ShoreTel & City of Oakland

City of Oakland Replaces PBX-Based Telephone System with IP Unified Communications Solution from ShoreTel

CITY OF OAKLAND
CALIFORNIA

CHALLENGE
- *Oakland's outdated PBX-based phone system was failing and a lot of its network equipment was nearing end-of-life. It was time to replace both the network and the telephone system.*

SOLUTION
- *ShoreTel provided the IP Unified Communications system, including ShoreGear voice switches and ShorePhone IP telephones, while network partner Enterasys provided the network infrastructure equipment.*

BENEFITS
- *Distributed architecture of the ShoreTel IP Unified Communications system gives the City of Oakland a solid disaster recovery plan for natural disasters such as earthquakes and mudslides, so calls can still get through during such an occurrence.*
- *The ShoreTel IP Unified Communications system is easy to scale and manage, so the City is able to make its own changes and additions, rather than outsourcing these activities, saving the City time and money.*
- *Rich feature set enhances employee productivity and call responsiveness.*
- *ShoreTel and Enterasys work closely together and respond quickly to the City's needs and requests.*

Oakland Starts Migration to IP Unified Communications with Some of its City Offices and Plans to Bring More Online Over the Years

Rated by Forbes in 2002 as the 8th best city for business in the nation, Oakland is one of California's most strategic locations for companies seeking to move goods and ideas quickly and seamlessly over air, water, land or cyberspace. Oakland has a solid, diverse mix of traditional and new economy companies. These companies are attracted to its excellent quality of life, comparatively lower business costs, extensive fiber-optic infrastructure, world-class seaport, vast inter-modal network, and highly skilled labor pool—which is ranked the 8th most educated in the nation according to a 2000 U.S. census. The City employs more than 5,000 people across 114 city facilities.

Time for an Upgrade

In 2003, the City had a Meridian PBX-based phone system, with approximately 1,700 analog telephones. The system had been installed starting in 1989 and was becoming outdated—at times, the system was undergoing some significant failures. At the same time, much of the Cabletron and Cisco network equipment was also nearing end-of-life. The City's technology team, led by Chief

Technology Officer Robert Glaze, determined it was time to replace the phone system and upgrade the network.

The City issued a Request for Information (RFI) and received information from more than 25 vendors for Voice over IP (VoIP) solutions. A team was assembled to begin the evaluation, including employees from the telecommunications team, the PC team, and the network team. That team eventually narrowed the choice down to three vendors that met the organization's top priorities, which included feature robustness, customer service and support, disaster recovery capabilities and ease of maintenance. Cost effectiveness was also a factor, according to Glaze. "As with most city budgets, ours gets stretched very thin, so our money had to go a long way with this telephone system."

The three vendors included Alcatel, Cisco and ShoreTel®. The City then issued its Request for Proposal (RFP), at which stage each solution was brought in for a demonstration and an actual pilot installation with the existing network. The City Council members looked very carefully at each pilot test because VoIP was very new to them and poor voice quality was a concern.

Alcatel did not operate very well on the existing city system. Cisco requested that the City evaluate an existing small system installed at a local police precinct, and ShoreTel installed a 25 phone pilot requested by the City. ShoreTel did well in this initial pilot; however, since the City Council had never heard of ShoreTel, a larger demonstration with 500 IP phones was requested. ShoreTel complied and deployed a larger pilot with 500 phones and kept it running for 30 days as requested. It ran smoothly and in 2004, at the end of the pilot test phase, ShoreTel was chosen as the City's IP Unified Communications vendor.

Switching To An IP Unified Communications System

In March of 2005, ShoreTel provided the City of Oakland with 14 of its ShoreGear® T1 voice switches and 37 of its ShoreGear 120 voice switches, along with more than 1,500 ShorePhone™ IP telephones, most of them model 560s. Since the initial deployment, several more switches have been installed, and the City now has approximately 2,000 IP telephones deployed in eight of the city's buildings. The eight locations include city hall, two administrative annexes, the museum, municipal service center, emergency operations center, animal shelter, and family criminal justice center.

During the ShoreTel implementation phase, the City was also deploying its new networking equipment from Enterasys, a ShoreTel partner. While this made for a busy time, the entire deployment went very smoothly. The fact that Enterasys was a ShoreTel partner was important to the City because it would minimize any issue resolution having to do with either the network or the phone system.

Disaster Recovery and Reliability

A key feature of the ShoreTel IP Unified Communications system is its distributed architecture design, which makes it ideal for multi-site organizations that span multiple locations and is also more reliable than server-centric solutions. This appealed to the City because disaster recovery is such a priority. In addition, ShoreTel's call control software is distributed to every ShoreGear voice switch, which eliminates any single point of failure. In the highly unlikely event a ShoreGear voice switch fails, the other switches on the network automatically take on the call-processing load. This was especially appealing to the City because

of its past disasters, such as earthquakes and mudslides. In the case of these natural disasters, often workers have to be relocated. With the distributed nature of the ShoreTel IP Unified Communications system, it is easy to reroute calls and continue business as usual.

