



sensorise
connect & serve



Analytics

Network Identity Root of Trust

Lifecycle Management IoT
Remote Management
Secure by Design M2M
Authenticate Interoperate

Presentation Title

Services and Technologies for IoT / M2M Proliferation

Presentation to

Industry Partner

Presentation by

Sensorise Digital Services

Date

June 2021

About Us

- Who we are
- Achievements
- Differentiators

Who we are

- Sensorise is the market leader in M2M Services, supplying end-to-end solutions in Remote and Lifecycle Management of ESIM and IoT Devices
- As a part of **Rosmerta Technologies group**, the company delivers innovation, agility, new opportunities and outstanding execution skills with strong leadership and expertise in Telecom, Analytics, Products and Services
- As industry leaders, we contribute to rapid and orderly growth of IoT and M2M domain, bridging the gaps in infrastructure, technology and services with diligent contribution to standards, policies & regulations, keeping **Quality of Service** as the core of our business

Achievements

- Trusted by more than 100 OEMs for the QoSim[®], SenseLCM[®], SenseTouch[®] services
- Market leaders in AIS-140 segment with more than 1.5 million M2M Cards deployed successfully
- Diligent contributor in “Make In India” and “Swachh Bharat Mission” - developed and deployed IoT based Customer Feedback Device with remote features like portal, dashboard, analytics & field support in different states of India viz. Delhi NCR, Haryana and Kerala
- Holds US Patent on “Method and System to control expense and usage of subscriptions in a mobile device”
- ESIM technology pioneers providing tailor-made M2M services globally

Our Unique Proposition

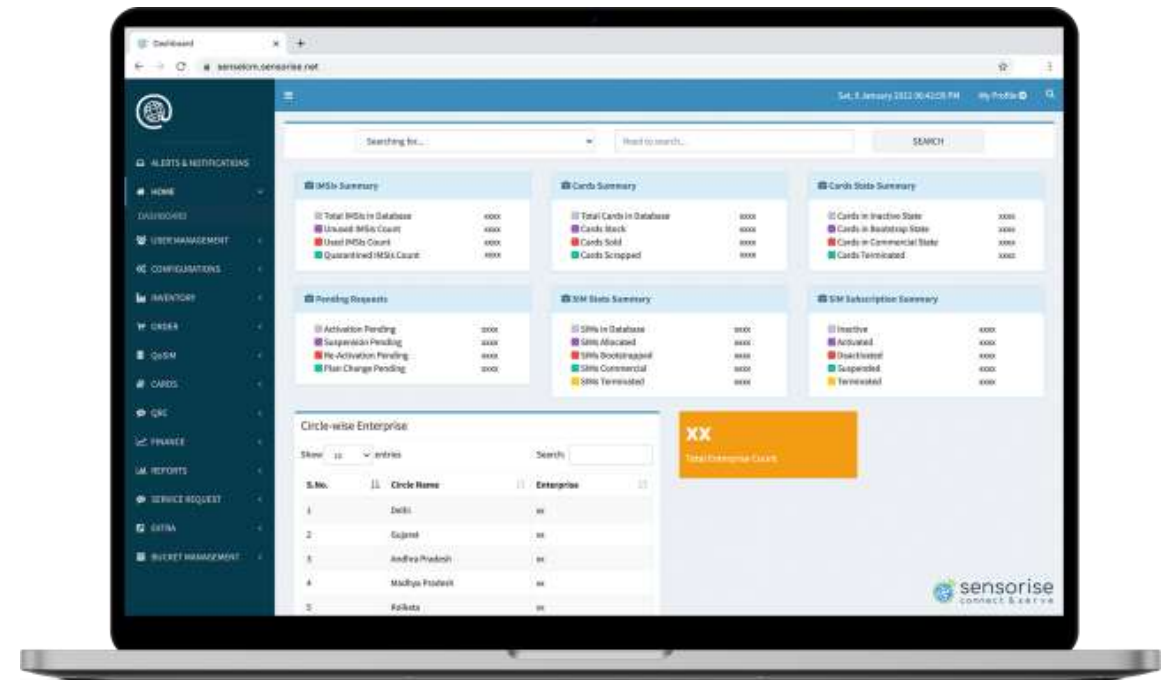
- In-house R&D team with proven competency in telecommunication, security, messaging, over-the-air management, portals, analytics and machine learning models
- End-to-End Service Providers- ensuring complete responsibility of hardware, embedded Software, Portals, Analytics & Field deployment and support
- Our Products and Services are always “Standards aware”, ensuring standards compliance

