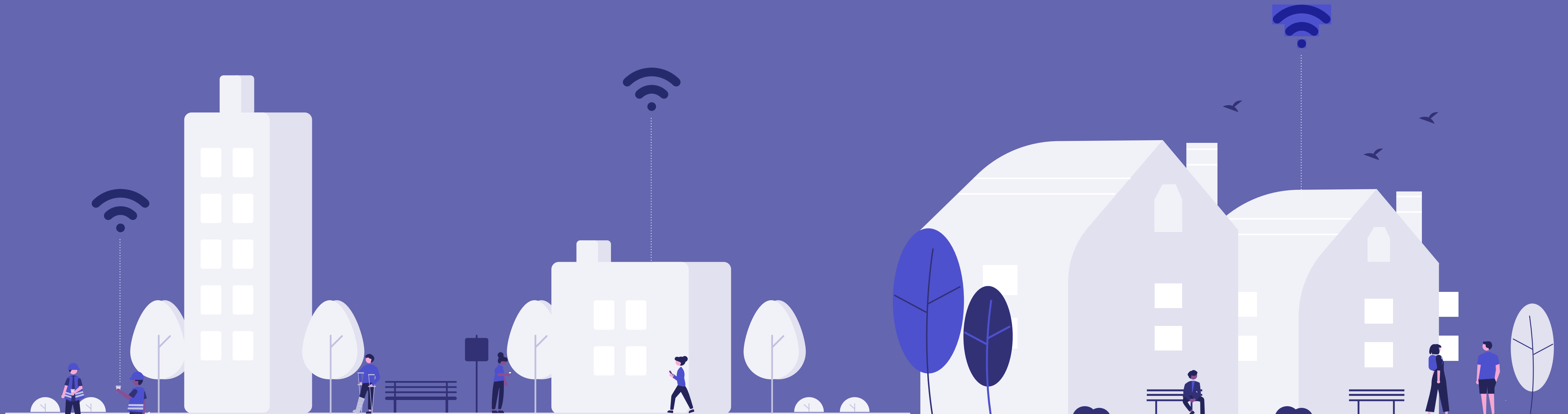




INTERNET OF THINGS



PRECISION'S IOT BACKGROUND

Precision brings its more than two decades of experience in the IT industry to assist in your IoT journey. Precision has carefully brought together, invested into and nurtured the capabilities and resources required, such as its PIVOT IoT Framework, embedded engineering, software engineering, implementation and support infrastructure, to be able to provide an end-to-end IoT solution.



Precision can address the end-to-end requirements of your IoT innovations, across all layers of the solution stack:

- End-use devices with embedded sensors and actuators
- Things | Nodes
- Wireless & wired
- Communications & Networking
- PIVOT IoT Platform
- Computing & Storage
- Popular Cloud Platforms or Client's Private Cloud
- Applications & Services
- PIVOT IoT Analytics Framework
- Big Data & Analytics



Precision can not only help you design, architect, prototype and refine your IoT solution; we can actually help you deploy the solution and support it through our pan-India support network.



PRECISION'S BACKGROUND

Established in 1996, Precision provides Biometric, IoT, Cloud & Systems Integration solutions and IT Infrastructure Management Services. Precision adopts a consulting approach to address the needs of clients and has a very strong R&D and IP creation focus. With a PAN India presence and a 2500+ strong team of experienced and skilled certified pre-sales, sales & technical personnel, Precision strives to deliver value to its clients, leading to the creation of a large and loyal base of delighted customers.

Our offerings:

