



Case Study

SIP Trunking (mSIP)

Key challenges

- › Expansive geography - 13 parks, 24,000 acres
- › Outdated telecom infrastructure
- › Needed to consolidate multiple carriers serving the parks
- › Separate bills from over 10 carriers at different pricing
- › Wanted centralized control of services
- › E911 solution needed improvement

Introduction

Created in 1940, the Huron-Clinton Metroparks system consists of 13 regional parks covering more than 24,000 acres along the Huron and Clinton Rivers in Metropolitan Detroit. The parks draw about 7.5 million visitors a year and are open 365 days a year. They are staffed by 203 full-time and over 800 part-time personnel who work together to ensure that visitors can enjoy the full benefit that nature, park events, and the recreational facilities can offer.

Recently a major project was undertaken to modernize the communications service and infrastructure in all 13 parks. nexVortex Managed SIP Trunking was an important part of that modernization, and the value it delivered not only saved Huron-Clinton Metroparks money but more importantly improved E911 location identification, centralized and simplified management of voice service, and increased efficiency.

The Challenge

The park systems' communications infrastructure evolved over the years to ultimately include the use of no less than 10 separate telecommunication carriers across 13 parks delivering service over a myriad of "old school" facilities consisting of outdated copper and analog lines.

Managing service delivery became problematic. There were multiple bills to tend with, diverse service management platforms, interoperability issues, and cost inefficiencies driven by using so many carriers with different pricing models. Redundancy and failover were an issue and E911 was supplied by a third-party which lacked some key capabilities that Huron-Clinton Metroparks wanted supported.

Robert Rudolph, the CIO for Huron-Clinton Metropolitan Authority, had the vision for a major overhaul; but one which would not only modernize the parks' communications infrastructure, but the voice services being delivered over it as well.

His strategy included connecting the parks via fiber, retiring the old copper infrastructure and moving to a centralized architecture whereby the parks would be served by a ShoreTel PBX located and managed out of headquarters in Brighton, Michigan. He wanted to find a SIP provider with the experience and shared vision to move the parks to voice over IP to complete the modernization program.

Our team out of Grand Rapids, Michigan, met with Robert and architected the solution he was looking for.

Client:

- › Huron-Clinton Metroparks

Industry:

- › Local Government - Metro Authority

Solution:

- › SIP Trunking (mSIP)
PBX: ShoreTel



The nexVortex Solution

The nexVortex team worked with Robert to architect, price, and deliver a solution using nexVortex Managed SIP Trunking (mSIP) which includes functionality and value not found in other solutions on the market. Interoperability was key, nexVortex Managed SIP Trunking is interoperable with most PBX's on the market and is deployed in conjunction with existing Shoretel PBXs across the country. Quality of Service, improved E911, centralized management, and attractive pricing rounded out the solution.

Direct Peering and QoS

Centralizing the Shoretel in Brighton and running fiber to individual parks allowed Huron-Clinton to collapse the number of carriers previously used from 10 to just AT&T which serves as the main conduit into the PBX in Brighton. nexVortex has a direct peering relationship with AT&T, which means Huron-Clinton Metroparks' voice traffic is handed directly to the nexVortex network from AT&T for call routing. This reduces latency and packet loss thereby improving voice quality.

This centralized architecture went one step further. The mSIP service was deployed in its standard configuration which includes an enterprise session border controller (ADTRAN) which was configured to support Class of Service over the AT&T circuit. When married to an AT&T circuit with CoS, mSIP can guarantee voice quality (QoS) from the premise to the PSTN. Voice quality was a huge plus for Huron-Clinton Metroparks.

E911 Location Identification

With 13 parks spanning over 24,000 acres and multiple buildings, the need for an accurate and robust E911 solution was paramount to the safety and protection of visitors and employees. nexVortex supports multiple methods of pinpointing address locations for E911. One of those methods is via individual directory number (i.e. phone number or DID). This means that each phone number and therefore each phone can be assigned its own individual location for E911.

This level of granularity was the perfect solution for Huron-Clinton. Better yet, setting address locations by individual DIDs across all 13 parks can be centrally managed from the nexVortex secure customer portal which is delivered with every service. nexVortex not only provided an improved E911 solution which significantly reduced administrative complexity and cost, but it allowed Huron-Clinton to use a single vendor for both voice services and E911.

Service Visibility

Our Managed SIP Trunking service is delivered with the nexVortex Service Manager (nVSM) which is accessible within the customer's private portal. mSIP takes voice quality measurements at multiple points along the call path (from the premise to the PSTN) and through powerful correlation, data visualization, and reporting tools can report on call quality in real-time via the nVSM. If voice quality problems are encountered, Huron-Clinton knows how poor the voice quality is, which portion of the network is having issues, and problems can be resolved quickly. Central administration and visibility into service performance was a high-value item for Huron-Clinton Metroparks.

Significant Cost Savings

Another key value-point for Huron-Clinton was the mSIP service's ability to scale gracefully as call-capacity needs change. The park system is very seasonal and call volumes can increase or decrease depending on the season and the individual park.

nexVortex wanted to be certain that Huron-Clinton had the calling capacity they required without having to overbuy that capacity for a worst-case scenario. Because the mSIP service plan can be shared across multiple locations, it was a perfect fit for the 13 parks. Huron-Clinton did not have to do detailed capacity planning at all the parks and if one park has a higher calling volume one day, and another park the next, those needs are easily handled by mSIP. nexVortex proposed a custom pricing plan to ensure that the mSIP service met the Metroparks specific needs.

The combination of a centralized Shoretel PBX architecture and an improved and cost-effective E911 solution provided in conjunction with Managed SIP Trunking, Huron-Clinton Metroparks was able to cut their telecom spend by over half while deploying an industry-leading, reliable, and modern solution.

Summary and Current Status

All parks are enjoying the upgraded communication system. The Metroparks' team is pleased with the flexibility, features, performance, and management of nexVortex Managed SIP Trunking.