



Section VII. Technical Specifications

INSTRUCTION: Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a) (ii) and/or GCC Clause 2.1(a)(ii).

Public Bidding for the Supply, Delivery, Configuration, Deployment, and Commissioning of the National Center for Mental Health (NCMH) Server-Farm Next Generation Firewall and Renewal Licenses of NCMH-Camarin Edge Next Generation Firewall CY 2024

Specification	Particular Requirements	Statement of Compliance	Supporting Documents for the Statement of Compliance (if applicable)
Supply, Delivery, Configuration, Deployment, and Commissioning of the National Center for Mental Health (NCMH) Next Generation Firewall			
1. Physical interfaces	i. Mounting: 1U rackmount		
	ii. Multi-function LCD display and navigation		
	iii. Micro USB, RJ45, 2 x USB 3.0, MGMT port		
	iv. 4 x SFP+ fiber ports		
	v. 4 x 2.5 GbE copper		
	vi. 16 x GbE copper		
	vii. 2 x expansion bay		
	viii. Power supply: Internal Hot Swappable auto-ranging AC-DC 100-240VAC, 3.7-7.4A@50-60 Hz Internal Redundant PSU Option		



	ix. Storage: 2 x at least 480 GB SATA-III SSD		
	x. The existing brand utilized by NCMH will not be qualified because of defense-in-depth architecture.		
2. Performance	i. Firewall throughput: at least 75,000 Mbps; 105 Mpps		
	ii. Firewall IMIX: at least 37,000 Mbps		
	iii. Firewall Latency: 4 μ s on 64-byte UDP		
	iv. IPS throughput: at least 12,000 Mbps		
	v. Threat Protection throughput: at least 9,000 Mbps		
	vi. NGFW: at least 10,000 Mbps		
	vii. Concurrent connections: at least 7,000,000		
	viii. New connections/sec: at least 500,000		
	ix. IPsec VPN throughput: at least 55,000 Mbps		
	x. IPsec VPN concurrent tunnels: at least 8,500		
	xi. SSL VPN concurrent tunnels: at least 10,000		
	xii. SSL/TLS Inspection: at least 8,000 Mbps		
	xiii. SSL/TLS Concurrent connections: at least 800,000		
	xiv. Application Control Throughput: 28 Gbps		
	xv. CAPWAP Throughput: 65Gbps		
3. Features	i. TLS 1.3 Inspection		



	ii. Deep Packet Inspection		
	iii. Can support Centralized Management		
	iv. Synchronized Application Control		
	v. Has sandbox capability; can analyze all unknown files using AI, ML, and sandboxing		
	vi. Next-gen Intrusion Prevention System		
	vii. Advanced Threat Protection		
	viii. Extensive network and threat reporting		
	ix. Web Control		
	x. Web Threat Protection		
	xi. App Control		
	xii. Machine Learning		
	xiii. Cloud-based intelligence and analysis		
	xiv. Dynamic runtime analysis of unknown files		
	xv. Email Protection		
	xvi. Web Application Firewall		
Supply, Delivery, Configuration, Deployment, and Commissioning of the Renewal Licenses of NCMH-Camarin Edge Next Generation Firewall			
1. Physical interfaces	i. Mounting: 1U rackmount		
	ii. Multi-function LCD and navigation		



	iii. Micro USB, RJ45, 2 x USB 3.0, MGMT port		
	iv. 2 x SFP fiber ports		
	v. 2 x SFP+ fiber ports		
	vi. 8 x GbE copper		
	vii. 1 x expansion bay		
	viii. Storage: at least 240 GB SATA-III SSD		
2. Performance	i. Firewall throughput: at least 58,000 Mbps		
	ii. Firewall IMIX: at least 27,000 Mbps		
	iii. Firewall Latency: 4 μ s on 64-byte UDP		
	iv. IPS throughput: at least 14,000 Mbps		
	v. Threat Protection throughput: at least 3,000 Mbps		
	vi. NGFW: at least 12,500 Mbps		
	vii. Concurrent connections: at least 13,700,00		
	viii. New connections/sec: at least 257,000		
	ix. IPsec VPN throughput: at least 31,000 Mbps		
	x. IPsec VPN concurrent tunnels: at least 6,500		
	xi. SSL VPN concurrent tunnels: at least 5,000		
	xii. SSL/TLS Inspection: at least 3,100 Mbps		



