



Independent Communications Authority of South Africa

350 Witch-Hazel Avenue, Eco Point Office Park
Eco Park, Centurion.
Private Bag X10, Highveld Park 0169
Telephone number: (012) 568 3000/1

APPOINTMENT OF A SUITABLE SERVICE PROVIDER TO SUPPLY, INSTALL, COMMISSION, CUSTOMISE AND MAINTAIN THE NUMBERING SYSTEM FOR A PERIOD OF FIVE YEARS FOR ICASA.ON AN 80/20 PPPFA 2000, PREFERENTIAL PROCUREMENT REGULATION: 2017.

The Independent Communications Authority of South Africa (ICASA) invites suitably qualified service providers to bid to supply, install, commission, customise and maintain the numbering system for a period of five years.

1.BACKGROUND

ICASA has legislative mandate to maintain and manage a Central Numbering Database System ("CNDB") in terms of section 68(5) of the Electronic Communications Act, Act 36 of 2005 ("the ECA") and the South Africa's Numbering Plan Regulations, Government Gazette No. 39861 ("the Regulations") dated 24 March 2016. The purpose of CNDB is to assist the Authority in the effective and efficient management of number resources to make allocations, assignments, reservations, reclamations, receiving returned numbering resources, assessment on number resource applications, analysis of the current usage patterns, forecast future demands, numbering resource audit, including Maritime Mobile Service Identity (MMSI).



2. SCOPE OF WORK

To supply, install, commission, customise and maintain the numbering system for a period of 5 years.

3. BID SPECIAL CONDITIONS AND TECHNICAL REQUIREMENTS

3.1. The terms of reference for this bid will be evaluated on three levels, which are:

3.1.1 Level 1: Mandatory special conditions.

3.1.2 Level 2: Functionality; and

3.1.3 Level 3: Price and BBBEE Level.

3.2. Mandatory SPECIAL Conditions:

The table below lists special mandatory conditions that the Bidder must cover:

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| 1. | Special Condition | | |
| | Bidders Capacity to Develop the Numbering System | | |
| | The Bidder must provide a written undertaking on their letterhead that they have capability to develop, supply, install, commission, customise and maintain the numbering resource system for a period of 5 years in terms of South Africa's Numbering Plan Regulation and that the bidder has provided or is currently providing similar services for the past 8 years. The undertaking must be signed by the Bidder's senior official authorised to commit the Bidder on such matters. | Comply | Not Compliant |
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| 2. | Special Condition | | |
| | System Blueprints and User Manual | | |
| | The Bidder must provide a written undertaking on their letterhead to provide the developed | Comply | Not Compliant |



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| | system's blueprints and user manual. The undertaking must be signed by the Bidder's senior official authorised to commit the Bidder on such matters. | | |
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| 3. | Special Condition | | |
| | System Acceptance | | |
| | The bidder must provide a written undertaking they will ensure acceptance signoff of each module supplied, installed, customised, and commissioned during the project, including all completed modules are working at the time when the whole system is accepted for duration of the contract. The undertaking must be signed by the Bidder's senior official authorised to commit the Bidder on such matters. | Comply | Not Compliant |
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| 4. | Special Condition | | |
| | Quality Management System (QMS) | | |
| | The Bidder must provide a written undertaking on their letterhead that the numbering system they provide is designed, developed, and implemented according to software development standards such as the ISO 9001/ IEC 12207. The undertaking must be signed by the Bidder's senior official authorised to commit the Bidder on such matters. | Comply | Not Compliant |
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| 5 | Special Condition | | |
| | Ownership of the system after the expiry of the contract | | |
| | The system will be wholly owned by ICASA during the contract period and will be handed over to | Comply | Not Compliant |



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| | ICASA as the sole owner of the system and its functions and capabilities upon expiry of the contract. The successful bidder will provide information and all related documentation pertaining to the system and its functions. | | |
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3.3 Numbering System Functional Requirements

The table below lists Numbering System Functional Requirements that the bidder must cover:

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| 1. | Functional Requirement | | |
| | Application for Number Resources | | |
| | Licensees will be able to apply online for the number resource and returns via web facing portal for licensees – enablement of self-service. | Comply | Not Compliant |
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| 2. | Functional Requirement | | |
| | Application for Number Resources | | |
| | Allocations of numbering resources to licensees individually or in blocks including conditions attached to the Assignment and activation dates. | Comply | Not Compliant |
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| 3. | Functional Requirement | | |
| | Application for Number Resources | | |
| | Tracking of submitted numbering applications by licensees, and the status of active numbers on | Comply | Not Compliant |



