

About CyanConnode

CyanConnode is the largest private player in India providing Smart IoT Communication solutions for AMI infrastructure. CyanConnode's Omnimesh Networks are designed for rapid deployment, while giving exceptional performance and competitive total cost of ownership (TCO).

CyanConnode is the preferred AMI communication technology provider for Utilities, System Integrators, Meter OEMs globally.



Proven Field Experience

~2.5 Million nodes deployed in India across 11 states & 16 utilities in varied terrains

SLA Compliance

Back to back commitment and delivery on SLAs

Open Ecosystem

Backed by Wi-SUN Alliance

Large Technical Teams

Dedicated team of 150+ engineering & delivery experts

Seamless Supply Chain

Robust and a streamlined end-to-end supply chain ensuring on-demand project deliveries

Future ready for Interoperability

Built on open international standards, setting it apart from the competition

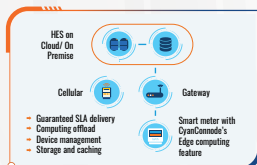
Superior Silicon

Adding FG28 to our portfolio for its greater memory, scalability, and performance, making it ideal for extensive smart metering projects

Leader in IoT communications

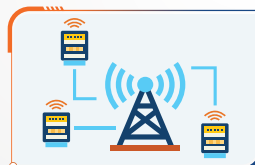
Decade long R&D efforts. 3rd generation Omnimesh IOT solution resulting in $\geq 99.5\%$ SLA compliance

Edge Computing



Facilitates optimization of data payload enabling faster data processing at the node level ensuring reliable transmission of data

RF/ Cellular Communications



CyanConnode's Omnimesh RF/ cellular communication module connects to the Omnimesh Network Management System (NMS) and platform applications such as the Smart Metering Application to ensure $>99.5\%$ SLAs

Network Design Expertise



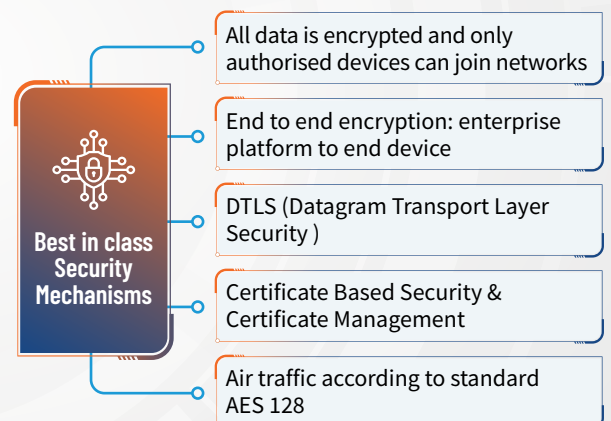
Experienced and dedicated network design experts of Communication Field Engineers & Central Network Monitoring Teams, to ensure compliance of desired SLA for the entire project duration

Network Management System



CyanConnode's solution architecture is the only one to provide NMS for RF and cellular meters. It ensures real time visibility and monitoring of communication node status through geo mapping

End to End Multi-tier security



Achieved Commercial Product Assurance (CPA) from UK National Cyber Security Centre (NCSC), a branch of UK Government Communications Headquarters (GCHQ).

Omnimesh incorporates a Layered Security Model based on SWISS Cheese Model.

Multi Layered Security Model across

- Device
- Mesh Radio MAC Layer
- IPv6 Network Layer
- Transport Layer
- WAN
- Infrastructure
- Identity
- Application Layer

Flagship Products & Offerings

CyanConnode delivers secure, robust IoT communication networks for multiple enterprise applications, in a wide range of urban and rural environments.

