



7 Reasons

Why IP Communications is a Smart Business Move

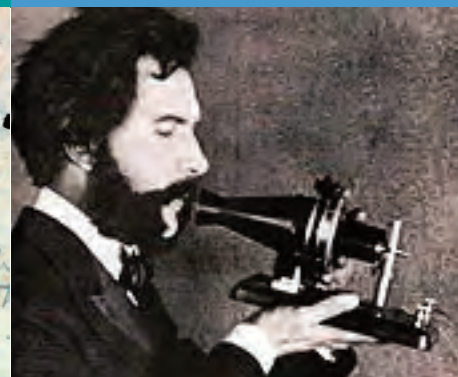
On March 7th, 1876 Alexander Graham Bell had the first U.S. patent which covered a method of transmitting sounds telegraphically. Three days later he uttered his famous sentence **“Mr. Watson – Come here – I want to see you”** and over their crude telephone Mr. Watson heard him!! Since this event, over 125 years ago, the core technology of traditional telephony has not changed, until now. **Now we have a new emerging standard Voice over IP or IP communications.** IP communications is going to be a disruptive influence on voice communications. It will require businesses to make a capital investment to reap the benefits of this new technology, but the **forward thinking companies are not waiting**, because **the traditional telephony environment is no longer a sustainable business model.** IP communications will revolutionize voice communications in two primary ways:

- 1) It will provide a better telephony model through lowered costs, flexibility, and functionality
- 2) IP provides a tool that will allow business people to easily collaborate and be productive regardless of location

Thank you

for requesting this special report.

We hope you find it both interesting and helpful.



- #1. Proprietary Systems versus Open Standards Based Systems — A Quick Review
- #2. More Features for the End User which Enable Productivity
- #3. Integrating Voice Across Multiple Locations— Increasing Natural Communications
- #4. Maintaining Two Networks. Does it make Sense?
- #5. Business Continuity and Disaster Recovery — The Twin Achilles Heels of Traditional Phone Systems
- #6. Hardware versus Software Based Phone Systems — Does it Make a Difference?
- #7. The Productivity and Investment Cycle of Traditional Hardware Based Systems versus Software Based Systems



To reach a port we must sail, sometimes with the wind, and sometimes against it. But we must not drift or lie at anchor.

Oliver Wendell Holmes



Definition of Proprietary:

In the language of hackers and users, inferior; implies a product not conforming to open-systems standards, and thus one that puts the customer at the mercy of a vendor who can inflate service and upgrade charges after the initial sale has locked the customer in.

The Free On-Line Dictionary Of Computing

Reasons #1

Proprietary Systems **versus** Open Standards Based Systems —
A Quick Review

Chances are that you currently have a proprietary phone system. The proprietary nature of telephony to date has gotten you to where you are, but chances are it won't get you to where you want to be. In today's market proprietary systems rarely make good business sense. Let's look at three ways a proprietary system limits your business:

- 1) Your cost to buy and maintain is greater
- 2) Your choice of vendors is limited
- 3) Proprietary discourages you from bringing basic system support in-house

Let's explore more deeply these three obstacles:

When you buy a new phone system, it currently locks you to one manufacturer and one vendor. So you take great care in picking your vendor and the solution they provide. Unfortunately, once you buy you are now locked in, **the vendor has more leverage** and although the initial price may have been reasonable, the cost for phones, upgrades, and changes later in the relationship seems to favor the vendor/manufacturer. Anytime your ability to source equipment and service is limited, your price inherently goes up.

Now that you have taken great care to pick your vendor, what if over time, that relationship sours? The reasons are numerous: your company has changed and no longer fits the expertise of the vendor, the vendor has changed and their business philosophy no longer fits your philosophy, or in a worst case scenario the vendor or the manufacturer discontinues distribution of the product. **What do you do?** You hope and pray you can find another good vendor that you enjoy doing business with or you suffer through your current relationship because the initial investment was too great.



Source: Frost & Sullivan



Since your system is proprietary, it is unlike any other technology you have in your organization. It is therefore difficult for your staff, even though they may have very good technical skills, to manage the routine maintenance of your voice system. This again makes you reliant on an outside vendor for day to day-support. **Every time you call your vendor you increase your costs** and you have to wait on the vendors schedule to complete your task, an expense and a hassle.

