Annexure A: TERMS OF REFERENCE

1. Background

ICASA Head Office is currently using a Software-defined Wide Area Network (SD-WAN) solution for Internet and interconnecting to eight (8) regional offices through a 10Mbps link for each region and a centralised 200 Mbps link to the internet. Moreover, ICASA has a cisco wireless solution with 36 Access Points that plugs into the internal network Local Area Network (LAN). The current wireless solution (Cisco Wireless Controller-*Cisco 2500* and Cisco Access Points *Cisco AIR-CAP26021-E-K9*) has reached end of life. The Authority would like to appoint a service provider to plan, supply, install including removal of old Wi-Fi solution, and maintenance and support for the new proposed Wi-Fi solution.

2. Scope of Work

2.1.   ICASA would like to appoint a Service Provider to supply and install a complete Wi-Fi solution that can integrate with the current CISCO network infrastructure (firewalls, switches, routers).

2.2.   The Service provider must provide the following in the proposal:

2.2.1.   Indoor Wi-Fi Coverage planning to ensure that all working areas are covered with Wi-Fi signal.

2.2.1.1.   Identify locations for Access Points.

2.2.1.2.   Minimize WLAN Interference

2.2.2.   Wi-Fi/Wireless Controller with redundancy (Active and Standby).

2.2.3.   5-years maintenance and warranty.

2.3.   The proposed solution must meet the following requirements.

2.3.1.   Access Points (APs) should be wall/ceiling mounted and powered by Power Over Ethernet (POE).

2.3.2.   Seamless Roaming between APs must be available.

2.3.3.   APs end points and traffic monitoring should be implemented in a centralized managing interface and ICASA technical team must be always given access for monitoring.

2.3.4.   Supply, Configuration, installation of the Proposed Solution and removal of

the old equipment

2.3.5.   Integrable with the existing ICASA Local Area Network Infrastructure.

2.3.6.   Label all cabling by using agreed standards.

2.4.   The service provider must provide ICASA technical team with training to monitor the solution and perform basic troubleshooting.

2.5.   The service provider must provide the installation documentation details (As built document) at the completion of the project.

2.6.   ICASA has two separate Wi-Fis. The proposed solution must be able to segregate the internal traffic and external (BYOD/Guest) traffic.

3. Special Mandatory Conditions

The following are special mandatory conditions for the proposed solution:

Substantiate / Comments		
Special Condition		
Proof of Original Equipment Manufacturer Relationship (OEM)	**Comply**	**Not Comply**
Bidders must supply valid evidence of an OEM relationship together with their proposals.		
Provide supporting evidence.		
Special Condition		
Warranty and Licensing	**Comply**	**Not Complied**
Bidder must include 5 year- next business day onsite service warranty and licensing on the pricing.		
Provide supporting evidence including the scope of the warranty and support to be provided.		
Special Condition		
Type Approval Certificate	**Comply**	**Not Complied**
Bidder must provide the Type-approval certificate for the proposed equipment.		
Provide Support Evidence		

3.1. *Detailed Technical Specifications*

Supply and installation of Wi-Fi equipment

	Functional Criteria	COMPLY		
	Wi-Fi6 APs minimum technical requirements:	**YES**	**NO**	**Provide Details**
3.1.1.	Wi-Fi standards: 802.11a/b/g/ac			

3.1.2.	Frequency bands:
	     2.4 GHZ MIMO 4x4
	     5 GHZ MIMO 4x4			

3.1.3.	Wireless security:
	  - WPA-PSK,WPA-Enterprise (WPA/WPA2/WPA3)
	  - Intrusion detection			

3.1.4.	**Features:**			
3.1.4.1.	BSSID minimum 4 per radio			
3.1.4.2.	Simultaneous Dual-Band			
3.1.4.3.	Wireless speed 450 Mbps 2.4 GHz			
3.1.4.4.	Wireless speed 1300 Mbps 5 GHZ			
3.1.4.5.	Ethernet network interface 10/100/1000 Ethernet			
3.1.4.6.	Ethernet ports VLAN 802.1Q			
3.1.4.7.	Advanced QoS - Per-User Rate Limiting			
3.1.4.8.	Guest Traffic Isolation			
3.1.4.9.	Wi-Fi Multimedia (WMM) - Voice, Video, Best Effort, and Background			
3.1.4.10.	Concurrent Clients – 100 devices per Access Point			
3.1.4.11.	Mounting: Wall/ceiling (included)			

3.1.4.12.	Centralized Management Application			
3.1.4.13.	Interference management			
3.1.5.	PoE injector			
2.1.6	Shielded Cat 6 Cables Approximate 3000m			
2.1.7	**Wireless Controller Functionality**			
2.1.7.1	Wireless Controller must have In Service Software Upgrade (ISSU) enabled. [ISSU is a complete image upgrade and update while the network is still running]			
2.1.7.2	Wireless Controller must have hot-patching capabilities			
2.1.7.3	Wireless Controllers must be performance-license capabilities and those licenses must be included in the offered solution and quotation			
2.1.7.4	Automatic Failover between Wireless Controller must be configured and tested			
2.1.7.5	Wireless controllers must have 4x 10Gb SFP (Small Form-factor Pluggable) + fibre ports to connect controllers to 2 different Internet links			

3.2. ***Description of buildings where APs should be installed.***

Note: Implementation will be required on each site. However, site visit will be arranged for Centurion Head Office and floor plans for offices in other Regions will be made available to the participants of this bid.

