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# LOCAL TO GLOBAL- SENSORISE QoSIM GLOBE



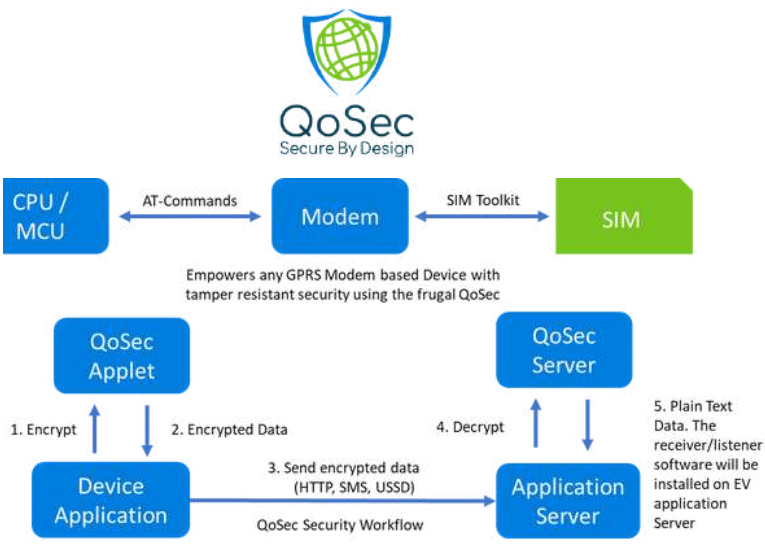


## Enabling innovation in connectivity and lifecycle management

Sensorise is the market leader in M2M Services, supplying end-to-end solutions in Remote and Lifecycle Management of eSIM/ M2M SIM and IoT Devices.

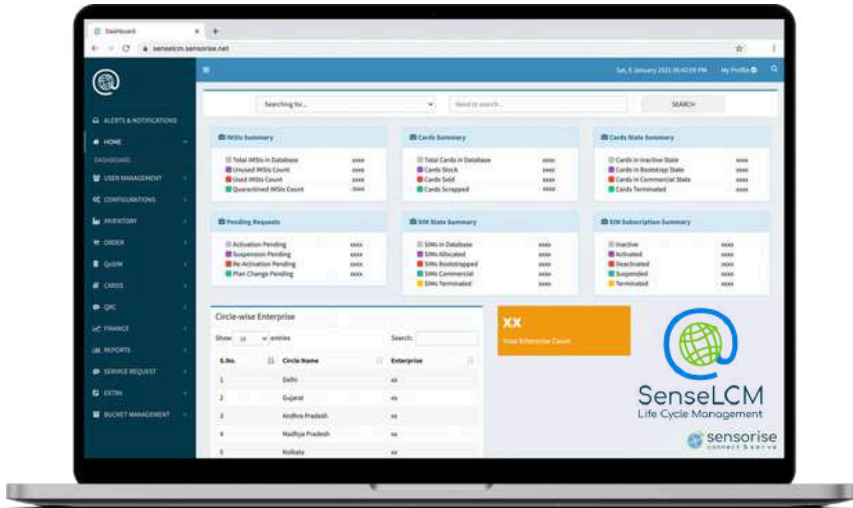
The company delivers innovation, agility, new opportunities, and outstanding execution skills with strong leadership and expertise in Telecom, Analytics, Products, and Services. We contribute to the rapid and orderly growth of the IoT and M2M domain as industry leaders, and DoT registered M2MSP, by bridging the gaps in infrastructure, technology, and services with diligent contribution to standards, policies and regulations, keeping Quality of Service as the core of our business.

- ✓ Multi-network, solderable, industrial grade M2M SIM card with automatic/ on-demand switching capabilities
- ✓ Any subscription can be downloaded remotely on the same SIM card across the globe, without any SIM change-REMOTE SUBSCRIPTION UPDATE
- ✓ Pluggable Cards (2FF/ 3FF/ 4FF)  
Embedded SIMs (MFF2, DFN, WLCP)
- ✓ Standards Compliant services with Global Connectivity
- ✓ BIS16833/ AIS140 Certified  
TEC ESIM IR Compliant  
DoT M2M SIM Instructions Compliant



## END-TO-END DATA ENCRYPTION

- Carrier Class Security by Design for constrained IoT devices as per TRAI recommendations
- Common Service Layer Security enablement using standards-based Auth Algorithms
- Crypto processes as approved by ETSI/ 3GPP standards
- Network and device-independent
- End-to-end security using Sensorise's QoSec application
- Distinct keyset for encryption and decryption features, ensuring complete security of malicious applications
- Easy access using SIM AT Commands



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## SenseLCM

SenseLCM is a cloud-based portal that allows users to manage and control M2M QoSIM services from a single platform including ordering, inventory management, lifecycle management, activation, top-ups, renewals and reactivations.

