



Technorip Innovations Pvt ltd

Asset management | Smart handcuff | Tracking and logistics
30 times the cost of Chandrayaan is spent on theft, damages and losses in transit every year in India

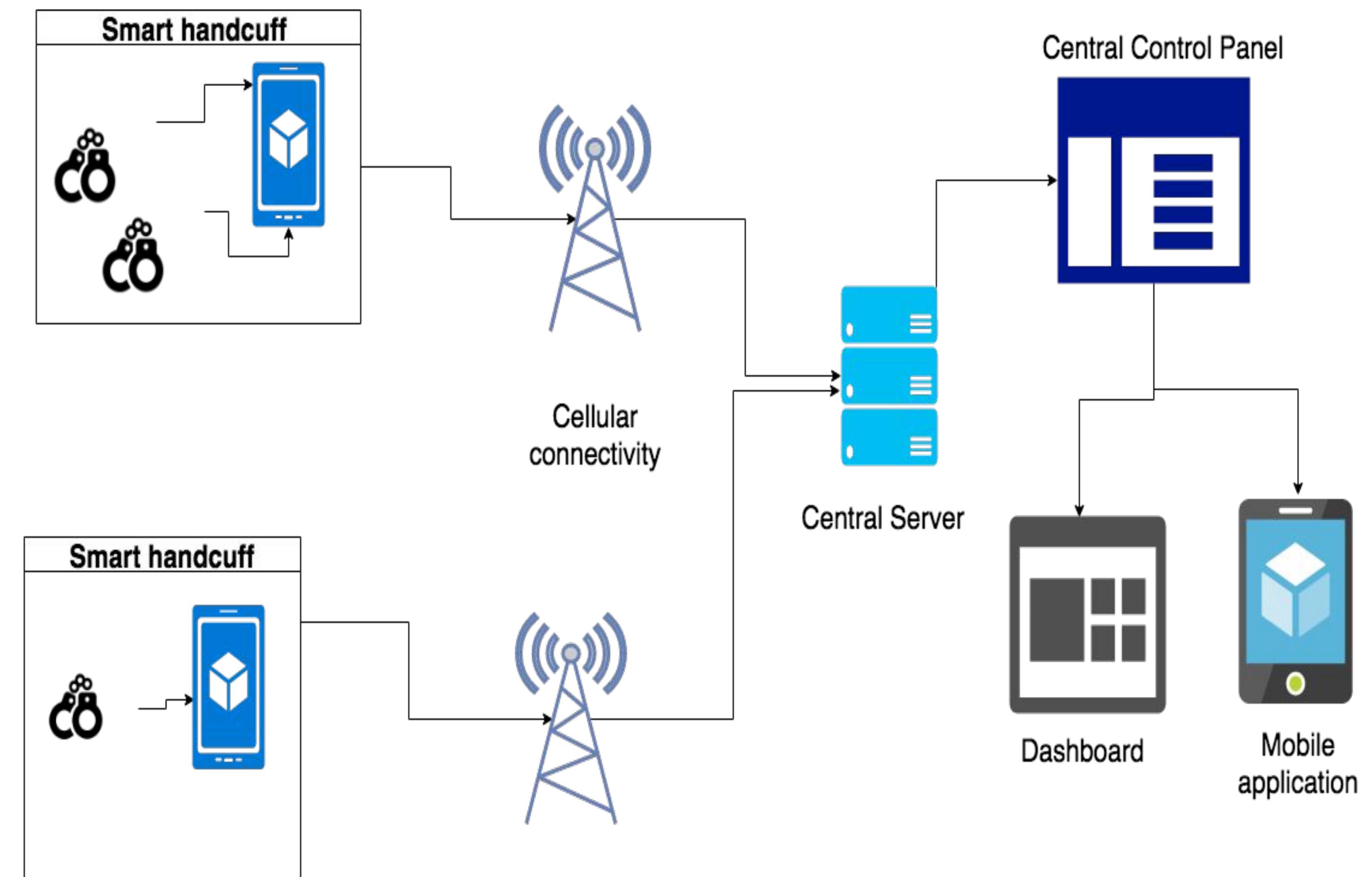
Kranioz

Intelligent Tracking system for asset management and logistics
Combination of hardware software and analytics

Smart Handcuff

Smart handcuff is a combination of hardware, embedded software, backend, dashboard and mobile application.

