



IT for Small Businesses- 6 Approaches that can Payback!

IT technology is changing fast – yet the approaches to small business computer services seem to be fairly static. What can new technology and new approaches to technology management offer to help you **get more for your small business IT dollar?** This paper presents six areas that small businesses can explore to better utilize and manage IT services.

The areas discussed are:

- [1. Managed Services – System Monitoring](#)
- [2. Hosted Applications, Hosted Backup and Disaster Recovery, Hosted Exchange](#)
- [3. Virtual Servers](#)
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1. Managed Services – System Monitoring

If you come in Monday morning and “the server is down” – is that the start of a real bad day? Do you pay for IT services to baby sit your systems waiting for issues to occur or have to wait for outsourced IT folks to get the message and get around to helping you out?

Managed IT services with Auto-Tech is both a **reactive** edge to **improve reaction time** and support options when something goes wrong and perhaps most importantly a **proactive tool to help anticipate and prevent IT issues!**

Managed Services can increase system reliability and help reduce IT costs. A major component of managed services is system monitoring.

What do we mean by system monitoring? It means simply using a software tool to **keep an eye on your servers and key hardware** and to **almost immediately report any issues – 24*7.**

With systems monitoring when anything happens to cause an issue with a key computer an alert can be sent and depending on your needs someone can address the issue remotely, come right in, or be there early in the morning to address the issue.

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2. Hosted Applications, Hosted Backup/Disaster Recovery, Hosted Exchange

Collocation or remote hosting – it comes down to **having access to a server in an offsite data center**. This can be your own server or, in some instances, hosted data or applications. When you that data center is highly secure, has redundant operability and redundant power and excellent band width and having your information located there can start to look pretty darn good –especially when the high winds blow!

The usual IT systems model has been to host everything at a firm's offices. All of your applications, all of your data, all of your client information and files –all kept on servers right in your office. Email and websites have been an exception. Email is sometimes “hosted” at a third party location and downloaded to the local machines. Websites are often hosted at third party locations.

This model has a number of advantages – not least being that you know where your data is and who has access to it and hopefully how it is maintained and protected.

However, when something goes seriously wrong at the office –**you will likewise know all of your data and all of your applications can be inaccessible or destroyed!** Of course a reliable backup system and well executed procedure can help insure you at least have a copy of your data and hopefully, of your applications – but in a crisis this data copy often can't be functional for some time.

Additionally, you should reflect on how secure your own facility is – who can come and go? Can all of your employees get at the server and all of its data? How often does the power fail? Is your equipment redundant?

Bottom line: Offsite data center hosting has a role to play and can be a great fit for some purposes.

Instead of the old offsite mail dumped into your local Outlook periodically you can utilize fully hosted Exchange services either through a third party or by setting up your Exchange server at a data center. Hosting can pre-filter your mail and deal with attacks and server outages using redundant equipment.

In the event of a disaster, instead of being left with a backup data tape and no place to recover that tape, you can have a fully functional server ready to go with your current data at a secure data center.

Instead of trying to provide full security for a number of remote workers accessing an application inside your firewall you can host a key application at a data center with high bandwidth and strong security.

Virtual servers combined with hosted secure data centers offer additional synergies and advantages in ease of recovery and maintenance.

3. Virtual Servers

Server virtualization is taking the IT world by storm and for a change the “storm” is not all hype! Bottom line – **with virtualization you can run a number of servers or desktops on one computer.**

You save:

- Space
- Heat load
- Hardware costs
- Maintenance costs

You make disaster recovery and system backup much easier

You lose – some redundancy, though this can be offset somewhat as noted by the ease of system recovery.

Basically what it is all about is using a single powerful computer to run a number of separate “virtual machines”. Each virtual machine has its own Windows operating system and runs completely separated from the host computer. One factor that really makes this possible is the 64 bit operating system and server. A 64 bit operating system can utilize a huge amount of RAM versus the old 4 GB limit of Windows 32 bit systems. For example, Windows 2008 Standard can handle 32GB of RAM and Windows Enterprise can handle 2TB! .

The software to make virtualization happen –thanks to stiff competition - is basically free for small applications.

The point here is that this stuff is not just for huge data centers! There can be real savings and opportunities for small to mid-sized business to take advantage of virtual servers.

Say you have several older tower servers and are running out of space and need to replace one or two servers. One powerful machine can quite possibly replace all of those towers for the cost of the two replacement machines!

Or if the heat load in your server room (or server closet!!) is getting out of hand – virtual servers can reduce the heat load significantly.

A virtual server setup can reduce maintenance costs and hardware costs significantly for even fairly small systems applications.

4. Better Systems Management – System Documentation, Issue Tracking, Warranty Tracking

System Documentation

An information technology system is a complex dynamic amalgamation of diverse machines, software, settings, applications, licenses, permissions and your all important data.

When you need a replacement part or need to troubleshoot issues with this system beast it is a huge head start if the system is **fully** documented. What machines, what service tags, what purchase date, what tech support number, what license number etc.?

