

भारत सरकार
अंतरिक्ष विभाग (अ वि)



GOVERNMENT OF INDIA
DEPARTMENT OF SPACE (DOS)

PURCHASE & STORES

फोन न Ph No / Fax / ईमेल आदेश

PURCHASE ORDER

क्रयदेश / Purchase Order No. HQDR 2022P000880101 | LO

दिनांक / Dated: 23/05/2023

सेवा मे / To

मैसर्स / M/s. CONNECTIVITY IT SOLUTIONS PRIVATE LIMITED

1st Floor, No.1877, Gangothri, 31st Cross, 10th
Main, Banashankari 2nd Stage, Bangalore,
560070, India Fx

विक्रेता कोड / Vendor Code AA5719

महोदय / Dear Sirs,

संदर्भ आपकी निविदा स

Ref : Your tender No. HQ202200008801

हमारी निविदा पृष्ठ सं. 2022P0008801 दिनांक 06/01/2023 के उत्तर में उपर्युक्त संदर्भित निविदा के अनुसार आपके एजेंट द्वारा प्रस्तावित दरो पर, यहाँ पर उद्धृत एव अनुलग्न फॉर्म संलग्न में उद्धृत निबंधन एव शर्तों के अधीन निम्नलिखित की आपूर्ति की व्यवस्था करें।

Please arrange to supply the following at the rates offered by you / your agent vide tender as referred above in response to our Tender Enquiry No 2022P0008801 Dated 06/01/2023 subject to the terms and conditions set out here under and those mentioned in Annexure Form

क्र.सं. S.No	विवरण Description	मात्रा Quantity	इकाई Unit	दर Rate(₹)	राशि Amount(₹)
1	Onsite Support for management of Centralised MCU based VC for 3 years with 2 Resident Engineers (one at ISROHQ, Bangalore and one at VSSC, Trivandrum) 1. SCOPE OF WORK - As per Annexure-I 2 CONTRACT PERIOD - The Contract shall be valid for a period of 3 years from the date of deployment of Resident Engineer at ISRO HQ, Bangalore and VSSC, Trivandrum & extendable for 1 more year based on mutual consent basis. 3 TAX - Tax @18% extra payable Note All Tax invoices issued by Suppliers/ Service Providers on or after July 01, 2017 shall invariably bear their GST registration number (GSTIN) and the applicable GST rates. In the absence of which, the invoices shall not be processed for payment. 4. PAYMENT TERMS - ISRO HQ shall pay the onsite support charges within 30 days of submission of bills on prorata quarterly basis after completion of service at the end of each quarter against certification by the Contact Person duly endorsed by Director, DISM 5. LIQUIDATED DAMAGES - If the Supplier fails to position the Resident Engineer within the time specified in the order or any extension thereof, ISRO HQ shall recover from the Supplier as liquidated damages a sum of one-half of one percent (0 5 percent) (0.5%) of the ordered price for each calendar week of delay The total liquidated damages shall not exceed ten percent (10%) of the order price.	1.000	Lot	8220338 980	8220338 980

इस फॉर्म के साथ प्रेषित रसीद की तत्काल पावती भेजे। यदि आपके द्वारा इस क्रय आदेश की प्राप्ति से सात दिनों के अंदर कोई उत्तर नहीं मिलता है

तो यह माना जाएगा कि यह क्रय आदेश आपके द्वारा स्वीकार किया गया है।

Please acknowledge receipt immediately in the form sent herewith. If no reply is received within seven days from the date of receipt of this order by you, it will be deemed that this order has been accepted by you.