In an open standards solution your acquisition costs are lower:

Since the standard is open and developed by a large group of independent and typically unpaid users, your initial product acquisition cost is much lower (this is the Wikipedia model, Wikipedia has 10 times the content of Britannica, has 4 million articles, over 10,000 authors, has only 6 employees and is free to use).

In an open standards environment your voice system will be running on industry standard equipment like a server. This **equipment can be readily purchased on the open market at market driven prices**. The telephones you select can be purchased over the internet from multiple vendors such as **Polycom, Grandstream, and Aastra**. These phones are very competitively priced, gone are the day of the \$500 phone. Since the market is competitive the features and quality are getting better and the product development cycles are getting much shorter, just like cell phones.



In an open standards environment, you are no longer locked into one vendor; there are many vendors to choose from, along with a plethora of resources on the net. Yet the other overwhelming advantage is the ability to bring some or all of the day to day system management in house. **A typical IT worker can handle the basic daily system administration**. The systems also have online tutorials and web based training, which allows the IT department to ramp up their knowledge level over time. Although all this will reduce your cost, you will find **the greatest advantage is the agility and responsiveness it gives your organization**. It allows you to quickly mold your voice communications to your business model, not mold your business model to the limitations of their voice system.



Reasons #2

More Features for the End User which Enable Productivity

A traditional phone system offers a standard set of features: Caller Id, Redial, Voice Mail, Do Not Disturb, Transfer, Intercom, Basic Conference Calling, and the ability to see the Status of a few other extensions in the office via a blinky light on your phone.



From the time you first own your system to the time you replace your system **your phone features rarely change** and the method you use to interface with **your phone is very static, no mouse, no touch screen, no drop down menus.**



The method that you use to interface with your phone is often very clumsy. Conference calling is one of the most underutilized features on a phone system because of the sheer complexity to remember what buttons to push without cutting someone off. If the desired feature is not used often and require memorization of button pushing the average worker will just not use it. The phone or what I now call the plastic on your desktop, limits the number of people you can see in your organization, doesn't update itself when new staff are added, doesn't show you a list of all your calls, only redials the last number your dialed, and can be almost impossible to put in **Do Not Disturb** or to **Forward** to your cell phone. **The point is your desk phone is not very functional** and doesn't even begin to compare to some basic features you have grown accustomed to on your cell phone.

New software based IP communication systems either allow you to install software on your desktop or run a web based application that gives you control of your telephone via your computer. This software is referred to in the industry by a number of names, a **HUD** (Heads Up Display), a **softphone**, and a **Client**. For purposes of this discussion we will use the term Client.



Think about if a call came in, it rings your phone but a small pop up comes up on your computer screen showing you the caller id and name, even searching your database to see if there is a match. You use your mouse to click on the pop up deciding whether to take the call, send it to voice mail, or route it to another individual in your organization. Once the call is answered you can mouse click your screen to record the call. Once the recording is done it ends up as a .wav file in your email, where you can save it in a folder or email to a constituent.

Your Client also allows you:

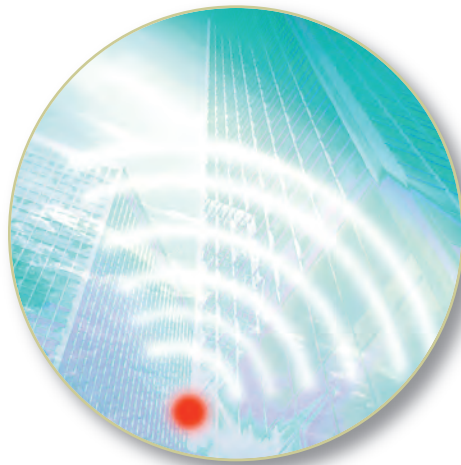
- One click dialing of any name in your database
- Faxing to and from your desktop
- The ability to do multi-party conference calling by dragging live calls together
- To see the availability status of all individuals in your organization, no matter where they are located
- The ability to answer a call and drag that call across your screen and release the call so the call is transferred to an associate in another office
- Easily change your own availability status to “Out of the Office” or “In a Meeting Until 2pm”. Your status can now be seen by any member of your organization and when you change your status, your voice mail greeting is automatically changed for incoming callers to hear
- The ability to see your call history, everyone that has called you in the last 90 days, the disposition of that call (answered, missed, left voice mail) and the ability to click on the call and dial the caller

An **Intel White Paper** concluded that the adoption of IP communications in the workplace created **an average productivity gain of \$480 per person per year**. In an average 50 person company that translates into an average annual savings of \$24,000.00.