BIOMETRIC
SOLUTIONS

INTERNET
OF THINGS

INFRASTRUCTURE
MANAGEMENT SERVICES

SYSTEM INTEGRATION & CLOUD



PIVOT

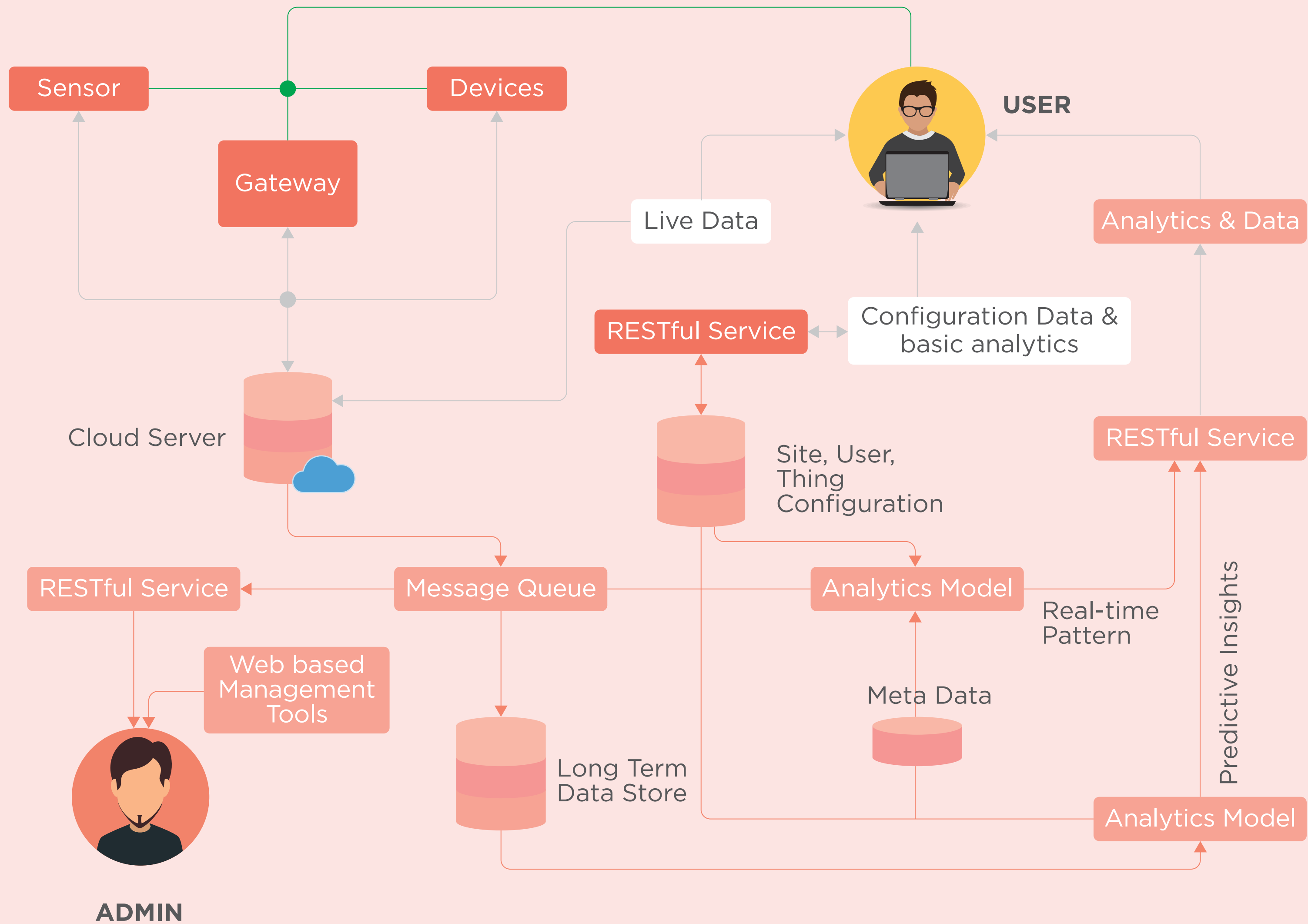
PIVOT is Precision's end-to-end, modular, value added IoT framework, which has been designed to adapt rapidly and easily to IoT solution needs, be it Industrial IoT, Enterprise IoT, Consumer IoT or Smart City solution.

PIVOT employs best-in-class tools and techniques to deploy & connect to 'things', monitor and manage them, to develop & deploy applications supporting operations, to ingest large amounts of data and to provide rich analytics.

Precision employs widely used protocols in PIVOT and shall keep enhancing the protocol stack in line with the industry trends and optimized applicability. PIVOT supports Web sockets, MQTT, CoAP & Modbus. In terms of Security, PIVOT secures different layers of its architecture through appropriate standards such as role based user authentication, Site IDs, Site Authentication Codes, SSL, WPA2 and secured connection using TLS.