Business Lines

- Sensorise QoSim
 - Benefits of UICC / eUICC in MFF2 Form factor
 - Sensorise QoSim capabilities
 - Sensorise Innovation: Product lifecycle Management
- Sensorise SenseLCM
- SenseTouch KYC
- QoSec : End-to-end security
- SenseMatic
- SenseIT CFD & MAID

Sensorise Capabilities as M2M Service provider

- GSMA standardized Universal Integrated Circuit Card based solutions
- Factory Ready solderable SIM
- Secure Messaging Gateway
- Remote Management Portal
- Standards based KYC for OEM and Buyer
- Quality of Service with multi-network Profile



Sensorise QoSim

- Powerful Design of an IoT SIM based on 3GPP Standards and GSMA Guidelines
- Available as multi-profile UICC based Quality of Service Solution (QoSim Assure)
- Multi-profile remote provisionable eUICC based solution (QoSim Freedom)
- Published integration guidelines and Certification Program
- Certified by several SIM partners
- Certified in India by Automotive Certification agencies with more than 60 device partners



SIM CARD
>108 mm²



M2M UICC MFF 6x5
30 mm²



DFN 4x4.2
16.8 mm²



WLCSP 3.5x2
7 mm²



DFN 2X2
4 mm²



QoSim
always on

Benefits of UICC / eUICC in MFF2 Form factor

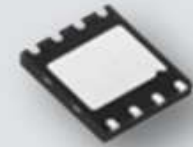
Benefits of UICC:

- + Quality of Service
- + Simplicity
- + Cost

Benefits of eUICC:

- + Seamless Telco Selection
- + Wider Low Cost Coverage
- + Factory Ready

M2M UICC MFF2 6x5



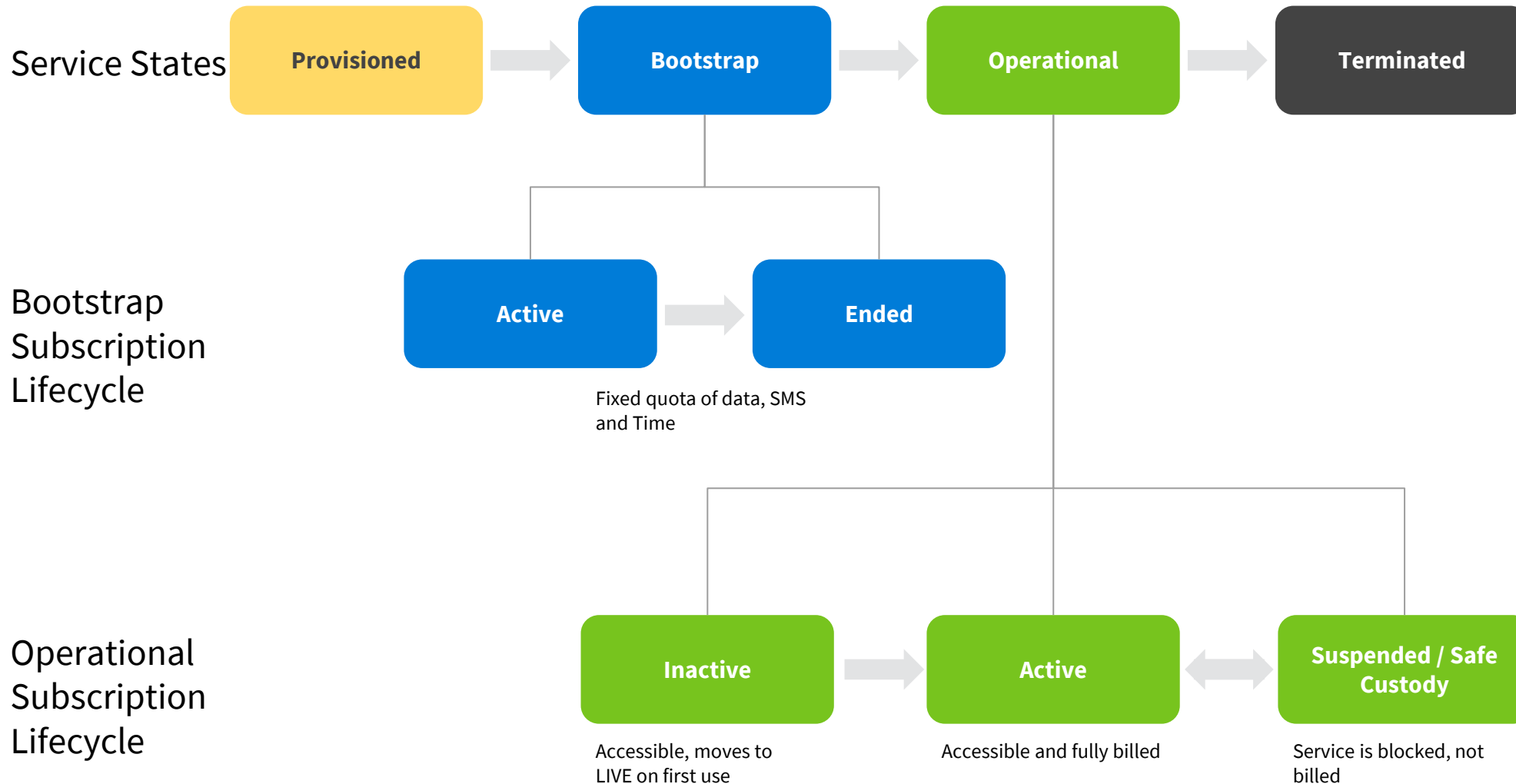
30
mm²

Sensorise QoSim capabilities



- Telco and SIM agnostic
- Solderable IC form factor SIM for machines – extends the proven identity and security to machines
- Industrial grade and tamper resistant
- Factory fitment possible
- Multi-Profile SIM - Automatic Network Switching
- Remote Provisionable
- Multiple subscription on the same card ; detects network coverage loss; switches to the next subscription
 - Provides Quality Of Service
- Can be remotely managed by the SenseLCM® to switch network depending on quota or other rules
 - Optimizes Cost and Performance
- Remote Profile Management; download new subscription in the field
 - Enable factory fitment and reduce file support
- Auto-locking to the device restricts un-authorized use in a different device
 - Security
- Diagnostics features help in troubleshooting the connectivity problems
 - Troubleshooting

