

ESKOM - Cisco Based Network Solution Questions

1. Kindly share the minutes of the non-compulsory briefing.
2. Is EPPF looking for a managed service for this solution? Or will the equipment be bought by the EPPF and maintained by a service provider?

We are looking for a managed service solution.

3. How many branch sites will the SDWAN solution be connecting?

There is one site, which is EPPF Office Park, 24 Georgian Crescent East, Bryanston East, 2021

4. Where EPPF have specified 2 WAN links at one site, is this the address that they want it to be installed at: EPPF Office Park, 24 Georgian Crescent East, Bryanston East, 2021?

Yes

5. From the spec given it seems like EPPF is asking for a collapsed core and aggregation switch design, is this assumption correct?

Yes

6. Please share the current network design/topology and an inventory list (including serial numbers)?

See annexure A below.

7. What tools or mechanisms are in place for monitoring the performance of the network, and how will performance be reported to our team? Is the service provider also expected to take over this role?

The Firewall does provide visibility in terms of network traffic and its performance. There should be collaboration between EPPF and the Service provider in terms of monitoring the performance of the network. Both parties should have access to the monitoring tool.

8. What provisions are in place for data backup and system redundancy to ensure business continuity in case of failures?

Two WAN internet links should be provisioned, one for production and the other link for redundancy. Internally, we have provisioned the redundancy with fiber links between the buildings.

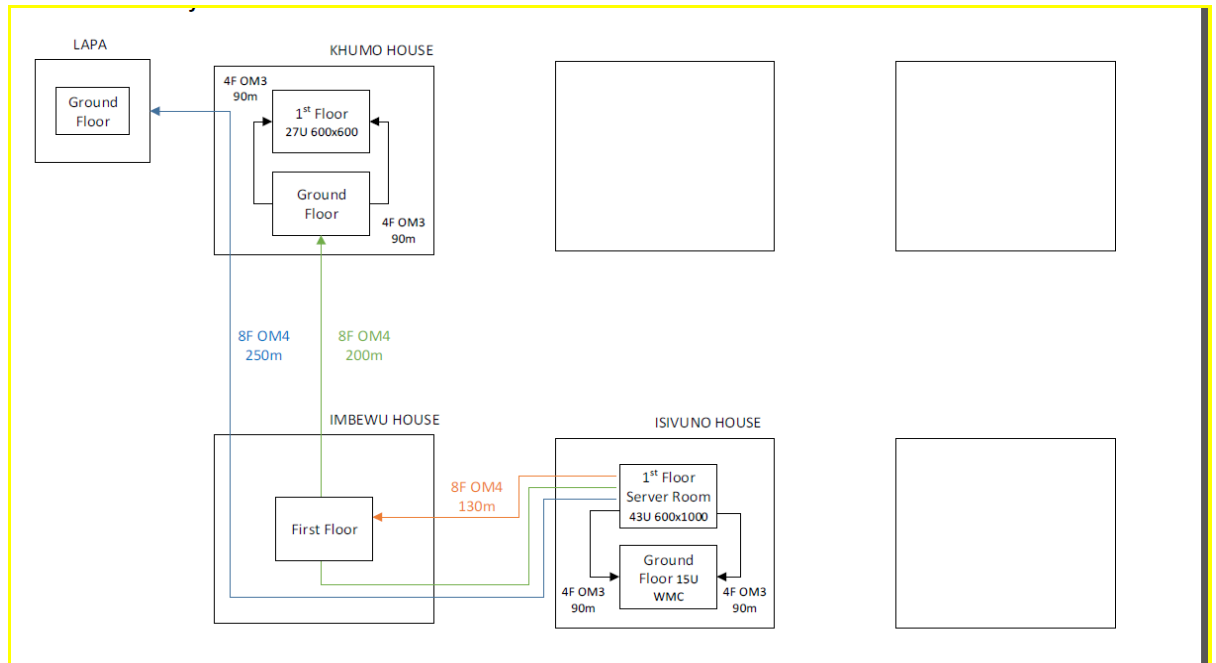
9. Is it correct to assume that the links connecting the buildings is out of scope and EPPF will be responsible to maintain the connecting links between the buildings?

The connection between the buildings is in place and it is out of scope for the current project, but the service provider will have to maintain the existing fiber

links going forward. utilises. See the diagrams below showing route A and Route B.