भवदीय / Yours faithfully,

BASAVANNA C S

SR PURS & STORES OFFICER

भारत के राष्ट्रपति के लिए एव उनकी ओर से
For and on behalf of the President of India
(क्रेता The Purchaser)

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अंतरिक्ष विभाग (अ वि)



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6. PERFORMANCE SECURITY. - Within 15 days from the date of issue of the Purchase Order, the Contractor shall execute an irrevocable interest free Performance Security for 3% of the Contract value to ensure due Performance of the Contract The

Performance Security may either be furnished in the form of an Account Payee Demand Draft; or Fixed Deposit Receipt from a Nationalized Bank, or Bank Guarantee from a Nationalized Bank or Online Payment in favour of Sr Accounts Officer, ISRO HQ,

Bengaluru. The Bank Guarantee must be valid for the entire contract period and an additional period of 60 days beyond the date of completion of all contractual obligations of the Contractor. The Bank Guarantee shall be executed on a

Non-judicial stamp paper of appropriate value as per Specimen The Performance Security will not carry any interest and shall be returned after completion of all the obligations of the Contract.

7. FORCE MAJEURE - a. Neither party shall bear responsibility for the complete or partial non-performance of any of his obligations(except for failure to pay any sum which has become due on account of receipt of goods under the provisions of

the present Purchase Order/Contract) if the non-performance results from such force majeure circumstances such as, but not restricted to, flood, fire, earthquake, civil commotion, sabotage, explosion, epidemic, quarantine restriction, strike,

lock-out, freight embargo, acts of the Government either in its sovereign or Contractual capacity, hostility, acts of public enemy and other acts of god as well as war or revolution, military operation, blockade, acts or actions of State

authorities or any other circumstance beyond the control of the parties that have arisen after the conclusion of the present Purchase Order/Contract .b. In such Circumstances, the time stipulated for the performance of an obligation under the

purchase order/Contract may be proportionately extended c. The party for whom it become impossible to meet the obligation under this Contract due to force majeure condition, will notify the other party in writing not later than twenty-one days

from the date of commencement of the un-foreseeable event. Unless otherwise directed by the centre/ unit in writing, the Contractor/supplier shall continue to perform his obligations under the purchase order/Contract as for as is practical and

shall seek all reasonable alternative means for performance not prevented by the force majeure event .d. Any certificate issued by the chamber of commerce or any other competent authority or organization of the respective country shall be

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For and on behalf of the President of India
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sufficient proof of commencement and cessation of the above circumstances e. The force majeure conditions are applicable only to the prime Contractor and purchaser.

8 ARBITRATION - In the event of any dispute/s difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference or claim/s shall be settled amicably by mutual consultations

of the good offices of the respective parties and recognizing their mutual interests attempt to reach absolute satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of

the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the sole arbitrator appointed by the parties by mutual consent in accordance with the rules and procedures of Arbitration and

Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in Bengaluru in the Arbitration and Conciliation Centre-Bengaluru (Domestic and International) as per its rules and regulations. The expenses for the

arbitration shall be shared equally or as may be determined by the arbitrator The considered and written decision of the arbitrator shall be final and binding between the parties. The applicable language for Arbitration shall be English only.

Work under the Contract shall be continued by the Contractor during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the arbitrator unless otherwise directed in writing by the

DEPARTMENT or unless the matter is such that works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.

9 SHORT CLOSING AND TERMINATION - Under the normal circumstances, Termination/Short closing of the contract is not foreseen However, in case of continued non-performance of the contract, ISRO/DOS reserves the right to terminate the contract

wholly or partly by giving written notice of not less than 30 days ISRO/DOS reserves the right to terminate the contract at any time by giving 30 days prior notice without assigning any reasons

10. JURISDICTION - The Courts within the Bangalore City shall have jurisdiction to deal with and decide any matter arising out of proposed contract.

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11. APPLICABLE LAW. - The work order shall be interpreted, construed and governed by the law of India

12. CONTACT PERSON. - Smt. Mamta Dodwani, Sci /Engr., DISM, ISRO HQ (Ph 080-22172157) is the Contact Person for all matter relating to this Order

13. Deployment of L1 Engineer - The L1 Engineer shall be deployed at ISRO HQ, Bangalore & VSSC, Trivandrum within 4 weeks from the date of release of Purchase Order

(In words) (₹ Eighty Two Lakh Twenty Thousand Three Hundred and Thirty Eight point nine eight only)