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| | licensees’ network. | | |
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| 4. | Functional Requirement | | |
| | Application for Number Resources | | |
| | Managed process-driven evaluation and validation/ approval of applications on different levels of the workflow; | Comply | Not Compliant |
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| 5. | Functional Requirement | | |
| | Application for Number Resources | | |
| | Access to query available number resource through a public portal to allow licensees to check the status of numbering records. The licensees will be able to view number resources allocated to them and the status of their applications via the ICASA Public Website. | Comply | Not Compliant |
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| 6. | Functional Requirement | | |
| | Historical Data for the Number Resources | | |
| | Provide the status of primary assignment, reservation, withdrawals, or reclamations. Assignment and indicating to whom the resources are allocated, times, dates and history of assignments, reservations, reclamations, and activations. | | |
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| 7. | Functional Requirement | | |
| | Generation of Number Resource Reports | | |



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| | Analysis and generation of the following reports: Utilisation levels of number resource, analysis of number resource usage, nationally and as per national destinations codes, assessment on number resource applications, analysis of the current usage patterns, forecast future demands, number resource audit, and capability to perform all the above number resource reports periodically, e.g., Weekly, Monthly, Quarterly, and annually. | Comply | Not Compliant |
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| 8. | Functional Requirement | | |
| | Internal Application Workflow for Number Resources | | |
| | Notifications when applications are received, assigned to the users, and submitted for approval process. | Comply | Not Compliant |
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| 9. | Functional Requirement | | |
| | Internal Application Workflow for Number Resources | | |
| | Capability to allow users to analyse and process number resource application, to search for free numbers, register or reserve or make allocations of the number resources on the numbering system. | Comply | Not Compliant |
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| 10. | Functional Requirement | | |
| | Internal Application Workflow for Number Resources | | |
| | Capability to return number resource that the licensees no longer need or use. | Comply | Not Compliant |
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| 11. | Functional Requirement | | |
| | Internal Application Workflow for Number Resources | | |
| | Capability to decline, approve or communicate additional information to licensees. | Comply | Not Compliant |
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| 12. | Functional Requirement | | |
| | External Access to the Number System | | |
| | The Web Service Server will be configured within the ICASA demilitarized zone (DMZ) to enable licensees’ access to the public facing component of the system while the back-end component of the system remains secured within ICASA’s private internal network. | Comply | Not Compliant |
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| 13. | Functional Requirement | | |
| | Enquiries on for Number Resources | | |
| | Capability to view allocated numbers in the system in a list view of all number ranges allocated in read mode only using the name of licensees and the number ranges, and information of the overall numbering plans. | Comply | Not Compliant |
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| 14. | Functional Requirement | | |
| | User access | | |
| | Access the system remotely and perform all functions through the ICASA website. | Comply | Not Compliant |
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| 15. | Functional Requirement | | |
| | Communications via the system | | |
| | The numbering system must allow for the generation of email alerts and escalations to simplify and help in monitoring adherence to set turnaround times and speed up processes whenever action is required on the pending applications, system changes, among others. Ability to provide for automated communication and generation of signed allocations, assignments, and reservations or its equivalent. | Comply | Not Compliant |
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| 16. | Functional Requirement | | |
| | Billing of application fees | | |
| | Provide for numbering resource charging capabilities on different number range applications, create, calculate, and charge numbering applications at different dates, create, and send invoices for applications on all number charges, provides for alert of receipts of new application invoices and provides alerts of receipts of proof of payment. The system should be able to be synchronised or integrate with other ICASA financial system such as JD Edwards. | Comply | Not Compliant |
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| 17. | Functional Requirement | | |
| | System Customisation (Number Types) | | |
| | The bidder must customise the numbering system in terms of the South African Number Plan regulations. The system must among other requirement cater for mobile numbers, geographic numbers, non-geographic numbers, | Comply | Not Compliant |
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| | toll free numbers, international signaling codes, national signaling codes, shorts codes, Maritime Mobile Service Identity (MMSI) and routing codes. | | |
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| 18. | Functional Requirement | | |
| | System Backup ability. | | |
| | Ability to provide own backup information. | Comply | Not Compliant |
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| 19. | Functional requirement | | |
| | System availability | | |
| | The Number Management system availability should be at least 97%. Based on availability levels specified, respondents shall provide a risk analysis of the proposed design solution, mean time between failure (MTBF) of the overall system, and relevant MTBF for essential hardware and software elements. The target above is to include scheduled maintenance outages but exclude any system hardware or software upgrade. The method of calculation shall be clearly outlined. The bidder must provide typical Mean Time to Repair (MTTR), including times for significant software components recovery. They shall also specify what types of service degradation can occur under fault and overload conditions, the design objectives for each type of degradation and the corresponding effect users. The bidder must detail the architecture used to deliver this level of availability. | Comply | Not Compliant |
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| 20. | Functional requirement | | |
| | System Security | | |
| | System security management process and controls to protect system administrators, networked systems, licensees, and the Authority. Provision of retaining valuable data for maintenance, security, and regulatory reasons for at least 12/24 months. | Comply | Not Compliant |
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| 21. | Functional requirement | | |
| | Support & Maintenance | | |
| | Service provider will be required to maintain and support the system for the duration of the contract. | Comply | Not Compliant |
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| 22. | Functional requirement | | |
| | Upgrades | | |
| | The bidder will perform the system upgrades and maintain the numbering system in accordance with the service level agreement for a minimum period of 5years. | Comply | Not Compliant |
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| 23. | Functional requirement | | |
| | Data Clean-up and transfer | | |
| | The bidder will perform data clean up and transfer it to the newly supplied numbering system. The data contained in the old numbering system and excel-sheet dates to 2005. The amount of data is at five (5) gigabytes on 15 July | Comply | Not Compliant |