### Self Care

- Order and Pay
- Activate / Suspend
- Single, Bulk Operations
- Tickets, Service Requests
- Diagnose over SMS

### QoS Capability

- Remote, Automatic & Device assisted subscription selection
- Lifecycle Management from Bootstrap to Commercial to EOL

### Security / Messaging

- Two way 7/8 bit messages
- OTA capabilities for SIM file Management
- Locking of QoSIM to IMEI

### Usage & Reporting

- Alerts module for suspension & renewal
- D-1 Usage updates
- Subscription Status

### Products, Invoicing & Ordering

- Create Projects, Products, Price
- Create / Assign Plans and Discounts

### API

- Full integration with open API 's
- Export XML tables

### Account Security

- OTP Secure Onboarding
- Role based access to Account UI and Features (User, MNO, SIMP type access)

### KYC & Compliance

- KYC Application & Portal
- KYC Verification and Document Handling
- Device-SIM-Custodian map
- Lawful Intercept interface for LI Agencies

### Card Management

- Manage IMSIs and eIDs
- Manage SIM Partners and SIM Cards
- Input / Output File handling

## SenseTouch KYC

SenseTouch App & Portal for customer registration and verification.

End-to-end solution for secure registration of connected devices/ applications and custodian verification as per DoT e-KYC norms.



SIM CARD  
>108 mm<sup>2</sup>



M2M UICC MFF 6x5  
30 mm<sup>2</sup>



DFN 4x4.2  
16.8 mm<sup>2</sup>



WLCSP 3.5x2  
7 mm<sup>2</sup>



DFN 2X2  
4 mm<sup>2</sup>



+ Quality Of Service

+ Factory Ready

+ Low Cost

+ Seamless Teleco Selection

+Wide International Coverage

+ Frugal Local Country Profiles



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# MAKE IN INDIA | DEPLOY GLOBAL LOCAL OPERATOR SUBSCRIPTIONS WITH THE NEW SENSORISE QoSIM™ GLOBE

**TELCO**  
NETWORK  
TECHNOLOGY  
AND DEVICE  
AGNOSTIC

COVERING  
**190+**  
COUNTRIES  
**700+**  
OPERATORS

PLASTIC OR  
**eSIM**  
FORM FACTORS  
AVAILABLE

**REMOTE**  
MANAGEMENT &  
PROVISIONING  
THROUGH  
SenseLCM

## ONE WORLD-ONE SIM

PILOT LAUNCHES

ATHER

TVS 



BOSCH



Lynkit.io  
Orchestrating Efficiency

locoNav<sup>o</sup>

Enabling M2M adoption & proliferation

# Local to Global - Sensorise QoSim Globe



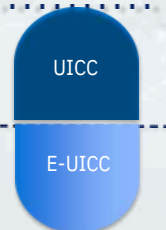
Test Services: Future-proof Technology

Commercial Services: Future-proof Technology



Future Proof

- + Quality of Service + Factory Ready
- + Low Cost
- + Seamless Telco Selection + Wide International Coverage + Frugal Local Country Profiles



You "Make-IoT-in-India", we connect your smart things instantly. Its that simple. One Platform. One Access. One Bill. 700+ Networks. Call us today for your multi-country IoT plans (190+ countries)

Americas | USA, Canada, Aruba, Anguilla, Argentina, Antigua & Barbuda, Bahamas, Belize, Bermuda, Bolivia, Bonaire, Brazil, Barbados, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Cayman Islands, Dominica, Dominican Republic, Ecuador, El Salvador, French Guyana, Guadeloupe, Grenada, Greenland, Guatemala, Guyana, Honduras, Haiti, Jamaica, Martinique, Saint Barthelemy, Saint Kitts & Nevis, Saint Lucia, Saint Martin, Surinam, Mexico, Montserrat, Nicaragua, Panama, Peru, Puerto Rico, Paraguay, Turks & Caicos Islands, Trinidad & Tobago, Uruguay, Saint Vincent & the Grenadines, US Virgin Islands and Venezuela. Middle East | UAE, Bahrain, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia and Yemen. Europe | Albania, Andorra, Austria, Belgium, Bosnia & Herzegovina, Belarus, Cyprus, Czech Republic, Croatia, Denmark, Estonia, Finland, France, Faroe Island, Jersey, Germany, Gibraltar, Greece, Hungary, Ireland, Iceland, Italy, Kosovo, Liechtenstein, Lithuania, Luxembourg, Latvia, Monaco, Moldova, Macedonia, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Republic, Serbia, Slovakia, Slovak Republic, Sweden, Switzerland, Turkey, Ukraine, Vatican City and United Kingdom. Asia | Afghanistan, Armenia, Azerbaijan, Bangladesh, Brunei Darussalam, Cambodia, China, East Timor, Georgia, Hong Kong, India, Indonesia, Japan, Kazakhstan, Kyrgyzstan Republic, Laos, Macao, Maldives, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Singapore South Korea, Sri Lanka, Taiwan, Tajikistan, Thailand, Uzbekistan and Vietnam. Africa | Angola, Algeria, Burundi, Benin, Burkina Faso, Botswana, Central African Republic, Ivory Coast, Cameroon, Chad, Democratic Republic of Congo, Congo Brazzaville, Cape Verde, Djibouti, Egypt, Ethiopia, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Kenya, Libya, Lesotho, Madagascar, Mali, Malawi, Mauritania, Mauritius, Mayotte, Morocco, Mozambique, Namibia, Niger, Nigeria, Reunion, Rwanda, Senegal, Seychelles, Sierra Leone, South Sudan, South Africa, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe. Oceania | Guam, Kiribati, New Caledonia, New Zealand, Papua New Guinea, Tonga and Vanuatu.