The work will be at the following offices:

3.2.1. Head Office: Centurion Building Block B and C (350 Witch-Hazel Avenue, Centurion)

3.2.2. Mpumalanga (Nelspruit) – Address to be confirmed (2 Access Points must be reserved for this region)

3.2.3. Eastern Cape (Gqeberha) - Address to be confirmed. (2 Access Points must be reserved for this region)

3.2.4. KwaZulu-Natal (Durban): 13th Floor Delta Towers, 313 Dr. Pixley Kaseme (West) Street, Durban

3.2.5. Northern Cape (Kimberley): Van De Wall Building, 1st Floor, 9 Southey Street, Kimberley

3.2.6. North-West (Mafikeng): 761 Dr. James Moroka, SABC Broadcast Centre, Mmabatho Unit 1, Mafikeng

3.2.7. Limpopo (Polokwane): Ismini Office Park, 14 Limassol Street, Polokwane

3.2.8. Western Cape (Century City, Cape Town): Ground Floor Knowledge Park 111, Heron Crescent, Century City, Cape Town

3.2.9. Free State (Bloemfontein): 184 Nelson Mandela Drive, Park West, Bloemfontein

4. **Evaluation of the Bids**

The received bids will be evaluated on the 80/20 procurement principle as per the Supply Chain Management Policy and the relevant Treasury Regulations. The following evaluation approach will be applied:

- Phase 1 will be the screening of mandatory documents, ensuring compliance thereof and evaluation of specific goals.
- Phase 2 evaluation of functionality criteria
- Phase 3 Live Demo for the proposed solution (30-minutes presentation)
- Phase 4 will be evaluation on price and Specific Goals.

Functionality Evaluation Criteria	Weights	Scoring Criteria
• Bidder should attach three testimonial(s) from the current/previous clients, in the form of reference letter(s) where similar services were provided on a letterhead that describe the following: 1. Customer's experience (supply and implementation of a similar solution) 2. Period of service offered in the last three years. 3. Contactable details.	25	1. *Less than three testimonial(s), in the form of reference letter(s) that did not fulfil any of the requirements stipulated above. (**1 point**)* 2. *Three testimonial(s), in the form of reference letter(s) that fulfil requirement 1 as stipulated above. (**2 points**)*

			3. *Three testimonial(s), in the form of reference letter(s) that fulfil requirements 1 and 2 as stipulated above.* ***(3 points)*** 4. *Three testimonial(s), in the form of reference letter(s) that fulfil requirements 1 and 3 as stipulated above.* ***(4 points)*** 5. *Three testimonial(s), in the form of reference letter(s) that fulfil all the requirements as stipulated above* ***(5 points)***
• Detail Technical Specification Conformance	50		Comply with less than 23 requirements = (**1 points**) Comply to all 23 requirements = (**5 points**)
• Technical Professional Skill to Implement and Support the Proposed Solution. CV showing experience and proof of qualification must be provided with a CCNP/CCIE/Equivalent certificate.	25		• Technical professional with at least 1 – 3 years' experience working on similar projects = (**1 point**) • Technical Professional with at least 3 - 5 years' experience working on similar projects = (**3 points**) • Technical Professional with more than 5 years' experience working on similar projects = (**5 points**)
Total	**100**		**Minimum threshold is 80**

Only bidders who passed the threshold of 80/100 for functionality will be evaluated further for price, Specific Goals and a 30-minute Demo.

Phase 3: Demo Evaluation Criteria

	Functional Criteria	Comply	Do not Comply
	Wi-Fi6 APs minimum technical requirements:		
4.1.1.	Wi-Fi standards: 802.11a/b/g/ac		

4.1.2.	Frequency bands:
	   2.4 GHZ MIMO 4x4
	   5 GHZ MIMO 4x4		

4.1.3.	Wireless security: - Intrusion detection		
4.1.4.	**Features:**		
4.1.4.1.	Ethernet network interface 10/100/1000 Ethernet		
4.1.4.2.	Advanced QoS - Per-User Rate Limiting,		
4.1.4.3.	Guest Traffic Isolation,		
4.1.4.4.	Wi-Fi Multimedia (WMM) - Voice, Video, Best Effort, and Background		
4.1.4.5.	Concurrent Clients – 100 devices per Access Point		
4.1.4.6.	Mounting: Wall/ceiling (included) – *Please bring one Access Point*		

4.1.4.7.	Centralized Management Application		
4.1.4.8.	Interference management		