

Request for proposals (RFP)

The supply, installation, configuration, and deployment of a Long-Term Archival Storage Solution for the CSIR

RFP No. 3489/26/11/2021

Date of Issue	Friday, 29 October 2021					
Compulsory Briefing	Friday, 12 November 2021					
Session	Time: 12:00 -14:00					
	Place: MS Teams: Click here	to join the meeting				
Last date for queries	Friday, 19 November 2021 a	Friday, 19 November 2021 at 16:30				
Closing Date	Friday. 26 November 2021	at 16:30				
Submission of tenders	tender@csir.co.za					
Enquiries	Strategic Procurement Unit	E-mail: <u>tender@csir.co.za</u>				
Closing Time	16h30					
Category	Computer Hardware					

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SECTION A – TECHNICAL INFORMATION

1 INTRODUCTION

The Council for Scientific and Industrial Research (CSIR) is a leading scientific and technology research organisation that develops, localises and diffuses technologies in support of South Africa's reindustrialisation, the development of a capable state and overall socioeconomic prosperity. The organisation has its growth strategy to increase its focus on supporting a competitive South Africa through innovation, as well as to create a balance between its scientific and technological research and development, and its industrial development work.

2 BACKGROUND

The Data Intensive Research Initiative of South Africa (DIRISA) is one of the components of the National Integrated Cyberinfrastructure System (NICIS) established by the CSIR on behalf of the Department of Science and Innovation (the DSI). The Centre for High Performance Computing (CHPC) and the South African National Research Network (SANReN) complements DIRISA through the provision of high-performance computing services and high bandwidth connectivity, respectively. It is the role of NICIS to provide a national infrastructure and services in support of research in South Africa.

The **vision** of DIRISA is to provide a national research data infrastructure and services used by a vibrant ecosystem of data driven research in support of national science and strategic priorities. The value proposition of DIRISA is the enablement of knowledge generation through research data management and data intensive research. A key objective of DIRISA is hence to provide a reliable data infrastructure comprising the hardware, software, and communications networking stack, together with the support services concerned with the development and maintenance of a reliable and robust operational ICT production environment for data management and data intensive research.

3 INVITATION FOR PROPOSAL

Bidders are to note that CSIR prefers open-source software instead of proprietary software. Proposals are hereby invited for the:

- Supply, installation, configuration, and deployment of a Long-Term Digital Archival Storage Solution; and
- Supply of warrantees, firmware upgrades, maintenance, and support; and
- Training that will enable designated employees of CSIR to maintain and support the system immediately after the installation for Level 1 User Support, and incremental to Level 2 and 3 after the supplier's period of support has expired.

- This request for proposal is for Long-Term Archival Storage Solution digital storage hardware – the required computing and networking equipment, and the software to ensure reliability; and resilience.
- The deployed system must be configured and interoperable to be managed by the Integrated Rule-based Data Storage (iRODS) storage virtualisation management system. The Long-Term Archival Storage Solution shall be located at the CSIR Pretoria campus.

4 SCOPE OF RFP

The following is the scope of this RFP:

- 4.1 Hardware and software
- 4.2 Installation and deployment
- 4.3 Support and maintenance
- 4.4 Training

5 TECHNICAL REQUIREMENTS (HARDWARE AND SOFTWARE)

5.1 The proposed system must comply with the minimum performance specifications in the following table:

Performance / Specification	Requirement
Lifespan and archival period	Minimum of 10 years
Minimum number of tape Drives	3
Data integrity checks	Fully supported
System health check	System checks are implemented including software.
Redundancy	Copies of tape can be made.
Monitoring	Operational Monitoring.
Media technology	LTO 9
storage network interface	Dual ethernet 10 Gb
Encryption	Supports 128-bit Encryption
Storage scalability	Double of installed volume
Caching/staging storage	Minimum 50 TB – Usable
Physical Device Footprint	The proposed footprint must be within the following measurements: Width: 3600mm maximum Depth: 1200mm maximum Height: 42U minimum, 47U maximum (See Annexure B for details)
Power consumption	Nominal 4 kW per rack, with 8 kW for two racks. All equipment should have dual hot swappable power supplies.
Network speed	Minimum 10 Gb/s behind firewalls, 25 Gb/s or higher interfaces for devices are preferable for future scalability