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# INTELLIGENT CONNECTIVITY

# Connected Cars

## At a glance

The automobile industry is massively evolving with technology and innovation-led design manufacturing, powered by M2M communication. CONNECTED vehicles are the gateway to the new ecosystem of embedded sensors, electronics, hardware, and intelligent connectivity.

## Vehicle Telematics - Let the machine talk!

Each sensor and embedded mechanic component assembled to design the vehicle speaks about its vitals, health state, etc. which is very important information for the automobile segment for building greater efficiency and insights into business operations. Real-time information and alerts about vehicle health and key parameters are reshaping the automobile ecosystem with precise data intelligence and analytics.

## Key metrics

- Multi-profile M2M SIM
- In-built network switching capability
- Remote Diagnostics
- Remote Subscription Management
- Strong digital identity with encryption security



## OE/ OEMs partners

**TATA MOTORS**

**ASHOK LEYLAND**  
Koi Manzil Door Nahin

**SWARAJ**  
**MAZDA**

**EICHER**

**MARUTI SUZUKI**

**DAIMLER**

## IoT/ M2M connectivity for CONNECTED vehicles

### CHALLENGES

- Real-time data for predictive and preventive analysis to minimize frequent/ sudden vehicle break-downs
- Complex connectivity and subscription models for M2M/ IoT communications
- Unreliable connectivity and poor Quality of Service
- Cybersecurity for proprietary design and vehicle health vitals
- Regulatory compliances

### SOLUTIONS

SINGLE eSIM for multiple profiles with automatic network switching capability. Change of operator, network, troubleshooting, etc. can be performed remotely "over-the-air", without any SIM change.



Secure IoT  
Connectivity



Quality of  
Service



Data Analytics  
and Lifecycle  
Management

### BENEFITS

1

#### Real-time data

The multi-profile feature enables quality of service with uninterrupted connectivity by automatically switching to the secondary network on the loss of the primary network.

2

#### Remote subscription update

Expertise in implementing over-the-air solutions to support industry requirements such as operator change, network switching, remote diagnostics, etc. NO SIM replacement required.

3

#### Cybersecurity and sectorial compliance

End-to-end encryption for secure data transmission, fully compliant to DoT, TEC guidelines.

4

#### Platform as a Service for SIM Lifecycle Management

Cloud-based portal with advanced dashboard features for remote SIM management, diagnostics, reporting and analytics.



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# MANAGED CONNECTIVITY FOR ELECTRIC VEHICLES

ENABLING M2M  
ADOPTION &  
PROLIFERATION

*Sensorise is the market leader in M2M Services, supplying end-to-end solutions in Remote and Lifecycle Management of eSIMs and IoT Devices.*

VALUE BEYOND  
CONNECTIVITY



STANDARDS  
COMPLIANT  
SERVICES

## WE OFFER

### MANAGED CONNECTIVITY FOR OE/ OEM

- Managed connectivity solutions for global roll-outs
- Multi-network eSIM/ pluggable M2M SIMs with automatic network switching for seamless connectivity
- Telco agnostic - Choice of networks
- Device agnostic - Compatible with any GSM-supported device/ machine
- Single API integration for all telcos
- Dedicated, single technical helpdesk for all connectivity & troubleshooting concerns
- Single SIM for local and global markets-operator profile can be downloaded remotely
- Choice of international operators with local & roaming profiles - best prices and local profiles in the country of launch
- Dedicated connectivity management platform



### VALUE ADDS FOR END CUSTOMERS

- On the go, network selection using OEM application
- Choice of top-up plans based on VAS selection offered on OEM platform
- Real-time enablement
- Always on connectivity



[www.sensorise.net](http://www.sensorise.net) || [sales@sensorise.net](mailto:sales@sensorise.net)

**DIGITALLY TRANSFORMING EV PLAYERS FOR LOCAL TO GLOBAL FOOTPRINTS**





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## BUSINESS PROPOSITION FOR CONNECTED EV



### TELCO AGNOSTIC

No bias for any particular choice of network.



### DEVICE AGNOSTIC

Suitable for any make and type GSM module.



### GLOBAL CONNECTIVITY

Affordable global profiles of choice local & roaming.



### PRE-LOADED TELCO PROFILE

Destination ready for any location.



### ETSI FORMFACTOR, REMOTE PROVISIONABLE SIM

Available in all ETSI formfactor, conventional plastic and eSIM (Industrial/ Automotive)



### COMPLIANCE

Fully compliant to regulatory standards and laws of land.



### QUALITY OF SERVICE

Multi-network eSIM with automatic network switching capabilities and data encryption modules.

# Advantages of Cellular IoT connectivity for Electric Vehicles & Electric Charging Stations



01

Efficient Charging Station Deployment



02

Effective Operations & Maintenance

03

IoT Supports the Authorization of Users and Payment Processes



04

Real-time Data & Asset Monitoring

05

Built-in Security Measures to Protect Data and Sensitive Information



06

Smart Energy Management

07

Service Management & Business Insights





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# IOT ENABLED TECHNOLOGY IN ELECTRIC VEHICLES

## MARKET GROWTH RATE

The Electric Vehicle (EV) market in India is witnessing significant growth. The rising adoption of EVs across segments underscores their critical role in shaping sustainable and efficient transportation in the country.