Total (₹) 8220338.980

सुपुर्दगी पूर्णता दिनांक / Delivery / Completion Date 22/06/2026

सुपुर्दगी निबंधन / Delivery Terms F.O.R., ISRO HQ, Bangalore

सुपुर्दगी स्थल / Delivery Place: ISRO HQ, Bangalore and VSSC, Trivandrum

प्रेषण पोर्ट / Port of Despatch NA

प्रवेश पोर्ट / Port of Entry NA

प्रेषण की विधि / Mode of Despatch On Site

हमारे बैंकर्स / Our Bankers State Bank of India, Dollars Colony Branch, Bangalore

भुगतान निबंधन / Payment Terms AS ABOVE

प्रेषिती / CONSIGNEE

सेवा मे / To

SR PURCHASE & STORES OFFICER

ISRO HQ-STORES

CARE ANTARIKSH BHAVAN NEW BEL

BANGALORE 560094

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Annexure-I (Scope of Work) to PO NO. HQDR 2022P000880101

Subject: Onsite Support for Management of ISRO/DOS Centralised MCU based VC System

Background

ISRO/DOS has Centralised MCU VC system (make – Cisco) with Central infrastructure deployed in load balanced and failover mode in ISRO HQ, Bangalore and VSSC, Trivandrum and 150 VC Endpoints deployed in 40 ISRO/DOS locations within the country are registered to the Central infrastructure. The major components of the Central infrastructure at one location is as follows:

Sl. No.	Server	Virtual Machines	Nos
1	BE 6000	<i>Cisco Unified Communication Manager Express (CUCM)</i> <i>Cisco Expressway Core</i> <i>Cisco Meeting Management (CMM)</i> <i>Cisco Telepresence Management Suite (TMS)</i>	1
2.	CMS 1000	<i>Cisco Meeting Server</i>	4
3.	BE 6000	<i>Cisco Expressway Edge</i>	1

The vendor would be responsible to provide onsite support at ISRO HQ, Bangalore and VSSC, Trivandrum for management for ISRO/DOS Centralised MCU based VC system.

Terms & Conditions

1. Vendor would be responsible to provide onsite support for management of Centralised MCU based VC system.
2. Vendor should deploy qualified Engineer for management of this infrastructure. Vendor to provide undertaking on its letter head about the qualification, experience and certification of the Resident Engineer and Backend Engineer.
3. L1 Resident Engineer to be deployed onsite for a period of 3 years with effect from date, which is not later than 4 weeks from the date of PO.
4. Vendor has to provide Two Onsite L1 Resident Engineer (one at ISRO HQ, Bangalore and one at VSSC, Trivandrum) for the duration of contract period.
5. Resident Engineer should be either
 - a. BE/BTech/MCA or MSc (Computer Science/ Electronics) with minimum 3 years relevant experience in management of Cisco's on-premise Centralised MCU based VC system which includes – CMS, CMM, CUCM, TMS, Expressway,

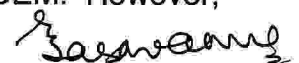

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BE6000/BE7000, IP Phones. He/she should have knowledge on SIP, H323, Cisco VC Endpoints