Table 1: Minimum performance specifications

- 5.2. The supply of a Long-Term Archival Storage Solution of tape storage hardware, (including e.g., server(s), switch(es), cables), and software systems to manage the supplied storage system. The minimum performance requirements for the system are provided in Paragraph 6 of this RFP. Storage capacity options must be provided for at least 20 PB, 30 PB and 40 PB of storage capacity. (PB throughout this RFP refers to the storage capacity in petabytes).
- 5.3. Two (2) metered PDU's with C13 and C19 outlets are available for the sub-system in Pretoria, including circuit breaker protection, A and B feeds from the same grid supply, as well as cooling.
- 5.4. The storage system must be scalable to double the installed volume in petabytes (PB) in the near future i.e., 3 to 5 years.
- 5.5. Network switches must accommodate expansion of the storage system to double in PB for each system. All the necessary cabling to connect the entire system must be provided by the supplier.
- 5.6. The system must be compatible with the iRODS hosting system at the time of deployment,

6 INSTALLATION AND DEPLOYMENT

- 6.1 The installation, configuration and deployment of hardware shall be performed according to a Deployment Plan specifying the processes and timelines up to hand-over. The deployed system shall comply with the minimum requirements specifications in Section 5 and shall be configured and interoperable to be managed by iRODS. Performance specifications for the system must be provided in the proposal, and acceptance testing results must demonstrate that the performance specifications have been met.
- 6.2 The Deployment Plan must be submitted to the CSIR for review and approval. The deployment of the system must comply with the deliverables and timelines stated in the Deployment Plan.
- 6.3 All hardware and software including operating systems and middleware to be deployed must be specified in the Deployment Plan.
- 6.4 The CSIR will agree to Service Levels and turnaround times with the Successful Bidder.
- 6.5 Testing and validation must be conducted for the entire system and for individual component modules such as systems and nodes. The results of testing and validation must be repeatable and must be a true reflection of performance covering typical, erroneous, and extreme use cases and scenarios. The results of testing and validation must demonstrate that all hardware and software requirements have been met.
- 6.6 Acceptance tests must include tests conducted for a minimum contiguous period of ten (10) days. Over this period, a minimum of 100 files with volumes uniformly distributed over a range from 10 GB to 500 GB must be uploaded to and downloaded from the system.

6.7 Prior to hand-over, reports inclusive of true evidence of compliance as well as comprehensive documentation of system specifications (e.g., versions of software and configuration settings) must be submitted for approval by the CSIR. The CSIR reserves the right to verify all reported results.

7 SUPPORT AND MAINTENANCE

7.1 Support and maintenance and support services options for 5 years and 10 years period which must include any software upgrades. Options must be provided for the Severity Levels in the following table.

Severity Level	Description
1. Critical	The loss of ability to provide continued operational availability of the storage system or an imminent risk of data loss (such as loss of redundancy). A Next Business Day maintenance resolution is required.
2. High	Degraded performance below 80% of expected levels or increased risk of data loss if the cause is left unattended for more than 24 hours. Within Two Business Days maintenance of system availability hardware replacement
3. Medium	Minimal impact on the expected performance of the system with no immediate risk to data loss, and can be resolved within five business days for maintenance of system availability or hardware replacement

7.2 Consultative support and maintenance of the installed system must be provided. The proposal must explicitly provide details of maintenance and support services options (5 years and 10 years) for a negotiable period which must include any software upgrades. Software Management and Licensing renewable support must be provided for negotiable period for all storage capacity options proposed. Support should include licensing and required upgrades for the negotiable period. (See Annexure A of this RFP for details under Support and Maintenance)

7.3 The order in which the bids will be evaluated is as per following preference guided by the available budget. The capacity will be scaled based on affordability:

- 40PB with 10 years maintenance and support
- 40PB with 5 years with maintenance and support
- 30PB with 10 years maintenance and support
- 30PB with 5 years with maintenance and support
- 20PB with 10 years maintenance and support
- 20PB with 5 years with maintenance and support

8 TRAINING

Training must enable designated six (6) employees of CSIR to maintain and support the system immediately after the installation for Level 1 User Support, and incremental to Level 2 and 3 after the supplier's period of support has expired.