Sensorise Innovation: Product lifecycle Management



Sensorise SenseLCM

Powerful Capabilities for IoT Ecosystem

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

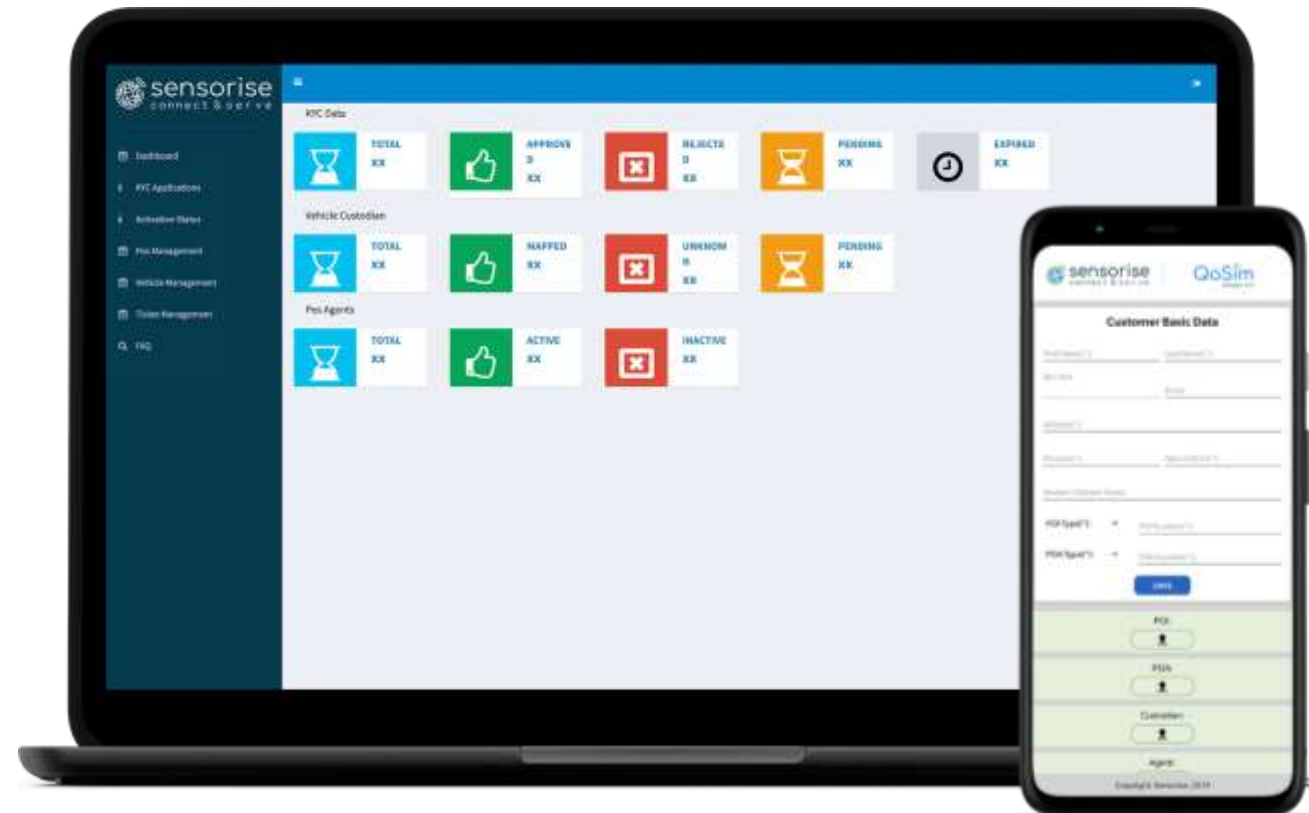
- Manage IMSIs and eIDs
- Manage SIM Partners and SIM Cards
- Input / Output File handling



SenseTouch KYC

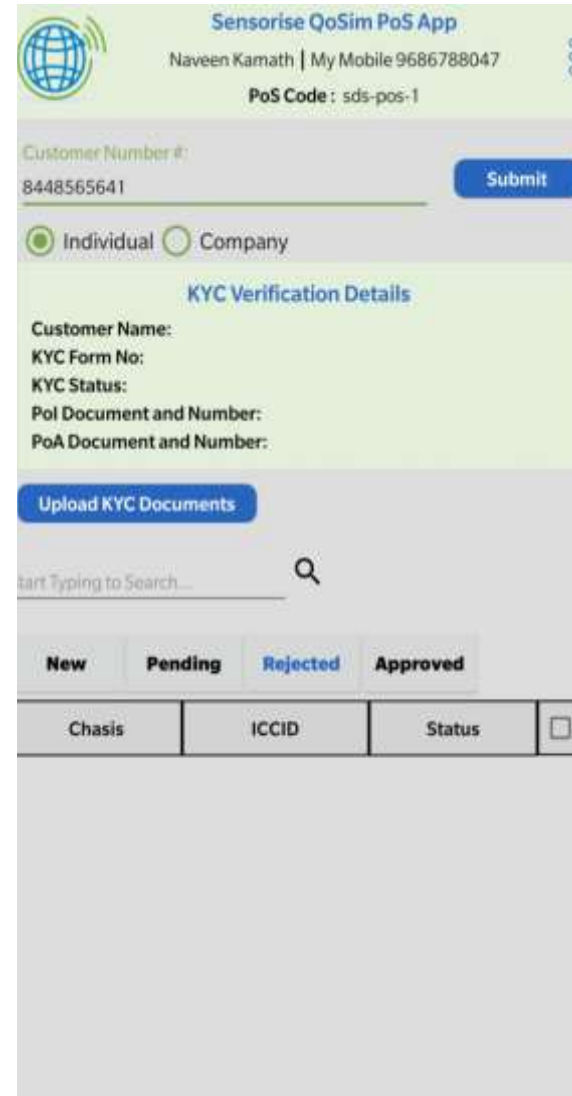
App for customer registration & verification

