

Request for Quotation - Public Cloud

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1 Purpose of this document

The Square Kilometre Array Observatory (SKAO) is launching a Request for Quotation (RFQ). This particular procurement pertains to the provision of public cloud computing resources in support of the SKAO's construction programme. This document will provide Tenderers with specifications of SKAO's requirements, information on the RFQ submission rules, details of how to submit response and the submission deadline.

2 Background

The Square Kilometre Array Observatory (SKAO) is a global collaboration of Member States. The mission of this newly established Inter-Governmental Organisation (IGO) is *"to build and operate cutting-edge radio telescopes to transform our understanding of the Universe and deliver benefits to society through global collaboration and innovation"*.

The headquarters of the SKAO is co-located with the site of the Jodrell Bank Observatory near Manchester in the United Kingdom. See www.skatelescope.org. The SKAO is established as a Inter-Governmental Organisation (IGO) through the signing of a treaty which grants certain privileges and immunities dated 12 March 2019 (the "Convention").

The SKAO will consist of two world-class complementary telescopes, one with an array of mid-frequency dishes and one with an array of low-frequency log-periodic antennas, both operating in the radio part of the electromagnetic spectrum. Each telescope has a large number of receptors (dishes/antennas), receivers, digitisers, data transport, signal processing, and monitoring and control systems:

- SKA MID:


An array of 197 dishes, comprising 64 dishes (currently forming the MeerKAT telescope) and 133 15m diameter dishes, the greatest distance between any two dishes being 150km, located in the Karoo district in the Northern Cape Province of South Africa.

The MID Telescope covers a frequency range of 350 MHz – 15.4 GHz over 5 bands.

- SKA LOW:

An array of 131,072 antennas grouped in 512 stations, the greatest distance between any two antenna stations being 65km, located in Boolardy Station in the Murchison Shire of Western Australia.

The LOW telescope covers a frequency range from 50 MHz – 350 MHz.

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3 Scope/specification Overview

The detailed specification is in the Attachment 1 - Attachment 1 - *SKAO Public Cloud Technical Specifications & Use Cases* - SKAO-TEL-0002432. Please find below an overview of the specification.

The SKAO wishes to put in place contractual arrangements with at least one, and potentially more than one, cloud provider to assist with a number of technical and infrastructural needs in support of the development effort for its HPC software and hardware.

N.B.: Due to the nature of the IGO's rules and regulations, the SKAO has to insist on responses - technical and commercial - based on products and services available in cloud regions that are physically located in a SKA Member Country.

SKAO Member Countries:

United Kingdom

Australia

South Africa

Canada

Netherlands

Portugal

Italy

China


Spain

Switzerland

The SKAO **will not** require a suite of codes to be run with results reported as part of the RFQ response.

An outline of the use cases and technical requirements is as follows:

- SKAO data processing software development teams require frequent quick turnaround cluster builds and teardown for testing at a relatively small scale, CI/CD pipelines etc. Specialist HPC components such as high-end GPUs are not required for such work.
- SKAO codesign teams need access to hardware not otherwise available to them to evaluate potential solutions for the SKAO's Science Data Processor (SDP) systems. Examples might be servers with various ratios of CPU to GPU.
- SKAO codesign and data processing teams need to build sizeable clusters on a frequent basis - estimated at one to two times per month - to carry out scalability

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testing. Such tests will require high bandwidth, low latency interconnects and parallel file systems. Tests are likely to run for a number of hours.

4 Contract

The intention of this procurement is to award a Framework Contract, the Public Cloud Contract to assist testing for the SKAO Software Development. The Framework Contract exact requirements will be flexible as the SKAO project develops and therefore the scope of the works is not guaranteed and will depend on assessment of need by SKAO. Subject to satisfactory technical performance of the initial installations and the development of good, collaborative working relations, further orders may be placed for the latter stages of SKA construction (not exclusive or guaranteed). It is anticipated that the signing of a Framework Contract will guarantee agreed levels of discounts on a set of instances for a set period to potentially cover the remainder of SKA construction.


