AYKA
GLOBAL - DIGITAL

New Best Competitor Analysis

- Water Solutions
- Energy Optimization
- Buildings / Facilities
- Traffic & Tolls
- Facility Management
- Video Analytics
- Digital Twins Buildings / Cities
- Environmental Solutions
- Smart Agriculture

About AYKA

Established 2013

Over 50+ projects delivered globally

Experts in highly customized solutions

10+ Solutions

Collective experience of 20+ Years

AYKA-LYT
IoT Edge
Industrial & Consumer

CO₂
Air Segment

Water Segment

Energy Segment
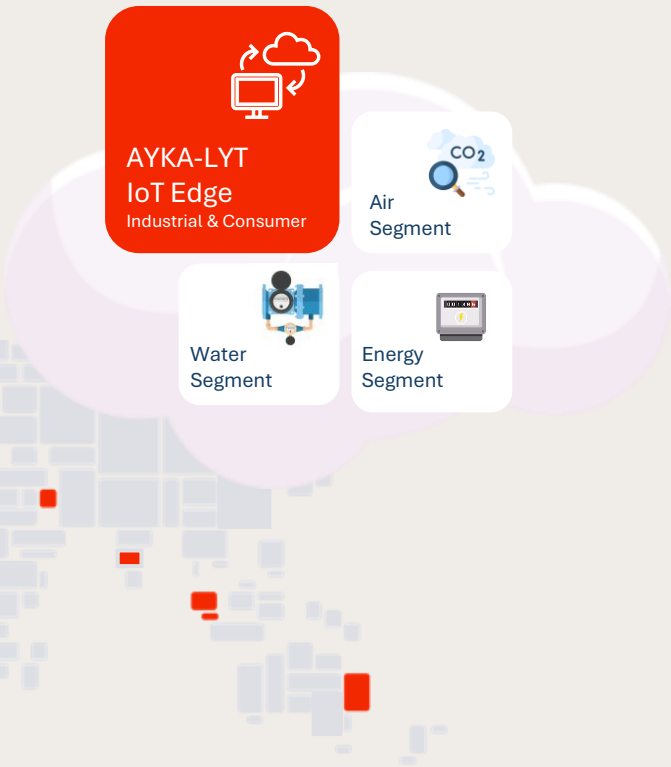
5+
Countries

20+
Industries

120⁺
Subject Matter Experts

Our Clients

عقار aqaar

SWEET HOMES
GROUP OF COMPANIES

مجموعة التزام
لإدارة الأصول
eltizam group
asset management

الصير
Al Seer

ARK CLOUD CITY

injazat
A G42 company

بلدية دبي
DUBAI MUNICIPALITY

FIFA WORLD CUP
Qatar2022

meydan

Dussmann

EXPO 2020 DUBAI UAE

MUBADALA

حكومة رأس الخيمة
Government of Ras Al Khaimah

دائرة الخدمات العامة
Public Services Department

LANDMARK
GROUP

AYKA
Water Management

AYKA delivers a **comprehensive 360° view** of water supply, wastewater distribution, and residential water management, enabling smarter decisions for all stakeholders.

Government Officials: Ensure optimal water distribution (LPCD) and quality compliance with real-time monitoring and predictive analytics.

Industries: Maximize efficiency, reduce downtime, and maintain seamless operations with automated insights.

Residential Communities: Track water usage, detect leaks early, and promote sustainable consumption with smart metering and alerts.

AYKA-LYT IoT Edge
Industrial & Consumer

Air Segment

Water Segment

Energy Segment

Features:

✓ **Automated Data Collection** – No manual readings, ensuring accuracy and reliability.
✓ **AI-Powered Reporting & Alerts** – Instant insights and proactive notifications for leaks, wastage, or anomalies.
✓ **Remote Monitoring & Control** – Manage water systems from anywhere for uninterrupted service.
✓ **Residential Water Management** – Real-time usage tracking, consumption analytics, and automated billing integration.
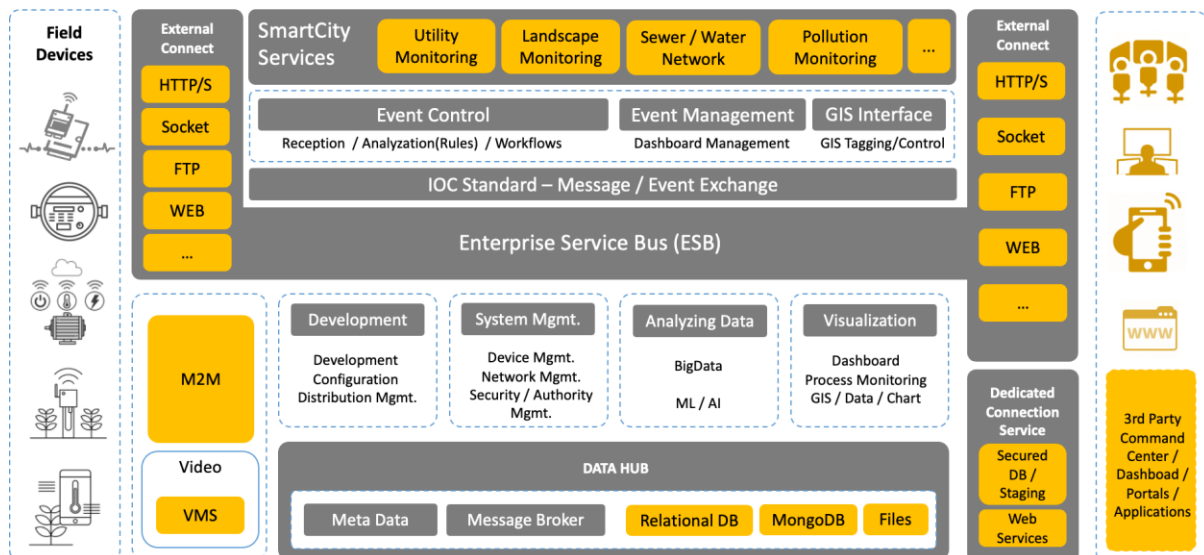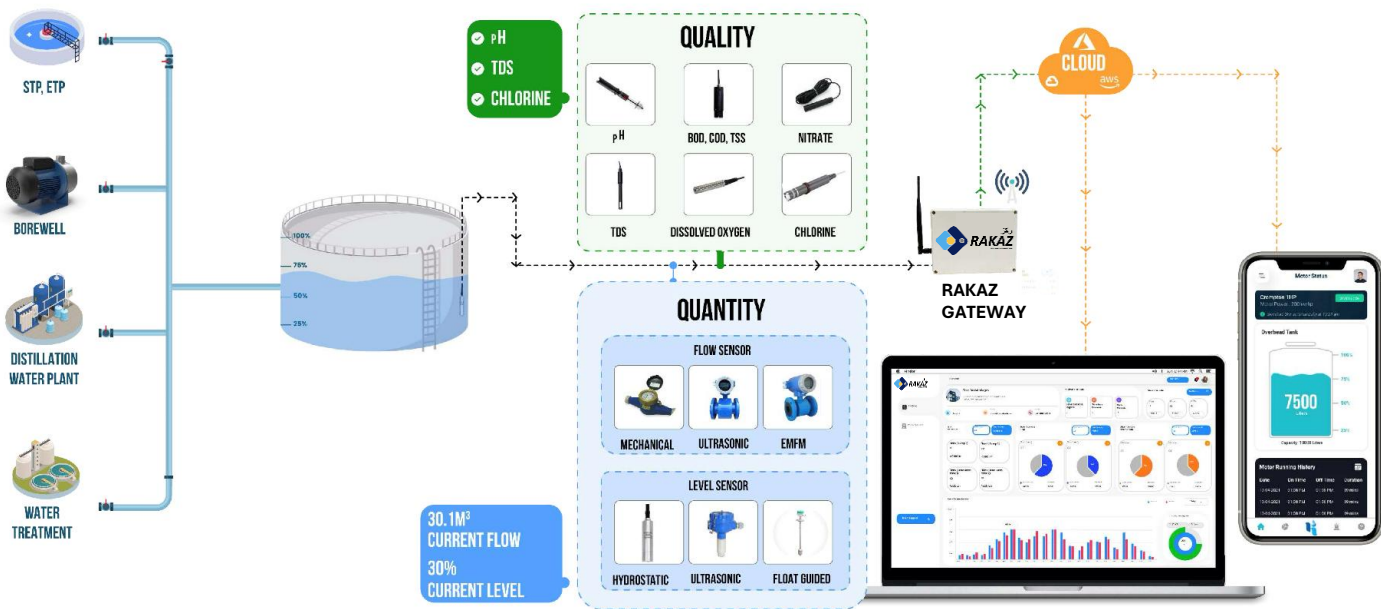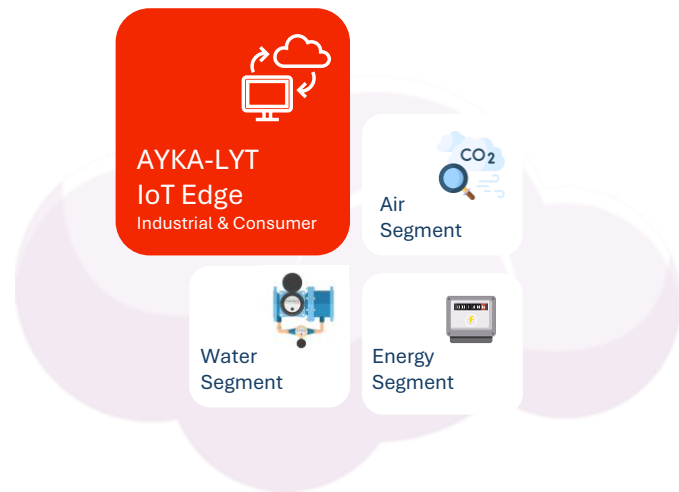
With **AYKA**, optimize water sustainability, enhance operational efficiency, and empower smarter water management—all in one intelligent platform.

Water Levels

1000 ltrs
Current level

| Total Level | Usage |
| 3000 ltrs | 70% |

Usage
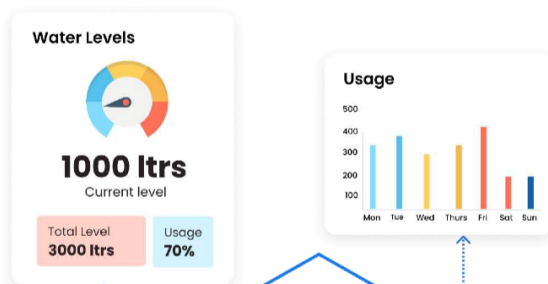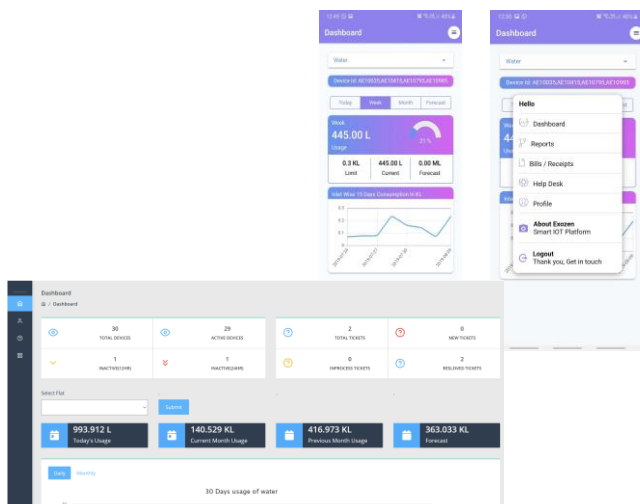
Product Architecture

