

TERMS OF REFERENCE FOR PROVISION OF INTERNET, VPN, WIFI AND VOICE OVER INTERNET PROTOCOL TELEPHONE SYSTEM FOR ALFRED NZO DEVELOPMENT AGENCY FOR THE PERIOD OF 3 YEARS

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# PROJECT NAME

# PROVISION OF INTERNET, VPN, WIFI AND VOICE OVER INTERNET PROTOCOL TELEPHONE SYSTEM FOR ALFRED NZO DEVELOPMENT AGENCY FOR THE PERIOD OF 3 YEARS

### 1. INTRODUCTION

The ANDA would like to invite qualified and experienced Service Provider to Supply, Deliver and Install Internet solution with a VPN, Wi-Fi and the hosted VoIP Telephone System

### 2. PURPOSE

The purpose of this solution is to upgrade the existing network infrastructure and connect ANDA staff to the agency's network through Virtual Private Network when they are outside the office. VPN/MPLS solution gives extremely secure connections between private networks linked through the Internet. It allows remote computers to act as they are on the same secure, local network while they are outside the office.

The service providers are required to quote on rate basis for future additional sites and personnel that may be added on during the contract of the project.

For the proposed solution the bidder should have total cost for 3 years.

#### 3. BACKGROUND

The Alfred Nzo Development Agency (ANDA) is a municipal entity of Alfred Nzo District Municipality established in terms of the Municipal Systems Act (MSA) No. 32 of 2000 and regulated in terms of the Municipal Finance Management Act (MFMA) 56 of 2003. ANDA is registered in terms of the Companies Act No 71 of 2008.

ANDA is governed by a plethora of legislation and regulations that intends to support and strengthen its role in transforming society and the developmental state. The Agency is established as a special purpose vehicle for the objective of driving and facilitating economic development and investment throughout the Alfred Nzo District.

The principal mandate of the agency is to act as the operational arm of the Municipality for the purposes of implementing economic, social and environmental policies and projects within the area of jurisdiction

of the Municipality or such areas as the Municipal Entity may specify from time to time. It acts to promote development of economic potential on a regional basis by building on opportunities, which recognize the unique competitive strengths of the region's economy.

The Alfred Nzo Development Agency has one site which is the main office in Mt Ayliff. The network connection of ANDA offices is slow and vulnerable exposing the agency's digital assets to many attacks, which can cause unauthorized access leading to loss to data. The current network infrastructure is running on 10Mbps which is slow due to the increase of staff members. There is an existing infrastructure onsite which includes telephone and the LAN.

# 4. SCOPE OF WORK

# 4.1 VPN and Internet Connection Solution

- Installation of 26 Network points with CAT 6 cable
- Removal of the cabinet in the kitchen and connect the required to the main cabinet
- Supply, delivery and installation of 48 ports POE switch
- Provide VPN and Internet Connection for a period of three years.
- Service Provider must provide Routers and Switches (external I/O ports, rack mounting, management features, and routing/switching capacity) as part of the Solution which support VOIP.
- Implement QOS (Quality of Service) and demonstrate how traffic is going to be split (Voice, Business critical applications e.g. Servers, PC's and Printers and etc)
- Provide a network diagram of the implemented solution
- Provide a Wi-Fi Solution with a cloud-based controller to cater for approximately a minimum of 30 users
- Provide access to a network performance monitoring tool to monitor performance of the VIRTUAL PRIVATE NETWORK
- Provide a clear fault reporting and escalation plan including the change management process plan
- Provide a detailed clear project plan on the implementation of the project
- Provide security for the network solution provided.

