment. Replace all instances of [CUSTOMER] with the customer’s name, and any other capitalized text in brackets with the correct information.

Remove any section that does not apply to the deployed solution, i.e. site to site VPNs or Cloud Services.

Introduction

The purpose of this document is to detail the specific configuration and installation of each Palo Alto Networks security platform in {{Customer}} environment.

Executive Summary

Provide a high-level description of the project in 1-2 paragraphs. Name the customer and the purpose in choosing and deploying the Palo Alto Networks solution. Use “find and replace” to substitute {{Customer}} with the value on the Title Page throughout this document. An example could be something like the following:

To better improve security and visibility into internet and DMZ traffic, {{Customer}} purchased and deployed four PA-5260 Palo Alto Networks security platforms. These were deployed in two data centers in a high availability pair. Palo Alto Networks Professional Services worked closely with the {{Customer}} team to deploy the Palo Alto Networks security platform in their New Jersey and Virginia data centers. Two ASA H/A pairs in each data center were replaced with a single multi vsys PA-5260 H/A pair managed by their existing VM series Panorama. The PA-5260 H/A pair secure communications between the internet, DMZ, and internal for {{Customer}} customers and users. The security policy is shared between the two sites for easier management and to ensure a synchronized configuration at each site in the event of traffic failover to ensure a consistent user experience.

Each PA-5260 H/A pair was installed in separate maintenance windows. In addition to migrating to the PA-5260s, load balancer and routing changes were implemented to allow for inspection of all traffic to the DMZ VIPs. This included net new interfaces, security zones, and security policies.

Detail any open issues such as remaining work or open Support tickets.

Open Issues

Each migration was successful. There are no open issues.

Platform

In this section, provide detail of the platform configurations including model, serial numbers, PAN-OS version and deployment locations. Also include Panorama, even if Panorama was already present in the environment.

This section of the document provides details of the deployed configuration of the Palo Alto Networks security platform in the {{Customer}} environment.

Deployed Security Platforms

All data in the following tables are examples. Fill in with appropriate customer level information.

This section describes the Palo Alto Networks platforms, physical and virtual, that have been deployed at each {{Customer}} location identified.

Procured Systems

Table 1 shows the security appliances with their corresponding locations, operating systems, and serial number information.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Device Name** | | **Platform Model** | | **Location** | **Serial Number** | |
| {%tr for item in t1%} | | | | | | |
| *{{item.t1devicename}}* | *{{item.t1model}}* | |  | | | *{{item.t1serial}}* |
| {%tr endfor %} | | | | | | |

Device Licensing

Table 2 shows the security appliances with their corresponding procured licensing.

Table 2 – Procured Licensing

|  |  |
| --- | --- |
| **Device Name** | **License** |
| {%tr for item in t2%} | |
| *{{item.t2devicename}}* | *{{item.t2licenses}}* |
| {%tr endfor %} | |

PAN-OS Version

Table 3 shows the version of PAN-OS installed on each security appliance deployed in the {{Customer}} environment.

Table 3 – Installed PAN-OS Version

|  |  |  |
| --- | --- | --- |
| **Device Name** | **PanOS Deployed** | **Notes** |
| {%tr for item in t3%} | | |
| *{{item.t3devicename}}* | *{{item.t3panos}}* |  |
| {%tr endfor %} | | |

Platform Administration

<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/firewall-administration.html>

Describe the administrator settings for Panorama and the firewall to include authentication type, admin roles and admin domains.

Table 7 shows the administrator settings for the Palo Alto Networks appliances.

Table 7 – Administrators

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Device Name** | **Name** | **Role** | **Auth Profile** | **Pass Profile** | **Role Profile** | **Access Domain** |
| {%tr for item in t7%} | | | | | | |
| *{{item.t7devicename}}* | *{{item.t7adminname}}* | *{{item.t7adminrole}}* | *{{item.t7authprofile}}* | *{{item.t7passprofile}}* | *{{item.t7roleprof}}* | *{{item.t7accessdomain}}* |
| {%tr endfor %} | | | | | | |

Network Integration

Virtual Systems

<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/virtual-systems.html>

If firewalls were deployed with multi vsys, describe the deployment below and fill in the appropriate tables.

Each {{Customer}} PA-5260 H/A pair is configured for multiple virtual systems. Each pair has three virtual systems defined. Inter-vsys communication is routed external from the platform.