**CAGR OF 22.92%  
FROM 2022 TO 2030**

- **Reliable Transport:** Secure journeys with Sensorise's SLA backed connectivity.
- **Customizable Solutions:** Adaptable EV connectivity for diverse make, models and use cases.
- **Smart Integration:** M2M-enabled advanced features for vehicle and battery diagnostics.
- **Cost-Effective:** Reduced downtime with efficient connected systems.
- **Eco-Friendly:** IoT-driven green solutions for sustainable mobility.
- **Easy Parking:** Location-based connectivity reduces parking hassles.
- **Smooth Navigation:** Real-time assistance in congested areas.
- **Battery As A Service:** Sensorise Mobility Solutions enabled tracking and monitoring.
- **Enhanced Experience:** Remote diagnostics and charge level & cell level monitoring.

## IOT CONNECTIVITY FOR E-SCOOTERS, BATTERIES & CHARGING INFRASTRUCTURE

Cellular IoT connectivity solutions play a crucial role in the EV Ecosystem. IoT connectivity is essential for battery management systems, while EV charging stations rely on reliable cellular connectivity for enabling discovery, payments & monetization.

## HOW IMPORTANT IS IOT/ M2M CONNECTIVITY?

IoT connectivity is certainly a key component of the electric vehicle market.

## SENSORISE BUSINESS PROPOSITION



### Telco agnostic

No bias for any particular choice of network.



### Device agnostic

Suitable for any make and type GSM module.



### Global Connectivity

Affordable global profiles of choice - local & roaming.



### Pre-loaded Telco profile

Destination ready for any location.



### Industrial-Grade By Default, Remote Provisionable SIM

Download any profile over-the-air on the same SIM card. Automotive-grade available upon request



### Compliance

Fully compliant to regulatory standards and laws of land.



### Quality of Service

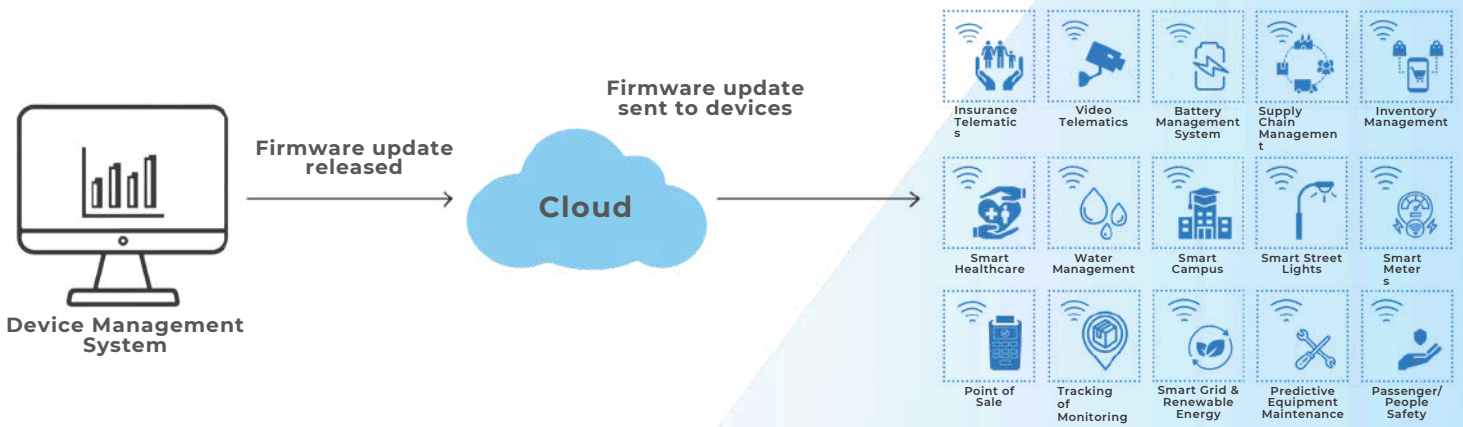
Multi-network eSIM with automatic network switching capabilities and data encryption modules.



