



Octopus - City Wise

Smart and Safe City Management Solution

COMPANY HIGHLIGHTS

Since 2013

Octopus Systems LTD. has developed a Data Fusion, Open Architecture, Smart City solution for municipalities, enterprises and national level customers, delivering a holistic Smart and Safe City command and control and service platform which is a cost efficient, high ROI solution.

400 Deployments in 28 countries in 17 languages

Solutions for Smart City and Campus Management, Emergency Response 911, Command and Control C4I, Critical Infrastructure management, Power, Oil-Gas & Utilities, Airports-Seaports, Military, Border Control and Coastal Monitoring, Police and National Intelligence Agencies.

Verified and proven solutions for various markets

Proven ROI - reduces false events x10, increases response time by 40%, reduces operational and security manpower by 30%, saves costs by 30%.



\$20M invested in R&D

In the last 8 years, \$20M has been invested in R&D on the development of the Octopus Command and Control platform, making it an innovative best of market solution.

Strong technological background in Big Data, Open architecture Integration, IoT orchestration, Data Analytics and AI.

Award Winning Smart City platform

Frost and Sullivan 2020 Most Innovative Safe City and Smart City platform in the world, and 2018 Best customer value Command and Control system in the world.

Strict Information Security Standards

8 ISO standards - ISO9001, ISO9003, ISO27001 information security, ISO270017, ISO27018 for cloud security, ISO20000 for IT services, AS9100D for Aerospace and Defense. GDPR compliant for EU data privacy regulations

Octopus Systems – Company Overview

500 installations across 28 countries in 17 languages



PROVEN TRACK RECORD IN NUMEROUS INDUSTRIES



Airports



Utilities



Financial
Institutions



Smart Cities



Telecom



Enterprise



Transportation



Police



Healthcare



Government



THE CHALLENGE

Today modern cities have to simultaneously manage a growing amount of infrastructures and city resources, manage a growing amount of disparate technologies, coordinate with numerous departments, deal with various types of incidents within the city, and at the same time provide a high level of service to the city residents, while dealing with instabilities such as crime, terrorism, cyber attacks, unexpected weather events and system failures



- ❖ High cost to operate
- ❖ Difficult to integrate and manage
- ❖ No data analysis & cross reference
- ❖ No citizen engagement
- ❖ Not “future-proof”

RESULTS IN INEFFICIENT AND COSTLY MANAGEMENT OF CITY RESOURCES
WITH LACKING COORDINATION

THE SOLUTION | OCTOPUS CITY WISE

- ✓ **City Wise** – a new comprehensive Smart City solution that enables cost-effective city management and provides advanced analytics to identify and manage city resources, to operate your city in the new age.
- ✓ Hyper integrated, automated and proactive
- ✓ Reduce costs on utilities and manpower.
- ✓ Automation tool that can receive and send commands to all the city systems
- ✓ Supports multiple type of sensors and protocols
- ✓ Creates a city digital twin
- ✓ Provides you 35 modules to manage your city's operations
- ✓ City call and response center
- ✓ Dedicated mobile app for residents to request municipal services and security
- ✓ Cloud, Hybrid cloud, or on-premises



**10x Less
False Events**



**40% Increased
Response Time**



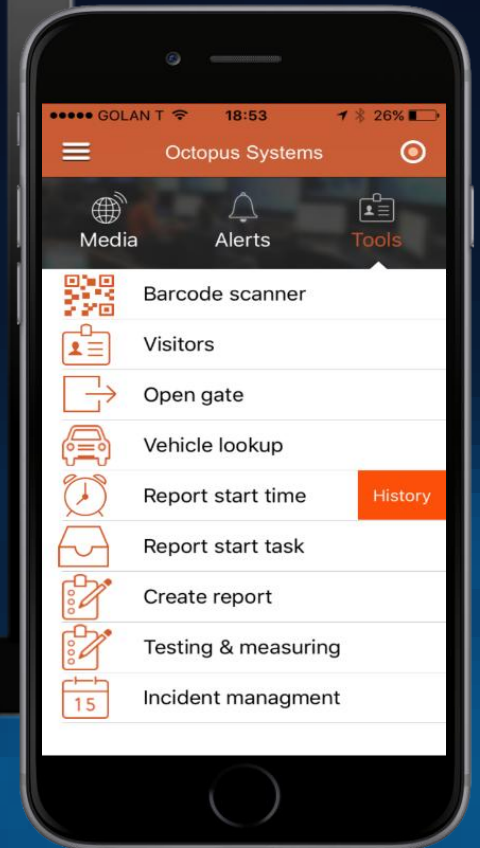
**30% Reduced
Manpower**



**30% Reduced
Costs**

ONE STOP SHOP SOLUTION

35 MODULES TO RUN THE ENTIRE OPERATIONAL LANDSCAPE



CITY WISE| SMART AND SAFE CITY MANAGEMENT SOLUTION

City Wise connects to all the facility's infrastructure and systems:

- Energy & Water
- Building, infrastructure, and planning
- Transportation and Traffic control
- Safety & Security
- ICT – Information & Communication Technology
- Smart parking and environmental sensors

City Wise will analyze and correlate all of the systems' data and assist with efficient and cost-effective management.

