

Document Identifier	240-72663051	Rev	1
Effective Date	October 2022		
Review Date	October 2027		
EOI/RFI Number	MWP2515CX		

PART A REQUEST FOR INFORMATION (RFI)				
Description of the works/goods/services Request for information to determine market offerings and available capabilities for Enterprise Geographical Information Systems				
Deadline for submission	mission 17 May 2024 At (South African Standard Time)			
Tender Office address	Eskom Megawatt Park Tender Office Northside No 1 Maxwell Drive Sunninghill			

Eskom Holdings SOC Ltd ("Eskom") invites you to submit a:

Request for information (RFI) to submit information for the works/goods/services as stated in
the above table. This RFI is a stand-alone information-gathering and market-testing exercise,
intended only to inform and assist Eskom's further deliberation and development of a strategy for
the Enterprise Geographical Information Systems. Eskom may request indicative prices if so
stated in this RFI.

Eskom has delegated the responsibility for this **RFI** to the signatory of this document, whose details can be found below.

We look forward to receipt of	your response.

Yours faithfully

PN Motlana
Nnosi Motlana

Procurement Manager

Date: ____19 April 2024

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PART B RESPONSE SHEET IN TERMS OF A REQUEST FOR INFORMATION To be completed by the supplier				
То	Eskom Holdings SOC Ltd	Date		
Attention				
Tel no		Fax no and /or e-mail address		
From		Address		
Address				
Sender				
Description of the works/goods/services				

Please find below our response to Eskom's questions:

No.	Question	Please indicate your response in this column
1.	Your contact name and contact details	
2.	Company registration number	
3.	Brief description of previous experience and Description of the solution that you can offer	
4.	Indicative prices (optional and only for use of RFI's)	
5.	Add applicable questions.	

Yours faithfully

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Name	Designation	Signature	Date
Telephone number		Fax and/or e-mail	
		address	

PART C			
PARIC			

· High level background

- The Eskom business requires an enterprise-wide geo-enabled spatial viewing and analysis solution(s) to improve and support its business processes and information. Several business processes need to be supported with the relevant desktop GIS, web map and enterprise GIS platform/ portal functionality required by their unique business requirements according to their process definitions.
- A project started in approximately 2012 to implement an enterprise GIS solution. There were
 three software technology contracts in place to build the data, web and application tiered
 environment. Unfortunately, some of the software licensing contracts could not be renewed
 after 2018, with disastrous consequences for the Eskom GIS environment. Since 2019 selective
 FOSS4G/ OsGeo open-source products have been used to meet some desktop GIS and webGIS requirements.
- It is important to note that in Eskom two types of GIS software technology stacks and use cases are recognised traditional Geographical Information Systems (GIS) and Network Information Systems (NIS) (also known as Utility GIS solutions). The focus in this Request for Information commercial document is on obtaining estimated costs and the latest GIS trends to be considered when replacing GIS software for a variety of requirements in the traditional Geographical Information Systems (GIS) environment, which must support a modern utility of the future. This includes amongst others, generic vector and raster desktop GIS software, enterprise GeoPortal platform software and specialised tools to process imagery, as well as embedded 4IR capabilities in the product suite(s).

Scope of work/Business requirements

Business requirements:

 The business requires quick and easy access to GIS viewing and analysis applications, with data that is integrated, applications that are standardised and a common

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centralised hardware platform which will make maintenance thereof more effective. At the end all GIS users who need to see spatially referenced data should have access to a common viewer, share and analyse spatial data, including the business spatial data, to prevent copying and exchanging data on hard drives and via emails, instead of accessing the data via centrally maintained and published GIS web services.

- The Eskom Spatial Viewer will establish an organisation wide capability to provide view
 access to all Eskom assets and data where applicable, all available geographical data
 describing the environment and its physical topography we operate in and provide
 viewing, interaction and analysis capabilities suitable to the various user communities.
- Desktop users require a software package that provides them with tools that will enable them to load, analyse and run spatial queries and image processing capabilities. The software suite must be able to handle big data analysis, available in the business in all formats i.e. Vector, Raster and LiDAR, generate reports and be able to handle multiple GIS and CAD file formats.
- Part of the business need is to address the current demand process that does not cater
 for agile requirements especially the small applications that are ring-fenced around
 GIS to address a specific business need, may it be visualisation or analytical
 requirements. There is thus an urgent need to provide a self-service capability for
 business users to configure small and simple GIS web applications and maps
 themselves.
- The solution will need to accommodate business separation which will require either physical or logical separation of the products across different Eskom divisions.

