

Simple Savvy Savings - 9 ideas to make anyone a Cost Cutting Hero

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Thomas Pisello*

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Tel: 407.382.0005 • Fax: 407.382.0906 • Email: info@alinean.com • Web: www.alinean.com

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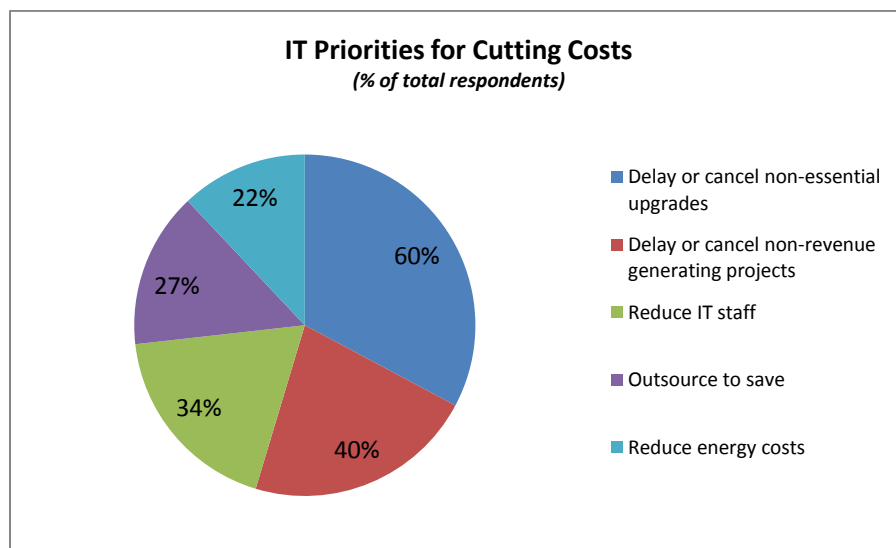
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Simple Savvy Savings - 9 ideas to make anyone a Cost Cutting Hero

The economic downturn has IT executives scrambling to defend budgets, avoid cutbacks, and help the business survive. In times of crisis, CFOs invariably turn up the heat on CIOs, and although IT spending is a modest 3.1% of revenue on average, because IT is seen within most organizations as a cost center, it is usually at the top of the list for spending cuts.¹ Unfairly, as prior times of crisis have proven, IT is cut proportionately more than most other business groups.

According to a Tech Target survey of 268 IT decision makers, the pressure is not unexpectedly on IT to cut costs with:

- 75% of respondents indicated that the overall economy is having a significant impact on their IT budget,
- 50% indicating a decrease greater than 10%,
- 68% indicate that more budget cuts are likely if the economy does not improve in the first half of the year (2).



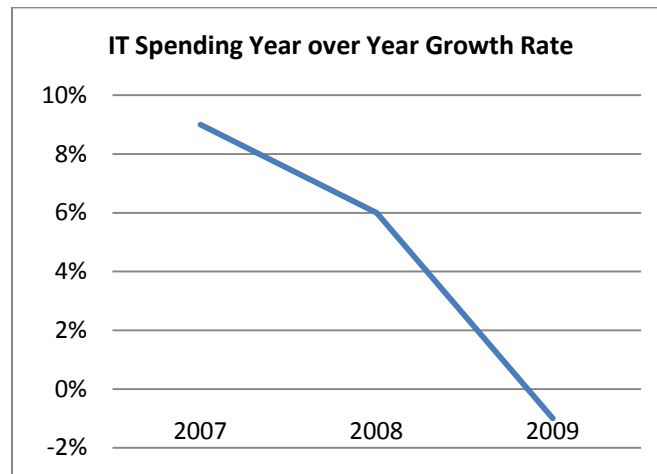
Tech Target 2009 IT Priorities Survey, 268 respondents (September 2008)²

Goldman Sachs' latest IT spending survey predicts the impact these individual budget cuts are having on IT spending worldwide, where in 2009 for the first time since the bursting of the tech bubble in

¹ Alinean ValueIT™ database of 20,000 worldwide company's IT Spending vs. Financial Performance – 2008.

