CASE STUDY
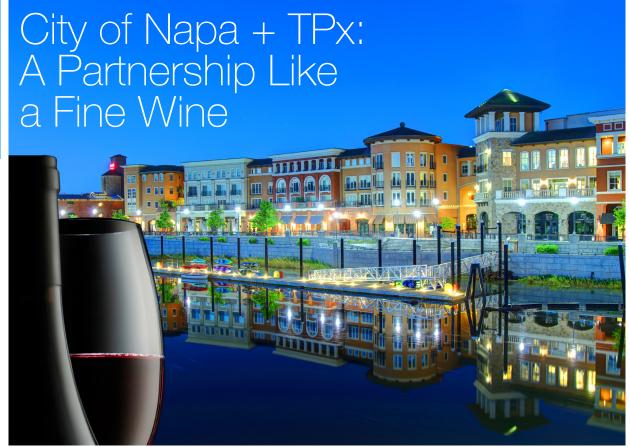
City of Napa + TPx: A Partnership Like a Fine Wine

When a California city wanted to upgrade its phone carrier services to add high availability SD-WAN and increased data bandwidth, it called in a trusted partner

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>
> *Scott Nielsen*
> *IT Manager*

TPx

When the City of Napa, California, wanted to transition its phone system from Primary Rate Interface (PRI) to Session Initiation Protocol (SIP), they quickly realized they needed a reliable partner that would put their needs first. California cities generally keep their phone systems for about five years, but funding constraints have forced cities like Napa to keep their telephony infrastructure in place for longer. The city's voice system also serves as the countywide dispatch provider for 911 services and handles outsourced services from additional jurisdictions within Napa County, making these phone lines even more vital and complex.

PROFILE

The City of Napa, California, handles technology for its own municipality and some functions for other jurisdictions across Napa County.

CHALLENGE

Napa officials needed help upgrading voice services. They had difficulties establishing SIP connectivity for business phone systems and 911 services.

SOLUTION

Migrate its business phones and 911 system from analog trunks and PRI to SIP and high availability SD-WAN to leverage a single provider for seamless support. Separating solutions enabled Napa to reduce maintenance costs and enhance redundancy and failover.

BENEFITS

The city gained reliable voice and added redundancy/resiliency for its 10-member IT team, who were single points of failure. By outsourcing, the IT team can focus on other tech priorities and leave the voice services in the hands of the TPx team.

RESULTS

Napa and TPx forged a partnership to explore additional offerings to enhance the city's high availability environment to provide redundancy and resiliency.

A Better Approach

The project began when Scott Nielsen, Napa's IT Manager, oversaw a refresh of the phone lines for business services and 911 systems. The city saw an opportunity to transition its system to SIP with the upgrade.

To start the process, Nielsen reached out to a pair of legacy telecom providers about transitioning its analog phone system to a SIP system.

The city's plan called for a pair of SIP trunk lines from one of the telecom providers across their "last-mile" infrastructure. Therefore, the city would have redundancy in its critical business lines, which it uses to contact other jurisdictions and handle interdistrict transfers. The COVID-19 pandemic punctuated the need for upgrades. The migration from both PRI and analog to SIP at the primary and backup centers provided real-time fail-over between SIP trunks.

Napa's 911 system had two separate systems — some lines were Direct Inward Dialing (DID) while others were analog phone lines. The TPx team separated the systems and connected them via a Point-to-Point Network (PtoP). The PtoP connections between the primary and backup 911 support multicast and are delivered on different last-mile legacy providers. This allows the two centers to work as expansive or as a backup with additional redundancy.

Initially, the two companies that Nielsen contacted could not deliver what was required. Given the importance of the upgrades, the City of Napa couldn't take no for an answer. So, Nielsen turned to TPx to effectively outsource the management of the two "last-mile" contractors.

The goal was to deliver a set of SIP trunks across two different links, leveraging the companies' fiber lines at the primary and alternate answering points. TPx's local solutions architects consulted with the city on the best services for their needs. They customized solutions for the unique requirements rather than pushing them toward a pre-determined offering. The TPx team managed the two telecom vendors and their last-mile contractors' technology to ensure the SIP failover for the business lines between the two answer points worked properly.

The Results

Given current budget constraints, the city was able to turn to TPx to handle its IT needs as an extension of its team, instead of adding internal IT staff.

"It was refreshing to have detailed discussions and develop a comfort level with pricing, implementation and functionality," Nielsen said. "During our conversations, we had specific requirements and were focused on redundancy. Together, we are able to find a cost-effective and viable solution to upgrade the City of Napa's voice services without having to add staff to the IT team."

About the City of Napa

The City of Napa, California, is home to more than 78,000 residents and is located in the heart of California's wine country.

About TPx

TPx helps businesses navigate the complicated and evolving IT landscape. As a leading nationwide managed services provider, TPx helps businesses simplify operations, optimize networks, improve productivity, reduce costs and keep IT environments secure.