



Manufacturing industry



Data centers & Communication networks



Urban infrastructures



Smart Cities to Power to Ports, etc.



Corporates/Government organizations- for Disaster management



Healthcare industry



EV Charging Infrastructure



Campus & Building Infrastructure



# S!aP *Omnific*

Intelligent Way to Manage Your Infrastructure

## City Safety Analytics



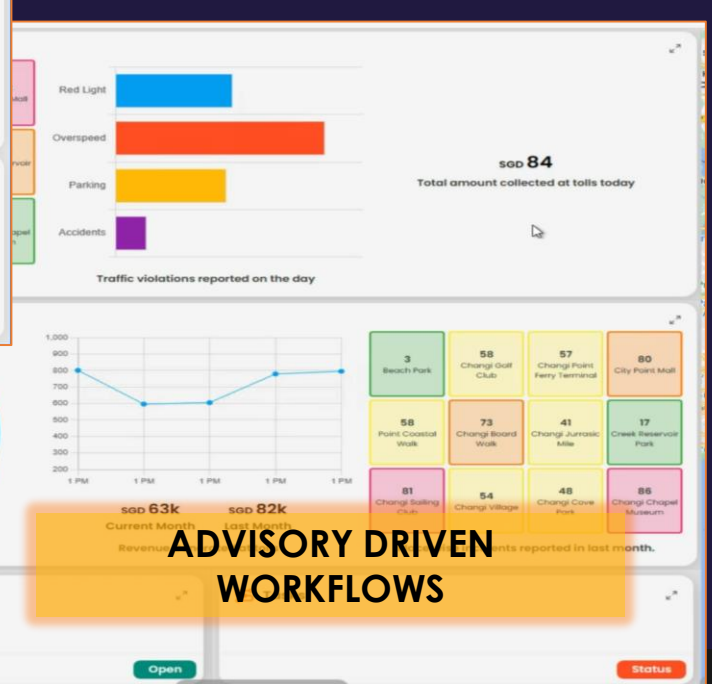
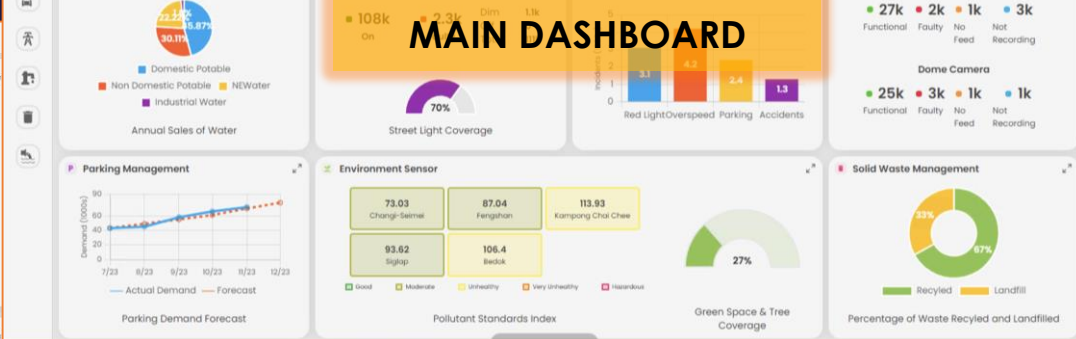
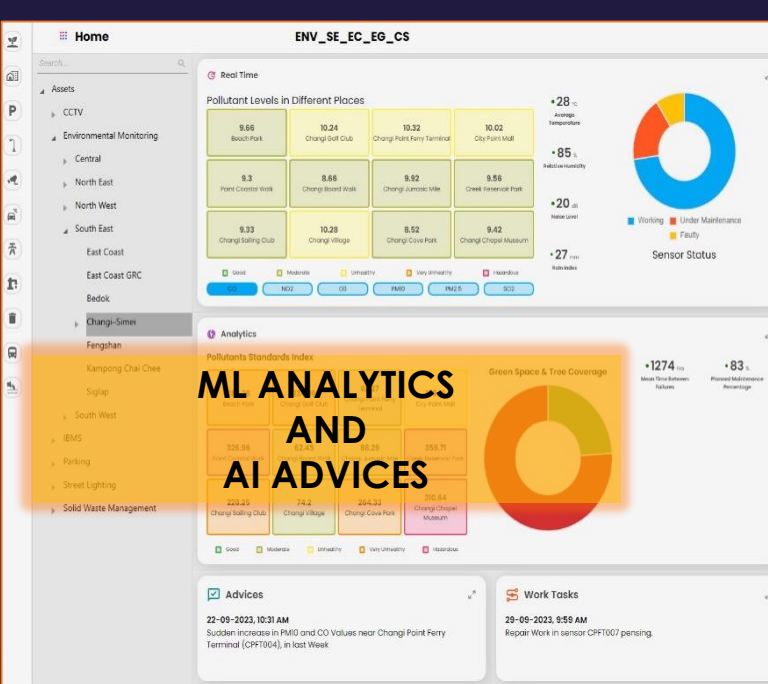
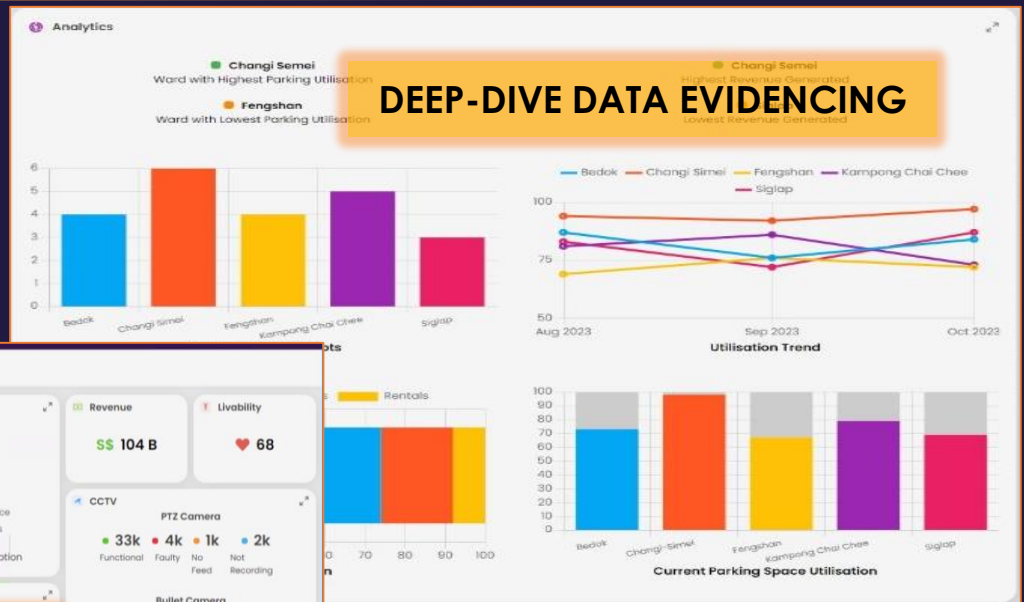
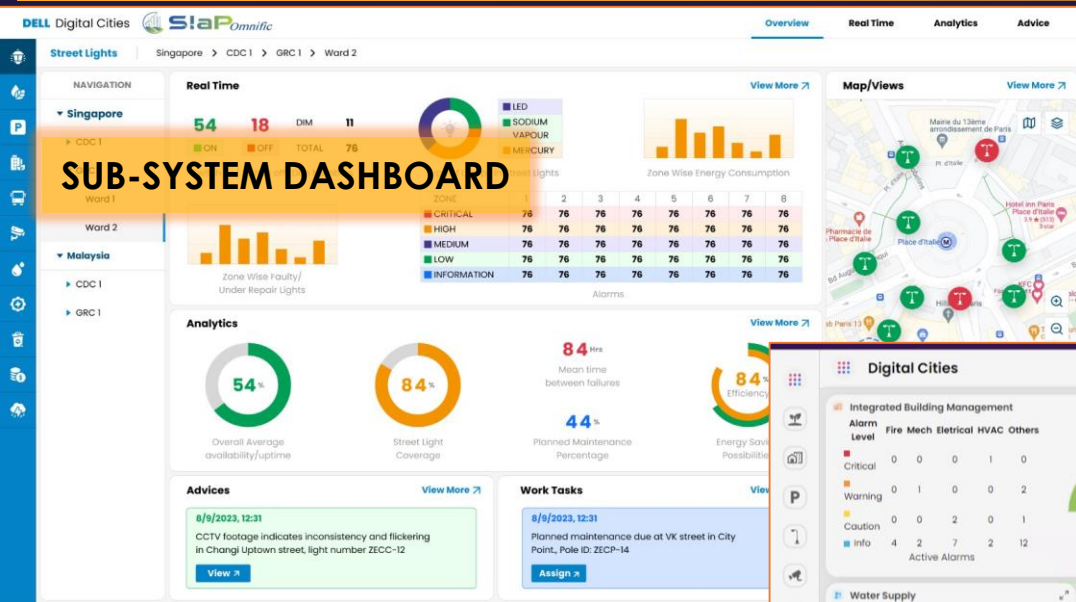
**Astrikos.ai Platforms** were founded on the principles of combining Platform Cooperativism and Sustainable Socioeconomic Models for the twenty-first century with **hyperscale** impact, addressing key infrastructure challenges in areas such as **Health Infra, Next Generation Data Centers, Smart Ports, Campuses, Smart City Urban Analytics, Smart Infrastructure and Industry 4.0/5.0.**