Business Objectives

- The objective of an Enterprise GIS Portal and Platform is to provide the enterprise with a spatial viewing, analysis and web solution to address various identified business requirements. The Enterprise GIS capability will be used as a building block for geospatial applications
- Provide or build a common framework at the web level so that business applications can be created using the framework and to provide re-usable geospatial information to other business solutions with a GIS component
- Consolidating currently fragmented web-GIS silos onto a common platform
- Replacing outdated GIS technology with suitable GIS technology(ies) for the 4IR era
- Introducing a GIS platform and portal with strong self-serving capabilities
- Centralising infrastructure to be maintained (resources and cost savings)
- Disseminate spatial data throughout the business (APIs and Service oriented architecture)
- Implementation of mechanisms for discovering available geospatial data for planning and decision-making

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- Establish interoperability for geospatial data to support and promote access of updated and current geospatial data for all desktop and system applications used in the business
- Integration of asset/ network data visualisation with the line-of-business systems
- Ability to adhere to geospatial data management standards for geospatial data generated and used across the Eskom Business
- Generate geospatial based reports as required and specified by the Eskom Business
- To provide GIS practitioners with the required desktop tools for the GIS data capture, maintenance and data exploration needs to address business needs, and for desktop spatial analysis as part of existing business processes for ad hoc requirements.

RFI Questions

- Please refer to Annexure A for questions. There are various tabs representing different groups of stakeholders:
 - Transmission GIS CoE (Centre of Excellence)
 - Distribution GIS CoE
 - Training
 - Support
 - Architecture (one of the questions refer to Annexure B)
 - o Security
 - Project Management

RFI Architecture Context and Questions

- The world of GIS is changing rapidly. It is no longer a silo territory for a specialised few. Multiple business software and technologies being offered today comprise some form of geospatial capability(ies) and requirements, such as the need for backdrop map and imagery services to be displayed in embedded dashboards, as one example. Even analytical tools such as SAS and Power BI have started to incorporate data analytics in a map visual context. The Fourth Industrial Revolution (4IR) is adding waves of disruption accelerated digitilisation, new capabilities such as Artificial Intelligence and Machine Learning, with different worlds and disciplines being fused together.
- The Enterprise Architecture vision is to establish an open ecosystem and geospatial environment for Eskom Holdings (all divisions and subsidiaries), based on the latest best practices and standards, promoting interoperability and supporting a smart utility and modernised organisation. See Figure 1 below.

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Achieving an interoperable ecosystem between various platforms with different geospatial and analytical capabilities

Enterprise Architecture Vision: Potential Target Logical Model

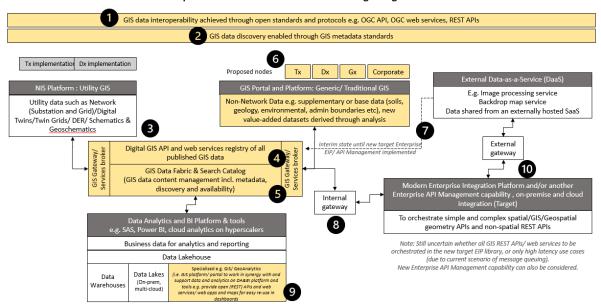


Figure 1: Enterprise Architecture Vision

- Based on the business requirements, and considering IT and Enterprise Architecture principles, latest technology trends, and top management decisions, the Enterprise Architecture interpretation of the GIS project scope is illustrated in Figure 2 further below:
- Old Desktop GIS tools need to be replaced for GIS super users and end users
- The old ESVA GIS platform and generic viewer need to be replaced
 - Rebuilding/updating all system tiers data, web/ business logic and application/ user interfaces.
 - Optimising infrastructure and data cost and effort e.g. centralised common web services and GIS APIs required throughout Eskom Holdings, while accommodating different subsidiaries, in addition to various corporate functions
 - Re-using available GIS services from external sources e.g. backdrop vector and imagery maps
 - Self-serving capabilities for business end and super users
 - Migration of silo web-GIS apps built with FOSS and FOSS4G technologies
 - Configuration and building of web-GIS apps, which business cannot do or do not want to do themselves
 - Working together/ supporting and creating synergy with enterprise mechanisms such as data gateways, Enterprise Integration and API Management capabilities
 - Supporting and creating synergy with the Data Analytics and Business Intelligence environment and tools
 - Supporting and creating synergy with the Network Information System (Utility GIS) platform

