

No.S-11027/1(PLAN)/2012-13-PN
Government of India
Ministry of Home Affairs
Directorate of Coordination
Police Wireless (DCPW)
Block no.9, CGO Complex Lodhi Road, New Delhi-110003

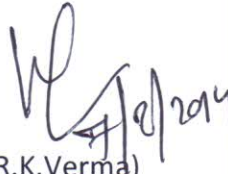
REQUEST FOR INFORMATION (RFI)

Directorate of Coordination Police Wireless (DCPW),MHA requests for information from qualified Original Equipment Manufacturers(OEMs) or their partners , System Integrators(SIs) having adequate experience in installation & commissioning of Satellite based communication Hub & VSAT Networks. Information is required to asses the suitability of Hub technology & VSAT systems for proposed up gradation & augmentation of POLNET Network.

Response to this RFI shall be submitted to undersigned with in **30 days** from the date of publication of this RFI in news papers. Detailed RFI is available on Directorate website www.dcpw.gov.in .

Note: This is not Request for Proposal (RFP)

Date: 7th August 2014
Place: New Delhi


(R.K.Verma)
Dy. Director (MM)

S-11027/1 (PLAN)/2012-13-PN
Government of India
Ministry of Home Affairs
Directorate of Coordination Police Wireless

Block No. 9, CGO Complex,
Lodhi Road, New Delhi-03
Dated: July, 2014

**REQUEST FOR INFORMATION: UPGRADATION & EXPANSION OF
SATELLITE BASED COMMUNICATION NETWORK**

1. Directorate of Coordination Police Wireless (DCPW), MHA requests for information from Original Equipment Manufacturers (OEMs) or their authorized partners/ System Integrators (SIs) having experience in installation and commissioning of satellite HUB and VSATs in order to formulate Request for Proposal (RFP) for **Upgradation and Expansion of Satellite Based Communication Network**. The respondents should furnish all details sought in **Appendix 'A' and Appendix 'B'** to enable this Directorate to assess the following objectives:-
 - a) Assess the technical capability of the systems available with the OEM/ System Integrator.
 - b) Enable short listing the Satellite terminal (HUB & Remotes) and Peripherals required for **Upgradation and Expansion of Satellite Based Communication Network**.
 - c) Enable formulation of technical Qualitative requirements of the systems required and hence RFP.
2. Eligibility criteria of respondents are as under:

OEM / authorized partner of the OEM/ System Integrator having experience in installation and commissioning of Satellite HUB. Documents/Certificates for confirmation for the same, if any, may be enclosed.
3. Respondents may have to give a presentation on proposed equipments and solution.
4. Right to suspend the RFI process or part of the process to accept or reject any or all applications at any stage of the process and/or to modify the process or any part thereof at any time without assigning any reason is reserved with this Directorate without any obligation or liability.
5. This is a Request for information (RFI) and all the responses shall be accepted by this Directorate only on **NO COST AND NO COMMITMENT BASIS**.

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6. Firms are requested to forward their response to the RFI as mentioned in **Appendix 'A'** and **Appendix 'B'**.
7. Vendor may also visit the location of HUB and VSAT site, if required, with the prior permission of Joint Director (C).
8. The response to this RFI may be forwarded through registered post/courier by within *30 days after issue of this RFI* to the under mentioned address:-

Deputy Director (MM)
Directorate of Coordination Police Wireless (DCPW)
Block No. 9, CGO Complex,
Lodhi Road, New Delhi-03
Telephone No-011-24362752
Fax No:-011-24362769

INFORMATION PERFORMA

1	<u>Name of the Vendor/Company/Firm</u> (Company profile, in brief, to be attached) extra sheets may be attached	
2	Type (Tick the relevant category) (a) Original Equipment Manufacturer (OEM) (b) OEM partner (c) System Integrators (having experience in installation and commissioning of satellite HUB and VSATs in Govt. / Defence)	Yes/No Yes/No Yes/No
3	<u>Contact Details of Authorized Official</u> <u>(Postal Address/Mail ID)</u>	
4	<u>Local Branch/Liason Office in Delhi (if any)</u> with the Name of Authorized Official	
5	<u>Financial Details</u> (a) Category of Industry (Large/medium/small scale) (b) Annual Turnover (c) Number of Employees in firm	

6. Satellite Based Communication Networking Experience

Name of the Project	Equipments installed at (Hub & Remote)	Number of terminals at Remote and Hub	Services (Data/Voice/Fax/Video Conferencing/etc)	Total Cost of the project	Year of Completion

7. Certification by Quality Assurance Organisation if any

Name of Agency	Certification	Applicable form (date and year)	Valid till (date and year)

8. Details of Registration with Central/State Govt. Ministries/PSU if any

Agency	Registration No.	Validity (Date)	Equipment

9. The respondents should be able to support in situ repairs at users premises and have support centers in India. Should furnish the information as under:

S.No.	Name	Address	Service Area covered

10. The present satellite based network is to be upgraded and expanded without break-in in service of HUB.(details of such projects handled earlier may be given)

S.No.	Project	Year of Completion

11. **Questionnaire**

- 11.1. Whether the respondent is blacklisted or involved in corrupt and fraudulent practices with any central/state government ministries/ affiliates or PSUs in India during last three years.

(Yes/No)

- 11.2. Whether the firm is capable of providing Spares and maintenance support for minimum ten years from the date of completion of the project.

(Yes/No)

- 11.3. Whether the firm is capable of providing maintenance support including resident engineer at HUB for minimum ten years from the date of completion of the project.