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| | 2021 with an ongoing growth as the Authority makes allocations to licensees on requests. | | |
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| 24. | Functional requirement | | |
| | Data Clean-up and transfer | | |
| | The bidder will include in their project plan a schedule to allow the transfer of data to be audited and verified that all old data has been correctly transferred to the newly supplied numbering system. The transfer process must be accepted after the audit and verification during the testing phase and at the handover phase by ICASA | Comply | Not Compliant |
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| 25. | Functional requirement | | |
| | User training | | |
| | Provision of users training for the numbering system shall be performed end to end on all levels of the workflow process for a maximum of 15 officials. The workflow assignments of the application to various numbering specialist, analysis of the applications, allocation of the number ranges, recommendations of the various submission of the number ranges and approval. | Comply | Not Compliant |
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| 26. | Functional requirement | | |
| | System Configuration, Diagrams, and flow charts | | |
| | Diagrams showing the various components of the system and their interconnections. Demonstration that the system is current, and | Comply | Not Compliant |
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| | the software and hardware can interwork with current ICASA IT infrastructure, current sub-system used by the Authority, sharing of data between central reference database and the numbering database. | | |
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| 27. | Functional requirement | | |
| | Project Plan | | |
| | A project plan with Milestones, Work Breakdown Structure, Schedule, Budget allocations, Responsibility Matrix, Risks and Contingency Plans in terms of project management principles. | Comply | Not Compliant |
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| 28. | Functional requirement | | |
| | The due diligence must include the evaluation | | |
| | Satisfactory delivery, installation, training, testing, and commissioning. Satisfactory System performance. Adequate after-sales maintenance support by the bidder for a period for 5five years. | Comply | Not Compliant |
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4. Period of assignment

4.1. All work is to be carried out following the schedule as agreed with the Authority:

The system is expected to be fully functional within a minimum period of six (6) months and a maximum period of twelve months (12) months from the contract's date of conclusion. The system must be fully functional at the end of the period.

5. Briefing Session

There will be a virtual non-compulsory briefing session on Microsoft Teams.

6. Bid evaluation criteria

The bid will be advertised for 21 calendar days in the ICASA website and the e-tender portal on an 80/20 procurement principle.