9 FUNCTIONAL EVALUATION CRITERIA

The evaluation of the functional and technical detail of a proposal will be based on the following criteria;

A minimum total score of **50** percent (5 points) for any criterion marked as "Critical" must be achieved to qualify for further evaluation.

Annexure A of this RFP provides a detailed scoring sheet for the evaluation of functional criteria).

Proposals with scoring points less than the minimum overall percentage of 60% and less than 50% on any one of the following individual Critical criteria,

namely, Track Record; Technical Solution, and Support & Maintenance as indicated below, will be eliminated from further evaluation.

#	Criterion	Description	Weight (%)
1	Track record (Critical)	The track record of the tenderer; their skills and experience in delivering ICT solutions as requested. Information must include relationships with partner companies providing similar equipment, the supplier history and profile in terms of capacity and capability, information of previous installations with at least two references, and the extent and complexity of such installations.	5
2		The suitability of the proposed installation, deployment schedule, validation, acceptance testing, verification, documentation, and handover procedures for the system. Required, is a plan with a time-lined schedule detailing the milestones, durations, and delivery procedure to be followed from installation to handover.	10
3	Technical solution (Critical)	The performance of the installed system in terms of the stated requirements including but not limited to those in Paragraph 5 above.	50
		 The proposal must explicitly provide details of maintenance and support services options for 5 years and 10 years period which must include licensing and any software upgrades. Options must be provided for the level and turn-around response time (remote/onsite, local, within one or two business days, etc.) based on the following levels of support, given the Severity Levels tabulated in Paragraph 7 above: a) Within Next Business Day maintenance of system availability hardware replacement. b) Within Two Business Days maintenance of system availability hardware replacement. 	20
5	Training	Options for relevant training (i.e., coaching, online courses, tutorial events, etc.) and supporting documentation that will be provided.	15

10 BILL OF MATERIALS:

Proposals are to include a comprehensive Bill of Materials and to provide a complete itemised pricing table as per the example in **Annexure D** of this RFP.

11 ELIMINATION CRITERIA

Proposals will be eliminated under the following conditions:

Procurement-related Elimination Criteria (First round evaluation)

- a. All hand-delivered, posted, or hard copies for this proposal will not be considered. All proposals to be submitted online to E-mail: <u>tender@csir.co.za</u>._Proposals submitted at incorrect e-mail addresses will not be considered.
- b. Proposals submitted without the breakdown costing and NOT in the format presented in Annexure C, for each of the items in the table above, will be eliminated. Part 2 of the proposal must be submitted separately from Part 1 of the proposal.
- c. Submissions after the closing date and time will not be considered.
- d. Failure to attend the **Compulsory** Online Briefing session.

Technical-related Elimination Criteria (Technical evaluation)

- a. Proposed system that is incompatible or not interoperable with iRODS will be eliminated
- b. Any proposal that fails to meet the minimum Technical Requirements as stated in Paragraph 5 of this RFP will be eliminated.
- c. Any proposed solution that exceeds 4 KW Power Consumption per rack will be eliminated.
- Any proposed solution that exceeds 1000 kg/m2 as safety factor, 500 600 kg Maximum Weight per rack will be eliminated.
- e. Any proposed solution that does not comply with the "Physical Device Footprint" as specified in Annexure B above will be eliminated.
- f. Any proposed solution that does not meet with the minimum of 5 years maintenance and support will be eliminated.

12 NATIONAL TREASURY CENTRAL SUPPLIER DATABASE REGISTRATION

Before any negotiations will start with the winning bidder it will be required from the winning bidder to:

- be registered on National Treasury's Central Supplier Database (CSD). Registrations can be completed online at <u>www.csd.gov.za;</u>
- provide the CSIR of their CSD registration number; and
- provide the CSIR with a valid original or certified copy of their B-BBEE certificate. If no certificate can be provided, **no points will be scored** during the evaluation process,

- Provide valid original or certified copy of the B-BBEE Certificate issued by an accredited verification agency and bearing a SANAS logo; **or**
- Valid sworn affidavits made on dti designed templates; or
- dti issued sworn affidavit; or
- CIPC issued B-BBEE certificate.