(Yes/No)

- 11.4. Whether the firm is willing to provide annual maintenance support to VSAT terminals installed throughout the country, including remote places.

(Yes/No)

- 11.5. Whether the equipment as listed in Appendix B is tested, certified and from reputed OEMs.

(Yes / No)

- 11.6. The information has been submitted as per Directorate's letter No. S-11027/1(PLAN)/2012-13-PN dated July,2014 on No Cost No Commitment basis.

(Yes / No)

(Signature)

Upgradation And Expansion Of Satellite Based Communication Network

Directorate of Coordination Police Wireless (DCPW), Ministry of Home Affairs is maintaining a Satellite based Communication Network between National Capital Delhi and Inter State Police Wireless Stations (ISPW) at each State/UT capital, State Police Organisations up to District level and locations of CPOs.

DCPW intends to upgrade and augment the Satellite based Communication Network (POLNET) by incorporating DVBS-2 or latest technology for better efficiency and optimal use of spectrum.

Present Setup & Technology:

The Satellite based Communication Network (POLNET) consists of the following:

1. ISBN Network

TDM/TDMA Network supporting 852 VSATs with several In-routes @ 128 Kbps and Out- routes @ 512 Kbps in star configuration for voice, data, messaging and fax supporting TCP/IP protocols. The terminals consists of 1.8/2.4 m antenna and 2W RFT.

2. SCPC Network

SCPC/DAMA Network based on ICC and OCC supporting 93 VSATs for data and Voice channels in mesh configuration. The terminals consists of 3.8 m antenna and 5W RFT along with 20 W Booster.

3. DVB-S Network

TDMA/DVB-S network supporting 128 VSATs through in-routes @ 512 Kbps and out-routes @ 2.5 Msps in star configuration for voice, data, messaging and fax supporting TCP/IP protocols. The terminals consist of 1.8 m antenna and 2 W RFT.

4. Architecture of Network:

HUB consisting of above three Networks is located at Delhi. **Hybrid VSATs** with 3.8 meter Antenna are installed at State Capital Level and selected locations of CPMFs **for Mesh /Star connectivity**. **TDM/TDMA VSATs** with 1.8mt/2.4 mt Antenna are located at 31 Inter State Police Wireless Stations (ISPW) at State/UT capital, State Police Organisations up to District level and locations of CPOs in **Star configuration**.

5. Outdoor Unit with 11 mtr Antenna along with Tracking mechanism , 200 W power amplifier in 1+1 configuration etc.

The Network is operating on C-Band Transponder of 36 MHz Bandwidth.

Required Services

- Messaging services @16 Kbps or better at Serial / LAN Port.
- Mail Server.
- FTP services up to 1Mbps or better
- Voice @16 Kbps or better for 150 concurrent users simultaneously.
- Video conferencing @ 512 Kbps or better at 40 MESH sites simultaneously.
- Video application @ 384 Kbps or better at each STAR configuration site.

General requirements:

- Baseband is required to accommodate initially 1500 VSATs and expandable upto 3000 VSAT terminals.
- Each In-route channel may be configurable from 512 Kbps up to 2 Mbps or more and out-route channel from 2 Msps upto 45 Msps without any change in hardware.
- Up gradation/replacement of TDMA VSAT to a broadband VSAT with suitable RF component for voice/data /messaging and video applications in star configuration.
- Up gradation/replacement of Hybrid VSAT to a broadband VSAT with suitable RF component for voice/data /messaging and video applications in star as well as in mesh configuration.
- Out-bound and in-bound must be configurable with step sizes in few kbps.
- Efficient bandwidth management features including bandwidth-on-demand and committed information rates.
- Industry standard QOS features, configurable at terminal, IP, service and application levels.
- Accessories for video application at HUB and VSAT stations.
- Installation of Servers with suitable customised software for mailing application among all terminals of Network.
- Suitable call manager at HUB with necessary software and hardware. SIP/H.323
- Central Server for management of services viz. Voice, Data and Video.
- Provision of Priority for Real Time Applications.
- The infrastructure for base band of DVBS-2 Technology or latest should be created along with the present ISBN (TDM/TDMA NW, SCPC/DAMA and TDMA/DVB-S Network) since all this technology may co-exist for quite some

time. Proper interface must be ensured for communication amongst VSATs of the above mentioned technologies.

- The link engineering details, erlang analysis with blocking and congestion parameters, protocols and interfaces along with signaling and dialing schemes are required to be specified.
- Upgradation/ replacement of R F Section with suitable High Power Amplifier, LNA, Up converter, Down converter etc
- Refurbishment of existing 11 meters Antenna, wave guide assembly etc.

Communication Software:

- (i) Replacement / Development of Message Communication Software (MCS) having features for transmission of bilingual (Hindi and English) message as well as of attached files, Data and Video on LAN port. It should be user friendly with all the features i.e. inbox, outbox, sent box, various logs etc.
- (ii) Application software should be able to interface with any VHF/UHF/HF Radio Network.

Vendor may submit the DPR to meet the above requirement and may include the following chapters:

- a. Technical Proposal along with the proposed Protocols
- b. Optimised throughput within 36 MHz bandwidth for the required services along with Link Engineering. Maximum number of Video conference channels that can be uplinked in a transponder bandwidth of 36 MHz.
- c. Implementation plan for smooth migration from existing set up to the new set up. Brake in service may be defined.
- d. Probable list of existing hardware that does not require any change.
- e. Probable list of the deliverable equipments.
- f. Plan for Disaster recovery of data of messaging server.
- g. Plan for secure Communication over the Network with proven encryption solutions.