Courtesy of Intel®, Leap ahead™ White Paper February, 2006

HAL BISSELL
Air Engineers, LLC
www.aireng.com

“Blue Ocean Technologies has helped keep Air Engineers ahead of its competition with an advanced system that also bridged a communications gap once felt among its branch offices.”



Reasons #3

Integrating Voice Across Multiple Locations —
Increasing Natural Communications

Many organizations have multiple locations. Most often these locations are networked together to share computers and internet, but quite often the voice systems are not connected.

If the voice systems are not connected together, then each location has to have its own phone system. This presents a number of issues:

- 1) Often you end up with **different types of phone equipment** at each location and different vendors administrating, updating, and maintaining which is **costly, time consuming, and hard to manage**
- 2) Often telephone lines and data connections at the remote locations are in essence... a duplication of what already exists at corporate, this **added capacity is expensive** and it also requires multiple vendors and contracts to manage
- 3) **Customers have to often call multiple locations to get the service they need.** They call one location and then they are asked to hang up and call another locations to talk with the accounting or customer service departments
- 4) Internally, associates have to call other locations by dialing an outside number, this ties up the resources of the location being called, creates longer connect times, and quite often ends up in some type of voice mail tag





If the voice systems are connected using a traditional voice networking, one can expect the equipment to be expensive because hardware costs usually have to be duplicated, at each location, along with the added expense of separate voice circuits and continuing system maintenance.

IP communications is perfectly suited for multi-location companies.

- 1) **IP can greatly reduce the cost of tying multi locations together because all voice and data traffic are routed together**
- 2) **IP can lower the capital expenditure** needed to integrate multiple locations. (typically when deploying IP communications, remote locations need a fraction of the equipment that a traditional phone system would require, this allows the small-medium business to have the same advantage as the Fortune 500 companies)
- 3) **IP provides a more seamless feel to the company's customers,** because they can call any location and be routed any other location without having to hang up and call back
- 4) **IP can dramatically facilitate inter office communications,** by allowing peer to peer calls between branches, a unified voice mail platform, and status and availability information corporate wide



The other huge advantage is **the remote worker**. Increasingly an organizations expertise does not all reside inside the corporate office. Attorneys, sales people, management are often spread across large geographical territories. **IP communications allows high dollar associates to be more productive.** With a laptop and a cell phone, any associate can have **all** of the productivity features that a corporate office user would have, including: Associate availability and status, conference calling, call recording, screen pops, and one click dialing, peer to peer intercom, voice mail to email, and faxing.

These features also can have a **distinct advantage to the corporate bottom line.** Allowing associates to work from home reduces office square footage. Giving associates tools such as **web, voice, and video conferencing increases collaboration and decreases travel and its associated costs and inconveniences.**



Reasons #4

Maintaining Two Networks. Does it make Sense?

Most companies maintain 2 networks inside their organizations, but most don't think about it as being 2 networks. One network is your phone network and the other is your data network. If you step back and begin to think about the cost, complexity, and duplication, you scratch your head and say why?

A voice network will consist of at least 3 parts:

- The telephone lines coming into the company
- A set of cables that connect the desktop phones to the central phone system
- The phone system itself