* Vsys 1: Default vsys to be used for any configuration that needs to be shared across all virtual systems.
* VSYS-OUTSIDE: The outside vsys performs network segmentation between the internet and DMZ and internal resources. The outside vsys also handles NAT for inbound and outbound internet traffic for users and services.
* VSYS-INSIDE: The inside vsys performs network segmentation between each Windows and Linux DMZ, and internal resources.

Table 8 shows the {{Customer}} vsys deployment.

Table 8 – VSYS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Device Name** | **VSYS ID** | **VSYS Name** | **Interfaces** | **Virtual Router** |
| {%tr for item in t8%} | | | | |
| *{{item.t8devicename}}* | *{{item.t8vsysid}}* | *{{item.t8vsysname}}* | *{{item.t8interfaces}}* | *{{item.t8vr}}* |
| {%tr endfor %} | | | | |

Virtual Router

[https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/networking/virtual-routers.html#](https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/networking/virtual-routers.html)

Describe the routing protocols in use at the customer site including protocols, redistribution, route filtering, etc. The example below is for static routing on a multi-vsys chassis.

Each {{Customer}} PA-5260 H/A pair has a virtual router per vsys. Each Layer 3 interface is assigned to the appropriate virtual router. {{Customer}} is using static routing on each vsys. No dynamic routing protocols are configured.

Table 9 shows the virtual router configuration.

Table 9 – Virtual Routers General Settings

|  |  |  |  |
| --- | --- | --- | --- |
| **Device Name** | **Virtual System** | **Virtual Router** | **Routing Protocols** |
| * {%tr for item in t9%} | | | |
| *{{item.t9devicename}}* | *{{item.t9vsysname}}* | *{{item.t9vr}}* | * *{{item.t9protocols}}* |
| * {%tr endfor %} | | | |

Interfaces

There are many different types of interfaces configured. These will be described in detail below as it pertains to the deployment around:

* Operational interfaces
* Management interfaces
* Logging interfaces

Operational Interfaces

[https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/networking/configure-interfaces.html#](https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/networking/configure-interfaces.html)

Describe the customer interface configuration below

{{Customer}} is utilizing aggregate ethernet (AE) interfaces to increase bandwidth and provide redundant connections to upstream devices. Each interface is configured as Layer 3. Sub-interfaces are configured to allow multiple VLANs across the same aggregate ethernet interface group. All interfaces are set to auto for speed and duplex. AE1 consist of two 10Gpbs interfaces. AE2 consists of two 40Gbps interfaces. Management profiles are assigned to all Layer 3 interfaces.

Table 12 shows the {{Customer}} interface configuration.

Table 12 – Operational Interface Settings

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Device Name** | **Interface** | **Type** | **Mgt Profile** | **IP** | **Virtual Router** | **VLAN** | **Vsys** | **Zone** |
| {%tr for item in t12%} | | | | | | | | |
| *{{item.t12devicename}}* | *{{item.t12interfacename}}* | *{{item.t12type}}* | *{{item.t12mgtprof}}* | *{{item.t12ip}}* | *{{item.t12vr}}* | *{{item.t12vlan}}* | *{{item.t12vsys}}* | *{{item.t12zone}}* |
| {%tr endfor %} | | | | | | | | |

Management Interfaces

[https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/firewall-administration/management-interfaces.html#](https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/firewall-administration/management-interfaces.html)

Describe the management settings for each device deployed.

Table 13 shows the management settings for each deployed device.

Table 13 – MGT Port Settings

|  |  |  |
| --- | --- | --- |
| **Device Name** | **MGT Port** | **Settings** |
| {%tr for item in t13%} | | |
| *{{item.t13devicename}}* | *IP Address*  *Mask*  *Gateway*  *IPv6 address*  *Speed*  *MTU*  *Services*  *Permitted IP’s* | *{{item.t13mgmtIP}}*  *{{item.t13mgmtnetmask}}*  *{{item.t13mgmtgateway}}*  *{{item.t13mgmtipv6}}*  *{{item.t13mgmtspeed}}*  *{{item.t13mgmtmtu}}*  *{{item.t13mgmtservices}}*  *{{item.t13mgmtpermittedips}}* |
| {%tr endfor %} | | |

Security Zones

<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-web-interface-help/network/network-zones.html>

Describe the configured security zones, including vsys, zone protection profiles, and if User-ID is enabled.

