Water Management Solution

Powered by IoTivity

Who We Are

IoTivity

Incorporated in 2017, we are a technology driven, DATA acquisition & Connectivity provider company. IoTivity strives on SIM – **SMART**, **Innovation** & **Management**, with its focus on to bring out the best of the man and machine harmony.

We primarily work as an IoT based complete solution provider, that aims in creating socio impact. We recognize the ever-changing techno-commercial diorama and constantly keep updating ourselves to cater our client's need and keep their business running smoothly.

A humble start with a mix of passionate business professionals and technology experts, which gives us the ability to have a better understanding of not only client's technical needs, but provide them a value for money solution each time.

An ISO 9001:2015 & ISO / IEC 27001:2013 Company

2017 Founded

100+ Satisfied Customers

Our Vision & Mission

IoTivity

Our Vision

Go Green – Drive IoT enabled "Green India".

Our Mission

Align with Global initiatives in contributing to making India a Smart, Clean, Green, Rich in natural resources nation using IoT."

Already aligned with Govt initiatives like Nirmal Bangla, SBM, Water Policy, AMRUT, JNNURM etc.

Snapshot of What We Do

IoTivity

Connectivity Solution

We are the second company in the country to introduce multi-operator embedded SIM into the country. Under the mandate of Govt. of India these are used in m2m communication and AIS104 standard GPS-VTS applications as part of the GOI's intelligent transport project.

Smart Environment Management

For advanced users we provide remote control solutions based on our in-house developed application platform for river water flow & level monitoring, temperature and humidity monitoring, environment and weather stations (Disaster management), pollution control.

Smart Water Management

We have expertise in sensor based automation of various use cases in SMART Water Distribution and Quality Management using IOT technologies. We provide water pump automation and level management solutions in the domestic, commercial and industrial sectors along with host of other sensor based solution.

SMART Water management SOLUTION

Project 1 | West Bengal Drinking Water Sector Improvement Project

IoTivity

Scope of Work	Pilot study on Smart Water Management under Mangal Pandey water supply system in North 24 Parganas district, West Bengal.
Location / Authority	Mangal Pandey – PHED, West Bengal DHI (India) Water & Environment Pvt. Ltd. in Joint Venture with Tata Consulting Engineers Limited (TA Consultant of ADB), On behalf of Project Director, WBDWSIP, PHED
Project Duration	14th – 28th February, 2020 (2 Weeks).

Project 1 | West Bengal Drinking Water Sector Improvement Project

IoTivity

Commissioning

Real-time data monitoring was done. All data was availability over web-portal and through API.

Project Impact

The Data collected was used to do further analysis by the client. The data is now fed to PHED servers for real-time monitoring.

Project 1 | Gallery

IoTivity

Water distribution loss due to leakage at pipeline

Ultrasonic Flow meter

Project 1 | Gallery

IoTivity

System Calibration & Configuration

Instrumentation Panel

Project 1| Testimonial

IoTivity

Kolkata
30th March 2020

TO WHOMEVER IT MAY CONCERN

This is to certify that IoTivity Communications Private Limited based in Kolkata, has successfully completed Pilot project on smart water management under Mangal Pandey water supply system in North 24 Parganas district, West Bengal.

The system constituted Real Time Water flow and pressure monitoring using Ultrasonic flow water meter at five locations. The system used multi-operator SIM card for Data communication which gives us 99.99% system up-time.

The System worked perfectly and provided round the clock real time information on water in-flow and out-flow data for further analysis. All reports and data were visualized at water.iotivity.in web-portal.

Their Service to educate the users to manage the system is proactive with constant monitoring of the system.

We are delighted to install the system.

We wish them successful endeavors in the future.

Hans G. Enggrob
M.Sc., eMBA
Team Leader
Smart Water Management Consultants, WBDWSIP

DHI

The expert in **WATER ENVIRONMENTS**

West Bengal Drinking Water Sector Improvement Project
Utility Building, 3rd floor
AA-AI (Tank No. 3)
New Town, West Bengal 700156
Mobil: +45 2043 1916, tl.wbsmartwater@gmail.com, www.dhigroup.com

opropriate permission.