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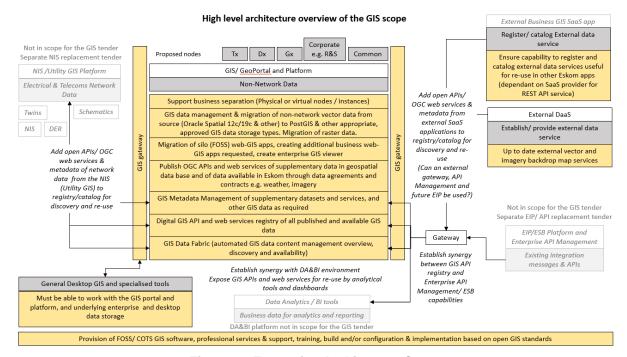


Figure 2 : Enterprise Architecture Scope

- New GIS software must support a modern, agile enterprise organisation and utility, with embedded 4IR technologies and strong business and user self-service capabilities.
- Embracing best practice architecture approaches for designs to ensure security, agility, portability across hyperscaler platforms, automation etc
- Ensuring not only technology is addressed, but also identifying and filling gaps for business and IT processes, documentation, skills transfer, and long-term support (licenses and professional services).
- Should the geoportal and platform be delivered as Software-as-a-Service (SaaS), the SaaS solution must be deployed as a secure, (virtual) private cloud (VPC) within the borders of South Africa (data sovereignty), in a world class data centre such as Teraco, providing secure, flexible network connections to a wide range of local and global cloud service providers or an approved Eskom hyperscaler, such as the Eskom Azure VPC. Application processing and data storage must be done on servers that are exclusively dedicated for the use of Eskom, its subsidiaries and users, e.g. a SaaS instance that is not shared with a non-Eskom entity.
- Please provide an indication of the hardware specifications required for both the desktop GIS tools, as well as a typical enterprise geoportal and platform.
- Questions regarding how service providers' GIS/ geospatial product offerings could support the architecture vision and scope, can be found in Annexure A (Architecture

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tab) and the PowerPoint slide (Annexure B – can be edited according to the submitted proposal).

Training/Transfer of skills:

- Training must be all inclusive, e.g. laptops must be provided in classroom training.
- What type of training do you provide? E.g. Formal classroom-based, self-paced online training, product related training, GIS user or IT support related roles etc.
- Please attach training brochures and/or provide links to relevant websites.
- Include costing estimates for the different types of training.
- It is envisaged that 200 desktop GIS superusers need to be trained, and 800 end users / web users.

Service Level Agreement requirements

- Supply options for Service Level Agreements, indicate severity categories, and lead times as part of your proposal.
- Example: The business requires 24*7 monitoring of the environment; MTTR (Mean time to resolve) of 4 hours, etc. (Liaise with Service Performance Management department for assistance)

Indicative Cost

Supplier to provide an indicative pricing.

Submission Guidelines

• To ensure the receipt of communication with regard to this request for information process, kindly complete Appendix A – Acknowledgement Form and return it by email as indicated on the form within 3 days of receiving this Invitation.

Method of Delivery

• The RFI submissions must be sealed and delivered at the Tender Office Box located at the following address:

Eskom Holdings SOC Limited, Megawatt Park, North side 1 Maxwell Drive, Sunninghill Johannesburg, 2000

All submission responses must be clearly marked as follows:

- Offer Confidential Enquiry Reference no: MWP2515CX.
- Closing date: 17 May 2024
- Closing time: 10h00 AM South African Standard Time.

NB: PLEASE NOTE: THE TENDER BOX WILL ONLY BE AVAILABLE FROM 6:00 TO 18:00 (MONDAY TO FRIDAY)

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Handling of Correspondence and Documents

The submission may not be addressed to any Eskom Holdings employee, nor may any Eskom employee deposit a tender in the tender box on behalf of a respondent, except one lodged by courier.

Eskom Holdings does not take responsibility for tenders delivered to any other site than the Tender Office as specified in the above. Any tender which is not delivered as above will be deemed a late tender.

