



Request for Proposal

Cloud-Hosted Telephone System (PABX System)

Technical Specifications

Contents

1. DOCUMENT CONTROL	3
1.1 Document History	3
Acronyms	4
2. INTRODUCTION	5
2.1 General Information.....	5
2.2 Background	6
2.2.1 On-premises PBX infrastructure.....	6
2.2.2 High Availability Cluster Server Infrastructure.....	6
2.2.3 Call Centre Recording.....	6
2.2.4 Network infrastructure.....	6
3. TECHNICAL REQUIREMENT SPECIFICATION	7
3.1 Scope of Requirement Specification	7
3.2.1 Queue Manager	8
3.2 Microsoft Teams Integration	9
3.3 Call Centre Features	10
3.3.1 SACAP Line	10
3.3.2 SACAPIT Help Desk	10
3.4 Voicemail Features	10
3.5 Telephone Management System (Billing).....	11
3.6 End user devices and terminals.....	11
3.7 Fax to email	12
3.8 Numbers	12
4. GOVERNANCE DELIVERABLES	13
5. SERVICE LEVEL AGREEMENT	14

1. DOCUMENT CONTROL

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1.1 Document History

Version No.	Issue Date	Status	Reason for Change
1.0	03 July 2023	Final Draft	

Table 1: Document History

Acronyms

PE – Provider Edge

VC – Video Conference

QoS – Quality of Service

DID – Direct Inward Dialling

ISP – Internet Service Provider

IVR - Interactive Voice Response

LAN – Local Area Network

SLA – Service Level Agreement

SD-WAN – Software Defined Wide Area Network

2. INTRODUCTION

2.1 General Information

SACAP is a statutory body, established in terms of the Architectural Profession Act No.44 of 2000 which is mandated to serving and protecting the public and providing guidance to registered persons in the profession.

SACAP achieve its mandate by regulating the Architectural profession in the Republic of South Africa in aspects pertaining to registration, education and training, professional conduct and ethical behaviour, ensuring continuing professional development, and fostering compliance with architectural standards.

2.2 Background

The SACAP Office is located in Rivonia. SACAP's current network infrastructure includes a high availability cluster, LAN and satellite wires broadband technology. SACAP works on a hybrid rotation mode, whereby some employees work from home and some from the office on a weekly rotational basis. As such the employees working from Home should be able to receive and call using the SACAP line 011 479 5000 or follow me feature.

2.2.1 On-premise office PBX infrastructure

- a. Epygi QX20/QX500
- b. 50 extensions
- c. VoIP
- d. Extension Management and Telephone Management eCost
- e. Call Rating Services – Fleek from 4Sight

2.2.2 High Availability Cluster Server Infrastructure

- a. 60 AD users
- b. 12 VMs
- c. Microsoft Teams for all users.
- d. Zoom for all users

2.2.3 Network infrastructure

- a. Local Area Network
 - i. Managed internally.
 - ii. LAN will remain the responsibility of SACAP.
 - iii. Fibre line 50Gig and satellite wireless broadband

3. TECHNICAL REQUIREMENT SPECIFICATION

SACAP hereby invites suitably qualified suppliers to bid for the provision of a Clouded Hosted IP Telephony with Call Centre functionalities for a period of four years. All services and products must be quoted on Operational Expenditure. The hosted PBX system shall be provided for and owned by the service provider and securely hosted at their premises at no additional cost to SACAPs except for the monthly subscription fee, per account, to provide the following services for a period of 36 months

3.1 Scope of Requirement Specification

This section details the requirements for the required solution:

- 3.1.1** Cloud Based Telephone System consisting of an Ethernet-based network transport system comprised of the following components:
- a) Cloud Based IP Telephony System
 - b) Call Centre System
 - c) Voicemail
 - d) Call recording System
 - e) Telephone Management System (Billing)
 - f) Supplementary Equipment and Systems
 - g) Fax to email
 - h) SIP Trunking
 - i) Mobile-to-Fixed Convergence
 - j) Mobility (calls to follow the user from desk phone to mobile phone or laptop)
 - k) Client application on mobile devices, smartphones iOS or Android
 - l) Affordable handset devices
 - m) Call rating services
- 3.1.2** Provide all equipment and materials required for the planning, design, provisioning, delivery, configuration, installation, documentation, testing and training of a complete Unified Communication System as described in the subsequent section and all related sections.
- 3.1.3** **Cloud-Based IP Telephony System**
- 3.1.4** **Calling Features**
- a) Caller ID/On Call Waiting: Know who is calling before you answer.
 - b) Call Forwarding: Redirect calls to your mobile/other numbers or softphone

so you do not miss any calls.