SECTION – 2

Project 2| Water level Monitoring System & Ultrasonic Water Meter

IoTivity

Scope of Work	Installation of Water level monitoring solution in various water tanks Under Bidhannagar Municipal Corporation.
Location / Authority	In various water tanks at SaltLake under Bidhannagar Municipal Corporation.
Commissioning	The System continues to work perfectly and provides round the clock real time information on water in-flow and out-flow which is accessible to our Officers at BMC, along with online status through water.iotivity.in web-portal and Mobile APP

IoTivity

DATA Communications Details

Data Logger :

The data logger is part of the m2m GSM communication device and can store up-to 8 GB of data (One year of data file) and is expandable up-to 32 GB.
The data logger stores the data as a string data in csv format.

Data Communication :

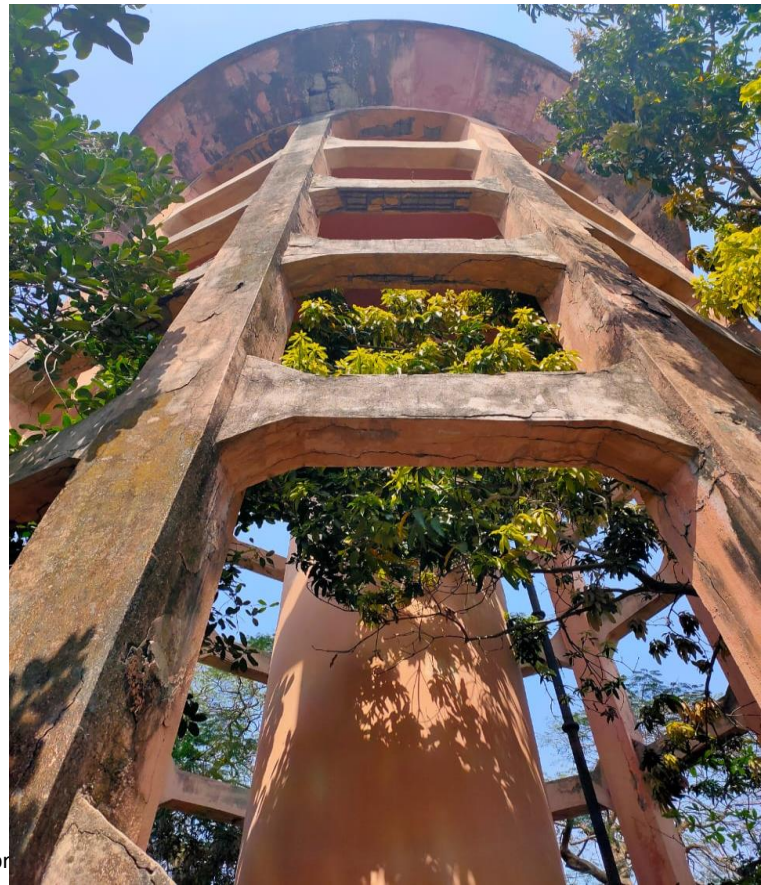
- The m2m GSM communication device periodically polls the data from the ultrasonic water meter using MODBUS/protocol in digital interface or 4-20mA of analogue interface.
- The m2m communication device is populated with multi-operator SIM for data transmission. In case of poor or fluctuating GSM network the device will automatically switch GPRS network service provider. This gives reliability of real-time data transmission. In case of any network outages the data will be stored in the memory and will be sent when the connectivity resumes.
- Data transmission MQTT/TCP-IP/HTTP.
- The water meter data is sent to the cloud server over GPRS.