AYKA delivers tailored solutions designed to address sector-specific challenges, powered by **customizable dashboards** that adapt to each user's unique operational needs.
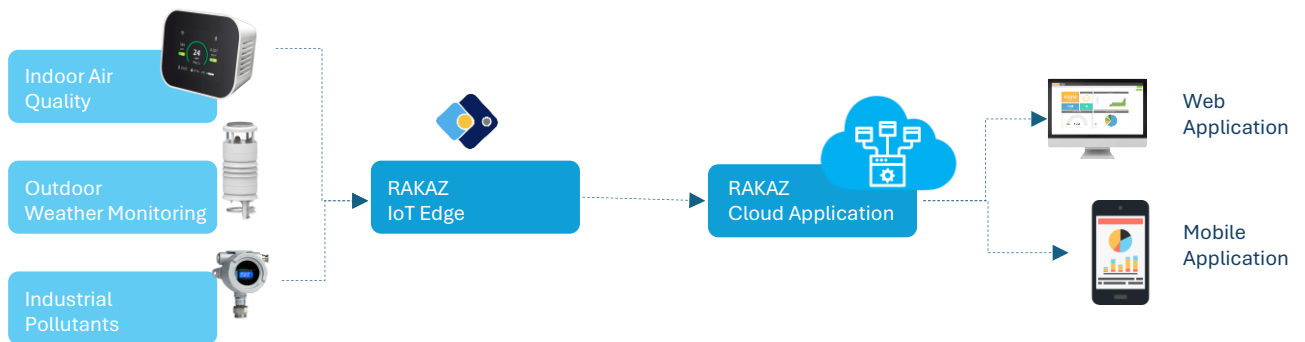
AYKA-LYT IoT Edge
Industrial & Consumer

- Air Segment (CO_2)
- Water Segment
- Energy Segment

QUALITY
- pH
- TDS
- CHLORINE

| pH | BOD, COD, TSS | NITRATE |
| TDS | DISSOLVED OXYGEN | CHLORINE |

QUANTITY

FLOW SENSOR
- MECHANICAL
- ULTRASONIC
- EMFM

LEVEL SENSOR
- HYDROSTATIC
- ULTRASONIC
- FLOAT GUIDED

30.1M³ CURRENT FLOW
30% CURRENT LEVEL

- STP, ETP
- BOREWELL
- DISTILLATION WATER PLANT
- WATER TREATMENT

RAKAZ GATEWAY

CLOUD aws

Field Devices	External Connect	SmartCity Services					External Connect	
	HTTP/S		Utility Monitoring	Landscape Monitoring	Sewer / Water Network	Pollution Monitoring	...	HTTP/S
	Socket	Event Control		Event Management		GIS Interface		Socket
	FTP	Reception / Analyzation(Rules) / Workflows		Dashboard Management		GIS Tagging/Control		FTP
	WEB	IOC Standard – Message / Event Exchange						WEB
	...	Enterprise Service Bus (ESB)						...

	M2M	Development	System Mgmt.	Analyzing Data	Visualization
		Development Configuration Distribution Mgmt.	Device Mgmt. Network Mgmt. Security / Authority Mgmt.	BigData	Dashboard Process Monitoring GIS / Data / Chart
	Video			ML / AI	
	VMS				

DATA HUB

| Meta Data | Message Broker | Relational DB | MongoDB | Files |

Dedicated Connection Service
- Secured DB / Staging
- Web Services

3rd Party Command Center / Dashboard / Portals / Applications

AYKA
Air Quality Monitoring

We are an industry leader in IoT enabled air quality and weather intelligence solutions tested around the world for accurate observations and proven performance.

A fully integrated station that can provide integrated air quality metrics like Air Quality Index (AQI) and Air Quality Health Index (AQHI), and monitor multiple pollutants and parameters simultaneously, including air quality sensors such as **NO, NO2, CO, O3, SO2, CO2, VOCs, H2S, PM (PM10, PM2.5, PM1**), as well as temperature, relative humidity, and barometric pressure (with optional environmental sensors to capture data on wind speed and direction, ambient light and noise, and rainfall).

AYKA-LYT
IoT Edge
Industrial & Consumer

Air Segment

Water Segment

Energy Segment

Indoor Air Quality

Outdoor Weather Monitoring

Industrial Pollutants

RAKAZ IoT Edge

RAKAZ Cloud Application

Web Application

Mobile Application

Dashboard Overview
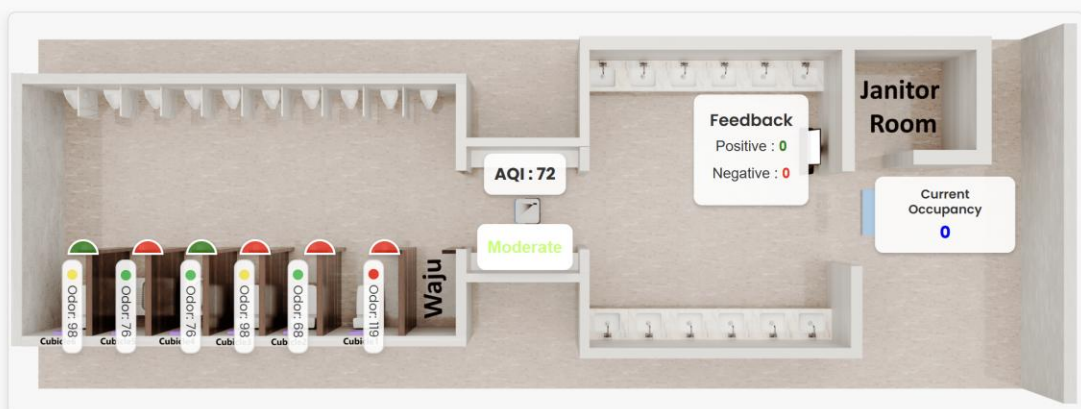**Location: Male Washroom Arrival side Mumbai T2**

Refresh Rate: [1 min ▾]

28.35ºC Cloudy
Location: Mumbai International Airport, Vile Parle, Mumbai
Source: Open Weather
Last Updated: 12/07/2025, 08:10:38 am

Janitor Room

Feedback
Positive : **0**
Negative : **0**

AQI : 72

Moderate

Waju

Current Occupancy
0

Odor:98 Odor:76 Odor:76 Odor:98 Odor:68 Odor:119

Last Data Updated: 12/07/2025, 06:40:40 am

Cubicle Occupancy
- Not Occupied
- Occupied

Odor
- Good (0-95 ppm)
- Moderate (96-110 ppm)
- Bad (> 110 ppm)

AQI
- Good (0-50)
- Moderate (51-100)
- Unhealthy if Sensitive (101-150)
- Unhealthy (151-200)
- Very Unhealthy (201-300)
- Hazardous (301-500)

AYKA
SMART IRRIGATION

AYKA's IoT based Landscape / Irrigation Management Solutions

IoT enabled smart Landscape and Agriculture systems to irrigate, and it executes the irrigation decision without human intervention.

