MMCP - Front

VSAT

MMCP – Mini Mobile Communication Pack

Natural and man-made disasters, such as earthquakes, floods, plane crashes, high-rise building collapses, or major nuclear facility malfunctions, pose an ever-present challenge to public emergency services. Police, fire departments, public health, special forces, military, para-military and other organizations have to react not only efficiently and individually, but also in a coordinated manner. This results in the need for both intra and inter organization coordination. Since coordination requires communication upstream and downstream within and between organizations in real-time. The need arises for an integrated communication and information system for disaster management that provides efficient, reliable and secure exchange of voice, video and data. To achieve effective communication, Mini Mobile Communication Pack (MMCP) has timely coverage, redundancy, and seamless meshing of new and existing telecommunication infrastructure along with HF/VHF/UHF radio's, LTE subscriber, Broadband IP radio subscribers, IP Phone users and VSAT subscribers.

MMCP provides assured multi services of audio, video and data augmented with GIS-based value-added information to the various stakeholders. This is the communication node connected at the last mile and operating in a tactical environment.

Application

* Disaster Management (DM) for Emergency Operation Centers (EOC's).
* NDRF Battalions with Mobile Emergency Operation Centers (MEOC's)
* Accident Relief Train
* Special Operations and counter insurgency

Functionality

* IP based switching up to 512 ports
* Supports up to 6 Radio Nets (HF/VHF/UHF)
* Supports up to 4E1/PRI ports.
* E1/PRI interface for connection to terrestrial or tactical networks and traditional PABX's
* Fast Ethernet for SIP trunk interface over wide area network (WAN).
* Voice, data and video switching for LTE and VSAT and IP Phone subscribers
* Built-in SIP server for LTE subscribers, VSAT link, VoIP phones and other telephony subscribers.
* 10/100Mbps man machine interface (MMI) for local/remote management

Features

* Redundancy for greater survivability using duplicated CPU and power supply (PSU)
* Rugged, 12U, 19" moulded rack for easy transportation and handling
* 12/24V DC Vehicle powered
* Man portable carrying case
* Built in amplifier for announcements
* Range up to 3KM for handheld broadband radio users and LTE subscribers
* Extended range using hopping and relaying
* Quick to deploy, 5 minutes to operation
* Up to 100 broadband users on LTE
* IP based voice logging

TIG – Tactical IP Gateway

Technical Specifications

System and Maintenance

Modular concept, redundancy and memory backup	
Built-in protection on all interfaces	
Power on self test	
Built-in test equipment	
GUI based local management	
Remote Management	
Vehicle Powered	

VCCS Subscriber Services

Auto Call Back	Hotline
Call Forward	DND
Call Hold and Transfer	Conferencing
Call Pick-up	Soft Phones
ISDN services	Fax over IP
Abbreviated Dialling	Radio over IP
Direct outwards Dial	Video phones
E.164 numbering	Call Statistics
Call Data Record	Flexi numbering

LTE Services

Features	HSDPA
Download speed	5Mbps
Frequency	UMTS Band I, II, IV, V, VII
Tx Power	2W

VSAT Services

Bands	Ku, X, DBS, Ka, C Band
Size	1m, 1.2m, 1.9m Dia.
Power	<20W
Time to ON	5 minutes
Download Speed	up to 10Mbps

Broadband Wireless Radio

Output Power	5W
Download Speed	2.5Mbps
Range	3Km
Frequency	225-400MHz
Features	Multicast and multi-hop

Environmental Data

Operating Temp:	-20 to +50°C
Storage Temperature:	-30 to +70°C
Relative humidity:	0 - 90 %

References

MIL-STD-810G	Ruggedization
MIL-STD-461E	EMI/EMC

IP Based Voice Logger

Broadband IP Radio (WM600)

Voice Command and Control System (VCCS)

VSAT Broadband IP (Advent)

Public Address Speakers

VHF/UHF Radio Base Stations

VHF/UHF Radio Base Stations (Motorola)

LTE Mobile communication System (Smartlink)

E1/PRI, 2Mb link (Terrestrial PSTN and GSM network)

IP Video Phone and Toll Free lines
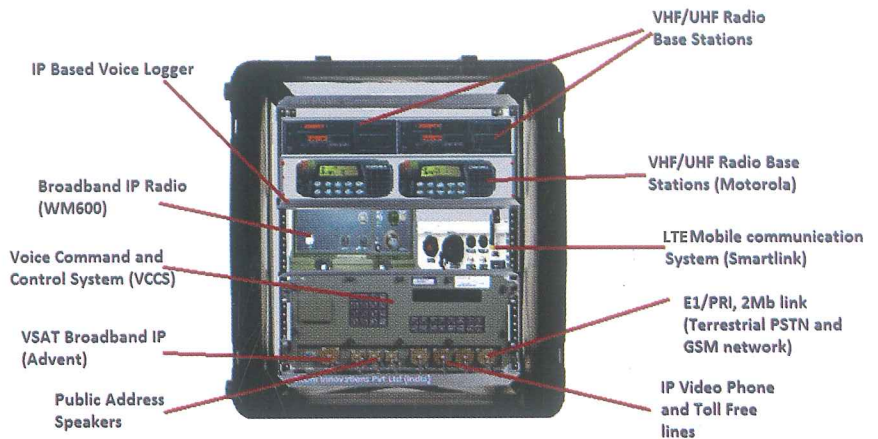
MMCP - Various Modules

Broadband Handheld Radio

Output Power	1W
Bandwidth	2.5Mbps
Range (SR600's)	Up to 1Km
WM600 to SR600	Up to 3Km
Codec	IP MELPe
Feature	Voice relaying

Dimensions and Weight

Depth	73cm
Width	70cm
Height	75cm
Weight	<60Kg

Protocols

E1 CAS, E1 QSIG
ISDN PRI
SIP
Codecs supported : G.711, G.729, G.723
DTMF
2G / 3G / LTE

Options

LTE system
VSAT
Broadband Radio
Handheld IP Radio
HF/VHF/UHF Radio's
CB/LB Field telephone - AFT1001
VoIP Field Telephone - VFT1001
Tactical LAN Switch – TLS
Tactical IP Gateway - TIG
EMS/NMS Terminals
Batteries
Field Cables
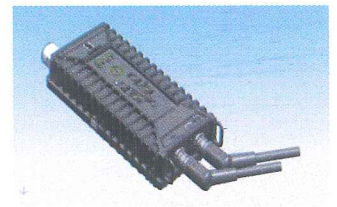
Broadband Handheld Radio (SR600)

VoIP Field Telephone (VFT1001)

CB/LB Field Telephone (AFT1001)