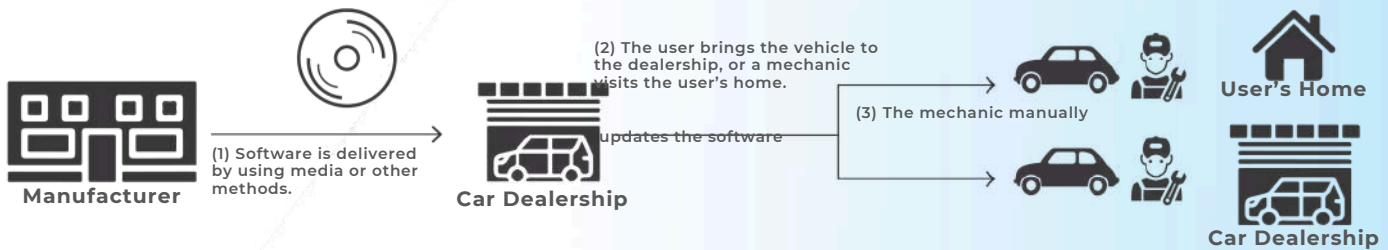


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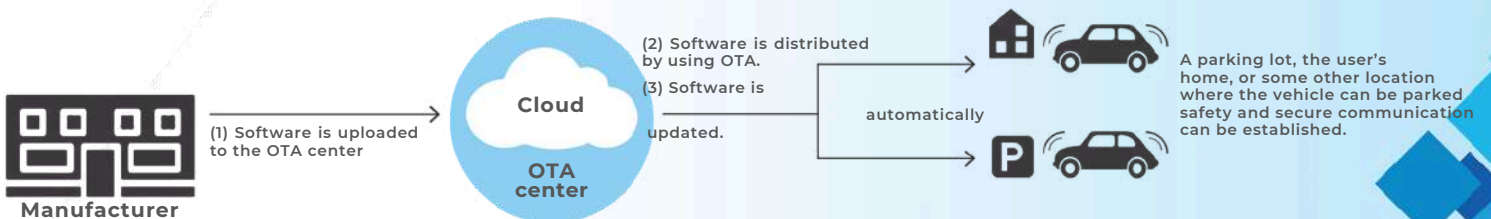
# A TYPICAL OTA FIRMWARE UPDATE DELIVERED THROUGH A DEVICE MANAGEMENT SYSTEM



- **Batch Campaigns** - The SIM update commands initiated in a bulk-mode to a predefined target list of subscribers (usually all the subscribers base or MNO-specific segmentation, like prepaid/postpaid, SIM Profile).
- **On-event Polling** - Optimize contextual OTA Updates that are automatically triggered by external/ SIM (SMS/ HTTP SIM Applet for polling)/ network events (APIs).
- **On-demand API** - Based on SIM-OTA API over REST, the SIM-OTA platform supports external triggering interfaces to manually launch SIM-OTA unitary commands for specific needs: modify/ update/activate. Data and SMS Channels available for communication with any device from the Cloud for remote configuration management.



## CONVENTIONAL UPDATE METHOD



## OTA-BASED UPDATE METHOD





Digital SIM Card



Data Security



Prepaid



200+ Destinations



Easy Top-Up

## Get Instant Travel and Local Plans with Voyx eSIM and be Always On™ Global Connectivity:

- Say goodbye to roaming charges and Wi-Fi hunts
- A safe global roaming solution for travelers
- Stay Connected in 140+ countries & regions worldwide
- Cost-effective plans with multiple options to choose from basis the travel, including Local Packs, Regional Packs & Global Packs

### Instant Activation:

- No hassle, No waiting
- Simply activate your plan in 30 seconds\*
- Manage e-sims top ups on the go

### Enhanced Data Privacy:

- Voyx incorporates a built-in VPN, safeguarding your private and sensitive information as you navigate the digital landscape with confidence.

## Use Cases for Voyx

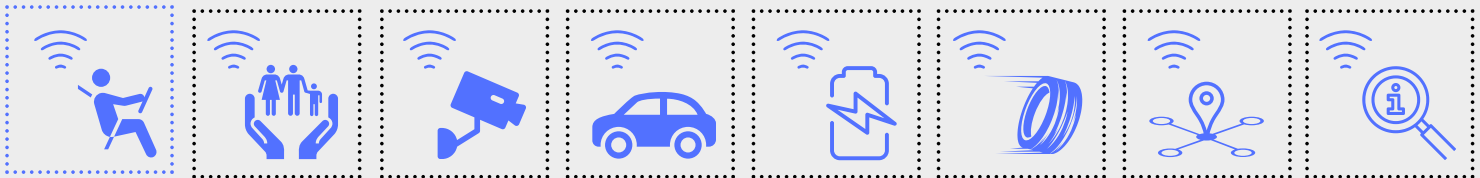
- **Leisure Travel** – Discover the freedom of uninterrupted connectivity, allowing you to share your experiences, stay in touch with loved ones, and navigate new destinations effortlessly.
- **Business Travel** – Empower your business with cost-effective connectivity solutions. Voyx not only slashes roaming expenses but also ensures that your employees can stay seamlessly connected during international business ventures.
- **Student** – Embark on international camps and study abroad programs with confidence, as Voyx equips students with local SIMs for hassle-free communication. Stay connected to family, friends, and fellow students, ensuring a smooth and enriching experience beyond borders.

**INSTANT CONNECTION VIA QR CODE, PHYSICAL SIMS FOR NON ESIM PHONES ON THE HORIZON!**

[www.voyx.in](http://www.voyx.in)

