## Technical Specification – Firewall and Switch

# **1** Nos x Fortigate200E (Note: This model is required to configure High Availability with the existing Firewall)

1 Year Centralized Cloud Management and Analytics

- Configuration management and backup storage
- 1 Year online logs and analysis
- Minimum 5 GB/Day Central Logging & Analytics
- Simple zero touch firewall provisioning service
- SD-WAN configuration capability
- Setup and manage application prioritization
- Two-factor authentication supported
- Detailed security intelligence and analytics
- Preconfigured security reporting templates including best practice report, cyber threat assessment.
- Encrypted communication for all information flow
- Provides Zero Touch Integration with Security Fabric's Single Pane of Glass Management.

Mounts in an EIA standard 19-inch rack, mounting accessories should be provided

Security Subscription: 1 Year - Web Filtering, Malware Protection, IPS, Antispam, Antivirus, Botnet, Virus Outbreak Protection, Application Control, Sandbox

Support Subscription: 1 Year – 24x7 Support, Hardware Replacement, Firmware Upgrades

Technical Support: 1 Year local technical support by certified engineers

Hardware Warranty: 1-Year Parts, 1-Year Labor, 1-Year Onsite support

### 1 Nos x Core Switch - 10-Gbps Switch

Switch Architecture:

- Should support for Layer 3 (v4/v6) unicast and multicast routing protocols.
- Should support BGP, OSPF, EIGRP, RIPv2, PIM-SM, SSM, and MSDP.
- Should provide LAN and SAN Convergence FC and FCoE N-Port Virtualization (NPV) support to control domain IDs and points of management for scalability.
- Layer 2 multipathing through the elimination of Spanning Tree Protocol.
- Management should be easy enabling to reduce troubleshooting cycles with graphical operational visibility for topology, network fabric, and infrastructure.

Hardware Configuration:

- 48 Ports x 1/10/25-Gbps and 6 x 40/100-Gbps QSFP28 ports
- 6 CPU cores
- System memory: Up to 32 GB
- Built-in 128 GB SSD Drive
- Minimum 40 MB System Buffer
- Ports: 1x RJ-45 port, 1x USB port, 1x RS-232 serial port
- 4x Fan configuration Port-side intake and exhaust
- Hot-swappable Power Supply Units and fans with N+1 redundancy.
- 1 RU switch

#### Connectivity:

- 10 Nos x 1000BASE-T SFP transceiver module
- 4 Nos x 1000BASE-LX/LH SFP transceiver module
- 4 Nos x 10GBASE-LR SFP Module
- 8 Nos x 10GBASE-SR SFP Module
- 2 Nos x 40GBASE Active Optical 3m Cable
- 8 Nos x 10GBASE Active Optical SFP+ 7m Cable

System Performance:

- Bandwidth: Minimum 3.6 Tbps
- IP host entries: Minimum 1,700,000
- MAC address entries: Minimum: 500,000
- Multicast routes: Minimum 120,000
- VLANs: Minimum 4,000
- Network Address Translation (NAT) entries: 1,000
- Downlink Ports: Should support: 1, 10, or 25 Gbps Ethernet or as 16, 32 Gbps Fibre Channel.
- Uplink Ports: Should support 40 and 100 Gbps ports, or a combination of 1, 10, 25, 40, 50, and 100Gbps connectivity.

#### Installation and configuration

- Should be deployed by vendor certified engineers
- The installation team should consist of minimum 2 certified engineer in the proposed solution.
- Should provide planning, deployment, and user acceptance test details
- Should be installed and configured as per manufacturer best practice guidelines
- Should configure high availability and network configuration to seamlessly migrate the existing network.
- Should migrate existing workload to new Firewall and Switch with minimal impact or downtime
- Should configure all relevant configurations for firewall rules, management portal and datacenter networking.
- Should configure cloud based intelligent management, reporting and analytics platform
- Configuration documentation and on the job training

Technical Support: 1 Year local technical support by certified engineers Hardware Warranty: 1-Year Parts, 1-Year Labor, 1-Year Onsite support