- Pro-active monitoring
- Provide space for entity firewall to be hosted in your data centre for internet breakout.
- All LAN equipment provided, after the contract will remain the property of the Agency.
- Provide a maximum 8 hours downtime SLA per month and if that is not met the service provider must pay the entity.
- Solution to cater for remote access to the cooperate network, so that users can access the relevant systems onsite from home or anywhere.
- The remote access solution should be independent of any internet service providers, but allow access using any internet service

## 4.2 Wi-Fi Solution

Provide a cloud-based Wi-Fi Solution. The Agency wants data only Wi-Fi services with 3 different SSID's namely:

- Alfred Nzo Development Agency staff account to connect on the domain network and systems to execute their duties and across ANDA offices and the staff Wi-Fi security and login credentials to be linked to Active Directory accounts.
- Board Members account to connect on ANDA internet when they are around ANDA building and attending meetings.
- Guests account to access ANDA internet when attending meetings and daily login credential passwords should change randomly after 24 hours in order for new guests to apply for new login credentials.

Access Point Features:

- IEEE 802.11a/b/g/n/ac (minimum)
- WMM, Power Save, Tx Beamforming, LDPC, STBC, 802.11r/k/v
- Hotspot · Hotspot 2.0
- Captive Portal

Service Provide to supply, configure, and support the switch & WLAN equipment for a period of 3 years.

## 4.3 Coverage requirements:

• Service Provider to supply indoor Access Points

## 4.4 Capacity and Density:

- ANDA building- 35 to 50 devices
- Adaptive Band Balancing
- Client Load Balancing
- Airtime-based WLAN Prioritization
- Airtime Fairness

### 4.5 Policy Management

- Application Recognition & Control
- Access Control Lists
- Device Finger Printing
- Rate Limiting

### 4.6 Added services:

- Providing employees with a secure Wi-Fi network
- Multiple SSID's
- Survey and analytics
- Replace all LAN Cabling. Make use of current cabinet. LAN Remediation.

48 Port Switch features.

- PoE/PoE+/PoH to power 802.11ac Wi-Fi products
- Stack level high availability and stack level ISSU to improve network service resiliency
- sFlow-based network monitoring
- SDN-enabled with OpenFlow support
- Auto-configuration ensures error free configuration and accelerates deployment
- Hot-insertion and removal of stack members simplifies operations
- Up to 8 x 10 GbE ports for stacking or uplinks
- Software licensing upgrade 1 GbE to 10 GbE of uplink/stacking ports
- Flexible stacking adds capacity throughout the network without increasing the management load

• Works seamlessly with Wi-Fi access points

## 4.7 VoIP Solution

Provide a cloud-based PBX solution that will have the following features:

- Provide a VoIP telephone system for a period of three years.
- Solution must be robust and capable of a true fixed to mobile convergence
- Allow for teleconferencing, provide a bridge for external users.
- Ability to integrate with latest technology for Videoconferencing, where content might need to be shared, and sessions recorded.
- Provide support and maintenance for a period of three years.
- Provide pro-active 24/7/365 days support.
- Provide telephone system that will reduce telephone costs.
- Provide system that prevents the use of ANDA Telephones by unauthorized person.
- Provide system that will prohibit dialling of international calls by staff below the level of Accounting Officer; unless prior permission is obtained.
- The system must assign Personal identification number (PIN) to users.
- Provide printouts of calls made per extension/ PIN Code as and when required.
- Provide system which will printout monthly statements for each PIN codes.
- Provide training to users and system administrators.
- Provide a clear fault reporting and escalation plan and turnaround time to resolve calls logged.
- Ability to provide remote support to the system.
- Provide a hosted switchboard solution.
- Provide IP phones.
- Provide quality of service and explanation how the quality of service will be addressed by your solution.
- Provide next business day SLA for all the equipment.
- Provide solution that has proactive monitoring.
- Provide your VoIP rates table to different Networks.
- Provide direct line dialling, if there are costs state the costs to provide the service.
- Provide Telephone Management Services to help ANDA to take control and monitor internal telecoms expenditure.
- Provide a detailed clear project plan on the implementation of the project.
- Provide detailed Telephone solution provided to ANDA.

