Request for Proposals (RFP)

The provision of an OpenStack Integrated Backup Solution to CSIR

RFP No. 1011/01/08/2022

Date of Issue	Monday, 18 July 2022	
Compulsory briefing session	N/A	
Closing Date	Monday, 01 August 2022 at 16:30	
Electronic Submission	Email: tender@csir.co.za If the size of the documents exceed 30MB, send multiple emails. Use the tender number and description as the subject on the email.	
Enquiries	Strategic Procurement Unit	E-mail: tender@csir.co.za
CSIR business hours	08h00 – 16h30	
Category	ICT	

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SECTION A – TECHNICAL INFORMATION

1   INTRODUCTION

The Council for Scientific and Industrial Research (CSIR) is one of the leading scientific research and technology development organisations in Africa. In partnership with national and international research and technology institutions, CSIR undertakes directed and multidisciplinary research and technology innovation that contributes to the improvement of the quality of life of South Africans. The CSIR's main site is in Pretoria while it is represented in other provinces of South Africa through regional offices.

2   BACKGROUND

A key objective of the South African National Integrated Cyberinfrastructure System (NICIS) is to establish and maintain a class leading and relevant cyberinfrastructure that enables and supports computer and data intensive research.

NICIS is mandated to provide ICT services for compute and data intensive research to the national research community. To achieve this contractual deliverable, NICIS must maintain a performance KPI that guarantees 95% operational availability of services.

To meet this requirement and provide our clients with a reliable cloud service a backup solution is required. The envisioned backup service will enable users of Sebowa, the NICIS Cloud service, to seamlessly backup and, if necessary, restore the virtual infrastructure utilised by their project from within OpenStack.

The proposed solution must be compatible with existing NICIS systems. The cloud infrastructure in which the solution must be deployed is the Cape Town zone of Sebowa.

3   INVITATION FOR PROPOSAL

Proposals are hereby invited for the supply of software and services to enable the backup and restoration of OpenStack virtual machines, images, volumes, networks and security groups from within the OpenStack interface. The proposed solution must be compatible with Sebowa's software environment and utilise DIRISA's iRODS storage systems as the backup target. The backup target may be accessed via NFS or iRODS interfaces.

4   PROPOSAL SPECIFICATION

All proposals are to be submitted in a format specified in this enquiry (if applicable). However, tenderers are welcome to submit additional / alternative proposals over and above the originally specified format.

Expected deliverables:
1. Deployment of the solution on existing NICIS infrastructure
2. Licences for the backup of 70 virtual machines
3. Maintenance and support of the solution for 3 years
4. The solution must be able to:
    a. Backup running virtual machines
    b. Backup virtual networks
    c. Backup Security Groups
    d. Backup volumes
    e. Backup images
    f. Backup OpenStack Projects in their entirety (disaster recovery)
    g. Perform full and incremental backups per VM/volume
    h. Apply quotas per project (number of VMs to backup, number of other backups allowed)
    i. Enable users to restore items that they have backed up
    j. Be useable from within OpenStack Horizon
    k. Be accessible via the OpenStack API standard

Sebowa's Specification:
1. OpenStack version: Wallaby
2. OpenStack deployment method: Kayobe
3. OpenStack deployment vendor: StackHPC

DIRISA Storage Services:
1. iRODS version: 4.2.10

5   FUNCTIONAL EVALUATION CRITERIA

5.1 The evaluation of the functional / technical detail of the proposal will be based on the following criteria:

a. **Deployment Services**

The proposed solution must maintain compatibility with a version of OpenStack that was released within several versions of the current version of OpenStack.

b. **Integration with OpenStack**

The proposed solution must include services to integrate the solution with NICIS' existing cloud and storage systems. It is not sufficient to only provide licences.

c. **Items Available for Backup**

The solution must be capable of performing backups of various items that a user may create in OpenStack. The solution must be capable of backing up VMs, volumes, and images to the external storage system provided by NICIS.

d. **Scheduling**

The solution must be capable of performing automated backups via a scheduling system.

e. **Licence Flexibility**

It is anticipated that licences will need to be added from time-to-time to meet NICIS' operation requirements. Solutions that enable the flexible addition of licences are strongly preferred.

f. **Storage Usage**

The solution should make efficient use of storage by providing both incremental and full backup options. To ensure a good compromise between storage efficiency and backup integrity the user should be able to decide for each backup event if it will be a full or incremental backup.

g. **Support Response Time**

The support response time is the time until a human begins working to resolve the reported issue. Automated responses do not count towards the support response time.

h. **Configurability of Quotas**

The solution must provide a mechanism by which either users or projects are given authorisation to consume backup resources licenced in the proposed solution.

i. Ease of Restore Process

It must be possible to restore the items backed up by the solution. A comprehensive and easy restore process is preferred.

j. Storage Compatibility

The NICIS storage system that must be used as a target for the backup can be accessed via NFS, iRODS, or S3 interfaces.

k. System Training

The solution must include training for NICIS staff. The training must cover both the management and use of the solution.