The motive of Astrikos.ai Platforms is to bring the **behavioral change** in Infra Operations **from Reactive Response mechanism to Proactive Advisory-Based Mitigation.**



# PURPOSE

**Geographical Coverage:** India, ASEAN, Middle East and North Africa





# SMART CITY & URBAN ANALYTICS : POTENTIAL USECASES

**Issue**  
Analysis show that feed from CCTV of ID 'CC12/234' is inconsistent.

**Track**  
CCTV

**Details**  
View Source View In Map

**Recommendation**  
Manual troubleshooting by technician.

**Actions**  
 Create new work order request  
 Create new maintenance ticket  
 Create new asset management request  
 Assign a call centre executive  
 Ignore the issue

Work Order  
 Maintenance  
 Manage Asset  
 Call Centre  
 Ignore

Prompt Action

Cognitive Advisories converted into SOP Amendments and Actionable Items

**AI/ML Advisory Oriented Command & Control Centre**

Emergency 1 Advisories Warning 5 Advisories Information 4 Advisories

**Issue**  
Analysis show that feed from CCTV of ID 'CC/12/234' is inconsistent.  
**Recommendation**  
Manual troubleshooting by technician.

**Issue**  
Traffic Light of ID [34/765] has been down for 27 hours in last 7 days.  
**Recommendation**  
Check power supply issues.

**Issue**  
Zone D reported sudden spike in number of complaints, reporting 13 complaints in last 5 days.  
**Recommendation**  
Manual troubleshooting by technician.

**Issue**  
One week remaining for closing 8 complaints in all zones.  
**Recommendation**  
Conduct review of remaining complaints.

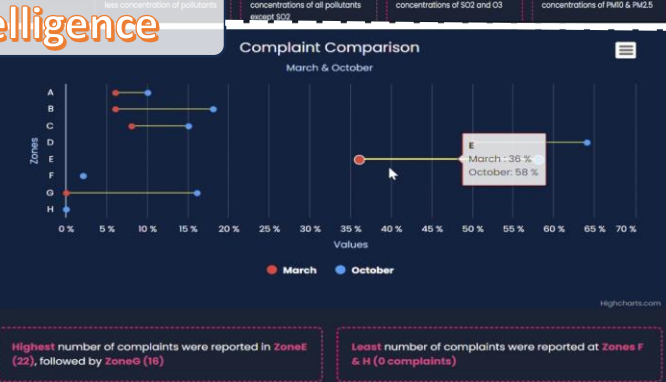
**Issue**  
Regular maintenance for CCTV in all zones in 5 days.  
**Recommendation**  
Initiate a maintenance ticket.

**Issue**  
Air quality index improved in Zone G.  
**Recommendation**

Advisories based on Cause - Effect



Data Intelligence



# URBAN SAFETY ANALYTICS : POTENTIAL USECASES

**City Safety Main Dashboard**

**FOOTFALL STATS**  
4.2m

**INCIDENT STATS**  
1.41m

**SOCIAL SENTIMENT STATS**  
73%

**CITY SAFETY INDEX**  
87%

**TOP 5 RISKY AREAS**

- 3700 BLOCK S LAS VEGAS BLVD
- 5700 BLOCK WAYNE NEWTON BLVD
- 3600 BLOCK S LAS VEGAS BLVD
- 3500 BLOCK S LAS VEGAS BLVD
- 3300 BLOCK S LAS VEGAS BLVD

**TOP 5 ACCIDENT PRONE AREAS**

- 3500 BLOCK S LAS VEGAS BLVD
- 3700 BLOCK S LAS VEGAS BLVD
- 3000 BLOCK W FLAMINGO RD
- 3800 BLOCK S LAS VEGAS BLVD

**TOP INCIDENT CATEGORIES**

- Two Vehicles Crash
- Bag Snatching
- Accident With Unknown
- Pole/Pillar Impact
- Slip & Fall
- Medical Emergency
- Fire Incident

**RESPONSE ACTIVITY LOG**

- Fire Brigade (43 minutes ago)
- Security Personnel (1 hour ago)
- Health Emergency (1.5 hours ago)
- Health Emergency (3 hours ago)
- Security Personnel (6 hours ago)
- Fire Brigade (7 hours ago)
- Security Personnel (9 hours ago)

**Geo-Temporal Mapping → SOP Amendment**

latitude: 51.511450  
longitude: -0.135341  
223 Accidents

**Dispatch SOP System**

City Safety: 3 Active, 0 Esc1, 11 Esc2, 28 Closed

Mode	SOP M	Severity	System	Incident Date Time	Type of Incident	Status	Reported By	Incident Age	Address	City	Summary
-	SOP	High	City Safety	28-Feb-2024 4:30:29 PM	Crime	open	inc	1	95	95	Police Force Deployment
-	SOP	High	City Safety	28-Feb-2024 11:50:43 AM	Crime	open	inc	2	95	95	Police Force Deployment

**Incident Trends Spread**

**Raw Event Data From Different Sources**

date	incidentnumber	classification	incidenttypecode	location	zipcode
2020-01-01	LLV19010000187	Assist Citizen	439	400 BLOCK E OGDEN AVE	89101
2020-01-02	LLV190100003801	Larceny	414A	4000 BLOCK S MARYLAND PKWY	89119
2024-01-01	LLV221200123787	Pedestrian Crossing Congestion	416B	10200 BLOCK BENTLEY OAKS AVE	89135
2020-01-01	LLV190100000178	Assist Citizen	439	3100 BLOCK S LAS VEGAS BLVD	89109
2020-01-01	LLV190100001763	Reckless Driver	410	BONZ/MARION	N/A
2020-01-02	LLV190100003791	Traffic Accident	401B	E PEBBLE RD / S MARYLAND PKWY	89123
2024-01-01	LLV21200125188	Pedestrian Crossing Congestion	410B	7200 BLOCK S LAS VEGAS BLVD	89110

