



# Quantela Smart City Platform

## Overview

# Introduction

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## **Presence & Reach**

Presence in USA, Europe & India covering global smart city requirements



## **Partnerships**

Strategic partnership with Cisco and others to accelerate digitization initiatives



## **Innovation Centre**

Smart City in a Box and solutions through Berkeley Innovation Program



## **Project Experience**

More than 100 global smart city deployments



## **Product Innovation**

Highly agile & innovation driven, with an aim of one release every quarter

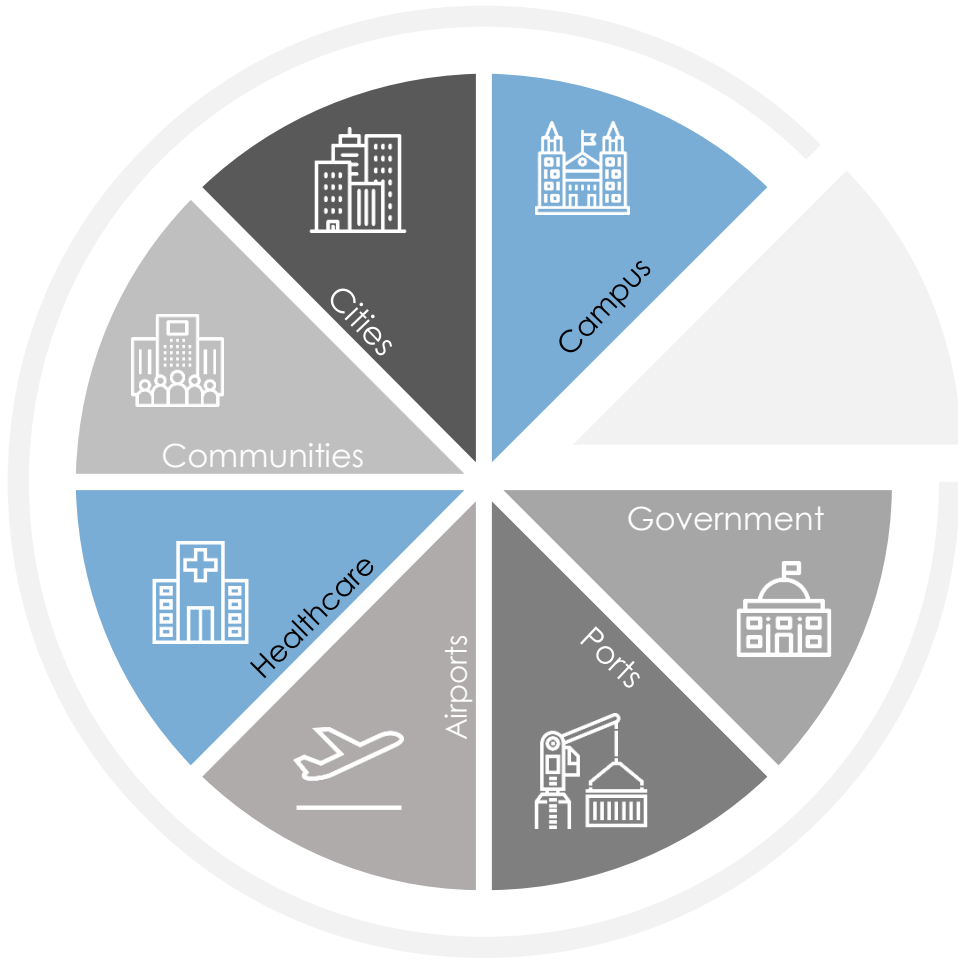


## **Urban Infra Solutions**

Products aimed at solving problems faced by Urban Infrastructure



# Challenges and Solutions



## The Infrastructure Problem

The existing city infrastructure and digital infrastructure often remain as discrete silos and the core issues remain unaddressed which results in:

1. Improper utilization of infrastructure
2. Limited sharing of operational insights
3. Missed opportunities for synergies and efficiencies
4. Lack of citizen visibility and involvement



**\$3T**

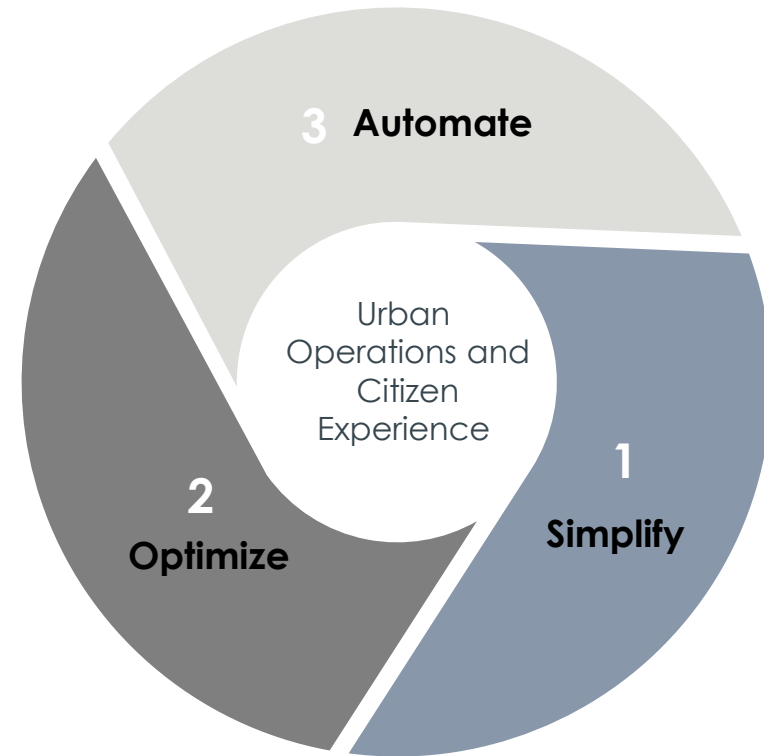
wasted value of Infrastructure

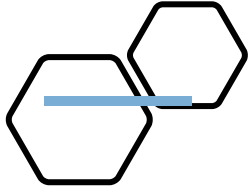


# The Solution

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**Quantela Platform** is a SAAS platform that streamlines operations of urban infrastructure and help the administrators in decision making to enhance citizen experience and urban management

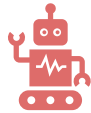




# Our Platform



What is happening to my city (Situation awareness) ?



How Act on situations - Can I automate this actions ?



How can optimize my operations ?



How can I plan better ?



How can I democratize data and collaborate with echo-system ?



How can provide services and elicit feedback from my citizens ?



How can collaborate with my operational staff ?



# Platform

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## Automation Engine

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Data acquisition and  
Command & Control  
Centre operations



## Recommendation Engine

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AI based predictive  
and prescriptive  
analytics



## Citizen App

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Mobile and web portal  
for citizen  
engagement.



# Automation Engine

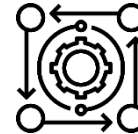
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Automation Engine enable the administrators to remotely monitor, control and optimize the infrastructure which simplifies and automates the city/community operations and policies



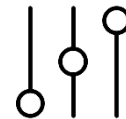
## Import from many Data Sources

Automation Engine provides a powerful set of services to ingest and process the data from a wide range of data sources.



## Automate City Operations

The data and events can be analyzed and visualized in the dashboard, but they can also be used to automate city operations.



## Scalable Platform

The platform is extensible and provides rapid integration and development capabilities to acquire and visualize the real-time data and events from multiple data sources like Sensors, Cameras, Video Analytics, IT, OT, eGov, Open Data





# Recommendation Engine

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## What is it?

Recommendation Engine is an AI based platform which is powered by machine learning algorithms. It provides outcome-based analytics and recommendations for all the domains. It also helps in gaining cross-domain connected analytics, by sensing, measuring, tracking, and analyzing time-based or real-time data on smart assets.