End-to-end Solution for secure registration & verification of IoT clients as per know-your-customer (KYC) norms



SenseTouch KYC

- Web & Mobile App for Machine KYC as per DoT Guidelines & TRAI Recommendations
- “Custodian – Machine / Device – SIM” Triplet verification using tamper resistant secure element and authentication
- Machine eKYC for any M2M Use case, SIM agnostic
- Available in Android and iOS versions



Sensorise QoSIM PoS App
Naveen Kamath | My Mobile 9686788047
PoS Code : sds-pos-1

Customer Number #:
8448565641 Submit

Individual Company

KYC Verification Details

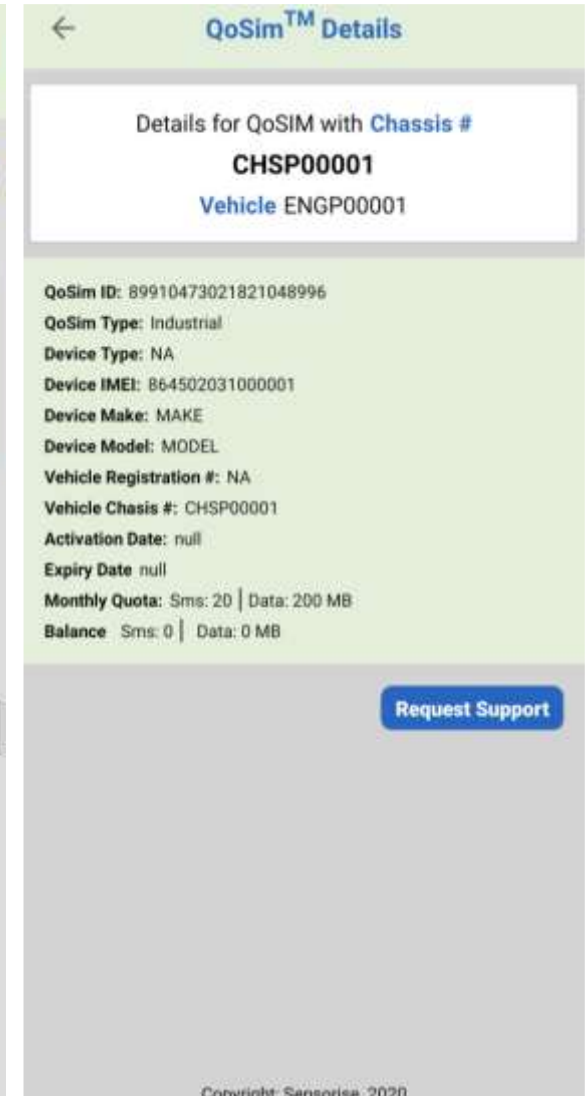
Customer Name:
KYC Form No:
KYC Status:
PoI Document and Number:
PoA Document and Number:

Upload KYC Documents

Start Typing to Search...