We understand the importance of reducing water usage in a time where it's no longer economically, legally, or socially sustainable to waste.

AYKA-LYT
IoT Edge
Industrial & Consumer

Air Segment

CO_2

Water Segment

Energy Segment
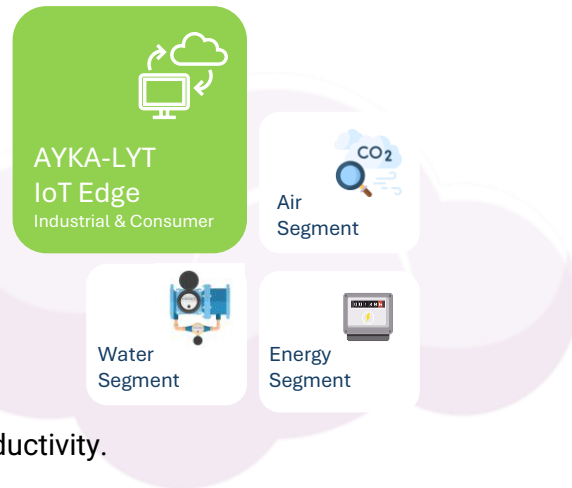
✅ **Higher Crop Yields** – Optimized irrigation boosts productivity.

✅ **Lower Costs** – Saves water, energy, and labor expenses.

✅ **Eco-Friendly** – Reduces waste and supports sustainable farming.

✅ **Hassle-Free Automation** – Smart, self-regulating system with minimal maintenance.

Water Distribution Monitoring

Soil Erosion
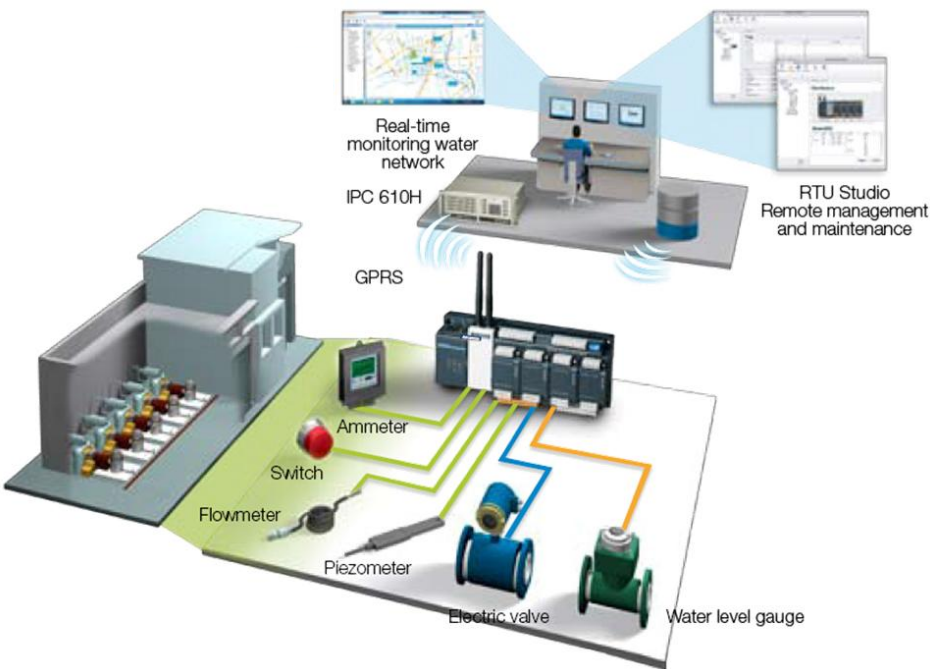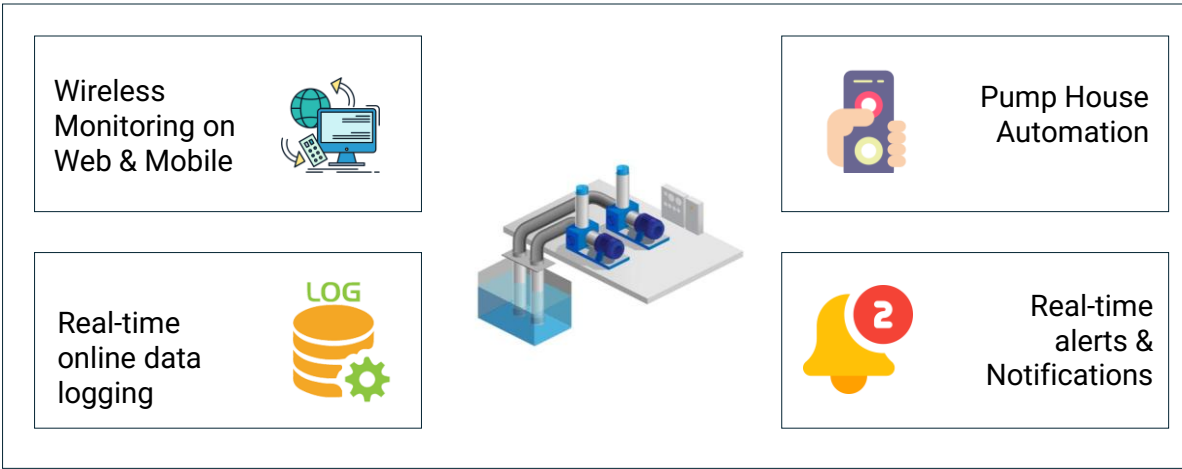
Water Waste

