Petroleum Agency SA

EXPLORE SOUTH AFRICA

DESCRIPTION:

REQUEST FOR INFORMATION FOR AN ALTERNATIVE DATA STORAGE SOLUTION FOR PETROLEUM AGENCY SA.

RFI REFERENCE NUMBER: **PASA-RFI-2024-01**

ISSUED DATE: **12 SEPTEMBER 2023**

CLOSING DATE OF THE RFI: **13 OCTOBER 2023 AT 12:00 PM.**

ELECTRONIC SUBMISSIONS: tender@petroleumagencysa.com

ADDRESS: PETROLEUM AGENCY SA
FIRST FLOOR HERONS PLACE
HERON CLOSE
CENTURY CITY
7441

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SECTION I: REQUEST FOR INFORMATION

RFI Name: Request for information for an alternative data storage solution for Petroleum Agency

RFI Reference: **PASA-RFI-2024-01**

1. Petroleum Agency SA is inviting service providers to submit **information on an alternative data storage solution.**

2. The RFI information is available at no cost, interested service providers can download the tender from the website www.petroleumagencysa.com , SCNET and National Treasury e-Tender portal.

3. No briefing session.

4. The closing date for submissions is **13 October 2023 at 12:00 pm.**

   Information can be submitted electronically to **tender@petroleumagencysa.com**

5. There will be no public opening of bids. Feedback will be provided by e-mail to the respective bidders.

6. All communications relating to this RFI must be directed to procurement office: tender@petroleumagencysa.com email address only.

7. This RFI is an invitation for bidder(s) to submit information for the provision of the services as set out in the requirements contained herein. Accordingly, this RFI must not be construed, interpreted, or relied upon, whether expressly or implicitly, as an offer capable of acceptance by any person(s), or as creating any form of contractual, promissory or other rights. No binding contract or other understanding for the supply of services will exist between PETROLEUM AGENCY SA and any Respondents.

SECTION II: REQUIREMENTS

REQUEST FOR INFORMATION (RFI) ON AN ALTERNATIVE DATA STORAGE SOLUTION

1 INTRODUCTION

The “South African Agency for Promotion of Petroleum Exploration and Exploitation (SOC) Limited” known as “Petroleum Agency SA” is the designated agency in terms of section 70 of the Minerals and Petroleum Resources Development Act, (Act 28 of 2002). Petroleum Agency SA promotes onshore and offshore petroleum exploration for production, and optimal development thereof on behalf of the Government of the Republic of South Africa.

Petroleum Agency SA (the Agency) also regulates exploration and production activities and acts as the custodian of the national petroleum exploration and production database. Also, when the need arises, Petroleum Agency SA carries out strategic research projects to advise the ministries of minerals and energy on matters related to the sustainable development of Oil and Gas in the country. For more information on the company, you can visit our current website: www.petroleumagencysa.com.

Petroleum Agency SA has a staff complement of about 90 people and it operates from its only offices that are based at:

Heron Place
Heron Crescent
Century City
Cape Town
7441

2 BACKGROUND, PURPOSE, AND DELIBERATION

Since its inception, Petroleum Agency SA (PASA) relied on various servers to store data or information generated by the end-users. Since then, the organisation has grown to more than twice when it comes to staff complement and so has the data storage requirements. This resulted in the implementation of a NetApp Storage Area Network (SAN), which centrally houses all the data generated by various systems and end-users.

As the data storage requirements increased, it was noticed that the required upgrades to the NetApp (SAN) and the technology refresh was very expensive.

Additionally, since the Agency acts as the custodian of the national petroleum exploration and production database, there is a lot of seismic data stored on old tape media. Since tape media deteriorate over time, it was decided that all the seismic data on tapes should be transcribed onto disk media, rather than transcribing onto newer tape media, as tapes and tape drives will always be obsolete over time. The transcription project to transcribe from tapes onto disk was started back in 2015 and since then the storage requirements has been growing exponentially because of the seismic data, adding to the already mentioned very expensive NetApp disk purchases.

Since this transcribed seismic data does not change and it is not accessed frequently, it was recommended that an alternative, inexpensive storage option should be explored to save costs on having to continually upgrade the expensive NetApp (SAN). It should be noted that currently, we do not have storage space issues with information or data generated from other business support systems or servers, but only when it comes to seismic data.

PASA is responsible for managing terabytes of seismic data which is at the core of the overall business strategy. Throughout the seismic life cycle, there are various seismic data types that are recorded and processed for subsurface interpretation, and PASA is the custodians of this data.