SECTION B – TERMS AND CONDITIONS

13 SUBMISSION OF PROPOSALS

All proposals must be submitted via e-mail to: E-mail: <u>tender@csir.co.za with RFP</u> Number and the description of the tender

14 TENDER PROGRAMME

The tender program, as currently envisaged, incorporates the following key dates:

- Issue of tender documents: Friday, 29 October 2021
- Compulsory briefing session: Friday, 12 November 2021
 - Time: 12:00 14:00
 - o Place: MS Teams: Click here to join the meeting
- Last date for submission of queries: Friday, 19 November 2021 at 16:30
- Closing submission time: Friday 26 November 2021 at 16:30
- Estimated appointment date of successful tenderer: 30 January 2022
- Estimated contract duration (in months/years): Five or Ten years

15 SUBMISSION OF PROPOSALS

- a. All proposals to be submitted online to **E-mail: <u>tender@csir.co.za</u>**.
- b. Proposals must consist of two parts, each of which is sent separately to tender@csir.co.za and clearly marked:

PART 1: Technical Proposal: RFP No. 3489/26/11/2021

PART 2: Pricing Proposal, B-BBEE and other Mandatory Documentation: **RFP No.** 3489/26/11/2021

- c. Proposals submitted by companies must be signed by a person or persons duly authorised.
- d. The CSIR will award the contract to qualified tenderer(s) whose proposal is determined to be the most advantageous to the CSIR, taking into consideration the technical (functional) solution, price and B-BBEE.

16 DEADLINE FOR SUBMISSION

Proposals shall be submitted at the address mentioned above no later than the closing date of **Friday**, **26 November 2021 at 16:30** during CSIR's business hours. The CSIR business hours are between 08h00 and 16h30.

Where a proposal is not received by the CSIR by the due date and time, it will be regarded as a late tender. Late tenders will not be considered.

17 AWARDING OF TENDERS

- a. Awarding of tenders will be published on the National Treasury e-tender portal.
- b. No regret letters will be sent out.

18 EVALUATION PROCESS

a. Evaluation of proposals

All proposals will be evaluated by an evaluation team for functionality, price and B-BBEE. Based on the results of the evaluation process and upon successful negotiations, the CSIR will approve the awarding of the contract to successful tenderer/s.

A two-phase evaluation process will be followed.

- The first phase includes evaluation of elimination and functionality criteria.
- The second phase includes the evaluation of **price** and **B-BBEE** status.

Pricing proposals will only be considered after functionality phase has been adjudicated and accepted. Only proposals that achieved the specified minimum qualification scores for functionality will be evaluated further using the preference points system.

b. Preference points system

The 80/20 preference point system will be used where 80 points will be dedicated to price and 20 points to B-BBEE status.

19 PRICING PROPOSAL

- a. Pricing proposal must be cross-referenced to the sections in the Technical Proposal. Any options offered must be clearly labelled. Separate pricing must be provided for each option offered to ensure that pricing comparisons are clear and unambiguous.
- b. Price needs to be provided in South African Rand (excl. VAT), with details on price elements that are subject to escalation and Rate of Exchange (ROE) fluctuations clearly indicated.
- c. Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable.
- d. Only firm prices* will be accepted during the tender validity period. Non-firm prices** (including prices subject to rates of exchange variations) will not be considered.

* Firm price is the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise

duty and any other duty, levy, or tax which, in terms of a law or regulation is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract.

- ** Non-firm price is any price other than a "Firm" price.
- e. Payment will be according to the CSIR Payment Terms and Conditions.
- f. The Bidders must provide their latest Audited Annual Financial Statement which together with the consideration of financial risks may be used as objective criteria during the evaluation process.

20 VALIDITY PERIOD OF PROPOSAL

Each **proposal** shall be valid for a minimum period of four (4) months calculated from the closing date.