- c) Follow Me: Have one of your office numbers/extensions ring for some time and if unanswered forward to a second number and then a third and so forth OR all ring the call concurrently.
- d) Caller ID Based Forwarding: Follow Me Based on the number called and calling party.
- e) Inbound Number Tagging: Tag an inbound caller ID for easy reception management for multiple companies.
- f) Call Hold: Easily put a call on hold while you answer another call.
- g) Call Transfer: Attended Transfer (alert forwarding party before transfer) & Blind Transfer (transfer the call directly).
- h) Call Conferencing: Join a conference room by dialing a feature code or get transferred in.
- i) Call Waiting: Be notified when someone else is trying to call if you are already on a call.
- j) Do Not Disturb: Callers go directly to voicemail or call forward when you do not want to be disturbed.
- k) Call Logs: Access detailed call records by extension or account.
- l) Bring or port your own numbers from Telkom or the provider to the new provider.
- m) FAX to Email/Web to FAX
- n) Must have PC/mobile phone softphone application that can forward/use as an extended office phone via PC/mobile devices for selected users and can be scalable to accommodate up to 205 users as and when requested. The softphone should have the same functionalities as that of the office phone. With an option of leaving messages on the application or a message interaction feature.
- o) Microsoft Teams/Skype integration/support

3.1.5 VOICEMAIL FEATURES

- a) Password Protected Voicemail: Prevent unauthorized access to voicemail.
- b) Voicemail Greeting Options: Unavailable / Personal Message.
- c) Voicemail to Email: Receive voice messages as a wav file (or _audio file_) attached to an email.
- d) Digital receptionist – Interactive Voice Response (IVR).

- e) Multi-level IVR menu management.
- f) Manage multiple IVR menus for different Inbound DIDs.
- g) Day and Night Mode Schedule: Create different greetings according to the time of day and day of the week.
- h) Custom Greetings: Upload third-party professional greetings to use as Digital Receptionist greetings.

3.1.6 Ring Groups/Hunt Lists

- a) Ring groups: Simultaneously ring a set of phones based on a DID.
- b) Hunt lists: Set a linear line of ring groups (1 extension or many) for a period, before transferring to a second and third ring group etc.

3.1.7 Call Restrictions

- a) Block outgoing calls to specified numbers.
- b) Pin Code phone access. Operator Panel

3.1.8 Operator Panel

- a) PC soft-based soft phone console for the receptionist(s).
- b) Ability to load Reception Operator Panel on at least 2 machines / Reception reliever.

3.1.9 Queue Manager

- a) Ability to view call queues on a portal.
- b) Ability to view missed calls, dropped calls and unanswered calls.

3.1.10 Media management

- a) Custom Music-on-Hold.
- b) Custom Digital Receptionist Recordings.
- c) Custom voicemail messages.

3.1.11 Call Recording

- a) Ad hoc call recording.
- b) Secure call recording storage.
- c) Archiving call recordings.

3.1.12 Report Management

- a) Real-time inbound and outbound call details records.
- b) Outbound call source listed by extension.
- c) Outbound call source lists for virtual extensions
- d) Ability to view reports of the entire organization per department/division missed

calls, dropped calls and unanswered calls.

3.1.13 Extension Manager

- a) Access, search and download call recordings.
- b) Personal profile editing.
- c) Detailed call analytics.

