Every visit to your clinic generates phone calls: Patients call to refill prescriptions, schedule and reschedule appointments, clarify physician instructions and inquire about their bills. With all the attention that better-performing practices place on measuring, monitoring and improving patient experience, it stands to reason that they should give at least equal time to the phone.

But how do you know whether your practice is performing well? Ask yourself:

- How many times do prospective patients hang up before making an appointment because hold times are too long?
- Can you monitor and record conversations between patients and staff and use those recordings for training purposes?
- Can you route certain calls to staff members based on their competency in a defined area of your business?
Can you integrate your Web services with the ability to manage calls?

Does your current phone system allow staff to work at home with little additional cost?

Faced with unsatisfactory answers to these questions and the challenge of opening a new office, we installed a new system that uses voice-over-Internet protocol (VoIP, pronounced “voyp”).

VoIP is a generic term for technology that uses digital phone signals broadcast across the Internet or private intranets instead of traditional public telephone networks. We introduced this new phone system to:

- Support the new office without a significant increase in telecommunication costs;
- Reduce the cost of telecommunications;
- Reduce hold times and abandon rate in the scheduling queue;
- Create schedulers who work in orthopedic subspecialties;
- Improve communication with nursing staff during clinic; and
- Allow staff to work at home to accommodate growth.

Weighing the options

After meeting with various telecommunications vendors, we realized we could reduce our costs over time by making a capital investment in a system that would support all offices and provide integration (common extensions, internal transfers) between our two current sites and the coming new locations. Because we didn’t own the network or the telephone switch at our main campus, the monthly lease from the hospital would continue for as long as the lease for the office remained (we had a 15-year lease commitment), which would eventually exceed the cost of financing a new system. Therefore, it made sense to replace both systems and provide all offices with one telephone solution (see table).

The VoIP decision

We met with several phone vendors in the community and investigated products online, before choosing a product using VoIP.

Need for telecommunication situation to suit all locations

The practice consisted of 10 orthopedic surgeons, two primary care sports-medicine physicians, two rheumatologists, seven therapists and five nonphysician providers in two locations. The primary office leased the voice and data networks from the hospital landlord at a monthly cost based on the number of active ports (both data and voice) assigned to the business. The hospital provided the phone devices and information technology (IT) support for a monthly fee and was not able to offer off-site remote connectivity or support.

Our remote office used a second small independent phone system that we owned and supported. Its data network was connected to our main office via paired T-1 phone lines.

As we positioned the practice to open two more offices, we realized that neither telephone system could meet our needs for growth. The system we owned lacked the capacity to support the incremental phones we needed, and the hospital was unable to support telecommunications at any non-hospital satellite clinic locations.

Cost analysis of leasing vs. purchasing a telecom system

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Past monthly lease rate for telecom services (average)</td>
<td>$7,000</td>
</tr>
<tr>
<td>Past IT/telecom monthly staff expenses</td>
<td>$3,100</td>
</tr>
<tr>
<td><strong>Total past costs</strong></td>
<td><strong>$10,100</strong></td>
</tr>
<tr>
<td>Monthly average financing cost for a $145,171 investment in new phone system</td>
<td></td>
</tr>
<tr>
<td>(6.59% interest over 36-month term) – equipment and labor</td>
<td>$4,540</td>
</tr>
<tr>
<td>Incremental monthly connectivity costs (three T-1 connections)</td>
<td>$1,300</td>
</tr>
<tr>
<td>IT and telecom staffing costs (with incremental included)</td>
<td>$4,500</td>
</tr>
<tr>
<td><strong>Total current costs</strong></td>
<td><strong>$10,340</strong></td>
</tr>
<tr>
<td><strong>Total future costs when note was paid off and warranty replaced with service agreement at $2,500/month</strong></td>
<td><strong>$8,300</strong></td>
</tr>
</tbody>
</table>
The service connects offices through a private intranet and the Internet that ties home-based staff to a new telephone server housed at the main office. This approach required us to rewire the hospital with data cable. We now own the infrastructure and manage IT and telecommunications connections with internal staff.