Farm Planning & Monitoring
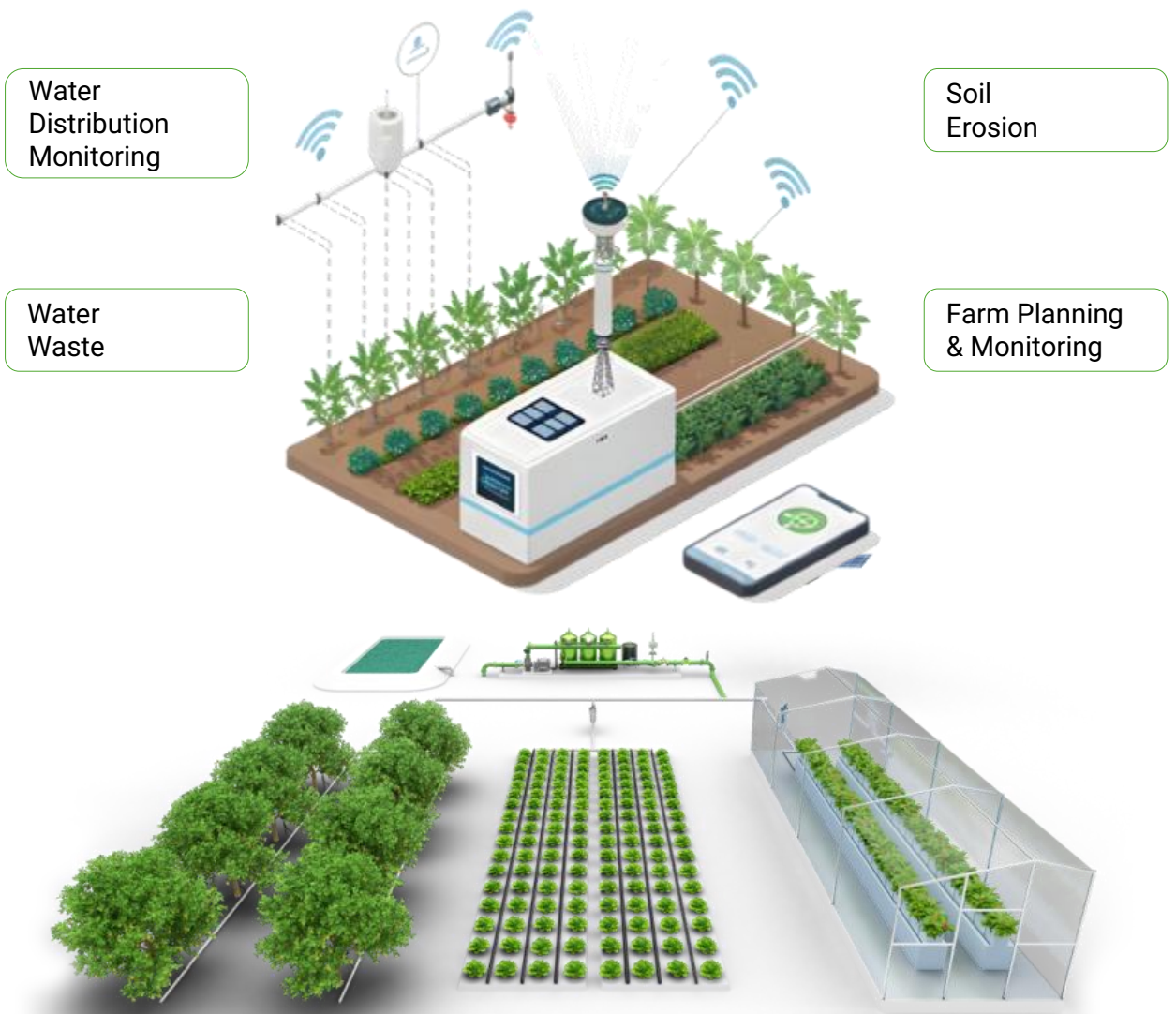
AYKA
Pumpstation Monitoring

AYKA's IoT based Smart Water grid / Pump station Remote Monitoring Solutions

The open system architecture of the AYKA remote communication system, the integrated I/O can be used to monitor the current, voltage & frequency and start/stop state of the pump, pressure and flow of inlet and outlet, water level, outlet water quality and inlet valve.