**1.41M Total Incidents**

**Incidents By Year**

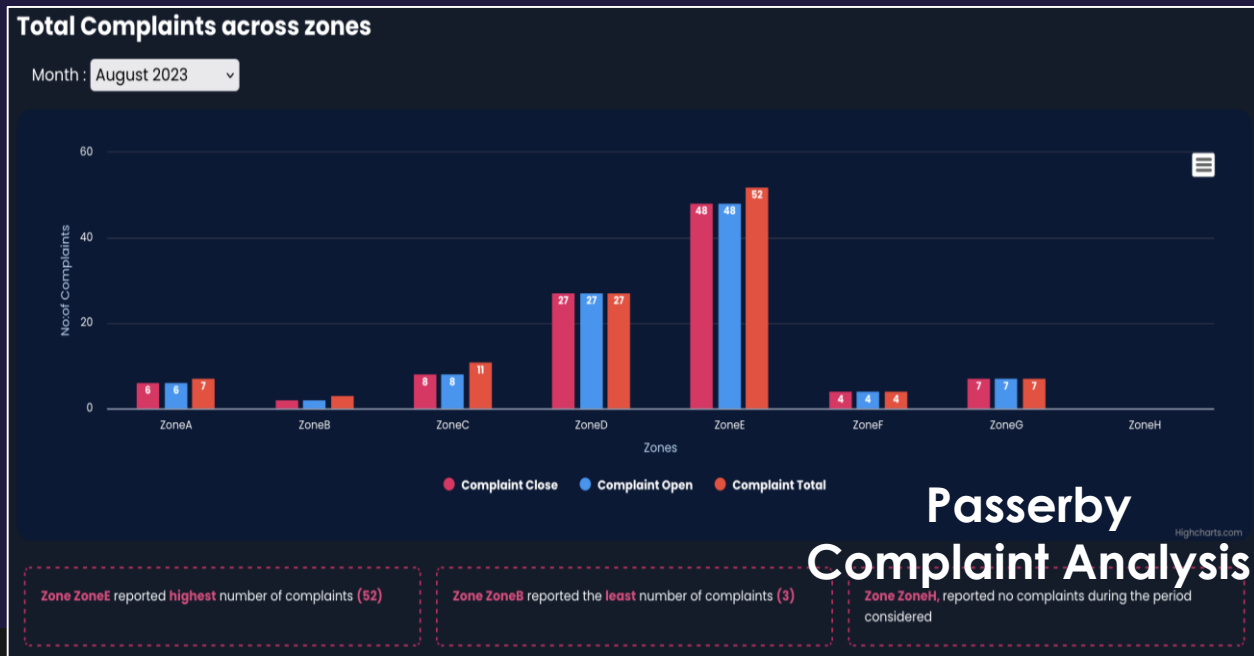
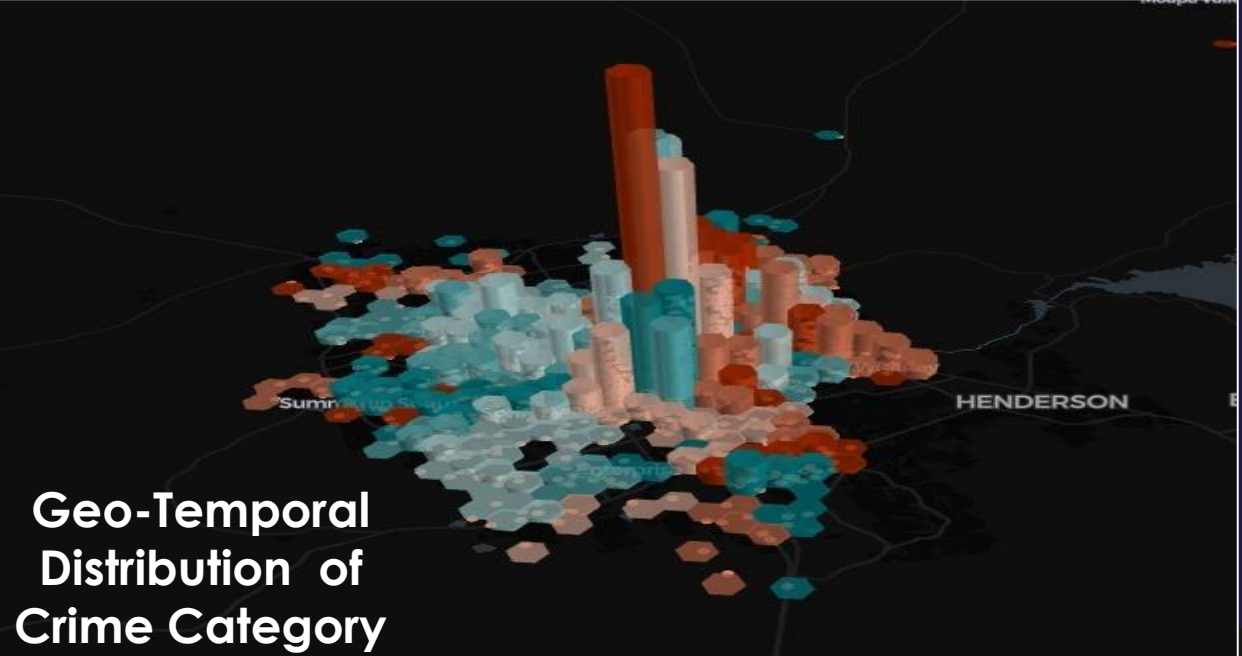
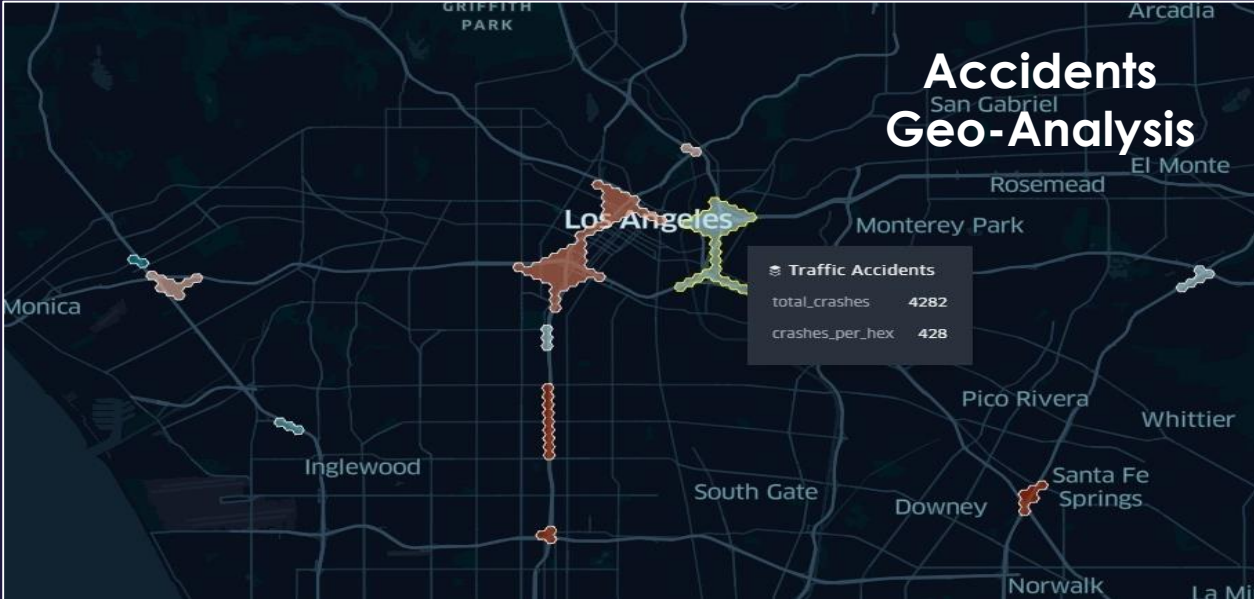
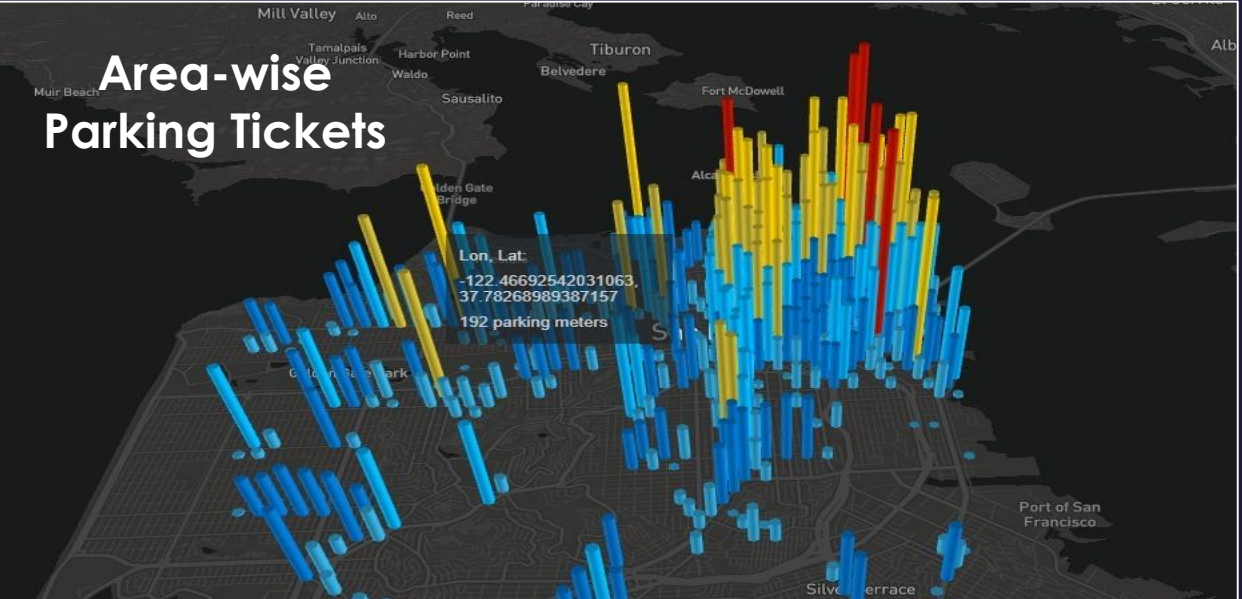
**Trends – Classifications - Predictions**