EPPF OFFICE PARK FIBER LINK CONNECTION

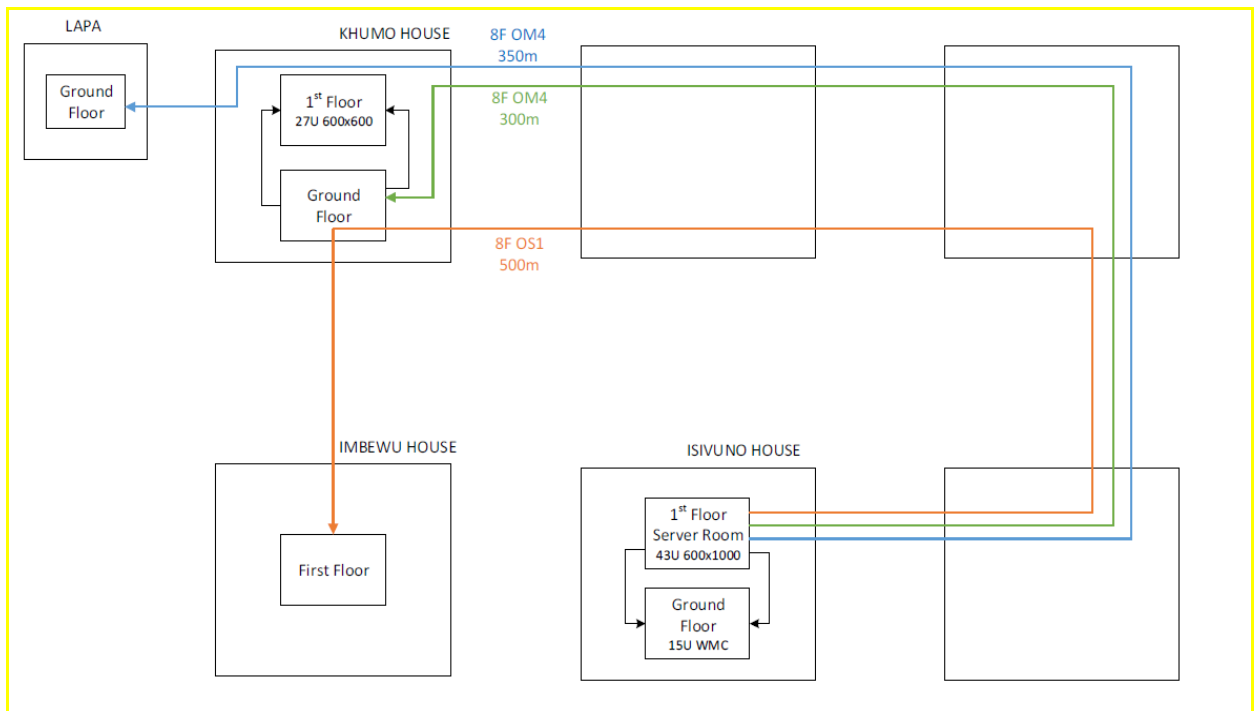
Route A



Route A (Primary route)

8 core OM4 multimode fibre cables from the Server room in the Isivuno building to the Imbewu, Khumo and Lapa building.

Route B



Route B (Secondary route)

8 core OS1 single mode fibre cable from the Server room in the Isivuno building to the Khumo building via Aluwani building.

4 core OM3 multimode fibre cables between the Ground and first floor in the Isivuno and Khumo buildings respectively.

10. Is there a set period for which the bidder needs to complete the implementation & migration?

30 June 2024 is the completion data of the project. This include implementation and migration.

11. Section 5.3 of the RFP states that “There are external stakeholders that work with the Fund and therefore the proposed solution and infrastructure should be scalable “. What is the expectation on the bidder in as far as enabling external stakeholders on the network?

The external access to the Fund is controlled by the firewall. The bidder should be able to control access to EPPF network through the firewall.

12. Training (10 Key Stakeholders): In the RFP document it stated that the training should be OEM related. Does EPPF require end-user training, or knowledge transfer to EPPF~ resources, or certification training?

Since EPPF would perform the first line support, the internal EPPF resources will require knowledge transfer even certification training if the need arises

13. Training (10 Key Stakeholders): Please assist to categorise each of the 10 who will require the training, i.e. what level of knowledge and skill currently possessed.

The EPPF resources does the first line support by trouble shooting the problems on the switches, firewalls, and routers. But none of EPPF resources amend the configuration of the firewall or the switch or the router.

14. With firewall enabled what is the current throughput, and what throughput does EPPF expect from firewall based on the new architecture.

There is 100Mb currently in production and 100 Mb redundancy.

