

Network Firewall Enhancement

(1) General Information

本仕様書は学校法人沖縄科学技術大学院大学学園が実施する研究事業において使用する Network Firewall Enhancement の仕様について定める。OIST キャンパスの Next Generation Firewall のアップグレードについて PaloAlto PA5260 及び Firepower 4150 の製品が Network and Connectivity Section によって事前評価されており本仕様の参考構成とする。また本仕様要求として製品を除いた成果物の納品及び連絡のやり取りを英語で希望するため総則、納入場所、その他を除くその内容について英語表記とする。

(2) System Components – Palo Alto Networks PA5260

The implementation required following existing components.

S.No	Product Number	Description	QTY
1	PAN-PA-5260-AC	Palo Alto Networks PA-5260 with redundant AC power supplies	4
2	PAN-PA-5260-GP-HA2	GlobalProtect subscription for device in an HA pair year 1, PA-5260	2
3	PAN-PA-5260-TP-HA2	Threat prevention subscription for device in an HA pair year 1, PA-5260	4
4	PAN-PA-5260-URL4-HA2	PANDB URL filtering subscription for device in an HA pair year 1, PA-5260	4
5	PAN-PA-5260-WF-HA2	WildFire subscription for device in an HA pair year 1, PA-5260	2
6	PAN-PWR-CORD-JP-15	Power cord for Japan with IEC-60320 C13 and JISC8303 cord ends, 15A, 125V max, 6ft	8
7	PAN-QSFP-40GBASE-SR4	QSFP+ form factor, 40Gb SR4 optical transceiver, short reach 100m OM3, 12 strand MPO connector, IEEE 802.3ba 40GBASE-SR4 compliant	8
8	PAN-SFP-PLUS-SR	SFP+ form factor, SR 10Gb optical transceiver, short reach 300m, OM3 MMF, duplex LC, IEEE 802.3ae 10GBASE-SR compliant	16
9	PAN-SVC-4HR-5260	4-Hour Premium support year 1, PA-5260	4
10	PAN-M-500	Palo Alto Networks M-500 chassis with 4TB storage (4x2TB RAID certified drives) and 4 post rack mount rails	1
11	PAN-M-500-P-25	Panorama central management software license, 25 devices or log collector for the M-500	1
12	PAN-2.5IN-HDD-2TB-PAIR	2.5 inch spare 2TB HDD Raid certified drives for M-Series and PA-5200 Series, shipped in pair	10
13	PAN-SVC-4HR-M-500-P-25	4-Hour Premium support, Panorama M-500 25 devices, PAN-DB Private Cloud or log collector	1
14	PAN-EDU-ONSITE-5DAY-12	Palo Alto Networks On-Site training course, 5 days, up to 12 students.	1

(3) Switch specifications and capabilities

This implementation should be executed based on the vendors global best practices.

PA5250 Models and Capabilities

PA-5260 Models	PAN-PA-5260-AC
Firewall throughput	72.2 Gbps
Threat prevention throughput	30 Gbps
IPsec VPN throughput	21 Gbps
Maximum concurrent sessions	32,000,000
New sessions per second	458,000

Management I/O	2 x 100/1000 copper port, 1 x RJ45 console port
Data I/O	4 x 100/1000/10G Copper, 16 x 1GE/10GE SFP/SFP+, 4 x 40GE/100GE QSFP+

(4) System Components – Cisco Firepower 4150

The implementation required following existing components.