Download App from





Driving Behaviour Analysis

Insurance Telematics

Video Telematics

Autonomous Driving

Battery Management System

Tyre Pressure Monitoring

Connected Mobility

Infotainment



Supply Chain Management

Customer Feedback

Demand Alert Management

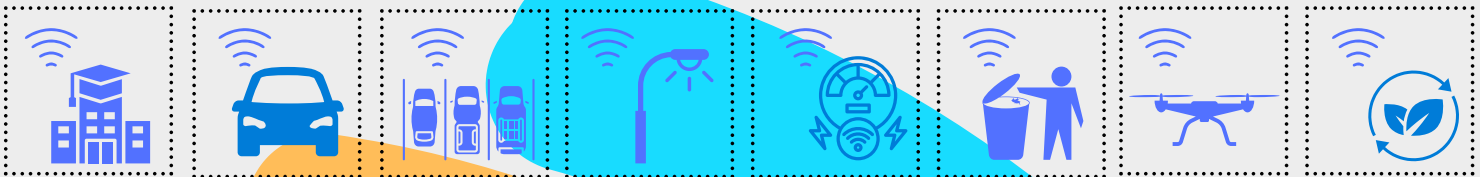
Inventory Management

Point of Sale

Tracking & Monitoring Assets

Smart Healthcare

Water Management



Smart Campus

Intelligent Transportation

Intelligent Parking

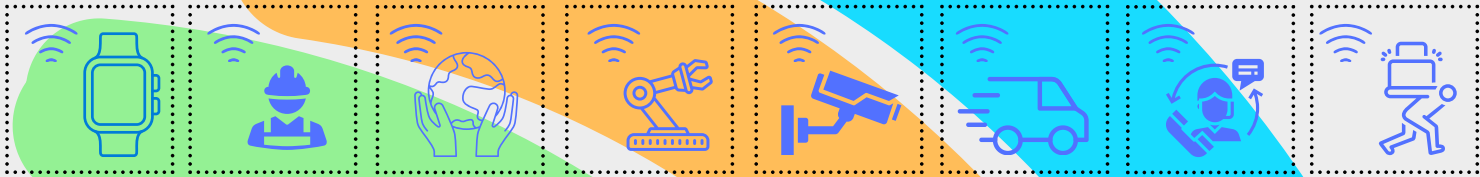
Smart Street Lights

Smart Meters

Waste Management

Drone Inspection

Smart Grid & Renewable Energy



Smart Watches

Worker Health & Safety

Monitoring Environmental Conditions

Robotics & Automation

Video Surveillance

Logistics Management

Road Side Assistance

Monitoring of Loading, Drilling & Hauling



Disaster Management

Smart Penalty Check

Smart Traffic Lights


Set-up Monitoring for Hazards

Predictive Equipment Maintenance

Smart Speed Tracking

Passenger/People Safety

Tracking & Monitoring Fleet/Traffic



**NEW!**

<https://sensorise.net/>  
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Automotive | Smart Cities | Smart Retail | Smart Healthcare | Industrial IoT | Consumer Travel Packs | Mobility/Platform For Fleet Management

Connecting and Serving Industries for Best Quality of Service on Connectivity





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# SENSORISE SIM PORTFOLIO

Sensorise provides a comprehensive SIM portfolio to cater to the diverse needs of MNOs and MVNOs, ensuring seamless connectivity and access to advanced network technologies and value-added services.

## SENSORISE SIM SOLUTIONS

### Sensorise Native SIM

Entry-level SIM with basic connectivity features.

Supports 2G/3G UICC SIM OS.

Ideal for customers requiring minimal functionality.

### Sensorise Mass Market SIM

Designed for broad market adoption.

Full 2G/3G functionality with an interoperable UICC platform.

Enables value-added services for diverse user needs.

### Sensorise Value SIM

Advanced Java Card UICC platform.

Complete support for 4G and 5G features, including IP services.

Ideal for customers requiring high-performance connectivity.

## SIM FORM FACTORS

### Plug-in Types

- **2FF, 3FF, 4FF** – Standard plug-in SIM sizes.
- **Trio SIM** – A 3-in-1 SIM format (ETSI compliant) supporting 2FF, 3FF, and 4FF for enhanced supply chain efficiency.

### Card Bodies

- **ISO Card** – Standard full-size card format.
- **Half Card** – Compact format for specific applications.
- **Quarter Card** – Space-efficient design for optimized deployment.

### Custom Branding & Storage

Mobile operators can utilize the card body to store essential information, including:

- Branding and visual identity.
- Logistic barcodes and ICCIDs.
- Phone numbers, PIN/PUK values (secured with scratch labels).

Sensorise ensures reliability, security, and performance across all our SIM solutions, supporting businesses in achieving seamless connectivity.





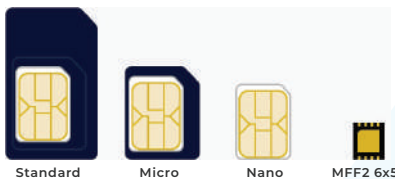
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# SMART CARD MANUFACTURING

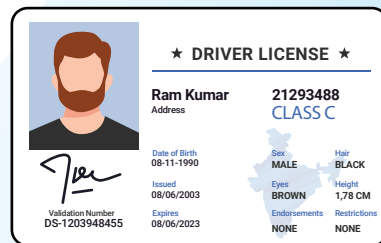
One of the India's Largest Banking, Telecom & ID Cards Manufacturing Facility



**BANKING CARDS**



**TELECOM CARDS**



**ID CARDS**



**98000 sq ft** Area Smart Card Facility



**Latest Equipments** from the Best Global Manufacturers



**Global Supplier**  
Strategic Plant Location;  
Low Logistics & Shipping Costs



**Future Proof** Strong Product and Technology Capabilities Across Three Key Segments



**Reliable Partner**  
Established Customer Base of Indian & International Companies



**Robust Engineering**  
Stringent Quality Processes

## MONTHLY MANUFACTURING CAPACITY

Banking & ID Cards: **6 Million** | Telecom Cards: **17 Million** | eSIM : **1 Million**

### INTERNATIONAL CERTIFICATIONS

**ISO 9001** (Quality Management) | **ISO 27001** (Information Security Management)  
**ISO 14001** (Environmental Management)

### INDUSTRY CERTIFICATIONS



### REGULATORY COMPLIANCES

DOT complaint - Standard Operating Procedure for Personalisation of SIM cards  
Undergoing SAS -UP, Data Generation, GSMA Accredited SAS-SM