PIVOT



Local Communication

Internet Communication

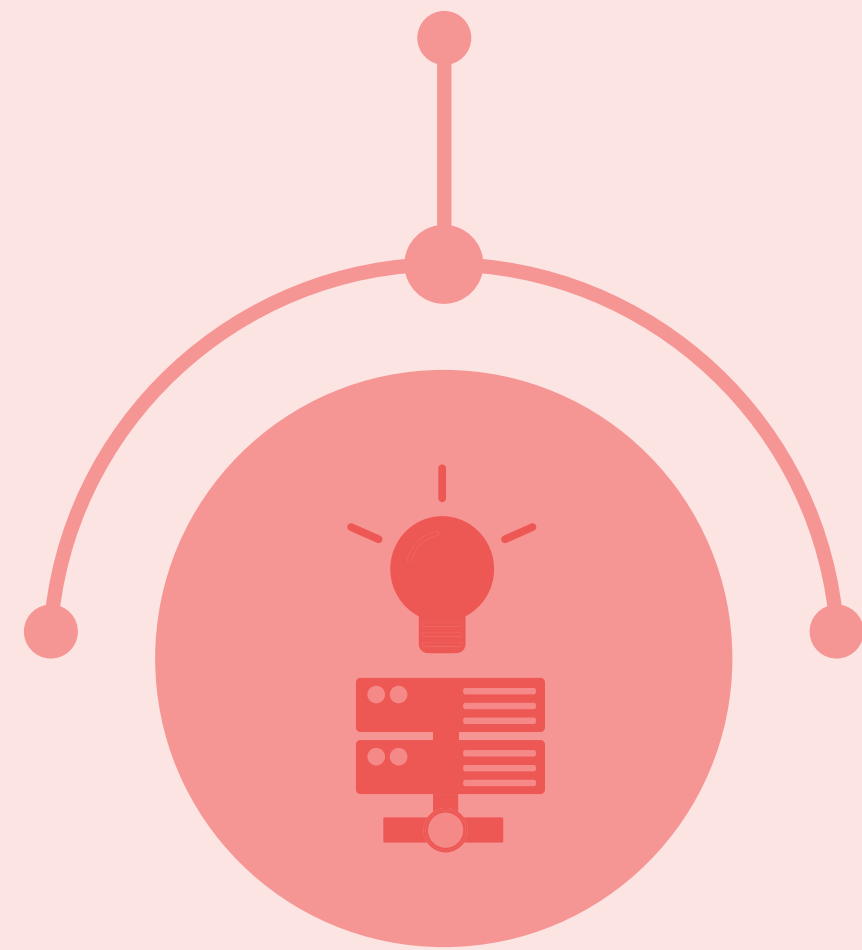
Datacenter Communication

Sensors & actuators with microcontrollers embedded in devices

COMMUNICATION & NETWORKING

Precision Cloud, AWS, Azure & Client's Private Cloud

Precision's PIVOT IoT Analytics Framework, AWS EMR/Yarn, Mongo, Hadoop, R, others BA Apps, Mobile Dashboards