New **Pending** **Rejected** **Approved**

Chasis	ICCID	Status	
--------	-------	--------	--



QoSIM™ Details

Details for QoSIM with Chassis #
CHSP00001
Vehicle ENGP00001

QoSIM ID: 89910473021821048996
QoSIM Type: Industrial
Device Type: NA
Device IMEI: 864502031000001
Device Make: MAKE
Device Model: MODEL
Vehicle Registration #: NA
Vehicle Chasis #: CHSP00001
Activation Date: null
Expiry Date: null
Monthly Quota: Sms: 20 | Data: 200 MB
Balance: Sms: 0 | Data: 0 MB

Request Support

Copyright: Sensorise, 2020

SenseMatic

- Z-Wave, Bluetooth, Wi-Fi based sensors
- Multi-protocol Gateway
- Secure Portal and Mobile App
- Sourcing and Supply Chain
- Service Management



SenseIT CFD & MAID

- Controller & GSM Module based Customer Feedback Device
- Factory Ready solderable SIM
- Portal for Public and Secure Administrative access
- Evolution of SenseIT CFD to SenseIT Multi-Access IoT Device for SCADA



Use Cases

Powerful Sensorise Capability to connect an array of Sensors, Gateway, IoT platforms, Web and Mobile Apps, thus enabling a quick deployment of connected services. It gives utilities and municipal authorities real-time visualization of data analytics and monitoring insights



The best brands trust Sensorise



Awards & accolades

- Awards
- Contribution in Standards & Policy

Awards & Recognition



Contribution in Standards & Policy

Author

- Co-Author, Technical Report on Intelligent Transport Systems, Vehicle to Vehicle Communications and Embedded SIMs (Nov, 2015)
- Co-Author, ITU Y-Series Supplement 53, Digital Identity and eKYC for Automotive Industry (Published, Dec 2018)
- Lead Author of the M2M Security Workgroup, Recommendations for M2M Security (Released, Jan 2019)
- Co-Author, ITU Proposal on Open Bootstrap Framework (Mar, 2019)

Editorial Group

- Technical Report on Communication Technologies in M2M / IoT (TEC, May 2015)
- M2M Gateway & Architecture (TEC, May 2015)
- M2M Enablement in Safety & Surveillance System (TEC, Nov 2015, Released by Secretary, Telecoms)
- ICT deployment and strategies for Smart Cities (TEC, Jul 2016)



