



You need an IT department Now what?



Comparison between building your own IT department or outsourcing IT

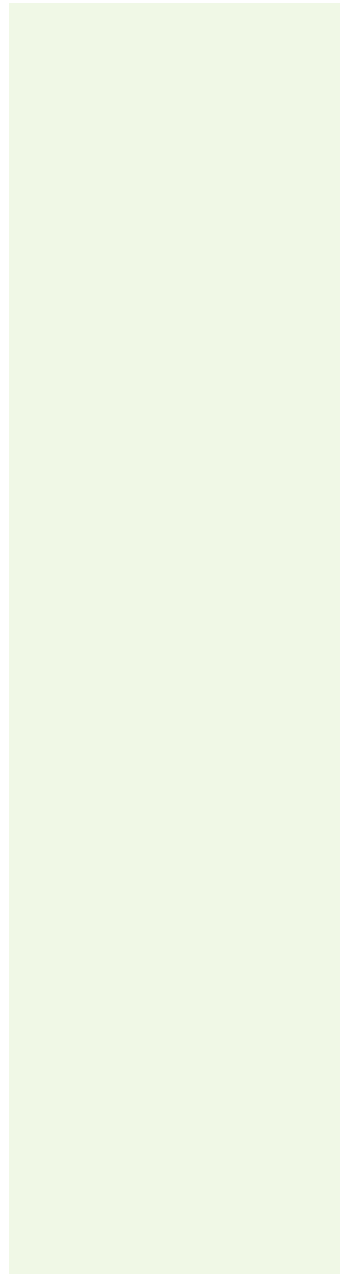


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The example company, Benson Dentistry

Our sample company for this white paper is Benson Dentistry. We will walk with Doctor Benson as he creates his business and then grows it over a two year period.

What IT needs will Doctor Benson have at the beginning of the study?

What IT needs will he have as he grows his business over the two year period of the study?

What precautions against failure should he be concerned with?

How should maintenance be handled? Do we forego it and only use servicing for when things break?

Building IT within, what we need

This part of the white paper will talk about Benson Dentistry building IT within and go over the cost points, technical pain points and in layman's terms, what is really involved in setting up a successful computing infrastructure.

The Start

Let's assume a typical startup business in the dentistry field. Dr. Benson hired 1 receptionist and 1 assistant. What will he need?

Facts to consider:

- The practice will need a contact manager to keep track of his customers
 - Optional but recommended to have a shared contact folder like MS Outlook
- The practice will need a calendar to keep track of appointments
 - Optional but recommended to have a shared calendar like MS Outlook
- Broadband internet connection, local cable or DSL
- Tape backup connected to the machine housing the contact information and calendar
- Email services
 - Can be a national free provider
 - Optional but recommended to go with branding options such as a unique domain name
- Since this is medical information, HIPAA compliancy must be considered
- Large hard disk drive to store information
- Laptop or desktop for Doctor Benson
 - Optional but recommended to have access to shared calendar

Doesn't seem like a lot does it? Let's assume that Doctor Benson calls his computer guy, we all have one; the neighbor or friend that does IT on the side. What would the solution look like now? What would the cost be short term and long term?

Let's examine the purchases, the costs associated and define why each component was needed.

Computers

Typically, startups would contact a computer reseller, such as HP or Dell. So let's assume Doctor Benson calls Dell, orders an average business desktop and laptop. So for the two computers, let's go with this average purchase:

Initial cost on straight purchase: \$1,750.00 or monthly cost, if leased: \$120.00

The desktop will have a 160GB hard drive, which is a decent size for file storage. We will also have an external tape drive that we will connect to the desktop to backup our data. Backups are very important since you want to have a backup in case of a Data Loss Event.

Software

Both machines will have Microsoft Office Small Business pre-installed.

Internet Services

We will need internet access to connect our network to the outside world for email and browsing. Let's assume we have the domain name bensedentistry.com and have a website and email addresses setup accordingly with our internet provider.

Monthly cost for business DSL: \$75.00 (Includes monthly renting of DSL modem)

Networking

We will also need a broadband router/firewall, that's about \$120.00 on average.



Why we need a Router?

