



Independent Communications Authority of South Africa

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APPOINTMENT OF THE SERVICE PROVIDER TO ASSIST THE INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA WITH THE DEVELOPMENT OF IMPLEMENTATION PLANS FOR THE RADIO FREQUENCY MIGRATION PLAN 2013 AND 2019 AS WELL AS THE IMPLEMENTATION OF THE INTERNATIONAL MOBILE TELECOMMUNICATION ROADMAP 2014 AND 2019, AND THE CONSEQUENTIAL RADIO FREQUENCY SPECTRUM ASSIGNMENT PLANS FOR A PERIOD OF EIGHT (8) MONTHS.

1. Background

- 2.1 The Authority First Strategic Outcome Oriented Goal (SOOG 1) is to facilitate Investment in and access to Broadband Infrastructure for Sustainable Socio-economic development and the Strategic Objective 1.1 is to increase access to Broadband Spectrum from 566 MHz to 958 MHz by 2020. To this end, Engineering and Technology Division has updated and revised the Radio Frequency Migration Plan 2013 and the International Mobile Telecommunications (IMT) Roadmap in line with the Annual Performance Plan (APP) for Fiscal year 2019/20.
- 2.2 The Authority developed the National Radio Frequency Plan 2018 (NRFP) in terms of section 34, of the Electronic Communications Act (Act 36 of 2005) (ECA).
- 2.3 The National Radio Frequency Plan was developed in line with the International Telecommunications Union's (ITU) Radio Regulations which is a treaty agreed to at the World Radio Conference (WRC) by all member states.
- 2.4 Section 34(16) of the Electronic Communications Act Number 36 of 2005 (the ECA) mandates the Authority to develop Frequency Migration Plans

for frequencies identified during the development of the National Radio Frequency Plan for migration and the implementation thereof.

- 2.5 When it has been established that migration is required, then the critical issue is to determine the time frame in a manner consistent with sound radio frequency spectrum management. It is necessary to carry out a feasibility study for the frequency bands in question.
- 2.6 The requirement for a feasibility study is usually, but not necessarily, indicated in the Frequency Migration Plan. Where the results of the feasibility study indicate a change in the usage of the band in question, a Radio Frequency Spectrum Assignment Plan shall be developed and must be subjected to a consultation process.
- 2.7 The development of the Radio Frequency Spectrum Assignment Plans for the particular band or bands is one of the key processes of implementation as described in the Radio Frequency Spectrum Regulations 2015, read with the Radio Frequency Migration Regulations 2013. The second key process is the amendment of a Radio Frequency Spectrum Licence to effect the migration of users and uses where necessary.
- 2.8 It should be noted that the Frequency Migration Plan does not necessarily identify the destination bands for out-migrating users or uses because the appropriate destination band will vary from user to user, depending on the specific requirements of the user.

2. Scope

2.1. The Authority therefore seeks to appoint a service provider to assist with the development of the implementation plan of the Radio Frequency Migration Plan 2013 and 2019 as well as the International Mobile Telecommunication 2014 and 2019. The implementation plan is to be developed taking into consideration the Technical and Economic Feasibility Studies undertaken for the Radio Frequency Migration Plan 2013 and 2019 and IMT Roadmap 2014 and 2019, in accordance with the Radio Frequency Migration Regulations 2013, the Radio Frequency

Spectrum Regulations 2015, the National Radio Frequency Plan 2018¹ and Chapter 5 of the Electronic Communications Act Number 36 of 2005 (the ECA).

2.2. The results of the studies are to advise the Authority in the determination of the time frame for migration of users and services and the implementation thereof.

2.3. The resultant implementation of the Radio Frequency Migration Plan and the implementation of the International Mobile Telecommunications (IMT) Roadmap is to be realised through the development of the Final Radio Frequency Spectrum Assignment Plans (RFSAPs) based on the results of the feasibility studies for all the frequency bands identified and performed as appropriate.

3. Specifications

3.1 The service provider shall assist the Authority with the development of the implementation plans for the Radio Frequency Migration Plan 2013² and 2019³ as well as the International Mobile Telecommunication 2014⁴ and 2019 and the consequential respective Radio Frequency Spectrum Assignment Plans ("RFSAP") in accordance with the National Radio Frequency Plan 2018⁵ read with Chapter 5 of the Electronic Communications Act number 36 of 2005 (the ECA).