Contribution in Standards & Policy

Contributor

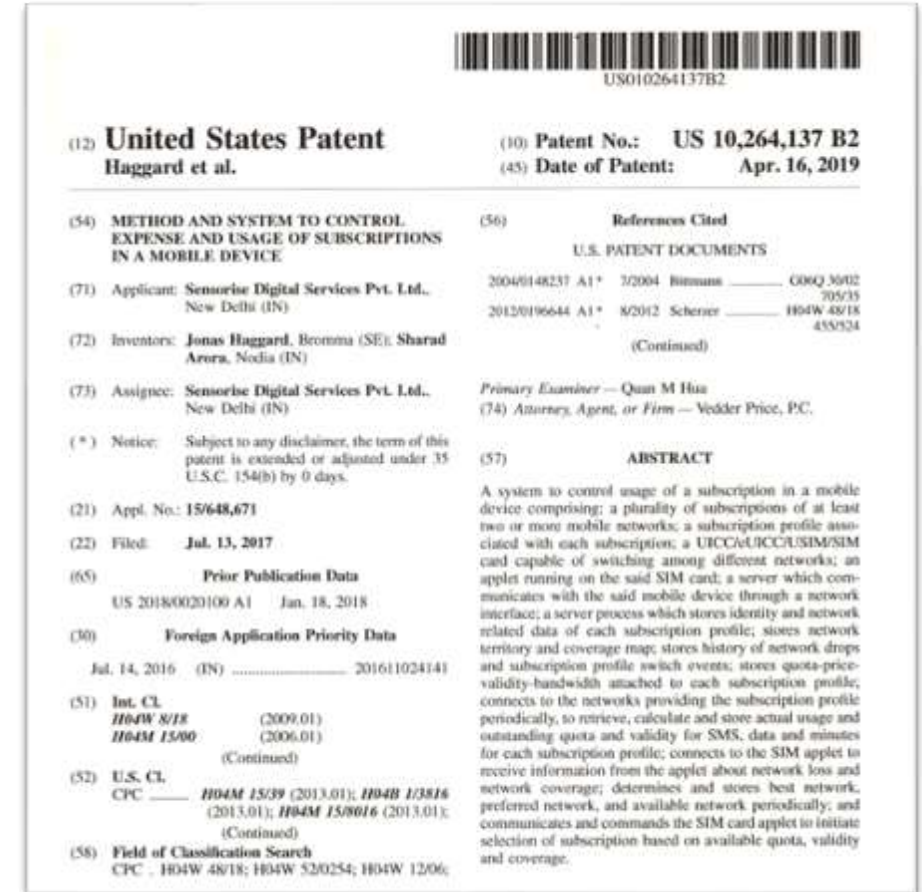
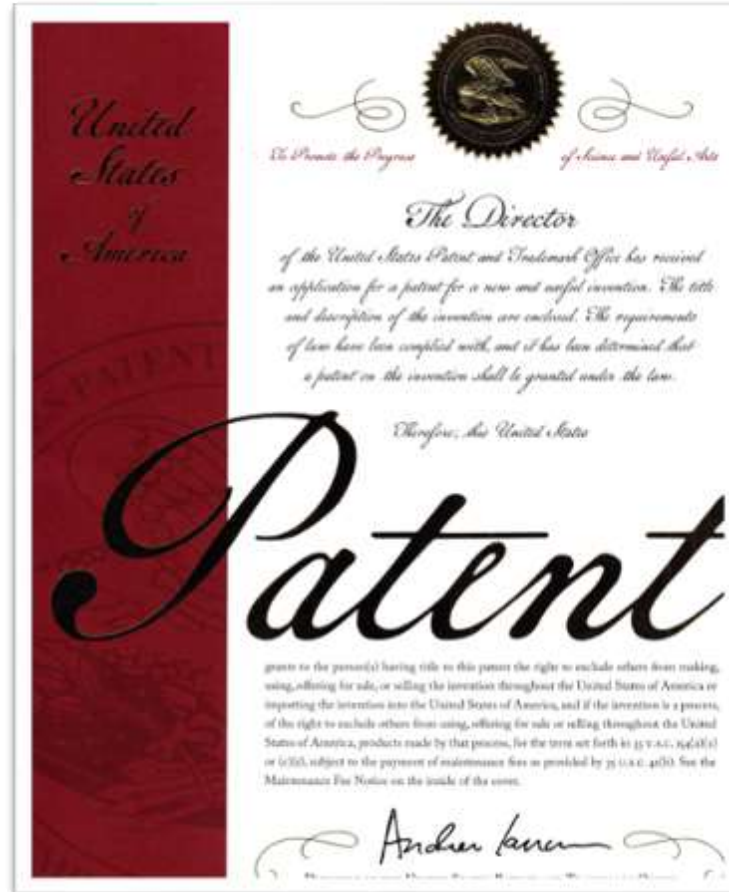
- TRAI Consultation on 'Spectrum, Roaming and QoS related requirements in Machine-to-Machine (M2M) Communications
- Member of the MTCTE Committee on Certification
- Member of the Telematics Working Group of Niti Aayog
- Member, Telecom Standards Development Society of India (TSDSI)
- LITD 28 Member, Contributor to the IoT-RA Standard
- Member of National Working Group 20, aiding the ITU SG20
- Member of National Working Group 13, aiding the ITU SG13
- Member of National Working Group 17, aiding the ITU SG17
- Rapporteur, SmartCities Standards Advisory Committee
- Member, 5G Application Layer Standards Committee
- Indian languages Standardisation initiative, TSDSI