RF Mesh Network Interface Card

- IPv6/6LoWPAN RF Mesh based on IEEE802.15.4g
- Variants compatible with Multiple Bands
- Self forming and self healing mesh technology.
- Vendor/Meter OEM agnostic

Omnimesh IoT Gateway

- Integrated Gateway (IGW) supporting both Cellular and RF Mesh connectivity
- Pole / Wall mountable with external antennas
- Gateway to the Omnimesh HES for a local population of smart meters
- Cellular and/or Ethernet connections to HES/NMS
- IP67 rated Durable & Versatile Design

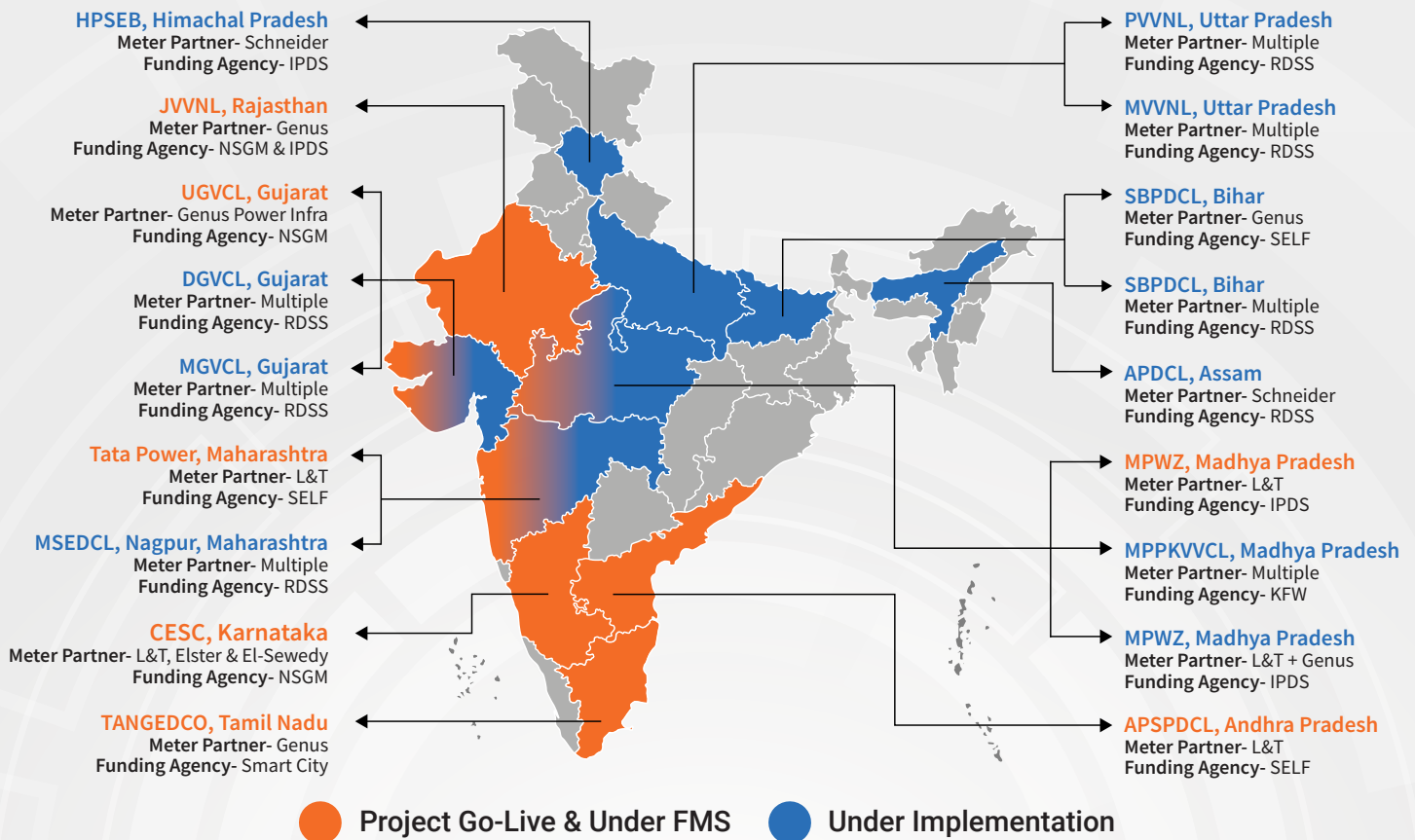
Cellular Network Interface Card (CNIC)

- Dual SIM Cellular Network Interface Card
- Point-to-point Cellular connectivity
- Supports 2G/3G/4G/5G standards
- Vendor/Meter OEM agnostic

Omnimesh Head End System (HES)

- Web based Software for data acquisition
- Manages both CNIC and RF Mesh enabled smart meters
- Standards for interfacing with MDMS
- Built-in NMS and SMA Applications