THINGS



Wired & Wireless

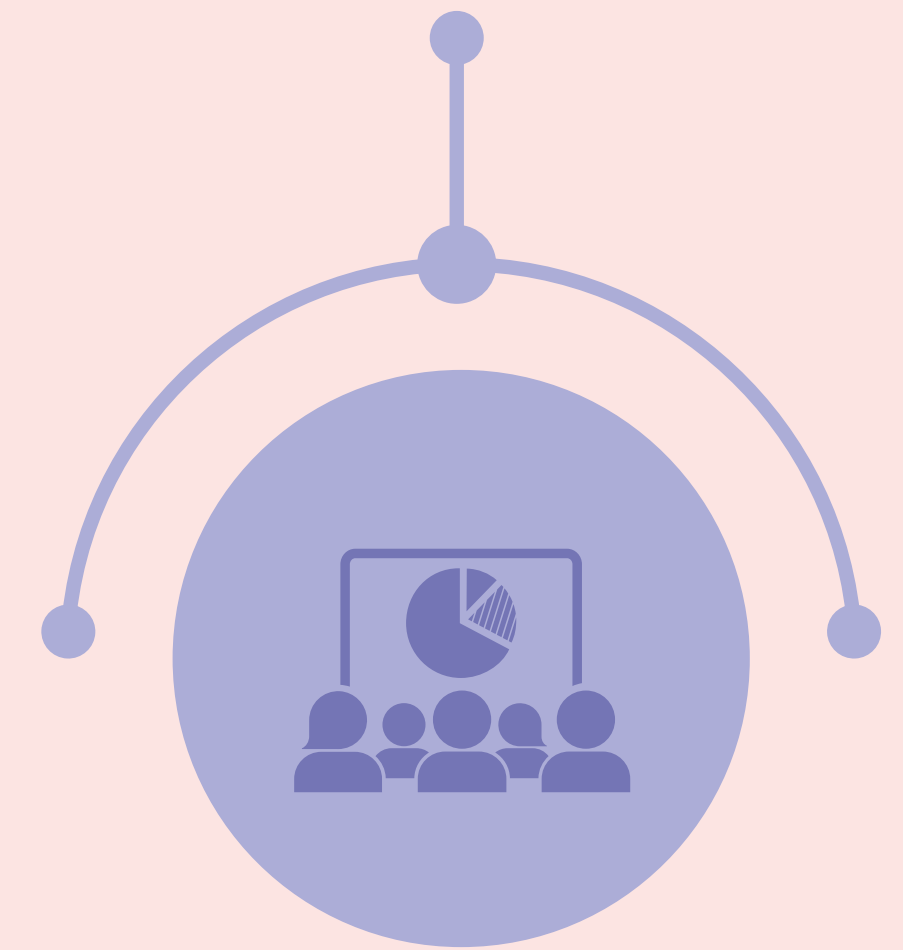


COMPUTING & STORAGE



APPLICATIONS & SERVICES

Precision's PIVOT Framework, Mobile Apps, web Applications



BIG DATA & ANALYTICS

PRECISION'S SUPPORT (CLOUD, TRIM, SME)

COMMERCIAL IoT

IoT in the commercial avenue opens up whole new possibilities of increasing organizations' efficiency with data analytics and machine learning by using the data generated from the environment.



