

Technology

Losing the Landline in Favor of VoIP

The Internet-Based Phone Network is Less Expensive Than Plain Old-Fashioned Telephone Service

BY DANIEL J. SIEGEL

Recently, I upgraded the computer network in my office. We rewired our office, installed a new server, and did a variety of other tinkering to improve the quality of our computer systems. But what really made the biggest difference wasn't the computers, it was the phones. We eliminated traditional landline phones and installed a VoIP system.

If you were like me, you first asked, "What the heck is VoIP?" Then you wondered, "Why do I need it and how will it help?" Now that we've had the system for nearly a year, I can tell you that we are saving money, and we have perhaps the most high-tech phone system anywhere.

First, let's address the most common question. What is VoIP? How do you pronounce it? Do you just say the letters? Or do you pronounce it as a word (which can make you sound like you have the hiccups)? As for pronunciation, most people either spell out the letters V-O-I-P or they simply say "voyp;" either way, those who know what VoIP is will understand. Regardless how you say it, a lot of people are talking about it and more and more law firms and businesses are using it.

VoIP stands for Voice over Internet Protocol. VoIP allows you to transmit voice conversations over the Internet or an Internet-protocol-based network. Although VoIP is becoming more of a household word, many people still

haven't heard of it, although they may know the names of some VoIP providers, including Skype and Vonage.

Many law firms have begun to use this technology instead of traditional landline phones for their telecommunications needs. I won't bore you with how it works because if you're

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like me you don't care: you just want it to work. What we care about are things like cost and reliability.

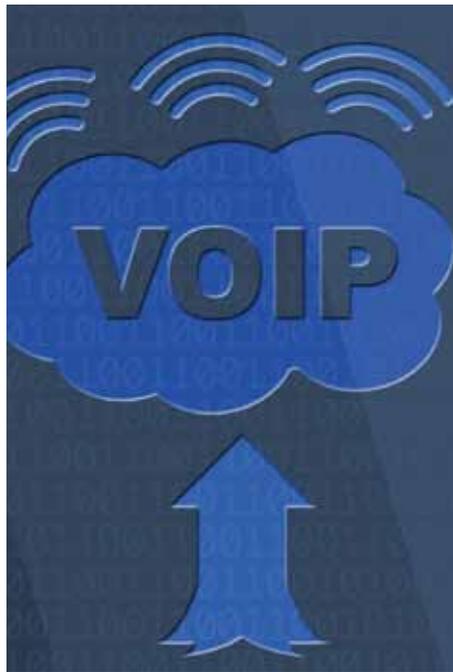
Although technically very different from traditional phone service (sometimes called POTS, for "plain old-fashioned telephone service"), VoIP tends to cost less than POTS. In our office, for example, we went from

having two landlines costing about \$110 per month to having 10 lines that cost about \$180 per month. Plus, our new-fangled phone system is far superior to the phones we used to use that came from an office supply store. It's also great because one of my associates practices in Maine, and with VoIP, she's just a button away. And amazingly, our phones ring automatically in her office or anywhere that she can connect to the Internet.

As for quality, it's terrific. While VoIP had problems in its early days, VoIP users generally do not experience any difference in the quality of their calls when compared with POTS. In addition, most VoIP systems allow you to have the same service options that are available with POTS, such as Caller ID, Call Forwarding, and Conference Calling.

The primary considerations to keep in mind when evaluating whether to convert to VoIP and, if so, which provider to select, are quality of service, reliability and security. Quality of service is determined by a number of factors, including the wiring in your building, and the configuration of the necessary computer hardware, such as routers and switches.

Reliability includes not only the VoIP's carrier's ability to deliver quality service, but also the options available to maintain phone service if (or more likely *when*) you lose Internet access. With regard to your building's wiring, the quality of your VoIP connection



depends upon the volume of traffic (usage) on your local network as well as the speed and performance of your Internet connection. As a result, when planning your VoIP system, you need to consider and balance your office's need for unfettered voice service with its need for high-speed data transmission, i.e., Internet access, including any impact on downloading and uploading documents and other files.

Consequently, when making the leap to VoIP, you need to evaluate everything from switches, routers, firewalls and wiring to the quality and capability of your telephones. That's why we did the upgrade when we upgraded our network.

In addition, your phone and related equipment must be VoIP-compatible. Providers generally call the equipment "VoIP capable." The good news is that you can purchase either VoIP equipment or adapters, which may be able to convert your existing phones. Generally, the older or the lower the quality of your phones and other equipment, the more likely it is that VoIP adapters may not work well, or the quality of calls will be poor. In that case, you will have to upgrade your phone system when you convert to VoIP.