3.1.14 Online Portal

- a) Online Management Portal for reporting, administration, and management of the Cloud Hosted PABX system.
- b) Ability to create users on the portal with specific security access to certain aspects of the system such as reporting and administration of specific areas/divisions/regions.
- c) Manage and record voice prompts.
- d) Create and customize IVRs
- e) Set and change working hours
- f) Control hunt groups and call queues
- g) View incoming and outgoing detailed call records
- h) Download and analyse call records
- i) See at a glance which users are online and using the phone (Operator Panel)
- j) Manage user access levels
- k) Call Forwarding and Call restricting

3.1.15 CALLING PLANS AND RATES

- a) Local
- b) International - Destination dependent
- c) Cellular
- d) Organization calls to be zero-rated.

3.1.16 SIP PEERING

- a) Peer-to-peer SIP

3.2 Microsoft Teams Integration

SACAP has invested in Microsoft technologies including Microsoft Exchange 2016, Microsoft Office 365 and Microsoft Teams. It is envisioned that the chosen provider should support tight integration to these technologies to provide:

- a) User Presence
- b) Simultaneous Ring
- c) Call from Teams
- d) Call from Email

- e) Teams Dial-in Conferencing
- f) Exchange Automated Voicemail Attendant

3.3 Call Centre Features

3.3.1 SACAP Call Centre Line

- a. Call Centre Agents planned for future growth
- b. Subscription-based consumption
- c. Skills based on eleven (11) official languages
- d. Instant messaging
- e. Softphones
- f. Automated Call Recording
- g. CRM integration
- h. Be able to add the supervisor for assistance or escalation while the agent is still on call

3.3.2 SACAP IT Help Desk

- a. 4 IT Support Agents
- b. Call routing based on caller enquiry, i.e. Log a New Service Request, follow up on the existing call or talk to IT support

3.4 Voicemail Features

3.4.1 Password Protected Voicemail: Prevent unauthorized access to voicemail.

3.4.2 Voicemail Greeting Options: Unavailable / Personal Message.

3.4.3 Voicemail to Email: Receive voice messages as a wav file (or _audio file_) attached to an email.

3.4.4 Digital receptionist – Interactive Voice Response (IVR).

3.4.5 Multi-level IVR menu management.

3.4.6 Manage multiple IVR menus for different Inbound Direct Inward Dialing (DIDs).

3.4.7 Day and Night Mode Schedule: Create different greetings according to the time of day and day of the week.

3.4.8 Custom Greetings: Upload third-party professional greetings to use as Digital Receptionist greetings.

3.5 Telephone Management System (Billing)

3.5.1 The TMS proposed should be manageable from the web browser (Google Chrome and Internet Explorer)

3.5.2 Accounts should have automated limits, whereby the Telephone Management

System will block and prevent individual accounts from making personal calls once the specified limit has been reached. Limits should be configurable on a per-account basis, in ZAR Rands.

3.5.3 The system should be able to email usage and cost reports to staff on a specified day of the month. This process should be fully automated, and no operator intervention should be required. In addition, the operator must be able to manually request and print reports for staff without email access.

3.5.4 Access real-time account status and usage

3.5.5 Account credit restrictions, monitoring and control at an organizational or user level

- a) Detailed reporting that is easy to navigate and delegate to managers
- b) Real-time cost reporting by extension, date, time and numbers dialed
- c) Summary cost report by extensions and groups
- d) Exportable reports to Microsoft Excel software
- e) Call trend and data analysis in graphical formats and Call Analytics
- f) Queue management and Graphical status of extensions
- g) Voice mail sent to handset and/or email
- h) Full management of the PBX system from the console
- i) Management of media (tones, music, digital receptionist, menu recordings).
- j) Customized VOIP phone provisioning
- k) Customized service selection e.g., barring international calls per user

3.6 Call Rating System

- a) After every call, the customer must be redirected to a rate the services
- a) Ability to generate a report monthly,
- b) Currently SACAP is using 4Sight through Linkup Communication System for the call rating services, the supplier may choose to link the 4Sight calling rating system or the supplier may provide their call rating system
- c) SACAP will provide the voice-over and the questions for the call rating service.

