



**ITU Regional Standardization Forum
on
“Regulatory and Policy aspects of
Telecommunications/ICTs”.
at
Hotel LALIT, New Delhi, India
On
8th August 2022**

**Consolidated Profile of
Indian 4G & 5G Telecom Exhibitors from VoICE**

VoICE

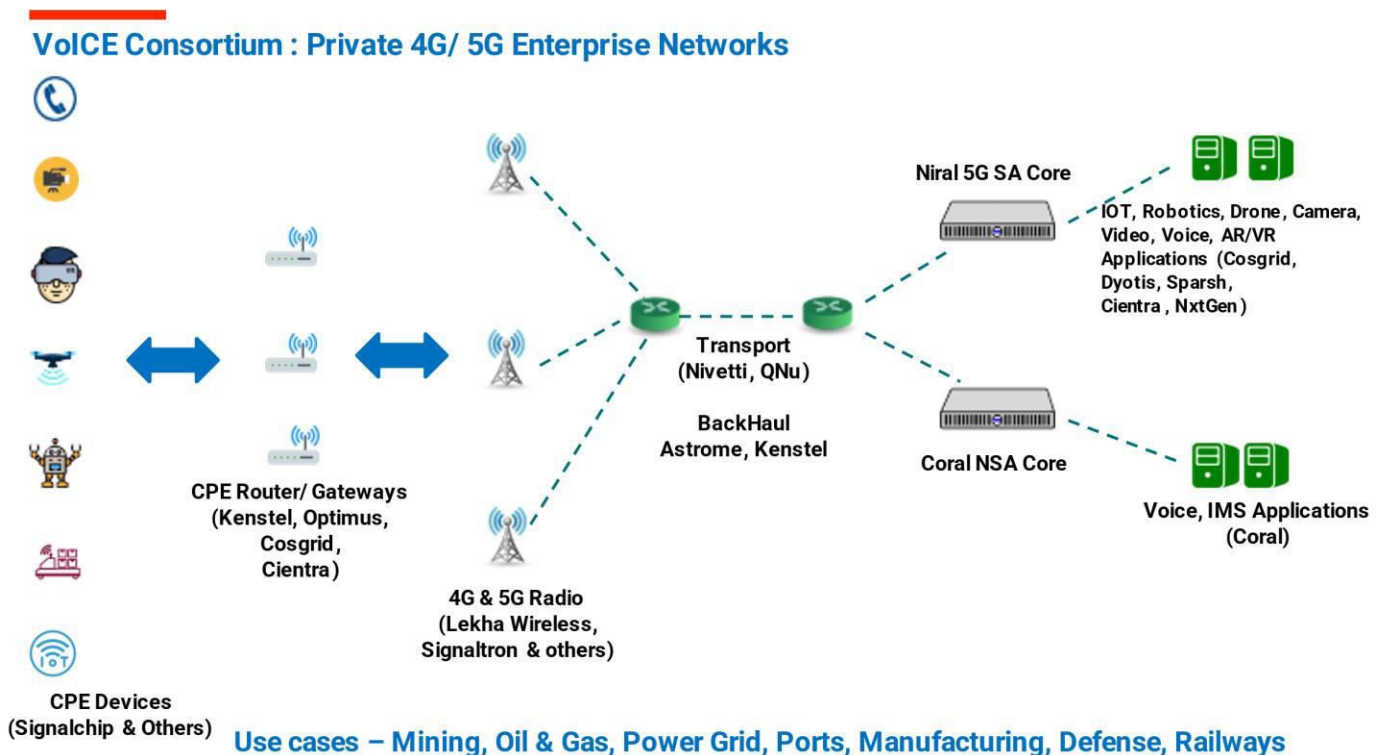
VoICE (Voice of Indian Communication Technology Enterprises) represents a Society having members from Indian registered companies with domestic design led solutions covering 5G, 4G, IoT/ M2M and many new innovative based on India IPR from Start-ups and others.

Why VoICE

- First and only society for Indian Deep tech and communication technology company.
- Single platform for end-to-end telecommunication eco-system covering all aspects of the network.
- Funding Research and Development and Pilot Network for different use cases
- Society has member companies with entrepreneurs, technology experts with vast industry experiences who share the spirit of prime minister's AtmaNirbhar Bharat vision.
- Members ready to work with domain experts to create telecom network specific to use-case for example Railways, mining etc.
- Consultation for decision making in all aspects of policy towards R&D, startups, nurturing new ideas, piloting products, and adopting new trends.

Consortium Based Solutions on 5G Enterprise Networks

One typical Consortium with equipment/ solutions coming from multiple players are possible for setting up Private 5G Enterprise Networks as shown in Figure 1 below.



INDIAN DESIGN LED TECHNOLOGY SOLUTIONS for 4G & 5G

S No	NW Component	Indian OEMs who offer the NW component
1	5G Core and IMS	Resonous, Niral, CEWiT, Coral, Galore, WiSig, Signaltron, Tata (TCS, Tejas, Saankhya), CDOT, Amantya, CEWiT, Reliance Jio
2	4G/ 5G RAN	Lekha Wireless, Signaltron, Sooktha, Saankhya Labs, VVDN, Galore, Resonous, HFCL, STL, Amantya, CDOT, WiSig, CEWiT, Reliance Jio, TidalWave TEJAS (4G RAN), VNL (4G RAN)
3	Chipsets	5G / 4G (Signalchip), SDR (Saankhya Labs),
4	Devices/ CPE	Kenstel, CosGrid, Optimus Rhino
5	IOT Application	CosGrid, Dyotis, Cienra, CDOT
6	NMS	Coral, Dyotis for M2M, NMS Works, CDOT
7	Transport (Switches, Gateways)	Nivetti, Coral, CDOT, Astrome, TEJAS
8	Encryption	Qnu Labs, CDOT

The above Table shows that some more players can be part of solutions Consortium mode in the figure above. Many more consortiums can be formed for different Private 5G enterprise network case studies.

Private 5G networks

Enterprise communication, in future will require reliable, high performance, high bandwidth & low latency 5G networks that are device, media and protocol agnostic. Converged core will connect mobiles as well as wired devices offering common management and provisioning interface. These private 5G networks, would converge Voice, Data, IOT & M2M communication within the enterprise and will open a plethora of applications to address diverse customer requirements. Private networks are already being deployed in a wide range of industries for indoor and outdoor applications but private 5G networks will accelerate the process as every industry including mining, ports, automotive, durable goods and chemicals would need them for their digital transformation that would include IOT & M2M applications. Voice and data communication may be peripheral use cases

“Voice”, as a platform has taken the initiative to integrate various subsystems developed by our Startups and SMEs to provide a complete end to end system that will open opportunities in Utility companies, Railways, Mines, Oil and Gas as well as Defense applications. Collectively, this would be a large market that can resurrect domestic telecom design & manufacturing industry.

Use cases

1. Campus deployment as an extension of the enterprise PABX where Private 5G can support mobility requirements within large campus, of an integrated factory with residential blocks, Hotels, Hospital & institutions where some staff is on the move. Offshore drilling rigs, construction and mining sites are potential customers. Once high-speed low latency network is established, it would double up for IOT & M2M applications for plant monitoring maintenance and predictive alerts on impending fault
2. Ships / Islands and Forest guards need quick deployment of complete networks that may be backhauled on Satellite / UHF or VHF where such 5G based private networks would be an ideal choice for basic communication.
3. Submarines would need it for communication as well as predictive fault alerts by use of appropriate sensors and AI algorithms. Time-Sensitive Networking (TSN) and real-time-based decision making is rapidly finding role in several mission-critical applications across many industries, including manufacturing, oil and gas, aerospace, and transportation that will require such 5G networks.
4. Battery powered, Tactical Deployments mounted on vehicle in a compact single box for quick deployment of wired and wireless service could be an ideal communication box for Disaster management teams or for defense setups. These could be housed in jeeps or ships with onboard gensets and can cover 5 to 7 Kms radius. Deployment of half a Dozen such mobile communication systems can cover a larger area seamlessly communicating between each other as part of Tactical deployment. UN peacekeeping forces or troops stationed in any part of the world can be customers for such applications. IOT devices tightly intertwined on the 5G network will help identify, locate threats, and protect critical assets as well as enhanced predictive preventive maintenance of critical equipment and services.
5. Utility companies, Railway stations, Airports & Accident sites will need these private 5G network for support on all legacy communication including communication on Quad cable, E&M, BWT & even magneto trunks. Railway accident relief trains can provide immediate voice and data communication that will work seamlessly with their laid-out communication system. Railways could use it for specialized Train control and communication system (TCCS).
6. It can be an effective replacement for imported Tetra based communication systems with 5G based high bandwidth low latency communication. Metro projects, Airports, Disaster management teams will find them cost effective and far more efficient. PTT and broadcast communication modes for the system shall address these requirements.

7. Disaster Management is expected to cater to emergency services & rapid deployment of mobile network at sites where existing GSM network is destroyed due to natural calamity such as hurricane & earthquake. These private networks can quickly set up reliable communication facilities that can be used by all agencies working on the site viz NGO, Red Cross, Paramilitary, Army, State departments, Fire service etc. Security agencies including Police & National Security groups will find many applications to extend emergency services during natural disasters or man-made crisis like terror strikes where need of the hour would be to provide voice, video text and high-speed low latency data services.
8. Construction sites & mining sites in far flung areas with no or limited existing telecom networks could deploy these private networks to cater for all type of reliable high-speed communication needs within the private campus. Oil rigs, Oil wells and large construction sites or mining areas could be ideal customer for such private network deployments. They would need high speed low latency 5G networks to use IOT devices for automated / robotic or remote managed applications that are sensitive & mission critical.
9. In-building solution to enhance mobile coverage in the building thereby releasing load on the macro BTS network, local switching and intelligence will provide enhanced coverage & additional subscriber density. This would also help effective use of scarce spectrum as each private cell would reuse the same spectrum band.
10. Greenfield deployments in Rural areas by providing cost effective & quick deployment methodology that can help local youth to manage and run these networks on commercial basis. This will create jobs and entrepreneurs who would ensure upkeep and maintenance at remote locations. These private networks can also be used for temporary deployment in a Games village or for a temporary holiday camp over a few kilometers that can be powered from solar energy.

11. International Deployments

VoICE team members have excellent competencies to implement 4G/ 5G Private Enterprise Networks as per the requirements of any country or organization.

12. International Training Centres

VoICE is submitting some Pilot Projects on training covering 5 countries in Africa, 1 in Arab Region and 4 in ASEAN countries. The Project shall include Projects with Live 4G/ 5G Private Enterprise Network like the one represented in Figure 1 with possible support from Indian Government and foreign partners. Each Centre can provide support to a few neighboring countries as well.

DETAILS ON EXHIBITION

Booth Allocation for Showcasing Indian 4G/ 5G capabilities in ITU event at Hotel Lalit on 8th August 2022.		
S No	Company (Group)	Space Finalisation
1	Coral Telecom	Consortium 1 LIVE DEMO Voice Centric 4G/ 5G Booth 1 to 4
2	Lekha Wireless	
3	Resonous	
4	Signalchip	
5	Signaltron	
6	Nivetti Systems	
7	Kenstel	
8	QNu Labs	
9	Samriddhi (Sparsh)	
10	Dyotis	
11	Astrome	
17	Meity: Aadhar	Booth 5
18	Meity: Financial App RuPay	Booth 6
12	CDOT	Consortium 2 4G/ 5G Mix Booth 7
13	WiSIG	
14	Vihaan Networks Ltd (VNL)	4G End to End Booth 8
15	Sooktha with IIT Chennai	Consortium 3 5G exclusive Booth 9
2	Lekha Wireless	Consortium 4 LIVE DEMO Data Centric 5G exclusive Booth No 10
16	Niral Networks	

Brief Profile of Exhibitors

Brief Profile of 16 Telecom Companies as arranged in alphabetical sequence is given below.