Each {{Customer}} firewall is configured to use Layer-3 interfaces. There are four security zones configured to secure traffic between the internet, DMZ and inside resources. The Guest security zone is assigned to vsys2 and secures Guest traffic to the internet. {{Customer}} has configured a zone protection profile, “Recon Alert”, to alert on TCP/UDP port scans and host sweeps. This will be monitored over the next two weeks and modified to block traffic if needed.

Table 15 shows the configured security zones.

Table 15 – Security Zones

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Device Name** | **Zone Name** | **Type** | **Zone Protection** | **User-ID** | **VSYS** |
| {%tr for item in t15%} | | | | | |
| *{{item.t15devicename}}* | *{{item.t15zonename}}* | *{{item.t15zonetype}}* | *{{item.t15zoneprotection}}* | *{{item.t15userid}}* | *{{item.t15vsys}}* |
| {%tr endfor %} | | | | | |

Security Profiles

<https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/threat-prevention.html>

Describe each security profile that the customer has configured an update the tables for each to include action.

The Antivirus profile details are shown in Table 28.

Table 28 – Antivirus Profile

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Device Name** | **Profile Name** | **Decoder** | **Action** | **WildFire-Action** |
| {%tr for item in t28%} | | | | |
| *{{item.t28devicename}}* | *{{item.t28avprofilename}}* | *{{item.t28decoders}}* | *{{item.t28actions}}* | *{{item.t28wfactions}}* |
| {%tr endfor %} | | | | |

The Anti-Spyware profile details are shown in Table 29.

Table 29 – Anti-Spyware Profile

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Device Name** | **Profile Name** | **Severity** | **Action** | **DNS Sinkhole?** |
| {%tr for item in t29%} | | | | |
| *{{item.t29devicename}}* | *{{item.t29asprofilename}}* | *{{item.t29severity}}* | *{{item.t29actions}}* | *{{item.t29dnssink}}* |
| {%tr endfor %} | | | | |

The Vulnerability profile details are shown in Table 30.

Table 30 – Vulnerability Profiles

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Device Name** | **Profile Name** | **Rule Name** | **Severity** | **Action** |
| {%tr for item in t30%} | | | | |
| *{{item.t30devicename}}* | *{{item.t30vprofilename}}* | *{{item.t30rulename}}* | *{{item.t30severity}}* | *{{item.t30action}}* |
| {%tr endfor %} | | | | |

The URL Filtering profile details are shown in Table 31.

Table 31 – URL Filtering Profiles

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Device Name** | **URL Filtering Profile Name** | **Blocked Categories** | **Allow Categories** | **Alert Categories** | **Continue**  **Categories** | **Override Categories** | **User Credential Submission** |
| {%tr for item in t31%} | | | | | | | |
| *{{item.t31devicename}}* | *{{item.t31profilename}}* | *{{item.t31blocked}}* | *{{item.t31allow}}* | *{{item.t31alert}}* | *{{item.t31continue}}* | *{{item.t31override}}* | *{{item.t31credential}}* |
| {%tr endfor %} | | | | | | | |

The WildFire profile details are shown in Table 32.

Table 32 – WildFire Profile Details

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Device Name** | **Profile Name** | **Applications** | **File Types** | **Direction** | **Analysis** |
| {%tr for item in t32%} | | | | | |
| *{{item.t32devicename}}* | *{{item.t32profilename}}* | *{{item.t32applications}}* | *{{item.t32filetypes}}* | *{{item.t32direction}}* | *{{item.t32analysis}}* |
| {%tr endfor %} | | | | | |

The File Blocking profile details are shown in Table 33.

Table 33 – File Blocking Profile Details

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Device Name** | **Rule Name** | **Applications** | **File Types** | **Direction** | **Action** |
| {%tr for item in t33%} | | | | | |
| *{{item.t33devicename}}* | *{{item.t33rulename}}* | *{{item.t33applications}}* | *{{item.t33filetypes}}* | *{{item.t33direction}}* | *{{item.t33action}}* |
| {%tr endfor %} | | | | | |

Data pattern objects details are shown in Table 34.

Security Profile Groups

Describe the customers security profile groups configured and if they are applied to security policies.

The security profile group details are shown in Table 37.

