

VoIP and the Small Business

HOW TO TELL IF IT'S RIGHT FOR YOU AND YOUR BUSINESS

1 Table of Contents

1. VoIP: An Overview	03
2. What Is Voice over Internet Protocol?.....	04
3. How VoIP Partners with Small Business	06
4. Is VoIP the Right Choice?	08
5. If VoIP Is for You, Don't Wait to Start Saving	10
6. Get the Facts on VoIP (with contact information)	11

2

VoIP: An Overview

Lately, there's been a lot of talk about VoIP (Voice over Internet Protocol)—not the least of it in small-business circles. Small businesses need to save money, ease their growing pains, and appear larger. According to the hype, VoIP can do all of these and more.

The truth is that VoIP can be very helpful—to the right business in the right situation. Let's take a look at how VoIP can support three small-business telecommunications needs:

Rising operating costs. Much more than midsize businesses or enterprises, small businesses live and die by cash flow. Without capitalization, major investors, or even large savings and credit accounts, small businesses need to save money everywhere they can. Monthly phone bills, special Private Branch eXchange (PBX) phone hardware, and broadband Internet service are all potential pieces of the communications expense puzzle. The right choice can significantly reduce all these costs—particularly a fully integrated bundle that includes broadband Internet access and unified messaging. (Bundles often cost less per month, and their simplicity can also save on IT costs down the line.)

Growing demand for organizational agility. When a business grows, people move from office to office—even from city to city. New employees are added, and existing ones leave. All of these moves, adds, and changes impact a traditional PBX phone system, which often has to be physically rewired and rerouted. If a business is too small to have an in-house IT department, this can mean an expensive contractor. VoIP is one way to surmount this problem; with many offerings, changes can easily be made in a few minutes via a Web-based control panel. VoIP also offers a more flexible growth path than traditional PBX phone systems, eliminating the need to continuously reinvest in new phone hardware.

Need for very small businesses to look larger and more impressive. This is a bit of a taboo topic—the elephant in the room that no one wants to talk about. But it's a fact that very small businesses often have a hard time procuring clients until they grow to a certain size. Since that size is dependent on the number of clients, the result is a catch-22. One way to break the cycle is to make the business seem bigger to callers through an automated answering and voice mailbox system, which is easy to create with VoIP—again, without the attendant expense of a PBX system.

For years, VoIP was an exotic technology that was the focus of intense speculation or deemed just for large enterprises, but not much else. Now, though, it has become a viable option for even the smallest businesses, thanks to two major technology trends:

Near-universal broadband access. Broadband Internet access has become so widespread and affordable that even the smallest of businesses now use it. These broadband pipes can easily be leveraged for VoIP without adding significant costs.

Widespread use of mobile communications devices. Everyone who owns or works for a small business is usually in possession of at least one of the following: cell phone, hybrid email/phone device, handheld computer with Web access, and laptop computer. VoIP leverages the power of these devices by following employees from location to location, letting them pick up voicemail and email via their choice of interface—wherever they are. Everything is controllable through a central Website.

3

What Is Voice over Internet Protocol?

Internet Protocol was based on work done by DARPA, the Defense Advanced Research Projects Agency. It was designed as a language to link early local area networks, or LANs—forerunners of today's individual office networks—by hiding the differences in the “languages” they spoke. Soon, TCP/IP (Transmission Control Protocol/Internet Protocol) was discovered to have excellent potential for letting a wide range of very different computers talk to each other. It was used that way for several years, and blossomed in 1989 with Tim Berners-Lee's creation of what we now know as the World Wide Web—a series of linked textual and graphical pages accessible from any connected computer that understood IP language.

But that's not the end of the IP story. Not too far into the Web's development, it was discovered that, just as text, graphics, and photos could be easily transmitted, so too could the human voice. Since the Internet was a public entity, it stood to reason that voices—live telephone conversations, in fact—could be sent over it free of charge. Throw in the potential for easy configuration changes, and the advantages over traditional phone systems became apparent, even though voice quality wasn't yet up to snuff.

So how does VoIP work? At its core, it's really not very different from the way a traditional telephone system operates: Your phone converts voices into electrical impulses, which are carried over a wire and reconverted into sound at the other end. Though today's telephone systems are a little more complex, with signals navigating a complex maze of routers and switches, the way they work hasn't fundamentally changed.

With VoIP, the key difference is that, after being converted into electrical impulses, voice signals are transmitted via digital IP language—in effect, as a series of ones and zeroes. These ones and zeroes can then travel over a network in much the same way that raw electrical signals can travel over telephone wires, but with much more flexibility with regard to system configuration—and at lower cost.

