

## **SPECIFICATION**

### **Minimum Specification for Replacement of Core and Edge Network Switches**

#### **PURPOSE**

Replacement of core and edge network switches. The proposed solution should also support integration with an enterprise grade wireless system which will be added in future.

#### **CURRENT ENVIRONMENT**

The current environment consists of Extreme Networks switches in the following configuration:

- x450a 24 port gigabit SFP core switch x 1 (Server Room)
- x430 48 port gigabit ethernet switches with SFP uplink x 4 (Server Room)
- x150 48 port ether switches with SFP uplink x 9 (Edge)

#### **SPECIFICATION**

##### **Minimum Specification for Purchase of ICT Equipment**

###### **24 Port 1/2 U Core Managed Network Switch**

- The switch should have minimum 24 x 1 Gb Ethernet SFP ports with 18 transceivers.

###### **48 Port 1/2U Layer 2 Managed Network Switches**

- The switch should have minimum 48 x 10/100/1000 Ports, auto negotiating, and 4x 1 Gb Ethernet SFP and optional two 10Gb Ethernet SFP uplink network modules with two transceivers per switch.

##### **Common Specifications**

- Centralized Cloud Management for all switches and possible future wireless network. Please specify if a compatible wireless solution is available and include web links.
- Switch should be rack mountable and include side rails and/or other installation parts required for this.
- The Switch should be Stackable and should be able to stack at least 4 in a single stack.
- The stacking ports should be separate from the normal uplink ports.
- Switch should have adequate power supply for the complete system usage with all slots populated and used and provide N+1 redundancy.
- Switch should support VLAN tagging (IEEE 802.1q).
- Switch should support IEEE Link Aggregation and Ethernet Bonding functionality to group multiple ports for redundancy.
- Switch ports should support auto MDI and MDI-X and Auto /Manual Speed Negotiation
- Spanning tree PortFast and PortFast guard for fast convergence or its equivalent.
- Spanning-Tree Root Guard (STRG) to prevent other edge switches becoming the root bridge
- IGMP snooping v1, v2 and v3.

- IEEE 802.1x to allow dynamic, port-based security, providing user authentication.
- 802.1d, 802.1s, 802.1w, 802.3ad.
- VLAN ACLs (VACLs) on all VLANs.
- DHCP snooping.
- BPDU Guard.

### **Describe**

- Proposed hardware and software roadmaps, End-of-sale, End-of-Life, and end-of-support timeline or probable dates.
- Licensing information including up front and recurring license types.