	xiii. SSL/TLS Concurrent connections: at least 100,000		
3. Features	i. TLS 1.3 Inspection		
	ii. Deep Packet Inspection		
	iii. Can support Centralized Management		
	iv. Synchronized Application Control		
	v. Has sandbox capability; can analyze all unknown files using AI, ML, and sandboxing		
	vi. Next-gen Intrusion Prevention System		
	vii. Advanced Threat Protection		
	viii. Extensive network and threat reporting		
	ix. Web Control		
	x. Web Threat Protection		
	xi. App Control		
	xii. Machine Learning		
	xiii. Cloud-based intelligence and analysis		
	xiv. Dynamic runtime analysis of unknown files		
	xv. Email Protection		
CONFORME:			
<i>(Company Name)</i>			
<i>(Name and Signature of Authorized Representative)</i>			



Terms of Reference

Supply, Delivery, Configuration, Deployment, and Commissioning of the National Center for Mental Health (NCMH) Next Generation Firewall

I. SCOPE OF WORKS

A. General Works

1. Delivery, configure, deploy, and commission the procured NCMH Next-Generation Firewall.
2. Configure routing design for server-farm firewall to Edge Firewall, DMZ Switch, and Server-farm Switch.
3. The bidder must configure the procured network active components based on the configuration provided by NCMH IHOMP/IT Unit and migrate all the configurations from the existing NGFW to the newly procured NGFW.
4. During the deployment and configuration, the supplier must ensure that the activity will only have minimal to no business disruptions.
5. The bidder must provide all components, cables, modules, or devices that are necessary for the project. The bidder must consult the system administrator for their preferred schedule before doing any major installation and/or fixes.
6. Define and configure administrative and system security policies, practices, and codes.
7. Prepare a hardened system and turnover of administrative rights to NCMH.
8. Test and debug the deployed network active components.
9. The bidder must provide detailed technical documentation of the project.
10. Any improvement and/or supplemental to the conceptual design, quantity, and/or deemed necessary to attain functionality, integrity, security, and completion of the project must be shouldered by the bidder with no additional cost.
11. Other works and materials that may have been omitted here but are necessary to put the system in operation and to complete the works to commission and implement the system within the required period.
12. Bidder must provide manufacturer-certified network professional full course training on the existing network engineering technology.
 - i. Curriculum-based and manufacturer training from a certified training center for two (2) NCMH network and security administrators on the following but not limited to installing, configuring, administration, and managing the Next Generation Firewall.

B. Technical Specifications

The specifications of the proposed network core active components will be the following:

1. Physical interfaces
 - i. Mounting: 1U rackmount
 - ii. Multi-function LCD display and navigation
 - iii. Micro USB, RJ45, 2 x USB 3.0, MGMT port
 - iv. 4 x SFP+ fiber ports
 - v. 4 x 2.5 GbE copper
 - vi. 16 x GbE copper
 - vii. 2 x expansion bay
 - viii. Power supply: Internal Hot Swappable auto-ranging AC-DC 100-240VAC, 3.7-7.4A@50-60 Hz Internal Redundant PSU Option
 - ix. Storage: 2 x at least 480 GB SATA-III SSD
 - x. The existing brand utilized by NCMH will not be qualified because of defense-in-depth architecture.
2. Performance
 - i. Firewall throughput: at least 75,000 Mbps; 105 Mpps
 - ii. Firewall IMIX: at least 37,000 Mbps
 - iii. Firewall Latency: 4 μ s on 64-byte UDP
 - iv. IPS throughput: at least 12,000 Mbps
 - v. Threat Protection throughput: at least 9,000 Mbps
 - vi. NGFW: at least 10,000 Mbps
 - vii. Concurrent connections: at least 7,000,000
 - viii. New connections/sec: at least 500,000



- ix. IPsec VPN throughput: at least 55,000 Mbps
- x. IPsec VPN concurrent tunnels: at least 8,500
- xi. SSL VPN concurrent tunnels: at least 10,000
- xii. SSL/TLS Inspection: at least 8,000 Mbps
- xiii. SSL/TLS Concurrent connections: at least 800,000
- xiv. Application Control Throughput: 28 Gbps
- xv. CAPWAP Throughput: 65Gbps