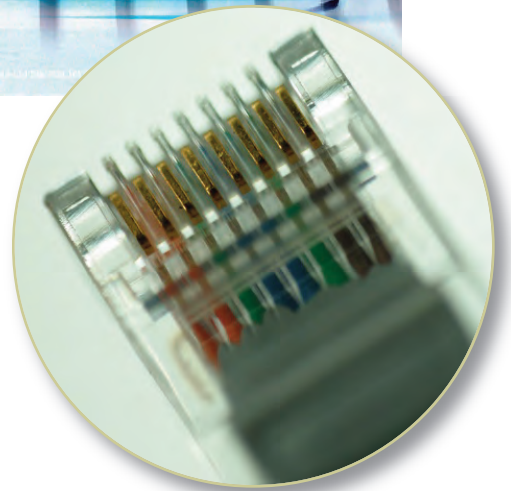
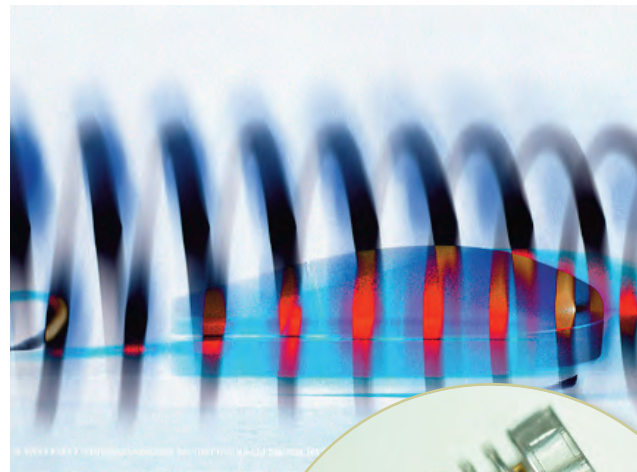
The data network in turn consists of its multiple parts:

- The internet connection coming into the company
- A set of cables that connect the desktop computer to the data switches
- The servers that store information and run software applications for the end user





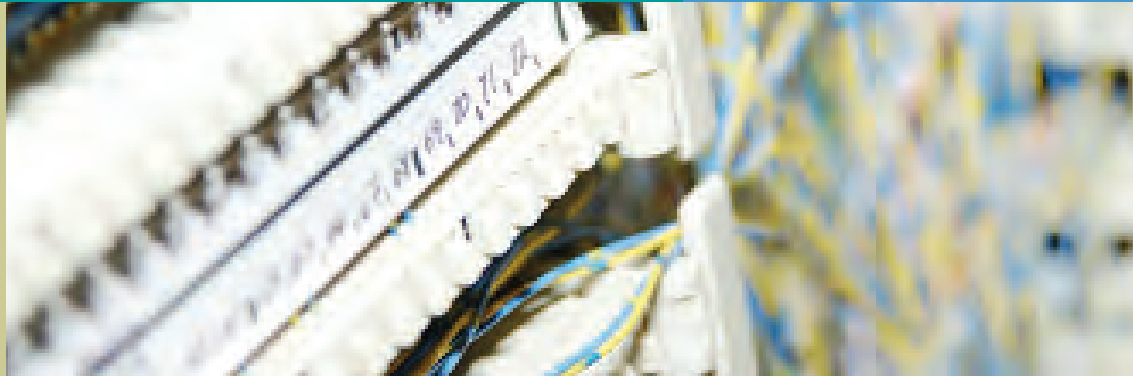
What if your voice and data networks were the same network (converged)? Could you possibly cut down on the number of outside vendors? What if you could cut your infrastructure in half by running just one cable to the desktop? What if to add a person your IT staff could order a reasonably priced phone over the internet and have it shipped to you? What if they could add the phone to the existing network without calling an outside vendor? What if when someone moved, that person just picked his/her phone and computer and carried it into the new office and plugged it in? What if every time you add a new employee, their name, extension number, and status was immediately available to you via your computer screen, no more extension list. Think of the reduction in vendors, the reduction in costs, and the almost instant turnaround time to shift and grow the company. Anytime you can reduce the complexity of a solution and still achieve the same results your return will be convenience and reduced costs.



Converging your voice and data network will simplify your operations!!

SANDY WINDOM
The Kennion Group
www.kennion.com

“We needed a system that would allow us flexibility in our call routing and the ability to administer the system internally. Our IT staff is able to administer the system without having to rely on a third party's schedule.”