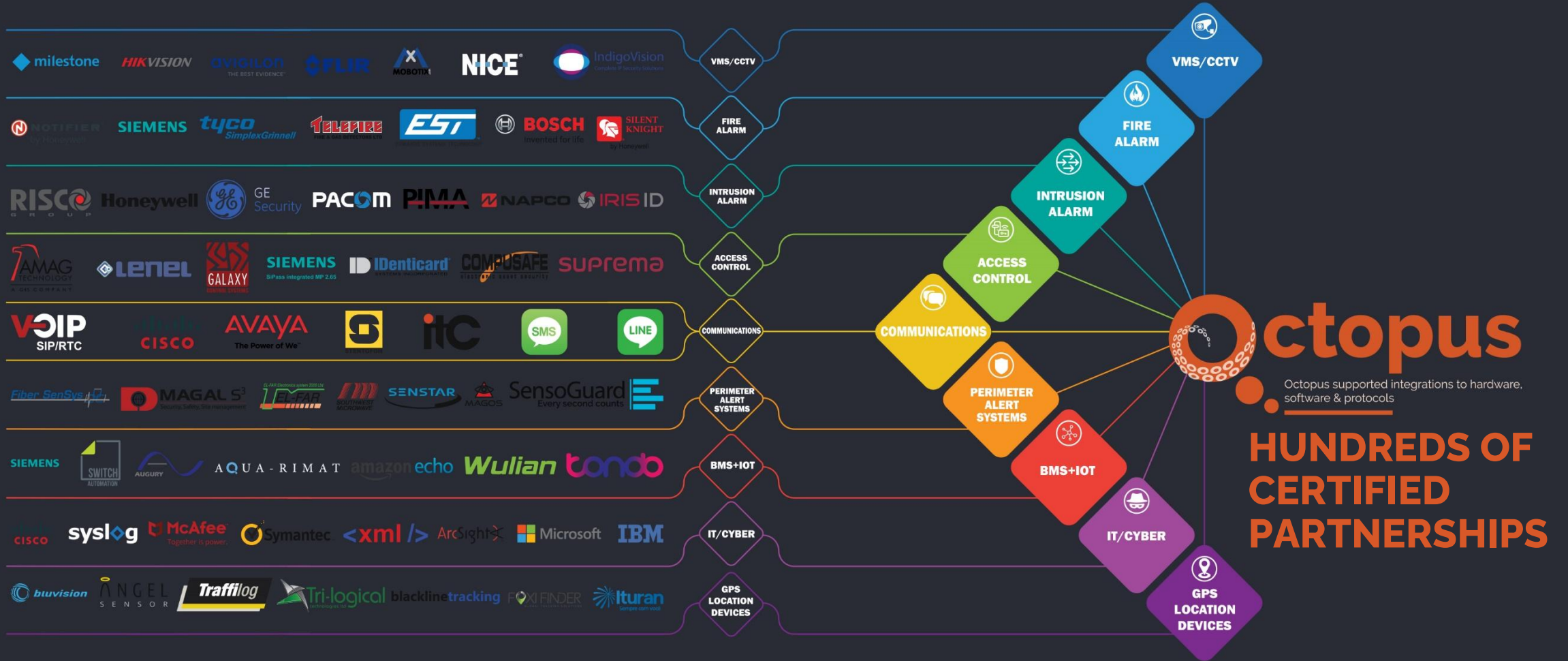


OPEN ARCHITECTURE INTEGRATION & API's, MORE THAN 700 EXISTING INTEGRATIONS

Collection: System integrates & interfaces with all the organization's infrastructure systems, security, safety, communications and data sources. Vendor agnostic. We have more than 600 existing vendor integrations and can integrate any new system in 2-4 weeks time.

System provides an API and SDK for partners or customers to create connectors by themselves into the Octopus platform.





Octopus Integrated Platform

CITY WISE | THE FUTURE CITY

Octopus integrates, monitors and automates all the city smart elements

- **Public transportation** – Receive and analyze real time city public and private transportation data, bus locations, bus station signage, etc.
- **Traffic light control** – Control and automate schedule for traffic lights and junctions. Monitor traffic with cameras, analyze the number of vehicles entering/exiting areas.
- **Traffic violations** – Receive real time notifications about traffic accidents, traffic jams, congestion and traffic violations, with ANPR integration. Automatically send violation citations.
- **Smart parking** – manage available parking spots throughout the city public parking lots and allow navigation to available spot via mobile app
- **Security** – Receive alarms from public areas, schools and businesses
- **Security** – Monitor "hot spots" for real time response
- **Security** – Face recognition + ANPR - Receive real time notifications about "wanted" people or vehicles.
- **Safety** – Receive real time reports from residents on safety hazards and issues from the Octopus city mobile app.
- **Building management** – Receive notifications from city buildings and civil infrastructure about technical problems and manage maintenance.
- **City services** – Provide your residents with access to all of the city's services in one consolidated mobile app and web portal

CITY WISE | THE FUTURE CITY

Octopus integrates, monitors and automates all the city's smart elements

- **Energy** - Energy management and metering analytics
- **Energy** - Manage the city's power consumption via IoT meters
- **lighting** - schedule lighting times and control light intensity for every area. Receive notifications if street lights are malfunctioning and need to be changed.
- **Utilities** - shut down power and systems such as fountains in case of power or water supply considerations, etc
- **Water** - Analyze real-time and historical data from a wide range of sources, including piping systems and water metering, showing you usage statistics from city facilities and from commercial and residential customers
- **Water** - Connect to IoT water sensors and valves to notify you on leaks, both minor and major. Close valves remotely in case of leak.
- **Environmental sensors** - display air quality level and water quality level
- **Local government services** - integrate to local government services to receive metrics, alerts and logs.
- **Waste Management** - automate garbage collection with truck routes and sensors for garbage bins. Optimize the service and expenses.