21 APPOINTMENT OF SERVICE PROVIDER

- a. The contract will be awarded to the tenderer who scores the highest total number of points during the evaluation process, except where the law permits otherwise.
- b. Appointment as a successful service provider shall be subject to the parties agreeing to mutually acceptable contractual terms and conditions. In the event of the parties failing to reach such agreement CSIR reserves the right to appoint an alternative supplier.
- c. Awarding of contracts will be announced on the National Treasury website and no regret letters will be sent to unsuccessful bidders.

22 ENQUIRIES AND CONTACT WITH THE CSIR

- Any enquiry regarding this RFP shall be submitted in writing to CSIR at tender@csir.co.za
 with "RFP No: 3489/26/11/2021– The supply, installation, configuration and
 deployment of a Long-Term Archival Storage Solution for the CSIR" as the subject.
- b. Any other contact with CSIR personnel involved in this tender is not permitted during the RFP process other than as required through existing service arrangements or as requested by the CSIR as part of the RFP process.

23 MEDIUM OF COMMUNICATION

All documentation submitted in response to this RFP must be in English.

24 COST OF PROPOSAL

- a. Tenderers are expected to fully acquaint themselves with the conditions, requirements and specifications of this RFP before submitting proposals.
- b. Each tenderer assumes all risks for resource commitment and expenses, direct or indirect, of proposal preparation and participation throughout the RFP process.
- c. The CSIR is not responsible directly or indirectly for any costs incurred by tenderers.

25 CORRECTNESS OF RESPONSES

- a. The tenderer must confirm satisfaction regarding the correctness and validity of their proposal and that all prices and rates quoted cover all the work/items specified in the RFP.
- b. The prices and rates quoted must cover all obligations under any resulting contract.
- c. The tenderer accepts that any mistakes regarding prices and calculations will be at their own risk.

26 VERIFICATION OF DOCUMENTS

- a. Bidders should check the numbers of the pages to satisfy themselves that none are missing or duplicated. No liability will be accepted by the CSIR in regard to anything arising from the fact that pages are missing or duplicated.
- b. The CSIR requires that all bidders to submit proposals electronically to CSIR at tender@csir.co.za.
- c. Pricing schedule and B-BBEE credentials should be submitted with the proposal, but as a separate document and no such information should be available in the technical proposal.

27 SUB-CONTRACTING

- d. A tenderer will not be awarded points for B-BBEE status level if it is indicated in the tender documents that such a tenderer intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a tenderer qualifies for, unless the intended sub-contractor is an exempted micro enterprise that has the capability and ability to execute the sub-contract.
- e. A tenderer awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an exempted micro enterprise that has the capability and ability to execute the sub-contract.

28 ENGAGEMENT OF CONSULTANTS

The consultants will only be remunerated at the rates:

- a. Determined in the "Guideline for fees", issued by the South African Institute of Chartered Accountants (SAICA); or
- b. Set out in the "Guide on Hourly Fee Rates for Consultants", by the Department of Public Service and Administration (DPSA); or
- c. Prescribed by the body regulating the profession of the consultant.

29 TRAVEL EXPENSES

- a. All travel expenses for the CSIR's account, be it directly via the CSIR's travel agent or indirectly via re-imbursements, must be in line with the CSIR's travel policy. The following will apply:
 - Only economy class tickets will be used.
 - A maximum of R1 400 per night for accommodation, dinner, breakfast and parking will be allowed.
 - No car rentals of more than a Group B will be accommodated.

30 ADDITIONAL TERMS AND CONDITIONS

- a. A tenderer shall not assume that information and/or documents supplied to CSIR, at any time prior to this request, are still available to CSIR, and shall consequently not make any reference to such information document in its response to this request.
- b. Copies of any affiliations, memberships and/or accreditations that support your submission must be included in the tender.
- c. In case of proposal from a joint venture, the following must be submitted together with the proposal:
 - Joint venture Agreement including split of work signed by both parties.
 - The original or certified copy of the B-BBEE certificate of the joint venture.
 - The Tax Clearance Certificate of each joint venture member.
 - Proof of ownership/shareholder certificates/copies; and
 - Company registration certificates.

- d. An omission to disclose material information, a factual inaccuracy, and/or a misrepresentation of fact may result in the disqualification of a tender, or cancellation of any subsequent contract.
- e. Failure to comply with any of the terms and conditions as set out in this document will invalidate the Proposal.