- To start with, the Hardware attached to the handcuff works in the low power mode when the prisoner is in the safe custody.
- On detection of an abnormal condition, the real time location, movement, audio and other data according to the requirement is sent securely to the backend available in the dashboard, mobile application



Tracking solution for law and enforcement



Market size

1387 Prisons in India with 366781* Prisoners
Critical and high value assets include guns,
documents, Mainour etc

The Addressable market in 100 Million \$

Monitoring of high value assets and prisoners

The image shows a screenshot of the Handcuff Monitoring System (H.M.S.) dashboard. The interface is dark-themed with red and white text. At the top right, there are notification icons for 7 messages and 7 alerts, along with a user profile picture. The main title "HANDCUFF MONITORING SYSTEM" is displayed in red at the top center. On the left, a sidebar menu includes "DASHBOARD" (selected), "Device Manager" (expanded, showing "All Devices", "Shared Devices", "+ Add Device", "Edit Device", and "Settings"), and "Account". The dashboard itself features several data cards: "Battery Capacity 92%", "Battery Voltage 4096 mV", "Satellites 3", "Speed 0.00 kmph", "Device ID 667bfd7b08bb71", "Device Range" (with a signal strength icon), "Altitude 163.2 msl", "Course 0 °", "Device Status IN-RANGE" (with a green radar-like icon labeled "Safe Zone!"), and "MAPS" (showing a map with a red location marker, a yellow route line, and a blue water body). The map also displays the text "Device State : In Rest". At the bottom, there is a footer note: "Map data ©2018 Google - Terms of Use | Report a map error".

Product features and Technical Specification

Proparatory hardware

- Low power BLE4/5 with intelligent indoor mapping
- Modular Multi-GNSS system: GPS, GLONASS, Galileo and QZSS
- RTOS with OTA Update
- ESIM with NB IOT
- Battery
- Custom design
- 4 layer PCB
- Protective enclosure`

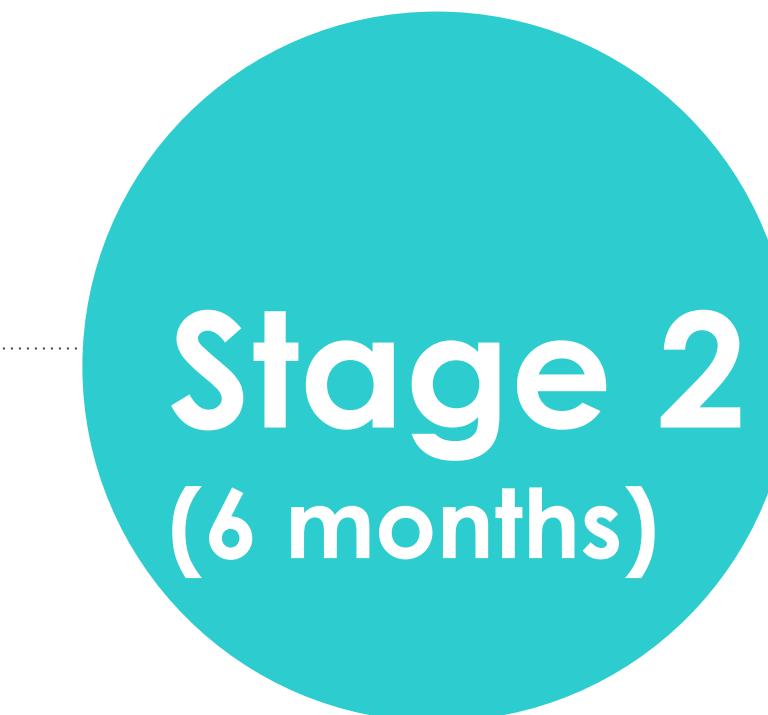
Backend

- Dashboard
- Real Time hardware communication
- Angular 4 front end
- Python Django Backend
- Native Android
- IFTTT/API/Application
- Data log and optimisation