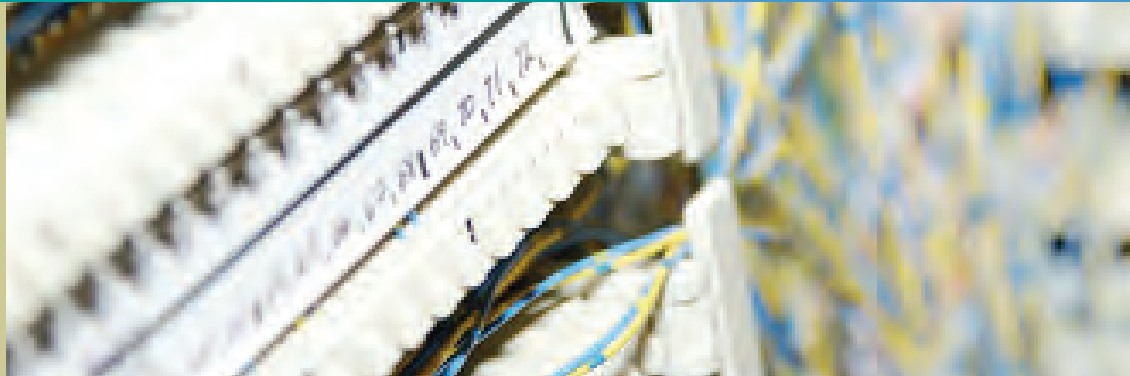
Reasons #5

Business Continuity and Disaster Recovery — The Twin Achilles Heels of Traditional Phone Systems

Traditional telephone systems have 2 Achilles heels concerning business continuity and disaster recovery.

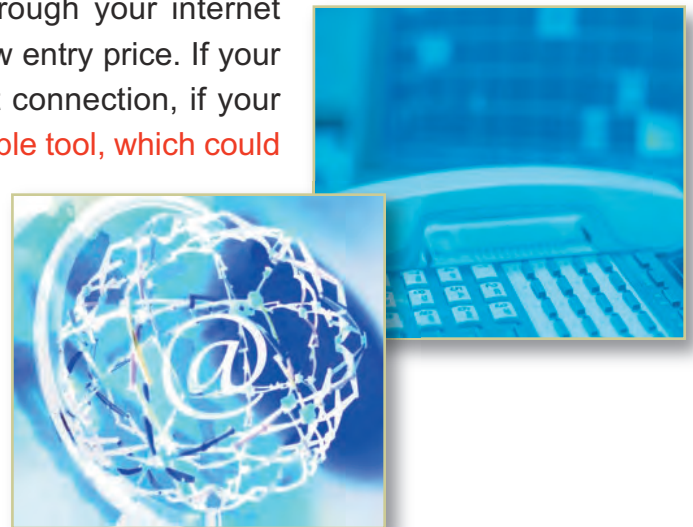
The first Achilles heel is hardware failure or inoperability. If a traditional phone system has a hardware failure or becomes inoperable because of a disaster at the corporate site, there is little that can be done to maintain business voice continuity. An inevitable disruption will be apparent to customers and lost revenue will take place. **Traditional phone systems were never created to be redundant.** Any type of redundancy usually requires a complete duplication of the phone system. Doubling the capital expenditure to cover the small amount of downtime or the risk associated with a disaster has not typically been seen as a good investment for most businesses.

In IP communications the equipment being used are computers. This type of equipment is reasonably priced, readily available, and designed to do distributed processing. So **creating a voice disaster recovery or equipment failure plan is easily within reach of the average business.** Most companies already have some disaster recovery plan for their data, so extending this to their IP communications is not difficult. It may be simple things, like backups and RAID drives, or more advanced solutions like redundant servers and equipment located off site in a hardened Network Operation Center.