1	Astrome	9	QNu Labs
2	CDOT	10	Resonous
3	Coral Telecom	11	Signalchip
4	Dyotis	12	Signaltron
5	Kenstel	13	Sooktha
6	Lekha Wireless	14	Sparsh (Samriddhi)
7	Niral Networks	15	Vihaan Networks Ltd
8	Nivetti Systems	16	WiSig

GigaMesh - Unique Features










Multiple Beams simultaneously

World's First Multi-Beam E-band radio

www.astrome.co

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-  Operates in E-band, 10GHz spectrum available and is light-licensed
-  Modular Design to easily scale in capacity and links
-  Proprietary Algorithms enable Automatic Link Alignment and Dynamic Power Allocation
-  Scalable capacity enabled by high frequency re-use
-  Suitable both for long-range (10 km) and for short-range (urban)
-  Seamless integration using standard interfaces

GigaMesh Specifications

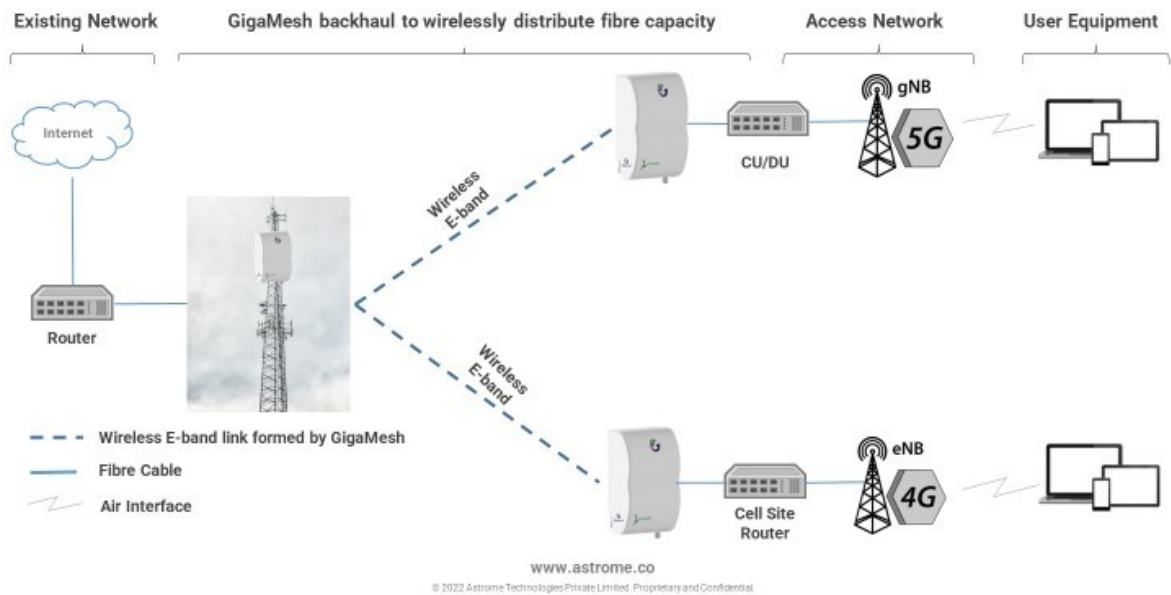


Operating Frequency	71-76GHz & 81-86GHz
Channel Bandwidth	250MHz
Number of Links	2 links upgradable to 4 links
Maximum Throughput per link	Upto 2Gbps per link
Aggregate Throughput	Upto 4Gbps upgradable to 8Gbps
Maximum Distance*	upto 10Km
Antenna Type	Phased Array Antenna with electronic beam steering
Device Type	Integrated ODU (antenna inside device)
Interfaces	3 x 10G SFP+ (for data), 1G RJ45 (for configuration)
Dimensions	52cm x 39cm x 34cm (L x B x H)

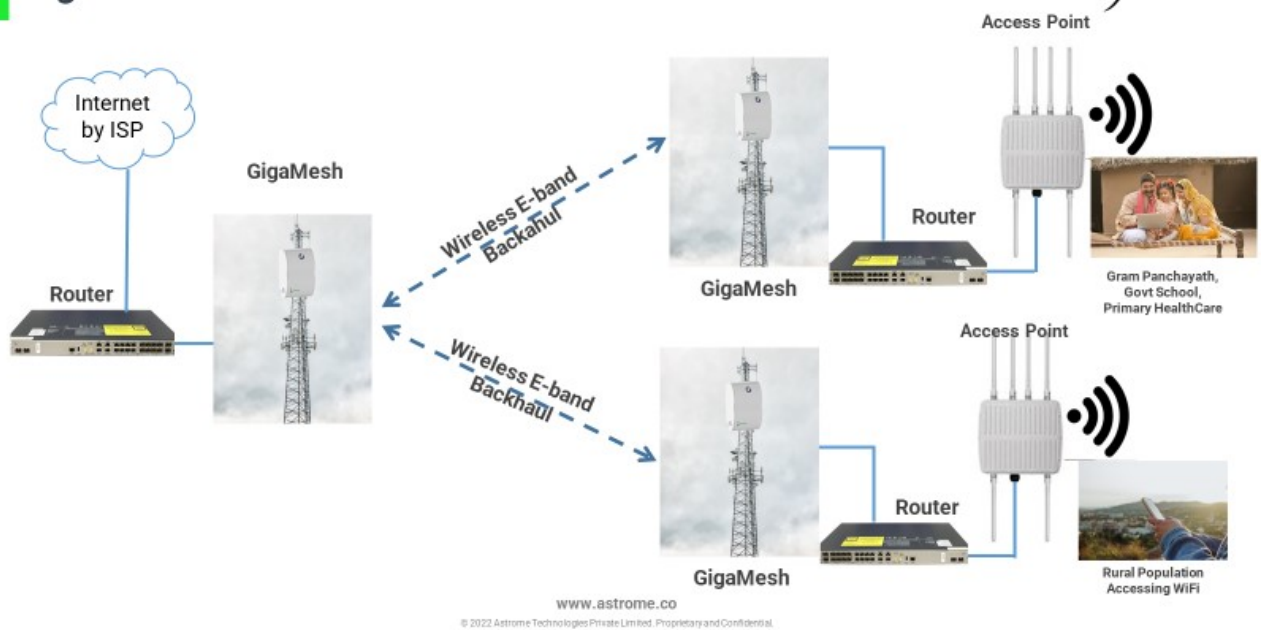
*Varies with region

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GigaMesh - Deployment Scenario



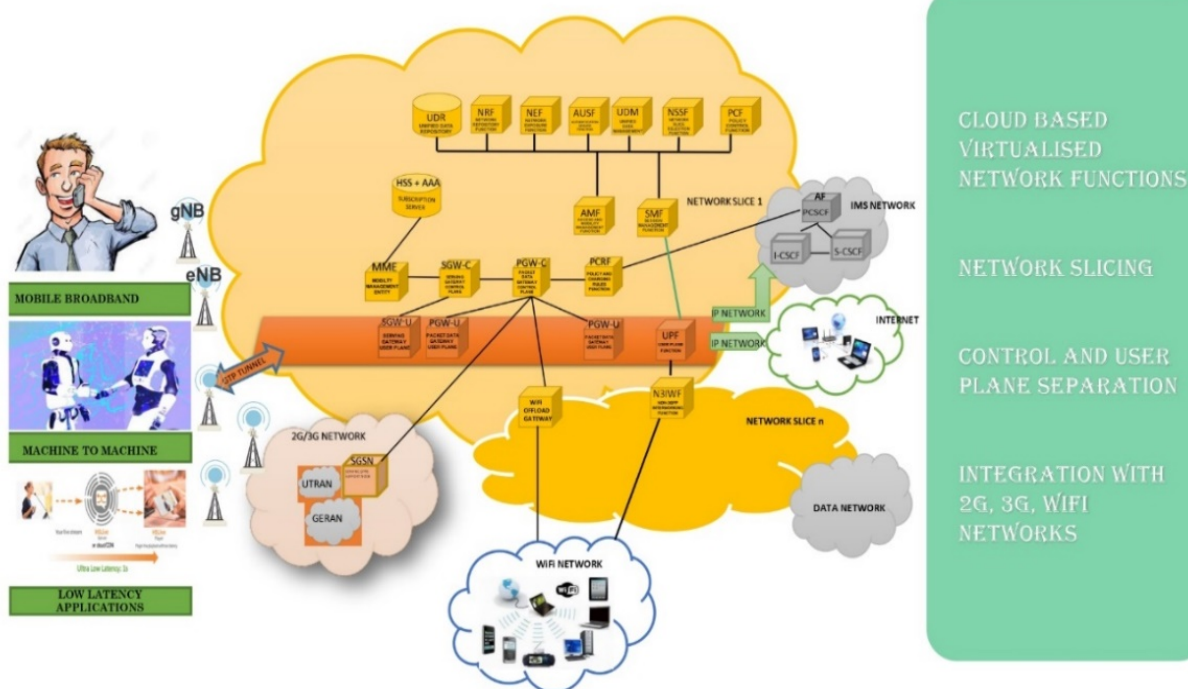
GigaMesh - Rural Broadband Solution



Centre for Development of Telematics (C-DOT), established in 1984 as an autonomous R&D centre of the Department of Telecommunications, Ministry of Communications, Government of India has been widely known for its monumental role in ushering in the indigenous Telecom revolution in the nation. With its world-class research labs equipped with the state-of-the-art infrastructure and a pool of the brightest engineers from the top institutes of the nation, C-DOT has been strongly committed to fulfilling the overarching objectives of national development through its targeted research initiatives aimed at addressing the specific connectivity needs of our diverse country.

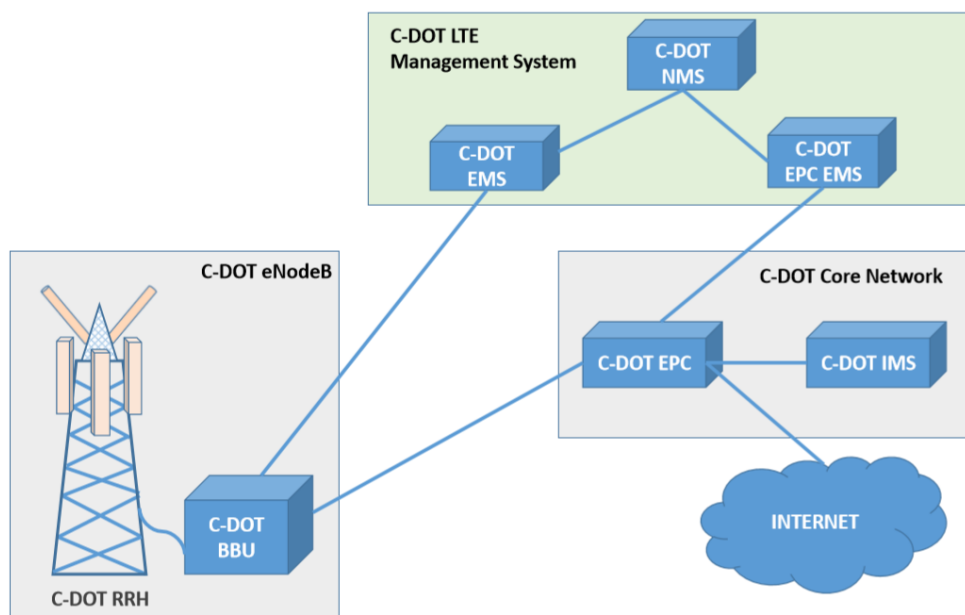
C-DOT's technologies aim at augmenting the broadband infrastructure of the nation and addressing the specific requirements pertaining to rural, security and strategic applications. C-DOT's diverse product portfolio spans a wide array of technologies that include Switching & Routing, Optical Communication, Wireless Communication, 4G LTE, 5G, Network Security, advanced encryption techniques and Post-Quantum Cryptography based solutions, Disaster management, Network Management, M2M/IOT, AI, and a host of other telecom software applications that is a manifestation of its unrelenting desire to capture the unexplored dimensions of the vast Telecom firmament. A brief description of C-DOT's 4G/5G offerings is given below:

C-DOT 4G /5G Converged Core

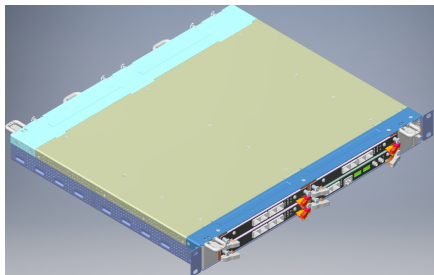
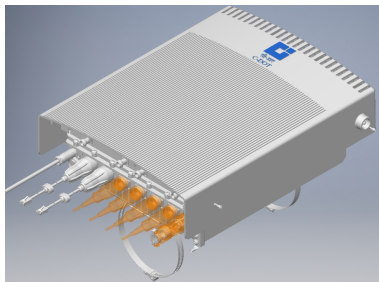


1. Simplified Network Topology & Scalable cloud-based Architecture
2. Supports 3GPP defined interfaces; Seamless interworking with existing 2G/3G mobile networks
3. 4G Evolved Packet Core Network providing mobile native VoLTE / VoIP / data services through seamless integration with IMS and legacy mobile services
4. IP Multimedia Subsystem (IMS) for access independent and service independent delivery with provision for services/features portfolio expansion using 3rd party plugin servers
5. Wi-Fi Offloading & IoT Services
6. 5G Non-Stand Alone (NSA) and Stand Alone (SA) Packet Core Network providing 5G Data Services
7. Flexible data center switch fabric & Element Management System
8. Security implementation through embedded Firewall, Security Gateway and CGNAT

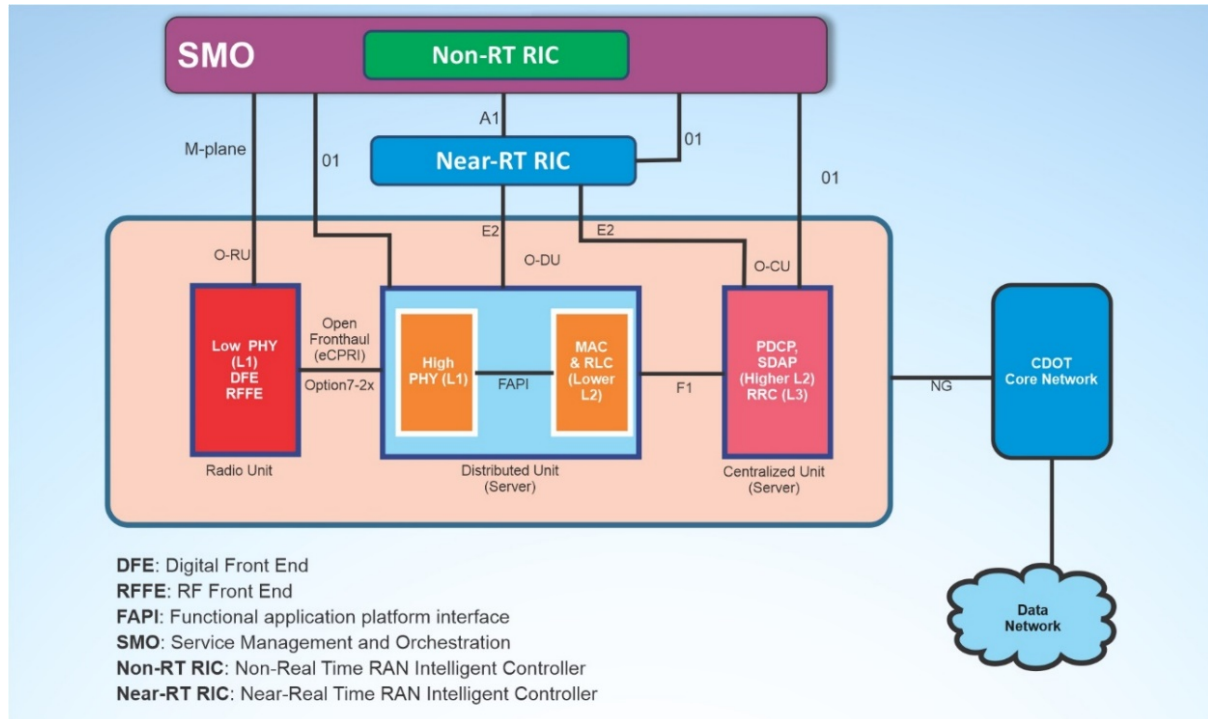
C-DOT LTE Radio Access Network (RAN) Solution



C-DOT provides complete carrier grade LTE Radio Access Network (RAN) Technology which is a part of C-DOT LTE Solutions.

<p style="text-align: center;">C-DOT RAN</p> <ol style="list-style-type: none"> C-DOT eNodeB <ol style="list-style-type: none"> Baseband Unit (BBU) Remote Radio Head (RRH) C-DOT RAN Element Management System (EMS) 	<p style="text-align: center;">C-DOT Core Network</p> <ol style="list-style-type: none"> C-DOT Evolved Packet Core (EPC) C-DOT IP Multimedia System (IMS) <i>C-DOT Core Network EMS</i> <p>C-DOT Network Management System (NMS)</p>
<p style="text-align: center;">RAN Specification</p> <ol style="list-style-type: none"> Multi sector macro eNodeB Bands supported: <ol style="list-style-type: none"> FDD: B3, B28, B1, B5 and B8 TDD: B40, B41 Bandwidths supported: 5, 10, 15, 20 Supported CPRI version: up to 4.2 	<p style="text-align: center;">RAN Features</p> <ol style="list-style-type: none"> Carrier Grade Solution Indoor BBU and outdoor RRH Scalable Modular Long term Support Complete End-to-end solution from C-DOT
<p style="text-align: center;">BBU Features</p>  <ol style="list-style-type: none"> Scalable up to 3 sectors Modular Architecture. Multi-technology capable Maximum users: 1000 connected and 384 active users across 3 sector 12 CPRI interfaces 2x10 Gbps uplink capacity Management Ethernet, USB, Alarm GPS and IEEE 1588 synchronization 1U and 19-inch Rack compatible Equipment Category: QM 333 Type A IP Category: IP30 Operating temperature: 0°C to 40°C 	<p style="text-align: center;">RAN Features</p>  <ol style="list-style-type: none"> Both FDD and TDD support <ol style="list-style-type: none"> FDD: B3, B28, B1, B5 and B8 TDD: B40, B41 Output Power: 20W and 40W per antenna port Antenna configuration: 4x4 MIMO for high bands and 2x2 for Low bands IP Category: IP 67 Operating temperature: -10°C to +60°C Control and Management Protocol: ORI Rugged Design Daisy chain up to 3 RRH

C-DOT 5G RAN System



1. O-RU processes Lower L1, Digital Front End (DFE) and RF Front End (RFFE)
2. O-DU processes Higher L1 and Lower L2 (MAC, RLC protocol layers) with FAPI interface
3. defined between higher L1 and Lower L2
4. O-CU processes higher L2 (PDCP, SDAP layers) and L3 (RRC layer)
5. O-DU and O-CU are implemented using general purpose processor-based Server Hardware
6. Higher L1 of O-DU implemented on Server with Channel coding functionality of L1 offloaded
7. to Accelerator (FPGA) card.
8. SMO is responsible for RAN domain management. The key capabilities of the SMO that provide
9. RAN support in O-RAN are FCAPS (Fault, Configuration, Accounting, Performance, Security)
10. interface to O-RAN Network Functions, Non-RT RIC for RAN optimization and O-Cloud
11. Management, Orchestration and Workflow Management.
12. Non-RT RIC supports intelligent RAN optimization by providing policy-based guidance,
13. ML model management and enrichment information to the near-RT RIC function. It can also
14. perform intelligent radio resource management function in non-real-time interval (> 1second).
15. Near-RT RIC enables near real-time control and optimization of E2 Nodes functions and resources via fine-grained data collection and actions over the E2 interface.



Company Profile

Coral Telecom Limited is a leading design and manufacturing company that provides converged “enterprise communication solutions” with focus on applications for Railways, Metro, Mines, Défense and other similar private communication networks. Converged platforms will provide wired as well as wireless subscribers for enterprise customers as both type of networks will always co-exist in real life. IMS switching core will seamlessly provide call control function for legacy TDM devices as well as modern day IP desk phones as well as to mobile customers on 4 /5 G handsets.

Primarily engaged in design, development & re-engineering of IMS based, Unified Communication solutions that handle voice, video, and data requirements of a modern enterprise. Specialized software applications have been designed to provide integrated communication solutions with Paging, Video conferencing and Despatcher applications that find use on Railways, Metro Projects, and Smart city applications.

Solutions includes converged 4/5 G core that provides seamless communication with LTE / 5G based radio networks such as to facilitate private enterprise communication across wired as well as wireless devices. We support mission critical and MCX based floor control services to facilitate PTT (push to talk) features for audio and video broadcast, so critical for applications in Utility companies, Police and Paramilitary forces. Solution supports Autonomous vehicles, Robotic arms, IOT and M2M applications for Mines, Submarines, Oil rigs and can cater to needs of Industry 4.0 in general.

Common NMS facilitates simple user-friendly management and configuration of all network elements. Ability of our solution to support plug and play function for Gateways, Wired phones, Mobile phones, Cameras, IOT devices with centralised control and common alerts makes it a preferred choice of users.

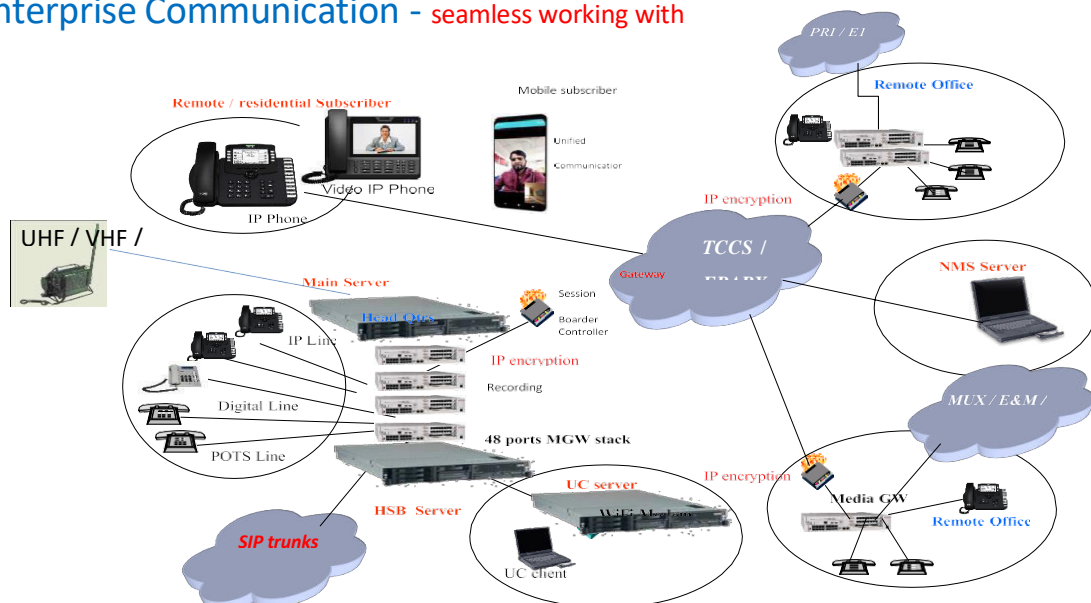
Coral has designed and manufactures associated embedded hardware or media gateways to provide seamless inter- operability with legacy protocols like FXS, FXO, PRI, GSM, E&M etc. with emphasis on converged multi-service, multi- protocol access gateways that can work as part of an IP Multimedia subsystem yet capable of standalone existence.

