Success Story

City of Houston – Avenidas Plaza and The Galleria

Introduction

The Avenidas Plaza and the Galleria area are two areas in Houston that are magnets for tourist and locals alike. The Avenidas Plaza has an open pedestrian friendly environment while the Galleria is replete with retail, restaurants and shopping. Large scale events, public, private or even national such as the Super Bowl are often staged in the Avenidas Plaza and crowds often follow up dining and shopping in the Galleria. With large crowds and critical infrastructure, the City of Houston as well as local private businesses determined a secure, high resolution video security system was necessary for both locations and moved to begin implementation of the system in early 2017.

Challenge

Implementing a comprehensive video security system in an area with existing buildings, streets and daily use and doing it with no disruptions was a steep challenge. Using existing fiber infrastructure as leased lines would have resulted in a monthly Opex that could not be supported. Laying new fiber was not an option not only due to the disruptive implementation but the cost was estimated to be in the millions of dollars, numbers that were not affordable.

When the City and Private business turned to wireless, they found existing sub 6GHz networks as well as public and private WiFi networks had created areas awash in radio interference. Placing a mission critical application such as video security on a network that could incur frequent interruptions from this interference was not an option.

The solution needed to not only connect video cameras to a network wirelessly, but there was also the need for a large capacity backbone network for the cameras, both wired and wireless to tie into and transport the traffic to the video monitoring locale.

hello@siklu.com | www.siklu.com

The Solution

The City of Houston was familiar with 60GHz mmWave wireless solutions from past work with Siklu which had been used to connect existing, lower capacity 5GHz networks. Together Siklu and systems integrator Teksys designed and implemented both a street level access network using Siklu's Multi-Haul products (MH), as well as the higher capacity rooftop backbone deploying the EtherHaul (EH) point to point solutions to create a "living lab" of technology that supports expanding public safety initiatives. Out of 46 Axis Communications cameras (models Q6155, Q1942 and F4005) deployed in the Avenidas Plaza, 6 are connected with mmwave and 6 more being planned. The Galleria has 6 Axis cameras (models Q6155 and Q1615) connected by Siklu with an additional 9 locations in the planning stage. All of these cameras ultimately feed into a Milestone VMS with a Vidsys Cloud user interface.

Jack Hangriff
at the roof of Major Hotel overlooking Super Bowl Live

Results

With gigabit capacities and operating in the interference free 60GHz band, for the first time the City and businesses are able to go beyond simple, live cameras views by having access to full motion HD quality video. Advanced video security applications such as thermal imaging, advanced analytics and subject tracking were also implemented leveraging not just the high capacity but low latencies provided by the Siklu network.

"The networks have operated flawlessly since its deployment," stated Jack C. Hanagriff, Project Lead for the Houston Public Safety Technology Zones; "Installation in an existing, high traffic high profile area of Houston was not only not disruptive, but we are able to complete the initial deployment in days."

Going forward the city will be expanding the reach and footprint of the backbone network to support future camera locations. As first learned with the Super Bowl, this approach can yield better security with a wider coverage area. There is no shortage of high profile events held in the Plaza such as a Political Rallies, the Houston Marathon and being able to monitor in real time the catastrophic flooding events that hit Houston annually. Coupled with day to day security monitoring the value and dependability of the mmWave security network allows the City to plan continued expansions in the future.