3.7 End user devices and terminals

End users must be able to access all telephony services using any device, from anywhere provided they have an Internet connection. All proposed devices must be certified to work seamlessly with Microsoft Teams. Headset and handset allocation as per the table below:

Device Type	Description	Quantity
Headsets	Headset with wireless and USB capability	30
Handset (Desk phones)	Handset for Executives	12
Handset (desk phones) Headset for the Receptionist x 2	Handsets for Receptionists – Switchboard	1 Headset for the Receptionist x 2
Handset (desk phones)	Entry-level phones for each employee office's	50
Handset (desk phone)	Conference phone for the boardroom	1

Table 3: End-user devices

3.8 Fax to email

3.8.1. The solution should cater for existing fax lines within SACAP

3.8.2. The solution should provide fax-to-email functionality to all users through:

- a. DID fax number per department
- b. DID fax number per office

3.9 SIP Trunking and Existing Numbers

3.9.1 The provider will be required to port existing numbers

3.9.2 Numbers should remain the property of SACAP in the event that SACAP chooses to change SIP providers in the future

3.9.3 Each site will require a dedicated number as currently allocated to the site

3.9.4 Users will require a dedicated DID number. DID numbers exist for National Office users and should remain unchanged

3.9.5 Will leverage on the existing LAN for Internet connection

3.9.6 WAN service provider will be responsible for LAN availability and redundancy

3.10 CALLING COSTS COMPARISON

- a) The service provider shall compile and provide a detailed call costs comparison that is competitive with the local telecoms market indicating the cost savings for both post-paid and pre-paid rates.

4. GOVERNANCE DELIVERABLES

4.1 Detailed Project Plan including milestones and project phases.

4.2 Risk Management Plan that will address risks associated with scope, quality, schedule and cost.

4.3 Clear and proven Project Management methodology (e.g., Agile).

4.4 Project Execution Plans detailing the execution and monitoring of the project.

4.5 Project Acquisition Plan describing the acquisition of materials, goods and enabling system services supplied.

4.6 Project Quality Plan that describes the quality criteria of the project deliverables.

4.7 Project Communications, Change Management Plan and roll-back plan.

4.8 Project Resource Plan that describes the key resources who will be assigned to the project including the Project Manager.

4.9 A Service Transition Plan to ensure that there are no major disruptions during the changeover phase between service providers.

Technical Evaluation Process:

See the evaluation criteria on functionality or the technical aspect below:

All proposals will be evaluated against the below technical evaluation criteria, failure to meet the minimum points of 70 points will result in disqualification.

					For Office Use	
Focus Area	Max Points	Criteria	Point Allocation	Tick	Verification	
Company Experience	10	Company profile provided spanning more than five (5) years of experience in telecommunications services	10			
		Company profile provided spanning more than three (3) to four (4) years of experience in telecommunications services	6			
		Company profile provided spanning less than three (3) years of experience in telecommunications services	2			
Written references	10	>5 positive reference letters attached	10			
		3 - 4 positive reference letters attached	6			
		1 - 2 positive reference letters attached	2			

					For Office Use	
Focus Area	Max Points	Criteria	Point Allocation	Tick	Verification	
Quality of project leader	10	Certified Project Leader with ND or Degree in IT (Related field) with >5 years of experience in similar projects	10			
		Certified Project Leader with ND or Degree in IT (Related field) with <5 years' experience in similar projects	8			
		Project Leader without qualification but >10 years of experience in similar projects	4			
		Project Leader without qualification but <10 years of experience in similar projects	2			
Quality of project technical team	10	>5 certified technicians with more than five (5) years of experience on similar projects	10			
		4 - 5 certified technicians with more than five (5) years' experience on similar projects	8			
		2 - 3 certified technicians with more than five (5) years' experience on similar projects	4			
		<2 certified technicians with more than five (5) years of experience on similar projects	2			
Partnership	10	Vendor certified partner Certificate	10			

					For Office Use	
Focus Area	Max Points	Criteria	Point Allocation	Tick	Verification	
		Not certified by the vendor	0			
Project Implementation Plan	10	<p>The project management plan must include the following:</p> <ul style="list-style-type: none"> - Detailed project execution plan - Work Breakdown Structure - Transition plan - Risk management plan - Change the management plan 	10			
		No project plan presented	0			