## How does it help?

It provides recommendations/policies based on the insights from descriptive, predictive and prescriptive analytics. This helps city administrators to be more efficient in managing their city operations. The authorities can proactively tackle issues even before they occur by implementing the provided recommendations.





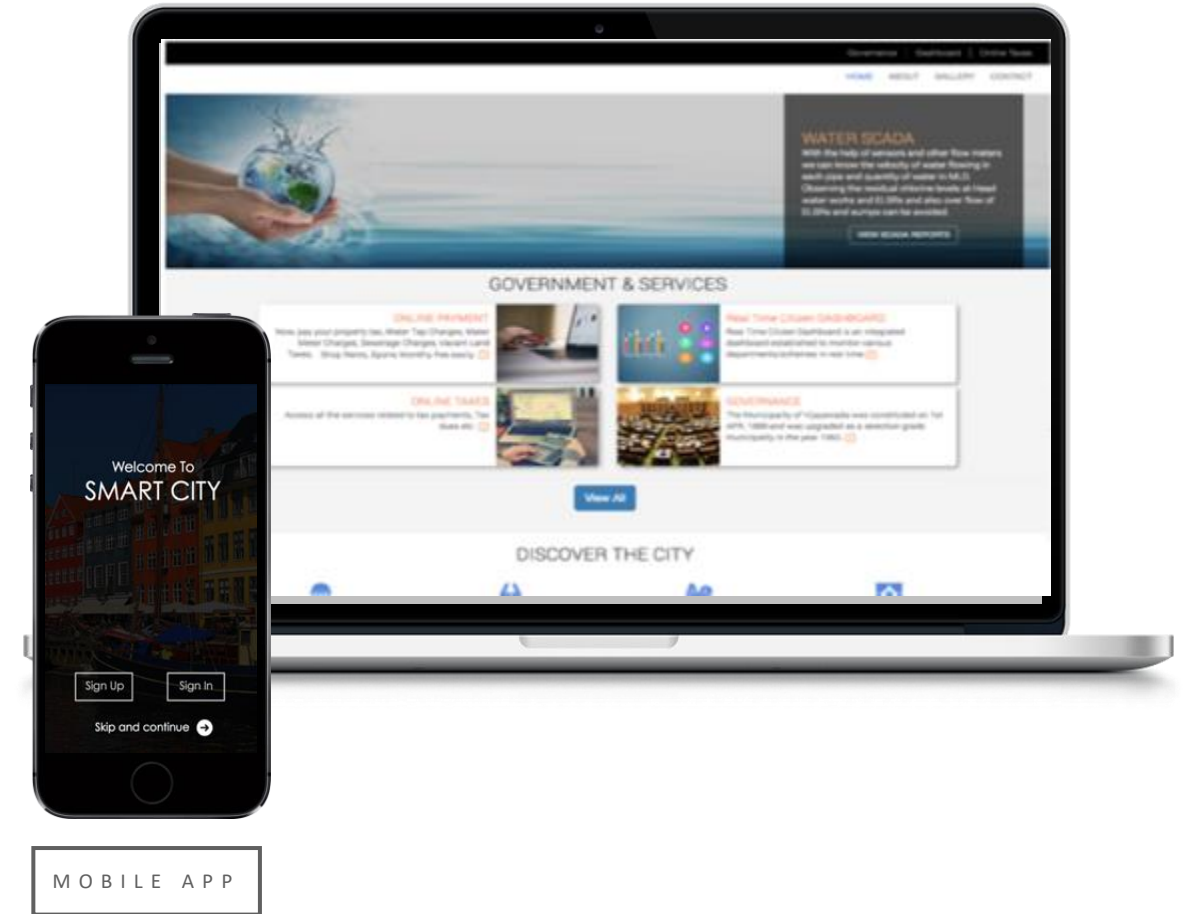
# Citizen Portal/App

Citizen portal and app are a citizen engagement mobile platform facilitating communication between citizens to Government (C2G), Government to citizens (G2C) and citizens to Businesses (C2B).

**One master Portal** with all the consolidated features, where even 3<sup>rd</sup> party apps can be integrated :

- Complaints and Grievances
- Feedback
- Safety and Security (SoS)
- Notifications
- Transport
- City Services
- Water Management
- Waste Management
- Nearby
- News and Events
- Smart Solutions
- Government Services
- Offers and deals
- Bills and Utilities
- Weather