² Survey: Economy puts nonessential IT projects on back burner, Linda Tucci, 12 November 2008, SearchCIO.com / Tech Target

2001/2002, annual growth in IT spending is expected to be negative. The estimate is for a -1% global decrease - a year over year 116% decline in growth (down from +6% growth in 2008, and +9% growth in 2009), that although expected by Goldman Sach's analysts not to last as long as the last slowdown because spending prior to the pullback was more modest than the run-up to the tech bubble, still promises to have a substantial impact.³



Goldman Sach's IT Spending Survey highlights the precipitous decline in overall IT spending worldwide for 2009.

Rather than be victimized, it is essential that savvy IT executives proactively prepare tangible plans for how they are going to help their organization weather the downturn. For commercial companies with declining revenues, in order to maintain profitability, the organization needs to find ways to gain scarce revenue (which is tough), or better, to reduce overall business costs.⁴ Governments and not-for-profits face similar issues with declining tax basis, donors and other sources of funding leading to budget cuts.

Of course IT cost cutting can contribute to budget shortfalls, but often the best way to cut total business costs, is not by reducing IT spending significantly, but showing how a resource focused on specific projects, and in some cases select incremental investments in IT can help drive business costs down and boost profitability.

Most important, when times are tough, smaller projects with faster paybacks are king. As a result of the tight budget, the organization gets more conservative, losing the chutzpah for blockbuster projects, and moreover wanting to assure that any monies invested today, start contributing to profitability (paying off the original investment and then yielding positive returns) in the same calendar or even fiscal year.

³ IT Spending Survey: 2009 Under the Knife, Sarah Friar, Goldman Sachs IT Spending Survey of 100 managers with strategic decision-making authority at multi-national Fortune 1000 Companies, November 10, 2008, SandHill.com

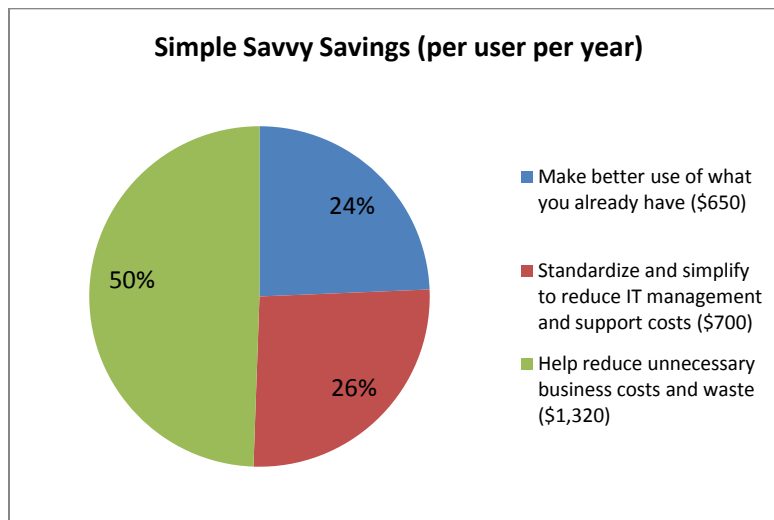
⁴ Comparing two projects, one that generates a dollar of cost saving to one that generates a dollar of revenue, the dollar in cost savings is often worth 3 to 5 times more bottom-line (profit) impact to the company. This is because that for every dollar in revenue generated as a result of a project, only a fraction of that dollar actually reaches the bottom-line, because every dollar has a cost of goods / service, and a variable sales, general and administrative (SG&A) expense. For every revenue dollar, an average contribution of less than 30% is realized in profit.

Projects with soft benefits and big claims will not fly. Therefore, what are the projects with minimal investments in time and capital that can be made proactively to best deliver the biggest and fastest cost saving for IT and the business?

To help achieve these goals we offer three practice areas and several projects to yield the most tangible cost savings from the least amount of effort and investment:

1. Make better use of what you already have - > saving \$650 USD per user per year in reduced infrastructure, energy and operating overhead costs,
2. Standardize and simplify to reduce IT management and support costs -> \$700 USD per user per year in IT labor savings,
3. Help reduce unnecessary business costs and waste -> over \$1,320 USD per user per year in business costs and overhead avoidance.

