



# TATA PROJECTS

Simplify.Create

## Our offerings in IoT and Smart Cities





In a free enterprise, the community is not just another stakeholder in business, but is in fact the very purpose of its existence.

— Jamsetji Tata, founder of the Tata group



Nothing worthwhile is every achieved without deep thought and hard work.

— J.R.D. Tata, Chairman Tata Sons



- 1903 India's 1<sup>st</sup> luxury hotel – Taj Hotels Resorts and Palaces
- 1907 India's 1<sup>st</sup> integrated steel plant – Tata Steel
- 1911 Hydro power – Tata Power
- 1932 India's entry into civil aviation – Tata Airlines
- 1968 India's 1<sup>st</sup> software services company – Tata Consultancy Services
- 1983 India's 1<sup>st</sup> iodised branded salt to address iodine deficiency
- 1998 India's 1<sup>st</sup> fully indigenous car – Tata Indica
- 2000 1<sup>st</sup> major acquisition of international brand by an Indian business group
- 2006 India's 1<sup>st</sup> national chain of multi-brand outlets for electronics & durables
- 2007 India's 1<sup>st</sup> supercomputer in the private sector – Eka
- 2009 Smart city car – Tata Nano
- 2012 World's 1<sup>st</sup> wholly-owned cable network ring around the world – Tata Communications



- 1877 Pension and Gratuity
- 1895 Workmen's Accident Compensation scheme
- 1901 Worker's Provident Fund scheme
- 1912 8 hour working day
- 1915 Free medical aid
- 1917 Schooling facilities for children
- 1921 Maternity benefits for working women
- 1934 Profit sharing bonus
- 1979 Ex-Gratia payments for road accidents
- 2008 Tata Second Career Internship Programme

Social Causes



*Tata Projects Ltd. Is the MSI  
(Master Systems Integrator)*

## Master System Integration & Project Management



### PUBLIC SAFETY

- Command & Control
- Disaster Management
- Integrated Emergency Response
- City Surveillance



### SMART ENERGY

- LED light replacement
- EV Charging
- Industrial & Enterprise
- Metering & Monitoring



### SMART CITIES

- Smart Parking
- Public Wifi
- ICCC (Integrated Command & Control Centre)
- Multi-Mode Transport
- Environment sensors

Supported by Products and Services of TCS, TCL & TASEC & OEMS

- ‘One Tata Alliance Formed to combine Group company strengths.
- TCS and TCL form backbone of the offering.
- TASEC, TAMO, TITAN & others come in as needed.
- TPL is the MSI: front-ends the government

- *Smart City BU formed as part of Urban Infrastructure by TPL in Sep 2015.*
- *First organized, cohesive response from Tata Group to the massive smart city opportunity*

## Objective

To penetrate & establish Tata Group's footprint in smart city business area

## Target Segments



Public Safety



LED Lights & EV  
Charging



Smart Enterprise



Data Centre &  
fibre



Multi-Track  
Smart City

1. In less than 3 years, 5 projects achieved. 6th is on the way (hopefully..)
2. LED has 3 projects: Pune, Ludhiana & Noida. TPL is the dominant private player in this space.
3. In public safety first project secured (CG Dial 112). In Fibre we have the CG Bharat Net II



1. Our led CCC is based on LoRa.
2. LoRa is ideal for IoT – uses low power and has high signal penetration.
3. Over 40% life-cycle savings compared with 3G/4G.
4. Currently deployed in Noida project.

1. Solutions we can offer on top of LED:
  1. Public safety – panic button on LoRa that triangulates to nearest street light.
  2. Pollution sensors
  3. Sound sensors (car crash, screams..)





## PUNE SMART CITY



Feeling quite safe and secure while driving on the streets of Pune due to well illuminated and reliable lighting system.

- Anamika Tandon

- Upgrading 70000+ street lights to energy efficient LEDs
- Higher illumination & a safe environment
- Optimum & effective light distribution
- Energy saving equivalent to 2000 tons coal per annum

## STREET LIGHTING

#SmartPune

1. The proof is in the voice of the resident – LED lights transform the city.
2. Increases safety immediately as higher lux levels are associated with lower crime globally.
3. Pune has won several national and global awards for their efforts.



