

Houston Super Bowl LI Host Committee promotes fan safety, delivers lasting benefits.



Leading up to Super Bowl LI on Sunday, February 5, 2017, local, state and federal law enforcement established a three-mile security perimeter around the area in Houston, Texas, called Discovery Green Park. This area was the anchor point for a free nine-day fan festival called Super Bowl LIVE, which the Houston Super Bowl LI Host Committee expected more than 1 million people to attend.

After several years of security planning, 41 federal agencies, plus state and city officials, were well prepared. They had assembled more than 5,000 police officers, SWAT teams, surveillance specialists, cyber squads and intelligence analysts for the big day, and they teamed with Verizon to implement some advanced technologies to help ensure public safety.

Verizon worked with local, state and federal law enforcement to provide a Light Sensory Network, Digital Kiosks, and an Intelligent Video and Security Analytics solution that provided extra security monitoring to help ensure public safety, but also provided fan engagement opportunities, making it easier for fans to find information, get directions and connect with friends while enjoying the Super Bowl LIVE festivities.

**750,000
sq. ft.**

The Super Bowl LIVE fan festival took place across more than 750,000 square feet in and around Discovery Green Park.



By upgrading older streetlights to LED technology, the city could save between 50-70% in energy costs, compared to traditional lighting systems.*

Planning security at scale

The Super Bowl is one of the world's premier sporting events. The NFL and the City of Houston collaborated to put on the Super Bowl LIVE fan festival, which took place across more than 750,000 square feet in and around Discovery Green Park.

To help make sure that fans felt safer while enjoying the festival activities, officials supplemented human security presence with unobtrusive yet effective video-based technologies with advanced analytics.

Streetlights do much more than illuminate.

The Verizon Light Sensory Network turns standard outdoor, energy-efficient LED lighting fixtures into a high-speed, high-bandwidth Internet of Things (IoT) platform.

Verizon set up nine core nodes and one Video Node connected to the LED streetlights around the Houston Convention Center. The core nodes monitored energy usage; the Video Node used video camera sensors

and a sophisticated, onboard video analytic engine to detect moving objects—distinguishing between pedestrians and vehicles, for example—and to monitor any abnormal behaviors.

The “Super Bowl LIVE event was a perfect microcosm for demonstrating the benefits of Smart Communities and Venues solutions like ours, which are focused on bringing people together when everything is digital and on the go,” said Dan Feldman, director of Smart Communities at Verizon. “From the Verizon network to IoT digital solutions, our end-to-end platform can enable neighborhoods and communities to become more actively engaged with citizens and fans, promote access to public safety features, and create more resilient, more engaging environments. At Super Bowl LIVE, we demonstrated advanced video analytics that increased the ability of public safety, a crucial capability not just during major events, but every day as part of a city’s proactive public safety operations.”

Connecting people to information, when and where they need it

The Light Sensory Network, Verizon Command Center, Verizon Intelligent Video and Digital Kiosks worked together at key locations in Discovery Green Park and provided valuable public safety capabilities. The HD touch-screen kiosks, which were integrated into the Light Sensory Network platform, dispensed event and local information and advertising, provided Wi-Fi access and “selfies,” and offered map, wayfinding, weather and other services to festival attendees.

Beyond engagement, access and wayfinding solutions, the Digital Kiosks included an emergency subsystem that allowed for emergency calling, public notices, warnings and alerting. Had there been an unauthorized trespasser in a restricted area at Super Bowl LIVE, this activity could have been detected by the Light Sensory Network, triggering protective mechanisms in real time. In the blink of an eye, the Light Sensory Network could have begun strobing the LED streetlights in that particular area, and the Digital Kiosk could have displayed alternate routes to lead people to a safe location. Authorities could have used the Verizon Smart Communities solutions’ near real-time wayfinding capabilities and up-to-the-moment information to mobilize and direct public safety resources quickly and precisely.

Lasting benefits

Although the Verizon Light Sensory Network solution was installed to meet the specialized needs of a particular event in time, the benefits to Houston will continue to accrue for years to come. A considerable impact on emissions reduction can be achieved by upgrading streetlights to LEDs, which can save between 50-70% compared to traditional lighting systems. Plans to add lighting controls such as dimming will yield even greater energy savings.

With the beginnings of a formidable Light Sensory Network pilot in place, Houston can add more smart services on the Light Sensory Network platform to help enhance not only public safety and security, but also things like smart parking and traffic management. From the initial deployment, which was intended to gain better lighting efficiency and controls, Houston can now leverage the same network to keep traffic moving at busy intersections, make it easy for motorists to find a parking space without circling the block again and again, and help guide pedestrians around town more safely.



And with Digital Kiosks, Houston can pursue revenue-generating activities at the same time it promotes citizen engagement. Serving as the town billboard of the future, the Kiosks can display local bulletins, news, job postings, volunteer opportunities and event notices—as well as transit and wayfinding information and public emergency alerts. The city can build advertising revenue by sharing digital content and advertising with Verizon partners, and by providing a forum for small businesses to connect to people in their community through targeted local advertising.

Houston is the fourth-largest city in the United States. As host to Super Bowl LIVE, Houston used the Light Sensory Network from Sensity Systems (a wholly owned company by Verizon), Verizon Digital Kiosks and Verizon Intelligent Video solutions to demonstrate the real-world effectiveness of smart city solutions.

For more information about Verizon Smart Communities, please contact your Verizon Wireless business specialist or visit us at verizonenterprise.com/smartcommunities.