

**GOVERNMENT OF INDIA**  
**(Ministry of Home Affairs)**  
**Communication & IT Directorate**  
**CENTRAL RESERVE POLICE FORCE**  
**EAST BLOCK-7, SEC-1, R.K. PURAM, NEW DELHI-110066**  
**(Tele/Fax No-011-26109038, Email-Id: comncell@crpf.gov.in)**

No. B.V-7-C/2025-26-C(TLE)-QRC

Dated, the 24 June'2025

**Subject: - REQUEST FOR COMMENTS OF STAKEHOLDERS /OEM/FIRMS ON DRAFT QRS & TDS OF "TACTICAL LINE EXCHANGE" REGARDING.**

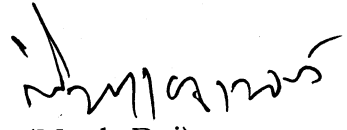
The Draft QRs/TDs of "Tactical Line Exchange" are attached as **Appendix 'A'**. The OEMs/Vendors are requested to forward information of the product, which they can offer and also forward correct specifications of their product against each parameter. Only complied or not complied remarks will not be accepted. The firms are also requested to furnish the following details: -

- Whether you are OEM/Vendor?
- If vendor details of OEM.
- Authorization certificate from OEM.

2. The required information/details may please be forwarded at the following addresses by **09 July'2025**.

Communication Directorate, CRPF  
East Block-7, Sec-1, R.K. Puram, New Delhi-110066  
Email: comncell@crpf.gov.in

3. An early response is requested.

  
(Megh Raj)  
**DIG (Equipment)**  
**Communication & IT Branch**  
**Directorate General, CRPF**

### **Draft QRs/ TDS of Tactical Line Exchange**

Sl No.	Parameters	Specifications	Trial Directive
1	Switch Board Capacity	15 Lines extendable to 100 Lines	BOO will check practically.
2	Ringling Range	Ring to and from Magneto subscriber through line loop resistance of 10 Kilo Ohm	BOO will check practically.
3	Speech Range	Operator to subscriber and vice versa through max loss of 40 db. AF response 300 Hz to 3 KHz	BOO will check practically.
4	Indicator sensitivity	Indicator LED (Light Emitting Diode) should light up when operator through a max. of 10 Kilo Ohms series resistance when connected to a standard magneto hand generator & while Battery operated.	BOO will check practically and physically.
5	Working exchange of	Signalling range: Freq 16 to 50 Hz Open circuit ringing voltage: 75-90 V <sub>+</sub> 5%	BOO will check practically.
6	Magneto/DTMF exchange working (as per user requirement)	A loop resistance of 3500 Ohm having minimum 10 Kilo Ohm insulation resistance.	BOO will check practically.
7	Auto exchange working	DC loop resistance of 1000 Ohm having insulation resistance of minimum 50 Kilo Ohm.	BOO will check practically.
8	Cross talk (300Hz-3400Hz)	Better than 60 dB down measuring at 1000 Hz.	BOO will check practically.
9	Insulation resistance between line & Earth	Insulation resistance should not be less than 100 Mega Ohms under normal Atmospheric conditions.	BOO will check practically.
10	Power Supply	Exchange should Operate on AC Mains as well as 24 /12 V DC with automatic change over. System should have internal FCBC (Float cum Boost Charger)	BOO will check practically and physically.
11	Environment Specifications	Equipment should comply JSS 5555 Standards. i) Temp. Range- Operating : -10°C to +55°C Storage: -20°C to +70°C ii) Humidity: upto 95% at +40°C	BoO will check practically and Firm will submit certificate of Govt. Lab or NABL/ILAC accredited laboratory.
12	Interface	System should provide working E-Carrier (E1) line in Europe, PRI (Primary rate interface- A standard with Integrated Service Digital Network (ISDN) for providing Telecommunication Services), IP (Internet protocol) Interface & Radio (HF/VHF/UHF) Internet Combat Net Radio (CNR).	BoO will check practically and Firm will submit certificate of Govt. Lab or NABL/ILAC accredited laboratory.
13	Redundancy	Central Processing Unit (CPU) &	BOO will check physically.

		Power Supply Unit (PSU) of the system should be in hot standby mode.	
14	Weight	Less than 25 Kg approx, without accessories.	BOO will check practically.
15	<p>i) Exchange should be ruggedized and will meet Electromagnetic Interference (EMI)/Electromagnetic Compatibility(EMC) requirement as per MIL-STD-461D/E (Supported by certificate of Govt. Approved Lab)</p> <p>ii) Configuration:- All ports of the ruggedized exchange should be field programmable without laptop/PC to work as Analog Phones or Magneto phones through operator console. The console should have a large back lit/fluorescent display with 4x40 alpha numeric characters.</p> <p>iii) One port Global System for Mobile Communication (GSM) with Latest technology.</p> <p>iv) Upgradation:-The exchange should have facility for upgradation of number of subscriber port and Combat Net Radio (CNR)-4 Port facility.</p> <p>v)Ruggedized:-</p> <p>a) Storage device must be suitable ruggedized.</p> <p>b) Firm should provide leak proof Electric Connectors i.e. Battery leads, cords with nylon cover etc. of ISI Std.</p> <p>c) Equipment must sustain cross country mobility.</p> <p>d) Efficient thermal management.</p> <p>e) The modules &amp; cards of the exchange should be secured to the slots so that there is no dislocation of the cards during move/transportation.</p> <p>vi)Built in Test Equipment (BITE):-Cards level system Diagnostics on the operator console display (power on self-test, Online &amp;Offline Diagnostics)</p> <p>vii) Universal Slots:-All insertion slots should be universal type.</p> <p>viii) Earthing:-The exchange should be able to work on field type of earthing.</p> <p>ix)Safety features:-The equipment must have protection against the following:-</p> <p>a) DC Reverse voltage</p> <p>b) Over voltage</p> <p>c) Current and voltage Surges due to lightening etc.</p> <p>d) Short/open Circuit</p> <p>e) Fuses &amp; other safety features to prevent any danger to the operating &amp; repairing personnel</p> <p>f) Audio-Visual alarm to indicate critical failures., warning alarm should be separated from basic use alarm( like Ring ) (02 alarm devices/buzzer should be</p>		BOO will check practically and Firm will submit certificate of Govt. Lab or NABL/ILAC accredited laboratory.

	<p>used for different purpose ) with different sound</p> <p>x) The equipment should compatible with the existing EPABX.</p> <p>xi) Non-Blocking:-The switch should be a totally non-blocking, even when the switch is loaded to its maximum capacity.</p> <p>xii) Auto dialling to establish call, Auto extension for connecting this exchange with junction line should be built in.</p> <p>xiii) The firm will have to supply spare parts for maintenance of switch boards for a period of 10 years when needed by the users.</p> <p>xiv) Training for 5 working days shall be provided by the firm at all consignee places for installation/handling/maintenance of exchange.</p>	
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