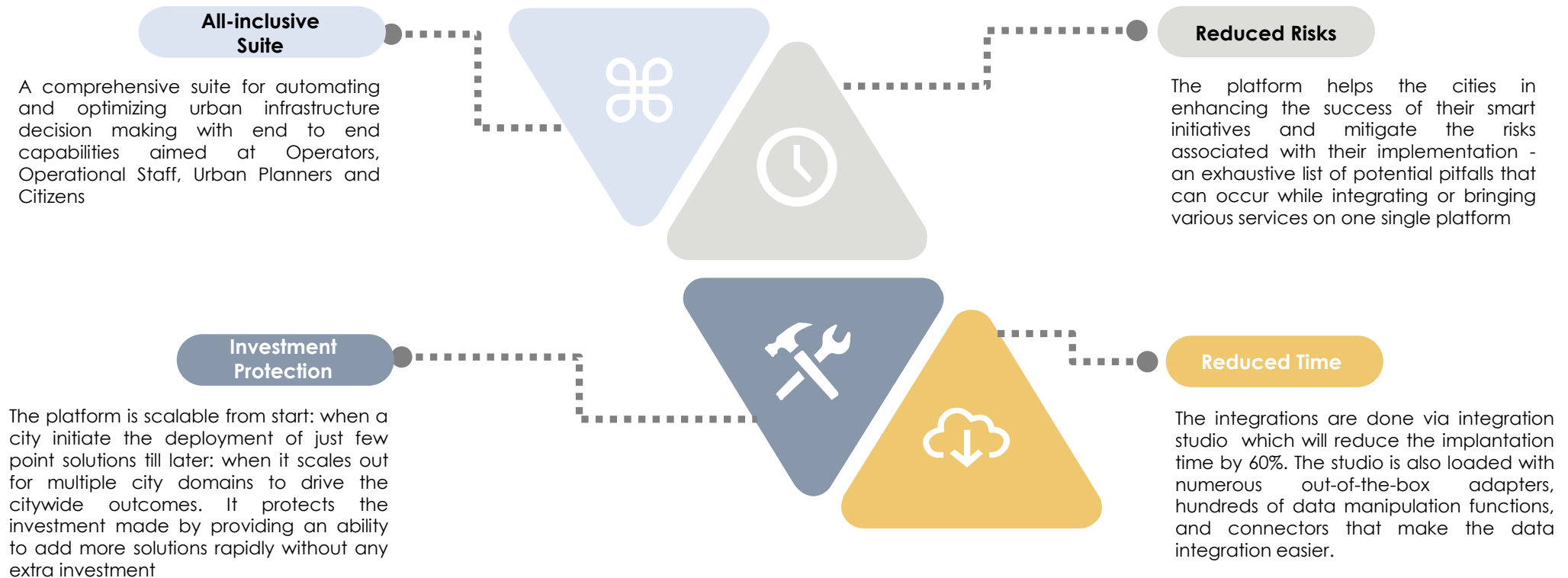
WEB PORTAL



MOBILE APP



# Why Quantela Platform



# Architecture

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# Use Cases

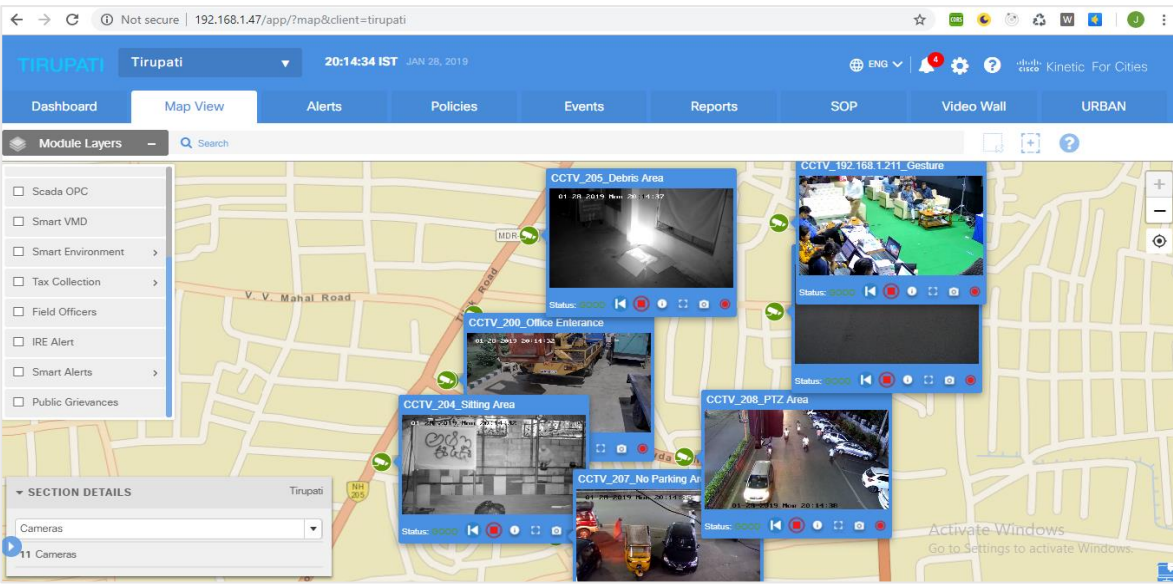
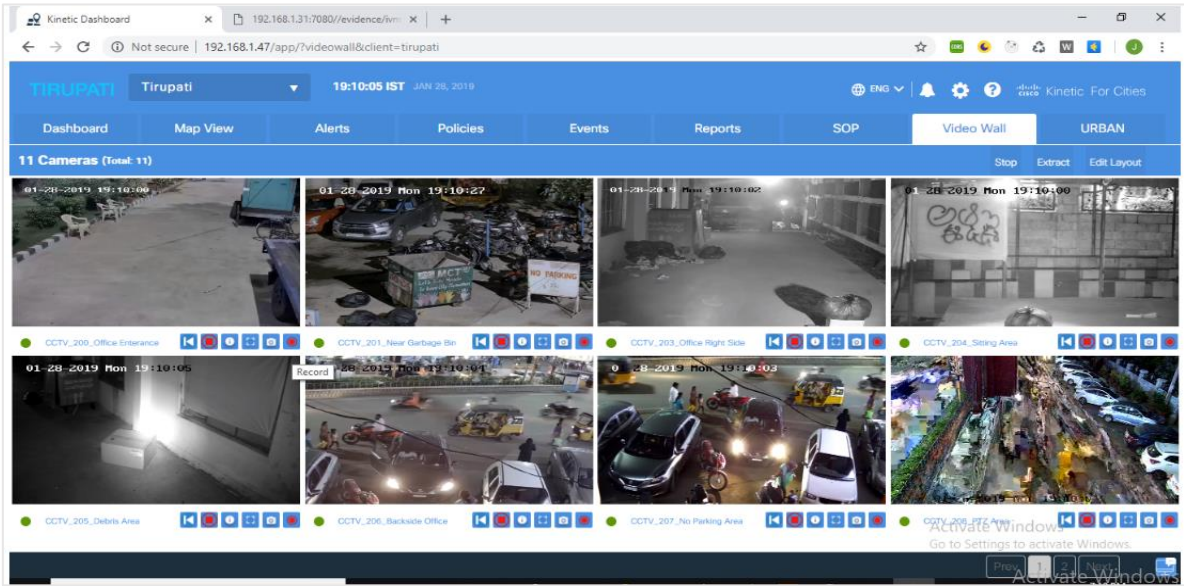
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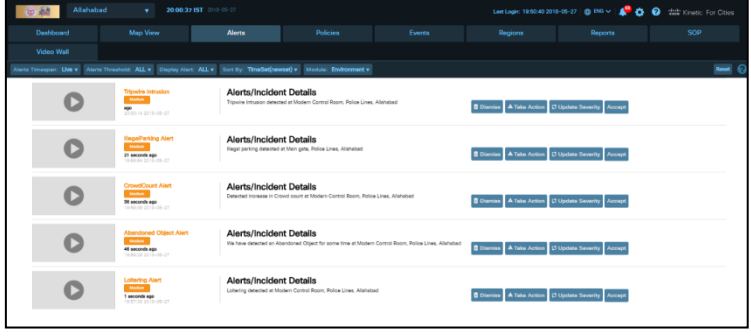
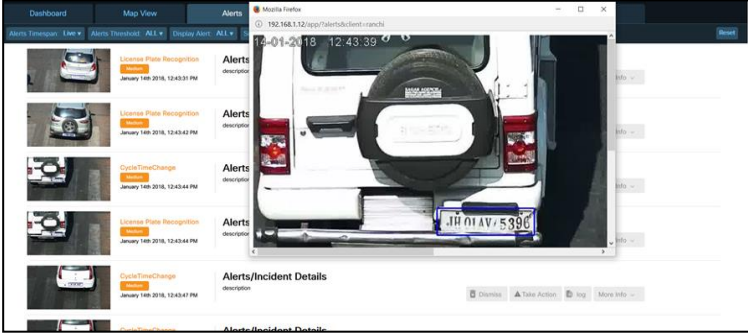
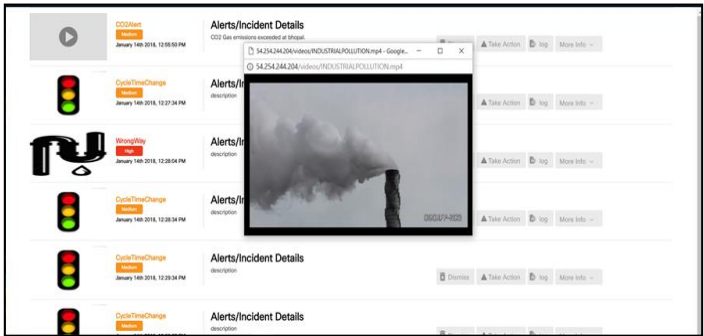