As for the critical question of security, bear in mind that with VoIP you are, in effect, making a phone call over the Internet. You therefore need to evaluate whether VoIP provides sufficient means for preserving confidential client information, and how likely it is that your VoIP system, like other Internet-based

Itching for Technology

Many people are allergic to all kinds of foods. But a recent study has revealed that nearly 33 percent of all BlackBerry smartphones are made with nickel. And nickel causes allergic reactions in 17 percent of women and 3 percent of men. And many of these nickel-laden phones also have cobalt, which also happens to be a contact allergen. And with shrinking market share, this news is the last thing that BlackBerry maker RIM needs to hear. BlackBerries account for just 1 percent of the American smart phone market.

Android phones and iPhones don't contain either nickel or cobalt. But if you're allergic, symptoms can include include eczema, blisters, lesions and swelling. There's even a chance of scarring.

BlackBerry flip phones contain the nickel 91 percent of the time. So if you've got a case of BlackBerry face, the culprit might be your beloved phone. The study was presented at the annual meeting of the American College of Allergy, Asthma and Immunology. ■

Smart Camera

Nikon's CoolPix S800c is the camera maker's first Android smart device. The S800c lets you take high-definition photos and video and then share them wirelessly.

The 16-megapixel camera has a 10x zoom lens with a 3.5 inch touch-screen monitor and takes 1080p video in stereo. It also has Optical VR image stabilization so your photos and video won't look shaky. The S800c uses HD or SDHC memory cards and has 1.7 GB of internal memory. The rechargeable lithium ion battery will last for about four hours and can take about 140 images. The S800c is 2.4 inches high and 4.4 inches wide and weighs 6.5 ounces.

Once you have your images, it's easy to share them wirelessly on Facebook, Twitter or through email because of the Android engine inside. You can do all the things you can do on an Android phone or tablet (except make phone calls). And since it's an Android



device, you can download and use apps from Google Play.

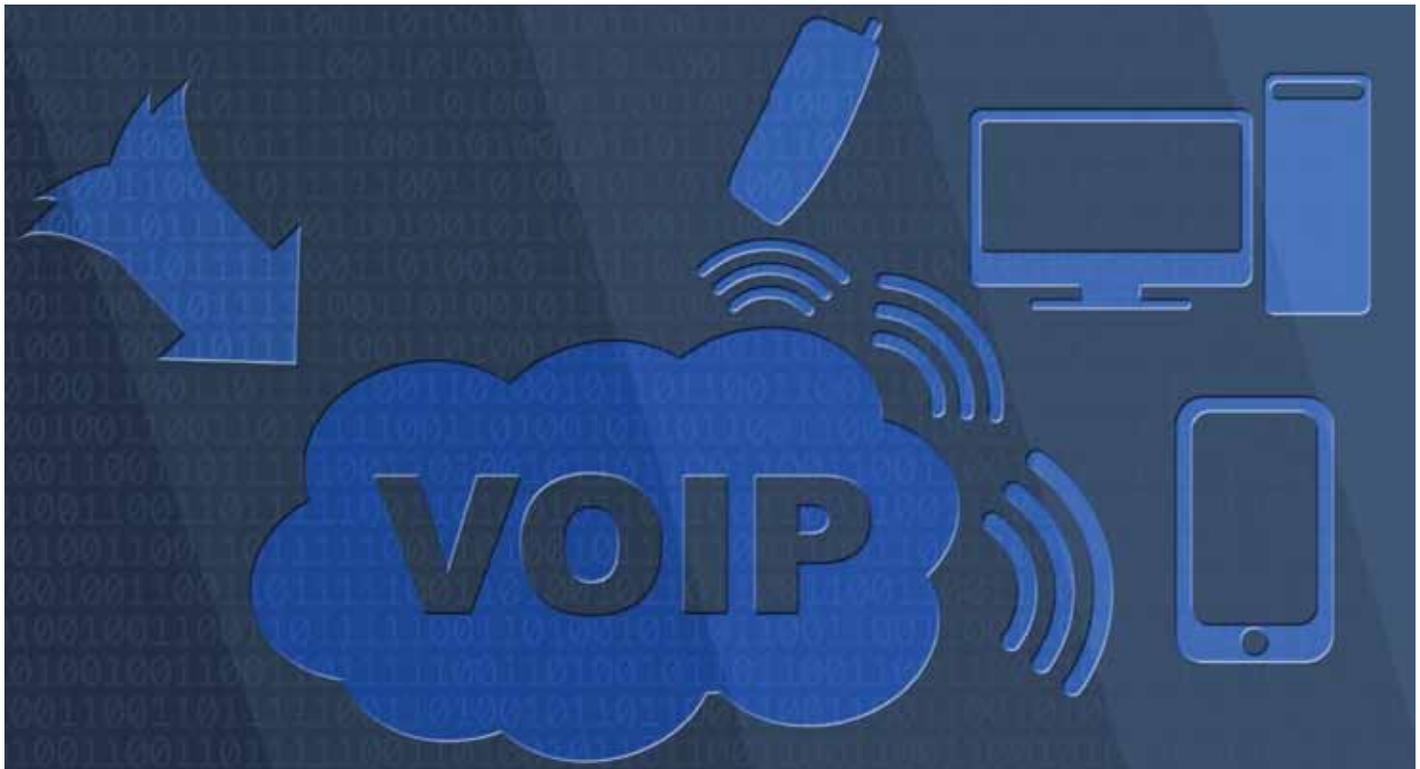
The camera sells for about \$330, which may seem pricey for an Android device with no phone. But when you consider the Nikon imaging along with zoom and video features, it might be worth the investment. Besides, it's good to get away from a phone once in a while. ■

One In-Car Gizmo for Phone, Music

If you're looking to listen to music stored on your mobile phone or make phone calls while you're driving, GOgroove's SMARTmini BT Advanced Wireless In-Car Bluetooth FM Transmitter is your solution.