Coral’s specialization lies in the fact that it has total control on technology thus offering a unique ability for customization. Its diverse experience in the fields of telecommunication, convergence technology, software, hardware, application development and project management, places it as an ideal provider of solutions across the value chain.

Coral is prepared to forge strong ties with telecom design companies in friendly countries by transfer of technology and knowledge for setting up converged 4 / 5 G networks for enterprise customers. In true spirit of friendship, India will commit to invest in capability and capacity building of friendly countries so that they also walk on the path of “Self reliance” that our Prime Minister has charted for us.

Coral can conduct projects that will enhance knowledge base of telecom professionals involved in design creation and building of 4 / 5 G mobile telecommunication networks in ASEAN & African countries. Trainees shall have better understanding and knowledge of each module of such networks and they would be able to integrate certain modules available locally or from open source communities. Trainees will get opportunity for hands on training on these modules and they will set up live captive networks at identified locations.

Enterprise Communication - seamless working with



Elements of the Converged enterprise network

Radio Access Network : 4G & , 5G radios (RAN). These could be integrated radio which are cost effective or could be as per open RAN architecture (CU DU & RU) they could be Base band unit with four radio heads connected over OFC.

Antenna and mounting structure : RAN would require appropriate antenna and support structure to radiate.

CORE EPC cores could be NSA or SA core for 4G and 5G communication respectively. These would provide mobility across various radios (RANs).

Application and voice Switching IP based multimedia Switching or IMS, Soft Switches that would support voice switching or call control features and functions. MCX server and Floor control servers will support mission critical functions like PTT Video PTT voice and Video Broadcast. All voice features of the network including Billing, Voice recording features are supported. Redundancy duplication and path replacement features can be supported.

Network Management System (NMS) to monitor health of each of the network devices in each testbed.

Media gateways for converting IP to conventional TDM protocols so that a converged communication network can be set up for captive communication in a campus.

Backhaul radio to interconnect each of these radio networks with the central Core.

CPE Devices : Various CPE devices will be supported on these private networks that would include Mobile phones, Camera of different varieties (Bullet camera,

Body strap Camera and plain outdoor camera) with capabilities to operate on 4 / 5 G network as well on WiFi backhaul.

Several IOT & M2M applications can be supplied with Lidar based communication and remote controls that will have thermal & seismic sensors that can be controlled and managed on 4/5 G networks.



Company Name: - Dyotis Technologies Private Limited

Brief Company Profile: -

Dyotis Technologies is an Indian IT product company that specializes in digital services and consulting. We are committed to enabling end-to-end digital transformation for global customers by leveraging next-generation technologies and products such as 5G ready OSS/BSS, NMS/EMS, IoT Platform, SAP, and others.

Products & Services

1. OSS/BSS
2. NMS/EMS
3. IoT Platform
4. SAP Consulting
5. IT Transformation and Application Development
6. Road-map design for regulatory policy implement

Contact Person: Mr. Nitin Pandey

Designation: CTO

Telephone No: +91 8010054459

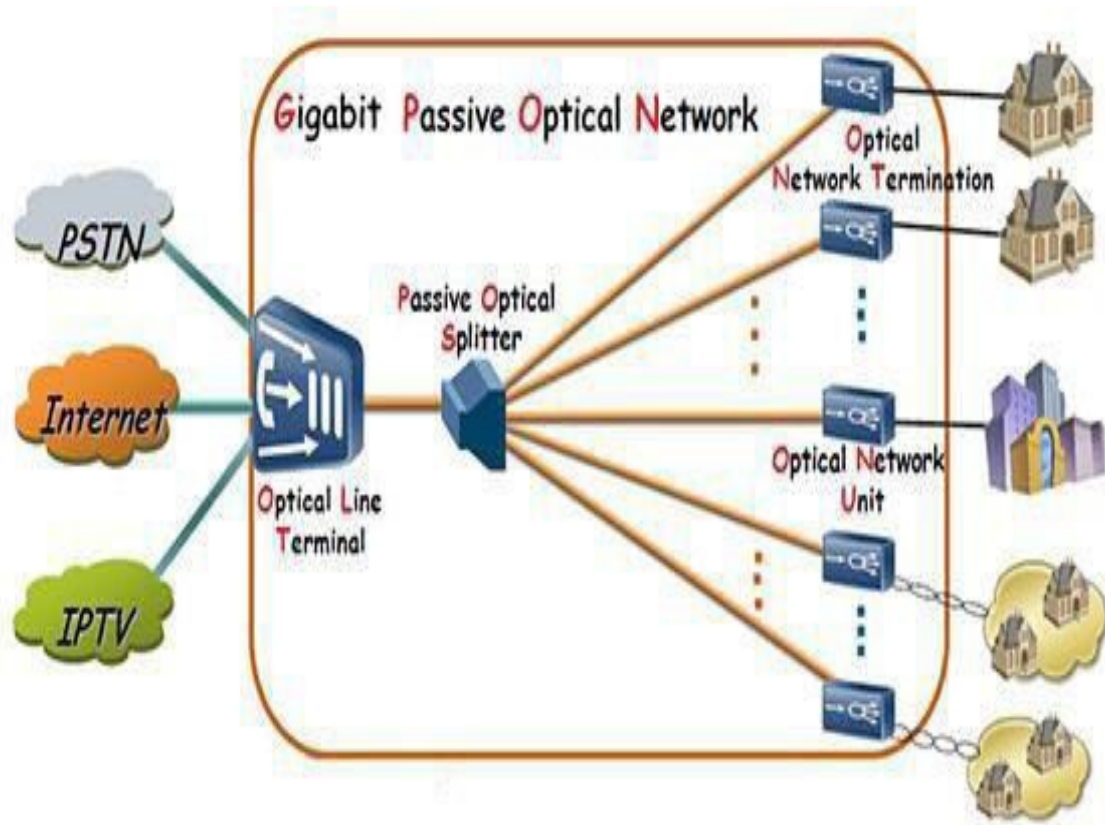
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Web: www.dyotis.com

KENSTEL

WIRELINE EPON/ GPON/ XPON



WIRELESS

Wireless Access Points, CPE (Indoor & Outdoor) 5G LTE CPE WiFi Router



About us

- A decade of experience in designing, developing and deploying Radios for Enterprise and Telecom application.
- SDR based Wireless Data Link products for Tactical communication.
- "Lekha" means communication in Sanskrit and our focus is wireless communication.

Deep Tech company Total Ownership of SW and HW Design

LTE RAN
Deployment

5G NR RAN
Development

Deployed Industrial
IOT Network

Nextgen
Radios

Tactical Data
Links Deployment

Advanced
Tactical SDRs



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ORAN Solutions

Marut O-RU



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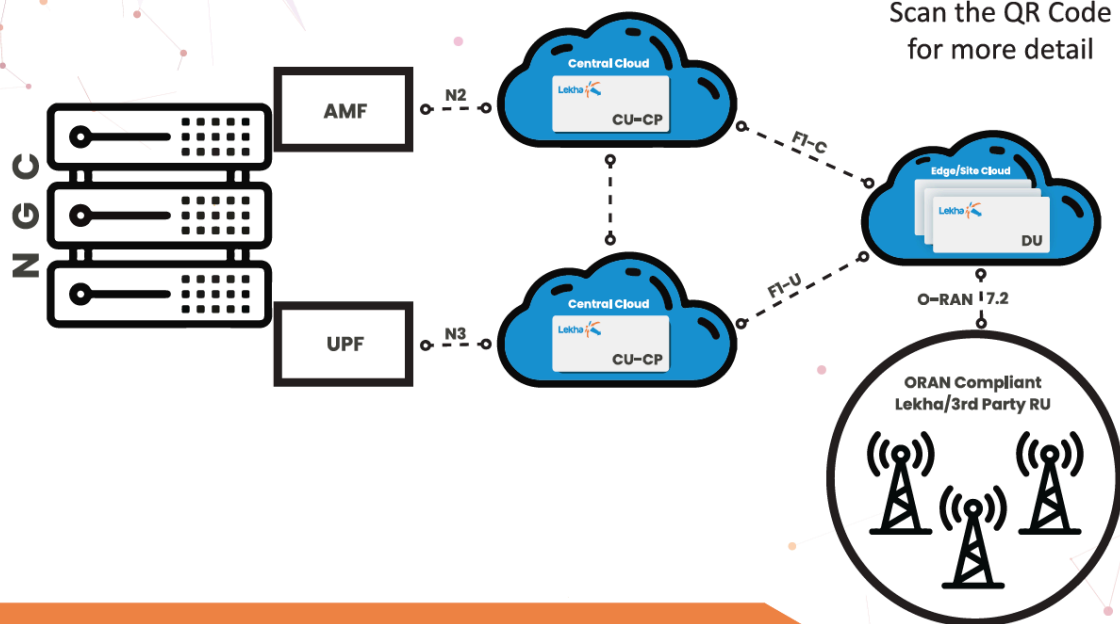
Features

- 3GPP Release 15
- Front Haul Interface: ORAN 7-2x
- Antenna configuration 8T8R
- Number of Layers 8
- Bandwidth Up to 100MHz
- Duplexing TDD and FDD
- Subcarrier Spacing 15KHz, 30 KHz
- Supported RAT 5G NR
- Radio Type: Category A
- Band of Operation: N78, N71, N1, N41

O-CU & O-DU



Scan the QR Code
for more detail



Specifications

- NR release 16 compliant
- Support for 7.2x and Split 2
- Subcarrier Spacing - 15kHz, 30kHz, 60kHz
- Upto 100MHz Bandwidth – FR1
- Duplexing Mode - FDD/TDD
- Support for SA

Features

- Containerized to run on virtualized cloud native platforms
- Open-architecture
- Cost-saving and faster time-to-market
- Off-the-shelf hardware
- Multi-Vendor Interoperability



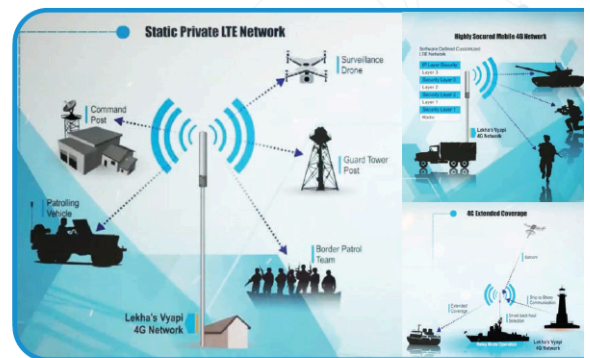
Vyapi Private 4G Network



**Manpack LTE Network
In Box (NIB)**

Technical Specification

- MIMO Modes: 2X2, 2X4 and 4X4
- Duplexing: FDD & TDD.
- Supported Bands: B1, B3, B5, B28 & B41.
- RF Power: 1W, 10W, 20W and 40W.
- Product Config: NIB, Integrated Micro/Macro and Pico Cell.