# Safe City

Surveillance

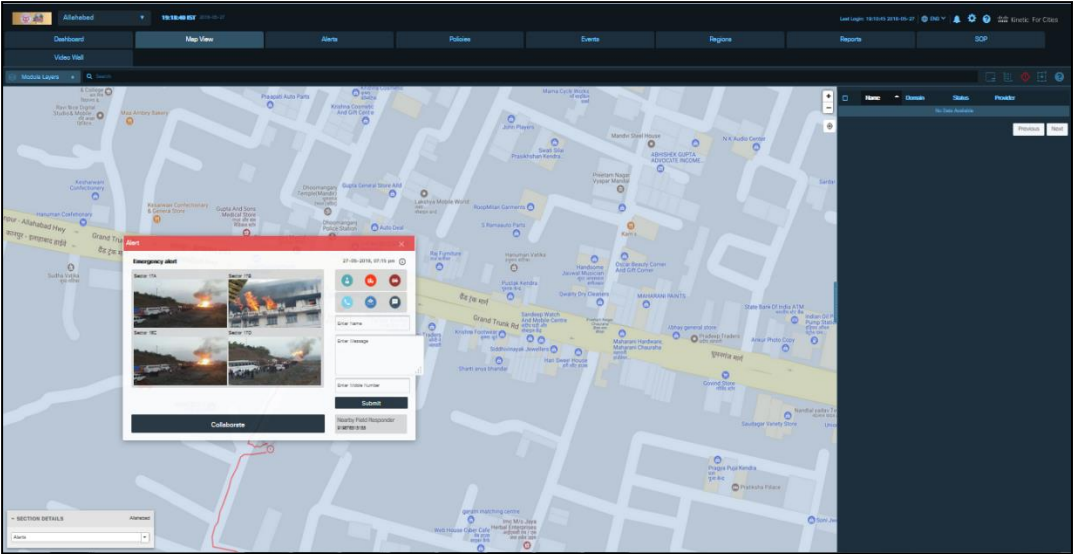


Video Analytics

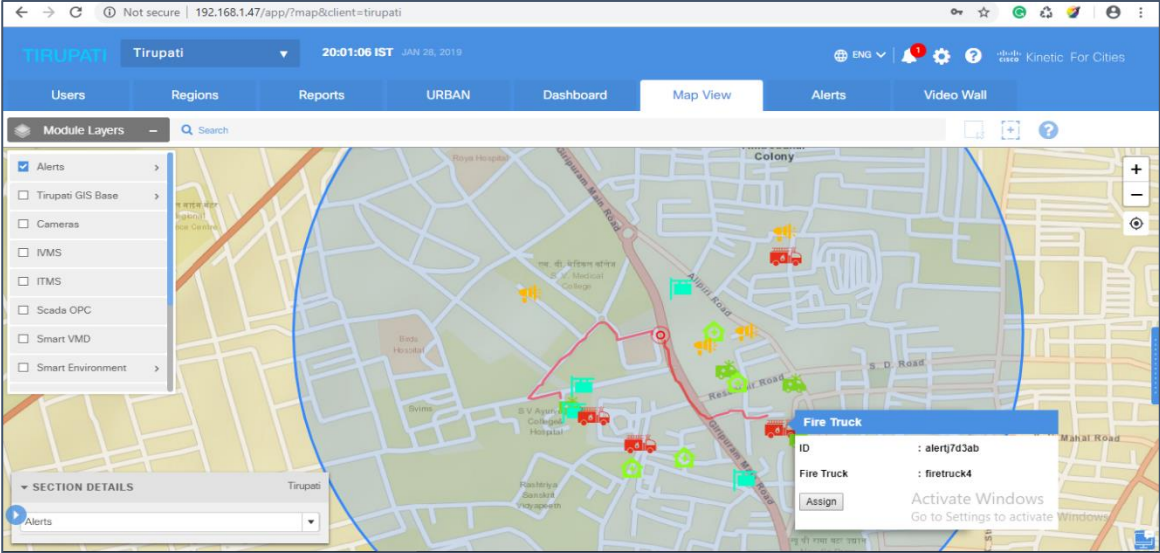


# Next Gen Emergency Response

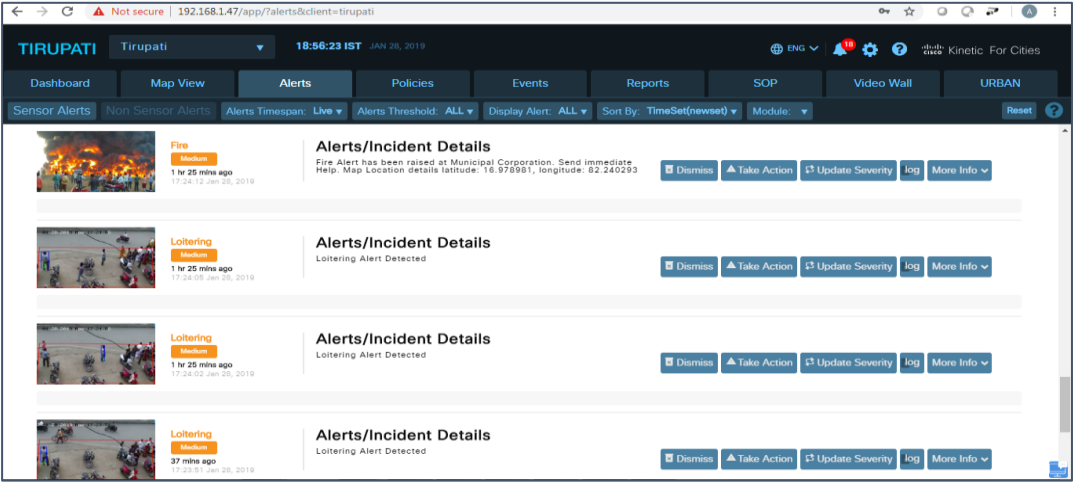
Emergency Response  
Call/Text/Collaborate



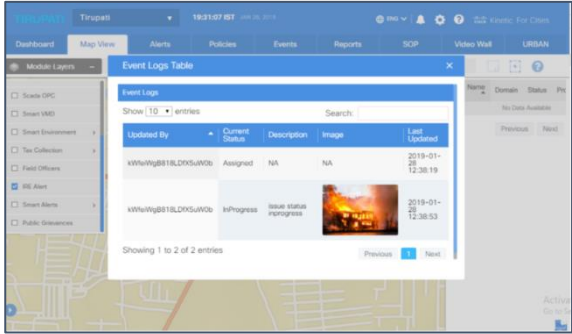
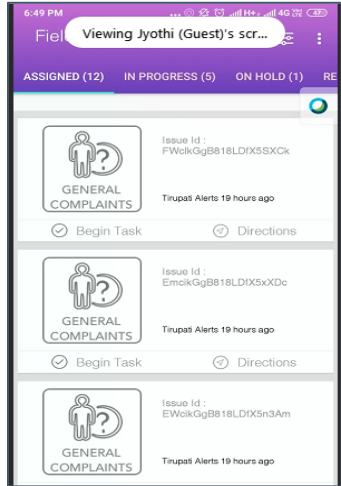
Emergency Response  
Situational Awareness