Project 2 | Gallery

IoTivity

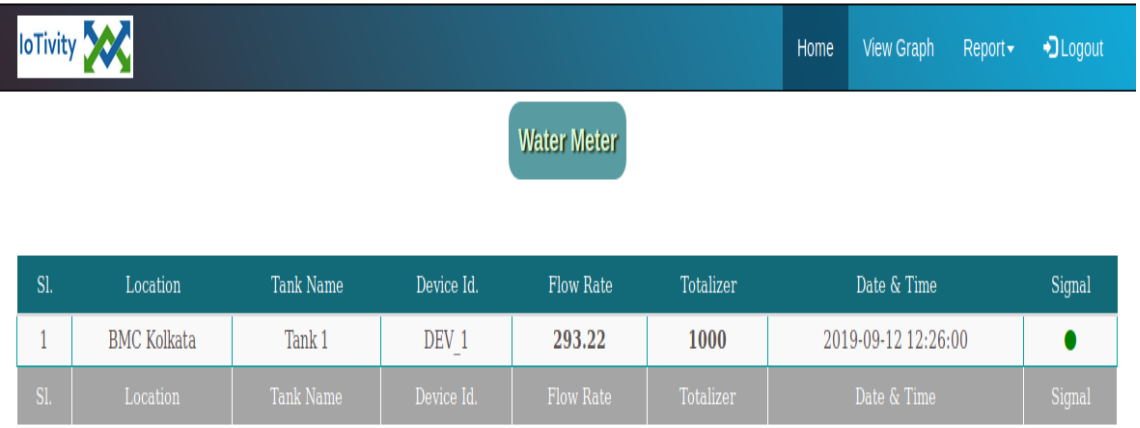
Real Time Water Level Monitoring Instrumentation Module

Highrise Water Tank at Saltlake



Project 2| Gallery

IoTivity



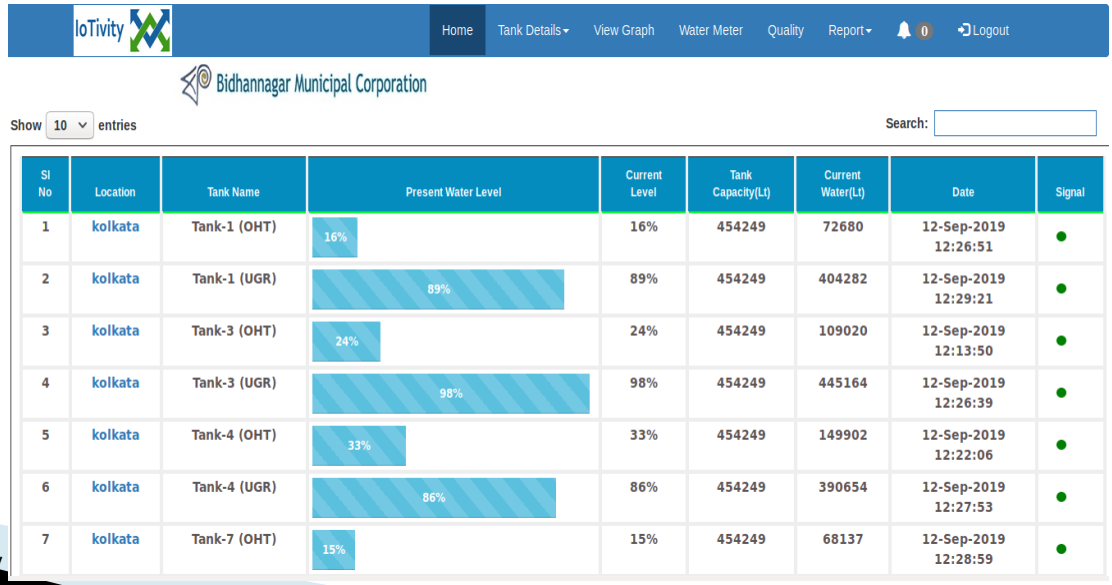
Water Meter Page

IoTivity provides all water data on real-time basis over web-portal and mobile app. The reports and analytic are customizable as per requirement.

