Tactical Communication Systems

TRANSMISSION
RADIO RELAY
WLAN/ WIMAX
TACTICAL OFC
SATCOM

SWITCHING
MULTIPROTOCOL
(WAN)
ETHERNET (LAN)

ACCESS
WIRED
CNR
WIRELESS (TETRA
/ CDMA/ WiMAX)

TACTICAL COMMUNICATION NETWORK

SECURITY
COMSEC
TRANSEC
INFOSEC
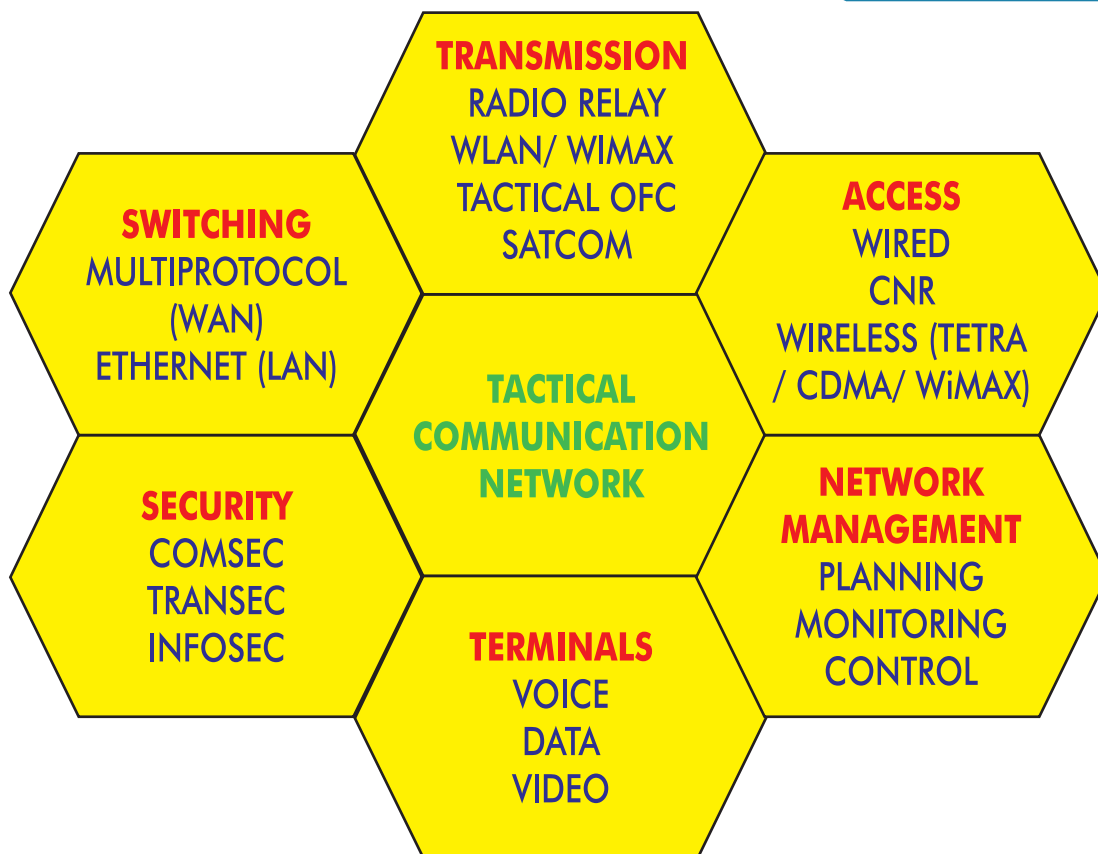
NETWORK MANAGEMENT
PLANNING
MONITORING
CONTROL

TERMINALS
VOICE
DATA
VIDEO

Radio Relays:

- Frequency Bands: Band III+ (1350-2690 MHZ), Band IV (4400-5000 MHz)
- Data Rate : 2 to 130 Mbps
- Provides backbone links and Access links
- Tactical Deployment
- ECCM: Spectral efficiency, Hardening against Smart Jammers
- Supports migration from legacy systems to IP networks

www.rolta.com

ROLTA

Military WiMAX (IEEE 802.16d, IEEE 802.16e):

- Frequency Bands: 1.8 GHz, 2.5 GHz, 3.5 GHz, 4.9 GHz and 4.9 - 5.8 GHz bands

- Point-to-multipoint and point-to-point fixed, nomadic and mobile

- Numerous modulations & FEC

- SOFDMA combined with TDMA

- QoS: Unsolicited Grant, Real Time, Non Real Time, Best Effort

- Security: Authentication, AES, Smart antenna algorithm

Software Defined Radios (SDR):

- High data rate: from 64 Kbps up to 6 Mbps

- Frequency Range: V/UHF from 30 MHz to 512 MHz

- ECCM Capabilities: Fast FH , Free Channel search (FCS)

- Multimedia services: Data, Video and Voice

- Ad-hoc configuration avoiding single point of failure

COMBAT NET RADIO (CNR):

- Frequency Range: HF/VHF/UHF from 1.5 to 512 MHz

- High-speed data rate: 72kbps OFDM

- RF Power Output: 1mW to 20 W

- Frequency Hopping: Fixed frequency (FF), secured frequency hopping (HF, VHF and UHF) and DFF, GPS mode (time, position), ALE

- Provide data routing, switching capability and interfacing to tactical analogue and digital networks

Unit Level Switch Board (ULSB):

- Provide switching capabilities for local as well as trunk ports for voice and data at battalion and below in the Indian Army

- Functioning as Local and Transit Switch

- Access switch for PCM based Communication Network

- Compatible with the existing field switches

- 124 ports expandable to 184 ports

- Modular in design and totally non-blocking

- Direct Optical termination for E1 termination

- Network Management terminal

- MMI based on a ruggedized notebook