Bidders will be evaluated on; (a) submission of the required documents, (b) functionality and (c) price/ bb-bee. Only bidders who meet the cut-off score of 80 points out of 100 points for functionality will be considered further for price evaluation. All bid proposals submitted will be evaluated following the 80/20 procurement principle as prescribed by National Treasury Regulations.

| No | Category | Weight |
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| A. | Price | 80 |
| B. | BBBEE Status Level Contribution | 20 |
| | TOTAL | 100 |
| C. | Functionality: Pre-qualification criteria | |



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| 1. | <p>Central Numbering Database methodology</p> <p>5 = Methodology includes all the information below:</p> <ul style="list-style-type: none"> ➤All functional requirements. <p>4 = Methodology includes all the information below:</p> <ul style="list-style-type: none"> ➤25 functional requirement excluding item 16 of the functional requirements. <p>3 = Methodology includes all the information below:</p> <ul style="list-style-type: none"> ➤24 functional requirements excluding item 16 and 15 of the functional requirements. <p>2 = Methodology includes all the information below:</p> <ul style="list-style-type: none"> ➤a maximum of 23 functional requirements excluding item 15 and 16 and any additional functional requirement. <p>1 = Methodology includes all the information below:</p> <ul style="list-style-type: none"> ➤a maximum of 22 functional requirements excluding item 15 and 16 and any two additional functional requirements. | 25 |
| 2. | <p>Provide a Project Plan in terms of project management principles.</p> <p>5 = A project plan with Milestones, Work Breakdown Structure, Schedule, Budget allocations, Responsibility Matrix, Risks and Contingency Plans.</p> <p>4 = A project plan with Milestones, Work Breakdown Structure, Schedule, Budget</p> | 15 |



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| | <p>allocations, Responsibility Matrix and excludes risks and contingency plan.</p> <p>3 = A project plan with Milestones, Work breakdown structure, schedule, Budget allocation and excludes Responsibility Matrix, risks and contingency plan.</p> <p>2 = A project plan with only a schedule.</p> <p>0 = No project plan submitted</p> | |
| 3. | <p>Provide reference letters with company letterheads of similar service supplied in the past five years. The reference letters must have contacts details such as the landline, mobile number, email address and the person to be contacted.</p> <p>5 = Provide more four (4) testimonial reference letters of service supplied on letters heads.</p> <p>4 = Provide three (3) testimonial reference letters about service supplied on letterheads.</p> <p>3 = Provide two (2) testimonial reference letters about services rendered.</p> <p>2 = Provide one (1) testimonial reference letter about service supplied on letterheads.</p> <p>0 = No submission of testimonial reference letters. Unverifiable services supplied will constitute disqualification of the bidder.</p> | 15 |
| 4. | <p>Provide skills transfer plan for fifteen (15)</p> | 15 |



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| | <p>ICASA staff members with timeframes.</p> <p>5 = A skills transfer plan which includes training, timeframes, objectives and working methodology.</p> <p>4 = A skills transfer plan which includes training, timeframes, objectives and without working methodology</p> <p>3 = A skills transfer plan which includes training, timeframes without objectives and working methodology</p> <p>2 = A skills transfer plan which includes objectives only.</p> <p>1 = No skills transfer plan submitted</p> | |
| 5. | <p>Provide previous experience reports showing a successfully supplying, installing, customisation and commissioning of the numbering resource database system in region 1 of the ITU. NB:(reports must have a high-level detail of work performed, the name of the country/ regulator or Administrator to which services where rendered, the timeframes and the status of the database showing whether it is a server-based or web-based system)</p> <p>5 = five or more reports that included supply, install, commission and maintenance of the country's numbering resources system.</p> | 15 |



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| | <p>4 = four reports that included supply, install, commission and maintenance of the country's numbering resources system.</p> <p>3 = three reports that included supply, install, commission and maintenance of the country's numbering resources system.</p> <p>2 = two reports that included supply, install, commission and maintenance of the country's numbering resources system.</p> <p>1 = no submission of sample reports</p> | |
| 6. | <p>Experience and qualifications</p> <p>5 = More than 10 'years' experience and more than 4 personnel with relevant qualifications such as IT project management certifications and IT Development System Certification</p> <p>4 = 8 'years' experience and at least 4 candidates with relevant qualifications</p> <p>3 = 5 'years' experience and at least 3 candidates with relevant qualifications</p> <p>2 = 3 'years' experience and 2 candidates with appropriate qualifications.</p> <p>1 = 1 year experience and 1 candidate with relevant qualifications.</p> | 15 |



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| | TOTAL FOR FUNCTIONAL PRE-QUALIFICATION CRITERIA. Grand Total: 100 Minimum cut-off point: 80 | 100 |
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