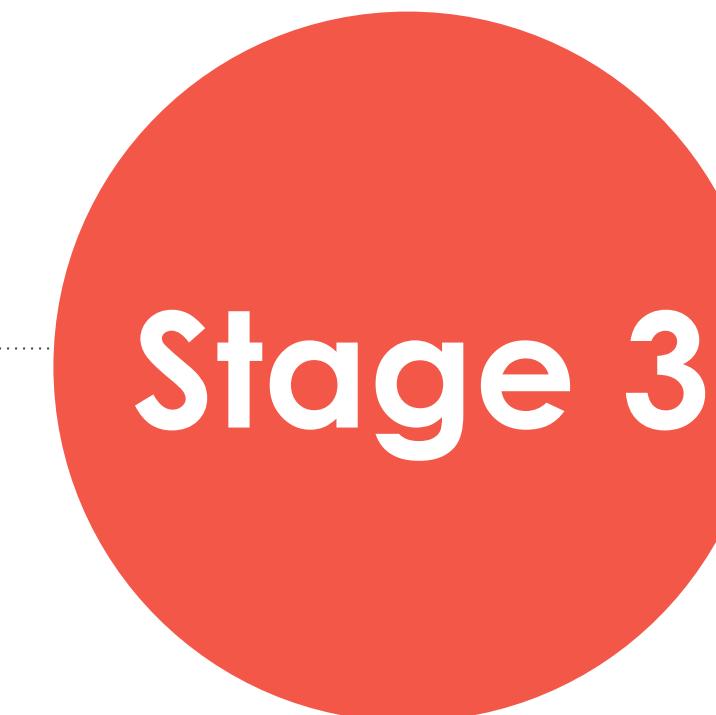
Project planning stages



Pilot the initial system
and complete
Problem validation



Deploy the smart
tracking system and
integration of custom
features

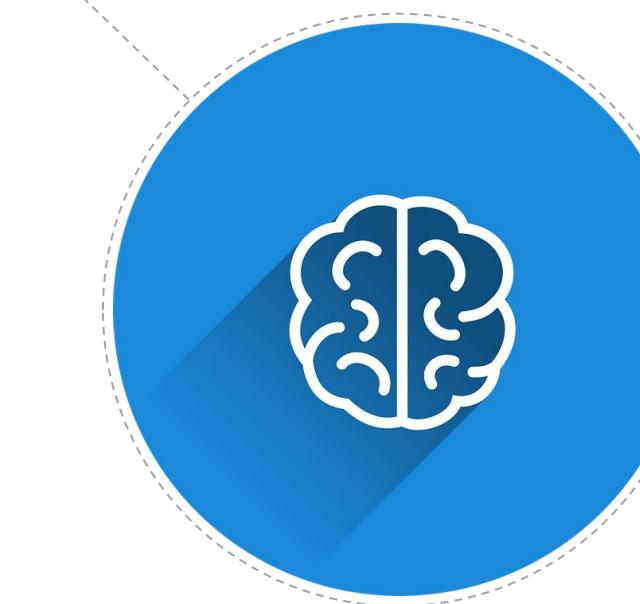
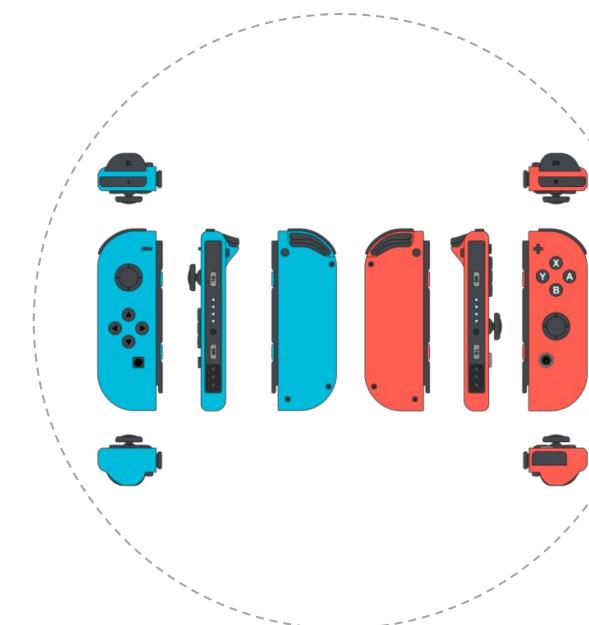


Complete
deployment with
annual maintenance
and full support

What we do ?