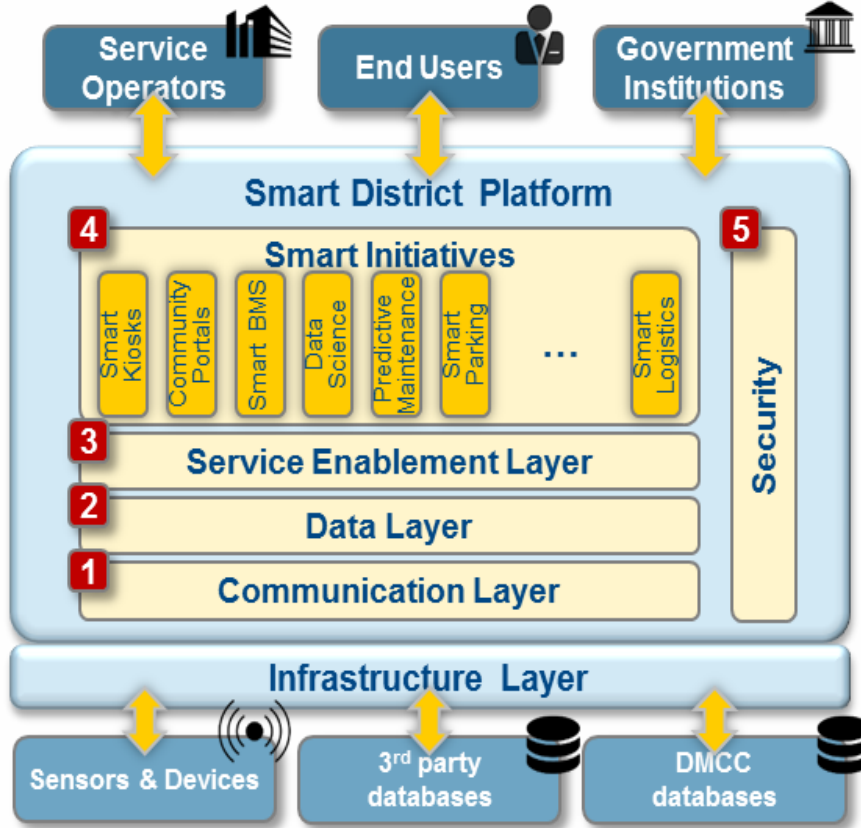
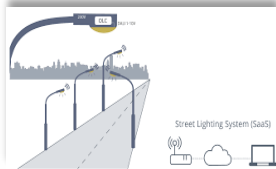


1. Electric buses with fast charging stations will gain traction.
2. We are working with several transport corporations to have this discussion.
3. TCS does fleet management and telematics for many TC's.
4. The buses themselves will have IoT telemetry and on-board stations for wearables.
5. People with health conditions, differently abled will be recognised and served.



1. Electric buses with fast charging stations will gain traction.
2. Tata already has the lead with win of 10,000 vehicle order.
3. The EV and ride sharing Eco-system is ripe for IOT disruption:
  1. Already Uber and Lyft are piloting ride share based on analytics.
  2. Google already does predictive guidance - at the next level it can arrange resources for the user.





The new paradigm is open & inclusive



IoT use cases can be added or removed on the fly

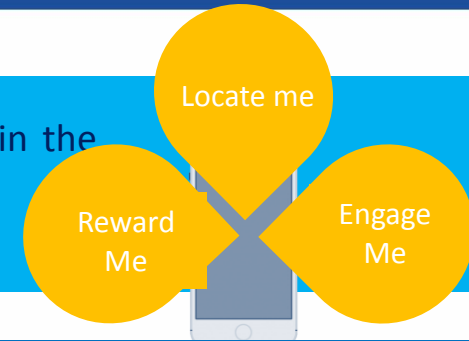


Data travels seamlessly across devices, services and users



Secure & safe cloud based

The solution is based on what the Smart passenger today is looking for in the environment around him becoming smart including his travel