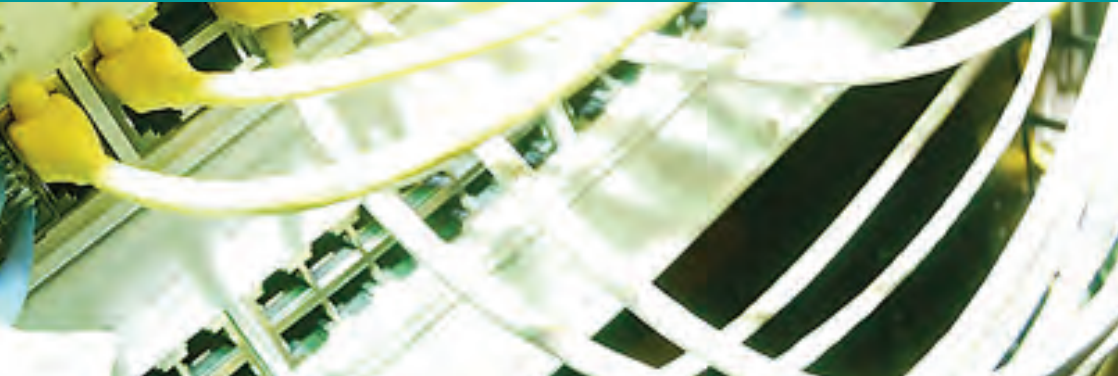
The second Achilles heel of business continuity is your connections to the PSTN (Public Switched Telephone Network / how you get your phone lines). In just the past 60 days in the Southeast we have seen major day long outages by the major carriers. The old adage of uptime of 99.999% that has been heralded by the telephone industry is a thing of the past. **There is no good way on a traditional telephone system to create redundant Dialtone.** Some customers bring in two different vendors, some customers use divergent paths to bring in Dialtone. Neither of these are full proof, both are expensive and usually only deployed by large enterprise customers. I know a law firm that was recently down all day and lost \$35k worth of productivity for that day, not to mention the client's irritation and the lost opportunity costs.

True standards based SIP compliant phone systems solve this problem. Most companies have two connections to the outside world. One is to the PSTN and the other is to the Internet. These paths are usually distinct, meaning if one fails the other one usually does not. With the advent of SIP technology, telephone lines (SIP Trunks) can be brought down through your internet connection. This results in complete redundancy, at a low entry price. If your PSTN goes down you make calls through your internet connection, if your internet is down you make calls through the PSTN. **A simple tool, which could cost as little as \$100 month, could alleviate the headaches of not being able to make and receive business phone calls.** SIP trunks also have low long distance cost per minute rates and lower regulatory fees, making them very attractive in certain applications.



FARIS MALKI
Cahaba Cycles
www.cahabacycles.com

“You addressed what my needs were, which was not only a phone system, but a network that would join all our stores together seamlessly.”



Reasons #6

Hardware VERSUS Software Based Phone Systems — Does it Make a Difference?

The first question people ask me is, “How do I tell whether my system is hardware based or software based?”

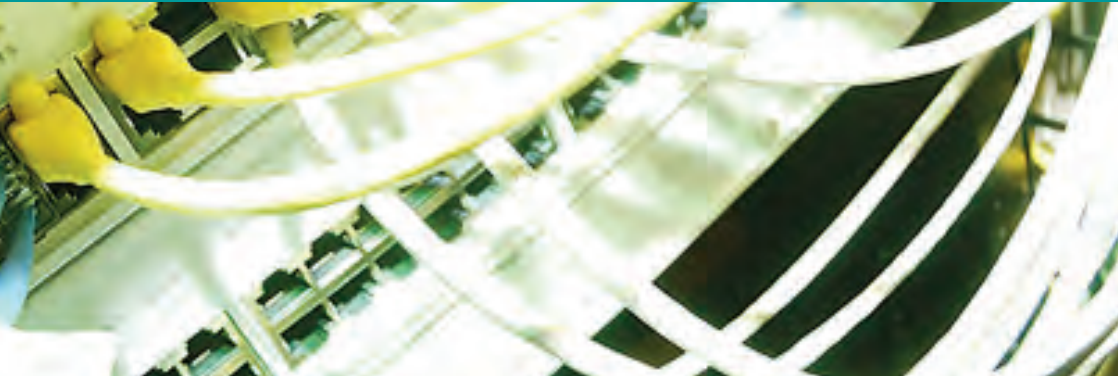
The answer can be complex and the definitions are many, but one simple way is to go look at your phone equipment. Is it a computer/server mounted in a rack in your data room or is it a metal or plastic box bolted to the wall in a closet somewhere in your organization? If it is a server in your data room, there is a good chance you have a software based system. If it is a piece of equipment bolted to the wall and you open the front of the cabinet and there are a bunch of cards slid into slots, chances are you have a hardware based system.

Hardware based systems have these issues:

- 1) They have growth limitations
- 2) The productivity features are stagnant
- 3) They lack integration/they don't work with any other back end business systems you have

Every time you grow a hardware based system, you have to buy more of those expensive cards, and/or add cabinets. And since the system has a maximum size, you will potentially outgrow your system. When that happens you have to **scrap your investment and buy the next bigger better mousetrap.**





The real horror is the stagnancy of your large capital investment. You invest a large amount of money in a telephone system that gives you an initial set of efficiencies and after the first year those efficiencies are realized. **From then on your system does very little to enhance the productivity of your organization,** it just maintains status quo.