5.2 Proposals with functionality / technical points of less than the pre-determined minimum overall percentage of **70%** and less than **30%** on any of the individual criteria will be eliminated from further evaluation.

5.3 Refer to **Annexure A** for the scoring sheet that will be used to evaluate functionality.

6 ELIMINATION CRITERIA

Proposals will be eliminated under the following conditions:

1. Submission after the deadline;

2. Proposals submitted at incorrect email address;

3. Failure to comply with mandatory requirements specified in the tendering documents;

4. Insufficient licences are provided to backup 70 virtual machines;

5. The licence for the solution is valid for less than three years;

6. Support for the solution is for less than three years.

7. National Treasury Restricted Suppliers

7   NATIONAL TREASURY CENTRAL SUPPLIER DATABASE REGISTRATION

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

1. be registered on National Treasury's Central Supplier Database (CSD). Registrations can be completed online at: www.csd.gov.za;
2. provide the CSIR of their CSD registration number; and
3. provide the CSIR with a valid original or certified copy of the B-BBEE Certificate issued by an accredited verification agency and bearing a SANAS logo; or
4. Valid sworn affidavits made on dti designed templates; or
5. dti issued sworn affidavit; or
6. CIPC issued B-BBEE certificate.

SECTION B – TERMS AND CONDITIONS

8   VENUE FOR PROPOSAL SUBMISSION

All proposals must be submitted at: tender@csir.co.za

The CSIR requires that all tender submissions be submitted electronically to: tender@csir.co.za. Should tender file size exceed 30 MB, tenderers can submit tender in multiple emails. Use the tender number **1011/01/08/2022** and description of the tender as the subject on your email.

9   TENDER PROGRAMME

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

- Issue of tender documents: Monday, 18 July 2022
- Compulsory briefing session   N/A
- Last date for submission of queries: Wednesday, 27 July 2022
- Closing / submission Date: Monday, 01 August 2022 at 16:30

10   SUBMISSION OF PROPOSALS

All proposals must be submitted at: tender@csir.co.za.

All proposals are to be clearly marked with the RFP number under the subject on each e-mail submission.

Proposals must consist of two (2) parts, each of which must be submitted in a separate e-mail clearly marked with the RFP Number and the description of the tender:

10.1   Proposals must consist of two parts clearly marked:

> **PART 1:** Technical Proposal: **RFP No**.: **1011/01/08/2022**
>
> **PART 2:** Pricing Proposal, B-BBEE and other Mandatory Documentation:
> **RFP No.: 1011/01/08/2022**

10.2   Proposals submitted by companies must be signed by a person or persons duly authorised.

10.3 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.

11 DEADLINE FOR SUBMISSION

Proposals shall be submitted at the address mentioned above no later than the closing date of *Monday,* **01 August 2022** 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 stipulated place, it will be regarded as a late tender. Late tenders will not be considered.

12 AWARDING OF TENDERS

12.1 Awarding of tenders will be published on the National Treasury e-tender portal or the CSIR's tender website. No regret letters will be sent out.

13 EVALUATION PROCESS

13.1 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 tenderers.

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.

13.2 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.

14 PRICING PROPOSAL

14.1 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.

14.2 Price needs to be provided in South African Rand (excl. VAT), with details on price elements that are subject to escalation and exchange rate fluctuations clearly indicated.

14.3 Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable.

14.4 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 all prices other than "firm" prices.

14.5 Payment will be according to the CSIR Payment Terms and Conditions.

15 VALIDITY PERIOD OF PROPOSAL

Each **proposal** shall be valid for a minimum period of three (3) months calculated from the closing date.

16 APPOINTMENT OF SERVICE PROVIDER

16.1 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.

16.2 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.

16.3 Awarding of contracts will be announced on the National Treasury website and no regret letters will be sent to unsuccessful bidders.

17 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 1011/01/08/2022** - The provision of an OpenStack Integrated Backup Solution to CSIR" as the subject.

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.

18 MEDIUM OF COMMUNICATION

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

19 COST OF PROPOSAL

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

20 CORRECTNESS OF RESPONSES

20.1 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. The prices and rates quoted must cover all obligations under any resulting contract.