Real-time Alerts



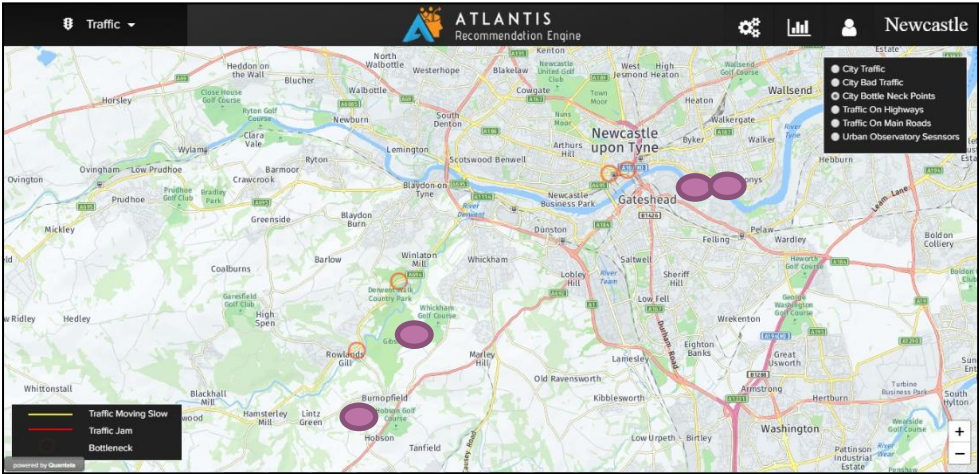
Field Responder -  
Collaboration





# Predictive Traffic Incident

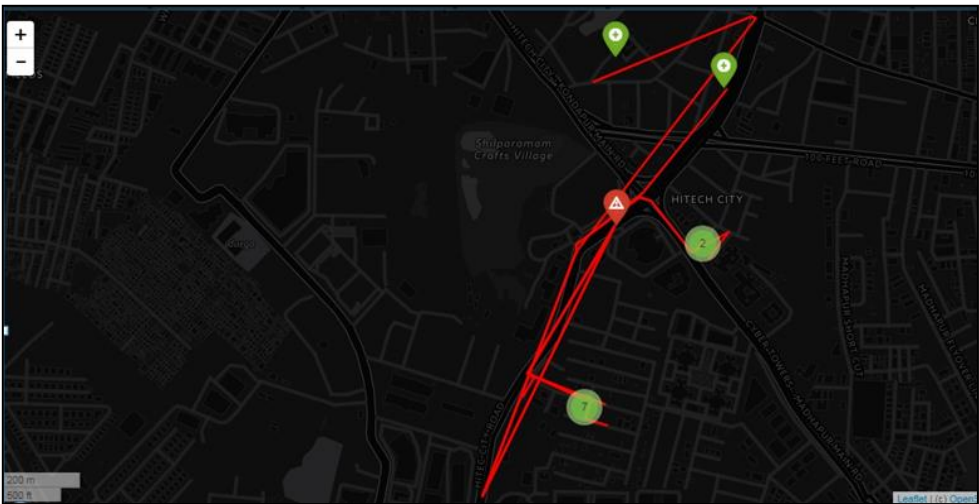
City Bottleneck points



City Bad Traffic



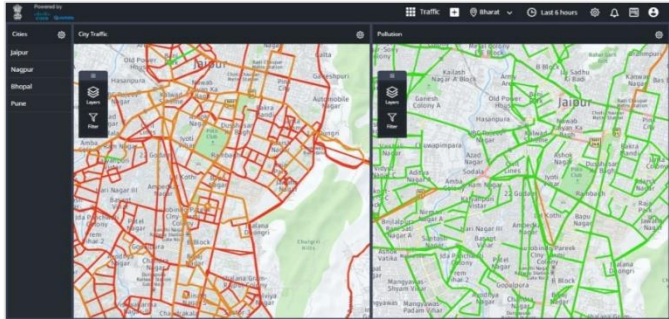
Predictive Routing in case of Incident



Traffic AQI

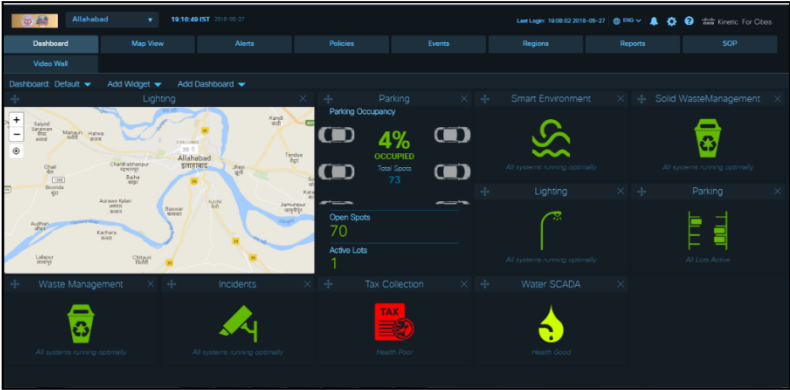


Traffic - Pollution

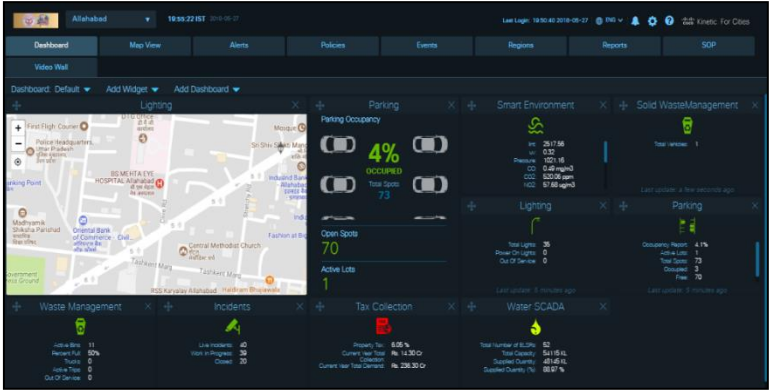


# Next Gen Emergency Response

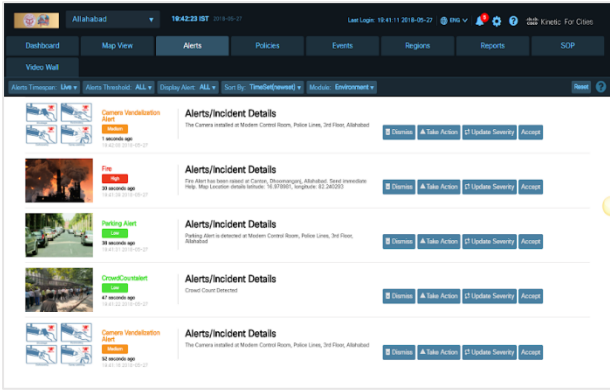
CCC Dashboard – Status View with multiple vertical systems