After sales support	15	<p>The proposed SLA addresses the following components:</p> <ul style="list-style-type: none"> - Incident reporting and escalation procedure - Performance Matrix (service uptime) - Sample dashboard/report - SLA penalties -Calls logged notification (SMS/Email) -Dedicated service manager 	15			
		SLA that does not include all the components required	0			

					For Office Use	
Focus Area	Max Points	Criteria	Point Allocation	Tick	Verification	
Proposal	25	The proposed solution considered all key technical components of the required solution: <ul style="list-style-type: none"> - Cloud-Based IP Telephony - Calling features – 3.1.4 - <i>(Follow me feature must be clearly explained)</i> - Call Centre system – Section 3.3 - Voicemail Features – 3.4 - <i>(Call recording must be clearly explained)</i> - Telephone Management System – Section 3.5 - Call Rating System 3.6 - Fax to email – Section 3.8 - SIP trunking – Section 3.9 	25			
		The proposed solution did not consider one or more of the key components of the required solution	5			
		The proposed solution did not consider one or more of the key components of the required solution	0			
Total	100		Total			

5. SERVICE LEVEL AGREEMENT

5.1. SLA Scope

This section will define and measure the service supplied by the service provider to SACAP for the duration of the contract. Service providers MUST submit a draft SLA as part of this request for quotation response. The SLA for the winning supplier will be reviewed by the legal team to be further incorporated into the final contract agreement. The service level agreement should define the following:

- 5.1.1.** All services are to be delivered as per timelines mutually defined and agreed upon by SACAP and the preferred supplier.
- 5.1.2.** Third-party vendor management.
- 5.1.3.** The awarded supplier will ensure support for any issue related to the availability and accessibility of Telephone services for all SACAP's offices.
- 5.1.4.** The winning supplier will be solely responsible for any defect in the solution(s).
- 5.1.5.** The winning supplier and its 3rd party vendors will be required to adhere to SACAP's policies and procedures.
- 5.1.6.** The winning supplier is to indicate a clear call logging and escalation procedure.
- 5.1.7.** Service uptimes per service legal – the winning supplier will be required to adhere to service levels stated in Table 4 below.
- 5.1.8.** The supplier must indicate how penalties will be applied in a case where SLA is bridged.
- 5.1.9.** Monthly service meetings will be held with a dedicated Service Manager.
- 5.1.10.** Incident reports and performance reports with recommendations must be provided through monthly meetings.
- 5.1.11.** Service providers MUST also provide sample Dashboard/ reports as part of this submission.
- 5.1.12.** Automated fault logging systems MUST notify the SACAP network administrators when such calls are logged or closed through SMS or email.

Severity Level	Description	Target Response
1. Outage	SaaS server down	Immediate
2. Critical	High risk of server downtime	Within 10 minutes
3. Urgent	End-user impact initiated	Within 20 minutes
4. Important	Potential for performance impact if not addressed	Within 30 minutes
5. Monitor	The issue addressed but potentially impactful in the future	Within one business day
6. Informational	Inquiry for information	Within 48 hours

Table 4: Service Levels

5.2. Reporting

The monthly SLA report must cover the following content:

- 5.2.1.** System health and performance matrix.
- 5.2.2.** List all calls that were logged on the fault logging system every month.
- 5.2.3.** Time and date when the call was logged.
- 5.2.4.** SLA reporting on the breached SLA measures and the remediation measures to ensure that issues are addressed timeously in the future. These sections should also include penalties to be applied as per agreed SLA measures.
- 5.2.5.** Sample dashboard report must be attached as part of the proposal.

Mandatory Requirements:

- a) The service provider must submit their Tax Compliance Status Pin and BEE Certificate/Affidavit.
- b) SACAP may verify the validity of the above information with the respective accreditation bodies.

Proposals and enquiries are to be addressed only via email to: Elelwani.ndou@sacapsa.com

Closing Date: 27 July 2023