The expected capacity should run at least 200Mb

15. How many floors does each building have?

There are three buildings that have offices and boardrooms. Each building is comprised of the:

- a. Basement, which is used for parking staff cars.
- b. Ground floor - offices
- c. 1st floor – offices

The fourth building is a Lapa that is used amongst others to hold staff meetings and functions.

16. In the current architecture does each floor have a switch?

Yes,

- a. The ground floor has a 48-port switch.
- b. 1st floor also has a 48-port switch.

Note that the basement does not have WIFI hence there is no switch.

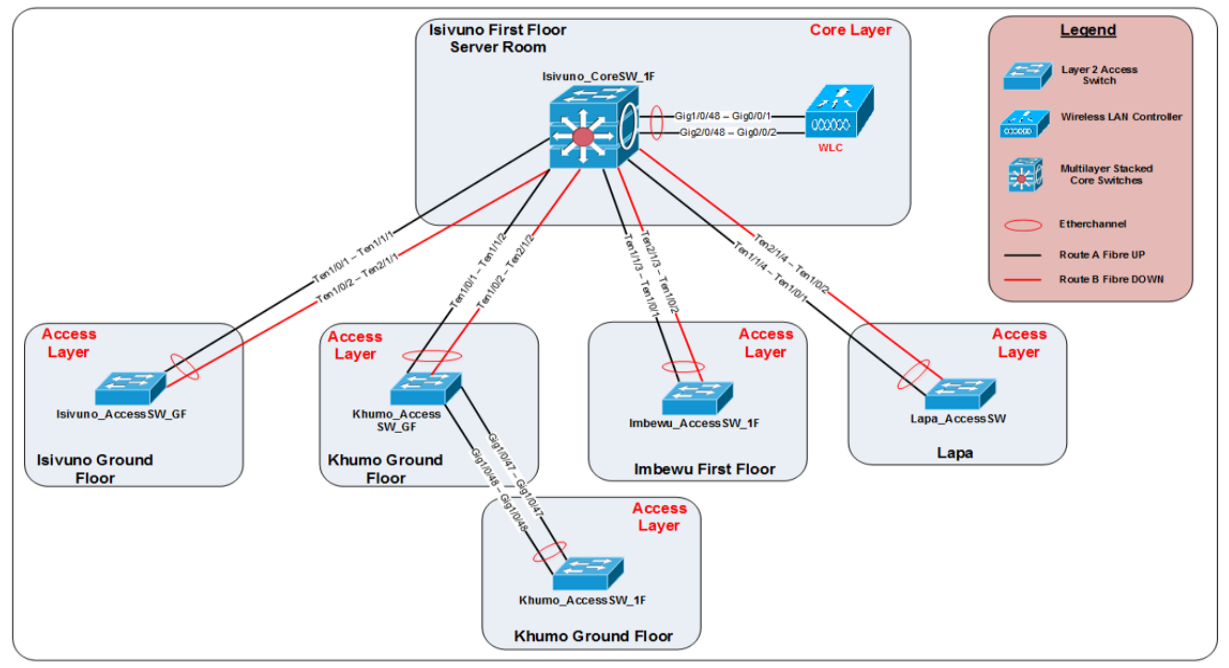
17. Please clarify how many Access Points are indoors versus outdoors.

There are 16 Access Points indoors.

There is 0 Access Points outdoors.

Annexure A

Physical Network Architecture Diagram



Two Cisco 3650 48 port Layer 3 switches are deployed at the Collapsed Core/Distribution layer of the network.

These switches support mixed media 10GE or Gigabit Ethernet small form-factor pluggable (SFP) interfaces. Single mode, Multimode Fibre or copper interfaces for Gigabit Ethernet is supported depending on which SFP+ module is installed in the switch.

These switches are interconnected by means of two stacking cables.

The Cisco Catalyst 3650 48-port switches provide network connectivity to the following devices:

10GE Layer 2 connectivity to the Access layer switches.

1GE Layer 2 connectivity to the WLAN controller

1GE connectivity to the WAN Routers

1GE connectivity to the Servers

Each access layer switch has dual 10GE uplinks to the collapsed Core/Distribution switches utilising multimode and single mode fibre cabling infrastructure.

Access Layer

Cisco Catalyst 2960X layer 2 switches are deployed in the Access layer of the EPPF network.

Power over Ethernet (PoE) is supported.

The access switches provide 10/100/1000 Mbps connectivity to the following devices:

Workstations

Multifunctional devices

WLAN Access Points (APs)

Each access switch is dual homed to the collapsed Core/Distribution switches. The connectivity between the access and collapsed Core/Distribution switches are 10 Gigabit Ethernet using multimode or single mode fibre optic cabling.

