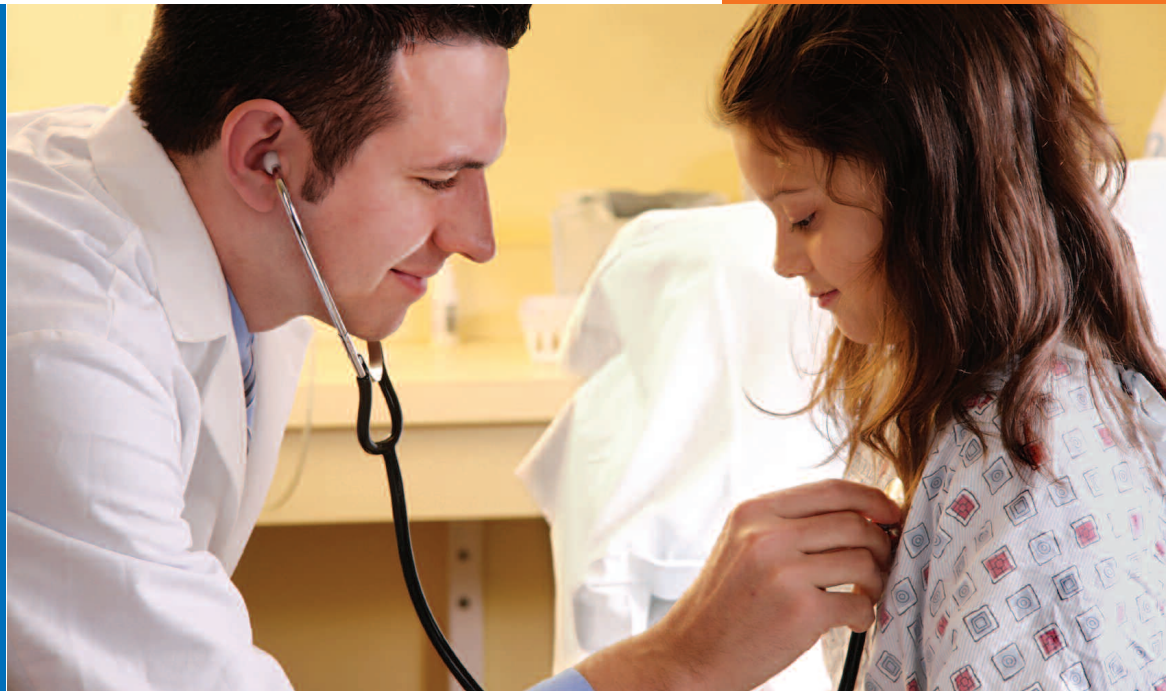


# ShoreTel and Carson Tahoe Regional Healthcare



## Progressive Medical Center Improves Communications Condition by Switching to ShoreTel



### CHALLENGE

- When Carson Tahoe Regional Healthcare built its newest facility—a 146-bed hospital—management decided to switch to a unified communications system to meet its needs for a distributed architecture with centralized management, to support both analog and digital devices, lower the communications system's overall cost of ownership, and improve reliability.

### SOLUTION

- ShoreTel provided the organization with a complete unified communications solution, including 42 ShoreGear Voice Switches connecting 1,200 extensions (more than 1,000 ShorePhone IP Telephones for one building alone). ShoreWare Director is used to manage the entire solution from any location on the network.

### BENEFITS

- ShoreTel's distributed architecture gives Carson Tahoe the high availability and disaster recovery plan critical to healthcare organizations.
- The ShoreTel UC system supports both the analog and digital devices required in a hospital setting.
- The robust ShoreTel feature set improves employee productivity and enhances responsiveness to calls; receptionist productivity has improved 50 to 60 percent compared with the previous solution.

ShoreTel offers the high availability and reliability healthcare organizations need, and improves overall productivity

Carson Tahoe Regional Healthcare is a progressive, technologically advanced healthcare leader in Northern Nevada. The stunning three-story, 352,000-square foot facility at the heart of a spacious 80 acre medical campus overlooks picturesque Carson City. Carson Tahoe has set new standards in women and children's medical services, surgical services, outpatient services, and oncology. Each floor is designed with patient comfort and family convenience in mind, with private rooms throughout the facility and a guest bed to accompany each patient bed. Also, healthcare previously unavailable in the valley, such as open heart surgery, is now available at Carson Tahoe.