20.2 The tenderer accepts that any mistakes regarding prices and calculations will be at their own risk.

21 VERIFICATION OF DOCUMENTS

21.1 Tenderers 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.

21.2 The CSIR requires that all suppliers submit proposals electronically to CSIR at tender@csir.co.za

21.3 Pricing schedule and B-BBEE credentials should be submitted with the proposal, but as a separate document.

22 SUB-CONTRACTING

22.1 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.

22.2 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.

23 ENGAGEMENT OF CONSULTANTS

The consultants will only be remunerated at the rates:

23.1 Determined in the "Guideline for fees", issued by the South African Institute of Chartered Accountants (SAICA); or

23.2 Set out in the "Guide on Hourly Fee Rates for Consultants", by the Department of Public Service and Administration (DPSA); or

23.3 Prescribed by the body - regulating the profession of the consultant.

24 TRAVEL EXPENSES

24.1 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:

24.1.1 Only economy class tickets will be used.

24.1.2 A maximum of R1 400 per night for accommodation, dinner, breakfast and parking will be allowed.

24.1.3 No car rentals of more than a Group B will be accommodated.

25 ADDITIONAL TERMS AND CONDITIONS

25.1 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.

25.2 Copies of any affiliations, memberships and/or accreditations that support your submission must be included in the tender.

25.3 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.

25.4 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.

25.5 Failure to comply with any of the terms and conditions as set out in this document will invalidate the Proposal.

26 CSIR RESERVES THE RIGHT TO

26.1 Extend the closing date;

26.2 Verify any information contained in a proposal;

26.3 Request documentary proof regarding any tendering issue;

26.4 Give preference to locally manufactured goods;

26.5 Appoint one or more service providers, separately or jointly (whether or not they submitted a joint proposal);

26.6 Award this RFP as a whole or in part;

26.7 Cancel or withdraw this RFP as a whole or in part.

27 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.

28 DECLARATION BY TENDERER

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

RFP No: 1011/01/0708/2022.

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. **1011/01/08/2022** 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) ……………………….

CAPACITY ……………………….

SIGNATURE …………………………

NAME OF FIRM …………………………

DATE   …………………………

WITNESSES
1   ……………………………………
2   ……………………………………
DATE: …………………………..

29 ANNEXURE A FUNCTIONAL EVALUATION CRITERIA

Weight	Functional Criteria	0	3	5	8	10
20%	Deployment Services	Will not maintain compatibility with future releases of OpenStack.	Maintain compatibility with OpenStack three versions behind the latest release.	Maintain compatibility with OpenStack two versions behind the latest release.	Maintain compatibility with OpenStack one version behind the latest release.	Maintain compatibility with the current version of OpenStack.
15%	Integration with OpenStack	No integration		Integrates with NICIS's Sebowa OpenStack cloud.		Integrates with NICIS's Sebowa OpenStack cloud and OpenStack CLI and Horizon.
10%	Items available for backup	Unable to perform backups		Projects with VMs, volumes, and images both individually and as a group.		Projects with VMs, volumes, images, networks, and security groups both individually and as a group.
10%	Scheduling	Not configurable		Configurable, per-project, for each type of item to be backed up, with the number of historical backups to be retained.		Individually configurable for each item to be backed up, with the number of historical backups to be retained.
10%	Licence flexibility	Licenses cannot be added.	A pre-determined number of licenses can be added at pre-determined times, with a pre-determined duration	A pre-determined number of licenses can be added at any time with a pre-determined duration.	Any number of licences can be added at any time for a with a pre-determined duration.	Any number of licences can be added at any time for any duration.
10%	Storage usage	No backups.	Full backup of all items	Full backup of all items with support for compression.	Full or incremental backup with support for compression, where applicable (Images and volumes), set across the deployment.	Full or incremental backup with support for compression, where applicable (Images and volumes), selectable by the user.
5%	Support response time	No support	4 hours	3 hours	2 hours	1 hour
5%	Configurability of quotas	Per-deployment.		Per-project or per-user		Per-user and per-project
5%	Ease of restore process	Items cannot be restored.		Restore all items individually.	Restore all items individually and One-click restore per VM.	Restore all items individually, One-click restore per VM, and One-click restore full projects.
5%	Storage Compatibility	Not compatible with Sebowa and DIRISA storage.	Proprietary	NFS	NFS and iRODS	NFS, iRODS, and S3
5%	System Training	2 pax	4 pax	6 pax	8 pax	10 pax
100%						