3.2 The Following details summarise the phases to be considered in executing the projects:

Implementation of Radio Frequency Migration Plan

3.2.1 Phase 1 (Implementation of the Radio Frequency Migration Plan):
To develop an implementation plan of the Radio Frequency Migration Plan 2013 and 2019 by conducting technical and economic feasibilities studies considering the regulatory

¹ Government Gazette Number 41650 (266 of 2018)

² Government Gazette Number 36334 (Notice 352 and 353 of 2013)

³ Government Gazette Number 42337 (Notice 166 of 2019)

⁴ Government Gazette Number 38213 (Notice 1009 of 2014)

⁵ Government Gazette Number 41650 (266 OF 2018)

framework⁶ in so far as managing and assigning the radio frequency spectrum;

- 3.2.2 Phase 2 (Implementation of the Radio Frequency Migration Plan): To develop and or revise the Radio Frequency Spectrum Assignment Plans (RFSAP(s)) to enable the implementation of the Radio Frequency Migration Plan 2013 and 2019, excluding those Frequency Bands identified for International Mobile Telecommunications (IMT);

Implementation of the IMT Roadmap 2014 and 2019

- 3.2.3 Phase 1 (Implementation of the IMT Roadmap 2014⁷ and 2019⁸) – To develop the implementations Plan for the International Mobile Telecommunications Roadmap 2014 and 2019 in the Government Gazette number 42829 (Notice 600 of 2019) by conducting technical and economic feasibilities studies considering the regulatory framework⁹ in so far as managing and assigning the radio frequency spectrum;

- 3.2.4 Phase 2 (Implementation of the IMT Roadmap 2019) - Develop and revise the RFSAPs to enable the implementation of the IMT Roadmap 2019. This includes the Radio Frequency Spectrum Assignment Plans, where feasibility studies were mandated by the National Radio Frequency Plan 2013 and 2018, the Radio Frequency Migration Plan 2013 and 2019 as well as the International Mobile Telecommunications (IMT) Roadmap 2014 and 2019;

⁶ The Radio Frequency Migration Plan 2019 published in Government Gazette number 42337(Notice 166 of 2019), Radio Frequency Migration Regulations 2013 published in the Government Gazette number 36334 (Notices 352 and 353) and Radio Frequency Spectrum Regulations 2015 Government Gazette number 38641 (Notice 279 of 2015) as amended

⁷ Government Gazette Number 38213 (Notice 1009 of 2014)

⁸ Government Gazette Number 42361 (Notice 197 of 2019)

⁹ the Radio Frequency Migration Plan 2019 published in Government Gazette number 42337(Notice 166 of 2019), Radio Frequency Migration Regulations 2013 published in the Government Gazette number 36334 (Notices 352 and 353) and Radio Frequency Spectrum Regulations 2015 Government Gazette number 38641 (Notice 279 of 2015) as amended

- 3.3 In undertaking this work, the service provider will be expected to, among others, undertake the following into consideration and activities:
- 3.3.1 The latest ITU-R reports, recommendations and resolutions on IMT systems and beyond;
 - 3.3.2 The latest developments and proposals within the ITU System on future Spectrum Requirements;
 - 3.3.3 The socio-economic cost benefits associated with the implementation of the Frequency Migration Plan;
 - 3.3.4 Any other relevant international technical and regulatory aspects deemed necessary and appropriate;
 - 3.3.5 Any relevant policy and or regulation geared towards the achievement of universal service in terms of access to broadband services and connecting the unconnected;
 - 3.3.6 Any other relevant aspects that will ensure the increase in broadband penetration, speed and capacity;
 - 3.3.7 Any international, regional and or national recommended imperatives deemed necessary and appropriate;
 - 3.3.8 The service provider shall submit a preliminary budget with the details on the project plan;
 - 3.3.9 Service providers may be invited to give a presentation as and when required;
 - 3.3.10 Conduct technical and economic feasibility studies in line with the Radio Frequency Migration Plan 2013 and 2019 as well as the IMT Roadmap 2014 and 2019 as mandated by the National Radio Frequency Plan 2018; and
 - 3.3.11 Provide a detailed report of the outcome of the feasibility studies with recommendations on scenario plans, in line with the implementation of the migration of uses, users and services. The report should include but not limited to:
 - 3.3.11.1 Detailed cost analysis of the spectrum migration process and the affected users in the bands being migrated;
 - 3.3.11.2 A detailed analysis identifying destination frequency bands for the incumbent services where this is not identified by the frequency migration plan;