Key Features

- 4G Private Network for Armed Forces.
- Interop with COTS 4G Handsets.
- SON Networks support for easy installation and maintenance.
- Enhanced Security for Tactical Applications.
- Manpack, Vehicle Mount & Tower mount versions



Scan the QR Code
for more detail

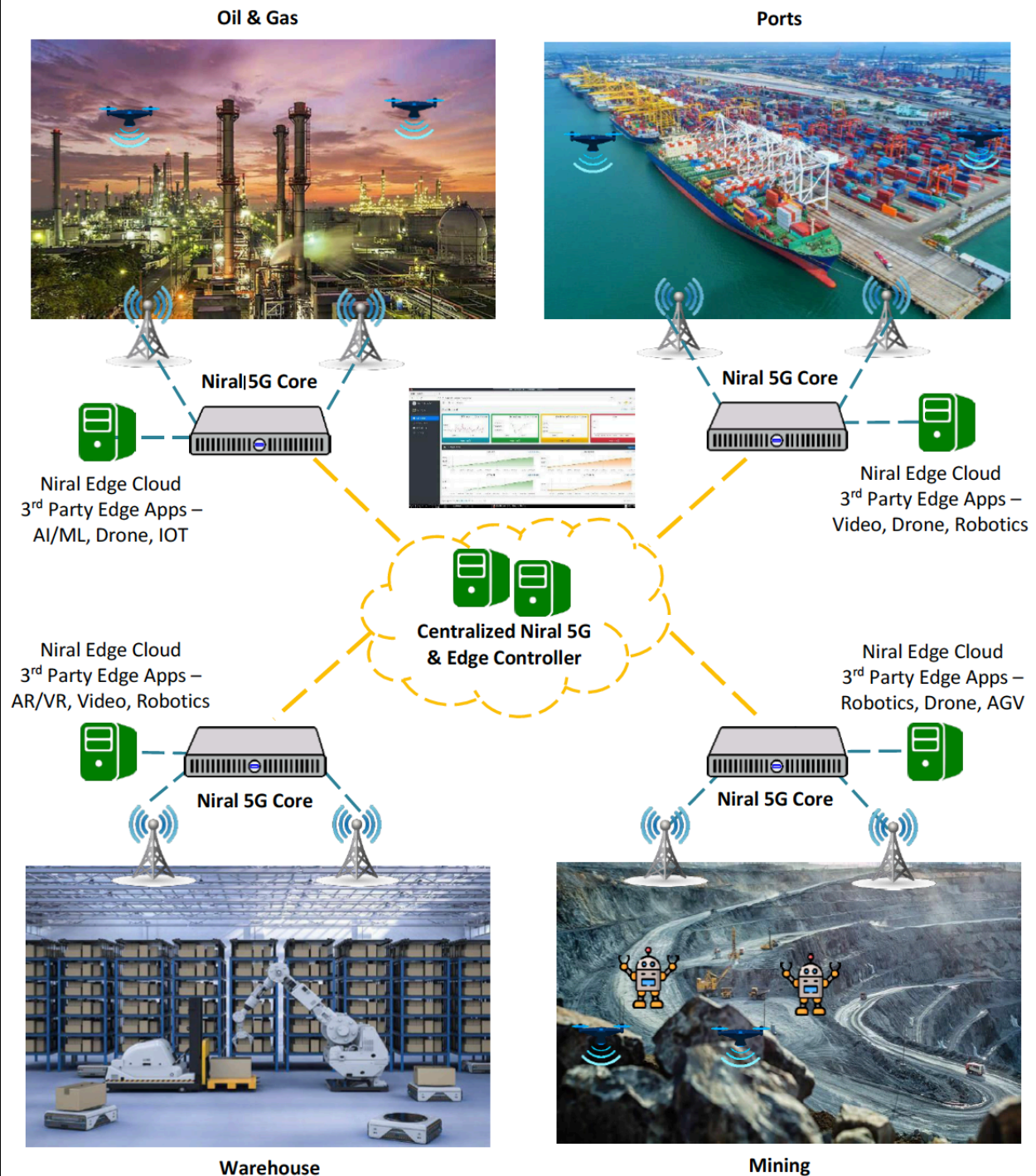


NIRAL Private 5G

Manage your enterprise 5G & Edge with a click of couple buttons

Contact: abhijit@niralnetworks.com | +91 98861 79612

Visit Us At: <https://www.niralnetworks.com>





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Manage your enterprise 5G & Edge with a click of couple buttons

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Visit Us At: <https://www.niralnetworks.com>

NiralOS Introduction

Niral Networks provide a comprehensive cloud-native 5G Core and Edge infrastructure platform for Enterprises using its open and disaggregated Network Operating System called NiralOS that can be easily integrated with COTS hardware and 5G Radio to optimize Edge applications (IOT, AR/VR, AGV, Drone, AI) and managed from a centralized dashboard without the need of any specialized IT staff.

Niral Networks is targeting the USD 517 Billion private 5G and Edge market that will shape the future of Enterprise Connectivity for emerging, high bandwidth, low latency applications with mobility, thereby redefining the way people live and work.

NiralOS Network Operating System

- **Private 5G Core** – Cloud-Native Private 5G core software for Mobility, Authentication, security, Session and Policy Management. It contains the 5G Network Functions - AMF, SMF, AUSF, DM, NRF, UPF. Niral 5G core also has a compact User Plane Function (UPF) to provide local breakout within Enterprise when integrated with TSP's centralized 5G Core.
- **Mobile Edge Cloud Platform** – Kubernetes and virtualized edge cloud infrastructure to create a mobile Edge Cloud (MEC) within Enterprise with open APIs to host 3rd party application like AR/VR, Robotics, Drones, AI/ML, Video analytics for low latency and privacy
- **Controller** – Provides centralized management, orchestration, zero touch provisioning and monitoring of multiple Private 5G networks and Mobile Edge Cloud at various sites. The controller can be hosted in the public cloud to centrally manage and monitor multiple private 5G networks.

NiralOS Specification

- Release-16 compliant 5G Core for Private 5G Deployment
- 5G Network Functions - UPF, AMF, SMF, AUSF, UDM, NRF
- Kubernetes based Cloud-Native Network Function
- DPDK + VPP based User Plane Acceleration
- Support of N1, N2, N3, N4 and Service Based Interfaces for 5G SBA
- 5G Core deployed on COTS HW of various form factor and integrated with 5G Radio
- Kubernetes and virtualized, cloud agnostic edge platform to host 3rd party applications
- Open APIs for integration of 3rd party application to Niral 5G Core and Edge platform
- Web based dashboard for Subscriber Provisioning, Configuration and Management
- Multi-tenanted Controller for 5G Core and Edge Infrastructure Management

Use cases

Manufacturing, Oil & Gas, Mining, Port, Shipyard, Power Grid, Warehouse, Disaster Management, that needs indoor/outdoor mobility over a large area with ultra-reliable, low latency and high bandwidth connectivity for AR/VR, video, drone, robotics application.

Recognitions

Niral Networks was the winner of the prestigious Aegis Graham Bell Award in the 5G Innovation Category for 2021-22. Niral Networks has been mentioned by LightCounting and GigaOm in their ICT research for Global Network Operating Systems. Niral Networks has also been recognized by DOT, NASSCOM, TIP, DSCI for their Network Operating Systems.

NIVETTI SYSTEMS IS A SECURE NETWORKING AND CYBER SECURITY PRODUCTS & SOLUTIONS COMPANY FOCUSED ON HELPING GOVERNMENT, DEFENCE AND PRIVATE ENTERPRISES BUILD ROBUST AND SECURE DIGITAL INFRASTRUCTURE & PROTECT EXISTING INFRASTRUCTURE FROM CYBER ATTACKS.



Nivetti Systems is a Bangalore based Secure Networking and Cyber Security Indian Company which is redefining the way Network and Cyber Security products are to be built for trusted and secure communication. Nivetti has developed India's first, **fully indigenous and highly secure Network Operating System, Nivetti NiOS™** which powers all its Routing, Switching and Cyber Security product portfolio. Nivetti's Routing, Switching & Cyber products are deployed across Government & Defence, Telco and Private sector.

Nivetti Systems core team is having more than two decades of global experience and expertise in Networking and Cyber Security domain. With deep expertise in Hardware, Systems software, Application software, Network Security and AI/ML, Nivetti team brings in a unique 360° perspective of how future digital infrastructure has to be built for Security, Programmability, Scalability and Performance.

Nivetti delivers a wide portfolio of products powered by its secure/high-assurance Network Operating System – Nivetti NiOS™. NRP Family of Aggregation Routers, powered by NiOS™, are designed as a Convergence Platform to connect various circuit/legacy technologies (e.g. T1/E1, T3/E3, STM1/4/16) and packet technologies (e.g. 1G/10G/40G Ethernet) to a Packet Core Network. With its distributed processing architecture, NRP series routers allow a 'pay as you grow' model. Customer can deploy 1G, 10G and legacy interface speeds today and upgrade to 40G speeds by just replacing the line cards on the same chassis, enabling a migration path from legacy to high-speed interfaces. Nivetti portfolio of Ethernet Switches powers Surveillance, Telco and Critical Infrastructure.

Nivetti HawkSecure™ is a very advanced AI/ML based Network Detection and Response platform that provides Early Threat Detection, Visualisation & Cyber Forensics. Nivetti HawkSecure™. In these days of evolving Cyber Threats across Network, Compute, Application & Device layers, there is a need to ensure every packet on the Network is analyzed. Nivetti HawkSecure is deployed in some very critical and sensitive Networks of India and is protecting more than 100,000 nodes currently.

www.nivettisystems.com | contactus@nivettisystems.in | 166, 21st Main Road, 100 feet Ring Road, JP Nagar, Bangalore

QNu Labs

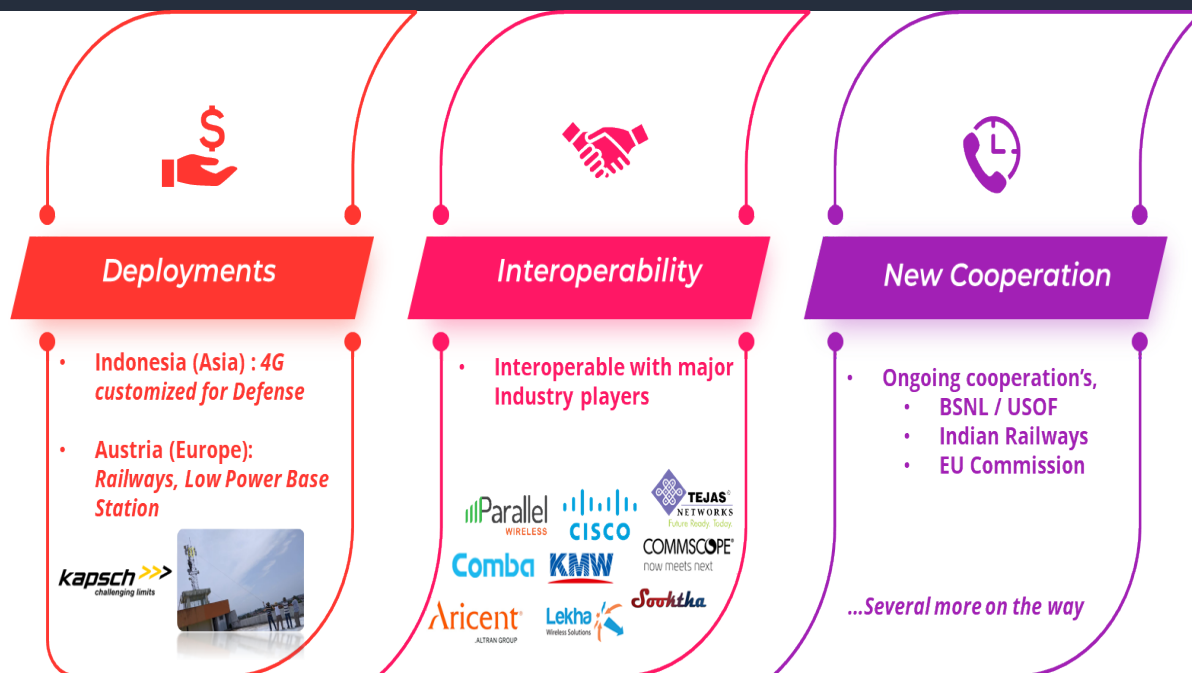
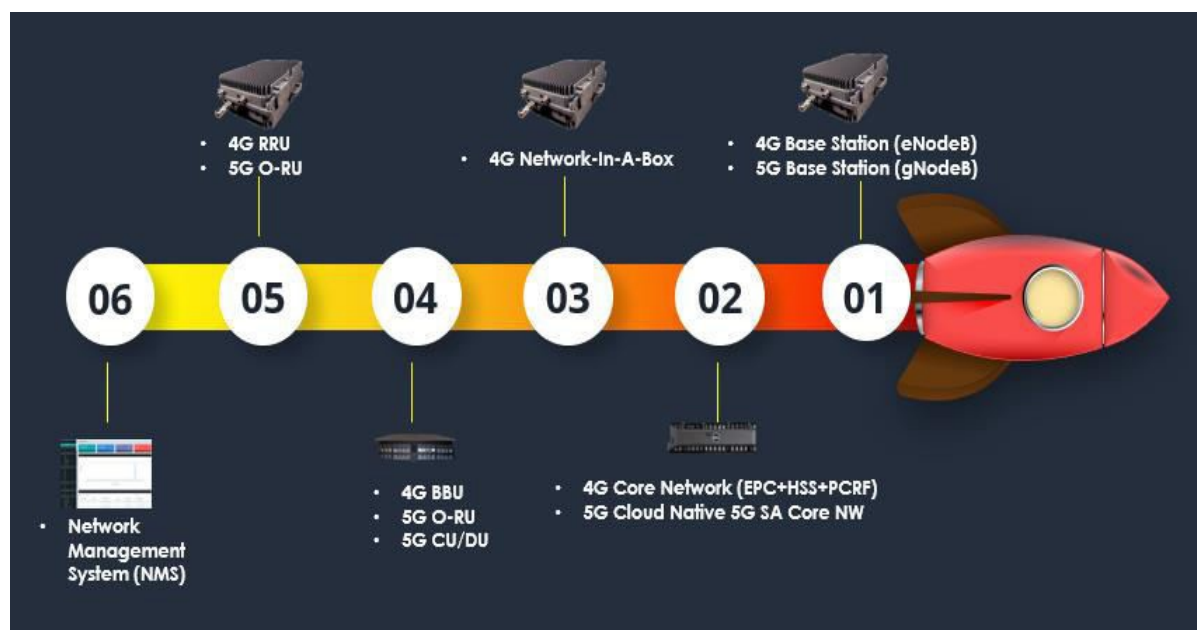
QNu Labs is a leader in quantum-safe cryptography products and solutions, offering unconditional and forward security of data on the internet and cloud.