AYKA-LYT IoT Edge Industrial & Consumer

Air Segment

Water Segment

Energy Segment

Solution features

Wireless Monitoring on Web & Mobile

Real-time online data logging

LOG

Pump House Automation

Real-time alerts & Notifications

Real-time monitoring water network

IPC 610H

GPRS

RTU Studio Remote management and maintenance

Ammeter

Switch

Flowmeter

Piezometer
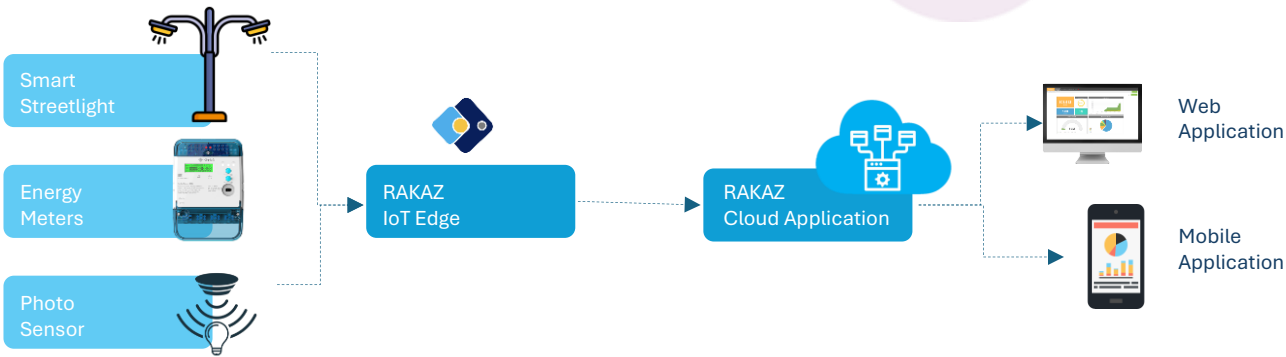
Electric valve

Water level gauge

AYKA
STREET LIGHTING
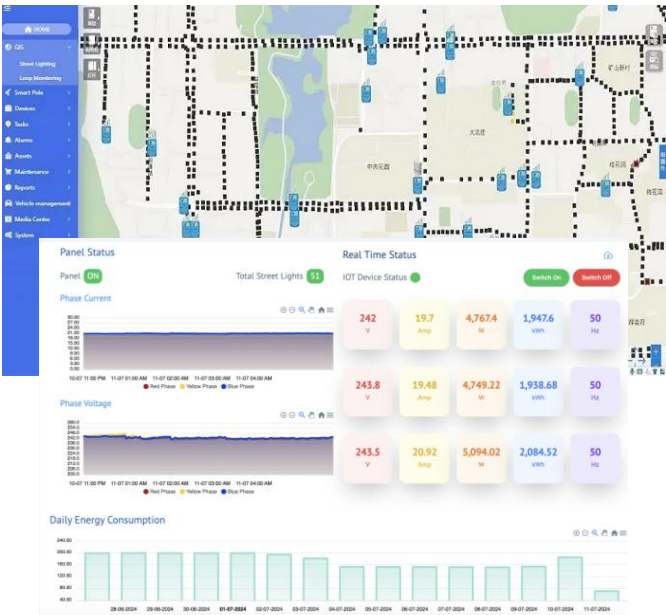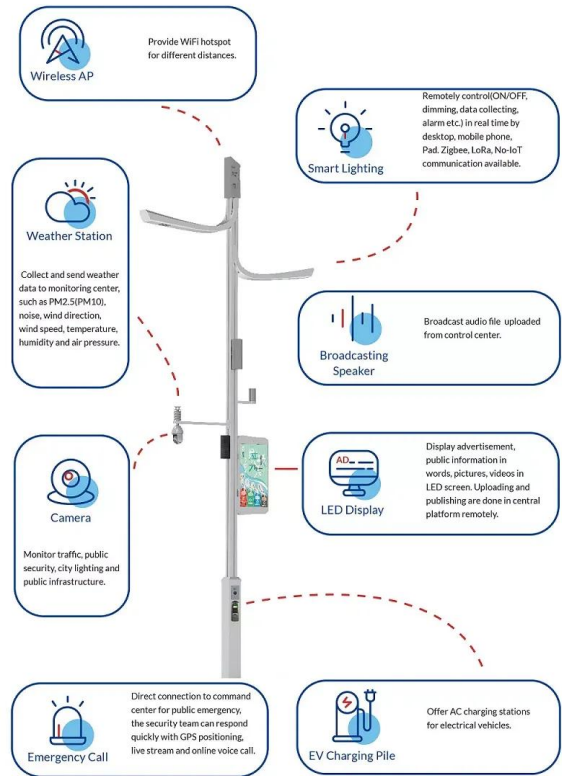
AYKA's IoT based Streetlight Automation Solutions

Smart street lighting, we work with city managers and lighting operators, and manufacturers

In a world where lighting accounts for more than 19% of the global power consumption, smart street lighting reduces energy consumption and CO_2 emissions by up to 40%, saving millions for communities everywhere.

**AYKA-LYT
IoT Edge**
Industrial & Consumer

CO_2
Air Segment

Water Segment

Energy Segment

Smart Streetlight

Energy Meters

Photo Sensor

RAKAZ IoT Edge

RAKAZ Cloud Application

Web Application

Mobile Application

Advantages:

- Automatic switching of streetlights
- Maintenance cost reduction
- Reduction in CO_2 emission
- Reduction of light pollution
- Wireless communication
- Energy saving
- Reduction of manpower

Wireless AP — Provide WiFi hotspot for different distances.

Smart Lighting — Remotely control(ON/OFF, dimming, data collecting, alarm etc.) in real time by desktop, mobile phone, Pad. Zigbee, LoRa, No-IoT communication available.

Weather Station — Collect and send weather data to monitoring center, such as PM2.5(PM10), noise, wind direction, wind speed, temperature, humidity and air pressure.

Broadcasting Speaker — Broadcast audio file uploaded from control center.

LED Display — Display advertisement, public information in words, pictures, videos in LED screen. Uploading and publishing are done in central platform remotely.

Camera — Monitor traffic, public security, city lighting and public infrastructure.

Emergency Call — Direct connection to command center for public emergency, the security team can respond quickly with GPS positioning, live stream and online voice call.