Equipment list

Collapsed Core/Distribution layer – Isivuno Building First Floor

	Product Code	Description
	WS-C3650-12X48UR-S	CISCO Cisco Catalyst 3650 48 Port mGig, 8x10G Uplink, IP Base
	S3650UK9-163	CISCO UNIVERSAL
	PWR-C1-1100WAC	CISCO 1100W AC Config 1 Power Supply
	CAB-C15-CBN	CISCO Cabinet Jumper Power Cord, 250 VAC 13A, C14-C15 Connectors
	C3650-STACK-KIT	CISCO Cisco Catalyst 3650 Stack Module

	Product Code	Description
	STACK-T2-50CM	CISCO 50CM Type 2 Stacking Cable
	C3650-STACK	CISCO Cisco Catalyst 3650 Stack Module
	PWR-C1-BLANK	CISCO Config 1 Power Supply Blank
	CON-PSRT-WSC3653X	CISCO PRTNR SS 8X5XNBD Cisco Catalyst 3650
	SFP-10G-LR=	CISCO 10GBASE-LR SFP Module
	SFP-10G-SR=	CISCO 10GBASE-SR SFP Module

Access layer – Isivuno Building Ground Floor

	Product Code	Description
	WS-C2960X-48FPD-L	CISCO Catalyst 2960-X 48 GigE PoE 740W, 2 x 10G SFP+, LAN Base
	CAB-ACSA	CISCO AC Power Cord (South Africa), C13, BS 546, 1.8m
	PWR-CLP	CISCO Power Retainer Clip For 3560-C, 2960-C and 2960-L Switches
	CON-PSRT-WSC296XL	CISCO PRTNR SS 8X5XNBD Catalyst 2960-X 48 GigE PoE 740W, 2 x 10
	SFP-10G-SR=	CISCO 10GBASE-SR SFP Module

Access layer – Khumo Building Ground Floor

	Product Code	Description
	WS-C2960X-48FPD-L	CISCO Catalyst 2960-X 48 GigE PoE 740W, 2 x 10G SFP+, LAN Base
	CAB-ACSA	CISCO AC Power Cord (South Africa), C13, BS 546, 1.8m
	PWR-CLP	CISCO Power Retainer Clip For 3560-C, 2960-C and 2960-L Switches
	CON-PSRT-WSC296XL	CISCO PRTNR SS 8X5XNBD Catalyst 2960-X 48 GigE PoE 740W, 2 x 10
	SFP-10G-SR=	CISCO 10GBASE-SR SFP Module
	SFP-10G-LR=	CISCO 10GBASE-LR SFP Module

Access layer – Khumo Building First Floor

	Product Code	Description
	WS-C2960X-48FPD-L	CISCO Catalyst 2960-X 48 GigE PoE 740W, 2 x 10G SFP+, LAN Base
	CAB-ACSA	CISCO AC Power Cord (South Africa), C13, BS 546, 1.8m
	PWR-CLP	CISCO Power Retainer Clip For 3560-C, 2960-C and 2960-L Switches
	CON-PSRT-WSC296XL	CISCO PRTNR SS 8X5XNBD Catalyst 2960-X 48 GigE PoE 740W, 2 x 10
	SFP-10G-SR=	CISCO 10GBASE-SR SFP Module

Access layer – Lapa Building

	Product Code	Description
	WS-C2960X-24PD-L	CISCO Catalyst 2960-X 24 GigE PoE 370W, 2 x 10G SFP+, LAN Base
	CAB-ACSA	CISCO AC Power Cord (South Africa), C13, BS 546, 1.8m
	PWR-CLP	CISCO Power Retainer Clip For 3560-C, 2960-C and 2960-L Switches
	CON-PSRT-WSC604DL	CISCO PRTNR SS 8X5XNBD Catalyst 2960-X 24 GigE PoE 370W, 2 x 10
	SFP-10G-SR=	CISCO 10GBASE-SR SFP Module

Access layer – Imbewu Building First Floor

	Product Code	Description
	WS-C2960X-48FPD-L	CISCO Catalyst 2960-X 48 GigE PoE 740W, 2 x 10G SFP+, LAN Base
	CAB-ACSA	CISCO AC Power Cord (South Africa), C13, BS 546, 1.8m
	PWR-CLP	CISCO Power Retainer Clip For 3560-C, 2960-C and 2960-L Switches
	CON-PSRT-WSC296XL	CISCO PRTNR SS 8X5XNBD Catalyst 2960-X 48 GigE PoE 740W, 2 x 10
	SFP-10G-SR=	CISCO 10GBASE-SR SFP Module