We have servers supporting various protocols like TCP, HTTP, HTTPS, FTP, MQTT, TCP for integration with any sensors or devices.

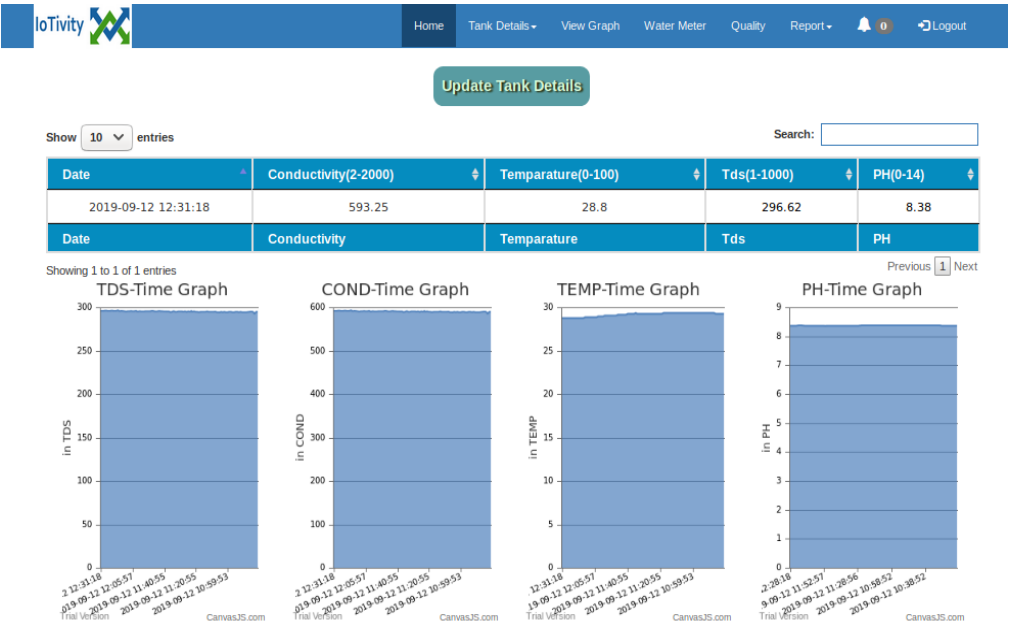
All Server infrastructure are cloud based and is compliant to govt of India IT norms. We have in-house team for all development and maintenance.