You are urged to ensure that all issues in your submission are sufficiently clear and all documentation completed and incorporated in your submission at the time of submission. Non-adherence to this will prejudice and may disqualify your offer from further consideration.

Your RFI submission should have a thorough index and reference all documentation submitted. RFI documentation should be neatly filed / bound.

Format of Submission

EACH RFI SHALL BE SUPPLIED IN PRINTED AND IN ELECTRONIC FORMAT. ALL PRINTED AND ELECTRONIC COPIES OF EACH SUBMISSION SHALL BE IDENTICAL TO THE ORIGINAL SUBMISSION IDENTIFIED AS FOLLOWS:

- 1 x Original RFI
- 1 x Copy RFI and
- 1 x Copy RFI ELECTRONIC COPY (USB)

Queries and Questions

No questions, during the RFI period will be answered telephonically.

Questions must be submitted in writing via e-mail to:

Attention: Tlou Mashalane E-mail Mashalst@eskom.co.za

Clarification Meeting

A non-compulsory clarification meeting with representatives of the *Employer* will take place as follows:

Date: **26 April 2024** Time: **10h00 – 11h00**

A non-compulsory clarification meeting will be held via MS Teams communication medium.

The link for the clarification meeting will be sent via e-mail on or before 25 April 2024 at 16:00.

Request for Information as Follows:

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Request for information is required to determine Enterprise Geographical Information System (eGIS) options available in the market as well as associated estimated timelines and indicative costs for acquiring and implementing the solution.

Clarification of questions and queries is **3 working days** before the deadline of the submission.

Requirements of your Submission

This submission will not be considered unless it is -

Received on or before the time and date as indicated

Sealed and signed by person(s) duly authorised to act on behalf of your company Received in full

Eskom reserves the right to cancel this RFI process at any time prior to entering into any contract that may result from this process and will not accept or incur any liability for such cancellation.

Eskom is not bound to accept any of the submissions, nor give reasons for any decisions in this respect.

The Information provided below may be used when going out on enquiry for a request for proposal or a quotation.

Important Notes

- Please note that this enquiry is not a Request for Quotation/Proposal but a Request for Information only and therefore non-committal and does not constitute a guarantee of business, or an agreement to negotiate a binding agreement.
- Due to the specific need that this RFI process has to fulfil, Eskom wishes to clarify that this invitation is not intended to impede, amend or replace any current or future procurement process that Eskom has engaged in or will engage in.
- This RFI is a stand-alone information-gathering and market-testing exercise, intended only to inform and assist Eskom's further decisions. No respondent, through submission of information will gain any right to participate in any future process, and participates herein on the basis that it is providing information voluntarily to strengthen a potentially beneficial process for all stakeholders. In addition, no participant shall be prevented or excluded from participation in the bidding process due to submission of information in response to this RFI.
- Any information provided pursuant to this RFI process and any subsequent processes and/or engagement is not confidential but Eskom will use the information only in the course of its process for a strategy for Customer Information and Billing Replacement.

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- Through making a submission, a respondent accepts the terms and conditions which govern this process.
- All participants responding to this RFI process need to ensure that they have received all information and remain solely responsible for satisfying themselves as to the information required in responding hereto and are fully responsible for all costs incurred in relation hereto and under no circumstances will any resultant cost be borne by Eskom.
- Eskom reserves the right not to proceed with any further engagements on the requirements presented.
- Please complete the attached Acknowledgement Form and return it by email as indicated on the form within 3 days of receiving this Invitation.

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APPENDIX A: RETURNABLE ACKNOWLEDGEMENT FORM

TO:	ESKOM HOLDINGS SOC LIMITED's Representative	FROM:	
Attention:	Tlou Mashalane	Sender:	
Contact No:	011 800 4854	Contact No:	
e-mail:	Mashalst@eskom.co.za	E-mail address:	

RFI reference number: Confirmations of respondents to participate in a Request for Information

We are in receipt of Eskom Holdings SOC Limited request for information dated.....

We confirm the following (please mark the appropriate response):

No	Statement	Yes	No	Comments
1.	We are interested in submitting a response in terms of Eskom's RFI process requirements			
2.	We have noted the deadline for the RFI submission			
3.	We intend to submit the information in the name of the organisation stated above			
4.	We would like to receive all further information and correspondence at our email address as above			
5.	We have read and understood all the "important notes" under point 9 above.			

Yours faithfully	
For the respondent	

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