When it comes to documentation there is a huge difference between a few notes and sheets of paper in a folder and a systematic organized record of all the system data. **Professionalism will pay off in system reliability, reduced service costs and reduced replacement costs.**

Warranty Tracking

Have you ever had Dell out to **replace a computer** hard drive, or had a new RAID 5 controller sent out **at no charge**? Or **do you always seem to pay full price** for everything when it comes to IT services?

Warranties do exist and you **can get free labor and replacement parts**, depending on the warranty, from reputable manufacturers – you just need to ask. But how do you keep track of your warranties, licenses, renewals?

The answer here is not rocket science, but it does involve **a bit of applied technology**. An online warranty tracking program maintained by your IT services provider will insure that you take full advantage of warranties and get your key licenses renewed in a timely manner.

Issue Tracking

How do you report nagging computer problems and issues so they can get addressed? Do you **email Joan** who is supposed to pass it on to the IT service provider? Or do you **call Bob** who will check it out when he gets time and pass it on to a technician soon? Or do you **forget about it until it has driven you crazy about 6 times** when you are really in a rush?

There is a better way – utilize an issue tracking system. Have a desktop accessible system that lets you quickly and easily record issues to a database and that sends to issue to your IT technician –on site or off.

5. Vista and Office 2007

Ok Vista was not ready for prime time - Office 2007 means conflicts with Office 2003 documents and extra complexity in sharing documents. And yet – Microsoft is not without skills - they make some **really powerful integrated software!** **Is it possible that giving in to Vista and Office 2007 will have some payback?** Vista with Service Pack 1 is now ready! Office 2007 and Vista together have real synergies. The following present some features of Vista and Office 2007 that make it worthwhile to look at the upgrade:

Vista

Windows Vista achieves higher levels of reliability, limits downtime, and delivers new time-saving information management tools to your users. Take a fresh look at the features:

With Vista, see everything you have open at a glance - lost track of what files and programs you've opened? Flip through all your open files and windows with a simple click of your mouse using Windows Flip 3DA—you're just one click away from everything you're working on. Windows Flip 3D uses the dimension of visual depth to give you a more comprehensive view of your open windows, helping you sidestep chaos even as you juggle myriad open files and programs.

In Windows Aero™ with Vista, when you rest your mouse pointer on the taskbar, you can **see thumbnail images of the windows you have open** without having to expand them—so you can find what you're looking for at a glance.

Enable Mobile Workforces

With Windows Vista, mobile professionals gain more seamless and secure access to corporate resources and collaboration with colleagues, both on and off the network. A better transition from online to offline reduces the time and labor required to synchronize mobile devices. Windows Vista also helps to increase mobile productivity by discovering and sustaining connections to wireless networks more easily

Find and Use Information

Vista helps individuals find and use information quickly, easily, and more securely on PCs, e-mail, corporate sources, and the Internet. **Find what you're looking for on your PC and the Web**

- Instant search of any document, photo, e-mail message, song, video, file, or program on your PC
- Improved browsing and Quick Tabs
- Organize information with search folders

Improve Security and Compliance

New Vista features reduce vulnerability to malicious software, block attacks, and remove malicious software before problems occur. More sophisticated auditing and reporting capabilities help to simplify IT management and can contribute to lower costs for regulatory compliance.

Infrastructure Optimization

Windows Vista reduces the time and complexity of deploying and maintaining infrastructure and provides a more manageable, reliable, and secure desktop client. Richer data and documentation allows IT professionals to more easily view, prioritize, and respond to events; new diagnostic, self-help, and remote assistance tools significantly decrease branch office and helpdesk support costs. Windows Vista costs less to deploy than Windows XP.

Other Vista features

- Make use of improved power management
- Control mobile settings from a single place
- Easily synchronize data across PCs, servers and devices
- Control the use of removable storage devices with group policy

- Anti-phishing capabilities help protect users and their data
- Easily connect to wired and wireless projectors
- Network access protection restricts unhealthy clients from your network

Office 2007

With Office 2007 –Word, Excel, Outlook, and Access – the basic functions are different but are they better? The simple answer is yes. In Word 2007 for example, a user will take a little time to get up to speed – but **the new locations of tools and commands are intuitive and after a little time things speed up and go faster than ever.**

The real meat of Office 2007 however is a layer deeper. **There are many new features and a lot of new functionality that can add power to Office in your office!** What can the following do for your business processes?

Document Comparison in Office Word 2007: Make it easier to review and incorporate document revisions.

Enhanced Calendar Sharing Capabilities

Document Inspector Feature: The Document Inspector feature makes it easy for you to remove “invisible” information such as comments, hidden text, and properties in your Office 2007 documents.

Instant Search in Office Outlook 2007: Instant helps users search through e-mail, e-mail attachments, calendar, contacts, and tasks simultaneously, helping to find needed information much faster.

RSS Feed Integration in Office Outlook 2007: Enables Really Simple Syndication (RSS) feeds to be delivered directly to your Inbox.

Data Visualization Tools in Office Excel 2007: Visualization tools in Office Excel 2007, including data bars, three-color gradients, and performance indicator icons, give you powerful new ways to analyze data.

Office 2007 provides **improved integration** with other applications.

Information Management Policies: Apply information-management policies that consistently enforce the labeling, auditing, and expiration of documents.