S.No	Product Number	Description	QTY
1	FPR4150-FTD-HA-BUN	Cisco Firepower 4150 Threat Defense Chss,Subs HA Bundle	2
2	FPR4150-NGFW-K9	Cisco Firepower 4150 NGFW Appliance, 1U, 2 x NetMod Bays	4
3	CON-SNTP-FPR415NG	SNTC-24X7X4 Cisco Firepower 4150	4
4	FPR4K-PWR-AC-1100	Firepower 4000 Series 1100W AC Power Supply	4
5	CAB-L620P-C13-JPN	Power Cord, 250VAC, 15A, NEMA L6-20 to C13, JAPAN	8
6	SF-FXOS4K-2.2-K9	Cisco Firepower Extensible Operating System v2.2 for FPR4000	4
7	SF-F4K-TD6.2.2-K9	Cisco Firepower Threat Defense software v6.2.2 for FPR4100	4
8	FPR4K-SSD400	Firepower 4000 Series SSD for FPR-4140/4150	4
9	FPR4K-SSD-BBLKD	Firepower 4000 Series SSD Slot Carrier	4
10	FPR4K-ACC-KIT	FPR4K Hardware Accessory Kit (Rack Mounts, Cables)	4
11	FPR4K-FAN	Firepower 4000 Series Fan	24
12	FPR4K-PWR-AC-1100	Firepower 4000 Series 1100W AC Power Supply	4
13	FPR4K-RACK-MNT	Firepower 4000 Series Rack Mount Kit	4
14	FPR4K-NM-4X40G	Cisco FirePower 4 port QSFP+ Network Module	4
15	CON-SNTP-FPR4KNMX	SNTC-24X7X4 Cisco FirePower 6 port 10G SR FTW Network	4
16	FPR4K-NM-6X10SR-F	Cisco FirePower 6 port 10G SR FTW Network Module	4
17	CON-S2P-FPR4KNMF	SNTC-24X7X2 Cisco FirePower 6 port 10G SR FTW Network	4
18	L-FPR4150T-TMC=	Cisco FPR4150 Threat Defense Threat, Malware and URL License	4
19	L-FPR4150T-TMC-1Y	Cisco FPR4150 Threat Defense Threat, Malware and URL 1Y Subs	4
20	GLC-TE	1000BASE-T SFP transceiver module for Category 5 copper wire	4
21	SFP-10G-SR	10GBASE-SR SFP Module	24
22	QSFP-40G-SR4	40GBASE-SR4 QSFP Transceiver Module with MPO Connector	16
23	FMC4500-K9	Cisco Firepower Management Center 4500 Chassis	2
24	CON-SNTP-FMC4500K	SNTC-24X7X4 Cisco Firepower Management Center 4500	2
25	FMC-PWR-AC-770W	Cisco AC Power Supply 770W for FMC	4
26	CAB-C19-C20-3M-JP	Power Cord C19-C20, 3M/10ft Japan PSE mark	4
27	SF-FMC-6.2-K9	Cisco Firepower Management Center Software v6.2	2
28	FS4K-10G-NIC	Cisco FMC X520-DA2 10 Gbps 2 port NIC	2
29	FS4K-NIC-SFP	Cisco FMC 10 Gbps Ethernet SFP SR	4
30	FMC-MRAID12G	Cisco FMC 12G SAS Modular Raid Controller	2
31	FMC4K-SSD-800G	Cisco 800GB 12Gbps SAS SSD for FMC	12
32	FMC-SD-32G-S	Cisco FMC 32GB SD Card Module	2
33	FMC4K-CPU-E52640E	Cisco 2.40 GHz E5-2640 v4/90W 10C/25MB Cache/DDR4 2133MHz	4
34	R2XX-RAID6	Enable RAID 6 Setting	2
35	FMC-MRAID-1G	Cisco FMC 12Gbps SAS 1GB FBWC Cache module (Raid 0/1/5/6)	2
36	FMC4K-MEM-16GB	Cisco 16GB DDR4-2400-MHz RDIMM/PC4-19200/single rank/x4/1.2v	16

37	L-AC-APX-1Y-S3	Cisco AnyConnect Apex – 1-Year License 250-499	1
38	TRN-CLC-001	100 Prepaid training credits	1

(5) Switch specifications and capabilities

This implementation should be executed based on the vendors global best practices.

Cisco FP4150 Models and Capabilities

FP4150 Models	FPR4150-FTD-HA-BUN
Firewall throughput	70 Gbps
Threat prevention throughput	24 Gbps
IPsec VPN throughput	14 Gbps
Maximum concurrent sessions	30,000,000
New sessions per second	200,000
Management I/O	1 x 1000 copper port, 1 x RJ45 console port
Data I/O	8 x 10GE SFP/SFP+, 4 x 40GE QSFP+

(6) On-site installation and training

The selected vendor or preferred vendor partner should provide at least 5 days of on-site assistance for initial installation, configuration and training.

(7) Location for the delivery

学校法人沖縄科学技術大学院大学学園（沖縄県国頭郡恩納村字谷茶 1919-1 学校法人沖縄科学技術大学院大学学園 Lab1,Lab2,Lab3,Center 棟において、本学担当者が指定する箇所。

(8) Completion Due Date

28th February 2018

(9) Test and Inspection

Bid Winning vendor should show the person in charge at OIST IT that all the features covered in the specification works using the system.

(10) Operation & Knowledge transfer

Bid Winning vendor should train the IT Network Team how to implement the capabilities delivered in this engagement.

(11) Delivery Handover Documents

Training materials and documentation

Delivery plan document

(12) Warranty & Assurance

General Vendor support

(13) Warranty and Support

All maintenance, licensing, support, and any other costs must be itemized per quote.

All maintenance, licensing, support, and any other conditions must be consistent over the 5 years of operation, both the 1st year and subsequent 4 year quotes must include any and all items to facilitate this.

The bid should include the first fiscal year of all costs, including maintenance, licensing, and support, and quotes for 5 years should be provided for reference (1 quote per fiscal year).

(14) Other

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