- 3.3.11.3 Detailed project phases for migration of the identified frequency bands;
 - 3.3.11.4 The best fit in terms of internationally and or regionally harmonised channel arrangements and plans with provision for options for spectrum re-use;
 - 3.3.11.5 Estimated time frames for the migration to identified destination bands;
 - 3.3.11.6 Provide a detailed report of the feasibility studies in line with project phases for the implementation of the IMT Roadmap.
 - 3.3.11.7 Detailed cost analysis of the spectrum process and the affected users in the IMT bands being migrated;
 - 3.3.11.8 A detailed analysis identifying destination frequency bands for the incumbent services where this is not identified by the IMT Roadmap; and
 - 3.3.11.9 Estimated time frames for the migration to identified destination bands for IMT.
- 3.3.12 Development and revision of existing Radio Frequency Spectrum Assignment Plans (RFSAP(s)) for Radio Frequency Migration Plan 2013 and 2019 as mandated by the National Radio Frequency Plan 2018.
- 3.3.13 Participate in the development of the consultation documents and processes as necessary and as appropriate.
- 3.4 In conducting the activities covered above, the service provider will work with the project team of the Authority and ensure capacity building including the provision of training to the project team of at least eight (8) members on the process of the development of the feasibility studies as well as the development of the Radio Frequency Spectrum Assignment Plans.
- 3.5 The service provider is expected to work closely with the project team in order to transfer knowledge to the project team.
- 3.6 The Project Leader within the Authority will liaise with the Project Leader of the service provider to arrange a work programme and to schedule meetings with stakeholders, including licensees and stakeholders.

4 Period of assignment

All work is to be carried out in accordance with the time schedule as agreed with the Authority for a period of not more than eight (8) months from the date of finalisation of the contract with the service provider.

8 Months (i.e. from Contract signature date = X)

No.	Item	Due Date (Calendar days)
1.	Commencement of work.	X
2.	Kick-off Meeting.	X + 5
3.	Inception Meeting	X +30
4.	The Feasibility studies, involving analysis of Regulatory, Technical and Economic factors. In each case, providing relevant Regional and International best practices including the socio-economic benefits, the value to society, International Benchmark studies, maturity of the ecosystem, scenario plans, deployment costs, proposed timelines for clearing the frequency bands, co-existence scenarios.	X + 60
5.	The Feasibility studies, involving an analysis of Regulatory, Technical and Economic factors. In each case, providing relevant Regional and International best practices including the socio-economic benefits, the value to society, International Benchmark studies, maturity of the ecosystem, scenario plans, deployment costs, proposed timelines for clearing the frequency bands, co-existence scenarios.	X + 90.

4.	The draft report with preliminary recommendations on the cost-benefit analysis scenario ranking	X + 120
5.	The development of the consultation documents for the Implementation of the Radio Frequency Migration Plan and the IMT Roadmap(s)	X + 150
6.	development of the consultation documents for the Radio Frequency Assignment Plans	X + 180
7.	development of the final documents, taking into consideration representations made by stakeholders through a public consultation process is to be undertaken for one month	X + 210
8.	Submission of final reports	X + 240

5 Briefing Session

5.1 There will be **no** briefing session.

6 Evaluation of the Bids

6.1 The bidder's proposed personnel resource(s) should have degrees or equivalent in Engineering, Telecommunications, and Economics, Commerce or any other equivalent degree relevant to this assignment, from a recognized Institution. The bidder's proposed resource should have Engineering and ICT knowledge and demonstrate practical experience and understanding of the technology with a strategic focus on developments around frequency migration and or re-farming processes and planning, preferably at National and International Level.

6.2 The bidder's proposed resource should have the technical knowledge and demonstrate practical experience in frequency migration planning processes and the development of strategies on the implementation of migration of services and an understanding of the rollout of new

technologies as it relates to spectrum. Scoring for the proposed resource will be based on the scope, scale, complexity and relevance of experience performed to the requirement.