Information Rights Management: Assign permissions that prevent others from copying, printing, or editing your document.

Streamlined Deployment of Electronic Forms: easily create electronic forms to gather information in a structured way. Office InfoPath 2007 integration with InfoPath Forms Services provided in Office SharePoint Server 2007 enables forms-based workflows that are accessible through a Web browser, streamlining business processes both within and across your corporate firewall.

Integrated with Office SharePoint Server 2007 **-creating an Intranet-**Office helps streamline processes and simplify content creation, reviews, and approvals, including review and approval workflows, and deployment of electronic forms. Create sites that centralize document storage, version tracking, and feedback management.

E-Mail Forms in Office InfoPath 2007: Office InfoPath 2007 E-Mail Forms give you a faster way to collect information from coworkers by embedding an Office InfoPath 2007 form within an Office Outlook e-mail message.

Data Connection Library in Office Excel 2007: Data Connection Library in Office Excel 2007 gives you the ability to easily **connect your spreadsheets to corporate data sources**, helping to ensure that they reflect the most current and accurate information.

Data Binding in Office Word 2007: Data Binding in Office Word 2007 give you the **ability to easily connect documents to corporate data sources**, helping to ensure that they reflect the most current and accurate information.

Microsoft Office Open XML Formats: **Microsoft Office Open XML Formats provide compact, robust file formats that facilitate better data integration between documents and back-end systems** and are easily shared with others.

Microsoft Office Communicator 2007 makes communicating with colleagues in different locations or time zones easier by providing a range of different communication options, including instant messaging (IM), voice, and video.

6. The Basics –Servers and Backup

A. Servers

A server isn't "new" technology you might well say. However, to many small businesses that first server is a big step! A solution for small businesses involves utilizing Microsoft Small Business Server.

Microsoft Small Business Server is an excellent solution for businesses up to about 15 users. Microsoft has made it really economical to have a server by bundling the server operating system plus Exchange in an easy to administer very cost effective package. Exchange is powerful software that ties users together through Outlook and provides shared calendars, contacts, tasks, and email.

A few server advantages:

- Providing a central location to store data
- Streamlining customer communication, shared calendars and contact/sales data – using Exchange
- Letting you access customer and business information, whether you're in the office or on the road
- Controlling network resource access –.

A server also lets you:

- Share resources – equipment (fax, printers) and internet access to reduce costs
- Centralize your backup needs to prevent costly data loss and save time

- Improve security by allowing the ability to control access to the network and to selected data and files on the network. You will control who can see what, who can edit what, who can get on a machine or use a printer-and who cannot.

For more information on servers you can download the document, "Is Your Business Ready for a Server at: http://download.microsoft.com/download/8/9/d/89d52ddb-06e2-4c21-ac37-6e8e4b608ca6/SB_FSRS_BV_GUIDE_Is_Your_Business_Ready_for_a_Server.pdf

B. Backup

The old standby backup method is to buy a tape drive, some tapes and backup software. You backup important files and rotate the tapes. This approach is still widely used and there is nothing wrong with it as far as it goes.

There are new options for backup that can make the process faster, more reliable **and/or more cost effective**, though unfortunately not necessarily all three at the same time!

The factors to be considered as part of a **backup system** are:

- Restore** – without the ability to restore the data your backup is useless. You are standing outside an inaccessible office with just a tape – what do you do then? You need to plan for access to a **like tape drive**, for the ability to restore ability software programs, for the ability to reconfigure databases, for the ability to restore not just Exchange email, but all Exchange data you use – all as appropriate for your needs
- Archive** – a basic backup system will preserve a copy of your current data so that if there is a system failure of some sort or loss of data the current data can be restored. However, this process does not protect against losses of data or corruption of data over time.

Archiving data means to set aside copies of you data over time. If you find that last week say key files got deleted you can go back to an archive copy and recover the data. Likewise if data has been corrupted over time, or if you need information about an old project that was not saved, etc.

Your backup procedure needs to address not just current data copies, but archiving planned to meet your possible needs for older data recovery.

System Disaster Recovery – this item is related to backup restore, but it goes further. In the event of a disaster, you need to be able to restore not just data, but the operating systems – the full server domain, user rights, directory structure, applications and databases.

Offsite Access – if you need to restore a backup and whatever happened to your computer destroys your backup – you are out of luck – be it a local fire, water damage, flood, tornado, malicious mischief, etc. For that reason it is wise to keep the backup in a different location from the systems being backed up.

Backup technologies

Some backup technologies to consider when planning a backup system include:

- Cartridge drive portable hard drive backups – a good solution for small businesses
- Drive to drive to tape devices – a step up to speed tape backups and improve reliability
- Hosted backup solutions
- LTO tape drives

An LTO 2 or 3 tape drive is still an excellent backup medium. Tapes can be taken offsite and they are cheap enough to allow for archiving of data – on a monthly basis for example. There are alternatives as noted that fit in certain circumstances.

In conclusion

This paper has presented some thoughts on small to midsize business IT technologies. You can find additional information at: <http://www.ebsit.com> or give us a call at 713-522-3480 or email support@ebsit.com.