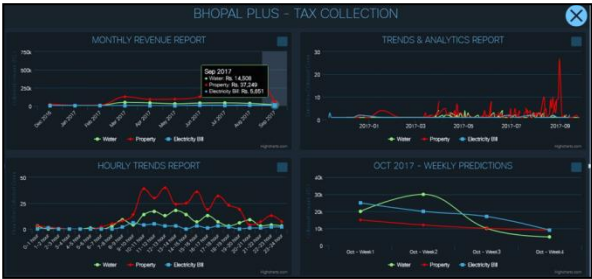
CCC Dashboard – KPI



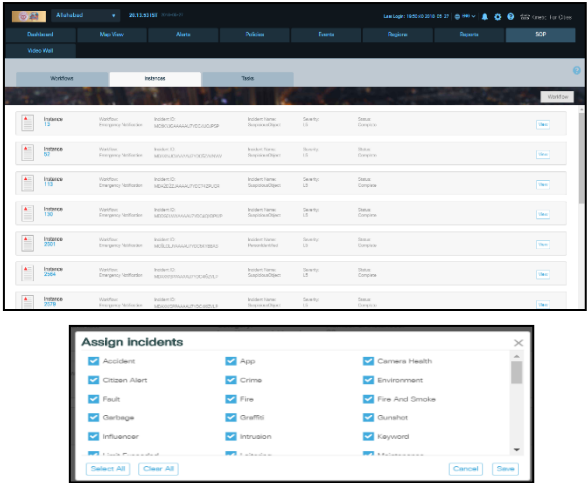
Alerts & Notifications



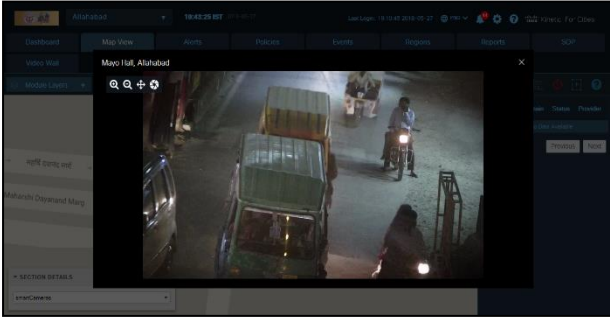
Reports & Analytics



SOPs, Workflows, Policies, Events

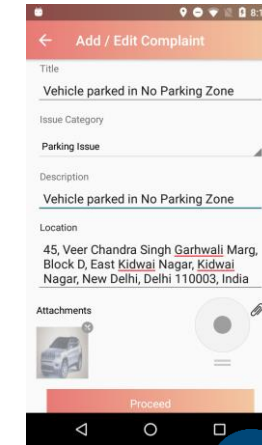
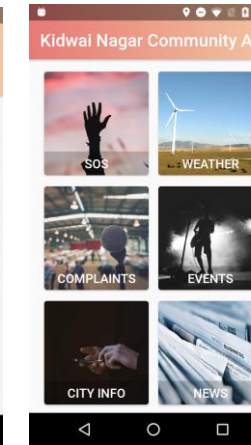
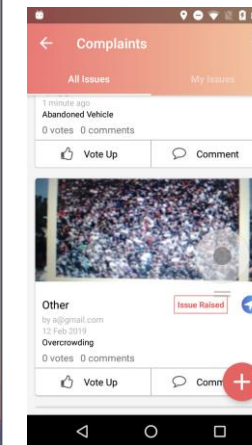
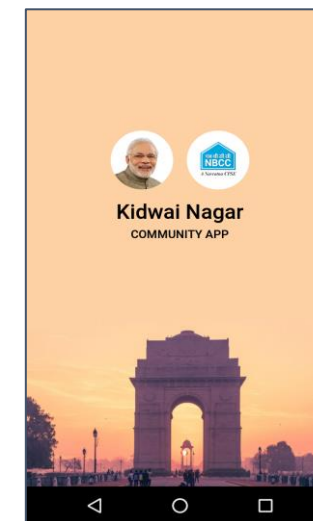
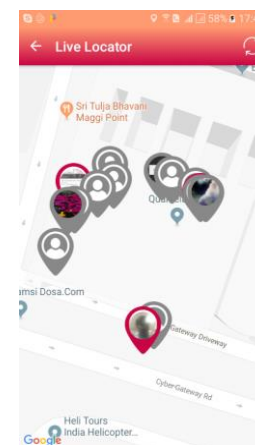
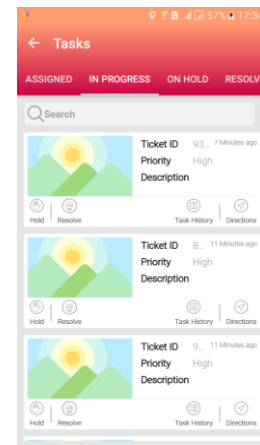
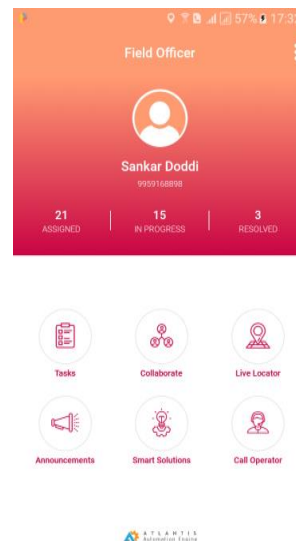
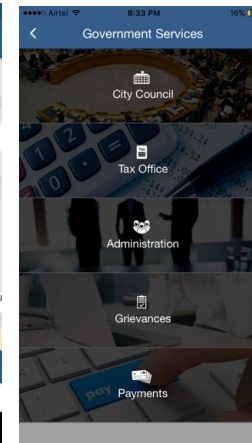
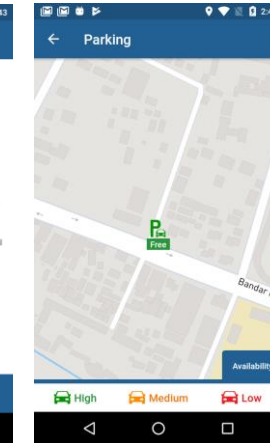
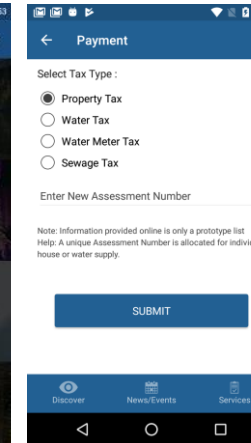
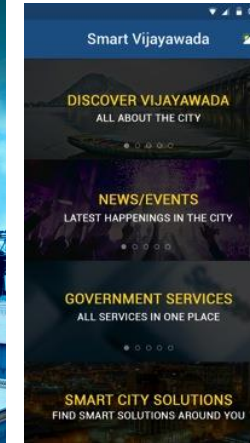
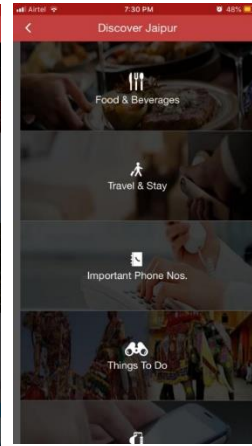
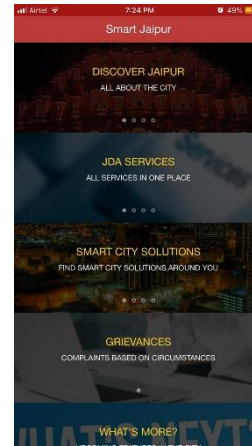