End to End Platform as a service for logistics and Asset management

Modular
Tracking
hardware /
app system



Cloud platform
IOT + Data analytics +
Intelligence



Tracking, monitoring and
BI solution application



Fill the gap between the Physical and digital assets in logistics and tracking

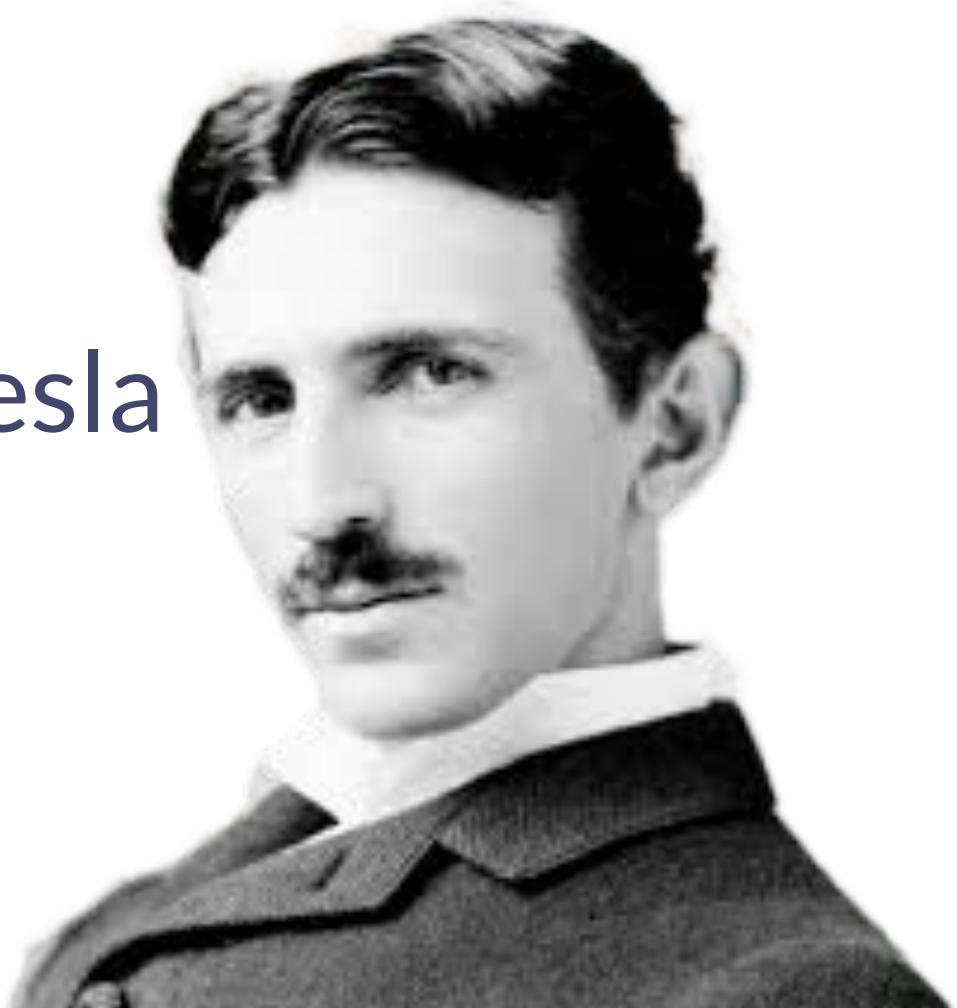
Asset management

We use Combination of hardware software and analytics/ML to monitor, track and detect abnormalities like tampering

- The hardware is plugged with required sensors and attached to the consignment/asset to be monitored
- The data is sent to our cloud platform
- With the help of AI and analytics we learn from the sensor data to detect critical conditions and provide real time information and insights