While these developments were setting the stage for the emergence of VoIP's role, VoIP itself was evolving significantly. During the past five to ten years, VoIP technology has achieved the ability to offer:

- An entirely new level of clear, true voice quality
- Additional reliability, delivered by new networking technologies
- Easier setup and maintenance
- Security features for protection from fraud and other attack
- Excellent emergency response compliance with E911 (enhanced 911)*
- Better integration between mobile workers and the office

Since its invention, VoIP's use has splintered into several types. Looking at them from a purely business perspective, they break down this way:

Free VoIP services. Skype® is perhaps the best-known provider of free VoIP; it's mostly used by consumers with broadband access to make free computer-to-computer calls to each other. Other, similar services include some of the instant messaging services, such as Yahoo!® Messenger, Google® Talk, and MSN® Messenger, as well as other, VoIP-only startups competing in Skype's arena. Many of these services also allow for simple videoconferencing between Webcams. But voice quality for some free VoIP services can be uneven—fine for talking with Grandma or IM buddies, but not necessarily up to business standards. And business-critical features like call waiting and call forwarding aren't easily available.

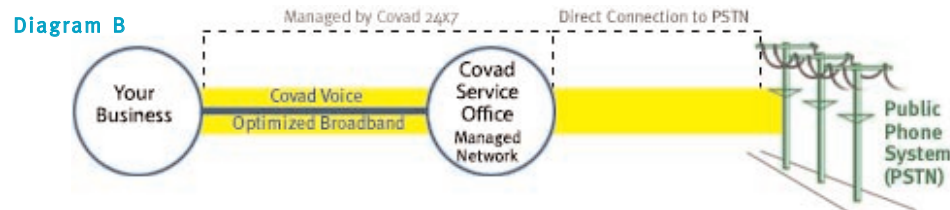
3

What Is Voice over Internet Protocol?

Consumer VoIP. Here we come to the next level—services that actually bill their customers rather than being free or supported by advertising. (The extra revenue is used to provide additional features.) These services, Vonage® being the best known, are a suitable, cost-effective substitute for home telephone service—again, provided the customer in question is already a broadband subscriber. (See Diagram A.) But even though the customer is paying both a broadband fee and a premium for VoIP, these services may not be scalable enough for the small-business market—they’re designed for individual households.



Business VoIP. VoIP services designed exclusively for small businesses, by providers such as Covad Communications, have several distinguishing characteristics. For example, Covad manages its own network (see Diagram B), dynamically prioritizing voice traffic so even smaller organizations can enjoy business-class voice quality. And scalability is built in, with a Web-based control panel for certain services that makes employee adds, moves, and changes remarkably simple. Employees can also access their own Web-based control panels to configure call following and forwarding, message pickup, and other features.



Business VoIP service providers also understand the dilemma of small businesses that want to appear larger, and accordingly their services can be purchased with an easy-to-configure auto-attendant (answering system); some also include a hunt group feature that lets callers search by name, department, or extension. And because these providers know cash-flow-conscious young businesses are always looking for savings opportunities, these services often offer all-in-one bundles that combine broadband Internet service, VoIP, and other features at a single, affordable monthly rate. As a bonus, these bundles are generally easier to install and manage, too. Finally, small businesses don’t have the time or resources for a steep learning curve, so business VoIP providers go out of their way to make the changeover simple.

The advantages of business VoIP are many, but this is not to say that it’s necessary to get rid of an existing PBX phone system to make the transition. Many businesses have successfully integrated VoIP with their current phone systems. (Covad is one company that can perform this integration.) This allows the business to keep its existing physical phones and user interfaces, flattening the learning curve—while also potentially leveraging some of VoIP’s cost-saving and efficiency features, including Web-based one-stop message centers and, of course, lower telecommunications bills.

4

How VoIP Partners with Small Business

Used judiciously, VoIP can be a positive boon for the right business. Perhaps not since the widespread adoption of the Internet has a single technology done so much to make small business more competitive, agile, and cost-efficient. In this section, we'll discuss how VoIP can save businesses money, make employees more productive, and make very small businesses appear larger to their clients and prospects.

VoIP can save your business money. Of course, VoIP can drastically lower your phone bills, particularly if your business involves a lot of sales or other outgoing calls. If you and your staff make frequent calls, these savings add up quickly. But there are also savings that may not be so readily visible—savings from easier adds, moves, and changes, as well as features you may be paying for now like 3-way calling, call waiting, and voicemail (all often bundled free with a VoIP service).