CyanConnode India Deployment & Impact



● Project Go-Live & Under FMS ● Under Implementation

* Data as of February 2025

Orderbook of 13.55 million RF nodes | ~2.5 million nodes deployed

* Map not to scale

Client: Multiple Utilities / DISCOMs across India

Operating since : 2014 - One of the pioneers in Smart Metering Implementation in India

Objective

→ Implementation of Advanced Metering Infrastructure (AMI) / Smart Metering under various Government of India (GoI) flagship schemes such as National Smart Grid Mission (NSGM), Integrated Power Development Scheme (IPDS) & Revamped Distribution Sector Scheme (RDSS)

Solution

- Supply of Communication Modules, Standards-based Field Hardware, Head End Software & Services
- Annual Maintenance Contract (AMC) of the Smart Metering System

Features

- Remote Connect & Disconnect
- Instantaneous Parameters
- Load Profile / Block Data
- Daily Energy Data
- Monthly Billing Data
- Events, Alarms, Tamper & Notifications
- Remote Firmware Upgrade
- AMI deployments covering a mix of terrains – Urban, Rural, Semi Urban & Hilly areas

Benefits delivered

- Consistently delivered ≥ 99.5% of SLAs
- Improved Billing Efficiency & Revenue Collection
- Reduced Aggregate Technical & Commercial (AT&C) losses
- Demand Forecasting from Consumer level to Substation level
- Theft / Pilferage Detection

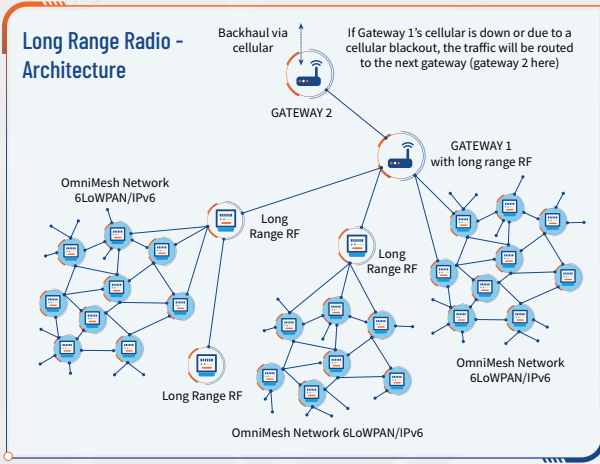
Sustainability Potential Impact on Environment due to Reduction of Manual Reads



Please Note: The savings will be much higher if we take associated Smart Meter benefits such as load forecasting, peak load management, adoption of energy efficient lifestyle due to Smart Meters, Demand Side Measures, AT&C loss reduction, etc.

Next-Gen IoT solutions for smart metering

Long Range Radio - Architecture



Long-Range Radio

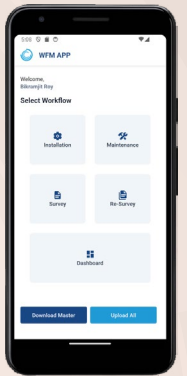
CyanConnode's Long-Range RF modules, part of the Omnimesh platform, deliver seamless connectivity over distances of up to 10 kilometers per link on Line of Sight. Designed to overcome connectivity challenges in remote and rural areas, this technology has proven its capability in challenging terrains such as valleys, agricultural fields, and sparsely populated regions.



To know more scan the QR code:

Revolutionizing Smart Meter Deployments

CyanConnode introduces its innovative Workforce Management Solution (WFM App), designed to streamline and optimize the complete lifecycle of smart meter field operations—from survey and installation to maintenance, meter asset management, reconciliation, and data accuracy. This cutting-edge platform empowers field engineers with real-time insights, seamless data capture, and optimized workflows, ensuring compliance with SLAs while reducing operational inefficiencies and enhancing overall performance.



Why Choose CyanConnode WFM Solution?