Petroleum Agency SA is currently evaluating data storage requirements and is seeking information from experienced vendors and suppliers in the industry about Storage Solutions that meet our seismic data requirements. Business and Technical objectives have been listed below to help provide an idea of the information required and what type of solution should be provided.

3 CURRENT ICT INFRASTRUCTURE

- The network is currently setup in a Hybrid Azure Active Directory join
- The organisation is licensed on Microsoft 365 E3 plan for 100 users.
- The email is running on Exchange Online
- All employees are able to work remotely from anywhere.
- The Agency has Servers, Desktops, Workstations, and Laptops that are using the Windows Operating Systems.
- The Agency has a virtualized server environment and all VMs and files shares (CIFS) are stored on a NetApp SAN.
- The Agency's LAN makes use of physical routers and switches, with two VLANs. Servers and high-end workstations are connected to the 10 Gbps ethernet network and the rest of the PCs on a 1 Gbps ethernet network.
- Servers, NetApp SAN, and Tape drives are connected through a fibre channel switch.
- Large amounts of seismic data are stored on the NetApp SAN with a large growth in storage requirements anticipated soon (+/- 500 TB).

4 REQUIREMENTS

Petroleum Agency SA is currently evaluating data storage requirements and is seeking information from experienced vendors and suppliers in the industry about Storage Solutions that meet our seismic data requirements, based on the following business and technical objectives:

A. BUSINESS OBJECTIVES

1. We seek information on a solution that offers a balance between performance and cost, allowing us to optimise our storage investments while meeting our performance requirements.
2. We aim for a storage solution that simplifies management tasks, including provisioning, monitoring, and data protection, to reduce administrative overhead and improve efficiency
3. We are looking for information on a high-end storage solution that can easily scale to accommodate our growing data storage needs, both in terms of capacity and performance
4. Our business demands a highly reliable storage system to ensure uninterrupted access to critical data and applications.
5. The storage solution should seamlessly integrate with our existing IT infrastructure and applications, enabling smooth data flows and minimizing disruptions during implementation.

6. Provide an alternative (low-cost) disk space solution to transcribe all tape media to disk.
7. Improved access to petroleum exploration data as data can be reorganized into a single location, while petroleum exploration data duplication can also be kept to a minimum.
8. Long term cost savings on storage by replacing high-cost tier 1 storage (SAN) system for storing petroleum exploration data, which never changes with a lower cost alternative storage.
9. Provide total cost of ownership which includes ongoing support, maintenance cost and acquisition costs.

B. TECHNICAL OBJECTIVES

1. We require information on a storage solution with low latency to support our demanding workloads, including database systems, virtualized environments, and data-intensive applications.
2. The solution should offer flexible scaling options to accommodate our future storage growth without impacting performance or requiring significant reconfiguration.
3. The solution must have robust data protection mechanisms, including backup, snapshot, and replication capabilities, to ensure the integrity and availability of data in the event of failures or disasters.
4. The storage solution should provide advanced security features, including encryption, access controls, and secure remote management, to safeguard sensitive data.
5. Seamless integration with our existing infrastructure, including servers, networks, and backup systems, is crucial to maintain interoperability and minimize disruptions.
6. We seek a storage solution that supports efficient disaster recovery measures, such as remote replication and rapid data restoration, to minimize downtime and data loss in the event of a disaster.
7. The storage solution should provide a minimum of 1PB of usable storage capacity.
8. The storage network should have a minimum bandwidth of 10 Gbps.
9. Offer deduplication across different data types, without impacting performance or causing data loss.
10. The solution should support both Linux\Unix and Windows environments.
11. The migration of petroleum exploration data from the NetApp storage to the proposed solution

C. ADDITIONAL REQUIREMENTS

We kindly request interested Vendors or Service Providers to provide us with the following information:

1. Company Overview: Briefly describe your organization, including your experience in providing high-end storage solutions.
2. Provide details about your proposed storage solution, highlighting the key features, performance capabilities, scalability options, and compatibility with various environment.
3. Share detailed technical specifications, including storage capacity, IOPS, latency, connectivity options, supported protocols, and data protection mechanisms.
4. Describe your recommended implementation approach, including any necessary hardware, software, or integration requirements.
5. Provide pricing details, licensing models, and any additional costs associated with the storage solution, including maintenance and support.
6. Share examples of successful deployments of your high-end storage solutions in similar environments, highlighting any notable achievements or benefits experienced by your customers.
7. Explain your support and maintenance offerings, including response times, escalation procedures, and available service-level agreements (SLAs).
8. Provide references from customers who have implemented your high-end storage solutions, whom we can contact for further insights.