Water Quantity



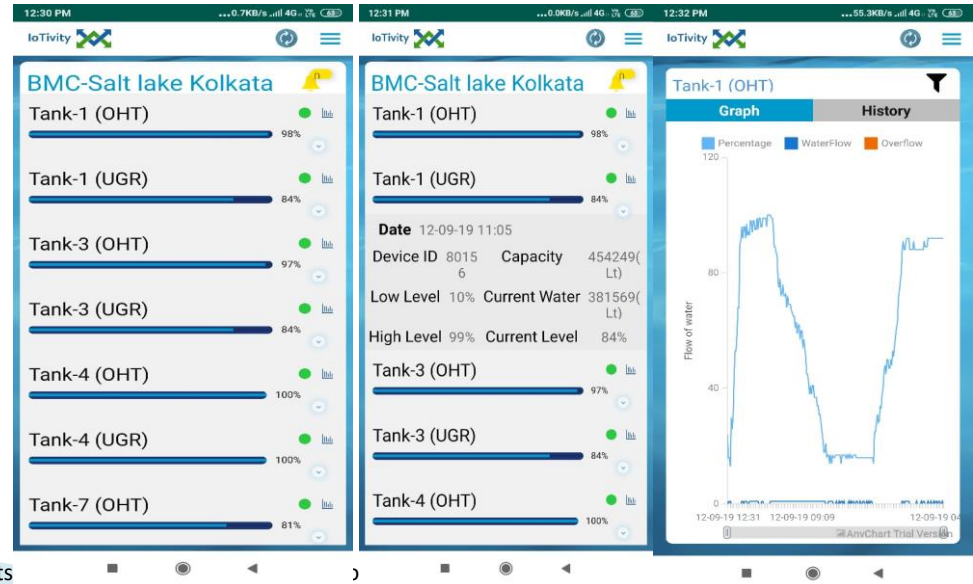
Project 2| Gallery

IoTivity



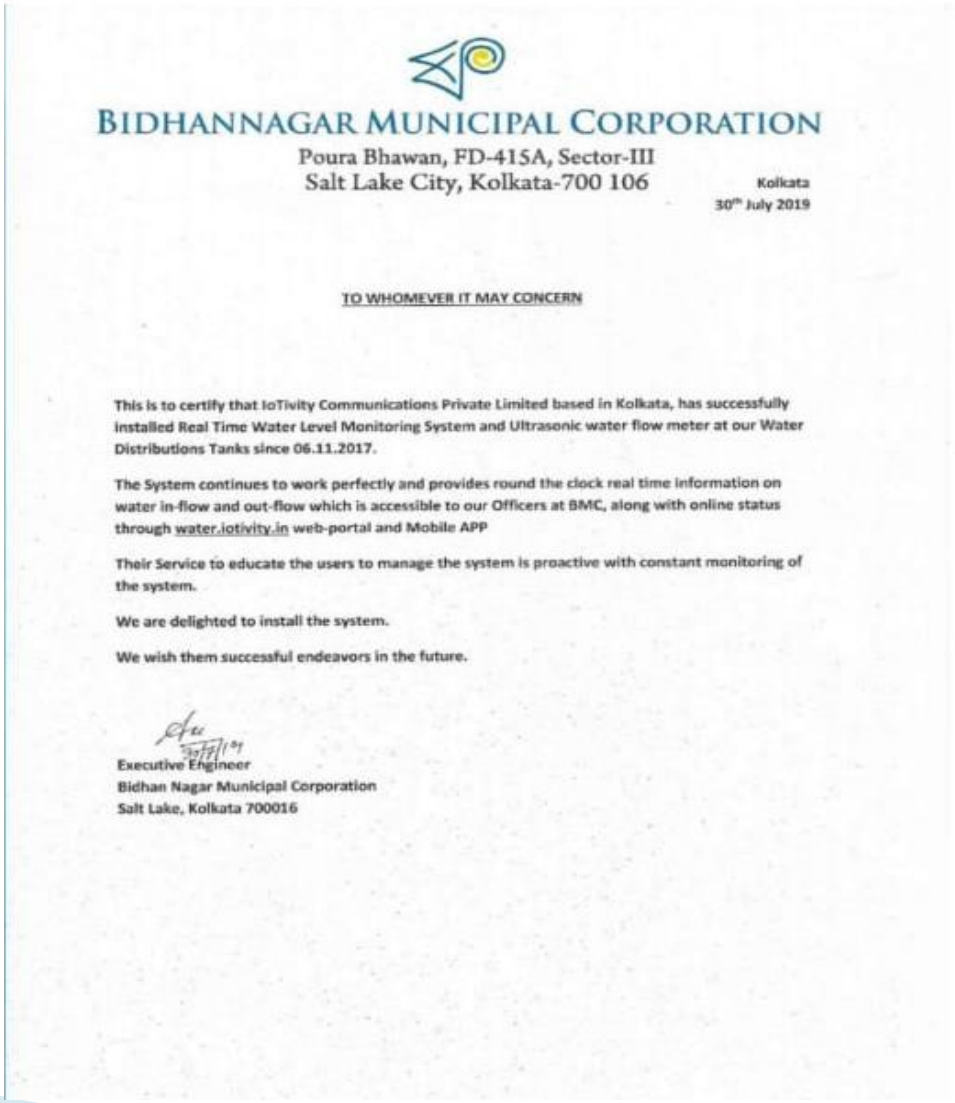
Mobile Application Intrerface

Water Quality Measurement



Project 2| Testimonial

IoTivity



BIDHANNAGAR MUNICIPAL CORPORATION

Poura Bhawan, FD-415A, Sector-III
Salt Lake City, Kolkata-700 106

Kolkata
30th July 2019

TO WHOMEVER IT MAY CONCERN

This is to certify that IoTivity Communications Private Limited based in Kolkata, has successfully installed Real Time Water Level Monitoring System and Ultrasonic water flow meter at our Water Distributions Tanks since 06.11.2017.

The System continues to work perfectly and provides round the clock real time information on water in-flow and out-flow which is accessible to our Officers at BMC, along with online status through water.iotivity.in web-portal and Mobile APP

Their Service to educate the users to manage the system is proactive with constant monitoring of the system.

We are delighted to install the system.

We wish them successful endeavors in the future.

Executive Engineer
Bidhan Nagar Municipal Corporation
Salt Lake, Kolkata 700016

Project 3 | Installation of Water Level Controller at Sikkim Hydropower Project

IoTivity

Scope of Work	Installation of water level controller to check availability and continuous flow of water to the turbine.
Location / Authority	Rangoli HE project East Sikkim
Project Duration	19th – 22nd December, 2017 (4 Days)
Project Impact	This solved the issue of sudden stoppage of water flow to the turbine. In case of non-availability of water in the in the incoming pipe-lint then the hooter raises the alarm and the duty officer in the control room can stop the turbine safely. This helps in avoiding the turbine running dry.

Project 3 | Gallery

IoTivity

Turbine water is fed through pipe from distance location and height.

HE Plant Location

Project 3| Gallery

IoTivity

Turbine

Project 3| Testimonial

IoTivity

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TAN NO. CALS21582 B