CITY WISE CITY PROTECTION

City wise integrates and acquires detections from digital fences, drones, video analytics systems in city assets and critical infrastructure – schools, public buildings, parks, stadiums, etc.:

- Show real time suspicious events, with location
- Allow correlation with cameras for visual line of sight and real time tracking of the detected threats
- Receive targets from day/night camera analytics, thermal cameras, acoustic sensors, etc.
- Support display from multiple surveillance platforms – Drones, UAVs, etc.

City wise will analyze and correlate all of the collected data and assist with efficient incident management and event prioritization.

The interface displays a map of a city area with various streets and landmarks. A large purple shaded region indicates a perimeter fence. A drone icon is shown flying over the map, with a line of sight extending to a specific location. The interface includes a top navigation bar with icons for Full screen, Create new incident, Ask for guards location, Send alarm, Send an audio message, Pending requests, Compose, and Phone book. Below the navigation bar, there is a table of incidents with columns for ID, Status, Source, and Responsible. The table is divided into three sections: Open incidents (135 Critical, 53 High, 1 Medium, 17 Normal, 9 Low), Recently viewed, and Layout. The bottom of the interface shows four small video feeds: a street view, a thermal image, a person climbing a fence, and a thermal image of a person.

ID	Status	Source	Responsible
049101	Confirmed	Panic button	Organization Administrator
049022	Confirmed	Panic button	Organization Administrator
049100	Confirmed	Panic button	Organization Administrator
049021	Confirmed	Panic button	Organization Administrator
049024	Confirmed	Panic button	Organization Administrator
049013	Confirmed	Panic button	Organization Administrator
049023	Confirmed	Panic button	Organization Administrator
049010	Confirmed	Panic button	Organization Administrator

Open incidents: 135 Critical 53 High 1 Medium 17 Normal 9 Low Recently viewed Layout Sorty by: Severity

Drone analytics – to detect encroachment and events

Perimeter fences

Optical systems / Day-Night Cameras

FORENSIC FACE RECOGNITION AND LICENSE PLATE RECOGNITION



Face recognition cameras

City face recognition cameras create a database of all people passing in front of cameras: Police can mark people who are suspects or upload forensic photos of suspects, and once the suspect passes again in front of camera, system creates an alarm.



Octopus rule engine
processes incoming detections



License plate recognition cameras

City LPR cameras search for marked vehicles:
stolen car, car linked to criminal suspect,
car with violations or unpaid license



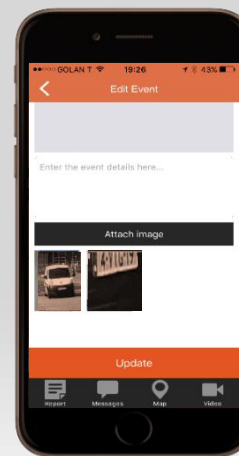
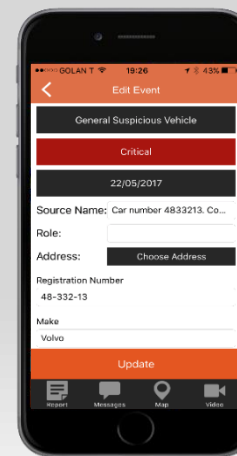
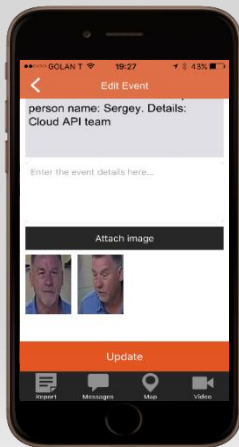
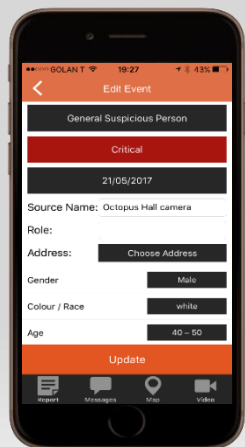
Police forces
receive event and
apprehend the
suspects



Police officers receive
suspect's description,
location and picture on
mobile app



Patrol vehicles receive
suspicious car's description,
ocation and picture on
mobile app / tablet



CITY THREATS AND OPEN-SOURCE INTELLIGENCE

- Octopus has an open-source intelligence engine (OSINT) which brings live intelligence feeds and alerts from any source and per the defined keywords:
 - Crime systems
 - National Intelligence sources
 - Social media (Twitter, Facebook, Instagram, TikTok, Reddit, YouTube)
 - Chat Groups – Telegram, WhatsApp, Line
 - Police feeds
 - New feeds
 - Weather feeds
 - Vehicle records and registrations
 - Background and screening systems
 - GeoRSS
- Narrows down real threats using hashtags, key word filtering, tagging, severity, locations, languages, etc.
- Correlates information during incident management
- Allows analysis and management of intelligence, threats, and risks.
- Mass Notification of threats - Disseminates the relevant information to security forces, employees, and city residents through the OCTOPUS City Wise mobile app, SMS, Email, Chatbot, etc.