### The Search

In 2005, Carson Tahoe Regional Healthcare started building a brand new facility—a 146-bed hospital with approximately 250 physicians and staff. To streamline communications throughout this facility, Carson Tahoe wanted to converge its voice and data networks and add the powerful features available with unified communications (UC). With existing NEC PBX-based systems already deployed at

most of the 18 buildings across campus, the organization realized it needed a new solution—one that would offer a lower cost of ownership and offer advanced features as well as wireless functionality.

The technology team at Carson Tahoe looked at UC solutions from Cisco, InterTel, NEC, and ShoreTel®, and worked closely with the consultant who had designed the organization's network infrastructure. This consultant realized that the hospital had unique needs because of its architectural and technological design—it had many closets on each floor, each housing one switch. This meant that the solution of choice had to move from a centralized computer room in the basement to the edge of the network, and it had to be centrally managed.

The hospital also had other crucial requirements. For instance, the system required a highly reliable distributed architecture with failover in the event of a switch failing. The solution also had to allow the hospital to support a mixture of devices across the switches—for instance, digital devices for clinical locations and analog devices in patient rooms. Finally, the solution had to support wireless SIP phones—including generic SIP WiFi handsets over a wireless network.



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**– Tyler Jackson**

*Systems Administrator  
Carson Tahoe Regional Healthcare*

Carson Tahoe's consultant worked closely with the technology team to evaluate each vendor's solution, attend demonstrations, talk with customer references, and hands-on evaluate each product. Eventually the team determined that the ShoreTel Unified Communications system was the best choice because it met every single requirement perfectly, from its distributed architecture and central management to its support of analog and digital devices, and support for wireless SIP phones.

### ***The Switch to IP Telephony***

ShoreTel provided Carson Tahoe with 42 ShoreGear® voice switches for five different buildings. Specifically, the organization has 30 ShoreGear 120, two ShoreGear 40 voice switches, and 10 ShoreGear T1 voice switches. In addition, a total of 1,200 extensions were deployed—most of them ShoreTel ShorePhone™ IP telephones, and some analog, including fax machines. Approximately 1,000 of the ShorePhone IP Telephones are deployed at the main facility alone. The deployment took four months and ShoreTel trained the organization's technology staff and users over the course of two months.

Tyler Jackson, Systems Administrator for Carson Tahoe Regional Healthcare, summarized his evaluation of the ShoreTel UC system: “ShoreTel was the only solution that truly worked for us. The distributed architecture of the ShoreTel UC system was a perfect fit for our requirements and its centralized management is a mission-critical feature. With ShoreTel, you just manage the whole network, no matter where the switches are located.”

### ***Productive Employees***

With the ShoreTel UC system all Carson Tahoe employees are on a centralized phone and voicemail system, managing their e-mail and voicemail activity in one place. The ShoreTel system also provides each Carson Tahoe employee with a graphical interface on their computer. The ShoreWare® Personal Call Manager offers Microsoft Outlook® integration for directory dialing, contact screen pops, and calendar integration. ShoreWare Personal Call Manager gives users the equivalent of a desktop PBX—a powerful, all-purpose tool for managing their communications. Employees can quickly type in a name, bring up a number, and make their calls from local online directories—all with the click of a mouse, right from the desktop.

“Users like seeing their voicemail and e-mail in one place,” said Mr. Jackson. “They're more productive because they respond to the right people faster and they can quickly transfer callers to the right destination. With Personal Call Manager, dialing an employee is just a matter of typing in a name and choosing the contact on the screen—there's no need to memorize numbers. ShoreTel has improved communications internally and externally.”

ShoreTel's Find Me feature allows Carson Tahoe employees to have callers reach them wherever they are—at their desk, on their cell phone, or at home if they choose. “Some users have calls routed to their cell phones so that when they travel, they can be reached easily,” said Mr. Jackson. “It allows them to be productive from the road, and it also means there are fewer calls they have to return when they get to their destination or when they return back to the office.”