- Provide support costing- Remote Support, Online Support & onsite when necessary.
- Retain existing geographic phone and fax numbers of ANDA, Bidder's solution should address how this can be achieved.
- Provide a maximum 2hours downtime SLA per month and if that is not met the service provider must pay the municipal entity.
- Ability to work with Microsoft Teams with a voice breakout.
- Solution should be able to work on mobile devices, laptops and be capable of having a physical device
- Solution should allow for mobility.

# NB: Existing Geographic Phone Number: Only one number which is 039 492 0011 to be ported

FEATURES	DESCRIPTION	
1. Basic Call logs	Missed calls, received calls, placed calls (history)	
2. Call waiting	Busy tone if user is on a call. If user has voicemail, the	
	call is redirected directly to the voicemail.	
3. Calling name retrieval	Name of the user displayed on the IP phone screen	
4. Connected line identification presentation	Number of the user displayed on the IP phone screen	
5. External calling line ID delivery	Called user can see the number on his/her phone	
6. Internal calling line ID delivery	Called user can see the number on his/her phone	
7. Call forwarding always	Forward all calls to a specific number	
8. Call transfer	User can transfer the active call to another destination	
9. Flash call hold	User can put a call on hold	
10. Last number redial	Redial last called number	
11. Three-way call	Three-way conference calling	
12. Call forwarding busy	Forward calls when there is an active call on the line. If	
	the user has voicemail, the call is automatically	
	directed to the voicemail	

## 4.8 Basic IP Phone

13. Call forwarding no answer	Forwarding calls when there is no answer for a number
	of seconds. If the user has voicemail, the call is
	automatically directed to the voicemail.
14. Call forwarding not reachable	Forward calls when device is not registered. If the user
	has voicemail, the call is automatically directed to the
	voicemail
15. Inventory report	List of users and phones
16. Call hold	User can put the call on hold
17. N-way call	Conference call (internal and external) numbers for
	external conference calls must be provided
18. Simultaneous ring	Ring multiple handsets at the same time

# 4.9 Other standard phone functionality or capability:

- Four line and programmable feature keys enable quick access to telephone features and staff
- High-resolution, graphical grayscale display makes viewing easier
- Dedicated fixed keys\*\* ease communications for increased efficiency
- Built-in speakerphone adds freedom with hands-free communications
- Wideband for enhanced audio clarity is supported with handset, speaker, or a headset
- Line keys, Soft-keys, Two-way navigation and select keys, Hold/Resume, Transfer and Conference keys
- Messaging, Service and Directory keys
- Standard key-pads
- Volume control toggle key
- Voicemail

4.10	Advanced Functions
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FEATURES	DESCRIPTION
1. Speed dial option	Allow user to dial numbers from hard buttons.
2. Roaming Profiles	User can login to any phone and he receives his profile (number, name, etc).
3. Phone lockout	Before user makes a call, he must login to the phone. Even if user logs out of the phone, his line is still available.
4. Call Park	Park calls to slot. Calls can be retrieved from the calling park slot.

5. Call pick up	Pick up calls on other lines
6. Busy lamp Field	Secretary can see if the manager is on a call.

### **Reception Phone with Expansion Module**

## Functionality/Capability

- Program 14 physical keys per module, 28 keys with "second page" in software
- Keys present up to 14 characters when active, enhancing user accuracy in call handling
- Two graphical, backlit, high-resolution colour displays make viewing easy
- Get status of available staff with Busy Lamp Field (BLF) support
- View both voice message and missed call counts on the display
- One-, two-, and three-module configurations expand scalability and extend IP phone investment
- Power options include Power over Ethernet (POE) and a local power cube
- The Power Save Plus option reduces power consumption in off-hours

## 5. BILL OF QUANTITIES

Table 1 : VoiP Solution Bill of Quantities

ITEM	DISCRIPTION	QUANTITY
1.	Basic IP Phones with Screen Display	6
2.	Boardroom Telephones	1
3.	Main Switchboard Phone	1
4.	Existing Geographic Phone Number including Main Switchboard number to ported	1
5.	Office 365 Licence	24
6.	Phone Licences	24