Following these simple savvy savings have proven to deliver \$2,670 USD in savings per user per year. More importantly, these savings are all hard / tangible savings in infrastructure, labor and services costs, energy costs and overhead, easily realized, with minimal investment and quick paybacks – the kind any frugal executive would love to implement.



Implementing the Simple Savvy Savings program can result in savings of up to \$2,670 per user per year.

In order to achieve these simple savvy savings, we will outline nine specific project ideas that require minimal investment in capital and resources, but deliver great cost savings value.

Many organizations like yours have already explored these savings initiatives and many are already using them to great advantage. To others, the quantification as to the value of these ideas may make it easier to gain approval and make progress on the road to cost savings.

Make better use of what you already have

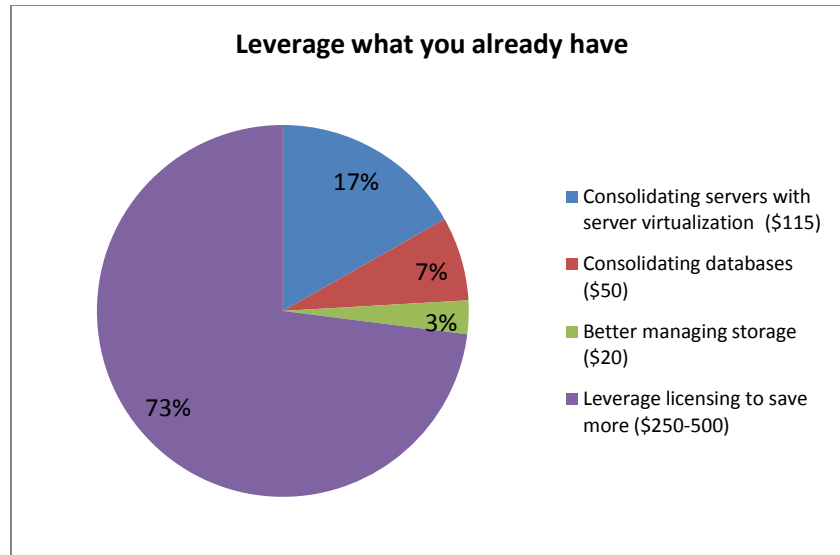
Most organizations do not have to look far to realize that they are not fully taking advantage of their IT infrastructure and capital investments already in place, leading most to realize they have vast underutilization of IT assets. Did you know, that on average:

- a. Server utilization is only 10% in a traditional data center, meaning that 90% of server capacity is unutilized at any point in time,
- b. Storage utilization in a similar data center is less than 40%, meaning that 60% of installed storage capacity is unused at any point in time,
- c. Organizations overspend by 20 to 30% on software licenses on average by not taking advantage of enterprise licensing deals and offers, better negotiation of support and maintenance contracts, and competitive pricing, and overspend 10-15% on software licensing by not standardizing and consolidating solution providers and taking advantage of strategic / volume licensing programs,
- d. An additional 7% of all software licenses purchasing is complete overspend compared to actual usage and needs,
- e. Those applications that can migrate to cloud computing can help organizations save \$10,000 to \$30,000 per application per year by avoiding infrastructure management, operations and maintenance.

Taking advantage of what is already in place can help the organization recycle and reallocate to support existing operations and incremental demands, and avoid having to spend precious budget on capital in order to support new projects.

How can an organization implement best practices to take advantage of what is already in place? Here are some of the best simple savvy savings projects to save up to \$675 per user per year in infrastructure, energy and operating overhead costs:

- Consolidating servers with server virtualization → \$115 savings per user per year,
- Consolidating databases → \$50 savings per user per year,
- Better managing storage → \$20 savings per user per year,
- Leverage licensing to save more - >\$250 to \$500 savings per user per year,
- Leveraging cloud computing → upside savings of \$10,000 to \$30,000 per year per application by avoiding application infrastructure and management.



With most IT assets underutilized, the first area to look for savings is to attempt to leverage what you already have. This can result in savings of up to \$675 per user per year.