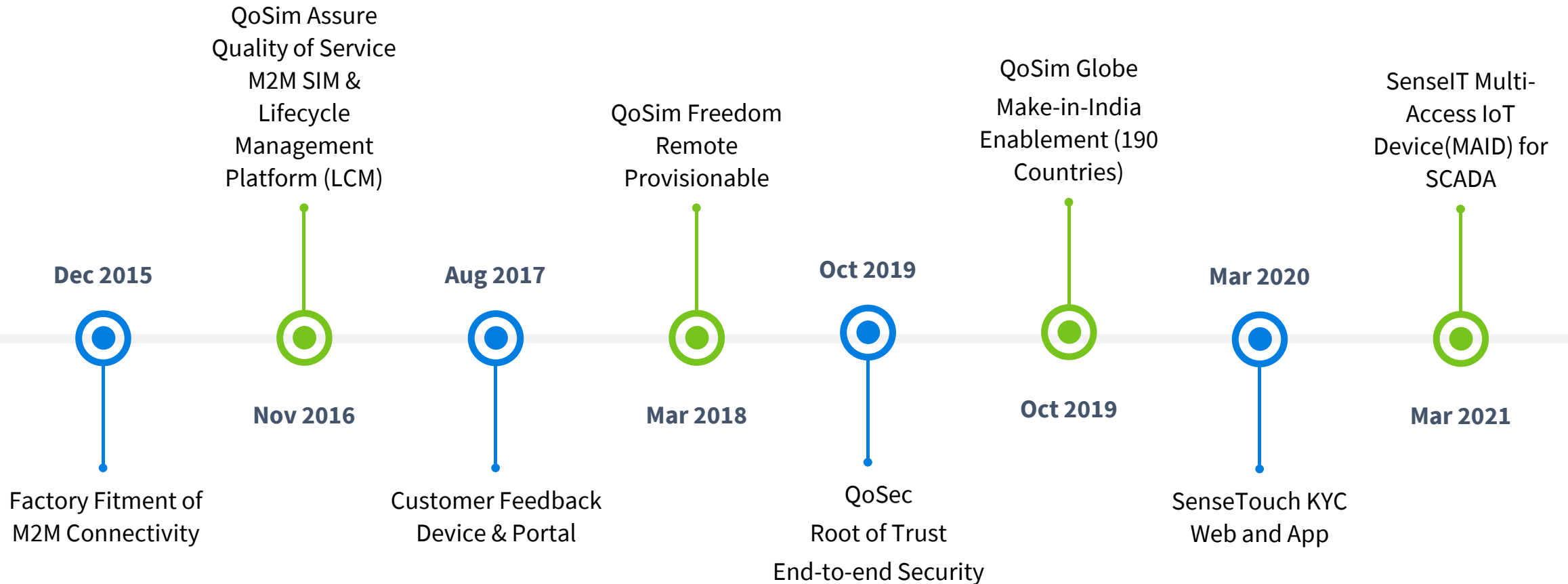
US Patent

Method and System to control expenses and usage of subscriptions in a Mobile Device

US Patent Number
US 10264137 B2 - 16 Apr 2019



Innovation at Sensorise



Full-stack Technical IoT Capability

End-to-end solutions for IoT/ M2M connectivity

Private Area Connectivity	Database Management	Mobile Applications
LPWAN Connectivity	Database Design	Applications and Portals
3GPP Connectivity	Operations Management	IoT Security
Ethernet	Systems Management	Web Containers
RS232/RS485	On Premise Deployment	Server Java
Communications	Cloud	Embedded Java
End-to-end Services	ID Design	Profile Switching
Modelling	Device Management	Profile Management
Machine Learning	Firmware and FOTA	Over The Air Management
Alerts and Notifications	Custom Firmware and PWBA	Key and Security Management
Dashboards	Processors / Controllers	Java Applets
Reporting & AI	Embedded Design	SIM Apps



Thank you!

- For more information, visit sensorise.net
- For enquires, email sales@sensorise.net