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E-mail : spdcskm@gmail.com
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SIKKIM POWER DEVELOPMENT CORPORATION LIMITED

(A Government of Sikkim Enterprise)

31-A, National Highway, Near UD & HD Department, Gangtok - 737101, Sikkim, INDIA

Ref. No. SPDC /

Dated 21.12.2017

MINUTES OF MEETING

Minutes of meeting held between M/S Sikkim Power Development Corporation Ltd. and M/S Iotivity Communications Private Ltd. on 19.12.2017 at Rongli HE project, East Sikkim. Mr. Shiranka Saha Product manager with Service Engineer of Iotivity Communication Private Ltd. reported at Rongli site on 19.12.2017 and leave the site on 21.12.2017.

Subject:

- Installation of wireless water level controller at fore bay tank.

Job done:

- Installation of wireless water level controller at fore bay tank on 19.12.2017.
- Fixed the monitoring system in power house and placed the transmitter at bore bay tank.
- Take a trial of 24 hrs. and find the system in good condition and functioning well.

We set the system parameters as follows:

1. Water full status- 100%
2. Overflow- above 100%
3. Minimum water level- 45% (penstock top level).
4. Water flow status.

For Iotivity Communications Private Limited

21.12.17
Asstt. Engineer
Rongli HE Project

SPDC
(Sikkim Power Development Corporation Ltd.)

Iotivity communications Private Limited
Product Manager

SECTION 3

Project 3| Flood Forecasting and Early Warning System.

IoTivity

Scope of Work	Installation of AWS, Rain Gauge, Water level sensor, Salinity Sensor. Real time transmission to server.
Location / Authority	East Midnapur – 13 sites under the per-view of PHED and Haldia Dock Authority.
Commissioning	The System continues to work perfectly and provides round the clock real time information on various parameters

IoTivity

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- Data transmission MQTT/TCP-IP/HTTP.
- The water meter data is sent to the cloud server over GPRS.

Project 3| Flood Forecasting and Early Warning System.