"With our past history of natural disasters, disaster recovery is an important factor in our technology solutions," said Glaze. "The failover of the ShoreTel system is a perfect fit for us and will be beneficial whether we have to relocate one building to another city building or a few buildings to temporary buildings. We can keep our communications system up and running."

Tools for Productivity

ShoreTel IP Unified Communications systems are easy to use, simple to manage, flexible, and reliable. With the ShoreTel system in place, all City employees are now on the same phone and voicemail system, using 4-digit dialing to reach co-workers and dialing co-workers by name. Integrated directly with Microsoft Outlook®, the ShoreTel system provides employees with integrated messaging, such as directory dialing, contact screen pop, and calendar integration. ShoreWare® Personal Call Manager enables employees to manage all of their communications—voicemail, e-mail, faxes—centrally on their desktop. With Personal Call Manager, employees can quickly browse contacts and make calls from local directories or Microsoft Outlook.

"The integration of the ShoreTel system with Outlook is great," said Glaze. "All of our users are integrated with Outlook—it's a tremendous feature and everything I've heard about it is positive. It's the number one feature, allowing employees to pull up contacts and dial without knowing the number. People just love it."

With Personal Call Manager, voicemail messages are also stored in the industry-standard WAV Audio for Windows format, allowing users to play them on multimedia PCs, attach them to e-mail messages and forward them to colleagues, or embed them in other documents as well as keep permanent records on file. The ability of the ShoreTel IP Unified Communications system to track phone calls and export and distribute voicemails as WAV files helps continually monitor and improve responsiveness. In addition, City attorneys

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> **– Robert Glaze**,
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> *CTO, City of Oakland*

appreciate the ability to attach these voicemail messages to folders for later reference.

Mobile workers are also able to get their messages, both voicemail and e-mail messages, on their Blackberry handheld devices in the field. They see that they have a message and only then do they need to dial in for their message or read their e-mail.

Finally, ShoreTel's Workgroup capability enables the City of Oakland to dedicate a specific telephone number to a workgroup (there are currently workgroups set up for departments such as IT helpdesk, public works, development services, Oaklanders Assistance Center, etc.). Calls to a specific workgroup are routed to the next available agent. Productivity is enhanced, and callers get more consistent and thorough care.

Savings

ShoreWare Director, ShoreTel's browser-based management interface, allows the City's IT staff to gain access to the system from anywhere on the network, allowing them to manage the entire system from in-house. Through ShoreWare Director, every site and feature can be managed, including the voicemail, automated attendant and desktop applications. When a new user is added, an administrator simply clicks "add new" and enters the user's name; this, in turn, automatically updates the centralized database and voice switches, creates a new mailbox, and updates the automated attendant dial-by-name and number feature and online directories—all in a matter of seconds.

The City is also saving by simply using IP telephony over its old analog system. According to Glaze, "We leased the ShoreTel phone system and the Enterasys network equipment, and the money we save by using an IP Unified Communications system over traditional telephone services actually pays for the monthly lease on the Enterasys and ShoreTel equipment. In other words, it costs us nothing extra and we have a much better phone system and network in place."

The City of Oakland has also integrated its Tapit Call Accounting Software from Trisys with the ShoreTel IP Unified Communications system, which allows the IT department to charge back

telephone costs and bill individual departments for toll charges. The IT department simply runs a month-end report for billing by department and adds in the costs for calls.

"The ShoreTel system is flexible enough to integrate with our call accounting software and create any kind of report we need whenever we need it," said Glaze. "The integration possibilities are interesting, considering how flexible ShoreTel is."

The ShoreTel IP Unified Communications system is also easily scalable, which is important to the City since it plans to bring additional departments and sites online incrementally. "The other systems we've had in the past were not scalable," said Glaze. "With the ShoreTel system, it's easy whether you're adding a phone or an entire site. We actually moved Mayor Jerry Brown out of his office and back in again, and also moved Mayor Ron Dellums – both moves were each done within a day."

ShoreTel Lives Up to Its Promises

The distributed nature of the ShoreTel IP Unified Communications system and the ability to relocate employees quickly and easily and keep communications up is crucial to the City. The ShoreTel system has met those needs and many more. Employees are more productive, caller responsiveness is improved, and savings have been and continue to be realized. The City of Oakland is happy with its choice of ShoreTel for its IP Unified Communications system. Glaze also notes that the network partnership with Enterasys has been a tremendous benefit because the companies have worked very closely together as partners to meet the City's needs.

"ShoreTel is always there when we need them and the product has lived up to what the company promised," said Glaze. "ShoreTel also really listens to its customers in terms of enhancements it makes to the system. Our users really like the new ShoreTel system and it's improved our communications and productivity. We are also now ready with a disaster recovery plan in place because of the distributed nature of the system, and ready to scale and add new sites. ShoreTel has prepared us for the future."