#### Table 2: VPN & LAN Bill of Quantities

ITEM	Description	Unit	Capacity
1	Last Mile Connectivity	1	20Mbps
2	Internet Access	1	20Mbps
3	Hosted Firewall	1	
4	Remote Access Licence	7	
5	48 Port PoE Switch	1	
6	Cloud Based Wi-Fi Solution & LAN Switch Solution	1	
7	Access Points	3	
8	Network Points Cat6	26	
9.	Domain Hosting	1	
10.	Email Solution		

#### 6. Hosting

### 6.1 Microsoft Office 365

Provide Office 365 including Teams with a Voice Breakout, to integrate with the hosted PBX solution. That will ensure Improved Productivity, Smart Collaboration & Cost Saving.

### 6.2 Domain Hosting

Host the Agency's domain www.anda.org.za

#### 6.3 Email Solution

Provide an email solution with the following features:

- Includes all the features of Exchange Online, plus unlimited storage, hosted voicemail, and data loss prevention.
- Each user gets 100 GB of mailbox storage and can send messages up to 150 MB in size
- Take advantage of unlimited storage (100 GB of storage in the user's primary mailbox, plus unlimited storage in the user's In-Place Archive)
- Take advantage of hosted Unified Messaging services that provide call answering, a dial-in user interface, and company automated attendant capabilities
- Anti-malware and anti-spam filtering protect mailboxes
- Data loss prevention capabilities prevent users from mistakenly sending sensitive information to unauthorized people
- Globally redundant servers, premier disaster recovery capabilities, and a team of security experts monitoring Exchange Online around the clock safeguard your data
- Guaranteed 99.9% uptime, financially backed service level agreement, count on your email always being up and running
- Automatic patching eliminates the time and effort of maintaining your system
- An In-Place Archive to give users a single location to keep all their important data
- Anywhere access to email, calendar, and contacts on all major browsers and across devices
- Integration with Outlook for a rich, familiar email experience with offline access

## 7. SPECIAL CONDITIONS OF CONTRACT / MANDATORY REQUIREMENTS

Proof of the following must be attached to the proposal. Failure to comply with the below will result in your proposal being rejected.

Comply	Do Not Comply

Certificate of compliance in terms of providing connectivity (Electronic Communication Network Service)	
ICASA License (Electronic Communications Services)	
Provide a maximum 2hours downtime SLA per month and if that is not met the service provider has to pay the Agency.	

# TIME FRAME

This project must be completed within 60 days from the date of appointment with minimal network disruption

## 8. EVALUATION CRITERIA

CRITERIA	WEIGHT
STAGE 1 OF EVALUATION - FUNCTIONALITY	100
Previous experience	25
Capacity and Expertise	50
Methodology	25
STAGE 2 OF EVALUATION: PRICE AND PREFERENTIAL	100
POINTS	
BBBEE POINTS	20
Price	80

# 8.1 FUNCTIONALITY REQUIREMENTS POINTS SCORING

FUNCTIONAL ASSESSMENT – POINTS SCORING		
Functional Category & Description	Points Allocation	
Previous Experience	Total = 25	
Similar projects (VPN, Wi-Fi, and VoIP) that were successfully conducted (5 points per project to a maximum of 5 projects)	25	
5* Successful Completed project	25	
4* Successful Completed project	20	
3* Successful Completed project	15	
2* Successful Completed project	10	
1* Successful Completed project	5	
In order to claim points, the bidder should attach appointment letter/purchase order and reference letter signed off by Client for each successful completed project.		