**Incidents By Hour**

**Incidents By Day Of Week**



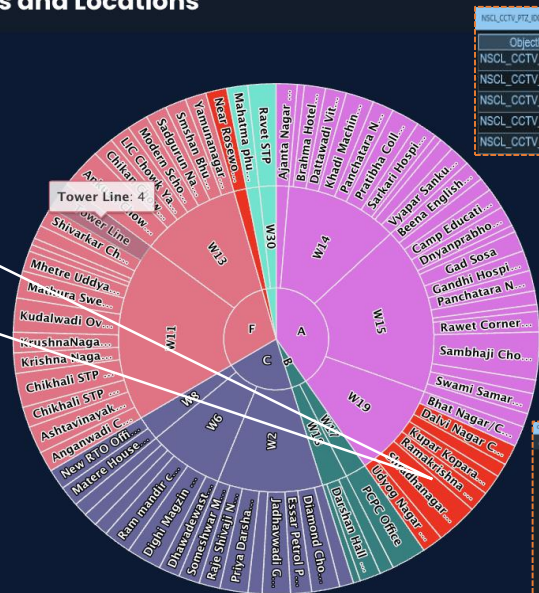
# URBAN SAFETY ANALYTICS : POTENTIAL USECASES



## City Surveillance Assets

### Number of cameras across Zones, Wards and Locations

Assets Behavioral Anomaly/ Inconsistencies Detection



ObjectName	ASSETID	IncidentID	Incident Details
NSCL_CCTV_PTZ_ID005	NSCL_PTZ05	PTZ_P05 @ Kazilar Bhulia Basti Intersection (Smart pole) - Device Faulty Ev	
NSCL_CCTV_PTZ_ID005	NSCL_PTZ05	PTZ_P05 @ Kazilar Bhulia Basti Intersection (Smart pole) - Device Faulty Ev	
NSCL_CCTV_PTZ_ID005	NSCL_PTZ05	PTZ_P05 @ Kazilar Bhulia Basti Intersection (Smart pole) - Device Faulty Ev	
NSCL_CCTV_PTZ_ID005	NSCL_PTZ05	PTZ_P05 @ Kazilar Bhulia Basti Intersection (Smart pole) - Device Faulty Ev	
NSCL_CCTV_PTZ_ID005	NSCL_PTZ05	PTZ_P05 @ Kazilar Bhulia Basti Intersection (Smart pole) - Device Faulty Ev	
NSCL_CCTV_PTZ_ID005	NSCL_PTZ05	PTZ_P05 @ Kazilar Bhulia Basti Intersection (Smart pole) - Device Faulty Ev	

INCIDENT LOG WORK REQUEST

Asset Management - Create Work Request

Site ID: NSCL System: CCTV

Asset ID: NSCL\_PTZ05 Asset Name: PTZ\_P05

Severity: Please Select Severity Requested By: NSCL/MCC/Admin1

Work Type: Preventive Maintenance

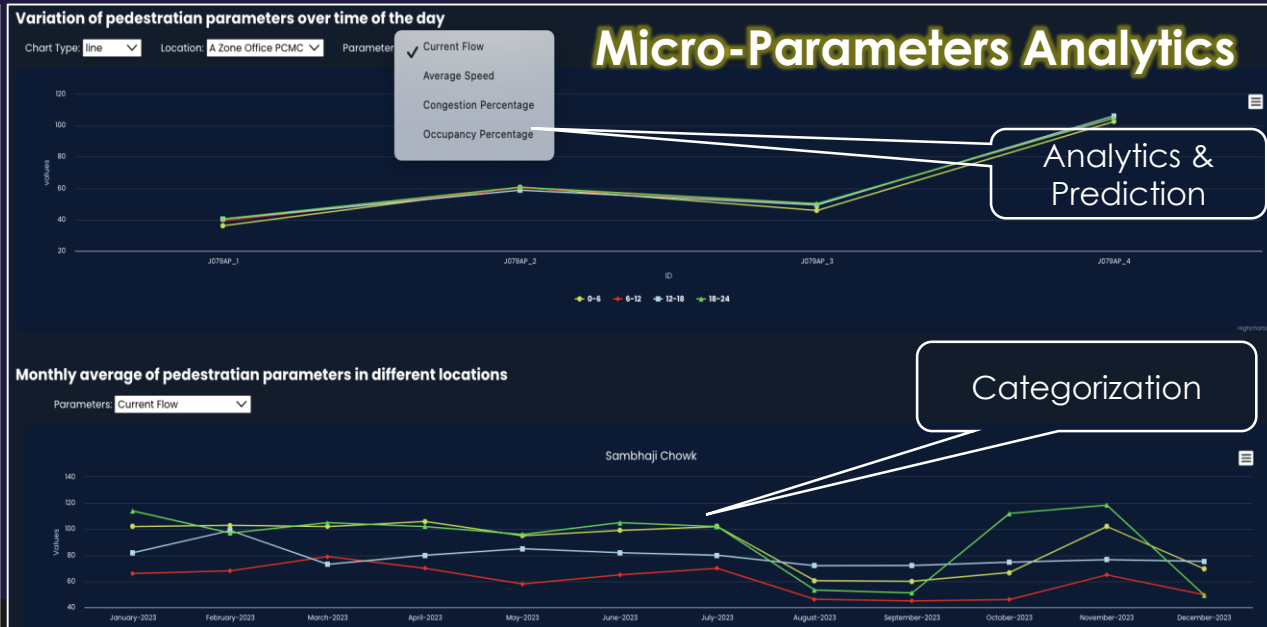
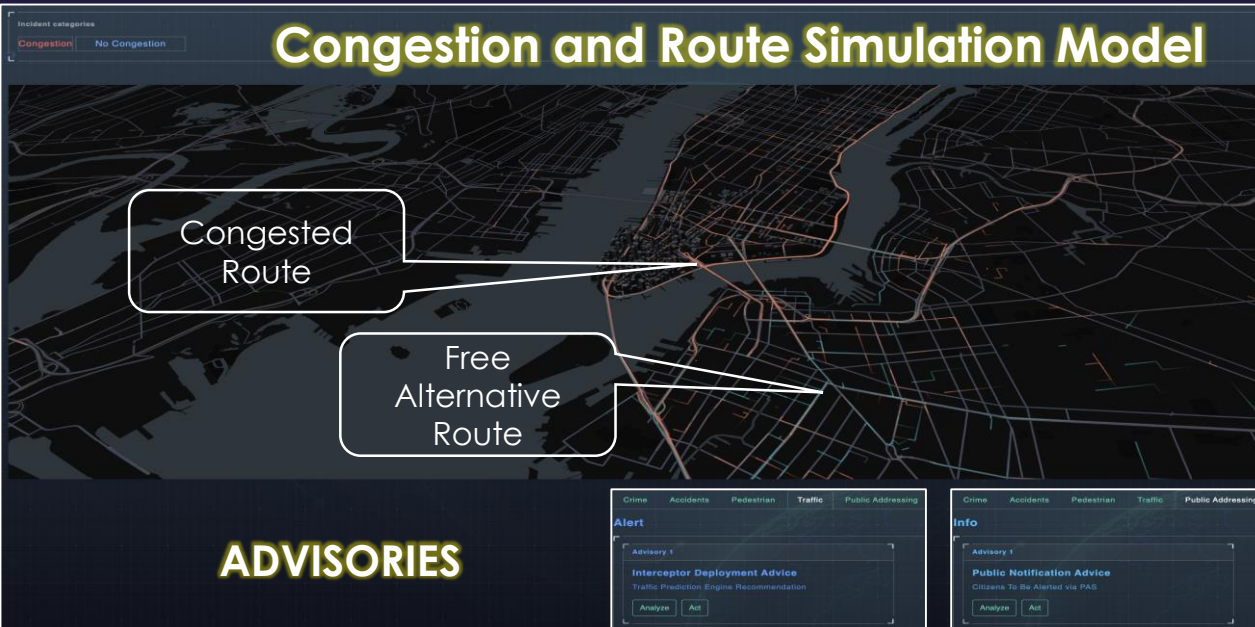
Description: Please Enter Description

Create Cancel

Historical logs on asset's behaviour anomaly can be retrieved for data evidencing in 'Expert Mode'

Work Request/Order Creation can be automated through third-party integration with Asset Maintenance Management System

## Congestion and Route Simulation Model





# URBAN SAFETY ANALYTICS : "ANALYTICS" – TO – "GEN-ADVISORY"

## Urban Safety/Risk Assessment and Zoning

Incidents History

Show 200 entries

date	incidentnumber	classification	incidenttypecode	location
2020-01-01	LLV190100000187	Assist Citizen	439	400 BLOC
2020-01-02	LLV1901000003801	Larceny	414A	4000 BLOC
2024-01-01	LLV221200123787	Pedestrian Crossing Congestion	416B	10200 BLOC
2020-01-01	LLV1901000000178	Assist Citizen	439	3100 BLOC
2020-01-01	LLV1901000001763	Reckless Driver	410	BONZ/MAR
2020-01-02	LLV1901000003791	Traffic Accident	401B	E PEBBLE R
2024-01-01	LLV221200125189	Pedestrian Crossing Congestion	416B	7200 BLOC
2024-01-01	LLV221200123523	Pedestrian Crossing Congestion	416B	5700 BLOC