OBD II



01

Diagnoses
Vehicles' health

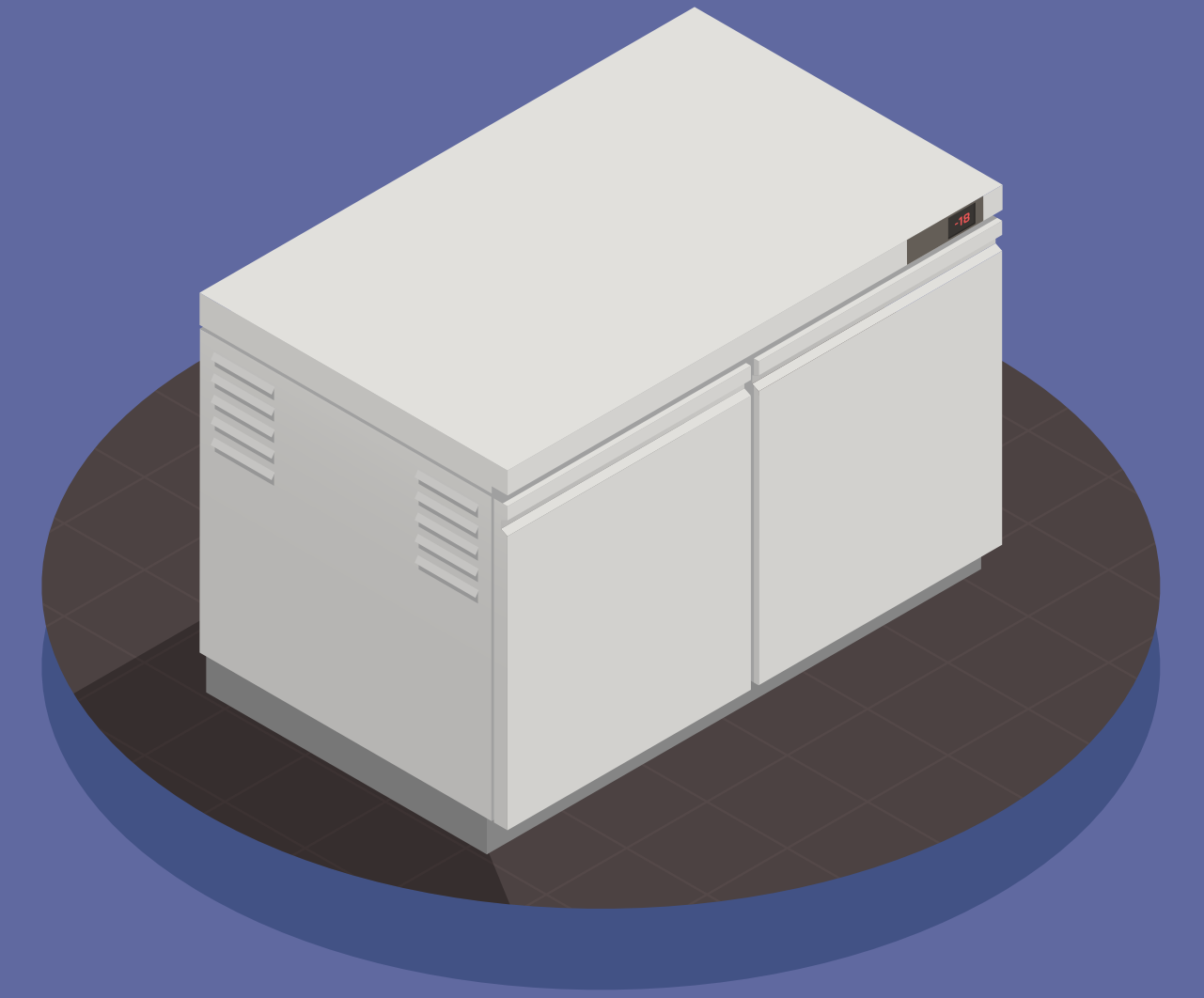
02

Geo-fencing

03

Easy integration
with any vehicle

CHEST FREEZER



01

Monitors
working
conditions

02

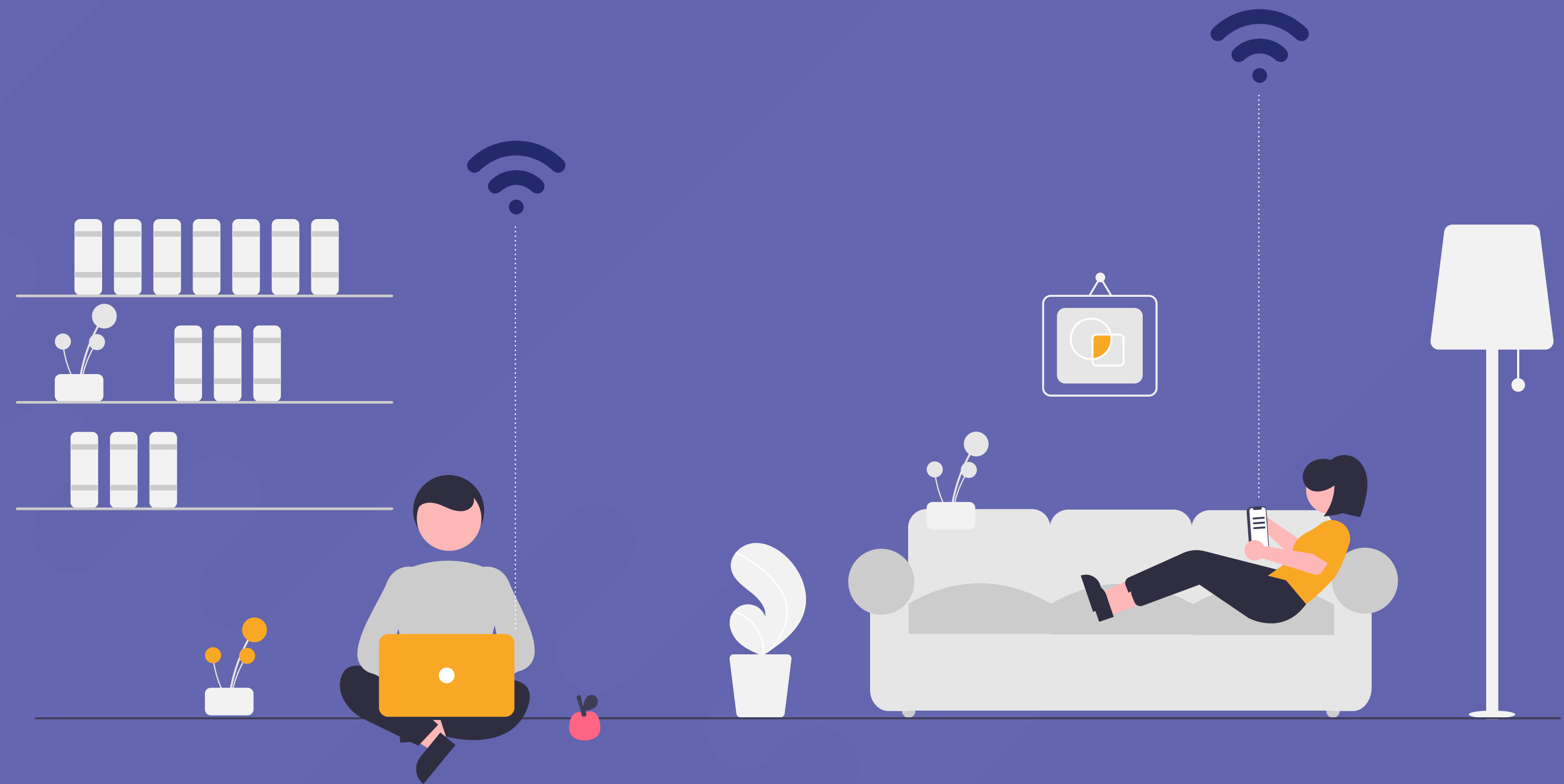
Pop up
alerts as per
the content
inside

03

Entire cold
room storage can
be monitored and
adjusted live

SMART LIGHT CONTROLLER

Smart Light Controller is an intelligent lighting control solution which communicates to the cloud via a suitable gateway. The evolution of smart light controllers has become inevitable as lighting is moving towards Wellness, Human centric and Safety requirements. Our smart light controller, PG-SLC 100, is able to achieve an array of operations using BLE mesh/LoRa WAN technology, where it has the capability to integrate multipurpose sensors for a centralized operation and monitoring control.



HUMAN CENTRIC LIGHTING



15%

Increase in Productivity

- Improves work performance and productivity
- Power Saving
- Occupancy Sensor
- Day Light Harvesting
- Scheduling
- UVA/UVC Virus Protection Lighting

OUTDOOR STREET LIGHTS



28%

Power Saving

