Virtual Beverly Hills: A Comprehensive Geospatial DSS for Public Safety and Emergency Management

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While the post 9/11 rapid growth of Public Safety and Emergency Management technologies revolutionized prevention, preparedness, response and mitigation operations, it also posed new challenges, such as interoperability, redundancy, limited scope, lack of common operating standard and real-time data sharing. This has especially adverse impacts in large metro areas like Southern California where timely multi-jurisdictional and multi-agency response and coordination is critical. To address these constraints, the City of Beverly Hills has implemented a comprehensive Geospatial Decision Support System (DSS), known as Virtual Beverly Hills GIS Portal (VBH).

This unique application provides web-based advanced spatial analysis, integrated real-time local and regional data in a secure and reliable platform. To ensure availability in case of potential network failure during emergencies, the system can locally save critical live data feeds. Authorized officers can demarcate or write status update and share it with responders. Using VBH management and responders can access actionable information either from office or mobile field devices. This is enhanced by the integrated CCTV, street view and operational document, like fire pre-attack plans. Beyond basic situational awareness mapping, the analytical functions allow instant damage and vulnerability assessment of earthquake, Hazmat, IED etc hazards.

Through live incidence mapping, advanced routing and RMS integration capabilities, VBH facilitates efficient resource allocation both for regular police operations and during major emergency events. VBH is built on ArcGIS and Adobe technologies, and offers user-friendly interfaces for query and exporting data to be used by other applications. It's been successfully tested during events like the LA marathon, and is being currently used by city staff. VBH is designed to be scalable to accommodate new functionalities and use by other federal and local agencies.

This presentation highlights the considerations, process and lessons learned from the implementation of VBH.