### Incident - Accident top 5 Risky Areas

location	COUNT(*)
3600 BLOCK S LAS VEGAS BLVD	411
3500 BLOCK S LAS VEGAS BLVD	297
3700 BLOCK S LAS VEGAS BLVD	272
3700 BLOCK W FLAMINGO RD	219
3900 BLOCK S LAS VEGAS BLVD	189
5300 BLOCK E CRAIG RD	159
300 BLOCK E HARMON AVE	150
3800 BLOCK S LAS VEGAS BLVD	142
4800 BLOCK E RUSSELL RD	139
3500 BLOCK PARADISE RD	136

### Top Locations With More Cases

location	COUNT(*)
3700 BLOCK S LAS VEGAS BLVD	18.4k
5700 BLOCK WAYNE NEWTON BLVD	11.8k
3600 BLOCK S LAS VEGAS BLVD	11.5k
3500 BLOCK S LAS VEGAS BLVD	10.3k
3300 BLOCK S LAS VEGAS BLVD	7.84k
700 BLOCK N PECOS RD	5.59k
UNKNOWN LOCATION	5.3k
3900 BLOCK S LAS VEGAS BLVD	4.77k
300 BLOCK S CASINO CENTER BLVD	4.72k
3400 BLOCK S LAS VEGAS BLVD	4.21k

### Advisory Reasoning

Advisory: Police Force Deployment Advice

Impacted Area(s):  
 3700 BLOCK S LAS VEGAS BLVD  
 3700 BLOCK WAYNE NEWTON BLVD  
 3600 BLOCK S LAS VEGAS BLVD  
 3500 BLOCK S LAS VEGAS BLVD  
 3300 BLOCK S LAS VEGAS BLVD

GeoRepresentation:

Historical Analysis: Data Sample: Last 3 Weeks

Data Source(s):  
 1. Criminal Incident Records  
 2. Police Deployment Logs

Further Analytics

### Dispatch SOP System

UCC-PROJECTBUCC-Admin

City Safety

3 Prog  
0 Act  
0 Esc1  
0 Esc2

11 Closed

IBMS

4 Prog  
0 Act  
0 Esc1  
0 Esc2

28 Closed

System: Select System | Type Of Incident | Status | Duration | Last 30 days

Mode	SCP ID	Severity	System	Incident Data Time	Type of Incident	Status	Reported By	Incident Age	Address	City	Summary	
•	SCP	1381	High	City Safety	29-Feb-2024 4:19:29 PM	Crime	open	slip	1		50	Police Force Deployment
•	SCP	1382	High	City Safety	28-Feb-2024 11:52:43 AM	Crime	open	slip	2		50	Police Force Deployment

### SlaP / Advisory

Advisory Data Intelligence to Action...

Emergency: Warning, Alert, Info

Crime | Accidents | Pedestrian | Traffic | Public Addressing

#### Emergency

**Advisory 1**

**Police Force Deployment Advice**

Few Areas Need Your Attention

Analyze

**Advisory 2**

**Narco Frisking Advice**

Few Areas Need Your Attention

Analyze

#### Warning

**Advisory 1**

**Surveillance Deployment Advice**

Increase In Deployment of CCTV needed

Analyze

### Advisory Reasoning

Advisory: Surveillance Deployment Advice

Impacted Area(s):  
 2700 BLOCK WAYNE VEGAS BLVD  
 5100 BLOCK S LAS NEWTON BLVD  
 1600 BLOCK S LAS VEGAS BLVD  
 1800 BLOCK S LAS VEGAS BLVD  
 1400 BLOCK S LAS VEGAS BLVD

Correlational Analysis: Relationship between CCTV no and Crimes

Historical Analysis: Data Sample: Last 3 Weeks

Data Source(s):  
 1. Criminal Incident Records  
 2. Surveillance Logs

Further Analytics



# URBAN SAFETY ANALYTICS : RESPONSE RCA & ADVISORY

### Incident Response Advisory

Show 10 entries Search: [ ] Print CSV

Cad_number	Received_datetime	Call_type_original_desc	Call_type_final_desc	Intersection_name	Intersection_id
240312056	01/31/2024 03:41:20 PM	VEHICLE CRASH	VEHICLE CRASH	BOSWORTH ST ROTTECK ST	21923000
Lat: -122.43112					
Long: 37.73318					
Analyze <a href="#">Analyze</a>					
240312328	01/31/2024 05:15:33 PM	MISC	MISC	ILLINOIS ST 16TH ST	23575000
Lat: -122.38816					
Long: 37.766956					
Analyze <a href="#">Analyze</a>					
▶ 240312743	01/31/2024 07:34:26 PM	TRESPASSER	TRESPASSER	VAN NESS AVE SACRAMENTO ST	26536000
▶ 240312766	01/31/2024 07:44:52 PM	PERSON DOWN	PERSON DOWN	EDDY ST	JONES ST 24929000
▶ 240312912	01/31/2024 08:31:03 PM	WELL BEING CHECK	WELL BEING CHECK	WEBSTER ST GROVE ST	25954000
▶ 240313056	01/31/2024 09:29:54 PM	VEHICLE CRASH	VEHICLE CRASH	ILLINOIS ST 16TH ST	23575000
▶ 240313175	01/31/2024 10:19:52 PM	ASSAULT / BATTERY	ASSAULT / BATTERY	ILLINOIS ST 16TH ST	23575000
▶ 240313236	01/31/2024 10:38:43 PM	MEET W/CITIZEN	MEET W/CITIZEN	MISSION ST FREMONT ST	24560000
▶ 240313327	01/31/2024 11:35:22 PM	VEHICLE CRASH	VEHICLE CRASH	LIEBIG ST DE LONG ST SAN JOSE AVE	22461000
▶ 240313330	01/31/2024 11:37:56 PM	PASSING CALL	PASSING CALL	ILLINOIS ST 16TH ST	23575000

Showing 1 to 10 of 17 entries Previous 1 2 Next



### Advisory: Incident Advice [Act](#)

**Incident Details:**

CASE ID: 240312056  
 INCIDENT TIME: 01/31/2024 11:35:22 PM  
 INTERSECTION NAME: BOSWORTH ST ROTTECK ST  
 INTERSECTION ID: 21923000  
 LAT: -122.43112  
 LONG: 37.73318

Total Time To Respond: 17min  
 Optimized Time To Respond: 13min  
 Time Could Be Saved: [4min](#)

**Route Taken:**

**Route Proposed: Time Saved - 4 min**

**Stake Holders:**

Police Department	HealthCare Department	Fire Department
Yes	Yes	No

**Stake Holders SLA**

Police Department	HealthCare Department	Fire Department
10min SLA Met: Yes	17min SLA Met: No	-

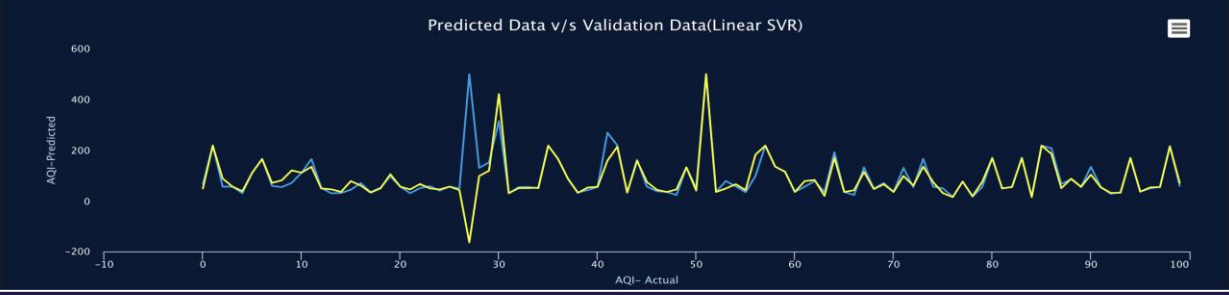
Logs

# URBAN SAFETY ANALYTICS : POTENTIAL USECASES

## 1. Linear SVR

**ML Evidencing with Prediction**

<b>Model Name</b>	Linear SVR	
<b>Type</b>	Regressor	
<b>version</b>	1.2	
<b>X_train</b>	68486	
<b>X_test</b>	22829	
<b>X_Val</b>	22829	
<b>Model Performance</b>	<b>Score</b>	0.86
	<b>r2 Score</b>	0.86