3. Features

- i. TLS 1.3 Inspection
- ii. Deep Packet Inspection
- iii. Can support Centralized Management
- iv. Synchronized Application Control
- v. Has sandbox capability; can analyze all unknown files using AI, ML, and sandboxing
- vi. Next-gen Intrusion Prevention System
- vii. Advanced Threat Protection
- viii. Extensive network and threat reporting
- ix. Web Control
- x. Web Threat Protection
- xi. App Control
- xii. Machine Learning
- xiii. Cloud-based intelligence and analysis
- xiv. Dynamic runtime analysis of unknown files
- xv. Email Protection
- xvi. Web Application Firewall

II. EXPECTED DELIVERABLES

- i. One (1) configured, commissioned, and tested Next-Generation Firewall Appliance.
- ii. 8 SFP+ Transceivers
- iii. One 3-year firewall license for features indicated in the TOR.
- iv. Manufacture Certified Training

III. IMPLEMENTATION ARRANGEMENTS INCLUDING ROLES AND RESPONSIBILITIES

Within the Project duration the NCMH shall:

1. Provide a technical working committee to supervise and monitor the project.
2. Provide a technical contact person
3. Facilitate access to information, documents, facilities and other necessary things needed by the contractor to perform services.
4. Assist in coordinating with and issue instructions as may be necessary or appropriate to other government agencies for the prompt and effective implementation of the services.
5. Approve the proposed working schedule of the supplier.
6. Provide temporary ID to all personnel involved in the installation
7. Grant authorized representative access to premises as well as equipment and all facilities located therein to perform the supplier's obligations.
8. Make prompt review and revision, if necessary, which shall be not later than ten (10) working days from receipt of the work produced.
9. Pay the contractor upon presentation of requisite documents, the amount due him upon receipt of claims supported with documents subject to acceptance by the NCMH.

Within the Project duration the winning Contractor/Supplier shall:

1. Perform services professionally based on industry standards and always protect the interest of the government in general and NCMH.
2. Provide a list of certified engineers/technical support team with addresses and contact numbers, involved, and other activities related to the project.
3. Secure the NCMH permits, licenses, and approvals that are or may be necessary to perform services.
4. Provide a chief officer or program manager (licensed ECE, COE or EE) who will be directly in charge of managing the project, and day-to-day contact personnel in charge of operations.



5. Complete the delivery, installation, and configuration within sixty (60) calendar days from the receipt of the Notice to Proceed. Otherwise, the winning Service Provider/Bidder shall pay the corresponding penalties/liquidated damages in the amount of one-tenth of one percent (1/10 of 1%) of the total contract price for every calendar day of delay.
6. Submit a proposed working schedule for approval of NCMH and secure a security pass and working permit on their site.
7. Ensure that all personnel involved in the project must be in proper uniform because it will be their identification from the rest of NCMH's employees and visitors.
8. Protect the privacy of NCMH and ensure that all confidential information and data on its ICT infrastructure are kept confidential.

IV. QUALIFICATION OF THE SUPPLIER

1. Bidder must attach to his/her proposal an assurance from his/her principal that the items called for will be supplied in full and on time
2. Extensive knowledge, background, and technical experience in a great number of projects covering Network installation, configuration cabling, set-up of PABX, IP Telephony, VOIP, WLAN, VLAN Systems, and Maintenance.
3. Extensive knowledge, background, and technical experience in the installation, configuration, interoperability, security, and industry standards on fiber and structured data cabling, wireless LAN, IP telephony, and other factors concerning cabling solutions.
4. Should have been engaged for at least five (5) years in various ICT services such as IT project management, computer networking, voice and data communications infrastructure development, and ICT facilities operation and management.
5. The bidder should have locally-based manufacturer-certified engineers who will do the installation, configuration, and after-sales support of all proposed equipment for Firewall Technology.
 - i. Licensed Electronics and Communications Engineer
 - ii. Manufacturer Certified Associate or equivalent
 - iii. Manufacturer Certified Professional or equivalent
6. Must have a 24x7 helpdesk support system.
7. All proposed items must be certified genuine and brand new. Bidder must be an authorized Philippine Distributor, Dealer or Value-Added Reseller of his/her proposed products and must provide local technical services on these.