Table 37 – Security Profile Group Details

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Device Name** | **Group Name** | **Antivirus** | **Anti-**  **Spyware** | **Vulnerability** | **File Blocking** | **Data Filtering** | **WildFire** | **URL** |
| {%tr for item in t37%} | | | | | | | | |
| *{{item.t37devicename}}* | *{{item.t37groupname}}* | *{{item.t37av}}* | *{{item.t37as}}* | *{{item.t37vp}}* | *{{item.t37fb}}* | *{{item.t37df}}* | *{{item.t37wf}}* | *{{item.t37url}}* |
| {%tr endfor %} | | | | | | | | |

{{Customer}} Security Profiles Configuration

Describe the customers use of security profiles on security policy. Identify the profiles or profile groups in use. Also note if any security policies do not have security profiles assigned and the reason they are not in use.

Dynamic Updates

[https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/software-and-content-updates/dynamic-content-updates.html#](https://docs.paloaltonetworks.com/pan-os/9-0/pan-os-admin/software-and-content-updates/dynamic-content-updates.html)

Describe the Dynamic Update schedule. Be sure to include if there are any thresholds configured. Also note if new applications are disabled in content updates.

The dynamic content updates schedule details are shown in Table 38.

Table 38 – Dynamic Updates Schedule Details

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Device Name** | **Type** | **Recurrence** | **Time** | **Action** | **Threshold Hours** |
| {%tr for item in t38%} | | | | | |
| *{{item.t38devicename}}* | *{{item.t38type}}* | *{{item.t38recurrence}}* | *{{item.t38time}}* | *{{item.t38action}}* | *{{item.t38threshold}}* |
| {%tr endfor %} | | | | | |

Reporting

Describe the customers reporting settings. Include any customer reports created, email profiles and report groups.

Cloud Services and Integration Pieces

This section is devoted to the documentation of the configured Cloud Services and Plugin Integrations for Panorama. Include details such as version of plugin, configured region, subscription model, etc.

Cortex Data Lake

*< Enter details in an organized format. Could be a table, a bullet list, or a form. >*

Prisma Access / Prisma Public Cloud / Prisma SaaS

*< Enter details in an organized format. Could be a table, a bullet list, or a form. >*

Cortex

*< Enter details in an organized format. Could be a table, a bullet list, or a form. >*

VM Series

Amazon Web Services (AWS), GCP, Microsoft Azure, Oracle Cloud, Alibaba Cloud, and VMware NSX

*< Enter details in an organized format. Could be a table, a bullet list, or a form. >*

AutoFocus

*< Enter details in an organized format. Could be a table, a bullet list, or a form. >*

Threat Vault

*< Enter details in an organized format. Could be a table, a bullet list, or a form. >*

Third Party Integrations

This section is devoted to the documentation of the any third-party tools integrated into the Palo Alto Networks deployed solution. This can include an XML API integrations and technology partners such as Tufin.

Document Properties

This document is prepared for the sole use by {{Customer}}.

Contributors

Enter complete information for all people with their role, could include customer resources:

Role types: Author/Contributor/Reviewer

Title example: Professional Services Consultant

Table 45 – Contributors

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Role | Title | Contact Information |
| *John Doe* | *Pro-Serv* | *Sr. Professional Service Consultant* | [*jdoe@paloaltonetworks.com*](mailto:jdoe@paloaltonetworks.com) |
|  |  |  |  |

Revision History

Enter complete information for all revisions and be concise on comments:

Status types: Draft/In Review/Complete

Comments example: Initial draft/Added to Management and Routing sections/Draft complete – in review

Table 46 – Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Date* | *Revision* | *Changes By* | *Status* | *Comments* |
| *dd MON yyyy* | *<x.y>* | *<your name>* | *<status>* | *<comments on version/changes>* |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Palo Alto Networks Resources

Palo Alto Networks has a team of resources committed to making the {{Customer}} deployment successful. The following individuals are assigned to work on the {{Customer}} deployment.

Describe each member of the Palo Alto Networks team, their role, and contact information.

Table 47 – Palo Alto Networks Resources

|  |  |  |
| --- | --- | --- |
| *Role* | *Name* | *Contact Information* |

|  |  |  |
| --- | --- | --- |
| *Professional Services Engineer* | *Engineer Name* | *engineer@paloaltonetworks.com* |
| *Professional Services PM* | *Project Manager Name* | *pm@paloaltonetworks.com* |

Customer Resources

Describe each member of the customer team, their role, and contact information.

Table 48 – Customer Resources

|  |  |  |
| --- | --- | --- |
| *Role* | *Name* | *Contact Information* |

|  |  |  |
| --- | --- | --- |
| *Customer Role Title 1* | *Customer Name* | *customer@company.com* |
| *Customer Role Title 2* | *Customer Name* | *customer@company.com* |