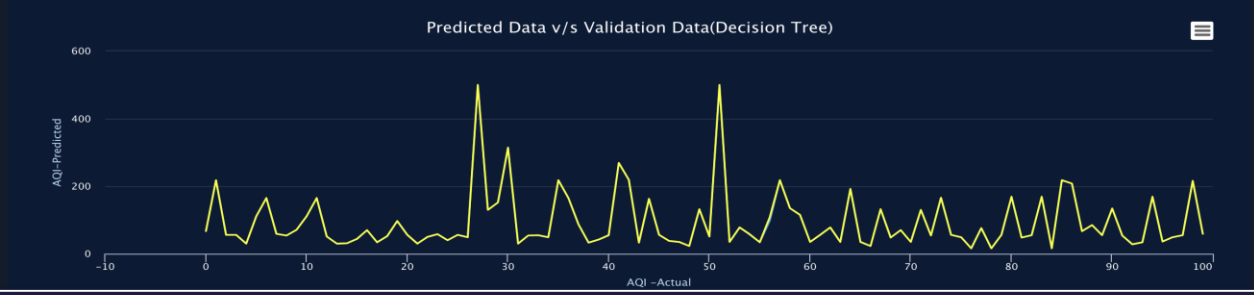
### Total number of complaints forecasted for next 8 weeks



<b>Model</b>	ARIMA
<b>Stationary</b>	Yes
<b>Train Size</b>	64 Weeks
<b>Test Size</b>	8 Weeks
<b>Validation Size</b>	8 Weeks
<b>ARIMA Order</b>	1
<b>Root Mean Squared Error</b>	8.27
<b>Mean Absolute Percentage Error</b>	0.13
<b>Accuracy Percentage</b>	87

## 2. Decision Tree

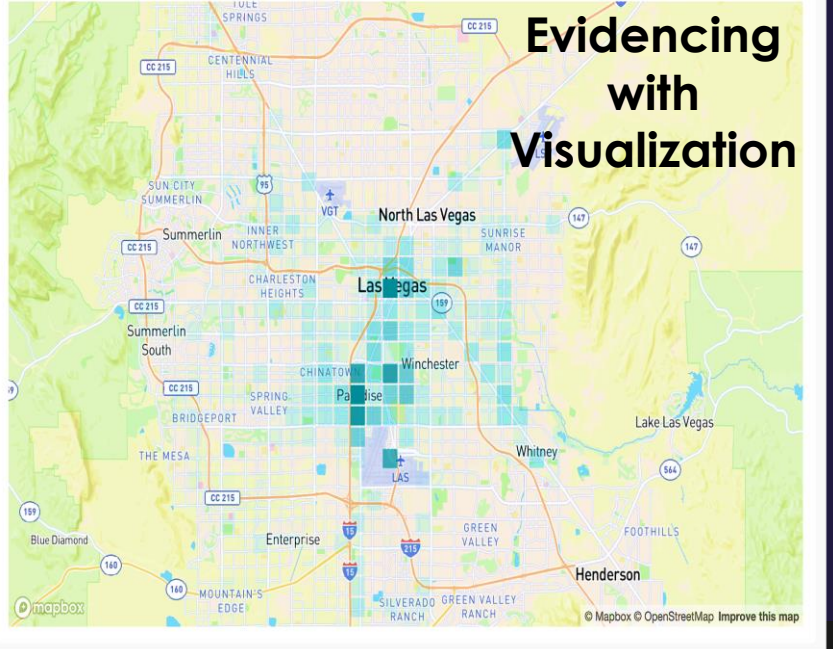
<b>Model Name</b>	Decision Tree	
<b>Type</b>	Regressor	
<b>version</b>	1.2	
<b>X_train</b>	68486	
<b>X_test</b>	22829	
<b>X_Val</b>	22829	
<b>Model Performance</b>	<b>Score</b>	0.99
	<b>r2 Score</b>	0.99



### Top Risky Areas

location	COUNT(*)
3700 BLOCK S LAS VEGAS BLVD	22.4k
300 BLOCK S CASINO CENTER BLVD	17.1k
5700 BLOCK WAYNE NEWTON BLVD	16.3k
3600 BLOCK S LAS VEGAS BLVD	14k
3500 BLOCK S LAS VEGAS BLVD	12.8k
3300 BLOCK S LAS VEGAS BLVD	9.86k
UNKNOWN LOCATION	6.7k
700 BLOCK N PECOS RD	6.69k
3900 BLOCK S LAS VEGAS BLVD	5.93k
3100 BLOCK S LAS VEGAS BLVD	5.79k
3400 BLOCK S LAS VEGAS BLVD	5.29k
UNK LOC	4.95k
UNK LV LOC	4.9k
300 BLOCK E HARMON AVE	4.34k
3800 BLOCK S LAS VEGAS BLVD	4.16k
2000 BLOCK S LAS VEGAS BLVD	3.89k
5757 WAYNE NEWTON BLVD	3.84k
4800 BLOCK BOULDER HWY	3.75k
330 S CASINO CENTER BLVD	3.57k
100 BLOCK FREMONT ST	3.55k
3200 BLOCK S LAS VEGAS BLVD	3.55k