We built the connections using Health Insurance Portability and Accountability Act compliant encryption so that the security of data and voice transmissions comply with federal law. The setup had a number of benefits:

- The VoIP system operated over the private intranet we used to support our practice management system. As a result, we saved money at our new site because the contractor didn’t have to build separate voice and data networks.
- Employees could connect from home via the Internet and receive and place calls using office extensions. Calls could be routed to out-of-state staff without long-distance expense.
- The high-speed connections to support digital X-ray and MRI transmissions between the main location and remote offices could, with an incremental increase in bandwidth, support voice communication as well.
- The product allowed integration with the e-mail server so we could retrieve e-mails via voice mail, and convert voice-mail messages to e-mail.
- Our Web site allowed patients to get information about locations and services. By clicking a Web site link, patients are connected to a voice line in the office.

Reduced phone hold times and abandon rates

Approximately 500 of the 750 calls coming into the scheduling queue each week were prospective patients trying to schedule a visit to the clinic; the rest were patients seeking to modify existing appointments. Using data from our old phone system, we calculated a historical abandon rate of about 9.45 percent, or approximately 50 potential patients who hung up before scheduling an appointment. This number, multiplied by the average net revenue per patient, represented a potential loss of more than $678,000 annually (see table).

We believed that the longer someone was on hold, the greater the chance the patient would hang up, so reducing the abandon rate was a top priority. The new phone system reduced our average abandon rate to 4.3 percent by accomplishing two things:

First, the software used to run the system allowed each team member to view the number of callers holding in the queue. We structured staff bonuses around a reduction in the abandon rate (see graph on page 45). It motivated people to make better decisions about when to take breaks or do “after call” work. Second, managers could align staffing levels with periods of high demand.

As a result of the analysis, we expanded our call-center hours and staffed more heavily at the beginning of each day and week. Supervisors could view the flow of calls via real-time reporting software and make spontaneous decisions about staffing — such as pulling someone out of another workgroup — to avoid the risk of abandoned calls.

Creating specialized schedulers

To fully harness the power of our new phone system, we created specialty-specific...
Schedulers. Each was assigned to a group of two to four physicians who usually worked in related fields. For example, the person assigned to the orthopedic sports-medicine physicians also worked for the family-practice sports physicians.

The phone system directed patient calls with a prompt asking them to indicate the specialty they wanted (for example, neck and spine, hand and wrist). Calls were routed to staff members associated with that specialty. If a “specialized scheduler” was unavailable, the call would immediately go to the person with the next highest level of competency in that specialty to ensure optimization of a patient’s queue time as well as the practice’s service level.

**Improved communication with nursing staff**

Another feature of the VoIP system allowed our clinic to use existing, secured wireless access points for wireless Internet protocol phones that could be used anywhere our wireless signal reached. This enabled better communication between schedulers and medical assistants equipped with wireless phones — they were more accessible to referring physicians and for patient inquiries.

Using a phone system to improve service and productivity complements the face-to-face interactions in your practice. In fact, we found that the interactions over the phone were equally important. VoIP is an exciting new technology that can help you accomplish your service goals.

**Deploying staff to work at home**

Many practice professionals face the challenge of expanding resources without occupying additional physical space. A medical group may outgrow its facility long before it is ready to pack up and move out. This practice was no different. By assessing the average time spent on a call and the number of incoming calls, we realized that we had too few staff for the volume of calls received each day. The data suggested that we were short approximately three-fourths of a full-time employee.

The VoIP phone system allowed us to “home-source” a portion of the call center through computer soft phones, a technology that connected to the company’s system using broadband cable or DSL connections to staff members’ home PCs. We used the same connection to allow employees to remotely connect to the practice management system. The result: home-based employees who could receive calls and schedule appointments remotely. And similar to offshore call centers, the process was invisible to patients.

Consistent with national research, our data reported that home users were more productive than office-based schedulers. In fact, of the eight schedulers associated with this practice, office-based workers took an average of 14.3 percent of the total call volume versus 21.6 percent taken by home-based staff. We retained well-trained staff members far from the office whom we would have lost to jobs closer to home.

### Changes in “abandon rate” before and after VoIP system

<table>
<thead>
<tr>
<th></th>
<th>Past</th>
<th>Current</th>
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<tbody>
<tr>
<td>Abandon</td>
<td>6.2%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Notes

1. Telephone survey by Ipsos Public Affairs, which found that more than one-third of employees who use computers say working at home has made them much more productive than they were five years ago. — INC. The Daily Resource for Entrepreneurs 2007. www.inc.com/news/briefs/200702/0207survey.html

Join the discussion: Does your practice have a VoIP-based telephone service? Tell us how things are going at mgma.com/connexioncommunity or connexion@mgma.com.

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