

ENABLING GLOBAL SMARTER CITIES

WITH TATA COMMUNICATIONS' IOT FABRIC



WHY INVEST IN SMART CITIES?

THE ULTIMATE APPLICATION OF INTERNET OF THINGS

Smart townships have the potential to improve the quality of life, while ensuring the needs of present and future generations with respect to economic, social and environmental challenges. It is demand-driven, user-centric, flexible, and focused on sustainability, scalability, and multi-sector collaboration.



SMART



SAFE



SUSTAINABLE

SMART CITIES ENABLE

**Public health and safety | Cyber security | Improved quality of life | Community engagement
| Sustainability | Innovation economy | Connectivity | New revenue opportunities |
Accelerated financial inclusion**

CHALLENGES SOLVED BY SMART CITY DEPLOYMENTS

Unreliable schedules, limited routes, and inefficient use of resources

Drivers waste significant time and fuel searching for available parking, leading to traffic congestion, pollution, and frustration

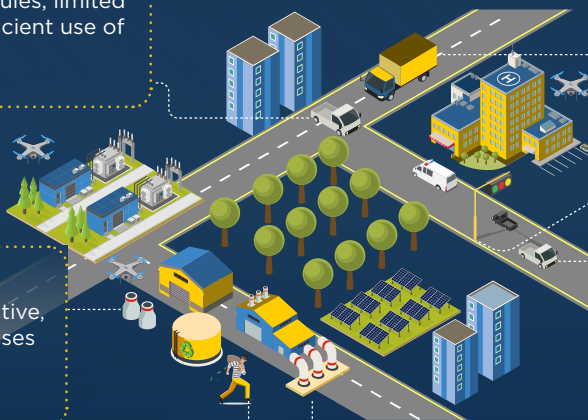
Traditional streetlights consume substantial amounts of energy, contributing to high costs and the city's carbon footprint

City services are often reactive rather than proactive, leading to delayed responses and inefficient resource allocation

Long commute times, road gridlock, frustration for drivers, and economic losses

Leaks, poor metering, or inefficient allocation of water and energy create unnecessary costs and environmental strain

High rates of theft, vandalism, and offenses affecting community well-being



APPLICATIONS AND KEY ENABLERS FOR SMART CITIES

Smart cities are key to improving citizens' quality of life

APPLICATIONS

TIME AND CONVENIENCE



Smart metering



Parking management



Road toll and traffic management

ENVIRONMENTAL QUALITY



Smart building



Air quality monitoring

USER SAFETY



City asset tracking



Outdoor surveillance

OPERATING COST



Utilities management



Smart street lights

KEY ENABLERS FOR DEPLOYMENT



Low power sensors



Wireless networks



Integrated applications



Platform



AI-ML driven solutions

TATA COMMUNICATIONS SMART CITY SOLUTION

1 ● ● ●

Asset and Workforce Tracking
GPS-enabled public transport tracking and real-time updates for optimised operations and improved commuter experience

2 ● ● ●

Safety and Surveillance
Video powered surveillance and predictive policing for enhanced public safety

3 ● ● ●

Smart Utilities
IoT-powered transformers, substations, and smart meters for real-time water and energy management



TATA COMMUNICATIONS DIGITAL FABRIC

- Private Network
 ● Video Solutions
 ● IoT
 ● Integrated Offerings

4 ● ● ●

Smart Parking
Sensors in each parking space detect occupancy in real-time, providing drivers with accurate availability

5 ● ● ●

Smart Streetlights
Adaptive streetlights with intelligent controls for optimal energy efficiency and cost savings

6 ● ● ●

Traffic Management
Adaptive traffic management and predictive modeling for smoother commutes and reduced congestion

TATA COMMUNICATIONS' PROVEN CAPABILITIES MAKES FOR AN IDEAL SMART CITY PARTNER

16+ Cities Modernised

Facilities, cities,
townships across
geographies

50+ Enterprises Transformed

Enabling transformation across **metals**
and **mining**, **pharma**, **oil and gas**,
cement, **chemicals** sectors globally

700 K+

IoT powered
devices

50+ Lives

Saved through
Connected Worker
Solution

80+ MT CO2e

Reduced through
Smart City Solutions

\$30+ Mn Savings

Delivered through
our IoT solutions

Unique and integrated platform with 10+ applications and analytics

Across network and vertical use case layer

500+ person years

IoT experience across
H/W and F/W
development

12+ Awards

Industry Recognition
for Excellence in IoT
Solutions

50+ Use cases

Commercialised, pilots
across multiple sectors

★ OUR SUCCESS STORIES ★



SMART STREET LIGHTING



SMART UTILITIES



ASSET TRACKING

Client

Major city council in Saudi Arabia

Renowned utility company in Eastern India

Major Indian bike rental company

Problem statement

Challenges in handling city's street light system with manual processes leading to

- High costs of manual O&M
- Citizen safety risks
- Energy wastages

Data collection issues and loss of revenue

- Inaccessible meters due to door lock cases
- Approximation of billing
- High customer complaints

Needed a reliable tracker with longer battery life and compact size

- Challenging maintenance of vehicles
- Vehicle theft and security
- Lower vehicle utilisation

Solution and approach

End-to-end smart streetlighting IoT solution for remote monitoring and control

- Wireless long range technology
- Web and mobile based monitoring
- Plug and play easy deployment

End-to-end automated meter reading solution with remote monitoring

- An easy-to-deploy and scale solution
- Hardware lifespan of 8-10 years

Deployed a based GPS tracking solution with long battery, compact size and better reliability

- Movement and location tracking
- Customisable alerts rule engine

Value delivered

- Scheduled and luminosity based automated light operation
- Automated fault detection and alerts
- Reduced manpower costs
- Reduced power consumption

- 100% reduction in door lock cases
- 25% reduction in rectification timelines for energy outages
- Significant reduction in time spent on customer complaints on inaccurate billing

- 30k+ LoRa based covert trackers deployed to help avoid revenue loss and increase vehicle utilisation
- Enabling recovery of lost and stolen bikes avoiding major capital asset loss



Scan to know more

About Tata Communications

Tata Communications is a leading global digital ecosystem enabler that powers today's fast-growing digital economy. The company's customers represent 300 of the Fortune 500 whose digital transformation journeys are enabled by its portfolio of integrated, globally managed service that deliver local customer experiences. Through its network, cloud, mobility, Internet of Things (IoT), collaboration and security services, Tata Communications carries around 30 per cent of the world's internet routes. It connects businesses to 60 percent of the world's cloud giants and four out of five mobile subscribers.

For more information, visit us at www.tatacommunications.com

Contact us



© 2024 Tata Communications Ltd. All rights reserved. TATA COMMUNICATIONS and TATA are trademarks or registered trademarks of Tata Sons Private Limited in India and certain countries.