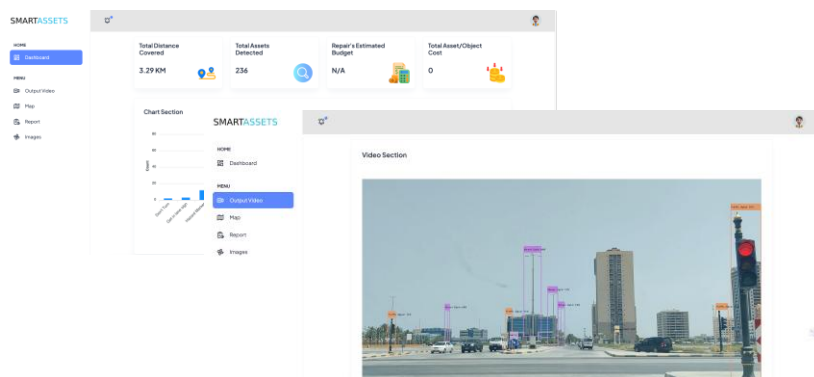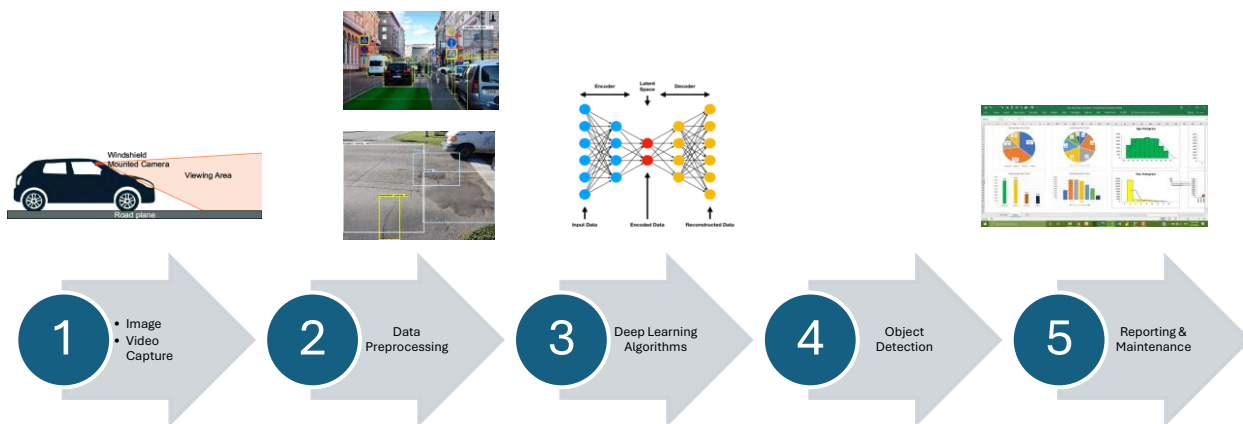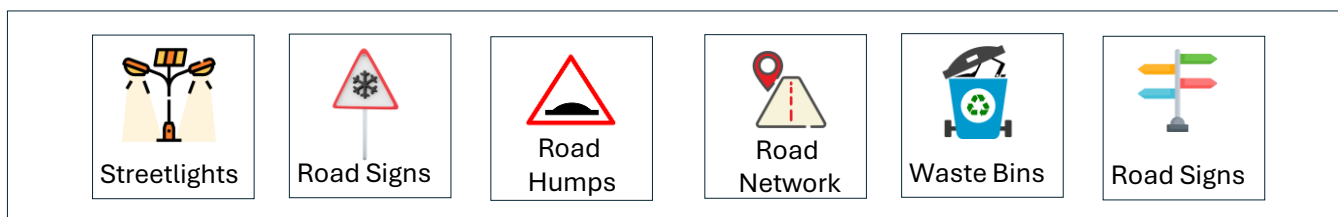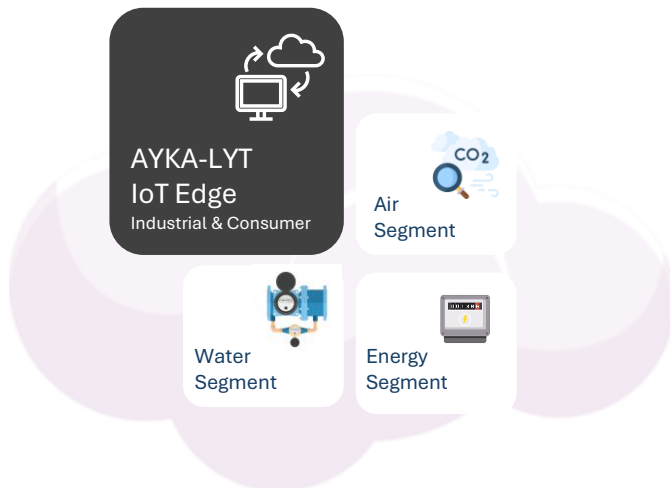**EV Charging Pile** — Offer AC charging stations for electrical vehicles.

AYKA
Road Condition Assessment & Asset Tagging

A fully integrated platform for the Road Condition Assessment, Asset classification, Geo Tagging, and analytics.

- Linear Detections
    - Signboards.
    - Gantry Signboards.
    - Roadside assets
- Non-Linear Detections
    - Identification of Potholes
    - Identification of Cracks.

AYKA-LYT IoT Edge
Industrial & Consumer

Air Segment

CO_2

Water Segment

Energy Segment

Streetlights	Road Signs	Road Humps	Road Network	Waste Bins	Road Signs

1	• Image • Video Capture	2	Data Preprocessing	3	Deep Learning Algorithms	4	Object Detection	5	Reporting & Maintenance

AYKA
Video Surveillance and Analytics

In the world of security, video analytics turns surveillance into more than just recorded data. These top-end video analytics can provide valuable insight on your property – like consumer behaviour's, people counting, and daily scorecards – just to name a few.

Generative AI and Deep learning models can be trained with a high video footage capacity to identify, classify, tag automatically, and label specific objects.

AYKA-LYT
IoT Edge
Industrial & Consumer

Air Segment

Water Segment

Energy Segment

License Plate Recognition (ANPR)
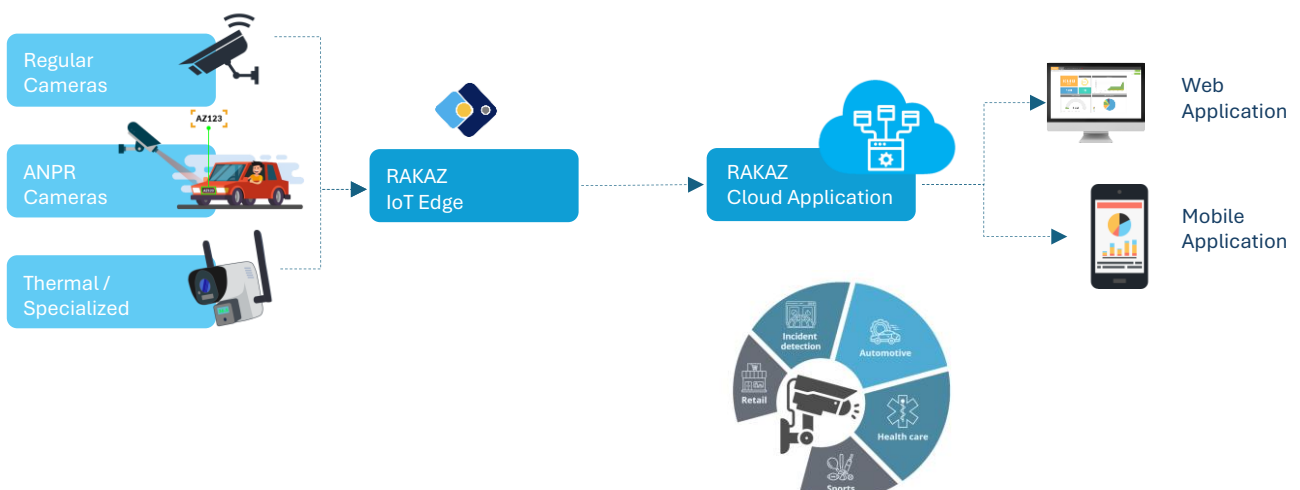
Face Recognition System