Why do we need one of these? When you connect to the internet, your internet provider assigns you an IP address. This address is a series of numbers such as 192.168.1.1 or 207.134.55.1. This IP address is your computer's logical internet address, your internet provider knows that this address is your computer. So if you send an email to yahoo.com, the data travels from your computer to the internet via a router (think of a router as a device that helps "route" data from one IP address block to another.) to yahoo.com which has a block of IP addresses similar to the one your internet provider will assign to you. Your computer will have a DNS server that it can connect to from your internet provider (domain name server, basically a server that has names to IP addresses so we humans can worry about typing yahoo.com into our browser instead of 156.72.16.11) , now you can route the data from your computer to yahoo.com.



Why we need a Firewall?

We need a firewall to protect our computers since we are connected to the internet in an "always on" mode. Studies show that once connected to the internet without a firewall, the average windows PC is bombarded with 30-40 attacks the very first day it is connected. Without a firewall, they would be successful most of the time, and depending on the maliciousness of the attack, you might be re-installing the computers operating system and starting over during the very first day. A firewall hides your computers behind it, hence the "wall" in the name. Attackers would see your firewall, but they are designed to be closed solid state systems and attackers cannot get through them very easily.

Now let's go over the setup costs. Assuming everything has arrived in boxes and is ready to set up, it should only take our IT guy a few hours to set things up. Roughly 3 hours per machine for basic setup and another 1 hour for the internet firewall/router configuration. Throw in unpacking and storage, let's call that a total of 8 hours. At the basic rate of \$30 per hour, that was \$240.00 for setup.

Year 1 changes

Here we are, 1 year into the business and Benson Dentistry has grown. It now has 2 receptionists and 2 assistants. We have added the following equipment:

- 1 more desktop starting at \$650.00
- 1 server starting at \$1800.00
 - Server has 4 hard drives that are mirrored in sets of 2 to protect data from a drive failure. When a drive is mirrored to another in a computer, the data gets written to both at the same time, therefore, a hard drive failure only affects the one disk and your data is safe and sound on the second disk. There are additional disk drive options to consider such as RAID (Redundant Array of Independent Disks)
- Labor hours for setup: 24 at \$30/hr for a total cost of \$1440.00
 - Includes server setup and exchange setup
- MS exchange server for group calendar and email \$750.00

The tape drive was moved to the server to back up the exchange information with the group calendar, customer contact info and email.

The typical business needs 1 service call per machine every year at an average of 3 hours of service so let's add \$270.00 for the annual maintenance.



Why do we need MS Exchange Server?

From Microsoft: For most businesses today, e-mail is the mission-critical communications tool that allows their people to produce the best results. This greater reliance on e-mail has increased the number of messages sent and received, the variety of work getting done, and even the speed of business itself. Amid this change, employee expectations have also evolved. Today, employees look for rich, efficient access—to e-mail, calendars, attachments, contacts, and more—no matter where they are or what type of device they are using.

For IT professionals, delivering a messaging system that addresses these needs must be balanced against other requirements such as security and cost. Enterprise security requirements have become more complex as the demand and use for e-mail has increased. Today, IT departments must contend with e-mail security threats that are wide ranging: continually evolving spam and viruses, noncompliance risks, the vulnerability of e-mail to interception and tampering, in addition to the potential harmful effects of natural and man-made disasters.

While security is clearly a priority, IT is ever cognizant of the need to manage cost. Time, money, and resource constraints are a fact of life as IT is made accountable to do more with less. As a result, IT professionals look for a messaging system that addresses both enterprise and employee needs while also being cost-effective to deploy and manage.

So here we are at year 1 and so far our total costs are:

Initial desktop and laptop:	\$1750.00
Router/Firewall:	\$120.00
Added desktop:	\$650.00
Server:	\$1800.00
MS Exchange Server:	\$750.00
Initial Labor:	\$240.00
Additional Labor:	\$1440.00
Maintenance Labor:	\$270.00
Annual cost of internet connection:	\$900.00
Annual hosting of email/website:	\$240.00

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Year 1 in review

Total Annual IT cost for year 1: \$8160.00

The labor cost for maintenance was on a break/fix case only and assuming that everything was setup properly and there were no catastrophes such as a data loss event or human error. The equipment only had servicing when something went wrong or a change was needed instead of true maintenance. While this is a cost reducing measure, it is hardly the way to go to insure safe and secure operation of your equipment and data. If you have a serious problem, how long before your IT guy can respond? What if the problem needs escalating, how quickly can he make that happen and at what cost?

IT expertise is what it is, an expert in the field of Information Technology and no one individual can know all the facets of the technology involved.