QNu Labs is a manifestation of founder's passion and belief to build a globally recognized real deep tech product company in India. After having done several firsts in India and globally, the core team felt the need to develop next generation security solutions that would leverage the power of a different world, a quantum world to address cyber security problems of classical computing world.

QNu Labs team consists of passionate people with diverse skills in Quantum Physics, Quantum Security, Cybersecurity, Optoelectronics, Laser technology and high precision electronics. We achieved the momentous milestone of becoming India's first and the only Quantum Cryptography company and put India on the prestigious quantum map of the world.

Indigenous 4G / 5G Wireless Network Solutions

Resonous technologies is a Bangalore based 4G and 5G Wireless Network Solutions Supplier with strong R&D focus for nearly 10 years, delivering cutting edge solutions with secure, reliable, and cost-effective end to end portfolio, we are specialized to serves the industry-tailored needs of Voice, Broadband Data, and IoT. Our main focused domains are Rural Telecom, Defense, and Industry 4.0 Communications.



SIGNALCHIP

SIGNALCHIP

Signalchip is an exciting Indian fabless semiconductor company established in 2010 with the vision of building an organization of highly motivated people working on cutting edge technologies creating differentiated semiconductor products. They work on extremely innovative chips to enable high speed wireless communication standards like 4G-LTE/3G-WCDMA and 5G-NR. Signalchip's devices provide extreme performance while being optimal owing to its slim baseband and RF architectures that are designed from grounds up with modern-day high-performance systems in mind and carry no baggage of legacy systems. Signalchip have the Agumbe series of Chipsets for Radio Access networks.

Agumbe series of Chipsets for Radio Access network

Multisystem and Multiband RF Transceiver

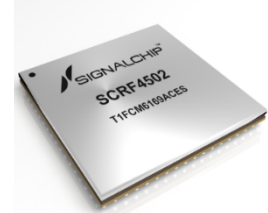
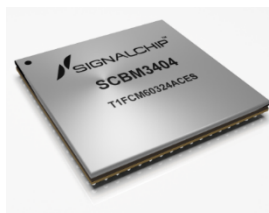
Signalchip's RF Transceiver chips **SCRF4502** and **SCRF3402** integrates all the necessary components for 5G-NR/ 4G/ 3G/ 2G, Wi-Fi systems and a wide range of SDR applications. Integrated CPRI/JESD link support enable unique and compact RRU designs.

Complete LTE Base station in one chip

SCBM3412 is a highly optimized device built for residential and enterprise class base stations from scratch with a CPE (Customer Premise Equipment) mindset. A platform that carries no baggage of legacy systems brings together the performance and robustness of enterprise class equipment with the cost sensitivity of mass market equipment. Powerful processing engines for L1/ L2/ L3 layers of LTE Advanced systems, LTE and WCDMA have been built with innovative hardware-software partitioning and optimal analog-digital partitioning of the functionalities. SCBM3412 provides the long-awaited low-cost small cell solution with best in class performance.

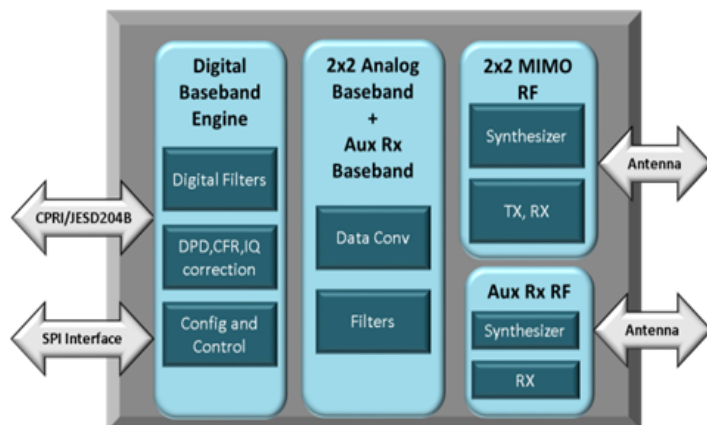
High performance LTE Baseband

SCBM3404 is a highly optimized device built for enterprise and local area/macro base stations. A platform that carries no baggage of legacy systems brings together the performance and robustness of enterprise class equipment at a competitive price point. Powerful processing engines for L1/ L2/ L3 layers of LTE Advanced systems, LTE and WCDMA have been built with innovative hardware-software partitioning to support 4x4 and advanced signal processing functionality.



Single chip SoC	Baseband SoC	RF Transceivers	
LTE-LAA + WCDMA Dual Carrier 2X2 MIMO Single Chip	LTE Dual Carrier MIMO 4X4 Baseband Chip	2X2 MIMO Analog-RF Transceiver: 350MHz-6GHz with aux receiver	2X2 MIMO Analog-RF Transceiver: 350MHz-6GHz 5G-FR1 capable!
Ultra compact cost sensitive small cells	Local Area and Macro Base Stations	LTE Basestation, WiFi, SDR/Wireless Systems	5G NR, LTE Basestation, WiFi, SDR/Wireless Systems

SCRF4502: 5G-FR1 capable RF Transceiver



5G-NR, LTE, 3G, 2G, and Wi-Fi

Supports all 5G FR1 bands

100 MHz RF bandwidth

Integrated DPD, CFR and Quadrature correction

Digital communication Interface with integrated CPRI and JESD



Single chip ultra-compact SoC for a Feature Rich 5G Radio Unit!

Signaltron

Signaltron is an Indian original equipment manufacturer of Wireless communications systems established in 2019 with the vision of building complete end to end technology ownership within India in ubiquitous networking devices. Founders of Signaltron have spent many years developing solutions to some of the most complex problems in networking, computation, wired and wireless communication domains. Signaltron specializes in providing radio access network solutions for 5G, LTE, GSM and WCDMA

Focus areas of expertise:

1. Wired and wireless networking solutions : Indigenous 4G, 5G, Wifi, NavIC
2. Wireless Infrastructure
3. Enterprise and Consumer equipment
4. Secure networking

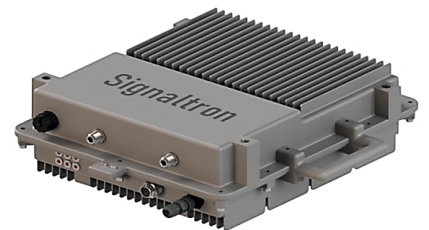
Sahyadri Series of RAN systems from Signaltron



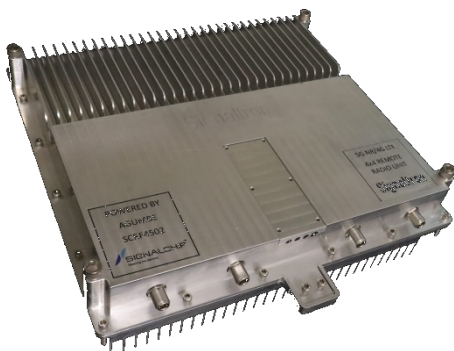
Scalable Baseband Unit



Network in a Box



Macro eNodeB



5G/4G Radio Unit



Indoor and Outdoor Small cells



STRRU4415-160W-OD: High power High Capacity 5G RU



O-RAN Compliant with 10G eCPRI Interface

4 x 40W per antenna

Lower PHY and Beam forming

O-RAN 7.2 interface

Signaltron's Sahyadri series of Radio Access Network Equipment featuring highly integrated, compact, and versatile 5G/4G Base Stations deliver high capacity to enable ubiquitous connectivity to all. A key part of Sahyadri RAN, the STRRU4415 Remote Radio Unit is easy to install and gives the flexibility to run all functions of O-RU facilitating multiple interface splits of the macro gNodeB/eNodeB in a single enclosure.

Sahyadri Base Stations enabled by the new Agumbe Chipsets from Signalchip deliver high throughput providing industry leading performance in extremely compact form factors, which will allow operators to meet the huge growing densification demands as well as provide low cost coverage to rural regions, thus providing a common deployment platform that bridges the diverse rural-urban deployment requirements.

Sahyadri STRRU4415 O-RU features energy efficient high power 4x4 radio that performs all the functions from lower-PHY of gNodeB/ eNodeB's L1 layer to RF in a single compact enclosure. This helps the service providers to reduce the site space requirement and allow faster roll out while lowering the total cost of ownership. These can support carrier aggregation to maximize the cell throughput and capacity for an enhanced overall user-experience.

Sahyadri STRRU4415 is powered by the highly integrated 5G/4G RF transceiver chipset Agumbe SCRF4502 from Signalchip featuring high fidelity mixed-signal analog RF and integrated advanced signal processing functions such as DPD, CFR and QEC. The compact unit performs all functions of the lower PHY of L1 of the gNodeB/eNodeB solution. It connects to the DU over a 10G CPRI/eCPRI/ORAN 7.2x interface.

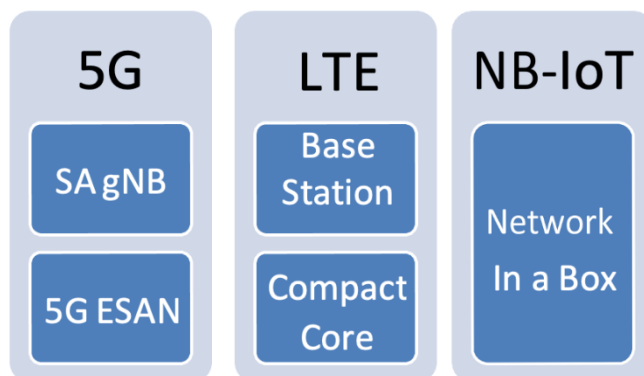
SOOKTHA

We offer software and solutions for cellular wireless access infrastructure. In the Radio Access Network (RAN), we offer the 5G NR gNB, the 4G LTE eNB, and the NB-IoT eNB. We believe we can unlock the full potential of cellular wireless access by combining deep domain knowledge, well-engineered software, and agile development practices.