CITY INCIDENT AND TICKET MANAGEMENT

- ❑ **Correlation:** System analyzes and correlates data, events, and alarms to identify the real situation and priority
- ❑ **Verification:** System presents the relevant information in one clear common operational picture
- ❑ **Automation:** System automates all incident and ticket management through workflows, rules, triggers, audience groups, roles, and presets.
- ❑ **Mobility:** Incidents can be managed from mobile posts



CITY PROTOCOLS & PROCEDURES FOR ROUTINE AND EMERGENCY SCENARIOS

- System provides Playbook with Standard Operating Procedures (SOPs) for dealing with both emergency and routine events based on the city's policies and other regulatory guidelines.
- System comes with best practices for city public safety, security, and maintenance.
- Business continuity and workflow processes can be automated or deployed upon request





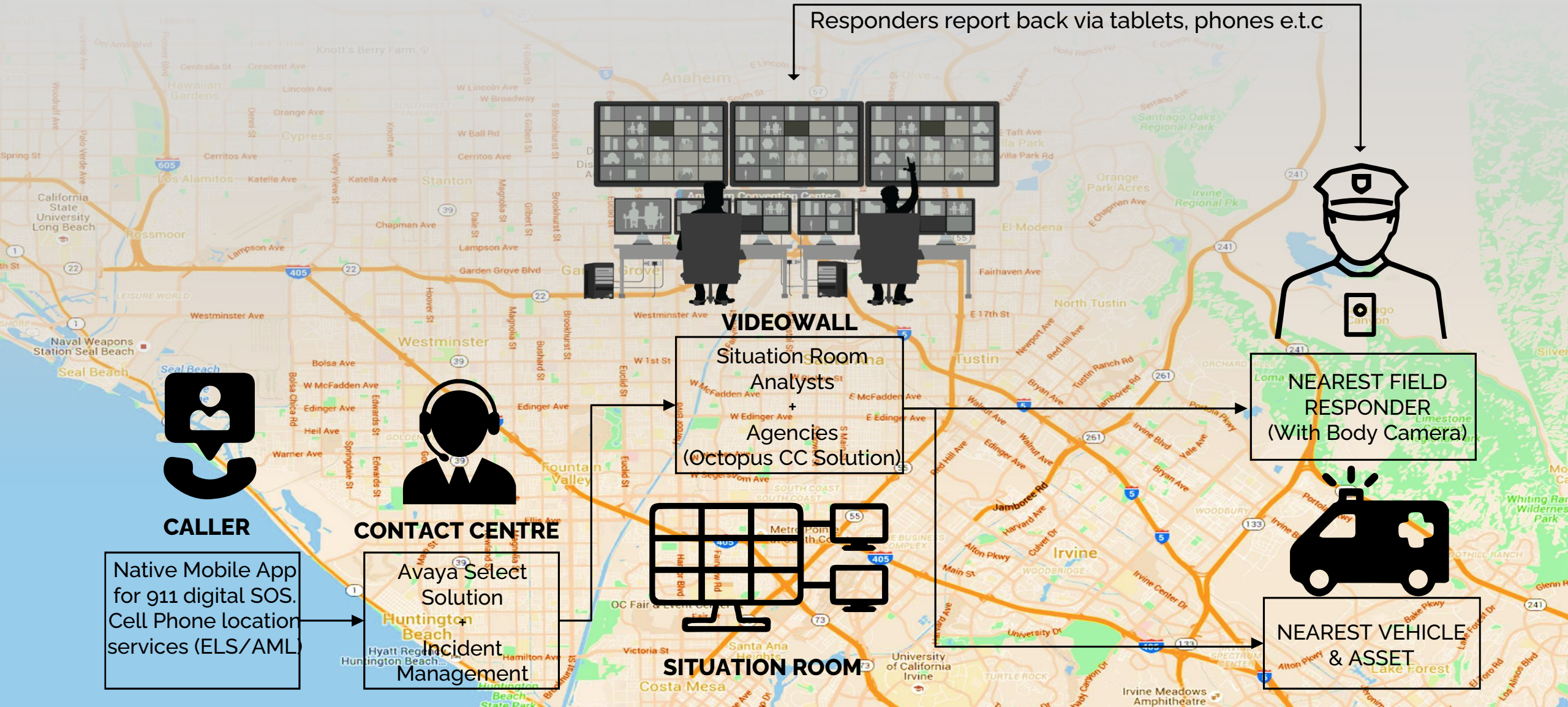
CITY CONTROL CENTER UNIFIED COMMUNICATIONS INTEGRATION

Unified communications & mass notifications via omnichannel:

- ❖ Native mobile application
- ❖ Radio communications
- ❖ VoIP – SIP/RTC
- ❖ Call Center Telephony/PBAX
- ❖ Satellite
- ❖ SMS
- ❖ WhatsApp
- ❖ Email
- ❖ Digital Signage
- ❖ Public announcement
- ❖ Intercom