Video/Video Analytics





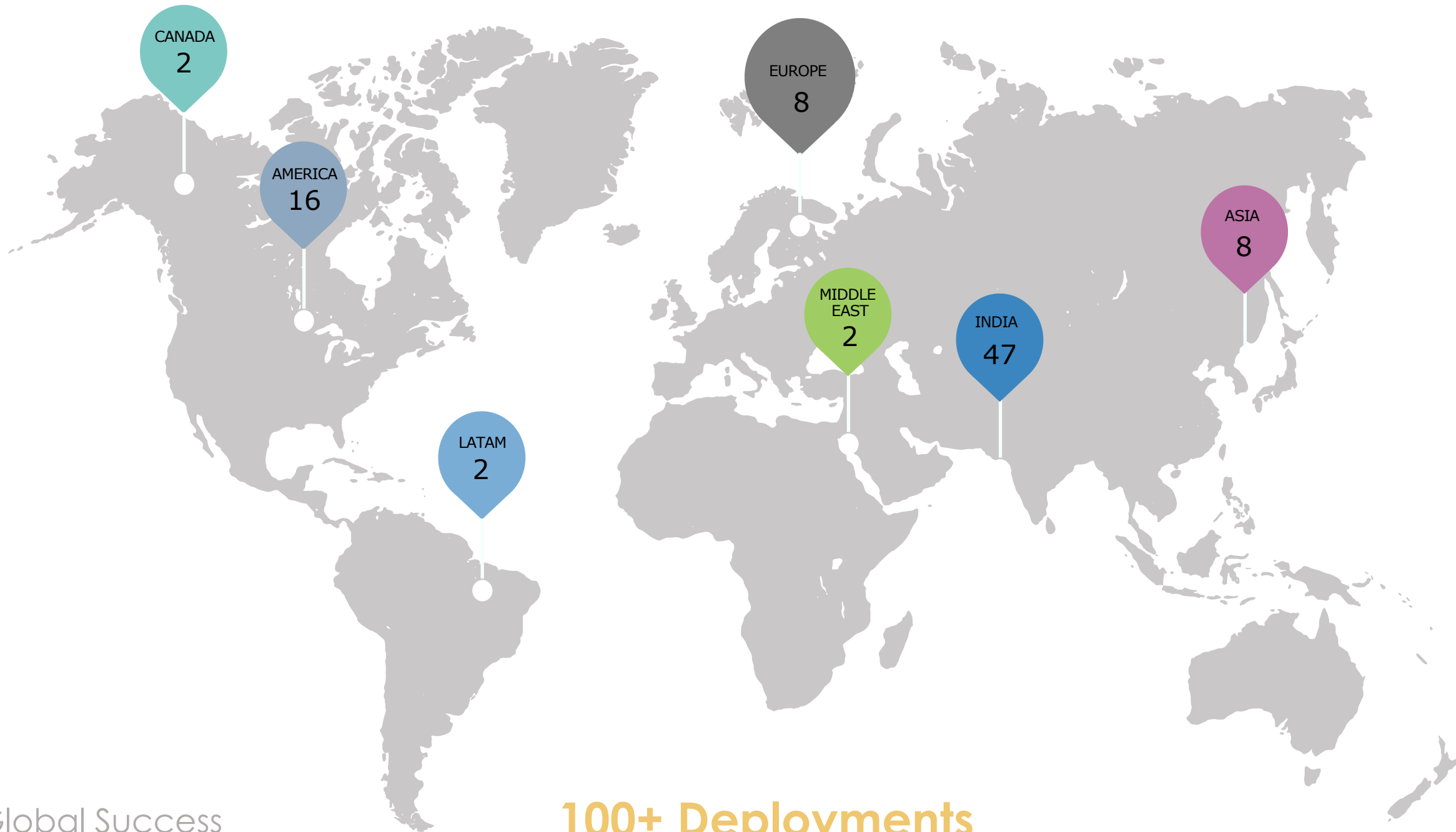
# Mobile Applications



# Solutions in action

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Global Success

100+ Deployments





# Prague – Czech republic

## Challenge

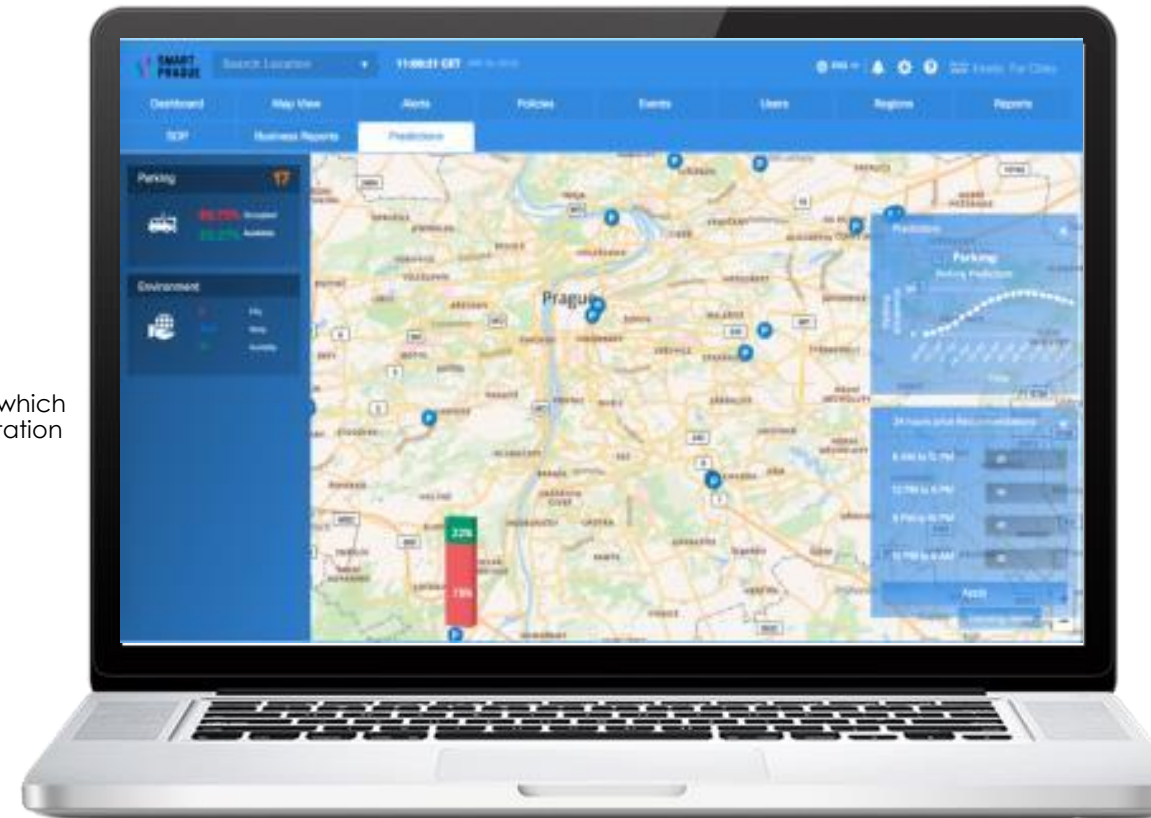
Managing different infrastructure applications efficiently and easily

## Solution

The platform helped Prague to efficiently manage 10 different urban infrastructure applications (upto 250 in the future) through rapid data integration, creation of data platform, cross domain analytics and open API for data consumers

## Results

Rapid data integration which reduced the implementation time



# Newcastle



## Challenge

Understanding the investments made in different departments

## Solution

Quantela platform is helping Newcastle to make sense of their investments and benefit from cross domain analytics from existing & new city assets and sensors. Domains:

- Environment
- Traffic
- Road condition prediction

## Results

- The government is able to take proactive steps to ensure the environment parameters doesn't touch the bottom values.
- The administrators are able to ensure manage traffic in a very efficient way

Nick Forbes, Leader of Newcastle City Council

*"It is fantastic, and an example of our commitment to use innovation to help make people's lives better."*





# Washington DC – USA

## Challenge

Ensuring proper management of Waste

## Solution

Installed the complete waste management solution that helped the city in monitoring, managing and optimizing their waste efficiently

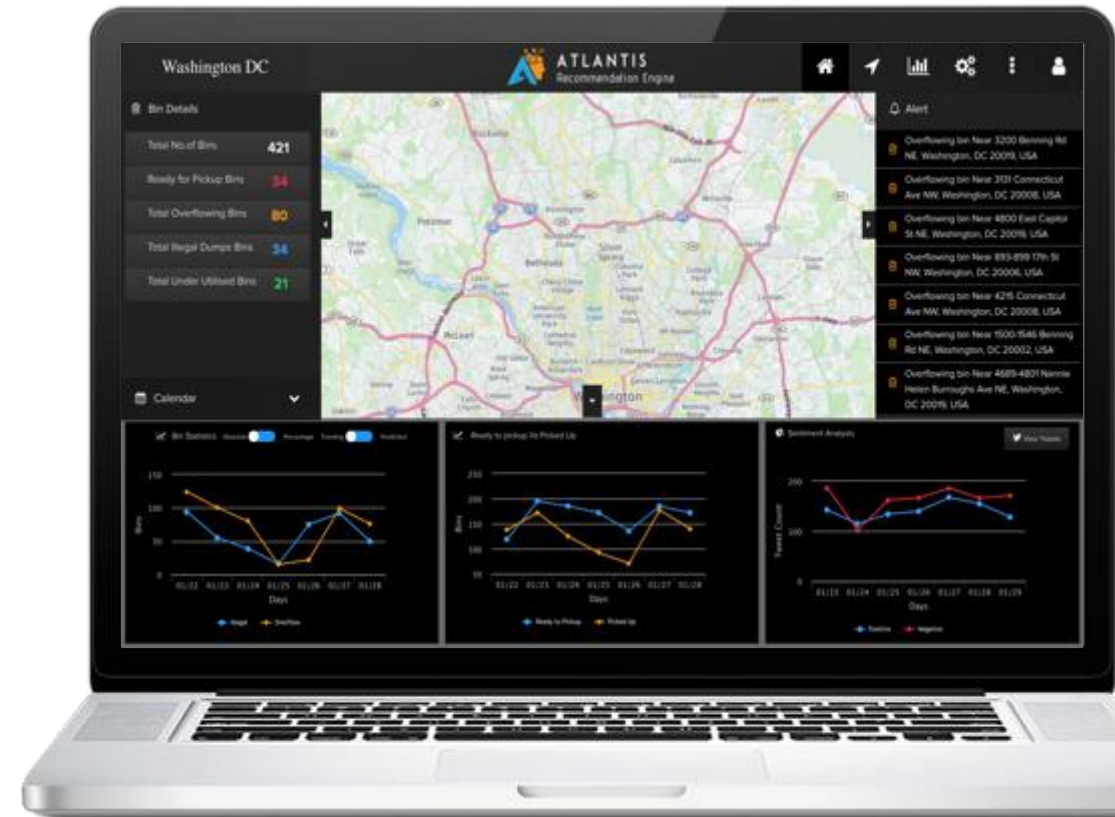
Apart from providing the data of filled bills, it also provides the sentiment analysis

Other features have fleet management, scheduling the pick ups and prediction of the bins to be picked up in the next 24 hours

## Results

An end to end digitized waste management solution is helping the administrators to handle the unmanaged waste efficiently.

Fleet management helps in organizing and coordinating the waste vehicles with the aim to improve efficiency, and reduce costs.