or

- b Diploma/BCA or BSc (Computer Science/Electronics) with minimum 5 years relevant experience in management of Cisco's on-premise Centralised MCU based VC system which includes – CMS, CMM, CUCM, TMS, Expressway, BE6000/BE7000, IP Phones. He/she should have knowledge on SIP, H323, Cisco VC Endpoints.
6. Resident Engineer should be Cisco Certified (CCNA for Collaboration Services).
7. Resident Engineer to be available six days in a week (Monday to Saturday). In unlikely scenario, Resident Engineer has to extend the support on holidays, if required, if any VC is scheduled within ISRO/DOS or with external agency.
8. Vendor should have CCIE certified Engineer (in Cisco Collaboration services) (hereafter referred to as 'Backend Engineer' of Vendor) on its payroll and should be identified (Backend Engineer may not be dedicated for ISRO) to provide guidance to the Resident Engineer deputed in ISRO HQ, Bangalore, as and when required.
9. The Backend Engineer will have to be available onsite at ISRO HQ, Bangalore for the first 2 weeks of the contract period. In the first 2 weeks, the Backend Engineer will have to understand the current infrastructure and provide guidance to L1 Resident Engineer for management of the Central infrastructure.
10. The Backend Engineer will have to provide onsite support at ISRO HQ, Bangalore for the following:
 - a. During the critical activities like patch management, change management, firmware upgrade, SSL certificate renewal, closing of reported vulnerabilities etc. and
 - b. Also when the Onsite Resident Engineer is unable to resolve the issues.
11. The Backend Engineer has to also visit ISRO HQ Bangalore once in a month and present to ISRO's team identified for management of this system the following a. the status of ongoing issues, b. configuration changes performed, c. software/firmware upgrade performed.
12. OEM/Vendor to note that no remote access over public network will be provided to the Centralised MCU based VC system for troubleshooting and support purpose. For any unresolved issue if the system expert needs access to the hardware, they need to visit ISRO HQ, Bangalore or VSSC, Trivandrum for such access.
13. The vendor has to keep the firmware/software of the all servers and VC Endpoints updated with latest announced stable patches/version by the OEM. However,



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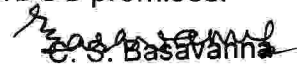
security related patches need to be applied within two working days All patches shall be applied with prior approval and intimation to ISRO focal point

14. Any change required in the configuration/implementation/topology shall be presented to ISRO's team identified for management of this system and should be carried out after approval from ISRO
15. Any change in configuration/implementation/topology shall be documented. The documentation would be reviewed by ISRO and vendor has to submit the final document after incorporating the changes provided by ISRO within two weeks. These documents shall have proper version number and ID.
16. The vendor has to submit quarterly report on compliance to patch/firmware management of servers and VC Endpoints. Format of report would be finalised based on mutual consent.
17. The vendor has to maintain proper documentation having a. correct and latest information on the complete network architecture of the system, b. network architecture of servers deployed in ISRO HQ, Bangalore and VSSC, Trivandrum, c. inventory database of the all components deployed in ISRO/DOS locations as part of Centralised MCU based VC system, d. incident register along with their resolutions etc. at a central location throughout the contract period.
 - a. Such documentation in the format prescribed by ISRO/DOS shall be provided to ISRO/DOS on regular basis and/or on demand. The vendor has to maintain and keep updating the document as and when changes are made (as mentioned in Sl. No. 14 above) during the contract period.
18. The acceptable resolution time for any reported issue should be 48 hours (T1) for critical issues. Following scenarios would be considered as critical issues:
 - a. It is reported that VC Endpoints registered to this system and WebRTC sessions from atleast 3 ISRO/DOS Centres/Units are not able to join meetings hosted on this system or to meetings hosted in public network.
 - b. It is reported that more than 3 External VC Endpoints and/or external WebRTC sessions are not getting connected.
 - c. One of the server of Central infrastructure deployed in ISRO HQ, Bangalore or VSSC, Trivandrum has failed (it includes hardware failure and software failure).
19. The following shall be excluded from fault duration in the above mentioned critical issues:



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- a. The period in which ISRO's premises is found closed or no staff is available when vendor's staff has to access the system from ISRO HQ, Bangalore or VSSC, Trivandrum.
 - b. Unavailability of service due to power failure at ISRO end.
 - c. Unavailability of service due to ISRO/DOS network at ISRO/DOS locations.
20. Incase of violation of acceptable Resolution time (T1 in hours) as defined in SI No. 18 above, penalty to extend the contract would be applicable as follows:
- Actual Resolution Time (T2 in hours) $T2 \leq T1$: No penalty
 - Actual Resolution Time (T2 in hours) $T2 > T1$: Penalty to extend the contract period by D days where $D = (T2 - T1)$ days (rounded up to next integer number) Each hour downtime would result in one Day extension of the service.
21. The CVs of team members who would be deployed in ISRO HQ, Bangalore and VSSC, Trivandrum and who would provide L1 and L2 resource remote assistance for management of Centralised MCU based system have to be submitted.
22. The vendor, while deploying the resources against the PO should carefully select the resource and ensure that appropriate resource meeting the requirements in-toto is deployed. Any replacements or modifications in any of the team member may be subject to approval of ISRO HQ
23. ISRO HQ shall pay the onsite support charges within 30 days of submission of bills on prorata quarterly basis after completion of service at the end of each quarter against certification by the indenting officer duly endorsed by Director, DISM.
24. This contract will be valid for a period of 3 years from the date of deployment of Resident Engineer at ISRO HQ, Bangalore and VSSC, Trivandrum & extendable for 1 more year based on mutual consent.
25. Exit Management: In the event of expiry of contract term or termination of contract, the Vendor would transfer/share all infrastructure and documents, report and other data necessary for seamless transfer of process to ISRO/New Vendor as directed by ISRO.
26. Non-Disclosure Agreement -NDA
- a. The documents/registers/log books are strictly confidential and the vendor or its employees shall not divulge any information that is made known to them or they have come across, to any person not authorized to receive such information.
 - b. The vendor or its employees shall not take any document/registers/logbooks/devices/tools outside the ISRO/DOS premises.


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- c Non-Disclosure Agreement will be signed with the vendor

Roles & Responsibilities of Onsite Resident Engineer

- 1 Scheduling, monitoring and managing day-to-day VC Sessions organized on this Centralised MCU based VC system.
2. Onsite Resident Engineer would be the point of contact for VC Focal points of ISRO/DOS Centres/Units in case of any issues related to Centralised MCU based VC system.
3. Monitor and manage the Central Infrastructure deployed at ISRO HQ, Bangalore and VSSC, Trivandrum.
4. Remote management of 150 VC Endpoints positioned in 40 ISRO/DOS locations and registered to Centralised MCU based VC system from ISRO HQ, Bangalore and VSSC, Trivandrum. The same applies to additional VC Endpoints which may be procured during the contract period. OEM/Vendor to note that no remote access over public network will be provided to the Centralised MCU based VC system for troubleshooting and support purpose.
5. Submit weekly statistics on the virtual calls hosted on this system and also on registered VC Endpoints that were used to attend public cloud meetings like Webex, BlueJeans etc.
6. Submit a daily checklist after verifying the functioning of all components of Central infrastructure.
7. Perform weekly backup of configurations of all components of Central infrastructure.
8. Resolve issues related to Central infrastructure with the support of OEM by logging calls/ tickets. Resident Engineer has to report and coordinate with the identified Backend Engineer (as mentioned in Sl. No. 8 in Terms and Conditions section) for reported issues. The Backend Engineer has to provide guidance to L1 Resident Engineer and shall also provide onsite support incase Resident Engineer is unable to resolve the issue.
9. Coordinate with VC focalpoints of 40 ISRO/DOS locations via email/telephone and provide support for troubleshooting of any issues related to VC Endpoints and during any critical events like patch management, change management, firmware upgrade, SSL certificate renewal, registration of new VC Endpoints etc.
10. Configuration Changes, updation of SSL certificates and firmware upgrade of below servers:

- Cisco Unified Communication Manager Express (CUCM) – 2 nos.


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ISRO HQ

- *Cisco Meeting Server (CMS)* – 8 nos.
- *Cisco Expressway Pair (Exp C & Exp E)* - 2 nos
- *Cisco Meeting Management (CMM)* – 2 nos.
- *Cisco Telepresence Management Suite (TMS)* - 2 nos

11. Coordinate with Cisco TAC and work along with ISRO team to resolve issues like network connections, configuration of the Central infrastructure etc.
12. Test new features of this platform before releasing it for use by ISRO
13. Provide support remotely for registration and management of new VC Endpoints, as and when they are procured, to the *Cisco Unified Communication Manager Express (CUCM)*.



(C.S. Basavanna)

Sr. Purchase & Stores Officer

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ISRO HQ