For example, with a traditional PBX phone system, adding a line for a new hire (or changing the routing of an existing line) is time-consuming and expensive, often requiring many hours of labor on the part of an in-house IT department or a costly contractor.

Then there's IP (Internet Protocol) PBX. With this type of system, moves, adds, and changes are managed partly by wiring (though it's not as difficult as with standard PBX) and partly by computer. If you have a full-time IT specialist, this can be an economical way to go. But if you did, chances are you wouldn't be reading this!

With a true hosted VoIP solution, adds, moves, or changes are just a matter of making a few choices in your control panel Website—and, if need be, adding a new handset. It's simple, low-cost, and you can do it yourself in a few minutes. (Adding a handset can sometimes require wiring, depending on your current configuration.)

As an added plus, VoIP service can be bundled together with broadband Internet service for single-provider simplicity, often at a reduced rate. Check with your provider to see if VoIP is offered à la carte, as part of a bundle with broadband, or both.

VoIP vs. Traditional Broadband & Telephone Service

	Integrated Voice & Internet Solution**	Traditional Broadband & Telephone Plan*
Employee Size (lines)	8 lines	8 lines
Broadband Speed	768k/768k SDSL	768k/768k SDSL
Voice Bundle Monthly Fee	\$360	\$432
Broadband Monthly Fee	\$160	\$185
Equipment	Router, Switch, ATA	DSL Router
Regulatory Fees***	N/A	\$55
Total Monthly Fee	\$520	\$672

* Covad online research as of May 2006

** Covad ClearEdge Office pricing as of August 2006

*** Regulatory fees data derived from Frost & Sullivan

4

How VoIP Partners with Small Business

VoIP can make your business more productive. With the advent of mobile devices in all their forms, the better you and your employees can communicate with each other, partners, and clients, and the more productive you can be. There's a real role for VoIP here, since it allows all employees to decide when, where, and how to pick up their phone calls and messages. You can choose to have calls follow you from your desk to your cell phone or other mobile device, or have them forwarded to your email inbox, where you can play them when you check your other business email. Staying in communication leads to closer and better collaboration for everyone; with fewer missed calls and messages, productivity is free to rise.

VoIP gives small businesses a bigger voice. Most very small businesses would jump at the chance to look bigger without making the significant investment it takes to lease and staff a new office. For startups and businesses that are just beginning to grow, VoIP is an excellent option for doing just that. Certain VoIP offerings with auto-attendant and hunt group features give callers the impression of calling a large company with a switchboard and high-end PBX phone system, while Find Me/Follow Me or similar "locate me" features help ensure that clients actually get connected to the employees they called to speak with. Finally, VoIP gives you the option to pick up your voicemail as email—a feature that, until recently, only employees of the largest and most technically sophisticated companies could truly leverage.

5

Is VoIP the Right Choice?

Not every business is ready for VoIP, or can benefit from it. Some may not make enough outgoing calls for VoIP's phone bill savings to be anything but pocket change, reducing a key ROI factor (though calling features bundled in for free can add value, as can voice/Internet consolidation and enhanced productivity and collaboration). Other businesses may be so dependent on legacy systems that the costs of changing would outweigh the advantages. Also, some businesses depend largely on virtual employees who are strictly mobile or telecommuters, rarely or never reporting to work physically. These businesses already enjoy some of VoIP's productivity and flexibility advantages, but would be unable to leverage its savings, since employees use their own phone systems.

To see if your business is right for VoIP, take this quick quiz:

How many telephone stations (lines) do you have?

- a) 1-4 (2 points)
- b) 5-10 (4 points)
- c) 10-20 (1 point)
- d) More than 20 (1 point)

Do you have a dedicated IT person and/or an employee who oversees IT needs?

- a) Yes, full-time (4 points)
- b) Yes, part-time (3 points)
- c) Yes, freelance/contract (3 points)
- d) No, we don't have the bandwidth (1 point)

What is your existing telecommunication system?

- a) Just wired or cordless phones with extensions, a.k.a. POTS (plain old telephone service) (4 points)
- b) Standard PBX/KTS system (3 points)
- c) IP PBX system (1 point)
- d) VoIP, but without integrated broadband Internet access (3 points)

Which of these features do you currently use? (Choose all that apply.)

- a) Softphone (PC calling) for remote workers (1 point)
- b) E-Faxing (1 point)
- c) Inbound 800 number (1 point)
- d) Auto-attendant (1 point)
- e) Hunt groups (1 point)
- f) Find-me/Follow-me or similar "locate me" services (1 point)

Which of these features *would* you find useful if you had them? (Choose all that apply.)