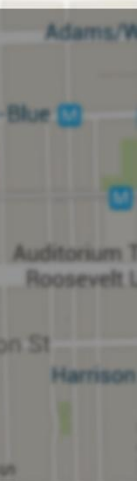
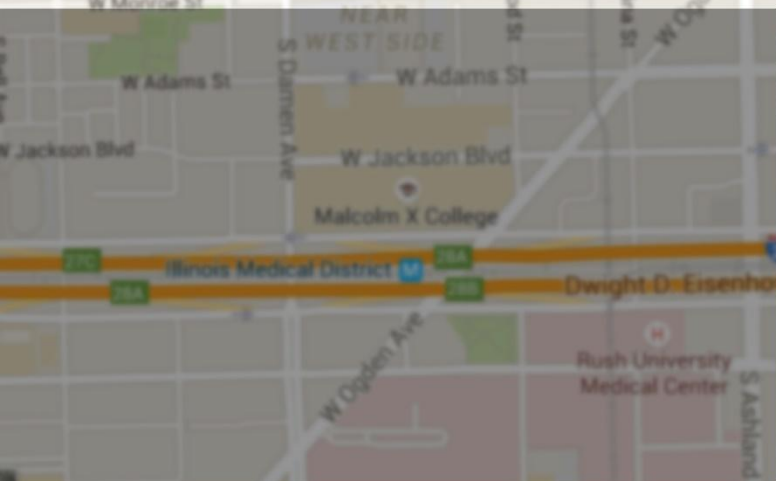
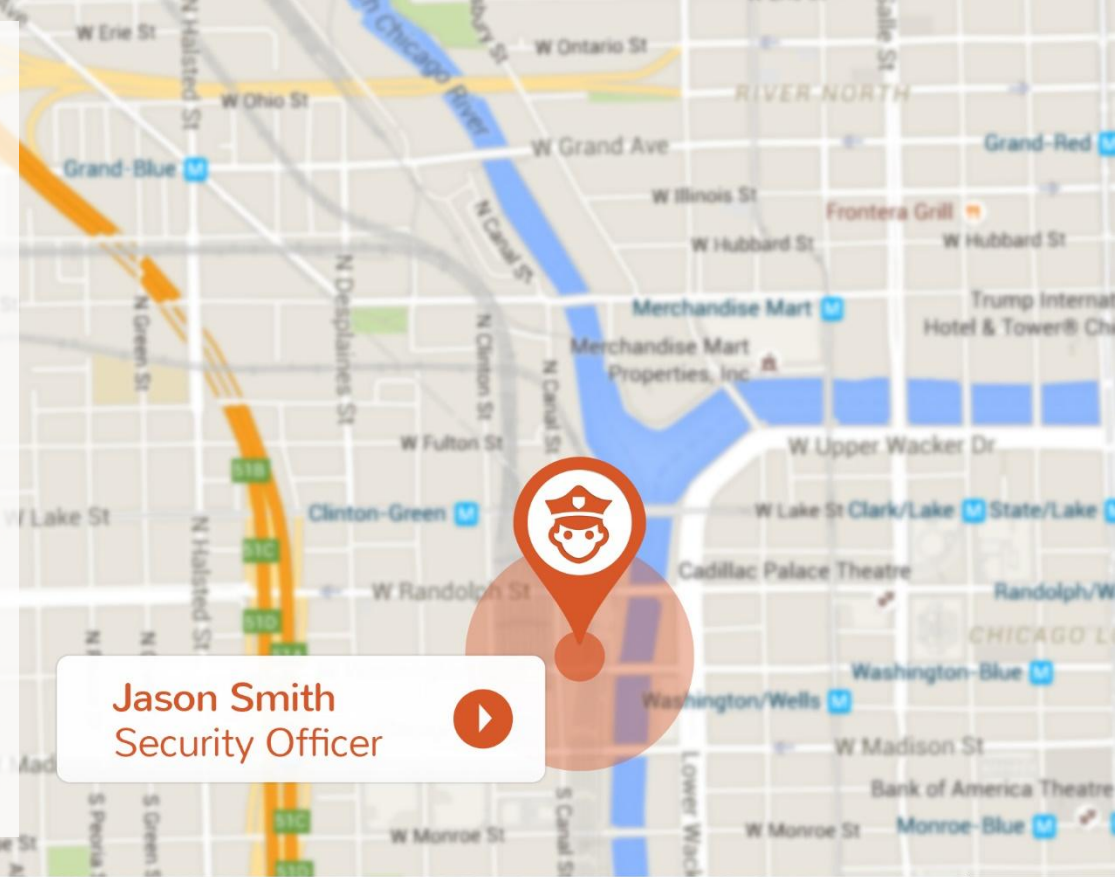
City Next Generation 911 Call Center

DIGITALIZING THE CALL CENTER WORK-FLOW FOR PROCESSING 911 CALLS AND DISPATCHING RESPONSE FORCES
Supporting 2-way video calls, emergency SOS panic button, and cell phone location services for Google and Apple (ELS/AML)



911 Dispatch (CAD)

- System dispatches manually or automatically the closest emergency response unit to the incident
- Response personnel immediately receive incident synopsis:
 - Incident details
 - Photos and location
 - Navigation instructions
- Command center tracks the location of the emergency responders on the GIS map
- Camera views automatically pop up according to coordinates of first responder location for visual line-of-sight