Capacity and Expertise	Total =50	
<ul> <li>Project team comprising of skilled personnel required to successfully complete the project. The team must be employed by the bidder. Proof of Qualifications and skills matrix must be attached.</li> </ul>	30	
The project team must comprise of team members with the following certificates:		
<ul> <li>CCIE Routing and Switching or CCNP Routing and Switching or CCNA Routing and Switching</li> <li>CCNP Wireless or CCNA Wireless</li> </ul>	10	
<ul> <li>CCNA Voice</li> </ul>	05	
<ul> <li>CCIE Security or CCNP Security or Fortinet Certification</li> </ul>	05	
<ul> <li>Project Management</li> </ul>	05	
Valid Electronic Communication Network Service License from ICASA	05	
In order to claim points, the bidder must attach skills matrix and original certified certificates not older than 6 months.	20	
Methodology	Total = 25	
Downtime response		
Less than 8 Hours	15	
	10	
9 to 24 hours	5	
9 to 24 hours 2 to 5 days	5	
	10	

## Bidders should take note of the above technical (functionality) evaluation criteria.

All the necessary documentation must be submitted for the Evaluation Panel to make an informed evaluation. Evaluation of the Technical Requirements will be based on the information provided by the bidder.

[i] **Experience -** The experience annexure must be completed. Only list projects of a similar nature undertaken focusing on managed services and their value.

[ii] **Expertise** – The qualifications and capacity of the company/team to undertake the work must be provided for evaluation purposes.

[iii] Methodology – The bidder must clearly state timeframes for the delivery of the required services.

Bids that do not meet a minimum of 70 points in total out of 100 for the criteria listed above will be deemed non responsive and will not be evaluated further.

## 9. DELIVERABLES / KEY OUTPUTS

- Signing of Service Level Agreement (SLA)
- VPN and Internet Connection
- Routers and Switches (external I/O ports, rack mounting, management features, and routing/switching capacity)
- QOS (Quality of Service)
- Wi-Fi Solution
- Secure Wi-Fi network for employees
- Multiple SSID's
- Security for the Network Solution
- All LAN equipment
- VoIP telephone system

## **10. Pricing Schedule/Summary**

#### See Appendix A

For any queries regarding this tender, please contact Ms. Sinazo Jijana at telephone number 039 492 0011/072 846 6566 or Email: jijanas@anda.org.za during office hours or;

Ms. Motheba Makhatha for SCM related queries at tel. number 039 492 0011 / 073 846 1493 or email: <u>makhatham@anda.org.za</u>

#### Alfred Nzo Development Agency

**Umzimvubu Goats Complex** 

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Mount Ayliff

4735

## MS M.N. BAMBENI CHIEF EXECUTIVE OFFICER

#### APPENDIX A

DELIVERABLES		YEAR 1	YEAR 2	YEAR 3
INTERNET SERVICE		-		
COSTS	TOTAL MONTHLY FEE	R	R	R
	TOTAL INSTALLATION FEE ONCE OFF	R		
SECURITY SERVICE				
COSTS	TOTAL MONTHLY FEE	R	R	R
	TOTAL INSTALLATION FEE ONCE OFF	R		
EMAIL SERVICE COSTS	TOTAL MONTHLY FEE	R	R	R
	TOTAL INSTALLATION FEE ONCE OFF	R		
MPLS SERVICE COSTS	TOTAL MONTHLY FEE	R	R	R
	TOTAL INSTALLATION FEE ONCE OFF	R		
TELEPHONY SERVICE COSTS	TOTAL MONTHLY FEE			
	TOTAL INSTALLATION FEE ONCE OFF			
MICROSOFT PRICING	TOTAL MONTHLY FEE			
	TOTAL INSTALLATION FEE ONCE OFF			
WIFI SOLUTION	TOTAL MONTHLY FEE			
	TOTAL INSTALLATION FEE ONCE OFF			
LAN SOLUTION	TOTAL MONTHLY FEE			
	TOTAL INSTALLATION FEE ONCE OFF	R	R	R
	TOTAL FIRST YEAR 1			
	TOTAL SECOND YEAR 2	R		
	TOTAL THIRD YEAR 3	R		
	TOTAL COSTS FOR 36 MONTHS (EXCL)			
Grand Total	TOTAL COSTS FOR 36 MONTHS (INCL)	R	R	R