



## **INDIAN AIR FORCE**

### **BRIEF AND QUESTIONNAIRE ON MAKE PROJECT NETWORK MANAGEMENT PORT (NMP) FOR EFFICIENT SATCOM BANDWIDTH MANAGEMENT USING MULTIPLE SATELLITES**

1. **Proposal.** At present SATCOM resources are permanently allocated to the user. Most of the SATCOM bandwidth are redundant as it is mostly used as standby to main communication link which could be either dedicated or LoS link. Towards effective utilisation of SATCOM bandwidth, a centralized dynamic bandwidth allocation center i.e., Network Management Port could be created wherein the bandwidth is assigned to needy user as per end user segment capability. It is proposed to indigenously, design, develop and manufacture Network Management Port (NMP) using Multiple Satellite through Indian vendors within the provisions of Make – II procedure of DAP 2020.

2. **Brief.**

(a) Network Management Port should have the complete control over the bandwidth available from all the satellites. Demand prioritization could be done at space port. Main issue in establishing a Network Management Port is to have the commonality factor. The baseband and modulation techniques, protocols and schema will be varying for each user network. Therefore, there is a requirement to convert each of these user equipment standard to a common standard for effective resource allocation through a unified Network Management System (NMS). A common protocol/ standard could be devised by the industry for resource allocation which is independent user network.

(b) Network Management Port will be having multiple antennae aligned with different satellites. Further, unified resource allocation will require integration of all these antennae, which may be at distributed locations via a terrestrial connectivity that could be OFC, at the Network Management Port.

(c) Network Management Port should also possess the capability to monitor the resource available from each satellite. Therefore, monitoring stations are to be installed at Network Management Port through which the unified NMS could understand the details of satellite resources available for utilisation.

3. **Broad Timelines.** Industry may propose the prototype development timeline for the case in their response. Other estimated timelines are as follow:-

(a)	Time period for response from industry	31 Jan 23
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4. **Sponsor Dte.** The contact details of sponsor dte is as follows. The sponsor dte may be contacted between 0930h to 1700h on all working days (Mon to Fri) for any additional information.

Directorate of Ops (Space)  
Room No. 592/B, Air HQ (VB)  
Rafi Marg, New Delhi – 110 106  
Email – [dspace574@iaf.nic.in](mailto:dspace574@iaf.nic.in)  
Tele – (011) 23014729

5. **Format of Response.** Indian vendors (term to include, public limited company, private limited company, partnership firms, limited liability partnership, one person company, sole proprietorship registered as per applicable Indian laws) desirous of participating in the case may submit their proposal along with duly completed questionnaire (as per format placed at **Appendix A**) through letter, fax or email to **sponsoring dte**. Copy of the response may also be forwarded to: -

A copy of all communication should also be addressed to: -

Email: [aero.design@gov.in](mailto:aero.design@gov.in) and [makeind.af@gov.in](mailto:makeind.af@gov.in)

**QUESTIONNAIRE FOR RESPONSE**  
**NETWORK MANAGEMENT PORT (NMP) FOR EFFICIENT SATCOM**  
**BANDWIDTH MANAGEMENT USING MULTIPLE SATELLITES**

1. Whether the company/Association of Persons (AoP) is eligible as per provisions of DAP 2020 (Eligibility of Participation: Indian vendors only).
2. Vendor to provide an assessment of its capability (Financial and Technical)? Provide necessary documentation for verification.
3. Indicate how much Indigenous Content (IC) can be ensured? (Minimum requirement of MoD is 50%).
4. Does the vendor envisage feasibility of future export orders to foreign countries?
5. Please indicate if the proposal would be eligible for Make-II subcategory of Chapter III of DAP 2020?
6. Whether R&D or ToT through foreign collaboration is proposed by the vendor? (Provide indicative information)
7. Provide details of following: -
  - (a) Cost of design and development of equipment.
  - (b) Cost of Procurement of one complete system.
  - (c) Estimated Time period required for design and development of the equipment.
8. Please provide details of resources/capability of the firm to undertake indigenous design, development and testing.
9. Rough Order of Magnitude (ROM) Cost of manufacturing of equipment in India. Indicate Minimum Order Quantities (MOQ), if applicable.
10. Please indicate plan/status for QA qualification and certification of the equipment.
11. Please provide other relevant and applicable details. Indicative of information on parts, assembly, testing, certification, launch etc.