- ✓ Optimized Field Workforce Productivity
- ✓ Team and Resource Management
- ✓ Work distribution and Meter dispatch
- ✓ Accurate Data Capture & Error Prevention
- ✓ Real-Time Monitoring & Reporting
- ✓ Seamless Integration with Utility Systems
- ✓ Automated Scheduling & Route Optimization
- ✓ Intuitive Mobile App for On-the-Go Execution
- ✓ Device diagnostics and remote storage management



To know more scan the QR code:

Omnimesh In-Meter Gateway

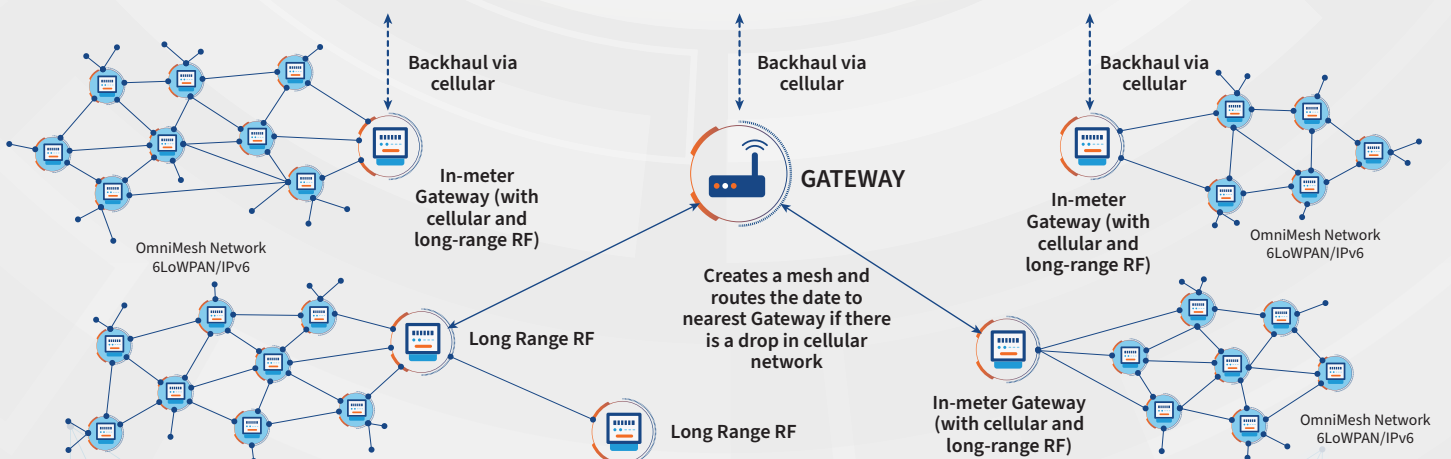
We have developed an Omnimesh In-Meter Gateway that integrates communication systems directly within smart meters. This solution dynamically adapts to network conditions, enabling meters to operate as part of an RF mesh network or seamlessly switch to cellular connectivity when needed. By reducing hardware dependencies and maintenance costs, the Omnimesh In-Meter Gateway offers a scalable and cost-efficient approach for smart metering. Its modular design and advanced features ensure uninterrupted connectivity, even in challenging environments, making it an indispensable tool for utilities striving for reliability and efficiency.



