



SMB Newsletter

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Over the past few weeks I've read a number of different Trade Journals and Newspaper articles aimed at providing "economic downturn" suggestions to smaller businesses. I have also heard from people -- "I know I need to do something with my technology but I simply can't afford any additional expenses at this time". That is probably a fair comment. It's hard to pay salaries and expand when people have pulled back on their buying.

Regardless of the economic conditions when it comes to Information Technology businesses always need to try to balance spending with anticipated business growth; they always should be working to optimize IT costs. **Information Technology should help you make more money or reduce overall costs so you keep more of what you make.**

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Optimize Your IT Costs

Thinking of putting your Information Technology initiatives on hold because you are spending too much? Instead of putting the initiative on hold, maybe all that is needed is an adjustment to your strategies and tactics. Maybe you need to position yourself and your business to react to ups and downs in the economy; position yourself to be ahead of your competition.

Some steps you might want to consider:

1. Start shifting how money is being spent. Review your total IT spending. According to a Forrester Study ¹, IT budgets range from 2% to 15% of Revenues. According to a CIO Study ², IT budgets range for 8% to 18% of Operating Expenses. Regardless of which statistic you think is right for your organization, IT spending is a substantial portion of a business' budget. Out of the money spent, many businesses spend between 70% and 80% maintaining the current status. Best Practices recommends 60% on

maintaining your information technology; 40% for new initiatives.

Some ideas to help you shift your spending pattern:

- Follow our "Keep It Simple Tips" such as Standardize, Use Industry Leading Products, and Don't Re-Invent the Wheel.
- Eliminate unused software and hardware; eliminate unused license fees.
- Use hardware and software products that you currently own. Consolidate equipment and integrate applications.
- Review mandatory versus discretionary spending habits. Some projects and initiatives just need to be done because of equipment age or product lifecycle.
- Modify current processes and change policies to better use existing tools.
- Consider purchasing products that meet business needs; it is not always necessary to purchase the "best in breed".
- Leverage the internet and social networking if appropriate.

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2. Before cutting a project or initiative from your plan, determine if there is a compelling reason for it to remain. For example, does the project enable or provide the business with cost efficiencies? Is the project or initiative critical to meet your 2009 growth targets?
3. Be careful when purchasing “new technology”. Vendors are eager to sell hardware and software and the solution may not always be the best for your organization. The solution also might not work properly with your current infrastructure causing you to spend additional funds.
4. Align Your Information Technology with Your Business Strategy. Assess your current information technology (software and hardware) and evaluate against your existing and future needs. If a project does not match your goals, don’t spend the money. Develop a short as well as long term Information Technology Plan. If you are not comfortable planning and budgeting for your organization’s technology needs, hire a consultant that understands both business and technology to assist you. It might be some of your best spent money.

1 Craig Symons, “The Five Essential Metrics For Managing IT”, Forrester Group, 4 April 2008, <www.forrester.com>

2 “State of the CIO 2008”, CIO Magazine, 10 December 2007, < www.cio.com>

BALANCE GROWTH AND EXPENSES

The below “job aid”¹ is from a 2008 Gartner Symposium presentation to CIOs on how to balance growth and expenses . The chart, rating process, and action items are just as relevant for smaller business owners, general managers, and executive directors as CIOs.

Rate your company on a scale from 1 (high) to 5 (low) on the below statements. If total score is:

- Less than seven, focus on improving cost efficiency within the organization.
- Between eight and 12, look to improve IT costs and drive down business operating costs. Try to use at least 30% of your IT budget for growth and business improvement.
- Between 13 and 18, increase nondiscretionary investments by at least 10% in 2009, with half on new initiatives.
- Greater than 18, you have aggressive growth plans and IT plays a key role; focus on aligning business priorities and initiatives including managing risk.

Statement	1	2	3	4	5	Statement
We are inefficient in terms of IT costs.						We are efficient in terms of IT costs.
Our organization's 2009 targets call for (less than 10%) growth in revenue or operating budget.						Our organization's 2009 targets call for modest (less than 10%) growth in revenue or operating budget.
Little of our 2009 growth will come from new or enhanced products/services.						Most of our 2009 growth will come from new or enhanced products/services.
IT capabilities will have little impact on our growth in 2009.						IT capabilities are critical to us achieving our growth in 2009.
Our company has low tolerance for risk -- we do not take chances.						Our company has a high tolerance for risk -- we take chances.

¹“CIO lessons in managing growth, setting 2009 priorities” SearchCIO.com, 28 October 2008 <http://searchcio.techtarget.com/news/article/0,,sid182_gc1336924_00.html>

WHAT IS DNS? HOW DOES IT WORK?

Do you find it hard to remember an IP address such as 192.168.1.10? The challenge is networked computers use IP addresses to locate and connect to each other.

DNS or Domain Name System is a hierarchical database system for locating computers and network services used in TCP/IP networks, such as the Internet. It translates

humanly meaningful names, called friendly names, to the numerical identifiers, an IP address, used by computers and other network devices when communicating with other networked equipment.

For example, www.ExampleDomain.com might translate to IP Address 192.168.1.10. The process which associates a

friendly name to an address is called name resolution, DNS-Resolution or DNS lookup.

Most computer networks have at least one server (called a name server) handling DNS queries. That server keeps a list of all the IP addresses within its network, plus a cache of IP addresses for recently accessed computers outside the network. Each computer or networked device on each network needs to know the location of only one name server.