- a) Softphone for remote workers (1 point)
- b) E-Faxing (1 point)
- c) Inbound 800 number (1 point)
- d) Auto-attendant (1 point)
- e) Hunt groups (1 point)
- f) Find-me/Follow-me or similar "locate me" services (1 point)

Are you currently using, or interested in using, both a VoIP service and an Internet provider?

- a) Yes (4 points)
- b) No (1 point)

5

Is VoIP the Right Choice?

Now, add up your points:

5-8: It's a good time to learn more about VoIP. Explore your options and evaluate how implementing a VoIP plan might impact your business.

9-15: You may be a good candidate for a small-business VoIP plan. It's worth looking into—it could save you money and make your business more productive.

16-21: You're definitely an excellent candidate for VoIP. Do your small business a large favor—consider adding the savings, convenience, and efficiency boost of VoIP as soon as possible.

If VoIP is indeed appropriate for your business, congratulations. You've got an excellent opportunity to save on your phone bill, enhance productivity, and increase agility—all at the same time. But as you shop for your small-business VoIP plan, you'll want to be aware that some plans offer unlimited outbound calling minutes, while others provide a low price in exchange for a set number of minutes per month. Choose carefully, depending on your plan, as the number of calls you make may still affect your phone bill!

Other features may also be bundled with your plan, including broadband Internet access and unified messaging (the ability to pick up all messages from any device, including a computer, phone, or handheld—all managed via a central Website). Bundling means ease of management, a single contact if any problems should arise, and, often, cost savings; if the features offered are appealing, take advantage of them.

6

If VoIP Is for You, Don't Wait to Start Saving

If VoIP is the right choice for you, there are multiple ways you can benefit by choosing a VoIP provider for your business as quickly as possible. Of course, you can save substantially on your phone bill. But you'll also gain the advantage of impressing your clients and prospects. And your employees can be more productive because they'll get their calls and messages sooner—both in the office and out of it.

Here are a few key things to remember before you switch to VoIP service:

Are you ready for VoIP? You'll need a monthly phone bill with moderate outgoing charges and significant use of the Internet for email, Web access, and file transfers. Other signs that VoIP might help your business can include office-based employees who are also on the road much of the time, a fast-growing staff, or a small office and staff along with clients and prospects who might be inclined to judge your business by its size.

How long will it take for your system to start saving you money? The answer varies with each business, but depends on factors like your monthly phone and Internet access bills, the number of moves/adds/changes you have to pay for each year, and your number of employees—as well as the VoIP plan you select. Many small businesses may even start seeing savings right away. And, of course, the true worth of replying to a message you might otherwise have missed or impressing a new client is inestimable.

Can you afford not to adopt VoIP? This is the other side of the “Are you ready?” coin. If your organization could indeed benefit from VoIP, and you wait too long to adopt it, you may be depriving your business of cost savings and productivity improvements. There's no real downside to switching right away.

7

Get the Facts on VoIP

Here's the contact information for Covad, the company that issued this booklet. Founded in 1996, Covad is a leading nationwide provider of broadband voice and data communications (including VoIP) to small and medium businesses, in addition to providing high-speed Internet access to other voice and Internet providers. Covad specializes in creating simple yet sophisticated communications solutions; its network is available in more than 900 cities in 117 major metropolitan markets. In 2005, Covad was named one of the leading providers of hosted VoIP solutions by In-Stat, a top independent research firm.

Covad Communications Company**www.covad.com****1-866-849-4801**

We've also included the contact information for several third-party research and benchmarking sites, and encourage you to refer to them as you seek out more information on what could be a highly beneficial decision for you and your small business:

- > [Six Things You Need to Know about VoIP](#)
- > [Migrating to VoIP: Preparation and Justification](#)
- > [Small Businesses Turn to Hosted VoIP](#)
- > [How an SMB Decides on VoIP](#)
- > [From PBX to VoIP: Making the Change](#)

* E911 service may not be available if there is a power failure, a disruption in the broadband line, or a malfunction of the broadband router. It is strongly recommended that you maintain an alternative method of calling emergency services at all times.

© 2006 Covad Communications Company. All rights reserved. Covad and the Covad logo are registered trademarks of Covad Communications Group, Inc. All other marks mentioned are the property of their respective owners. Covad service not available in all areas and is governed by Covad's standard agreements, customer policies, service level agreements, and acceptable use policy.