The Tenderer's contract submission will be subject to detailed examination for acceptability by the SKAO Procurement and Legal teams, including in connection with SKAO's Privileges and Immunities as an International Governmental Organisation (IGO).

Please note that while SKAO is open to any suitable contract form, including the Tenderer's own template or another standardised template, all contracts must incorporate the matters set out below, unless agreed otherwise by SKAO.

5 Procurement Schedule

Phase / task	Start	End
Issue RFQ & returned by	06.08.2024	30.08.2024
RFQ Evaluation and Contractual Discussions	02.09.2024	11.10.2024
Internal SKAO review and approval	14.10.2024	18.10.2024
Contract award	25.10.2024	

6 RFQ responses and Evaluation of Information

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6.1 RFQ Purpose

In the RFQ phase, competitive submissions will be evaluated on a combination of technical factors and price. Tenderers RFQ responses will need to be submitted via the SKAO portal separately for:

- Technical RFQ response.
- Financial RFQ response.

SKAO will analyse and score the RFQ submissions with an identical approach in each case. Ultimately this is intended to lead to a proposed selection which will be reviewed by the SKAO. During this phase, the Tenderer can be requested to provide further information, if required by SKAO. When approved, SKAO can then move to formal contract signatures and official commercial order.

6.2 RFQ Submission - Respondents' Checklist.

The Tenderer should complete their tender submission using the SKAO Kommers Procurement Supplier Portal by the deadline stated in section 5 Procurement Schedule.


The submission via the SKAO Tenderer Portal has to be split into two sections/folders:

1) Non-Financial Technical RFQ response:

- Complete and sign the Attachment 2 - RFQ Response Template.
- Provide details of the technical specifications for all instance types quoted for in the financial response.
- Provide details of how the Tenderer's cloud platform meets the functional and user interface requirements the RFQ includes
- Tenderer's must complete the Attachment 4 - ISMS Procurement Security Checklist 03 document in full.

2) Financial RFQ Response:

- Complete the Attachment 3 -SKAO Public Cloud RFQ Financial Response showing the price in EUR.
- Provide a formal quotation on a company letterhead to accompany the line items in the complete Attachment 3 -SKAO Public Cloud RFQ Financial Response. You can choose your preferred currency for this quotation.
- The aim of this procurement is to let a flexible Framework Contract that has guaranteed pricing for each option proposed for a period of time to be confirmed. Therefore, please attach a copy of the tenderer's standard Cloud Framework Contract or other suitable Cloud Contract Terms and Conditions. The tenderer's contract submission will be subject to detailed examination for acceptability by the SKAO Procurement and legal team. Alternative proposals may be considered i.e. the use of a Purchase Order.

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6.3 Award Criteria

Tenders will only be further evaluated if the above checklist documents have been completed and/or provided to the Client and the Tenderer meets the criteria therein.

6.4 Assessment process

All tenders will be evaluated as follows:

1. Initial Compliance check - Technical and commercial submissions will be assessed separately and must be issued as two separate files
2. The technical proposal will be opened and evaluated against the "Evaluation Criteria (Technical)".
3. A minimum technical quality standard must be achieved
4. Commercial submissions will only be assessed if the tender is technically compliant and passes minimum technical quality standard
5. The commercial proposal will be opened and evaluated.


6.5 Questions and clarifications

All communications and enquiries regarding the RFQ documents can be asked via the SKAO Kommers Supplier Portal.

If you are having issues with the Kommers Portal and have any procurement related questions, these should be addressed to Ryan Leadbetter (Senior Contract Specialist) ryan.leadbetter@skao.int.

6.6 Submission deadline

The *Tenderer* should complete the tender submission using the SKAO Kommers Procurement [Tenderer Portal](#). The submission shall contain the completed documents and information requested below by 30th August 2024.

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7 Attachments


Attachment 1: Cloud Services Technical Specification - SKA-TEL-SKO-0002432

Attachment 2: RFQ Response Template

Attachment 3: SKAO Public Cloud RFQ Financial Response

Attachment 4: ISMS Procurement Security Checklist 03

Attachment 5: ISMS Data Protection Policy - SKAO-GOV-0000061

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