### Incident Geo Distribution







# Case Study: UP 112

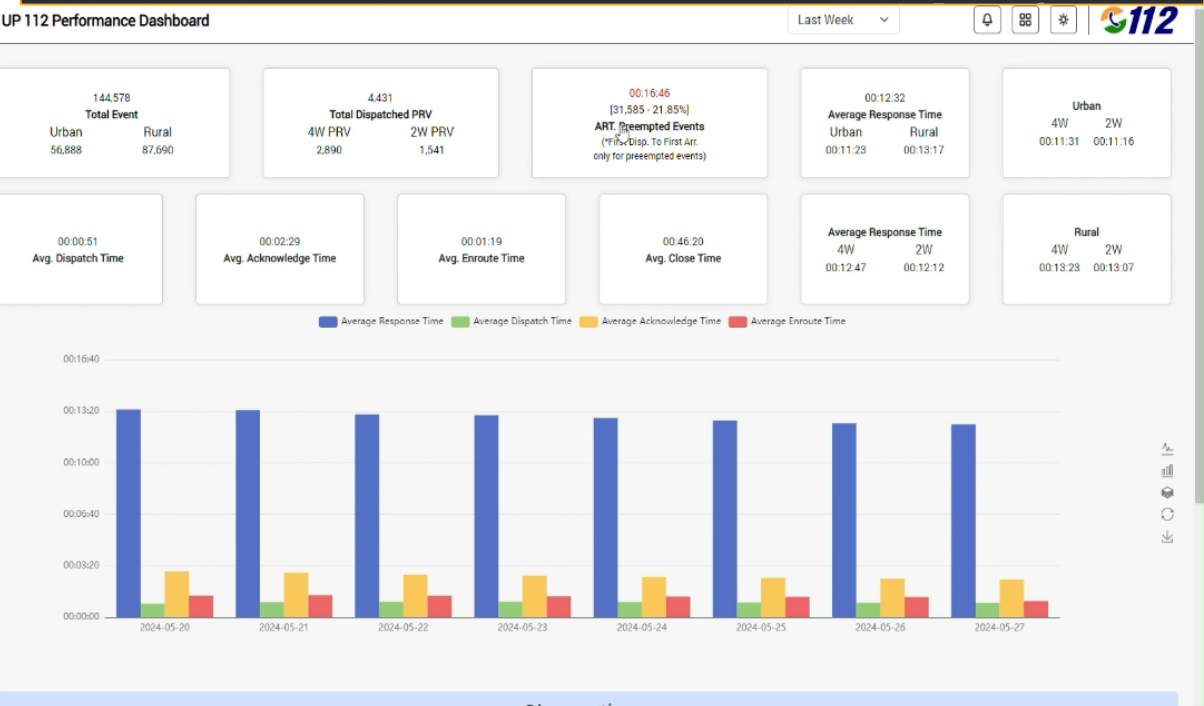
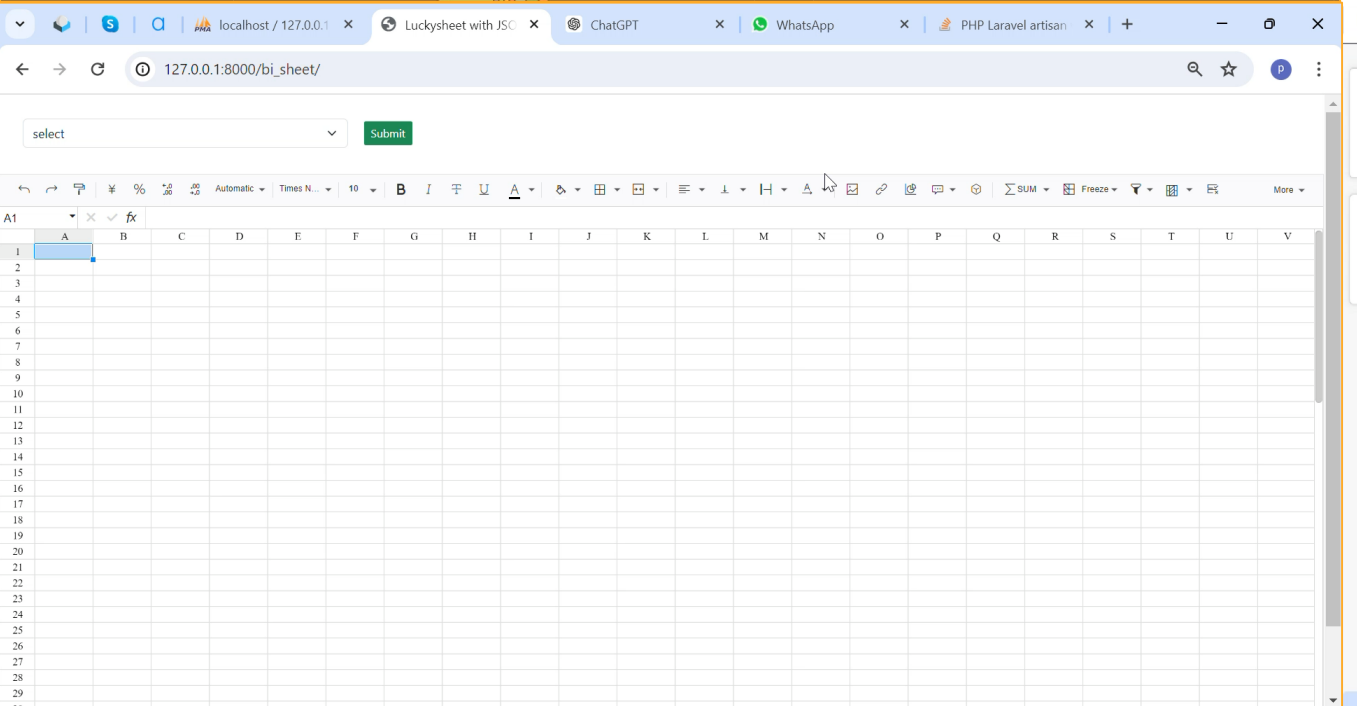
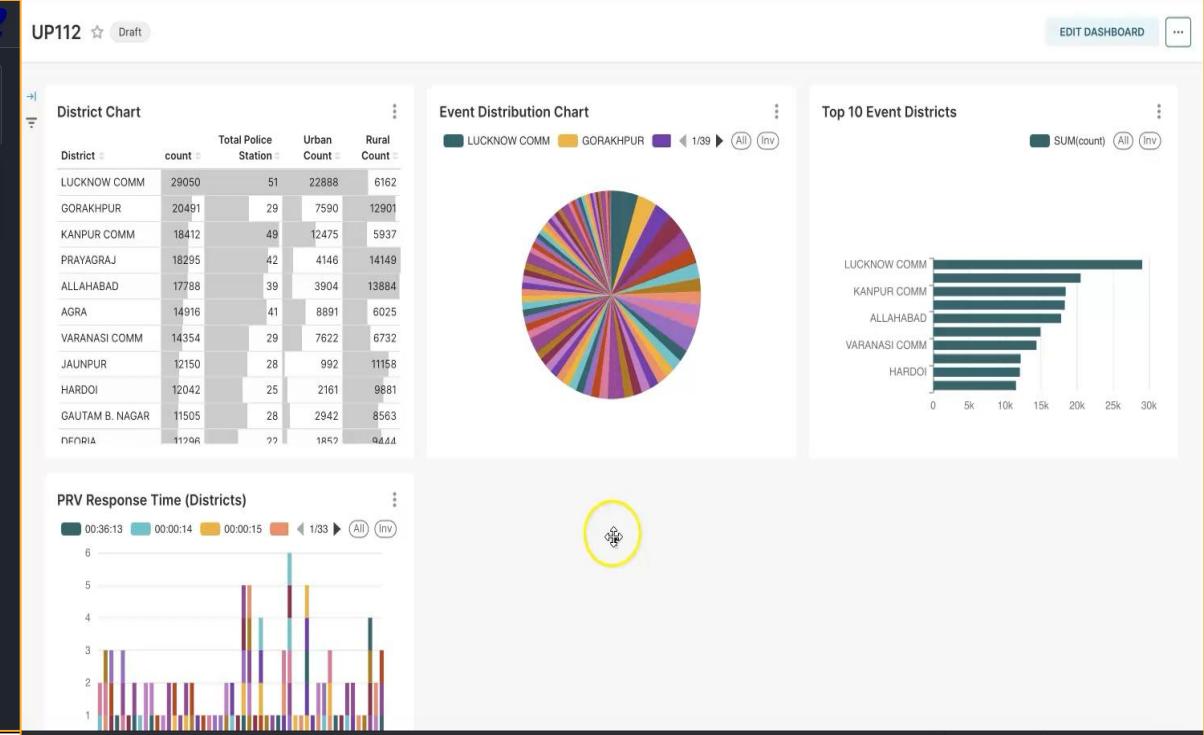
Customer Profile:

## Uttar Pradesh - State Profile:

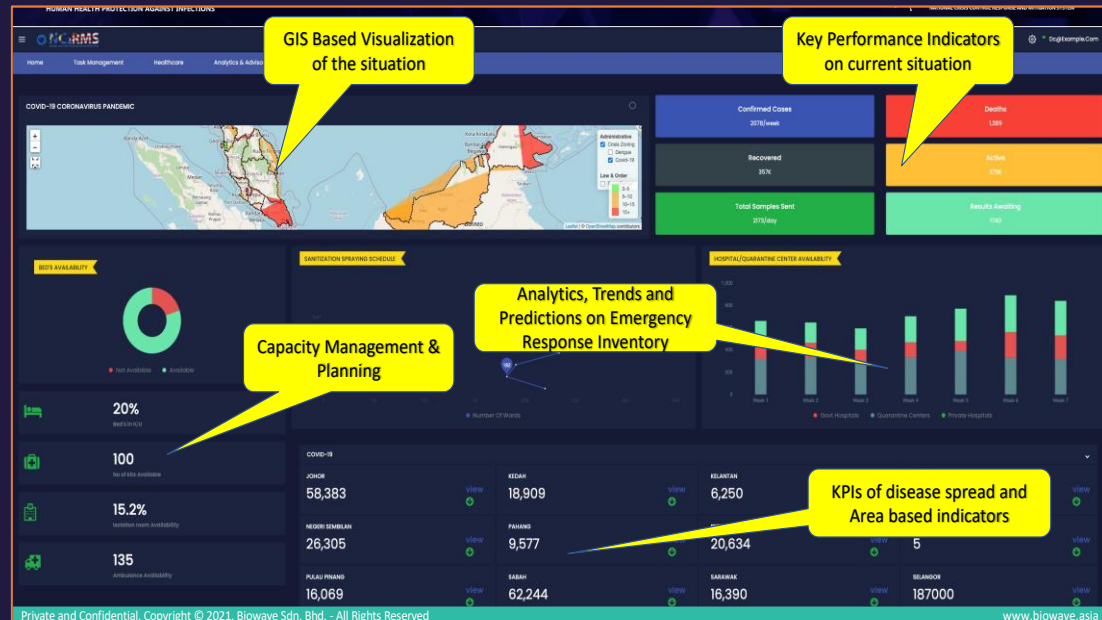
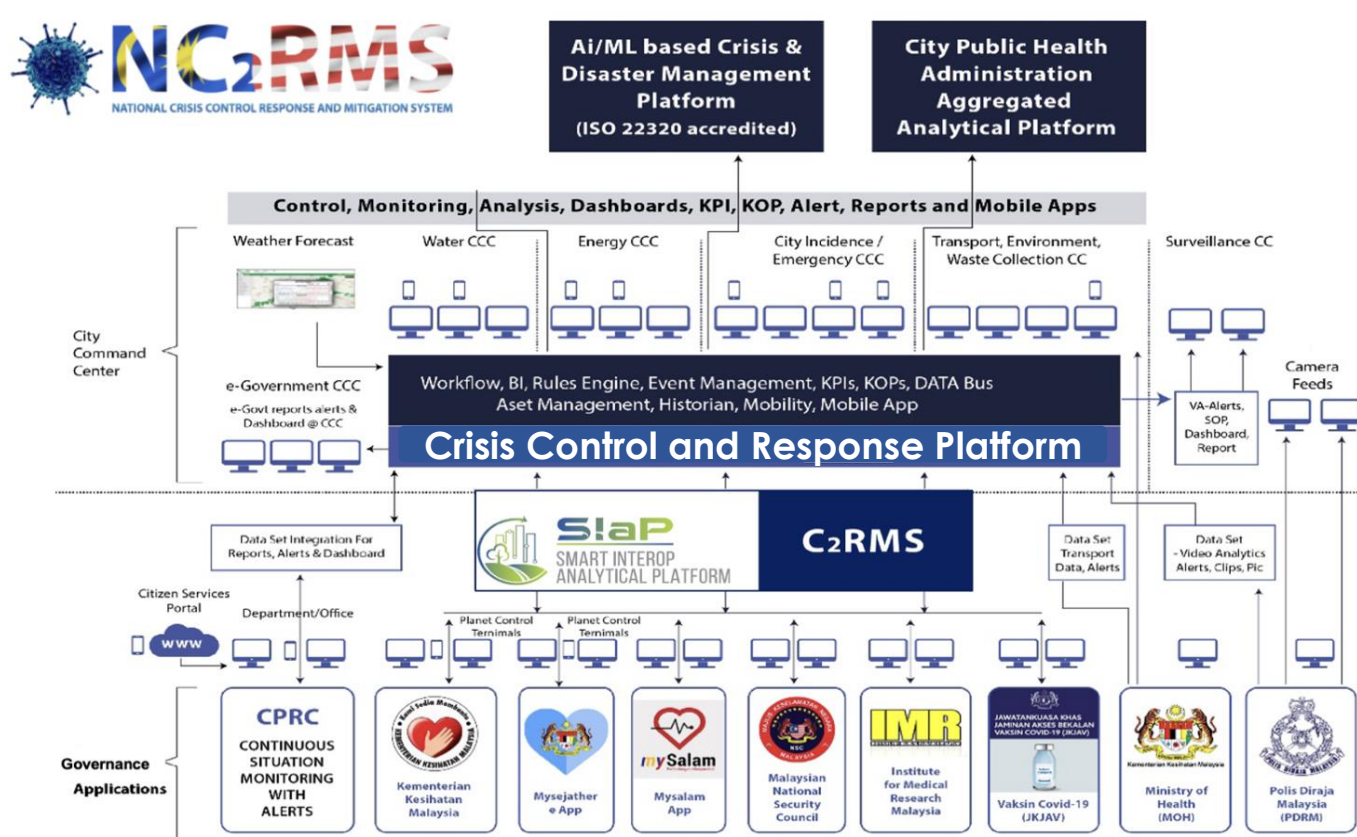
- ✓ Largest state in terms of population in India
- ✓ Population : Over **257,000,000**
- ✓ Targeting the **UP Police response time** of **Less than 4 Minutes**
- ✓ Targeting the **reduction in crime rate** by **10% YoY**