Crowd Behaviour Analytical System

Outdoor Vehicle / People Tracking Counting
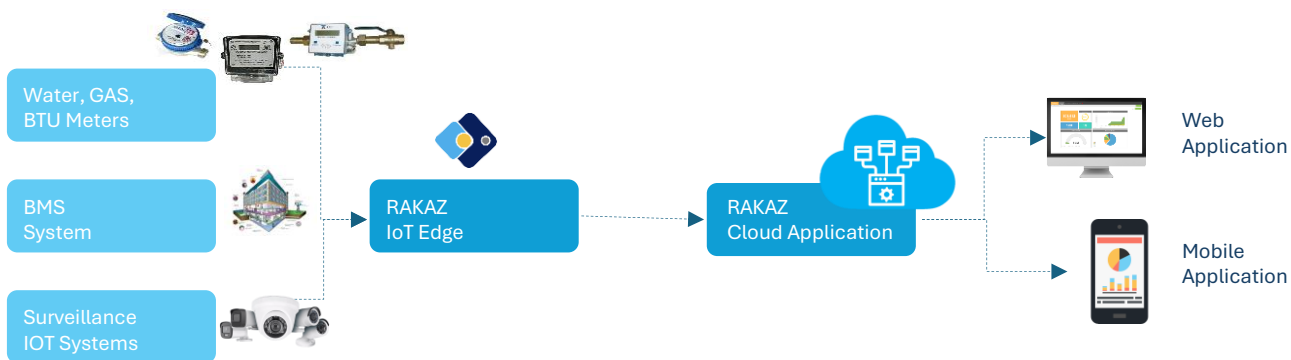
Site Monitoring Asset – Motion detection analytics

Traffic / Toll Management System

Regular Cameras

ANPR Cameras

Thermal / Specialized

RAKAZ IoT Edge

RAKAZ Cloud Application

Web Application

Mobile Application

AYKA
Building Automation & CAFM

A fully web-based, IoT-enabled Facilities Management (FM) platform with 360° integration across core operational modules and real-time building systems monitoring. The solution digitizes FM operations while seamlessly connecting:

AYKA-LYT
IoT Edge
Industrial & Consumer

Air Segment

Water Segment

Energy Segment

- **Live Building Intelligence**
  Unified view of BMS, IoT sensors, and meters.
- **Proactive Maintenance**
  Fix issues before they cause downtime.
- **Energy & Cost Savings**
  Optimize HVAC, lighting, and water use.

- **Automated Compliance**
  Streamline audits with digital records
- **Scalable Integration**
  APIs for ERP, BIM, SCADA, and smart city systems.

Water, GAS, BTU Meters

BMS System

Surveillance IOT Systems

RAKAZ IoT Edge

RAKAZ Cloud Application

Web Application

Mobile Application

Smart Asset & IoT Integration
- **BMS** (Building Automation System)
- **IoT Gateway & Sensor Networks**
- **Energy & Utility Metering** – Automatic data collection from **BTU meters, water meters, and submeters**
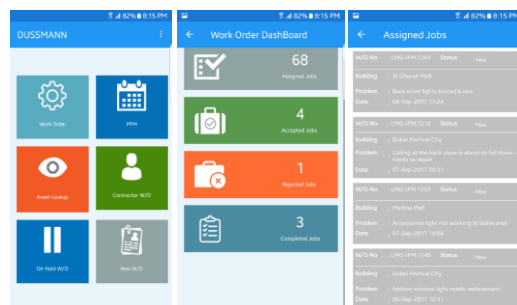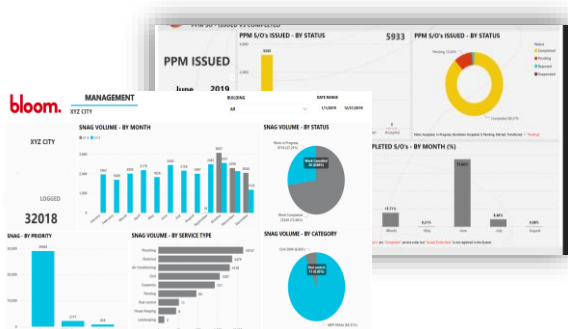- **Predictive Maintenance**

Enhanced PPM with IoT Data
- **Corrective & Preventive Maintenance**
- **Condition-Based Maintenance**
- **Warranty & Lifecycle Tracking** – Automated alerts for expiring warranties.
- **Spare Parts Inventory Sync**

Integrated Help Desk & Automation
- **AI-Powered Alerts –** Auto-create tickets from BMS alarms or sensor thresholds.
- **Mobile Technician Dispatch –** Assign tasks with real-time equipment diagnostics.
- **Customer Self-Service Portal**

Energy & Sustainability Management
- **Real-time Energy Consumption Dashboards**
- **Automatic Demand Response –** e.g., Lighting based on occupancy
- **Leak & Anomaly Detection**
- **Renewable Energy Optimization**

Compliance & HSEQ Enhancements
- **Indoor Air Quality (IAQ) Monitoring**
- **Automated Safety Shutdowns –** Emergency protocols triggered by gas leaks or fire sensors.
- **Regulatory Reporting –** Auto-generate EPA, ISO 50001, or LEED compliance docs.

Budget & Cost Tracking with Smart Data
- **Utility Spend Analytics**
- **ROI Calculators –** Measure savings from efficiency upgrades (e.g., LED lighting).
- **Carbon Tax & ESG Reporting –** Track emissions for sustainability disclosures.