The solution will be using the following enablers



*Location Based  
Technology*



*Beacon  
Technology*

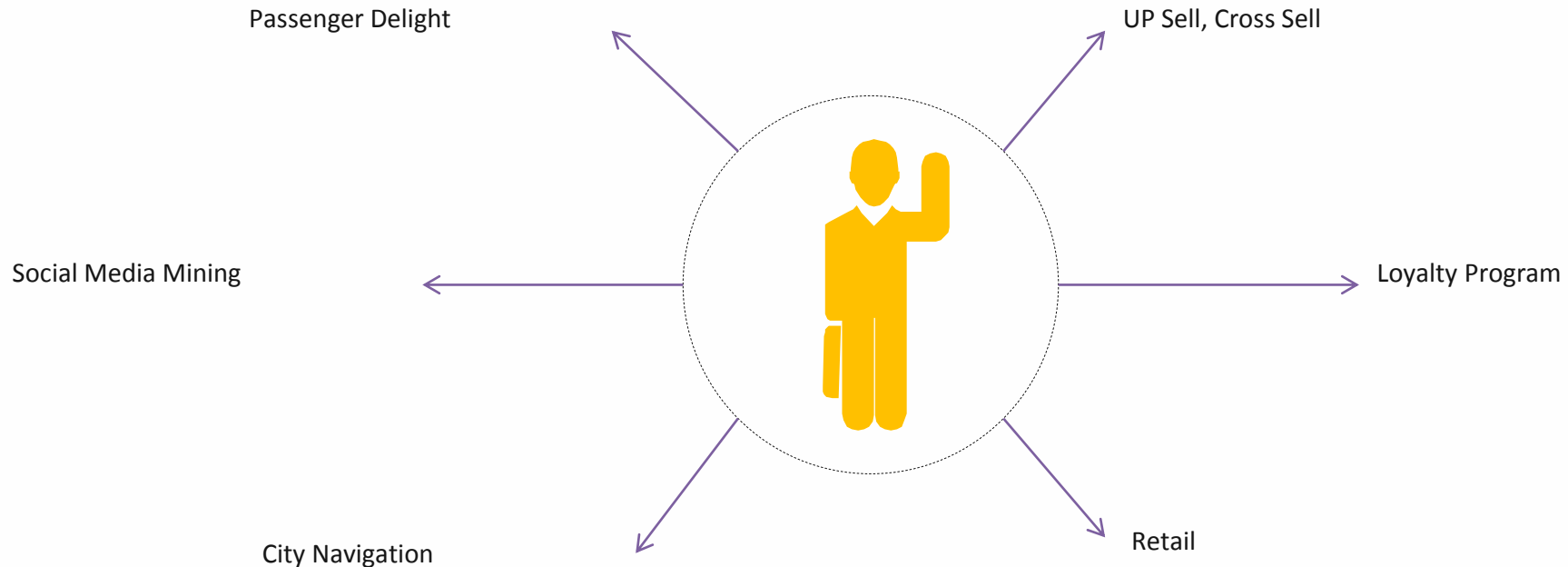


*DATA Analytics*

The Solution will work on a smart phone application. The application will have separate interface for passengers and staff. Application will be available for all platforms



1. Location specific IOT makes a huge difference to cost and convenience.
2. Uses hyper-location to locate, engage and delight the resident.
3. Generates revenue, enhances experience and personalizes the journey.
4. Treats the resident as a 'customer' and tries to enhance his/her user experience.





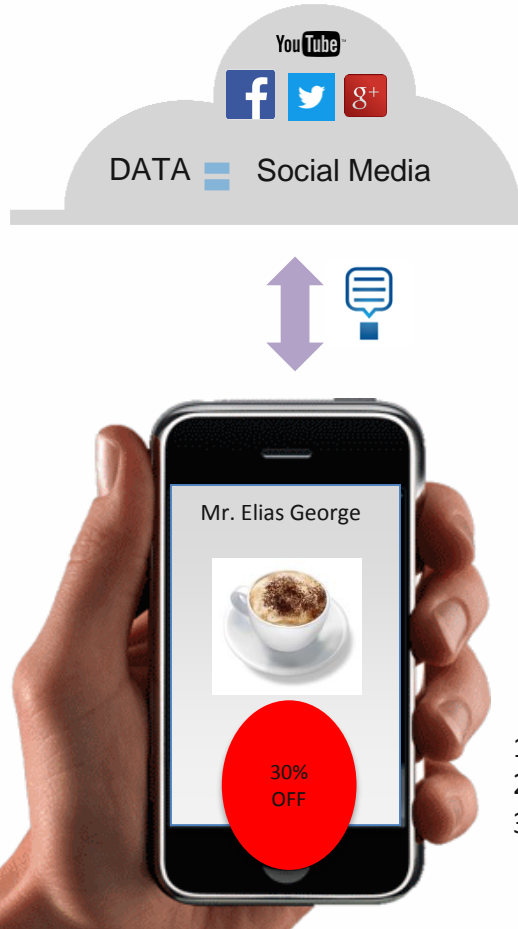


1. Based on the beacon hyper-location residents can be given priority treatment.
2. Staff can be pro-active in meeting and serving high value customers based on overall data mined from city interaction

The smart city database becomes the master for all enterprises

Value can be mined across usage and spend

Rewards programs to encourage usage



1. Discounts and promotions along the way displayed- click to avail.
2. High degree of personal touch and customisation through social media mining.
3. Diversity leads to unity – since everyone uses the same platform, everyone gets on the same page

*Can we help?*

*Gautam Balakrishnan: +91-9167051100*

*Sumit Kumar : +91-9717792931*

*Arpana Gaurav: +91-9899120712*



Thank you