Next is integration. Because hardware based systems are hardware based, they don't interface well with your other backend office systems that are software based (like your customer database, workflow management, and accounting packages).

Software based systems on the other hand, **do all three of these things very well.** When implementing a software based system, if your server is properly sized at installation, it is **almost impossible to outgrow.** To add users to your system there is no cards or hardware, a software license is just downloaded from the internet. **Quick, simple, and economical.**

A software based system receives regular software upgrades as part of the support package. These upgrades give you tools that are being adopted and becoming popular in the marketplace because of their productivity and widespread use. Therefore **your voice system will always be current or exceeding your competitors,** and bringing the maximum productivity to your workforce.

The third issue and maybe the most important is that software based systems integrate with your computer desktop and backend systems. Thus giving you the ability to use your contact database to dial your phone, to track call history, to see missed calls, to automatically pop a Google screen with the callers location and searchable information on the person. This type of **integration gives you a complete tool set, to raise the productivity** of your workforce that is **impossible to duplicate in a hardware based system.**





Reasons #7

The Productivity and Investment Cycle of Traditional Hardware Based Systems **VERSUS** Software Based Systems

Most companies spend substantial money on the purchase of a new phone system. And therefore to gain the most out of their investment, keep that system for as long as possible. In fact the average lifecycle of a business a phone system is 7.5 years. Unfortunately 7.5 years in today's business market is a lifetime. So here are the productivity life cycles of the old model and the new model.

The Old Model

- Put in new hardware based telephone system
- 3-6 months for employees to learn and take advantage of new features
- 1-2 years of enhanced productivity
- **5 years of no productivity gain**
- Throw out the investment and reinvest or do a forklift upgrade (more capital investment) and get minimal productivity benefits and low return on investment

The New and More Successful Model

- Install a software based system
- Productivity gains start in the first few months and or more prevalent because the user interface is easier and more intuitive
- The system is upgraded at the end of the first year, **the workforce adopts the new tools and productivity increases**
- **Productivity stays high for the next year**
- **Repeat the upgrade/productivity cycle yearly**



About the Author

Bill Pautler is the Co-founder and CEO of Blue Ocean Technologies, Inc. He has advised and guided hundreds of businesses in the Southeast through the acquisition, implementation, and ongoing support of their telephony solutions.



Prior to founding Blue Ocean, Bill served as a Vice President at the privately held company Diamond Head, Inc. Bill's leadership was instrumental in their growth, leading to the sale of the organization to a Fortune 500 company. Using some of the capital from the buyout, Bill started one of Birmingham's first voice mail service bureaus, Voicecom, which he grew and then sold. Bill's last venture before Blue Ocean was to serve as the sales manager and leading income producer for a telephone equipment and service provider that grew from 10 employees to 50 employees, during his tenure.

Along with numerous sales awards, Bill has a Bachelor of Science in Sociology from Spring Hill College.

You can reach Bill at 205.776.6903 or email at bill@blueotech.net

PATRICK BRANNON
Brannon Honda
www.brannonhonda.com

“Blue Ocean was really the only vendor that listened to why I was calling them and then they took care of my needs!”



About Blue Ocean Technologies

Blue Ocean Technologies provides telephony solutions to business clients. We are specialist in the design, implementation, and ongoing support of open standards based IP communication systems.

Next Steps

We encourage you to **contact us** for a no obligation **free** and **confidential personal consultation**. In the past clients have used this opportunity to answer questions such as:

- What are the disadvantages to implementing IP communications?
- Are there IP standards I need to be aware of?
- Is Voice over IP call quality an issue?
- Is implementing IP communications more expensive than traditional systems?
- Can we keep our existing phone numbers when migrating to IP?
- Does IP communications put a heavy bandwidth burden on my network?
- I have heard Server based technology is not as reliable, is that true?
- How can IP communications help with Redundancy and Disaster Recovery?

To arrange your **free consultation**, you can contact Bill at 205.776.6903 or by email at bill@blueotech.net