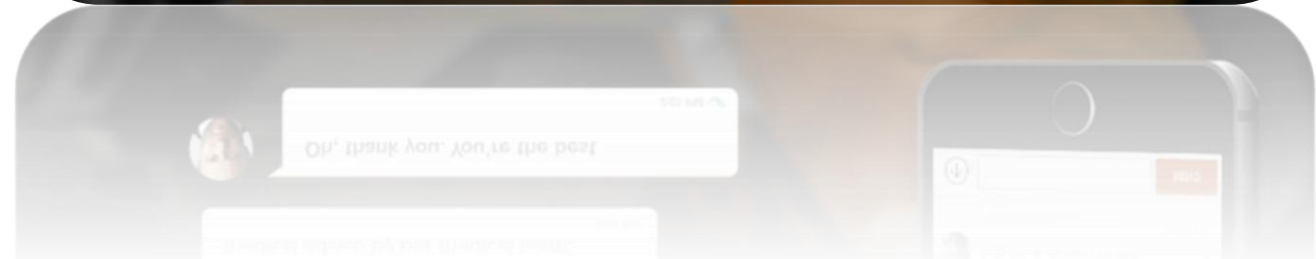
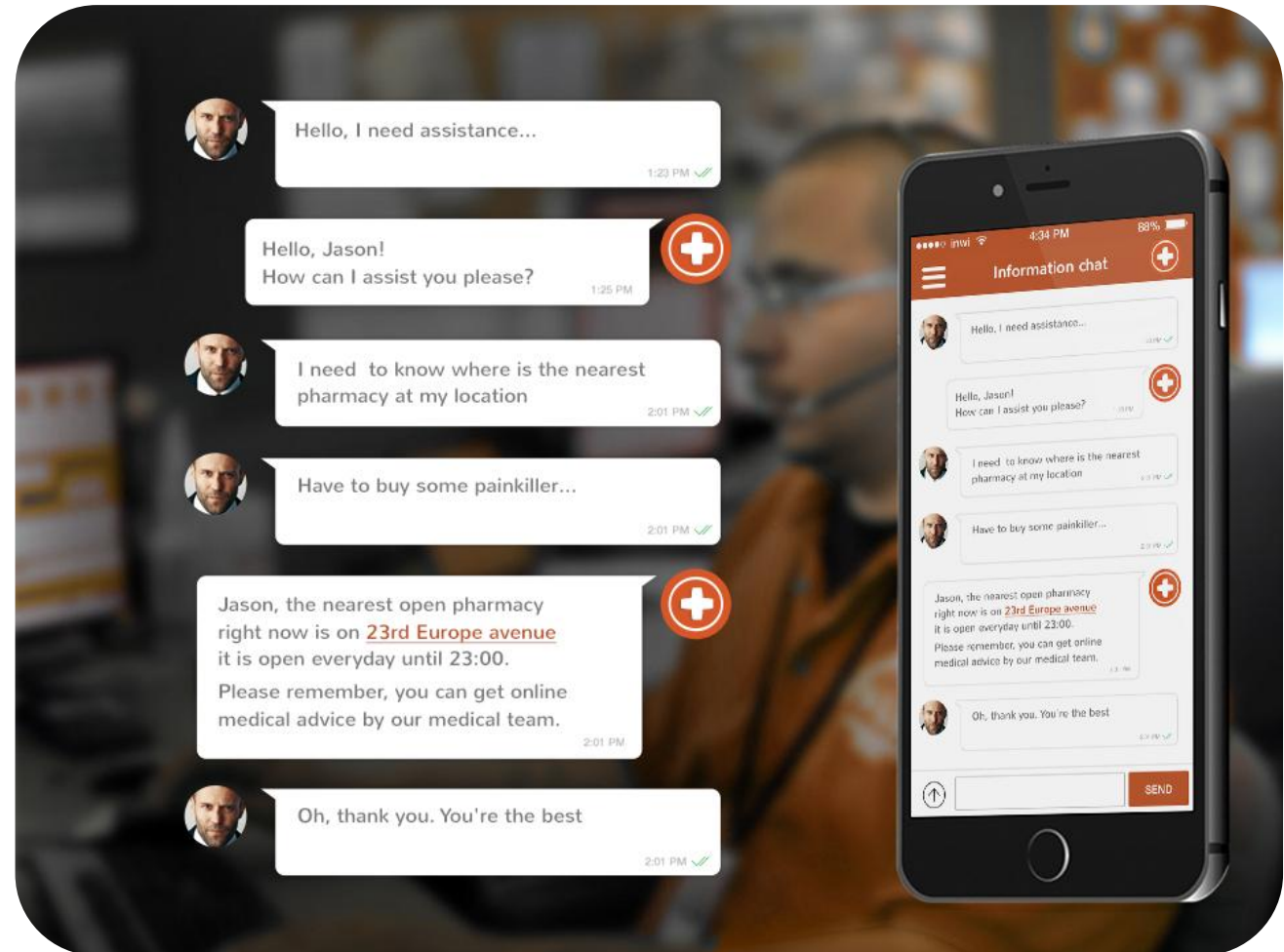
CITY WISE | MOBILE APP FOR RESIDENTS

City Wise mobile app allows the municipality to engage with residents via 2-way communication channel and consolidates all the services the resident needs into one place.

City Wise provides residents with access to all of the city's services and resources:

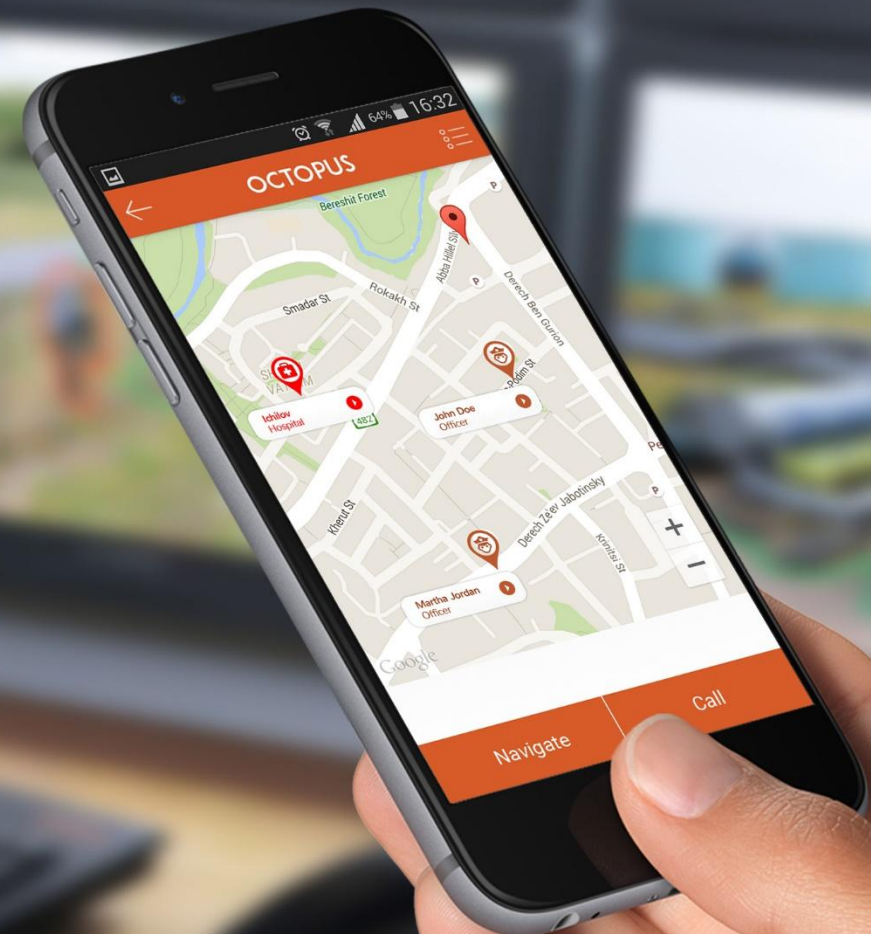
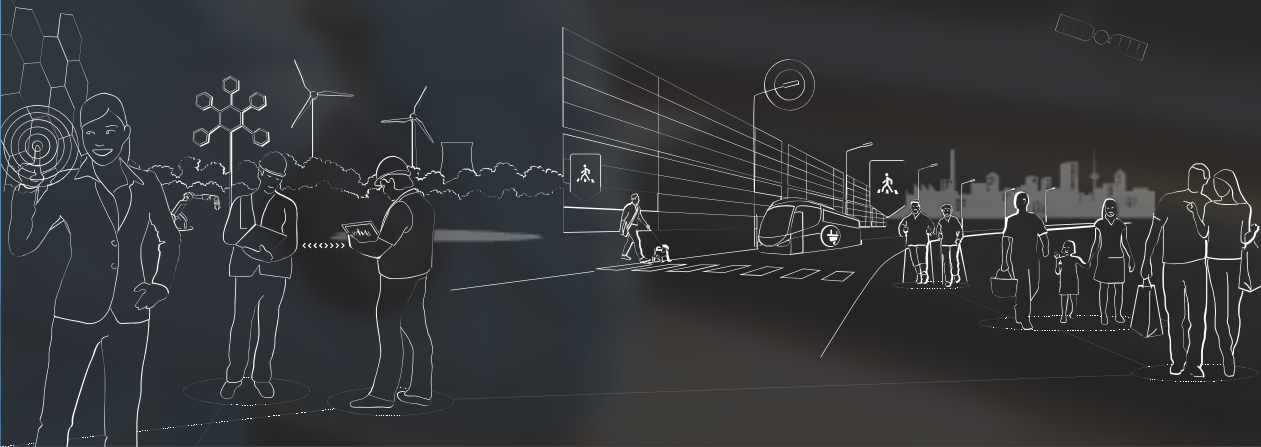
- Transportation services
- 911 contact
- Reporting problems
- Green programs
- City maps
- Payments
- Cultural and tourist events,
- Healthcare
- New city initiatives
- And more...

City Wise empowers residents by allowing them to report hazards and incidents, call emergency services, submit suggestions for improvement, and engage in a city chat service.



MOBILE APPLICATION – FOR CITY FIELD PERSONNEL

- Used by city operational staff and by the police, ambulance, fire department, etc.
- Monitor all security technologies from the mobile phone
- Mobilize response teams immediately in emergency situations
- Manage security personnel – two-way communication of incidents, tasks and status reports
- Send emergency announcements via mobile phone
- Security personnel are a "human sensor" - reporting all suspicious activity
- Mobile terminal for filling in field reports and inspections
- Optimize and send guard tours and patrol routes to app
- VoIP PTT, Access city cameras, transmit phone camera video to control center, etc.



OCTOPUS AI FOR INTELLIGENT CONTROL & RESPONSE

Octopus' Large Language Model delivers AI-powered incident analysis, while Octopus' Agentic AI empowers operators to query internal and external data sources for intelligent, real-time recommendations.

Octopus AI components:



Virtual AI Agent

Enriching the Incident handling with internal or external information



Automated AI Analysis

Automated Incident Analysis and reports – pinpointing irregular incidents, high-priority incidents, repetitive incidents, etc.



AI enhanced Incident & Response center:

✓ AI-Powered Incident Analysis

Octopus' Large Language Model (LLM) analyzes calls, logs, and reports to detect incident context, urgency, and cross-reference related events.

✓ Agentic AI for Operator Decision Support

Operators interact with an AI assistant through natural language prompts to query internal systems (e.g., CAD, SOPs, previous calls) and external data sources (e.g., crime maps, weather, traffic).

✓ Automated Intelligence for Faster Response

Real-time AI generates incident summaries, highlights anomalies, and suggests next-best actions—helping reduce response times.

✓ Human-in-the-Loop Assurance

AI suggestions are non-intrusive—operators remain in control, with AI enhancing decision-making without overriding it.

