

VirtualPBX[®]

Saving Money with Business VoIP

Adding the Costs



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Introduction

BUSINESSES NEED PHONE SYSTEMS. EVEN IN TODAY'S WORLD OF WEB SITES, ONLINE CHAT, EMAIL, & INSTANT MESSAGING, THERE IS STILL NO SUBSTITUTE FOR BEING ABLE TO TALK DIRECTLY WITH YOUR CLIENTS, SUPPLIERS, AND EMPLOYEES. PHONE SYSTEMS PROVIDE FOR THIS DIRECT INTERACTION, FROM ROUTING INBOUND CALLERS TO THE RIGHT INDIVIDUAL OR DEPARTMENT, TO PROVIDING DIAL TONE FOR OUTBOUND CALLS, AND EVERYTHING IN BETWEEN. THIS HAS BEEN TRUE EVER SINCE THE FIRST COMPANIES USED MR. BELL'S INVENTION TO HANDLE BUSINESS ISSUES.

The big change in our era is the addition of a new type of virtual phone system, business VoIP, which combines traditional telephony with the Internet "cloud" to provide more capabilities, greater flexibility, and significant costs savings. In our challenging environment, the idea that most companies can save 40% to 80% on monthly phone costs is motivating. Getting more features and greater freedom of implementation is "icing on the cake."

This paper will examine the numbers behind these savings and provide information about how to get them for your company.

**PBX (Private Branch Exchange)**

A switching device that connects business telephones into a cohesive system and routes calls to individual phones or employees.

Parts of a Phone System

The list included here will be the minimum needed to understand the topic rather than an exhaustive study of everything that goes into a phone system. Throughout this paper, we will be discussing business phone implementations rather than residential service.

Dial-Tone and “Lines”

Phone calls are sent over transmission mechanisms like copper wires or Internet connections. Most of us understand that a single phone line can carry a single conversation. You can take an incoming call on your line, or you can pick up your phone and get a dial tone to make an outbound call.

This one-to-one line definition is not quite the same in VoIP telephony. Most companies will have a single broadband (or better) Internet connection that can carry all their calls and if they implement a business VoIP phone system, the traditional concept of a phone line goes away. Instead, most hosted PBX providers talk about “users” or “extensions”. In analog systems a user extension is usually the desk phone employed by a specific worker. In a business VoIP system, an extension typically connects to a specific person, who can take calls on a VoIP phone, a cell phone, an analog phone, or any combination of these.

Hardware PBX

The traditional, premise-based switch to which office phones are connected, typically through standard phone wires. Call routing is done by connecting individual calls with the appropriate desk phones.

Hosted PBX

A PBX service that moves the PBX functions off-site, eliminating the capital and maintenance expenses of a hardware switch. Call routing can be done over traditional analog phone lines to existing phones or over the Internet using VoIP.

Call Routing

One of the most important functions of a phone system is the connection of callers to the right employee in your business. This is one of the functions of the PBX – whether you have a premise-based hardware PBX or cloud-based hosted PBX. Sometimes all calls go to a human receptionist, who then connects callers to the person of their choice by transferring the calls using the PBX switch, and sometimes calls go to a “virtual receptionist” or auto-attendant that plays a recorded greeting and gives callers a menu of key-presses that will get them to the appropriate employees.

Companies who use traditional phone systems will need to purchase a hardware PBX. This can be a substantial up-front capital expense, though it can usually be amortized over the life of the system into a monthly fee. In smaller systems the PBX is often built into the cost of the phone system itself, and users buy the function as they purchase the entire phone package.

Traditional phone systems also have ongoing monthly maintenance costs, while in virtual systems, maintenance and upgrades are usually covered by the service provider.

Custom Features

Simply providing lines and connecting callers to your employees is only the beginning of what most of us want a phone system to do. Most systems today offer added features like voicemail, holding queues (ACD queues), call recording, and more. In general, more features are available at a lower cost using business VoIP than with traditional PBX systems, partially because a virtual system shares the costs of such features across all of the system’s users, while users of a premise-based system have to pay for all of it themselves. For the purposes of this paper, we will assume a mid-range feature set and try to compare apples to apples, not oranges or kumquats.



VoIP

Voice over Internet Protocol. The technology that sends phone calls (voice) over the Internet. This often replaces traditional telephony that sends calls over traditional analog phone lines.

Phone System Costs

Lines and Service Fees

Traditional phone system Business phone lines typically cost \$40 to \$60 per month. If you pay the upfront costs of a hardware PBX, you may not need a line for every phone – but you would want a minimum of one line for every concurrent phone call. In this paper, we'll assume 2 extensions per analog line when a hardware PBX is included, and a middle-level \$50 per month per line.

Business VoIP system Cost per user extension can be as low as \$20 per month, but some providers charge \$40, \$100, or even \$200 per month. In this paper, we'll use \$25 per user per month, which leans toward a lower-cost provider.

Call Routing (PBX) Hardware

Traditional phone system PBX switches are fairly expensive. Accepted figures for the capital expense for such systems range from \$500 per user to \$2,000 per user. This is a one-time cost, and includes the costs of the wiring. To be fair, this paper will use a figure toward the lower end of this range at \$1,000 per user. So a 10-user PBX, installed and wired would cost about \$10,000.