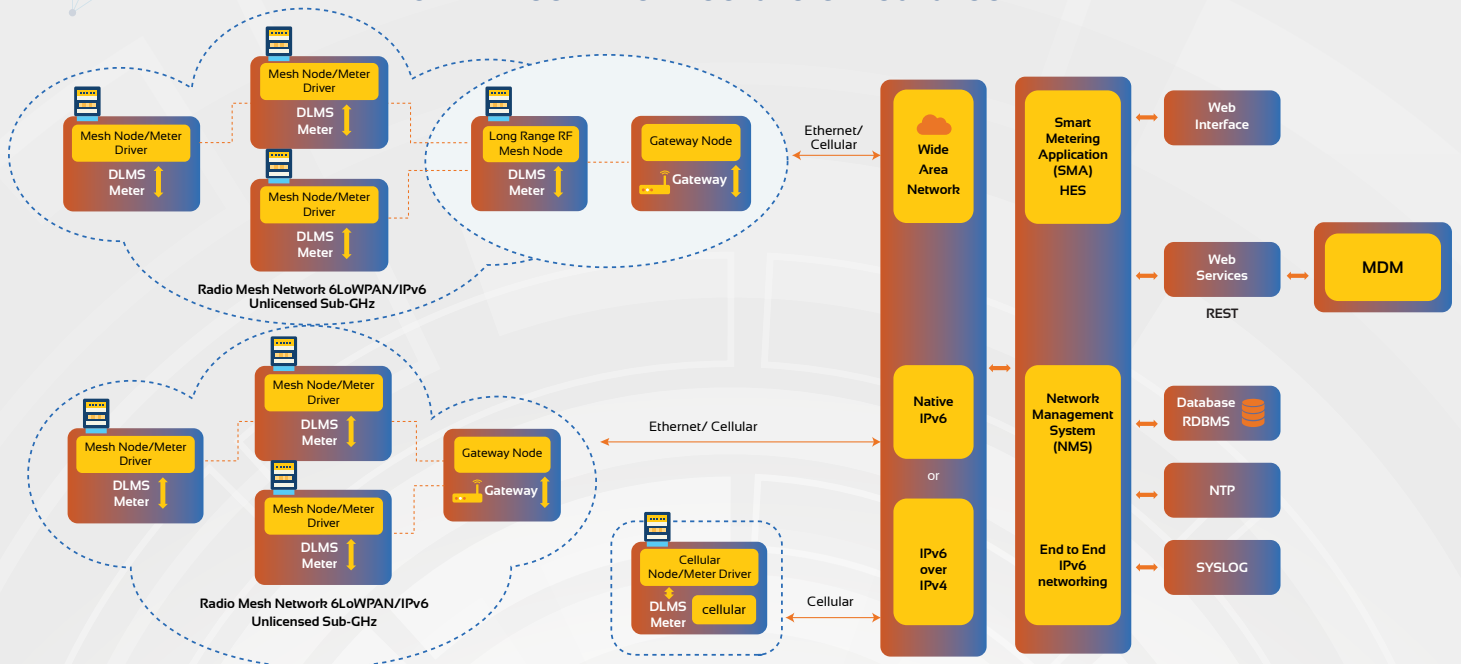
Omnimesh In-meter Gateway Architecture

Superlative connectivity at fraction of today's costs

To know more scan the QR code:



Omnimesh Architecture & Features



Endpoints - Meters + NIC

- Meter
- Internal bistable relay for connect/disconnect
- Prepaid / Postpaid
- OTA firmware upgrade
- NIC: RF Mesh / Cellular

Gateway

- Pole/Wall mountable with external antennas
- Hybrid RF & Cellular Gateway
- Join Mesh N/W with Smart Meters
- 300+ Smart Meters per Gateway

Omnimesh - HES

- Web based software for data acquisition
- Stores and visualize data
- Monitors and Alerts to exceptional conditions
- SQL Server, XML Web Services
- Standards for interfacing with MDMS

MDMS

- Web based Meter data management system
- Interfacing with ERP System
- Perform Validation, estimation and editing on meter reading data

Security

- Omnimesh AMI System is built from ground up with security in mind
- A layered model combines >30 security controls to protect sensitive data & control paths from bad actors
- Gained commercial product as per UK (GCHQ) & national assurance in multiple Countries including INDIA (Cert-in)

Omnimesh solution meets the global technical standards for AMI

- Integrated with reputed global meter manufacturers & MDM Providers
- WPC-India, NBTC-Thailand, TRA-UAE compliant network elements with Wi-SUN compliant Hardware
- Reliable & Secure communication with 24*7 data availability of >99%
- Rapidly locate and resolve outages
- Deep penetration through all terrains - no "not-spots"
- Best coverage for last mile - no single point of failure

Plug and play network | Cost effective | Simple to deploy

A true winning solution for Utilities, Consumers and Governments

Awards and Recognition



DigiSmart
Networks Pvt. Ltd.

DigiSmart Networks Pvt. Ltd., a wholly owned subsidiary of CyanConnode Pvt. Ltd., has been empaneled as an AMISP for both cellular and RF communications. This accreditation allows it to bid directly for smart metering tenders under the Revamped Distribution Sector Scheme (RDSS) on a Design, Build, Finance, Own, Operate, and Transfer (DBFOOT) basis.



For more information visit www.cyanconnode.com Or scan QR code



For enquiries, please mail to sales@cyanconnode.com