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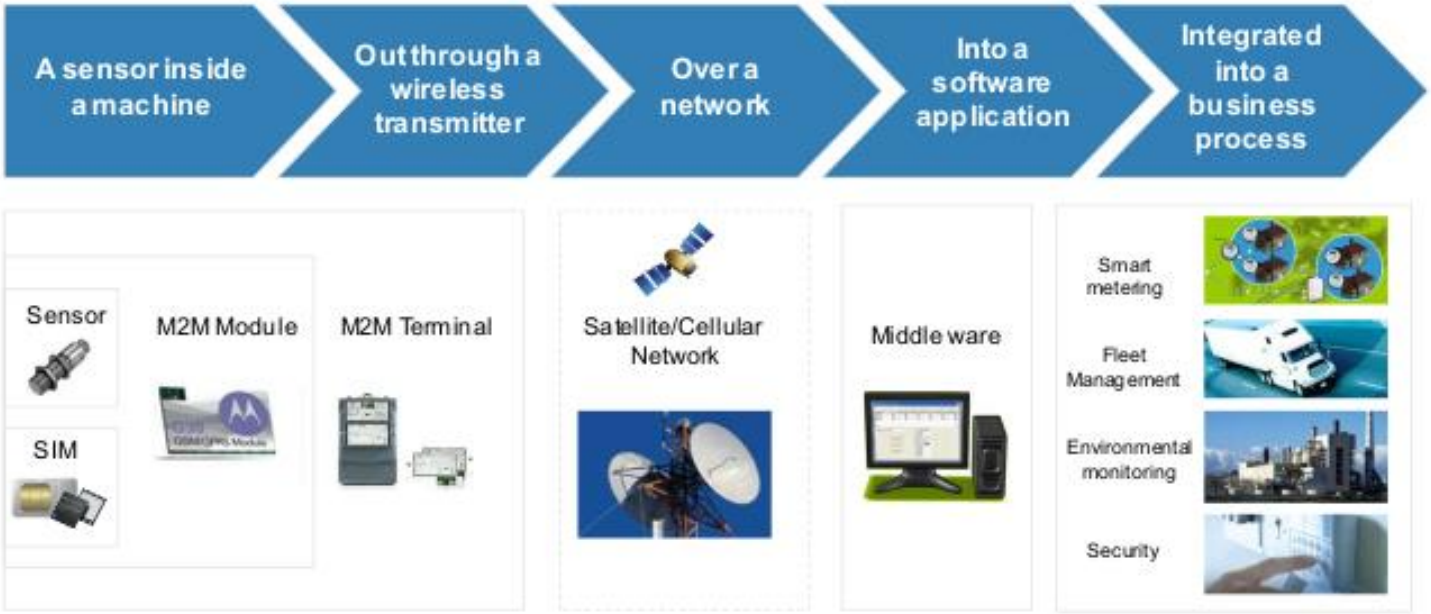
SECTION 4

Data Communication – Duel Operator SIM

- Collect important information with machines, securely transfer the data, receive and analyze data and make a system out of it.
- Duel or multiple operator connectivity for maximum reliability



Data Communication – Satellite based data technology.

Purpose build solution for end-to-end machine connectivity. The solution consists of Hub, the satellite network and server - works together to connect the world's machine data so critical information can be communicated anywhere.

Contact Us

IoTivity

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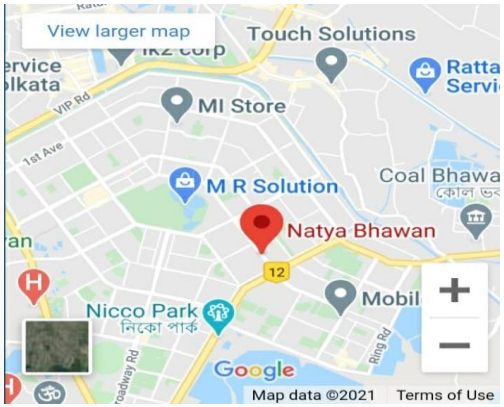

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End