Year 2 in review

Let's assume that year 2 was decent growth with 1 assistant added. So we have Doctor Benson, 3 assistants and 2 receptionists. We did not add any additional equipment but we required more maintenance since our machines are getting used quite a lot and over time, we need to do some housecleaning.

The average monthly amount of hours needed to maintain a server in good working order is 24. Factor in desktop support of 6 hours per month for both machines and we have 30 hours of monthly support required. That's \$900.00 a month for support.

Maintenance Labor: \$7200.00

Annual cost of internet connection: \$900.00

Total Annual IT cost for year 2: \$8100.00

We have less equipment cost but a higher maintenance cost for the second year. There is a direct correlation between lower maintenance costs and a higher risk to system failure. Every business will have their own tolerance for fault and loss of services and/or data.

Overview

Benson Dentistry spent \$16,260.00 over 24 months, averaging \$677.50 a month.

Benson Dentistry owns 1 server that will have to be replaced in 4-5 years. Benson Dentistry owns 2 desktops and 1 laptop that will need to be replaced in 2-4 years. Benson Dentistry owns 1 server license and exchange license that will need to be updated in 2-4 years. Benson Dentistry has to deal with depreciation

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costs of the equipment. Benson Dentistry's equipment is located on premise and is subject to faults in the case of local disaster such as fires, floods, hurricanes or tornados.

When Benson Dentistry has a serious computer issue, there is not a guarantee in place that there will be a service response in a timely manner in case of system failure.

Outsourcing IT, just what is that anyway?

Definition and Benefits

Just what are the benefits to Outsourcing some or all of your business IT functionality? The growing trend in Outsourcing business functions such as Human Resources, Accounting and Information Technology are not happening by accident; they are happening as a result of an ultra competitive marketplace, an emerging global marketplace requiring internet technologies and a difficult economic climate. Outsourcing of Information Technology allows your business to focus on what it does best, your "Core" competency while allowing your IT outsourcing vendor to focus on what they do best, manage IT.

Listed below are several advantages to outsourcing, they include:

- Cost and Risk Assessment, Reduction
 - Acquisition of hardware and software can be leveraged since Managed IT Vendors can purchase for several customers establishing a scale of buying power unmatched by small businesses.
 - This buying power translates into many benefits that a small to medium-sized company would not have, such as:
 - Higher level back-end support
 - Quality of equipment and connectivity
 - A large pool of technology professionals to draw experience from
 - A vastly improved overall IT efficiency for business.
 - Outsourcing IT is a predictable monthly expense. Expensing IT is a strong benefit to consider.
- Cost Avoidance
 - Certain maintenance and upgrade costs are "included" in the monthly fees and are built into the cost of the outsourced project. 24/7 support for the server infrastructure, high-level expertise are all part of the solution and not an extra cost.
 - Avoiding this cost by outsourcing these functions can be quite significant.
- Core Competencies
 - Your business has succeeded to date because of your focus to your "Core" competency, the difficulty lies in wearing many hats as most small business managers are required to.
 - If it is outside your "Core" competency, then you may lack the necessary expertise to succeed at a similar level as you would within your "Core" competency.
 - A Managed IT Vendor focuses on its "Core" competency, and can assist your business with these issues.

- Scalability, Adaptability
 - Building and maintaining an IT infrastructure takes time and money; options not readily available to small businesses competing for every dollar in their marketplace.
 - Outsourcing IT allows your business to grow in size while having a predictable, managed cost.
 - Outsourcing IT allows your business to quickly adapt to sudden market or competitor threats in a world where complacency can kill a business.

Let's take a look at Benson Dentistry under the condition that they outsourced their IT functions at the onset of business operations versus doing it in-house.

Computers

Again, let's assume Doctor Benson calls Dell, orders an average business desktop and laptop. So for the two computers, let's go with this average purchase:

Initial cost on straight purchase: \$1,750.00 or monthly cost, if leased: \$120.00

The desktop will not need to have a large hard drive nor an external tape drive since the data will be kept at a data center.

Software

Both machines will have Microsoft Office Small Business pre-installed.

Internet Services

Internet access will still be required to connect the network to the outside world for email and browsing. Let's assume the domain name bensondentistry.com and website are setup and hosted on the server at the data center.

Monthly cost for business DSL: \$75.00 (Includes monthly renting of DSL modem)

Monthly cost for hosted server with Managed IT Services Provider: \$400.00

Monthly hosted server cost includes:

- Network bandwidth usage
- 24/7, 365 days a year uptime with same day response
 - Additional supports options are available from most providers
- Full-time maintenance on server
- Full set of security monitoring, anti-virus, spyware protection
- Full backups in a protected data center facility
- Dedicated or virtual server with Microsoft Exchange and SharePoint services
- Website with domain name services



Why do we need MS SharePoint Server?