# Smart Metering: Reducing Transmission & Distribution Losses in the Power Sector by 70%

## QoS<sup>®</sup> for Seamless Connectivity

Smart Meters are transforming the way we consume and pay for electricity by offering detailed insights into energy usage patterns. Smart meters can be empowered by Sensorise's advanced **M2M connectivity which allows for real-time monitoring and efficient management of energy distribution ensuring that SLA's committed by AMISPs are met and any dependency on single network/technology is removed.**

## Optimized SLA

With the SenseLCM platform, Advanced Metering Infrastructure Service Providers (AMISPs) can remotely manage and monitor the connectivity, ensuring that the smart meter is always using the most reliable network. **This minimizes downtime and enhances SLA performance, improving efficiency across the power sector.**

## Remote Subscription Update

The remote subscription update feature allows the AMISP to switch between telco profiles over-the-air, ensuring that smart meters remain connected to the strongest network. **This flexibility maximizes uptime and reduces the dependency on single network which may not be available at a given location.**





# Intelligent Security & Surveillance with M2M SIM-Enabled Network Cameras

## QoSim® for High-Speed Connectivity

Surveillance cameras rely on stable and uninterrupted connectivity for continuous monitoring. By integrating Sensorise's QoSim® eSIM, these cameras can automatically switch between multiple network profiles. This dual-profile capability ensures that if one network drops, the camera seamlessly switches to the next available network, ensuring uninterrupted surveillance.

## Additional Revenue Opportunity

By offering its customers to pick n chose bundled Network Connectivity Services as per their network preference.

## Ensuring Regulatory Compliance

As per Latest M2M (IP to IP Communication via GSM (5G/4Gs/3G Connectivity)

## Offer end to end Security

Leveraging the QoSec™ functionality offered by Sensorise for traffic encryption and also preventing misuse of either the equipment or the SIM Cards.

## Ability to offer Value Added Services

To its large customer base by bringing in a Software as A Service (SAAS)based middle layer (Sensorise Platform) which can be integrated, customized as well as developed to enhance overall functionality and control.

## Make in India and deploy Globally

Camera OEMs could utilise the Sensorise QoSim® to seamlessly export its equipment globally anywhere in 190+ countries without having to worry about the services as we provide the ability to download a local Telco profile on our cards anywhere in the world.



# Connectivity for FinTech: Securing Payments with M2M QoSIM- Enabled devices

## Reliable PoS Machine Connectivity

Point-of-sale (PoS) machines rely on continuous network connectivity to process transactions securely, especially in areas with fluctuating network coverage, such as rural highways and expressways. Sensorise's QoSIM® eSIM provides multi-profile connectivity, ensuring that PoS machines are never offline. In case one network fails or experiences weak coverage, the eSIM automatically switches to another available network, providing uninterrupted service. This ensures seamless and secure financial transactions, even in remote or challenging environments where network availability is typically an issue.

## Enhanced Sound Box Connectivity

Sound boxes used in retail environments for real-time transaction alerts also benefit from Sensorise's M2M SIM technology.

By integrating QoSIM®, these devices maintain strong, reliable connectivity, ensuring that every transaction is accurately reported in real-time.



## Smart Agriculture: Enhancing Modern Farming with M2M Connectivity

### Real-Time Soil Monitoring with M2M Connectivity

Agricultural devices used to monitor soil health, such as moisture sensors, can benefit greatly from QoSim®. By integrating our multi-profile eSIMs into these devices, farmers can remotely access data on soil conditions in real-time. The QoSim® ensures that the device stays connected, regardless of the network environment, by switching to the best available network automatically.

### Drones for Efficient Farming

Drones are increasingly used in agriculture for activities like crop monitoring, irrigation management, and pest control. By using QoSim®, drones can maintain continuous connectivity, even in remote areas. The ability to switch networks mid-flight ensures that data from drones is transmitted in real-time, making farming more efficient and predictable. This allows farmers to cover larger areas with more precision, enhancing their ability to manage their farms and boost productivity.

### Weather Monitoring

With M2M-connected weather monitoring systems, farmers can make data-driven decisions to optimize their crop yield. By integrating QoSim® into these devices, they can ensure that weather data is accurately and consistently reported, even in areas with poor network coverage.





# Secure Connectivity for Global Logistics & Freight Transportation & management with Smart & Intelligent M2M Connectivity

## Reliable eSIM Connectivity for eLocks

Sensorise's QoSim® eSIM empowers eLocks with robust, multi-profile connectivity, ensuring they remain connected to the strongest available network, no matter where the container is located or in transit. These eSIMs enable real-time tracking, secure access control, and monitoring of critical parameters such as door status and tamper alerts. The QoSim® also supports remote diagnostics and firmware updates, allowing logistics providers to manage and troubleshoot eLocks from any location without manual intervention. Additionally, Sensorise's eSIM ensures global coverage by enabling seamless network switching, maintaining continuous security and operational visibility even in areas with poor connectivity.

## Global Operations & Freight Transmission

Sensorise's QoSim® eSIM ensures seamless global connectivity for logistics and freight management by enabling over-the-air profile switching from one country's network to another. This allows real-time tracking, monitoring, and secure management of freight as it moves across borders, ensuring uninterrupted operations regardless of geographic location. Logistics providers can remotely manage eSIM profiles, ensuring the best local network is always active for reliable data transmission. This enhances the visibility, security, and efficiency of global freight transportation, allowing for continuous monitoring and quick response to any changes during transit.