## #AstrikosAI Intelligence Platform:

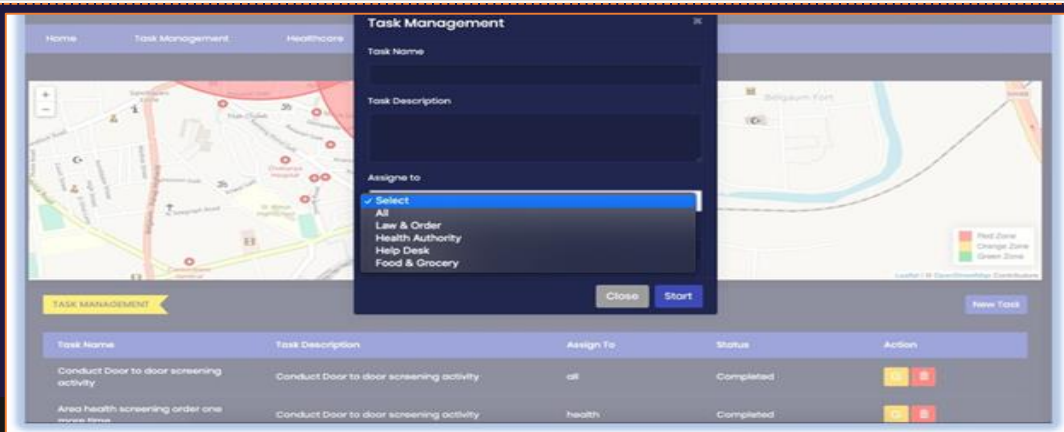
- ✓ Data Intelligence & Data Quality Enhancement
- ✓ Crime Anticipation & Optimal Resource Deployment
- ✓ Incident Trends
- ✓ Call Forecasting
- ✓ Emergency Trend Pattern Analysis
- ✓ Risk Terrain Modeling







**MULTI-STAKEHOLDERS COLLABORATION**



# INFRA DIGITAL TWINS : IMMERSIVE OPERATIONAL EXPERIENCE...

Owner-operators can minimize challenges with the help of digital twins: **1-2% revenue growth, 10-30% increase in planning efficiency, and 10-30% reduction in expenses.** Digital twins provide a single source of truth, allowing you to access data you can trust within minutes.

**Reduce the decision time to 1 minute, as engineers have the right information at the right time.**  
(Source: McKinsey)

**Reduce project-hours by 15% and keep workers engaged and productive.**  
(Source: McKinsey)

**Increase sustainability goals by lowering energy consumption in existing facilities, thereby increasing return on investment (ROI).**  
(Source: Ernst & Young)

Digital twin technology provides tangible benefits to a company's P&L

<p><b>Annual</b></p> <p><b>1% to 2% Revenue growth</b></p> <ul style="list-style-type: none"> <li>Increased fill rates (on-time and in-full)</li> <li>Increased speed-to-market</li> <li>Increased strategic sales</li> </ul>	<p><b>Annual</b></p> <p><b>10% to 30% Planning efficiency (SG&amp;A)</b></p> <ul style="list-style-type: none"> <li>Decreased manual intervention, duplication of efforts</li> </ul>	<p><b>One time</b></p> <p><b>5% to 10% Inventory reduction</b></p> <ul style="list-style-type: none"> <li>Improved inventory visibility and reliability</li> </ul>
<p><b>Annual</b></p> <p><b>5% to 10% Increased throughput</b></p> <ul style="list-style-type: none"> <li>Revenue growth</li> <li>Increased on-time delivery</li> <li>Increased working capital</li> </ul>	<p><b>Annual</b></p> <p><b>10% to 30% Reduced expenses</b></p> <ul style="list-style-type: none"> <li>Reduced expedited logistics costs</li> <li>Reduced returns</li> <li>Reduced fines from shipment delays</li> </ul>	<p><b>Annual</b></p> <p><b>10% to 20% Reduced inventory write-off</b></p> <ul style="list-style-type: none"> <li>Reduced excess, obsolete, damaged inventory</li> </ul>



- ### ENABLERS FOR SUCCESS
- ❑ Integrated with real-time data from entities
  - ❑ Visual triggering for proactive interventions and actions
  - ❑ AI/ML models overlay for simulation of hypothetical scenarios



# CUSTOMERS & CHANNEL PARTNERS...

## PROUD CUSTOMERS

Astrikos have got the opportunity to work with a diverse range of clients over the years



## DISTRIBUTION PARTNERS



# RECOGNITION & AWARDS

## AWARDS & RECOGNITIONS



INDIA 500  
STARTUP  
AWARDS



The Enterprise  
of the year-  
2019  
*Standard Chartered  
Rating*



5<sup>TH</sup> NATIONAL  
SMART CITIES  
SUMMIT -  
2019



5<sup>th</sup> INDIA  
SUSTAINABLE  
CITIES  
SUMMIT -  
BLR



5<sup>th</sup> INDIA  
SMART CITIES  
SUMMIT -  
DELHI



BRING GREEN  
SUMMIT -  
BANGALORE

## PRODUCT MATURITY CERTIFICATIONS



**ISO 37122:2019**

Sustainable Cities & Communities - Indicators for Smart Cities

**ISO 37120:2018**

Sustainable Cities & Communities - Indicators for City Services & Quality of Life

**ISO 22320:2019**

Security & Resilience - Emergency Management - Guidelines for Incident Management & Response Mechanism

## QUALITY MATURITY CERTIFICATIONS



ISO/IEC  
21823-1:2019

ISO/IEC  
20000-1:2011

ISO/IEC  
27001-1:2013

ISO  
9001:2015



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**CONTACT ...**

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#129, K R ROAD, BASAVANAGUDI, BENGALURU – 560004

Web: <https://Astrikos.ai>  
<https://www.astrikosconsulting.com>

Ph: +91 9902825577