- Scheduling Auto ON/OFF
- Air quality sensor
- Pollution Monitoring - CO2/CO/PM2.5 sensors
- Intensity Control, Motion Detection & Power Optimization

INDOOR LIGHTING



67%

of human time is spent under lighting

- Gas, fire, and smoke sensor
- Tunable intensity and colour (Warm White to Cold White)
- Remote operation

HEALTHCARE



90%

Improvement on Sleep Efficiency

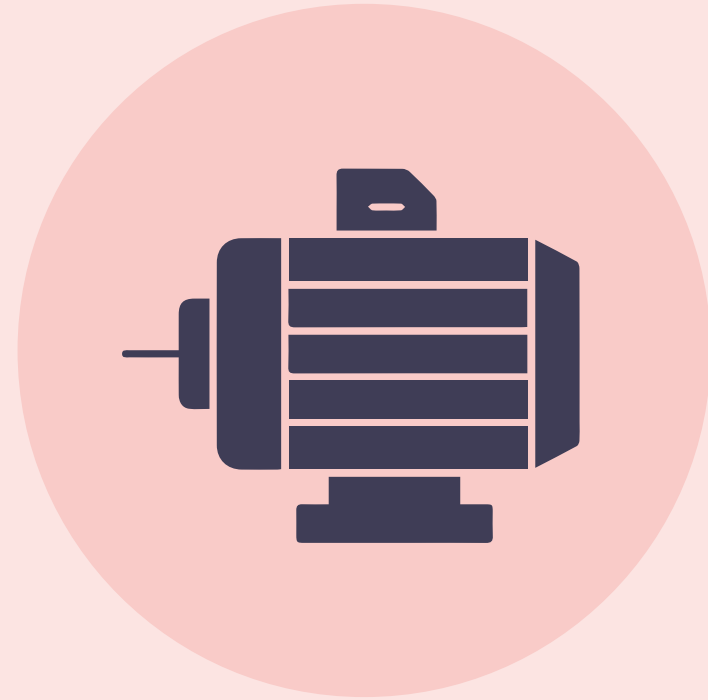
- Centralized light control via portal & App control
- Faster healing rate
- Wellness/Human Centric Lighting in ICU/CCU
- Occupancy based UVC lighting for disinfecting surface and air

INDUSTRIAL IoT

Industrial IoT allows manufacturing units to interface their machines to the cloud platform for analytics and operations. The requirement for smart solutions in industries is dynamic, the upgradation of present assets and machinery to a smart-enabled operation is done as per the specific requirement of the company. PIVOT includes a comprehensive platform which helps the user to perform intelligent data analytics and enhances the operational decisions & improves the overall efficiency.