31 CSIR RESERVES THE RIGHT TO

- a. Modify the RFP closing date, the required Goods/Services and request Tenderers to rebid on any such changes.
- b. Verify any information contained in a proposal submitted by Tenderer/s in response to this request for proposal. This would include, but is not limited to, requesting the Tenderers to provide supporting evidence. By submitting a bid, Tenderers hereby irrevocably grant the necessary consent to CSIR to do so.
- c. Request documentary proof regarding any tendering issue.
- d. Give preference to locally manufactured goods.
- e. Appoint one or more service providers, separately or jointly (whether or not they submitted a joint proposal).
- f. Award a contract as a whole or in part at any time after the RFP's closing date.
- g. Cancel or withdraw this RFP as a whole or in part.
- h. Reject any Proposal which does not conform to instructions and specifications which are detailed herein.
- i. Not necessarily accept the lowest priced Proposal or an alternative bid.
- j. Reject all Proposals if it so decides.

32 DISCLAIMER

This RFP is a request for proposals only and not an offer document. Answers to this RFP must not be construed as acceptance of an offer or imply the existence of a contract between the parties. By submission of its proposal, tenderers shall be deemed to have satisfied themselves with and to have accepted all Terms & Conditions of this RFP. The CSIR makes no representation, warranty, assurance, guarantee or endorsements to tenderer concerning the RFP, whether with regard to its accuracy, completeness or otherwise and the CSIR shall have no liability towards the tenderer or any other party in connection therewith.

CSIR urges its clients, prospective suppliers, suppliers and the general public to report any fraud or corruption to The CSIR Ethics Hotline which operates 24 hours a day, 7 days a week, 365 days per year.

33 DECLARATION BY TENDERER

Only tenderers who completed the declaration below will be considered for evaluation.

RFP No: 3489/26/11/2021

I hereby undertake to render services described in the attached tendering documents to CSIR in accordance with the requirements and task directives / proposal specifications stipulated in RFP No. **3489/26/11/2021** at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the CSIR during the validity period indicated and calculated from the closing date of the proposal.

I confirm that I am satisfied with regards to the correctness and validity of my proposal; that the price(s) and rate(s) quoted cover all the services specified in the proposal documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this proposal as the principal liable for the due fulfilment of this proposal.

I declare that I have no participation in any collusive practices with any tenderer or any other person regarding this or any other proposal.

I accept that the CSIR may take appropriate actions, deemed necessary, should there be a conflict of interest or if this declaration proves to be false.

I confirm that I am duly authorised to sign this proposal.

NAME (PRINT)	WIT
CAPACITY	1
SIGNATURE	2
NAME OF FIRM	
DATE	DAT

WIT	WITNESSES						
1.							
2.							
DAT	Έ:						

34 ANNEXURE A - Scoring Sheet for Evaluation of Functional Criteria

Description	Weight	Score				
Track record	5%	0	3	5	8	10
Number Storage Archive Tape Libraries Deployments Completed.	5%	None	Less than 3	3 Deployments	From 3 up to 7 Deployments	8 or more Deployments
Deployment plan	10%				1	1
Level of Detail	5%	Not specified or none	Some major milestones	All major milestones	Major and minor milestones	Gantt chart or similar includes critical paths
Acceptance testing	5%	Not specified or none	Fulfilment of 90% of acceptance testing, with reference to the Business Requirement Specifications	Fulfilment of 100% of acceptance testing with reference to the Business Requirement Specifications	Fulfilment of 105% of acceptance testing with reference to the Business Requirement Specifications	Fulfilment of 110% of acceptance testing with reference to the Business Requirement Specifications
Technical solution	50%					
Lifespan and archival period	7%	Not specified or none	Less than 10 years	Minimum of 10 years	11 - 15 years	More than 15 years
Max Number of Tape drives in solution	5%	Not specified or none	Up to 5	6 to 10	11 to 16	More than 16
Minimum number of tape Drives	2%	Not specified or none	Less than 3	3	4	5