Carson Tahoe uses various workgroups, such as its IT support center, main admitting office, cancer center, and imaging department. ShoreTel's workgroups capability makes the creation, operation and management of these teams easy. The ShoreTel UC system also enables workgroup supervisors to train new employees faster, ensure agents are delivering consistent service, and obtain a comprehensive view of how calls are being handled by each agent. Performance and statistical information provided by the ShoreTel UC system gives Carson Tahoe an overview of how each workgroup is performing and further improvement possibilities.

Carson Tahoe also uses ShoreTel's hunt groups capability, which ensures that live calls are answered by making multiple people available to answer. When a person is on the phone or unavailable, calls are routed to another extension, preventing callers from unnecessarily reaching voicemail. “Our objective is for all of our callers to get to a live person on a 24 x 7 basis, and ShoreTel enables us to meet this objective,” said Mr. Jackson.

### ***Simplicity and Savings***

ShoreWare Director, ShoreTel's browser-based management interface, allows the IT staff to access the system from anywhere on the network and manage the entire system from in house, including voicemail, automated attendant and desktop applications. When a new user is added, an administrator simply



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**– Chris Woody**

*Network Administrator  
Carson Tahoe Regional Healthcare*

clicks "add new" and enters the user's name. The system 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. Changes are made just as quickly and easily.

"It's the easiest system in terms of moves, adds and changes, as well as system administration—even for a network person with no experience in phone systems," said Chris Woody, Network Administrator for Carson Tahoe Regional Healthcare. "We've reduced systems management time significantly and realized big savings there, lowering our overall cost of ownership. In addition to management simplicity, users appreciate the simplified interface and the advanced features. Many users have learned these features easily on their own, without extensive training."

ShoreWare Operator Call Manager provides hospital receptionists with the kinds of critical information necessary for exceptional customer responsiveness and service. For example, when the phone rings, a call-routing log displays the caller's experience within the system to the receptionist. Before transferring callers, the call-transfer screen displays information about who is available to take the call, and who is already on the phone. With this unprecedented level of information, receptionists not only connect callers faster than ever, but also provide the highest level of service. Also, dynamic, online directories eliminate paper directories – which are often out of date and not usually available online. With the complete company at their fingertips and knowledge about who is available and where a caller has already been routed, the receptionist can transfer the call using a simple drag-and-drop tool to the most appropriate person—to their extension, cell phone or even their home phone.

### *Disaster Recovery and Reliability*

A key feature of the ShoreTel UC system is its distributed architecture design, which is ideal for multisite organizations and helps provide a higher level of reliability than server-centric solutions. This appealed to Carson Tahoe because high availability is so crucial and disaster recovery is such a priority in the

healthcare environment. Also, ShoreGear Voice Switches are built with dual Ethernet ports. This inherent redundancy in the hardware is essential for operating rooms and other hospital environments in which communications cannot fail. With ShoreGear Voice Switches, if a packet stops, the switch automatically switches to the other port.

In addition, ShoreTel's call control software is distributed to every 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 assume the call-processing load. With the distributed nature of the ShoreTel UC system, it is easy to reroute calls and continue business as usual.

### *The Right Fit*

Carson Tahoe Regional Healthcare is pleased with the ShoreTel UC system—the organization has realized significant savings, enhanced employee productivity, and continues to improve its business processes based on a state-of-the-art communications system. "One of the biggest benefits of the ShoreTel UC system is the ability to have data available on callers and call histories," said system administrator, Mr Jackson. "We can even review outbound calls if we need to. The ability to do this data mining makes a big difference over the old system."

Carson Tahoe is looking forward to working with ShoreTel on some further integration, such as Interactive Voice Response (IVR) and more wireless deployments. "We like working directly with ShoreTel and we receive an immediate response whenever we need anything," said Mr. Jackson. "ShoreTel has taken the initiative to make a complicated product easier. It meets all our requirements, including a distributed architecture, centralized management, and support for both digital and analog devices.

"We've realized measurable productivity improvements and we've enjoyed true ease of management," he adds. "ShoreTel has met all of our requirements and given us some added benefits we didn't expect."