All you have to do is sync the GOgroove SMARTmini BT to your Bluetooth device. GOgroove says it takes just seconds to sync and the device also charges your phone. With its enhanced voice-detection microphone, it's easy to use your phone while driving. The hands-free technology lets you make and receive phone calls through your car's speakers. If music is playing, it will slowly fade out to allow you to clearly connect to any phone call.

It plugs into your DC car outlet and is compatible with iPhones, Android devices, Windows phones and BlackBerry devices. GOgroove's SMARTmini BT lists for \$69 and is available from online retailers including amazon.com and buy.com. Get more information on the SMARTmini BT at gogrooveaudio.com. ■



technology, will become a target for viruses, worms and other security breaches. In most cases, your vendor and your network support company can help you evaluate those issues.

After you decide to use VoIP, you need to select a provider. Initially, you need to decide whether you will be using an on-site system or a service hosted by another company. Many providers offer both alternatives, and each has its own advantages and disadvantages. On-site systems, for example, generally offer more customization options than do off-site systems, and they tend to integrate better with other applications. But they generally require you to have more tech savvy support staff.

On the other hand, off-site or hosted VoIP systems may be better equipped to provide continuing service during conditions such as snowstorms, when your offices are inaccessible. With off-site hosting, your staff can use the system as long as they are able to connect to the Internet. Another advantage of off-site systems is their ease of expansion, their ability to be deployed in other offices, and the reduced need for the added cost of a dedicated VoIP staff person.

There are other concerns associated with VoIP. For example, 911 emergency response service does not exist for VoIP in some areas of the country. Yet another issue is whether the carrier you're interested in charges additional fees for long-distance service or for international calls.

Also, when selecting a VoIP vendor, don't ignore customer service and technical support. Even if you have purchased an on-site solution, there are still issues that will require support

from the provider. Always ask or do your own research to get answers to the following questions:

- Does one company provide support for the VoIP service and the hardware, or do you have to call two different providers?
- Is there a dedicated customer support team?
- What hours is customer support available?
 - Is the provider financially stable?
 - How many customers does the provider have?
 - Will the company provide unfiltered references, including the names of former customers?

The bottom line is that VoIP has matured dramatically recently. Phones are more versatile, the service providers more stable and the cost is more competitive. Purchasing a phone system is an investment that demands preparation and a proper analysis of your firm's short- and long-term needs. Many law firms have already made the leap to VoIP, while others are considering doing so.

While VoIP may not yet be the dominant method that lawyers use to make phone calls, it is certainly more popular. And even though it may seem like a lot of work, it really isn't. In fact, it's one of the decisions most businesses are happiest about – once they've taken the plunge. If you haven't considered VoIP, it is probably time to take a look. ■

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Apple iPhone 5



Samsung Galaxy S III

IT'S JUST LIKE ALI-FRAZIER. WITH LESS HITTING. But the battle is on between Apple's iPhone 5 and the Samsung Galaxy S III. Apple says it sold 5 million of the devices in the three days following its launch, while Samsung will have sold 30 million Galaxy S IIIs by the end of 2012. Both are available through most of the nation's major wireless carriers and feature voice assistants, 8 gigabyte cameras, HD video recording, stores to purchase apps, and yes, both make phone calls.

FEATURES	APPLE IPHONE 5	SAMSUNG GALAXY S III
OS	APPLE IOS6	GOOGLE ANDROID 4
DISPLAY	4 INCH 1136 X 640 RETINA DISPLAY	4.8 INCH 1280 X 720 SUPER AMOLED
PIXEL DENSITY	326 PPI	306 PPI
WEIGHT	3.95 OUNCES	4.69 OUNCES
THICKNESS	0.3 INCHES	0.34 INCHES
CONNECTORS	PROPRIETARY LIGHTNING CONNECTOR	STANDARD MICRO USB
AVAILABLE COLORS	BLACK, WHITE	PEBBLE BLUE, MARBLE WHITE, AND GARNET RED
CARRIERS	AT&T, SPRINT, VERIZON	AT&T, VERIZON, SPRINT, AND T-MOBILE
PRICE	\$199 (16 GB), \$299 (32 GB), \$399 (64 GB)	\$199 (16GB)