We are a cellular wireless access software and solutions company. Our core team has worked across the globe over the last two decades, developing and deploying cellular wireless access solutions for both Infrastructure and Test & Measurement (T&M) segments. The team brings a combination of technology, specifications, software, systems, and ecosystem expertise and insight that rivals the best in the world.

Our core beliefs are in Simplicity, Excellence, and Value Creation. We strive to reflect these beliefs in every interaction with each one of our stakeholders.

Our Solutions Include below:



5G NR gNB:

5G NR gNB for use in Enterprise, Industry, and Campus. Integrated small cell as well as split deployments (CU, DU) to match specific needs.

- a. 5G NR gNodeB Software for SA Mode
- b. 3GPP Release 15 Compliant
- c. O-RAN Compliant
- d. Up to 128 Users per sector
- e. Up to 16 Users per slot
- f. Up to 100 MHz Operating Bandwidth
- g. Downlink 8 layers and Uplink 4 layers
- h. QoS Aware Scheduler
- i. FAPI compliant
- j. CLI and GUI based EMS support
- k. Multiple Layer 1 options available
- l. Multiple hardware platform options available

5G NR End-to-End Application Test Bed

Our End-to-End Software Access Network (ESAN) includes the multi-UE (MUE), Smart Base Station (SBS), and the Integrated Core Network (ICN) software. A real-time simulation of the baseband and RF allows this to be deployed on COTS servers.

- a. 3GPP Release 15 Compliant
- b. O-RAN compliant
- c. Up to 128 Users per sector
- d. Up to 16 Users per slot
- e. Up to 100 MHz Operating Bandwidth
- f. Downlink 8 layers and Uplink 4 layers
- g. QoS Aware Scheduler
- h. FAPI compliant
- i. Virtualization/Containerization ready
- j. CLI and GUI based EMS support

LTE Base Station

- a. 3GPP Release 13 Compliant
- b. Up to 32 Users per sector
- c. Transmission modes 1 to 4
- d. VoLTE support (SPS, RoHC and TTI Bundling)
- e. QoS Aware Scheduler
- f. CLI and GUI based EMS support
- g. TR69/TR196 support

NB-IoT Network-in-a-Box

- a. LTE Cat-NB1
- b. 3GPP Release 13 Compliant
- c. Standalone, Inband, and Guardband
- d. CP-CIoT and UP-CIoT
- e. Paging, eDRX, and PSM support
- f. Uplink Single-Tone and Multi-Tone
- g. Integrated USRP/Lime SDRs
- h. CLI and GUI based EMS support

INDIA'S 1ST 5G CLOUD CCTV CAMERA



4G CCTV CAMERA

4G Cloud Camera Operating on 4G-LTE networks, an ideal monitoring solution for remote areas with limited or no wi-fi or Wired access.



WI-FI CAMERA

Sparsh Wi-Fi Camera works over exiting 2.4 GHz Wi-Fi networks for live streaming. Best Cost effective solution for home and business Security Surveillance.



5G AI CAMERA

5G CCTV Camera works on 5th Generation Wireless Technology. Available even with frequency bands suitable for Private 5G networks. Live Streaming of Audio & Video Signals remotely with less interference and delay transmission. Perfect solution for Cloud storage of CCTV data.

Samridhi Automations Pvt. Ltd.
F-365, Sector 63, Noida-201307
www.sparshsecuritech.com

#SurakshaSarhadSeGharTak

Sparsh - CCTV Factory for the World, Victory for Make in India

Sparsh is the epitome of **'Made in India'** Electronic security products over the last decade. Sparsh started their journey ~15 years ago with the vision of making India a destination for design and manufacturing of advanced security solutions. Due to its unrelenting focus on innovation and building design/manufacturing capabilities, Sparsh has revolutionized the security market by becoming India's first company to design and manufacture CCTV cameras in the country in 2008. It now counts several renowned brands as its prime customers, including several international and Indian brands. Sparsh has been instrumental in shifting the manufacturing base for several companies from China to India. Sparsh is now a leader in designing and manufacturing CCTV equipment in India with two manufacturing facilities in Haridwar and NOIDA.

The Company truly embodies a vision of **'building India'** and **'building in India'** with ~7% of its annual revenue directed towards R&D. With one of the largest in-house R&D centers for CCTV solutions and state-of-the-art manufacturing units and Testing facilities, building products to global standards, Sparsh has won many accolades and awards including the National MSME Award for Quality. Despite the pandemic, Company has achieved a CAGR of ~80% from 2019 to 2021.

Led by the **'Made in India'** man of the Electronics Security Industry – Sanjeev Sehgal, this success has not been achieved overnight. The Company has faced many challenges in successfully imbedding the **'Make in India'** policy, not just on paper, but in also in practice, while successfully maintaining price competitiveness with much larger foreign counterparts. Sparsh has achieved more than 80% Domestic Value addition for most of the products as on date and is committed towards achieve same for the complete range

With several government and private projects under its belt, the Company now aims to expand production in India to supply to South-East Asian markets and the West. Sparsh has set a solid benchmark of where India as a nation is headed – establishing economical and financial prominence on the global stage, through the success and scale of its national bred companies. As the Company targets to become the **CCTV factory for the World**, it marks a major victory for **'Make in India'** and a path for other national companies to tread.

सुरक्षा सरहद से घर तक



www.sparshsecuritech.com

#SurakshaSarhadSeGharTak

End-to-End 4G/LTE Upgrade of Existing 2G/GSM Rural / LWE Towers in 5 Days

Comply to TEC / GR /
WS / ENB-001
up to 3GPP Release - 14

Globally
Field
Proven

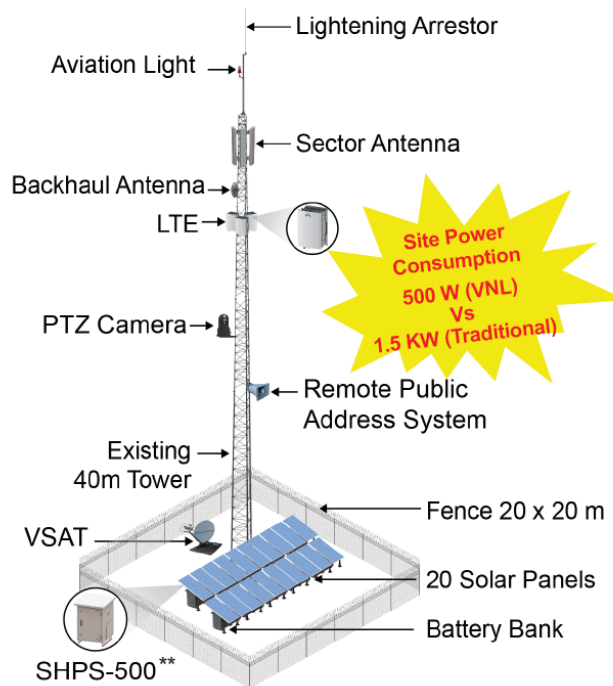


We are connecting you to everything that matters. Discover a cost effective optimised as compare to expensive urban communications infrastructure equipment for LWE areas.

As the cost of deployment drops, mobile operators can profitably expand service territories where it was previously cost-averse. This includes areas with no phone service in developing countries.

HIGHLIGHTS

1. Designed for upgrading existing 2G/GSM Rural Tower to 4G/LTE
2. Integrated solution - eNodeB (RAN), Solar Power, MW or V-SAT Backhaul
3. Extremely cost effective
4. MIMO technology for enhanced Capacity
5. Up to 72 hours of power backup
6. Easy to deploy & maintain - no civil work required
7. 100% solar powered - no diesel, no grid required



**VNL Solar Powered 4G Mobile Tower
Solution for LWE Remote Areas**

LTE CONFIGURATIONS FOR LWE

Config.	Max Output Power	Antenna	Coverage Radius*	Data Rate at Cell Edge	Solar Panels	Fence Area
1	2x5 W	3 Sector	5 km	1 Mbps	20	20 x 20 m
2	2x10 W	3 Sector	6 km	1 Mbps	24	20 x 20 m

* Coverage depends on frequency, terrain and line of sight.

** SHPS-500: Smart Hybrid Power System-500

ResQMobil

Reconnect. Rescue. Restore.



Available in following configurations

2G

4G

2G + 4G

Emergency Public Connectivity

Rescue Team Connectivity

Public + Rescue Connectivity



When disaster strikes breakdown of communication networks is the next biggest disaster. Public safety agencies and first responders, when operating in challenging environments with no network, need connectivity solutions that can not only be setup instantly, but can also fulfill on-field requirements. VNL's ResQMobil voice & broadband communication system for first responders and aid agencies can help by coordination to prevent panic, implement an orderly response plan by providing voice, video and data capabilities during operation and improve coordination. The system can also be used to restore the public network connectivity for the affected population when commercial networks are unavailable.

HIGHLIGHTS

1. Secure, autonomous private mobile phone network
2. Portable enough to be carried in a backpack or briefcase
3. Mountable on vehicles, helicopters, or drones
4. Instant Voice, Live Streaming Video and Broadband Data
5. Always-on, real-time connectivity from field to office
6. Search and rescue using location of buried and injured civilians
7. Aggregate information across technologies & platforms for actionable information
8. Can be connected via any backhaul (VSAT, LEO, GEO, MW Radio)

FEATURES

For Rescue Team

1. Push-to-Talk/Video
2. Secure Voice, Video
3. Video Call
4. Location
5. SOS
6. 6x Party Video, Audio Conference

For Affected Civilians

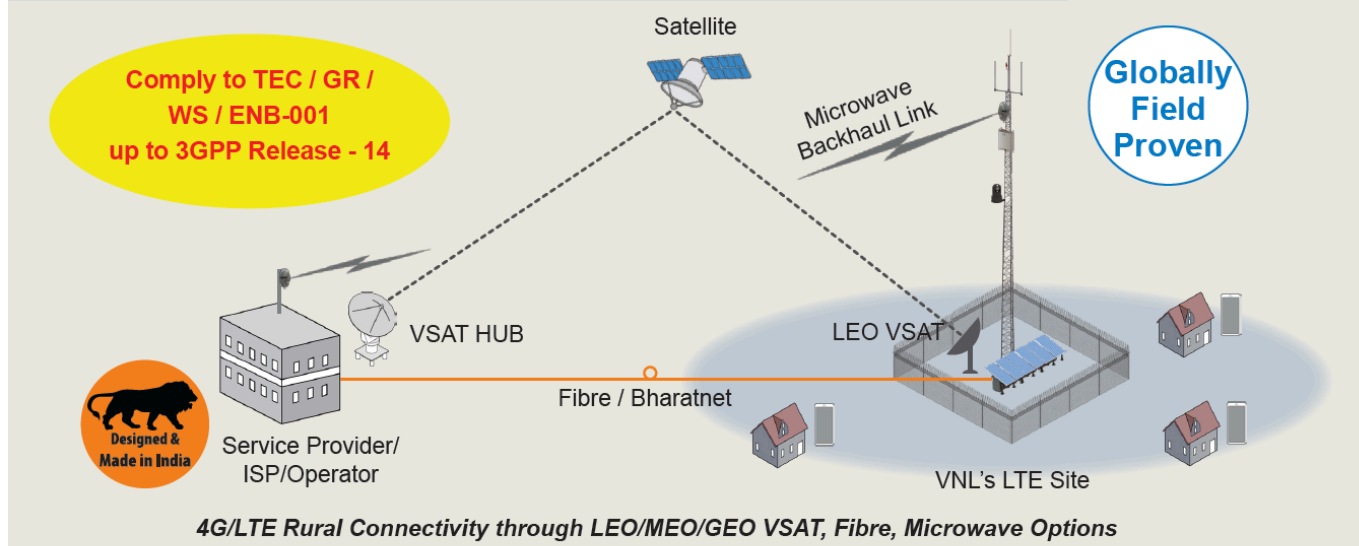
1. SMS Broadcast
2. Affected Civilian Count
3. Affected Civilian ID
4. Emergency no. Calling
5. Outgoing Calls

Email: sales@vnl.in

www.vnl.in

Tel +91 124 265 7600

End-to-End 4G/LTE Broadband for Un-covered Villages in 2 Days



VNL's 4G/LTE mobile broadband network solution for un-covered villages is a 3GPP and TEC-GR compliant, VSAT optimised solution. The solution makes a viable business case for previously unaddressed rural markets where expensive, bulky and power-hungry traditional communications infrastructure equipment fails.