Traditional Phone System

The combination of analog phones, lines, and hardware PBX that has been in use for many years.

Virtual Phone System

A PBX service that moves the PBX functions off-site, eliminating the capital and maintenance expenses of a hardware switch. Call routing can be done over traditional analog phone lines to existing phones or over the Internet using VoIP.

This capital expense can usually be amortized over the useful life of the system, turning the up-front cost into a monthly expense. We'll include this cost as a monthly expense in this paper, but we'll identify it so you can back it out if you already own your PBX system. Amortization will be over 4 years, with no interest.

Business VoIP system Since the business VoIP service provider owns and operates the PBX hardware, there is no expense, capital or monthly, for users.

Support and Maintenance Fees

Traditional phone system PBX hardware must be maintained and upgraded from time to time. The cost of this maintenance may be paid as it happens, or it may be part of a monthly service fee from the company that provides the maintenance. In this document, we'll include a monthly cost equaling 1% of the initial system cost. Again, we'll identify this cost specifically in case you want to back it out from your calculations.

Business VoIP system This cost is borne by the service provider.

Phones

Costs for business phones are similar between analog systems, so we'll leave them out of the comparisons. A good phone can run from well under \$100 to \$1,000 or more.

Usage Fees

Both traditional and VoIP systems have costs for inbound calls to a toll free number and for dialing out to international destinations. Business VoIP systems are usually less expensive in both these areas. However, many businesses don't have toll free numbers or dial out to international numbers, so these costs will be left out of our comparisons. If your company has needs for either of these capabilities, you'll probably save a little more with business VoIP.

Traditional phone system The main "usage" fee for traditional systems comes from making long distance phone calls. Rates vary widely. Lower rates usually come with higher monthly costs for lines. In this document, we'll assume a cost of 6 cents per long-distance minute, and further estimate that 80% of outbound calls will be long-distance.

Business VoIP system Most business VoIP providers include free long distance within their own country. US clients can often find providers that will include free long distance for calls anywhere in the continental US and Canada.

Business VoIP System

A hosted PBX that is connected mainly via VoIP technology. While calls can go to standard phones and mobile devices, costs are reduced by using VoIP connections instead of traditional analog phone lines.

VoIP providers often talk about “unlimited” minutes, which covers both inbound and outbound (both local and long distance) calls at no charge. One caution, however, is that the term unlimited applies only to “typical business traffic.” There really is a cap on the number of minutes allowed, but it’s high enough that most clients won’t hit it. You should always check the “fair use policy” of any VoIP provider and make sure your usage will fall within their definition of typical business traffic. If the company you’re working with isn’t upfront about their fair use policy, be especially careful.

Taxes and Governmental Fees

Bureaucracy is alive and well in our markets. Death and taxes are our constants, and taxes happen a lot more often. From federal universal service fees to e911 recovery fees, you’ll always see governmental overrides. These costs are similar for both types of systems – a little higher in traditional systems for telecommunications fees and a little higher in VoIP business systems for special things like e911 service – and so will be left out of this analysis.

Conclusions: The Numbers – How Much Can You Save?

Phone system costs scale up as you add users and traffic. In this analysis, we assume a company size of 20 employees, and the average number of minutes per user is 1,000 combined inbound and outbound minutes. For a 10-user company divide the monthly costs by 2; for a 100-user company multiply the monthly costs by 5.

Typical Monthly Costs of a Traditional Phone System

Number of Users	20
Landlines	
Cost of land line	\$50.00
Users per land line	2
Number of land lines needed	10
Monthly cost of landlines	\$500.00
Long Distance	
Average minutes per user	1,000
Total minutes per month	20,000
Long distance rate	\$0.06
Outbound % of total minutes	50%
Outbound long-distance	80%
Long distance minutes	8,000
Monthly cost of long distance	\$480.00
Total monthly costs - excluding PBX	\$980.00
Traditional PBX	
Original cost of PBX	\$20,000.00
Monthly cost of PBX - over 4 years	\$416.67
Monthly PBX maintenance/support	\$200.00
Monthly PBX cost incl. maintenance	\$616.67
Total Monthly Cost - Including PBX	\$1,596.67

Typical Monthly Costs for a Business VoIP System

Number of Users	20
Cost per user per month	\$25.00
Total monthly cost of service	\$500.00
Monthly cost of long distance	0
Average minutes per user	1,000
Monthly PBX cost incl. maintenance	0
Total Monthly Cost - Hosted PBX	\$500.00

Comparison

As can be seen by the numbers above, the savings potential is very high by moving away from traditional telephony and to business VoIP. Based on this analysis, the specific savings are found in the following table:

Monthly VoIP Savings without hardware PBX Costs	\$480.00
Savings Percent	49%
Monthly ViOP Savings including hardware PBX Costs	\$1,096.67
Savings percent	69%

How to get Business VoIP

As the inventors of the first hosted PBX, we at Virtual PBX® hope you'll come to us. We started the virtual phone system revolution in 1996 and have the deepest feature set in the industry. For more details about our company and our services, please visit our website at www.virtualpbx.com, or call us at 888-825-0800.

We'll help you get started, or just answer questions. The sooner you call, the sooner the savings can start.



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