V. ADDITIONAL REQUIREMENTS TO BE SUBMITTED WITH TECHNICAL PROPOSAL

1. Plan of Approach and Methodology
2. Complete technology solution offered including detailed specification.
3. Corporate Profile which should include major achievements, service Portfolio or services offered by the firm, experience or engagements both local and international.
4. List of engineers.
5. Draft of Service Level Agreement

VI. WARRANTY PERIOD AND SERVICES

1. Period: Three (3) years warranty is required on all delivered goods and shall take effect immediately after final acceptance of the project with NCMH.
2. Product upgrades:
 - i. Provision, supply, and installation of announced improvements on the proposed product and/or any of its components, after the date of submission of proposals and before the date of implementation in the project sites without additional costs to NCMH.
 - ii. Provision or entitlement of all applicable upgrades including hardware firmware or software upgrades without additional cost to NCMH.
3. Preventive and Remedial Services:
 - i. Preventive maintenance services are done semi-annually on-site.

Supply, Delivery, Configuration, Deployment, and Commissioning of the Renewal Licenses of NCMH-Camarin Edge Next Generation Firewall

I. SCOPE OF WORKS

A. General Works

BIDDING DOCUMENTS



1. Delivery, configure, deploy, and renew the existing NCMH-Camarin Next-Generation Firewall.
2. The bidder must configure the procured network active components based on the configuration provided by NCMH IHOMP/IT Unit and migrate all the configurations from the existing NGFW to the newly procured NGFW license.
3. During the deployment and configuration, the supplier must ensure that the activity will only have minimal to no business disruptions.
4. Deploy, deliver, commission, and configure the next-generation firewall connected through site-to-site VPN to NCMH – Mandaluyong.
5. The bidder must provide all components, cables, modules, or devices that are necessary for the project. The bidder must consult the system administrator for their preferred schedule before doing any major installation and/or fixes.
6. Define and configure administrative and system security policies, practices, and codes.
7. Prepare a hardened system and turnover of administrative rights to NCMH.
8. Test and debug the deployed network active components.
9. The bidder must provide detailed technical documentation of the project.
10. Any improvement and/or supplemental to the conceptual design, quantity, and/or deemed necessary to attain functionality, integrity, security, and completion of the project must be shouldered by the bidder with no additional cost.
11. Other works and materials that may have been omitted here but are necessary to put the system in operation and to complete the works to commission and implement the system within the required period.
12. Bidder must provide manufacturer-certified network professional full course training on the existing network engineering technology.
 - i. Curriculum-based and manufacturer training from a certified training center for one (1) NCMH network and security administrators on the following but not limited to installing, configuring, administration, and managing the Next Generation Firewall.

B. Technical Specifications

The specifications of the proposed license will be the following:

1. Physical interfaces
 - i. Mounting: 1U rackmount
 - ii. Multi-function LCD and navigation
 - iii. Micro USB, RJ45, 2 x USB 3.0, MGMT port
 - iv. 2 x SFP fiber ports
 - v. 2 x SFP+ fiber ports
 - vi. 8 x GbE copper
 - vii. 1 x expansion bay
 - viii. Storage: at least 240 GB SATA-III SSD
2. Performance
 - i. Firewall throughput: at least 58,000 Mbps
 - ii. Firewall IMIX: at least 27,000 Mbps
 - iii. Firewall Latency: 4 μ s on 64-byte UDP
 - iv. IPS throughput: at least 14,000 Mbps
 - v. Threat Protection throughput: at least 3,000 Mbps
 - vi. NGFW: at least 12,500 Mbps
 - vii. Concurrent connections: at least 13,700,000
 - viii. New connections/sec: at least 257,000
 - ix. IPsec VPN throughput: at least 31,000 Mbps
 - x. IPsec VPN concurrent tunnels: at least 6,500
 - xi. SSL VPN concurrent tunnels: at least 5,000
 - xii. SSL/TLS Inspection: at least 3,100 Mbps
 - xiii. SSL/TLS Concurrent connections: at least 100,000
3. Features
 - i. TLS 1.3 Inspection
 - ii. Deep Packet Inspection
 - iii. Can support Centralized Management
 - iv. Synchronized Application Control



- v. Has sandbox capability; can analyze all unknown files using AI, ML, and sandboxing
- vi. Next-gen Intrusion Prevention System
- vii. Advanced Threat Protection
- viii. Extensive network and threat reporting
- ix. Web Control
- x. Web Threat Protection
- xi. App Control
- xii. Machine Learning
- xiii. Cloud-based intelligence and analysis
- xiv. Dynamic runtime analysis of unknown files
- xv. Email Protection

II. EXPECTED DELIVERABLES

- i. One configured, commissioned, and tested Next-Generation Firewall Appliance.
- ii. One 3-year renewed firewall license for features indicated in the TOR.
- iii. Manufacture Certified Training

