



JPS Kedah HQ Firewall Upgrade

Report Period of 16/09/2023 - 16/09/2023

Date	Description
16/09/2023	<ul style="list-style-type: none"> - On the 11th of September, one of the available internet uplinks was down. It is the main interface where request to international DNS services originated from. - Whilst troubleshooting being carried out, some of the packaged being attempted to be refreshed without realizing the version of the firewall has long gone skipped so many versions. - As a result one of the important packages namely 'siproxd' was purged accidentally, hence no update available because the update link is lost within the refresh process. - The package 'siproxd' is important for all IP phones in JPS Kedah HQ as it helps to communicate with Wisma Darulaman without needing any internet connection. - The current running version of the firewall is 2.5.2 whilst the most updated stable version issued is 2.7.0 - To put into perspective, version 2.5.2 was released in 2021 in July, 7th whilst 2.7.0 released in 2023 in June, the 29th. - In between both versions is 2.6.0 which the administration of JPS Kedah totally skipped.

System Information	
Name	secure.didkedah.gov.my
User	admin@10.50.1.2 (Local Database)
System	pfSense Netgate Device ID: 84b619a88fd7e7bd7277
BIOS	Vendor: American Megatrends Inc. Version: 4.6.5 Release Date: Fri Nov 8 2019
Version	2.5.2-RELEASE (amd64) built on Fri Jul 02 15:33:00 EDT 2021 FreeBSD 12.2-STABLE Version 2.7.0 is available. Download Version information updated at Sat Sep 16 18:00:51 +08 2023
CPU Type	Intel(R) Xeon(R) CPU E3-1225 v3 @ 3.20GHz 4 CPUs: 1 package(s) x 4 core(s) AES-NI CPU Crypto: Yes (active) QAT Crypto: No
Hardware crypto	AES-CBC,AES-CCM,AES-GCM,AES-ICM,AES-XTS
Kernel PTI	Enabled
MDS Mitigation	Inactive
Uptime	93 Days 14 Hours 37 Minutes 07 Seconds
Current date/time	Sat Sep 16 18:01:31 +08 2023

16/09/2023 The following would be the attempt to upgrade the packages in CLI:

```
[2.5.2-RELEASE][admin@secure.didkedah.gov.my]/root: pkg-static upgrade
Updating pfSense-core repository catalogue...
pfSense-core repository is up to date.
Updating pfSense repository catalogue...
Fetching meta.conf: 100% 163 B 0.2kB/s 00:01
Fetching packagesite.pkg: 100% 155 KiB 159.1kB/s 00:01
```



Date	Description
	<p>Processing entries: 0%</p> <p>pkg-static: Newer FreeBSD version for package unzoo:</p> <p>To ignore this error set IGNORE_OSVERSION=yes</p> <p>- package: 1400085</p> <p>- running kernel: 1202504</p> <p>pkg-static: repository pfSense contains packages for wrong OS version: FreeBSD:14:amd64</p> <p>Processing entries: 100%</p> <p>Unable to update repository pfSense</p> <p>Error updating repositories!</p> <p>[2.5.2-RELEASE][admin@secure.didkedah.gov.my]/root:</p>
16/09/2023	<p>The best methodology workflow to rectify this issue are the following:</p> <ul style="list-style-type: none"> - Backup firewall configuration of the current 2.5.2 - Reset firewall software with new ISO of 2.7.0 - Restore each element of backup by module and verify each module running properly before restoring next module. - Rebuilding of Network Interfaces - Rebuilding of Firewall Rules - Rebuilding of Routes/Gateways - Network testing and handover <p>It is very much advisable for these steps to be done in non-operational hour - preferably during weekends.</p>
16/09/2023	<p>The firewall will not be running optimally without updating to the latest version as from time to time patches for certain issue provided by manufacturer can only be adopted within certain versions. Hence this report produced to explain the importance of it.</p>