

White Paper 2023

GIS for **SAFE CITY** 



The rise in crime incidents across developing countries can be attributed to various factors such as technological advancements, materialistic lifestyles, and challenging socio-political, economic, and environmental conditions. With the help of GIS-based Decision Support System, law enforcement personnel can effectively plan emergency responses, prioritize mitigation efforts, analyze historical events, and even predict future incidents.

Some of the major innovative solutions of IGiS Technology to achieve Safe City's Mission by enabling safe public spaces are as follows:

**Real Time Monitoring** 

**Crime Mapping** 

**Investigation Support** 

**Patrol Deployment Planning** 

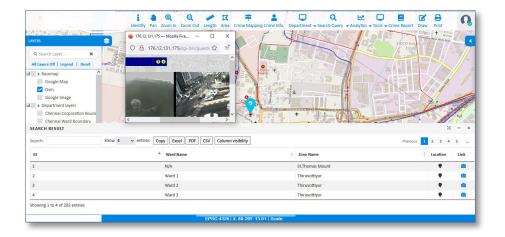
**Crime Analysis Dashboard** 

**Public Safety Education** 



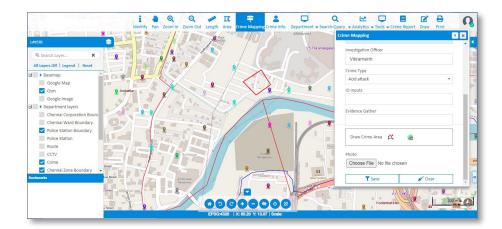
#### Real Time Monitoring

Real-time monitoring for safe cities using GIS involves tracking spatial data continuously to enhance safety and security. IGiS platform can integrate the real-time sources such as surveillance cameras, sensors, and emergency services. It enables immediate identification of incidents, crime hotspots, and patterns that helps law enforcement to quickly detect and respond to emerging situations. Overlaying real-time incident data onto a map provides insights into crime distribution, high-risk areas, and resource allocation. Thus, real-time monitoring using IGIS can empower cities to proactively address safety, enhance emergency response, and create safer environments



### **Crime Mapping**

GIS and Crime mapping are regarded as crucial components of crime analysis, providing police executives with timely and valuable crime data, thereby enhancing the effectiveness of crime prevention and response strategies. The utilization of GIS technology, empowers police department to anticipate potential crime pattern in their jurisdictions.

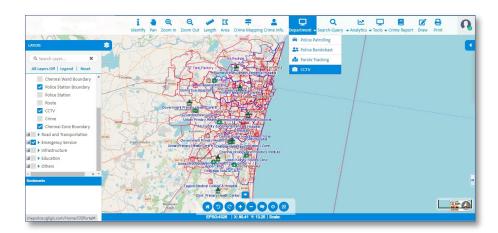




IGIS can provide the ability to identify crime hotspots by visually representing crime event locations. This information aids in efficient reallocation of resources to address the identified problems. Thus, with the help of IGIS police departments can create versatile electronic maps by integrating their reported incident databases with digitized maps of the areas they serve. This integration aids in effective plan for emergency responses and even predict future incidents.

# Investigation Support

The integration of GIS and other emerging technologies in crime investigation, detection, and tracking is enhancing the agility and efficiency of law enforcement agencies in swiftly addressing criminal conspiracies at their early stages.

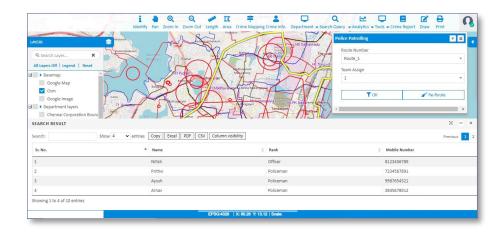


With the help of IGIS Enterprise platform, an Investigation support module can be developed that will assist the concerned authorities to retrieve various information from databases (Police data base like GIS, Crime and Criminal Tracking Network and Systems (CCTNS). Additionally, the module can also be integrated with CCTV locations to enable access to surveillance footage for suspect identification and evidence collection. Thus, the module empowers the authorities with diverse data sources, enhancing their investigative capabilities and gathering intelligence for successful case resolutions.