100% solar powered solution with 3 days power backup weighs less than 1,000 Kgs and can be installed & commissioned in 2 days.

The solution helps Operators (MNO), ISPs & Wireless Internet Service Providers (WISP) extend their reach to rural areas by enabling voice & high bandwidth broadband services profitably using a variety of backhauls including low latency Low Earth Orbit (LEO) VSAT.

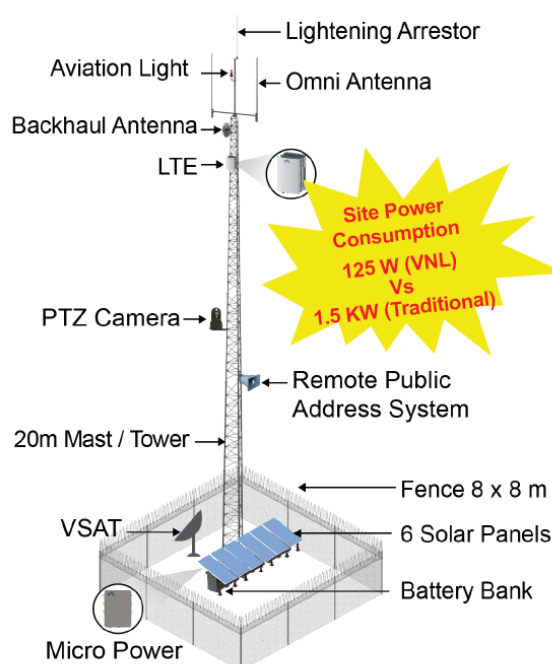
HIGHLIGHTS

1. Integrated solution - eNodeB (RAN), Solar Power, MW or V-SAT Backhaul
2. Extremely cost effective
3. MIMO technology for enhanced Capacity
4. Up to 72 hours of power backup
5. Easy to deploy & maintain - no civil work required
6. 100% solar powered - no diesel, no grid required

LTE CONFIGURATIONS

Config.	Max Output Power	Antenna	Coverage Radius*	Data Rate at Cell Edge	Solar Panels	Fence Area
1	2x1	Omni	3 km	1 Mbps	4	6 x 6 m
2	2x5	Omni	4 km	1 Mbps	6	8 x 8 m

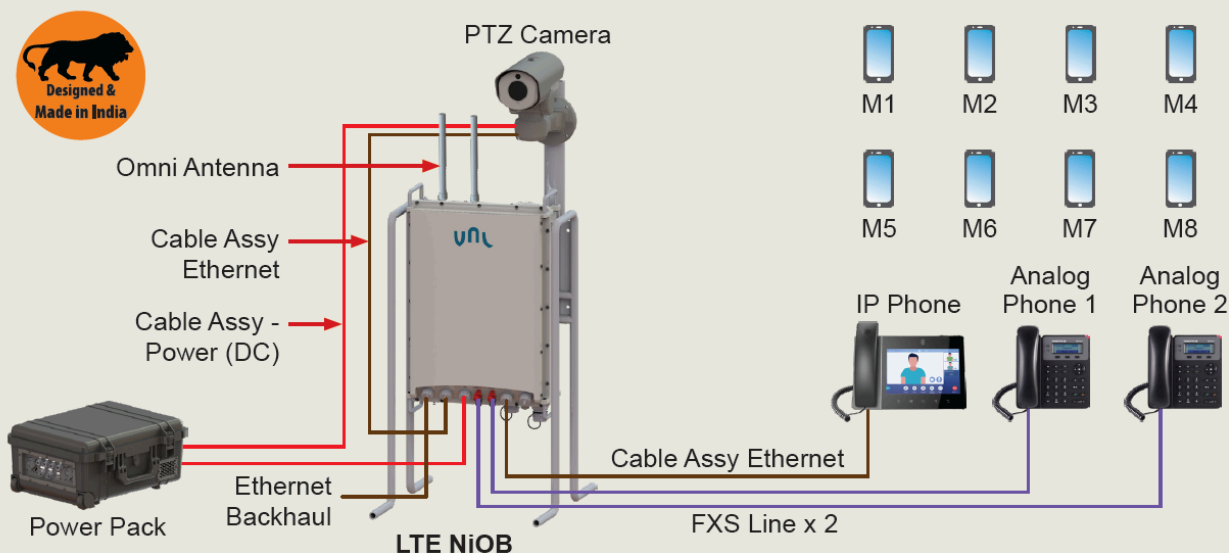
* Coverage depends on frequency, terrain and line of sight.



**VNL Solar Powered 4G Mobile Tower
Solution for Uncovered Villages**

Live Demo at ITU Regional Standardization Forum

on “Regulatory and Policy aspects of Telecommunications/ICTs”, New Delhi - 8th Aug 2022

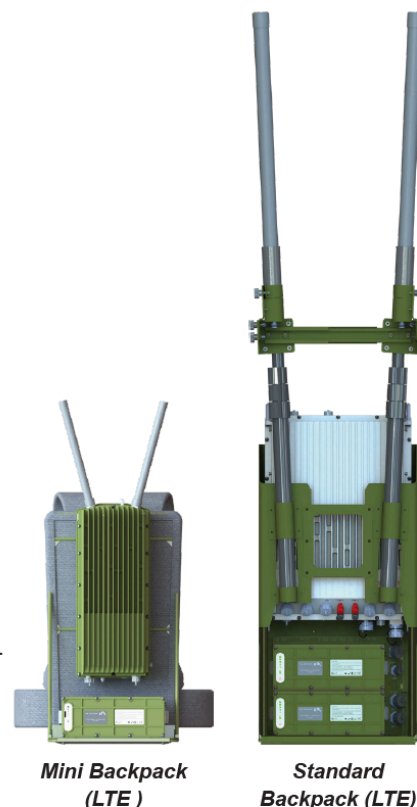


OVERVIEW

VNL's Broadband Tactical LTE Backpack is a compact, Lightweight, body-worn unit that exploits the advantage of limited manoeuvre space in mountainous battlefield operations by providing instant, secure, on-the-move broadband network for mission critical communication. With on-the-move connectivity during the operation small groups of soldiers get access to real-time field situational-awareness by being connected with each other and the base through Voice/Video/ Data network.

HIGHLIGHTS:

1. Integrated Battery with 3hrs and 6 hrs battery backup.
2. Rugged, all-weather IP65 casing for harsh outdoors.
3. Support Mobility across network of Backpack.
4. Shock proof and energy efficient; functions in standalone mode.
5. Integrates camera/sensors for improved situational awareness.
6. Voice/Video, PTT/PTV Group chat, group file sharing and 6 Party Audio / Video Conferencing.



WiSig Networks

WiSig Networks is an upcoming Indian Startup engaged in developing 5G Mobile Communications Products and Solutions.

WiSig Networks is based out of IIT Hyderabad Campus Incubator in Hyderabad, India.

Their core competencies are creating product Intellectual Property (IP) that we license to semiconductor manufacturers and telecom vendors. They have several ongoing 5G NR and NB-IoT trials with leading global operators. They were also one of the world's first to demonstrate an NB-IoT modem at MWC 2017.

Presently, WiSig Networks is offering 3GPP 5G NR Release 15 PHY and Protocol Stack. They are working with leading industry players to push our 5G Massive MIMO and mmWave solutions to the market.

Their IoT product line-up includes 3GPP Release 13/14 compliant Narrowband-IoT (NB-IoT) SoC that includes GNSS/GPS to support a wide range of IoT applications across different vertical use cases.

WiSig Networks specializes in developing 5G NR sub-6 GHz and mmWave base station, and UE products including NB-IoT solutions.

NB-IoT UE SoC

WiSig Networks announced 3GPP Release 13/14 compliant Narrowband-IoT (NB-IoT) SoC that includes GNSS support at MWC19 Barcelona. Operator trials are currently underway, testing a wide range of IoT applications across various vertical use cases.

The product is aimed to serve the ultra-low power IoT chipsets, such as sensor applications.

5G NR Base Station

WiSig Networks offers 3GPP Release 15 compliant 5G New Radio (NR) base station PHY IP (FPGA and X86) and protocol stack that supports both sub-6 GHz and mmWave bands. The IP supports functional split 7.2x.

Intellectual Property:

WiSig owns patents that are essential to the implementation of 3GPP 5G NR standards. WiSig has further obtained an exclusive license to commercialize the patents owned by IITH

- a. WiSig has declared 13 SEPs to TSDSI
- b. WiSig has a patent portfolio of 110 patents of which 25 patents are SEPs

In addition to 5G SEPs, WiSig holds patents that are essential for the implementation of 5G NR products.

- a. ORAN massive MIMO DU and RU
- b. Cloud RAN
- c. Advanced algorithms for 5G NR gNB and UE receivers
- d. NB-IoT Base Station and UE receivers

WiSig also holds patents that have high potential to become SEPs in 6G

National Payments Corporation of India (NPCI) was set up by the Reserve Bank of India (RBI) and Indian Banks' Association (IBA) in 2008 as an umbrella organization for operating retail payments and settlement systems in India. NPCI has created a robust payment and settlement infrastructure in the country through a bouquet of retail payment products such as [RuPay card](#), [Unified Payments Interface \(UPI\)](#), [123PAY](#), [Immediate Payment Service \(IMPS\)](#), [Bharat Interface for Money \(BHIM\)](#), [BHIM Aadhaar](#), [National Electronic Toll Collection \(NETC Fastag\)](#) and [Bharat BillPay](#).

NPCI is focused on bringing innovations in the retail payment systems through use of technology and is relentlessly working to transform India into a digital economy. NPCI is facilitating secure payments solutions with nationwide accessibility at minimal cost in furtherance of India's aspiration to be a fully digital society. NPCI aims at moving toward a touchless, paperless, cashless world and digital payment products are here to stay.

India is witnessing a swift growth in transactions through mobile payments. Ever since its launch, Unified Payments Interface (UPI) has brought a dramatic shift in the way payments are done in the country. With more and more major players being on-boarded on the UPI platform, UPI will soon be the largest digital payment system in India. From only 0.01 mn transactions in 2016, UPI has grown tremendously to a whopping 6.28 BN transactions with a total value of ₹10,62,747 Cr in July 2022. Convenience has become the focal point of innovation in any industry especially if we talk about modern consumers who are always on the lookout for new and better products/services. When we put the global pandemic in this mix, it becomes understandable why Contactless Payments is becoming a space of interest for both consumers and payment players.

This is where RuPay ON-THE-GO makes an entry providing the consumers with the ultimate "convenience experience". So, what is RuPay ON-THE-GO? Simply speaking it can be anything from wristbands, watches, jewelry, and keychains to even smart clothing that can be used to make contactless payments on-the-go. RuPay ON-THE-GO allows customers to make small and large value transactions from the accessories they wear every day. This innovative payment solution would redefine the contactless payments space by eliminating the need to carry a physical card and enabling instantaneous payments with a simple "Tap, pay, go" mechanism. This unique offering will revolutionize contactless payments with a superior customer experience that is smart, fashionable, super quick, convenient, and completely secure.

With the pandemic disrupting our lives, India is on the verge of becoming contactless, and digital payments services like RuPay and UPI are helping people to adjust to the new normal.

For more details, get in touch with:

Shivang Goyal

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Phone: 7318388822



**Contact for 4G/ 5G Telecom
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+91 9350836103/ 7011550321