III. IMPLEMENTATION ARRANGEMENTS INCLUDING ROLES AND RESPONSIBILITIES

Within the Project duration the NCMH shall:

1. Provide a technical working committee to supervise and monitor the project.
2. Provide a technical contact person
3. Facilitate access to information, documents, facilities and other necessary things needed by the contractor to perform services.
4. Assist in coordinating with and issue instructions as may be necessary or appropriate to other government agencies for the prompt and effective implementation of the services.
5. Approve the proposed working schedule of the supplier.
6. Provide temporary ID to all personnel involved in the installation
7. Grant authorized representative access to premises as well as equipment and all facilities located therein to perform the supplier's obligations.
8. Make prompt review and revision, if necessary, which shall be not later than ten (10) working days from receipt of the work produced.
9. Pay the contractor upon presentation of requisite documents, the amount due him upon receipt of claims supported with documents subject to acceptance by the NCMH.

Within the Project duration the winning Contractor/Supplier shall:

1. Perform services professionally based on industry standards and always protect the interest of the government in general and NCMH.
2. Provide a list of certified engineers/technical support team with addresses and contact numbers, involved, and other activities related to the project.
3. Secure the NCMH permits, licenses, and approvals that are or may be necessary to perform services.
4. Provide a chief officer or program manager (licensed ECE, COE or EE) who will be directly in charge of managing the project, and day-to-day contact personnel in charge of operations.
5. Complete the delivery, installation, and configuration within sixty (60) calendar days from the receipt of the Notice to Proceed. Otherwise, the winning Service Provider/Bidder shall pay the corresponding penalties/liquidated damages in the amount of one-tenth of one percent (1/10 of 1%) of the total contract price for every calendar day of delay.
6. Submit a proposed working schedule for approval of NCMH and secure a security pass and working permit on their site.
7. Ensure that all personnel involved in the project must be in proper uniform because it will be their identification from the rest of NCMH's employees and visitors.
8. Protect the privacy of NCMH and ensure that all confidential information and data on its ICT infrastructure are kept confidential.

IV. QUALIFICATION OF THE SUPPLIER

1. Bidder must attach to his/her proposal an assurance from his/her principal that the items called for will be supplied in full and on time.



2. Extensive knowledge, background, and technical experience in a great number of projects covering Network installation, configuration cabling, set-up of PABX, IP Telephony, VOIP, WLAN, VLAN Systems, and Maintenance.
 3. Extensive knowledge, background, and technical experience in the installation, configuration, interoperability, security, and industry standards on fiber and structured data cabling, wireless LAN, IP telephony, and other factors concerning cabling solutions.
 4. Should have been engaged for at least five (5) years in various ICT services such as IT project management, computer networking, voice and data communications infrastructure development, and ICT facilities operation and management.
 5. The bidder should have locally-based Manufacturer Certified Engineers who will do the installation, configuration, and after-sales support of all proposed equipment for cabling, WLAN, and Network Engineering.
 - i. Licensed Electronics and Communications Engineer
 - ii. Manufacturer Certified Associate
 - iii. Manufacturer Certified Architect
 6. Must have a 24x7 helpdesk support system.
 7. All proposed items must be certified genuine and brand new. Bidder must be an authorized Philippine Distributor, Dealer or Value-Added Reseller of his/her proposed products and must provide local technical services on these.
- V. ADDITIONAL REQUIREMENTS TO BE SUBMITTED WITH TECHNICAL PROPOSAL
1. Plan of Approach and Methodology
 2. Complete technology solution offered including detailed specification.
 3. Corporate Profile which should include major achievements, service Portfolio or services offered by the firm, experience or engagements both local and international.
 4. List of engineers.
 5. Draft of Service Level Agreement
- VI. WARRANTY PERIOD AND SERVICES
1. Period: Three (3) years warranty is required on all delivered goods and shall take effect immediately after final acceptance of the project with NCMH.
 2. Product upgrades:
 - i. Provision, supply, and installation of announced improvements on the proposed product and/or any of its components, after the date of submission of proposals and before the date of implementation in the project sites without additional costs to NCMH.
 - ii. Provision or entitlement of all applicable upgrades including hardware firmware or software upgrades without additional cost to NCMH.
 3. Preventive and Remedial Services:
 - i. Preventive maintenance services are done semi-annually on-site.