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Support and maintenance	20%					
Caching/staging storage	3%	Not specified or none	Less than 50 TB Usable	50 TB Usable	100 TB Usable	Arbitrary
Storage scalability	5%	Not specified or none	50% of installed volume	Double of installed volume	4x of installed volume	Arbitrary
Encryption	2%	Not specified or none	Supports some Encryption	Supports 128-bit Encryption	Supports 256-bit Encryption	Customizable
storage network interface	2%	N/A	N/A	Dual ethernet 10 Gb	Dual ethernet 25 Gb	N/A
Solution Compactness	3%	More than 5 racks	5 racks	4 racks	3 racks	Less than 3 racks
Media technology	7%	Proprietary formats other than LTO	Prior to LTO 9	N/A	N/A	LTO 9
-	5%	none		Monitoring	Monitoring, Security Monitoring	Monitoring; Security Monitoring and Remote Monitoring
Redundancy Monitoring	3%	Not specified or none Not specified or	N/A N/A	Copies of tape can be made.	Built-in software for data redundancy Operational	N/A Operational
System health check	3%	Not specified or none	N/A	N/A	N/A	System checks are implemented including software.
Data integrity checks	3%	Not specified or none	Some data integrity checks are implemented.	Fully supported	Automated	Customizable

Level of maintenance support: response time	3%	N/A	N/A	Within two business days	N/A	Next Business Day
Locality of hardware spares	3%	Abroad	In SA	In Gauteng	In City (Pretoria)	On site
Guaranteed support renewal costs	7%	Not provided	N/A	Available but not related to SA CPI AND ROE	Available but not related to SA CPI OR ROE	In line with inflation plus ROE
Support renewal period (years) after 5-year maintenance contract	7%	N/A	N/A	Next 5 years after period of support expires	Next 10 years after period of support expires	Longer than 10 years
- · ·						
Training	15%					
Training: Options for training (coaching, online courses, tutorial events, etc.) and supporting documentation that will be provided	15%	Not specified or none	Superficial or irrelevant training (e.g., only documents)	Hands-on training that provides the basics (e.g., use of features) but that can be expanded.	Intermediate training plus maintenance and other aspects	All aspects of maintenance and support with mentoring, coaching, courses, etc.
TOTAL WEIGHTS	100%					

35 ANNEXURE B – Physical Device Footprint

Each Data Center raised floor tile measures 600mm x 600mm. It is imperative that the device footprint will (in respect to the device width) fit onto the Data Center floor tiles to ensure that the overall "Hot / Cold Aisle" cooling would not be compromised, i.e., should the device measure a width of 750mm, a full tile and partial second tile will be utilized.

Accepted device footprint as illustrated on drawings below

Device footprint occupy the entire Width 1200mm (2 tiles) x Depth 1200mm (2 tiles)

	Device Rack 1	Device Rack2	

Device footprint occupy the Width 1200mm (2 tiles fully) x Depth 1000mm (2 tiles partially).

	- Device Rack 1	Device Rack2	

NOT Accepted footprint as illustrated on drawings below

Device footprint occupy the data center floor tile partially

Device Rack 1
Device Rack2

Example: device width 1600mm (3 tiles, partially) x depth 1200mm (2 tiles, fully)

Example: device width 2000mm (4 tiles, partially) x depth 1000mm (2 tiles, partially)

Device R	ack 1	Device Rack 2		

The remainder of the third-floor tile marked in red will create a gap in the equipment aisle causing cooling flow problems