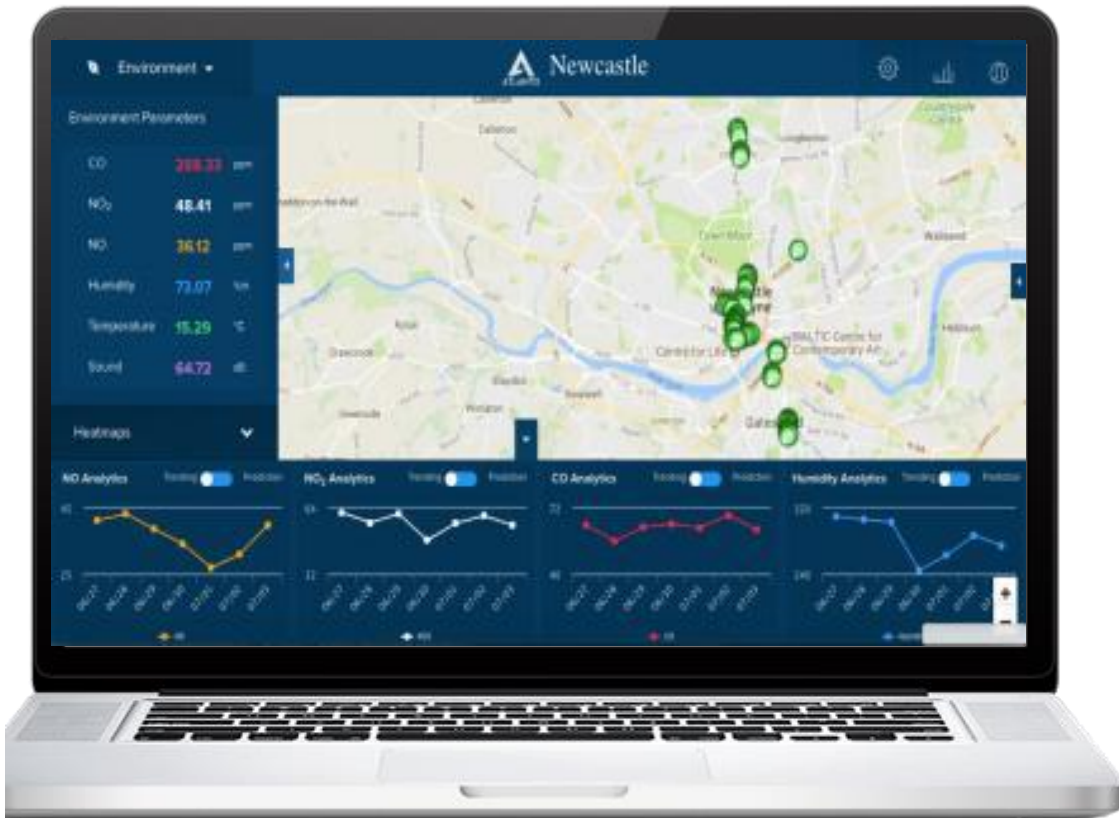


## DC Operations Manager

"Operational dashboard with easy to navigate information, helped proactively identify overfilled bins, under utilized bins, illegal dumping, over due picks".



# Antwerp – Flood Modeling



## Challenge

Understanding and managing flood behaviour

## Solution

Sensors integration gave real time flood situation:

- Dashboard & Integrations:
  - GIS Layers Integration
  - Flood Sensors
  - 3D Layers Modelling for buildings

## Results

- Fast and priority evacuation
- Reduced loss of life and property



# Coredo Morumachi, Japan – Smart Building

## Challenge

To help people with medical emergencies in the premises of the building: Prevention of cardiac arrest, early recognition and notification of cardiac arrest, cardiopulmonary resuscitation (CPR) and AED, emergency service, and provide life support treatment at hospital without delay.

## Solution

Tracking people and guards in building (6 floors) for emergency response along with other services. Dashboard & Integrations:

- 3D Maps integration into CKC Dashboard
- Guard Tracking
- Video Analytics integration with Dashboard
- Cisco Spark and Spark board integration
- CMX integration on Dashboard

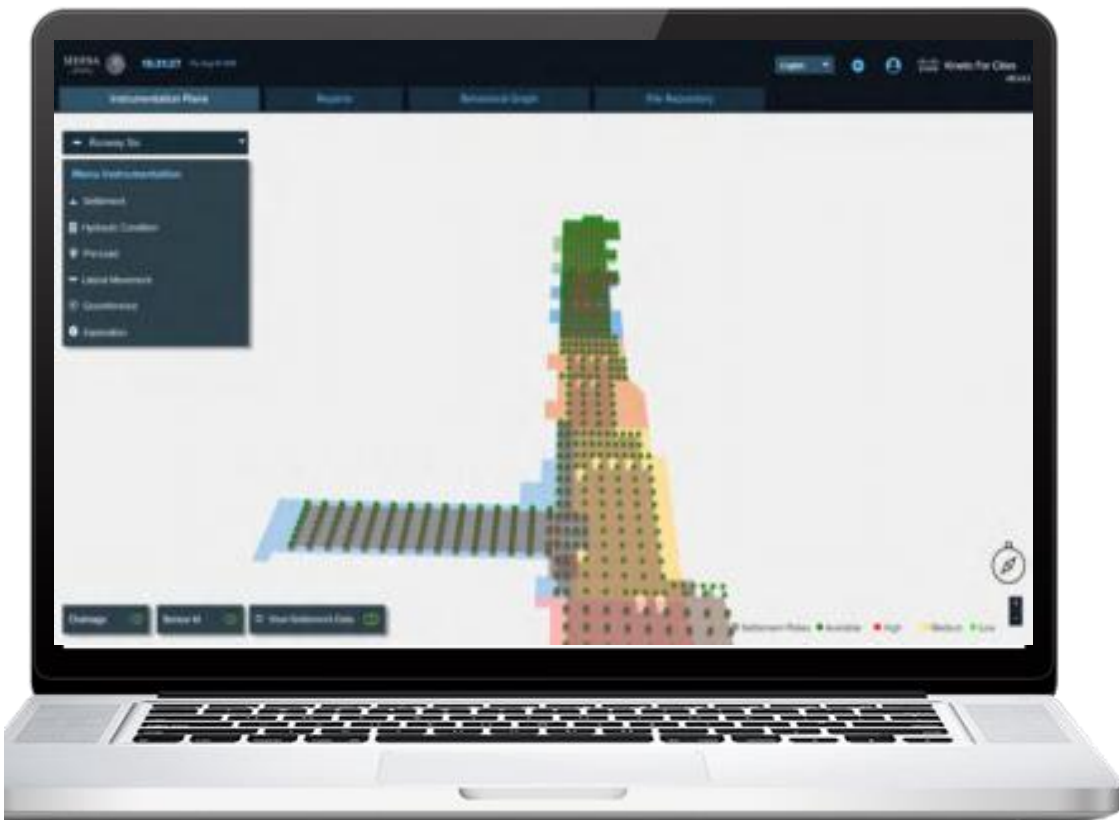
## Results

- Getting medical aid to people as soon as possible in the building premises - Save lives



# Mexico – Airport Runway

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## Challenge

The airport runway is built on a lake that needed to be monitored 24\*7 for any inclination changes beneath – which can be dangerous

## Solution

We delivered an end-to-end sensor management solution in a collaborative environment to meet the business objectives of the geotechnical airport construction project. The application is interactive, engaging, and meet the geotechnical detection requirements:

- 3D Geotechnical Visualization, Modelling & Analytics
- Installation and Monitoring Data Acquisition
- Geotechnical Monitoring Reports
- Generator / Estimate Report

## Results

The authorities will know the complete health of the runway, which will help in the prevention of any mishap





An aerial photograph of a city skyline at dusk, featuring numerous skyscrapers and a river in the foreground. A semi-transparent blue rectangle with a white border is centered over the image, containing the text 'Thank you' in a large, white, sans-serif font.

# Thank you