APPLICATIONS



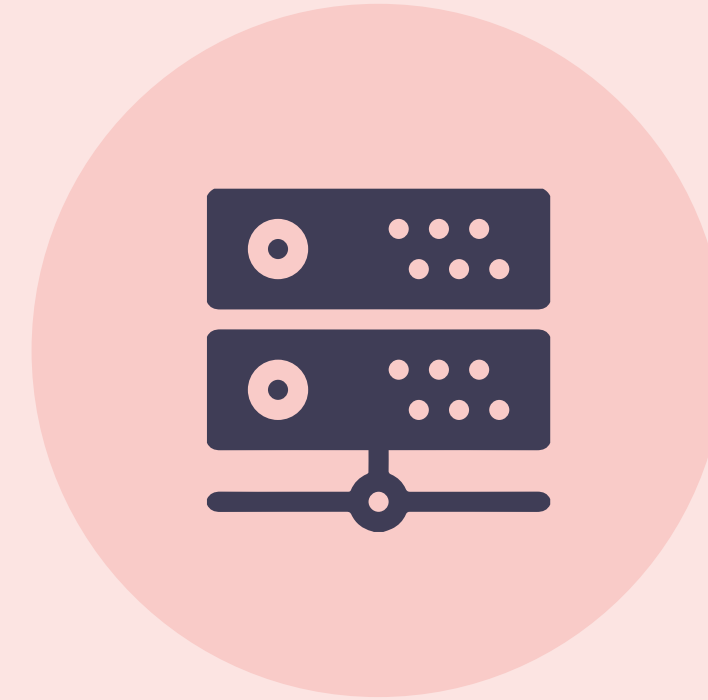
SMART MOTOR

- Retro fit in existing device
- Sensor integration
 - Vibration
 - Noise
 - Speed
 - Bearing temperature
 - Winding temperature
- Continuously monitor voltage, current and trip on undesired condition
- 'ON Time' measurement



OPERATION COUNTER

- Easy integration into equipment (such as sewing machines)
- Constantly measures the current range (greater than no load current)
- Energy computations



PROGRAMMABLE LOGIC CONTROLLER (PLC) GATEWAY

- Retro fit in existing plant
- Gateway customization
- Data collection
- Analytical decision making



ADVANCED METERING INFRASTRUCTURE (AMI)

- Data collection is from a single or multiple sources
- Central Meter Data Management System
- Controlling the energy meters, management of payment, invoice generation etc.

SMART CITY

Precision can help you all along your journey of envisioning, preparing, prototyping, architecting and implementing your IoT solutions. Be it a solution being implemented as a project or making your products 'smart', Precision would be keen to partner with you.



AIR QUALITY & ENVIRONMENT MONITORING



- Particulate Matter, CO₂, CO, O₂, Temperature, Humidity, Atmospheric Pressure, other sensors as needed (O₃, SO₂, CH₄, NO₂)
- Interval based or real-time streaming of data, threshold configurations and breach alerts and more

WATER QUALITY ANALYSIS



- Measurement of parameters such as pH, DO, ORP, Turbidity, Ions (ex: Ca, FI, Cl)
- Optional sensors for NH₄, Bromide, Iodide, Cupric, Fluoroborate and others
- Threshold configuration based on WHO recommendations and breach alerts

RAINFALL MEASUREMENT



- Continuous measurement of precipitation using a weighing system
- Threshold settings and intensity alarms

SOIL TESTING



- Measurement of moisture levels, pH and light levels
- Base data analysis to determine whether the soil is arable

SMART ENERGY METERING



- Real time energy meter data transmission (push/pull)
- Real time load monitoring, threshold configurations and breach alerts
- Event detection & reporting

CONSUMER IoT

Consumer IoT is becoming an integral and inevitable part of the household space. The usage spans from day-to-day smart wearables to home automation.

Precision has forayed into the Home Automation Segment with Smart Lighting, Smart Switches and Smart Appliances





PRECISION GALAXY