✓ Continuously Learning Incident Analysis System

The system improves over time, learning from previous incidents and user feedback to deliver smarter recommendations.

Risk and Compliance Monitoring



Headquarters



Servers



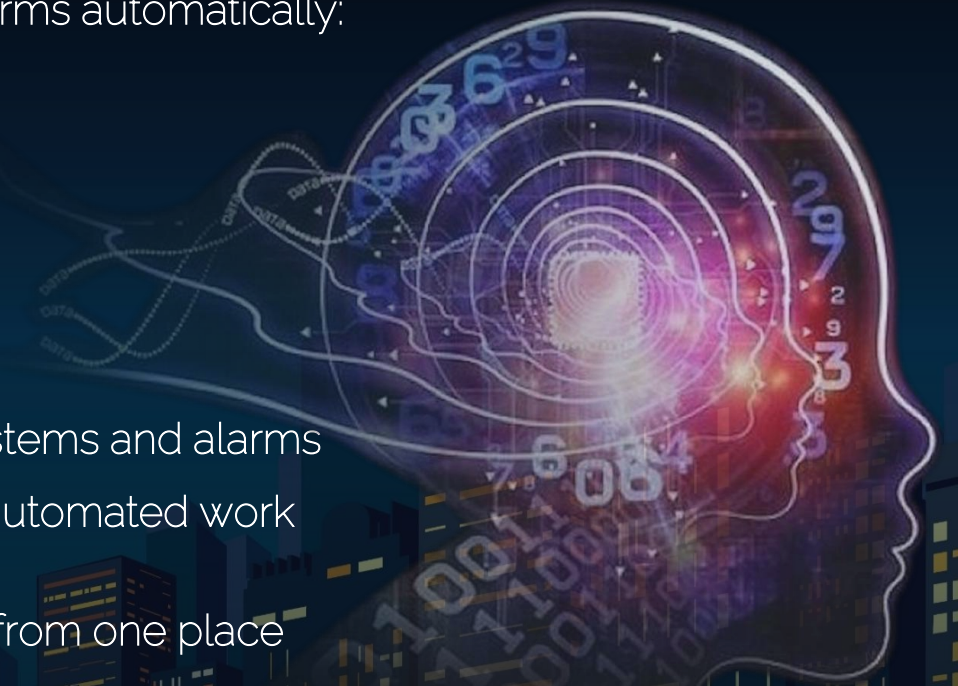
Warehouse

- ❖ Organizational business intelligence and performance monitoring for managers to get immediate real-time results of organizations performance and risk.
- ❖ Collect and analyze information coming from different security, safety, cyber, infrastructure and operational sources, either automatically or manually from personnel.
- ❖ Calculate KPIs, performance, and risks for different organizational indicators, based on predefined percentages – for each different site in the organization.
- ❖ View site results and drill into underlying information for an in-depth investigation for each managed indicator.
- ❖ Generate actions and automated operations according to risk thresholds



FACILITY MANAGEMENT & SAFETY

- Integrates with municipal building systems and receives data and alarms automatically:
 - Gates and doors
 - Fire and gas detectors
 - Water and wastewater meters
 - Power – meters, UPS, generators
 - SCADA, telemetry and programmable logic controllers (PLCs)
 - Cameras and security systems
- Includes interactive building layout diagram featuring locations of systems and alarms
- Manage evacuation and emergency plans and procedures, deploy automated work flow
- Manage maintenance, visitors and vendors, and building security all from one place
- Competency management for personal and for equipment
- Asset management – manage vendors, qualifications, tests and Service-Level Agreements
- Auto-generate or manually create tasks to operational staff
- Reporting module – for field reports and inspections
- Safety management and performance monitoring



BUSINESS INTELLIGENCE

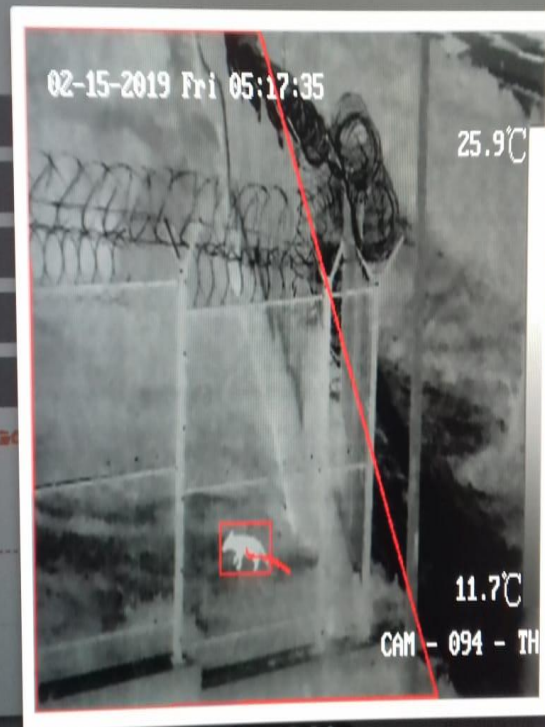
BI Dashboards providing the organization with aggregated data in real time for SLA's and KPI's. Trend analysis and periodic data patterns for detecting abnormal activities and trends.





GALLERY |

CITY SECURITY CENTER BANGKOK





GALLERY |

SMART CITY KYIV UKRAINE





GALLERY |

BANK SECURITY OPERATIONS CENTERS (SOC)



GALLERY |

CHIPOTLE MEXICAN GRILL - OSINT AND MASS NOTIFICATIONS FOR 2600
SITES AND 100,000 EMPLOYEES