## Patrol Deployment Planning

Real-time GPS integration and spatial analysis enables precise monitoring and optimal deployment of police operations personnel in identifying the most strategic locations and optimal timings to deploy resources, ensuring maximum effectiveness in combating crime.



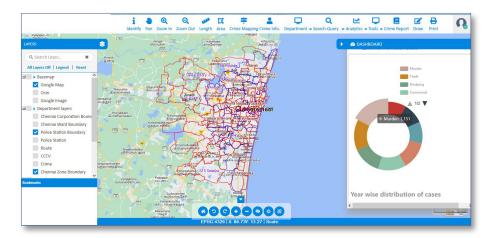
IGIS can be utilized to develop a GIS-based decision support system aimed at enhancing the response of police personnel to crimes. Tracking vehicles on a map using vehicle GPS technology offers a reliable means of monitoring the location and movement. However, if the vehicle is not equipped with GPS, an alternative approach is to track the mobile phone of the person inside the vehicle. By inputting the mobile number of the person, the system can initiate tracking. This system can enable the identification of the nearest police stations to the crime location, as well as determine the most efficient route from the selected police station to the crime scene.

#### Investigation Support

A crime analysis dashboard can be developed by using IGiS platform that offers a robust tool for analyzing and visualizing crime data. This comprehensive dashboard can seamlessly integrate various crime-related information, presenting it in an intuitive format. Through interactive maps, charts, and graphs, the concerned authorities can gain valuable insights into crime patterns, hotspots, and trends.

By leveraging spatial analysis capabilities, the dashboard can enable the identification of high-crime areas, facilitating targeted resource allocation and proactive policing strategies. Real-time data integration will ensures up-to-date information on crime events, empowering agencies to allocate resources promptly.

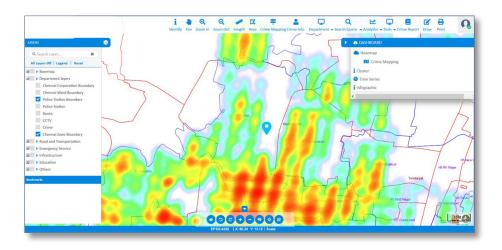




Thus, the crime analysis dashboard, can help the concerned officials to make data-driven decisions, enhance situational awareness, and develop effective crime prevention and intervention strategies, ultimately fostering safer communities.

### Public Safety Education

Public safety education becomes an effective approach to promote community awareness and preparedness. By utilizing interactive maps, visualizations, and geospatial data, public safety organizations can provide educational resources that empower individuals with knowledge about crime rates, emergency response zones, evacuation routes, and hazard areas.



IGIS provides the facility to create interactive charts, maps and graphs to foster a culture of preparedness, equipping communities to effectively respond to emergencies and contribute to safer and more resilient neighborhoods.

CONCLUSION

Thus, Scanpoint Geomatics Limited (SGL) offers innovative solutions to law enforcement agencies by leveraging Integrated GIS & Image Processing Enterprises Platform to achieve effective and efficient ways in building safe cities.

#### **ABOUT**

#### **Scanpoint Geomatics Limited**

Scanpoint Geomatics Ltd. is the leader in the Indian Geomatics Industry. We pioneer the nation's geospatial domain through IGiS. An indigenous technology that brings GIS, Image Processing, and Photogrammetry together on the same platform under the Make in India Initiative. We are proud of our partnership with the Indian Space Research Organisation (ISRO). With an innovative approach and over two decades of rigorous research and development, the duo developed the IGiS platform. Backed by ISRO's domain expertise, we aim to push forth innovation and uplift the global geospatial domain.