36 Annexure C- SBD1 – FORM 1 (To be completed by Bidder)

INVITATION TO BID YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY) CLOSING DATE: 26/11/2021 CLOSING TIME: 3489/26/11/2021 BID NUMBER: 16:30 DESCRIPTION The supply, installation, configuration, and deployment of a Long-Term Archival Storage Solution for the CSIR BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS) Tender@csir.co.za **BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO TECHNICAL ENQUIRIES MAY BE DIRECTED TO:** Sthembiso Mkhwanazi CONTACT PERSON CONTACT PERSON B Masela **TELEPHONE NUMBER** N/A **TELEPHONE NUMBER** N/A FACSIMILE NUMBER N/A FACSIMILE NUMBER N/A Tender@csir.co.za Tender@csir.co.za E-MAIL ADDRESS E-MAIL ADDRESS SUPPLIER INFORMATION NAME OF BIDDER POSTAL ADDRESS STREET ADDRESS **TELEPHONE NUMBER** CODE NUMBER CELLPHONE NUMBER FACSIMILE NUMBER CODE NUMBER E-MAIL ADDRESS VAT REGISTRATION NUMBER TAX SUPPLIER COMPLIANCE CENTRAL COMPLIANCE STATUS SUPPLIER OR SYSTEM PIN: DATABASE No: MAAA **B-BBEE STATUS LEVEL** TICK APPLICABLE BOX **B-BBEE STATUS LEVEL SWORN** [TICK APPLICABLE BOX] VERIFICATION AFFIDAVIT CERTIFICATE ☐ Yes No No ☐ Yes No No A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE] ARE YOU THE **ARE YOU A FOREIGN** ACCREDITED BASED SUPPLIER FOR REPRESENTATIVE Yes No Yes No THE GOODS /SERVICES IN SOUTH AFRICA /WORKS OFFERED? FOR THE GOODS [IF YES ENCLOSE PROOF] [IF YES, ANSWER PART B:3] /SERVICES

PART A

/WORKS OFFERED?				
QUESTIONNAIRE TO BIDD	ING FOREIGN SUPPLIERS			
IS THE ENTITY A RESIDEN	T OF THE REPUBLIC OF SOUTH AFRICA	(RSA)?	YES NO	
DOES THE ENTITY HAVE A	DES THE ENTITY HAVE A BRANCH IN THE RSA?			
DOES THE ENTITY HAVE A	PERMANENT ESTABLISHMENT IN THE	RSA?	YES NO	
DOES THE ENTITY HAVE A	NY SOURCE OF INCOME IN THE RSA?		YES NO	
IF THE ANSWER IS "NO"	THE RSA FOR ANY FORM OF TAXATION? TO ALL OF THE ABOVE, THEN IT IS NO THE SOUTH AFRICAN REVENUE SERVIO	T A REQUIREMENT TO REGISTER FOR		

	RFP No. 3489/26/11/2021						
The supply of Long-Term Archival Storage facility to the CSIR							
ANNE	ANNEXURE E: Itemized Price Schedule (Must only be in PART 2 of Proposal)						
	Key: Enter values in grey cells only						
		20 PB	30 PB	40 PB			
	Pricing	Option	Option	Option			
4.1.1	Hardware						
	e.g. Tape Drives	R0.00	R0.00	R0.00			
	Servers	R0.00	R0.00	R0.00			
	Networking Equipment	R0.00	R0.00	R0.00			
	Cabling	R0.00	R0.00	R0.00			
	Other hardware	R0.00	R0.00	R0.00			
	etc.	R0.00	R0.00	R0.00			
4.1.2	Deployment / Installation and Configuration						
	e.g. Deployment Plan	R0.00	R0.00	R0.00			
	Installation and configuration	R0.00	R0.00	R0.00			
	Acceptance Testing	R0.00	R0.00	R0.00			
	Other Documentation	R0.00	R0.00	R0.00			
	etc.	R0.00	R0.00	R0.00			
4.1.3	Support and Maintenance	· · · · · · · · · · · · · · · · · · ·					
	e.g. Five (5) Years Support	R0.00	R0.00	R0.00			
	Ten (10) Years Support	R0.00	R0.00	R0.00			
	Guaranteed support renewal cost	R0.00	R0.00	R0.00			
	etc.	R0.00	R0.00	R0.00			
4.1.4	Training and documentation						
	e.g. Training Manuals	R0.00	R0.00	R0.00			
	Actual Training (Online/Physical)	R0.00	R0.00	R0.00			
	Other Training Costs	R0.00	R0.00	R0.00			
	etc.	R0.00	R0.00	R0.00			
Total Z	AR excl. VAT	R0.00	R0.00	R0.00			
VAT @	VAT @15%		R0.00	R0.00			
Nett P	rice: Incl. VAT	R0.00	R0.00	R0.00			

37 ANNEXURE D – Itemized Pricing Table (To be completed by the Bidder)

-----END OF RFP------