From Microsoft: Microsoft Office SharePoint Server 2007 is a new server program that is part of the 2007 Microsoft Office system. Your organization can use Office SharePoint Server 2007 to facilitate collaboration, provide content management features, implement business processes, and supply access to information that is essential to organizational goals and processes.

You can quickly create SharePoint sites that support specific content publishing, content management, records management, or business intelligence needs. You can also conduct effective searches for people, documents, and data, participate in forms-driven business processes, and access and analyze large amounts of business data.

In layman's terms, you can create group calendars, file sharing folders and a website on a server that is accessible to your business, customers and employees; in your office or even at home. All behind a very secure network and protected from environmental disasters, system failures and human error.

Networking

We will also need a broadband router/firewall, that's about \$120.00 on average.

Now let's go over the setup costs. Assuming everything has arrived in boxes and is ready to set up, it should only take the outsourcing companies IT guy the same amount of time as the IT guy in the other scenario to set things up. Roughly 3 hours per machine for basic setup and another 1 hour for the internet firewall/router configuration. Throw in unpacking and storage, let's call that a total of 8 hours. At the basic rate of \$30 per hour, that was \$240.00 for setup.

Year 1 changes

Here we are again, at the 1 year mark into the business and Benson Dentistry has grown. It now has 2 receptionists and 2 assistants. Adding the following equipment:

- 1 more desktop starting at \$650.00
- Labor hours for setup: 6 at \$30/hr for a total cost of \$180.00

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So here we are at year 1 and so far our total costs are:

Initial desktop and laptop:	\$1750.00
Router/Firewall:	\$120.00
Added desktop:	\$650.00
Initial Labor:	\$240.00
Additional Labor:	\$180.00

Annual cost of internet connection:	\$900.00
Annual hosting of Managed Services:	\$4800.00

Year 1 in review

Total Annual IT cost for year 1:	\$8640.00
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The cost was \$500 higher for the year, but with that added cost, came additional services, a higher level of support and a dedicated reliability not found in the other solution. Key question ->

What is the value placed on the peace of mind that comes from this solution?

Year 2 in review

Let's assume that year 2 was decent growth with 1 assistant added. So we have Doctor Benson, 3 assistants and 2 receptionists. We did not add any additional equipment but we required the standard monthly maintenance that was included in the monthly fee.

Annual cost of internet connection:	\$900.00
Annual hosting of Managed Services:	\$4800.00

Total Annual IT cost for year 2:	\$5700.00
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The yearly expenditure was dramatically lower and this is where outsourcing shines. Since the heaviest expenditure is the capital acquisition of the desktops and laptops and in the labor costs in supporting the equipment, outsourcing cost-avoidance comes into play in this solution in a big way.

Overview

Benson Dentistry spent \$14,340.00 over 24 months, averaging \$597.50 a month.

Benson Dentistry owns 2 desktops and 1 laptop that will need to be replaced in 2-4 years. Benson Dentistry's equipment is located in a secured data center with

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redundant power, internet connections and is NOT subject to faults in the case of local disaster such as fires, floods, hurricanes or tornados.

When Benson Dentistry has a serious computer issue, there is a team of individuals that will respond in a timely manner in case of system failure.

About 85under and PCnet

85 Under is a state-of-the-art data center offering secure data storage, data backups, leased hardware and collocation services to businesses throughout the country. Operating out of Springfield, Missouri in the Springfield Underground, 85 Under offers clients one of the most secure and unique facilities available anywhere in the U.S.

PC Net, Inc. has been providing best-in-class IT services to the Springfield community for more than 20 years. The company's new Pulse IT Management offers growing businesses a cost-effective yet highly responsive way to outsource IT services that feel like they're in-house.

For more information, contact us at 877-85UNDER(86337) or visit us online at www.85under.com, and www.pcnetinc.com locally at (417) 831-1700.

Conclusion

In a typical IT deployment, outsourcing will derive value in the form of reduced long-term costs, greater support levels, greater service offerings and a greater peace of mind. While there may be some cases where housing your IT infrastructure in-house may be advantageous to your business, a strong case exists to suggest that outsourcing your IT infrastructure to a Managed Services Provider is in the best long term interest of your business.