## Network Interface Card LTE CAT1

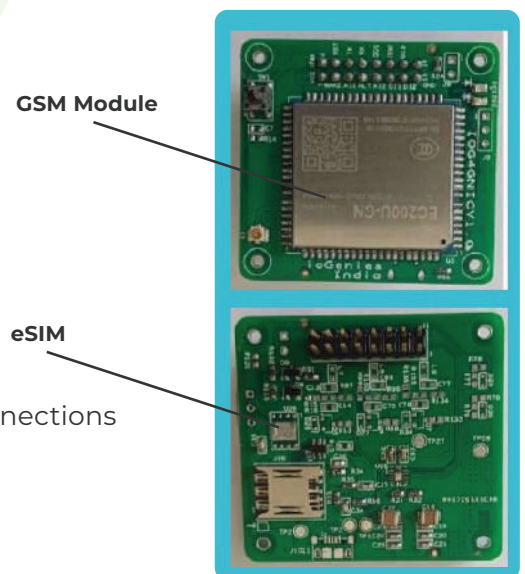
Sensorise generic 4G connectivity module. It is required to enable the desired support to be used a connectivity module for smart energy meter or any other use-cases which needs external connectivity. These energy meters are enabled with DLMS protocol and communicate with connectivity module using TTL interface. The connectivity module shall work in pass-through mode to exchange information from DLMS client to server and vice versa. The module shall be enabled with desired communication protocol like MQTT/TCP/UDP to exchange data with the centralized monitoring system (HES software for meters or equivalent). One of these protocols is to be developed for HES communication. The DLMS packet encoding and decoding shall be handled by HES server. The communication module is responsible for maintaining connectivity and providing the desired channel for communication between server and meter. NIC hardware customization would be required to support last GASP.

### Hardware Features

1. 4G connectivity using EC200 open CPU module with antenna.
2. Communication with DLMS Meter over 3.3V UART.
3. 2LEDs for debugging and serviceability.

### Communication Device Features

- Input power supply: 4V to 5.5V
- Wireless interface: CAT 1
- 3.3V compatible UART interface
- 2 LEDs for user indication
- 2 Analog inputs, 3 Digital inputs, 2 Digital outputs
- USB 2.0 slave interface
- 16 pin dual row, 2.54 mm male header for external interface connections
- -40 to 85 degrees temperature range
- U.FL connector for antenna interface
- Nano SIM card socket



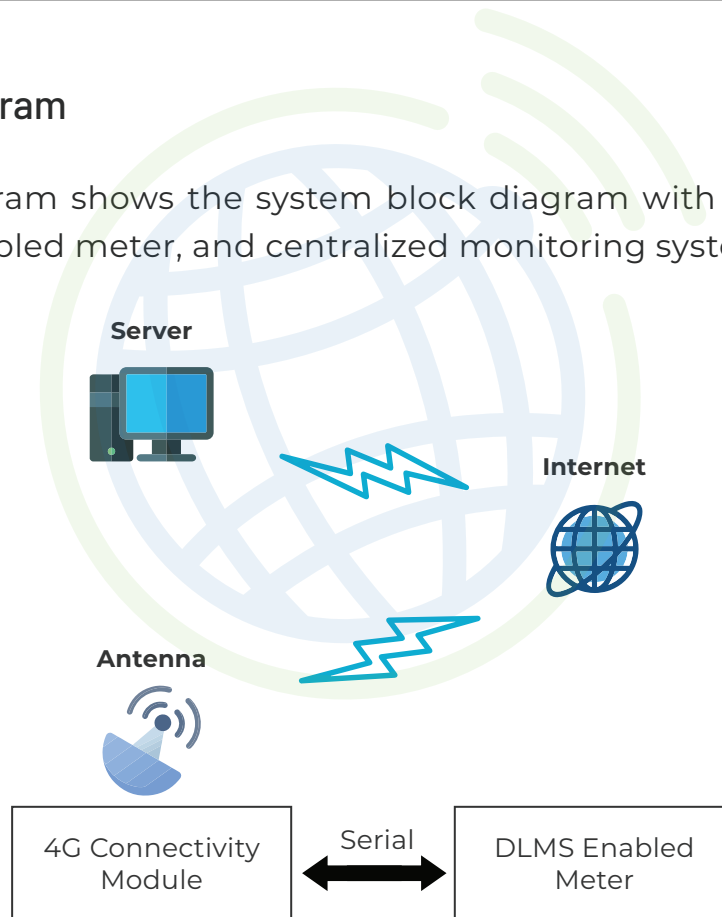
**NIC IMAGE**

## Interface Connector Details

Pin No	Function	Pin No	Function
1	VCC	9	Analog Input 0 to 5V
2	GND	10	Digital Output
3	Wake	11	Digital Input
4	RST	12	Digital Output
5	Analog Input 0 to 5V	13	Digital Input
6	UART TX	14	Digital Input
7	NC	15	NC
8	UART TX	16	GND

### System Block Diagram

The following diagram shows the system block diagram with a 4G connectivity module, DLMS enabled meter, and centralized monitoring system.



### Software Features

1. Communication with DLMS meter over UART
2. Meter data upload over MQTT/TCP/UDP (Any one)
3. Network Selection Support







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## TECHNOLOGY PARTNERS



## VEHICLE OEM



## VEHICLE OEM TIER 1



## AFTER MARKET