- 6.3 The bidder's proposed resource should have at least ten (10) years' experience in developing frequency migrations and or planning related to the whole band plan with an in-site on new technologies and gaining consensus of the participants, preparing appropriate documentation to the satisfaction of the project team.
- 6.4 The bidder should have the necessary tools and appropriate resources to perform frequency planning processes.
- 6.5 The bidder should note that experience claimed, but not substantiated with specific work assignments may be awarded zero points.
- 6.6 The bidder's proposals should be submitted with all required information containing technical information as well as price information.
- 6.7 The bidder must provide a work breakdown plan with details on how they intend dealing with the project.
- 6.8 The proposal should include, amongst others, the following:
 - 6.8.1 A list of credible and contactable references
 - 6.8.2 A proposed plan of action to ensure the achievements of the assignments described in section 4 above;
 - 6.8.3 A comprehensive skill transfer plan;
 - 6.8.4 Work breakdown structure; and
 - 6.8.5 And any other relevant documentation deemed necessary as appropriate.
- 6.9 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 bid will also be evaluated for functionality as per the functionality table below.
- 6.10 The bidder 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 70 out of 100 points for functionality will be considered further for price evaluation.
- 6.11 For Functionality, please refer to table 1:

Table 1: Content Bid Functionality:

No	Category (Cut-off 70)	Points
A.	Functionality: Pre-qualification criteria (cut-off 70%)	
	Functional Proposal	
Proposed Solution/ Methodology	<p>1. Proposed methodology to be used to undertake the Feasibility studies, involving an analysis of Regulatory, Technical and Economic factors. In each case, providing relevant Regional and International best practices including the socio-economic benefits, International Benchmark studies, the maturity of the ecosystem, scenario plans, deployment costs, proposed timelines for clearing the frequency bands, co-existence scenarios, based on analytical processes and as well as simulations using appropriate tools techniques to achieve the desired outcome in performing feasibility studies for the frequency bands as mandated by the IMT Roadmap 2014 and 2019 and the Radio Frequency Migration Plan 2013 and 2019 to yield resultant cost-effective solution for the migration of users and uses; and the development of the Radio Frequency Spectrum Assignment Plans.</p> <p>Evaluation criteria:</p> <p>1.1. Provide no information on methodology, analytical process, and simulation tools to be used = 1</p>	30

	<p>1.2. Did not provide Technical information on methodology, analytical, and simulation tools to be used = 2</p> <p>1.3. Provided Economic methodology, analytical processes, and simulation tools to be used = 3</p> <p>1.4. Provided regulatory, technical and economic methodology, analytical processes and simulation tools to be used, without international benchmarks and recommended the preferred option =4</p> <p>1.5. Provided Technical, Economic and Regulatory analytical processes and simulation tools to be used based on International Standards, International Benchmarks on the maturity of the ecosystem, Scenario Plans, Deployment costs estimates, Proposal on timelines for clearing the frequency bands, co-existence scenarios, based on analytical processes and as well as simulations using appropriate tools techniques and recommend the preferred option =5</p>	
<p>Project Implementation</p>	<p>2. Provide a draft implementation plan that is to lead to the final implementation reports on the three (3) projects with the Radio Frequency Spectrum Assignment Plans to be completed by 28 February 2021.</p> <p>Evaluation criteria:</p> <p>2.1 Did not provide information on the proposed implementation plan = 1</p> <p>2.2 Provided information on the first Phase of the implementation of the Radio Frequency Migration Plan): = 2</p>	<p>25</p>

	<p>2.3 Provide details on the first Phase of the Implementation of the Radio Frequency Migration Plan and insufficient details on the first Phase of the Implementation of the IMT Roadmap 2014¹⁰ and 2019¹¹): = 3</p> <p>2.4 Provide details on the implementation of the proposed project directly linked to the implementation of plans with details on the first and second Phases (Phases 1 and 2) of the Implementation of the Radio Frequency Migration Plan and details on the first and second Phases (Phase 1 and 2) of the Implementation of the IMT Roadmap 2014¹² and 2019¹³) activities. = 4</p> <p>2.5 Provide details on the implementation of the proposed project directly linked to the implementation of plans with details on the first and second Phases (Phases 1 and 2) of the Implementation of the Radio Frequency Migration Plan and details on the first and second Phases (Phase 1 and 2) of the Implementation of the IMT Roadmap 2014¹⁴ and 2019¹⁵) activities into consideration:</p> <p>2.5.1 The latest ITU-R reports, recommendations and resolutions on IMT systems and beyond</p> <p>2.5.2 The latest developments and proposals within the ITU System on future Spectrum Requirements</p> <p>2.5.3 The socio-economic cost benefits associated with the implementation of the Frequency Migration Plan</p>	
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¹⁰ Government Gazette Number 38213 (Notice 1009 of 2014)

¹¹ Government Gazette Number 42361 (Notice 197 of 2019)