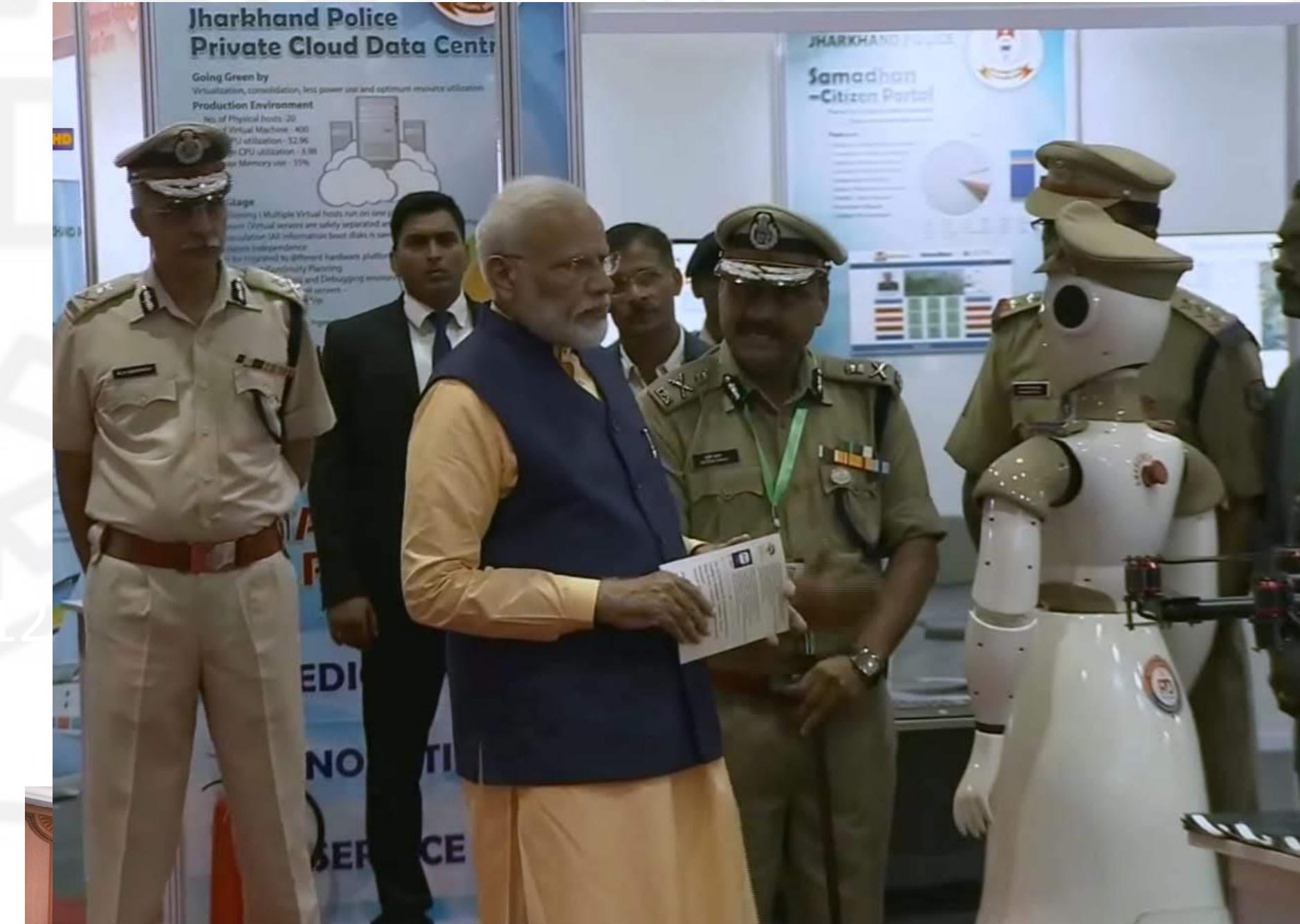
“If you want to find the secrets of the universe, think in terms of energy, frequency and vibration.”

— Nikola Tesla



Milestones

- Presented in Police expo at National Unity Day
 - POC with kerala police department on 2017 and prototype approved on 2018
- Received LOI from Kerala police(2000 units)
- Selected to be Top 50 India Innovation Growth Programme (IIGP)



Milestones

- Support guarantee to implement pan India by Central Armed Police Forces and Bureau of Police Research and Development
- Presented before all state police departments on National police conf 2018 and interest from various state police departments Productization support by Kerala state



How easy is it ?



Activate the
hardware

#connect
necessary sensors



Attach the
hardware



Send it
anywhere



track it
anywhere



Costing

Primary

Initial hardware cost

Secondary

Single subscription
for the Cloud,
Network, API,
dashboard,
Application

Tertiary

Annual
maintenance cost
of systems, add on
features like Business
Insight, and cloud
intelligence

Hardware

HAAS based
cloud

AMC and
Analytics
Addons

Current leads



Initial Deployment



LOI, Prototype



Prototype,
Waiting for pilot

Other Leads: Harrison Malayalam, TTNI, Israeli Shipping, NBFCS, Banks, BPRD, Social justice department etc

In talk with Dpworld, Adani Group, J M Baxi, Sodexo, ICICI Lombard, Russsh

Support network



Channels : Un Empretec network, US Tech camp network, IIMA and IIMK network,

How difficult Tracking Assets that matter !



Monitoring of high value assets

Theft, damages and losses in transit account for 40% of India's total logistics costs. Management of evidence, tracking of assets and other operations



Security

Almost 75% of the prison jump happens during the transit, getting the right information in realtime is key



HR requirement

28.4 million skilled workforce needed in Logistics sector by 2022 just in India



Increase Efficiency

Efficient supply chain with low variability in lead times and high service levels can cut costs by up to 50-70%.