When a program, such as a web-browser or mail-client, makes a request which requires a DNS lookup, the program sends a resolution request to the local computer DNS resolver which is part of the local operating system. This resolver handles the communications required.

The local DNS resolver has a cache containing recent lookups. If the local cache can provide the answer to the request, the resolver will return the address in the cache to the program that made the request. If the cache does not contain the answer, the DNS resolver sends the request to one or more designated DNS name servers. One of three things happens:

1. If the requested IP address is registered within the local network, you'll receive a response directly from one of

the local name servers listed in the workstation configuration. In this case, there usually is little or no wait for a response.

2. If the requested IP address is not registered locally (outside the local network– on the Internet), but a computer within the local network has recently requested the same IP address, then the local name server will retrieve the IP address from its cache. Again, there should be little or no wait for a response.
3. If the requested IP address is not registered locally, and this is the first request for a lookup in a certain period of time (ranging from 12 hours to one week), then the local name server will perform a search on behalf of your computer. This search may involve querying two or more other name servers at potentially very remote locations. These queries can take anywhere from a second up to a minute (depending on the connection to the remote network and how many intermediate name servers must be contacted). Sometimes, due to the protocol used for DNS, a response might not be received. In these cases, your workstation or client software may continue to repeat the query until a response is received, or you may receive an error message.

DNS databases hold many different record types. The type of the record indicates what the format of the data is, and gives a hint of its intended use; for instance, an **A** record is used to translate from a domain name to an IPv4 address, the **NS** record lists which name servers can answer lookups on a DNS zone, and the **MX** record is used to translate from a name in the right-hand side of an e-mail address to the name of a machine able to handle mail for that address. [List of different DNS records](#)

KEEP IT SIMPLE TIP: STANDARDIZE, STANDARDIZE, STANDARDIZE

So what should you standardize? Just about everything – hardware, software, operating systems, network devices, productivity software, policies, etc.

Why standardize? It minimizes overall costs because it simplifies troubleshooting and support. By keeping hardware and software as consistent as possible, the number of different pieces of hardware and software to be maintained is reduced, training and cross training on software becomes easier, operating processes can be similar and the number of operational and maintenance tools can be reduced.

Standardizing can be challenging since policies and procedures need to be created, implemented or changed. The overall culture and how people work are impacted requiring education and changing work habits. Introducing

new technologies needs to be considered since maintaining flexibility and creativity, determining new ways to be efficient and meeting future goals can be important.

What are some things you can do to standardize?

Create a Supported Hardware Configuration and Software Policy. With hardware, standardizing the vendor and computer model (Dell OptiPlex XXXX) can help simplify decision-making, minimize purchasing and maintenance costs and help with network infrastructure configuration. You may want to have two different standards for workstations based on business need. The same with laptops. But keep in mind, every piece of hardware has its own installation and maintenance issues so the fewer different types of hardware, the lower overall costs.

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For software, standardize on the productivity software to be used. For example, do you really need both Microsoft Office and Corel Office? Or 3 different graphic programs? Extend this idea to web browsers and mail client software.

Create a Hardware Retirement and Replacement Policy. There are different approaches related to this policy and each organization needs to determine which approach is right for them. Two approaches are:

1. A workstation's anticipated life is between 3 and 5 years; laptops 2 and 3 years. Implement a policy replacing 1/3 your workstations every year so that at least 1/3 of the workstations are similar.
2. Purchase all workstations at the same time so that every workstation is the same make and model. Manufactures change parts on a regular basis. Purchasing the same computer model over the course of a year is positive and will assist with keeping maintenance cost down, but the chances are the computer parts such as network cards will be slightly different. (An excellent example can be found in Thomas L. Friedman's, *The World is Flat*, Chapter 16: The Dell Theory of Conflict Prevention.)

Create a Software Enhancement, Upgrade and Replacement Policy. Simply stated, old or unsupported software increases cost. Old software may not be compatible with current software languages or

hardware configurations. If the vendor has dropped software support, the vendor may not answer questions if you experience a problem. If they do respond to a question, the support fee can be hefty.

Each software vendor has their own policy with regard to applying enhancements and the ramifications if the enhancement is not applied. The same is true for major software upgrades which occur every few years (on average every 4 or 5). Businesses replace software instead of upgrading for reasons such as the software is at the end of its normal lifecycle (between 7 and 10 years from initial release) or different business functionality is necessary.

Centralize Purchases. Only items on the approved item list from approved vendors should be purchased. This will help with controlling cost as well as potential compatibility issues. There will be exceptions but if there is a procedure the ramifications to overall maintenance cost and changes to the infrastructure will be known upfront.

Create a Plan. Knowing what is currently owned and what is needed to support the business areas, enables you to make intelligent decisions about standardization policies and procedures; it requires balancing business and technical needs.

Each organization is different so it is important to develop a standardization policy that meets the needs of the business as well as fits the culture of the organization.

FOOD FOR THOUGHT

In a prior newsletter we noted an increase in "Problem Computers" and provided a few recommendations. Microsoft has also provided some recommendations -- "10 Tips for Social Networking Safety" dated September 18, 2008, (<http://www.microsoft.com/protect/yourself/phishing/socialnet.mspx>)

Upcoming Seminars

2009 Seminars To Be Announced in December 2008

Refer to <http://www.ladenterprizes.com/whatsnew.htm>

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