¹² Government Gazette Number 38213 (Notice 1009 of 2014)

¹³ Government Gazette Number 42361 (Notice 197 of 2019)

¹⁴ Government Gazette Number 38213 (Notice 1009 of 2014)

¹⁵ Government Gazette Number 42361 (Notice 197 of 2019)

	<p>2.5.4 Any other relevant international technical and regulatory aspects deemed necessary and appropriate</p> <p>2.5.5 Any relevant policy and or regulation geared towards the achievement of universal service in terms of access to broadband services and connecting the unconnected</p> <p>2.5.6 Any other relevant aspects that will ensure the increase in broadband penetration, speed and capacity</p> <p>=5</p>	
<p>Qualification and Experience of Employed Personnel.</p>	<p>3. The bidder's proposed personnel resource(s) should have degrees or equivalent in Engineering, Telecommunications, and Economics, Commerce or any other equivalent degree relevant to this assignment, from a recognized Institution. The bidder's proposed resource should have Engineering and ICT knowledge and demonstrate practical experience and understanding of the Information and Communication Technologies (ICT) with a strategic focus on developments around frequency planning frequency migration and or re-farming processes and Spectrum Planning, preferably at national and International Level.</p> <p>Evaluation criteria:</p> <p>3.1 Key project personnel have no experience/provided no response on experience = 1</p> <p>3.2 The bidder's proposed personnel resource has technical knowledge and demonstrate practical experience in frequency migration planning processes and the development of strategies on the implementation of</p>	<p>15</p>

	<p>migration of services and an understanding of the rollout of new technologies as it relates to spectrum.</p> <p>= 2</p> <p>3.3 The bidder’s proposed personnel resource has technical knowledge and demonstrate practical experience in frequency migration planning processes and the development of strategies on the implementation of migration of services and an understanding of the rollout of new technologies as it relates to spectrum. = 3</p> <p>3.4 The bidder’s proposed personnel resource should have technical knowledge and with ten (10) years’ experience in frequency migration planning processes and the development of strategies on the implementation of migration of services and an understanding of the rollout of new and emerging Information and Communications Technologies as it relates to spectrum.</p> <p>=4</p> <p>3.5 The bidder’s proposed resource should have technical knowledge and fifteen (15) years’ experience in frequency migration planning processes and the development of strategies on the implementation of migration of services and an understanding of the rollout of new technologies as it relates to spectrum. =5</p>	
Experience	4. The bidder should have at least ten (10) years’ experience in developing Radio Frequency Spectrum Plans, frequency migrations plans and/or planning related to the entire frequency	30

spectrum band plans with insight on new emerging technologies and standards having participated in these developments and be able to prepare appropriate documentation and reports to the satisfaction of the project team. Demonstrable experience of **minimum ten (10) years** or more experience in successfully delivering a project of similar nature is key. At least five (5) contactable references should be provided, with testimonials/reference letters attached.

Evaluation criteria:

- 4.1 Bidder has no experience/provided no response on experience and less than three (3) contactable references = **1**
- 4.2** Bidder has less than five (5) years' experience in successfully delivering a project of similar nature, namely the development of National Radio Frequency Plans, Radio Frequency Migration Plans, IMT Roadmap and Radio Frequency Spectrum Assignment Bands or similar Band Planning project undertakings and provided less than three (3) contactable references = **2**
- 4.3 The bidder has ten (10) years' experience in successfully delivering a project of similar nature, namely the development of National Radio Frequency Plans, Radio Frequency Migration Plan, IMT Roadmap and Radio Frequency Spectrum Assignment Bands or similar Band Planning project undertakings Radio Frequency Spectrum Assignment Plans and provided five (5) contactable references. = **3**

	<p>4.4 Bidder has fifteen (15) years' experience in successfully delivering a project of similar nature, namely the development of NRFP, radio frequency migration plan, IMT Roadmap and Radio Frequency Spectrum Assignment Bands or similar Band Planning project undertakings and provided six (6) contactable references. =4</p> <p>4.5 Bidder has twenty years (20) years' experience or more in successfully delivering a project of similar nature, namely the development of National Radio Frequency Plans, Radio Frequency Migration Plan, IMT Roadmap and Radio Frequency Spectrum Assignment Bands or similar Band Planning project undertakings and provided seven (7) contactable references. =5</p>	
TOTAL FOR FUNCTIONALITY PRE-QUALIFICATION CRITERIA		100