Consolidating servers with server virtualization

By consolidating servers with server virtualization, eliminating the one to one workload to physical server alignment in most organizations, and instead consolidating multiple workloads on underutilized physical servers, an average 1000 user organization can save at least \$115,000 per year (\$115 per user per year) in reducing hardware and software costs, reducing support contract costs, reducing energy and facilities overhead costs.⁵

With an average of 50 servers installed in our sample organization, and consolidating these modestly to 13 servers after virtualization, a 4:1 consolidation ratio, the organization can:

- a. Retire or recycle 37 installed physical servers, saving on average almost \$1700 per year in amortized purchase costs (typical 2 CPU / 2 core server and operating system), support and maintenance contracts alone, a total of \$62,600 in annual cost avoidance.
- b. Avoid having to add as many servers to grow. With an average server growth rate of only 10%, the organization could avoid the addition of 4 servers a year on average over the next 3 years, an additional savings of almost \$7,000 per year.
- c. Reduce datacenter energy costs by eliminating the need to power as many servers to support the workload. Each 2 CPU/ 2 core server removed from the data center can eliminate \$1,000 in energy costs for power and cooling, as well as contributing to Green IT initiatives by reducing carbon emissions by 8.4 metric tons annually per server, the equivalent of taking 1.6 automobiles off the road a year, powering a home for a year, or planting 20 trees. This adds up to an additional \$38,000 annual savings for our

⁵ A 1,000 PC organization, located in the United States, using US average and industry average costs for labor, energy and space costs.

SOK Group : Auto Manufacturer Virtualizes IT Environment to Help Meet Shifting Opportunities

In its central data center, SOK, one of Russia's largest privately owned companies involved in dozens of industrial enterprises in several sectors of the domestic Russian economy, manages approximately 50 physical server computers running the Windows Server® 2003 and Windows Server 2008 operating systems to provide infrastructure services for more than 2,000 users. To help keep IT costs down, SOK has relied on less-expensive server hardware, but this has resulted in unacceptable levels of downtime and increased IT management costs. "We weren't using resources as effectively as we could, with 90 percent of our servers underutilizing their capacity while some were significantly overloaded," says Petr Grachev, Chief Information Officer at SOK. "Also, our multiple hardware systems were not reliable enough, creating too much downtime and high management costs."

By continually reallocating virtual machine resources between applications, SOK is now avoiding situations wherein most of its servers are being underutilized while some services are starved of server capacity. SOK was running many servers at less than 10 percent of their processing capacity, but has used virtualization to consolidate a number of infrastructure services into two servers with 60 percent CPU utilization. With enhanced server utilization, more efficient networking, and minimized downtime, SOK can reduce total cost of ownership (TCO) in server hardware. "With server virtualization, instead of purchasing more hardware and wasting those resources most of the time, we can allocate virtual machines dynamically, maintaining high performance on even heavily loaded systems," says Grachev.

By using virtualization technology to consolidate its server environment by as much as 80 percent, SOK anticipates realizing significant savings in hardware costs. At the same time, SOK can use more powerful and reliable physical servers, which will reduce downtime and help minimize TCO in its IT infrastructure. With reduced downtime, faster server provisioning, and more efficient infrastructure management, SOK estimates that it will cut IT labor costs by approximately 30 percent.

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consolidation scenario by retiring 37 servers and avoiding an additional 4 servers of growth per year.

- d. With less physical servers in the data center, data center space may be able to be reclaimed, consolidated or retired, and new data center build-out to support growth potentially avoided. With datacenter space costing \$310 on average per square foot per year in amortized build-out, infrastructure, and annual rent and mortgage costs, each server costs \$174 a year. For our scenario this results in savings of \$7,100 per year.

Consolidating databases

Although migration, testing and deployment investment is required, converting legacy databases to newer versions can have a dramatic impact on costs, especially the:

- reduction in licensing costs - even though an upgrade is required for licenses, processor licenses can be consolidated immediately, and growth does not require new servers and new processor licenses helping to reduce licensing costs overall,
- consolidation of database servers – whereby the higher performance and scalable latest version can help retire / recycle existing servers and avoid having to add servers in the future.

This can result in 150% or higher return on investment, a \$26,000 savings per database per year.

Forrester TEI in a recent independent research project, studied the upgrade potential of environments with SQL Server 2000 and 2005, upgrading to SQL Server 2008.⁶ Assessing the different environments proved higher performance for SQL Server 2008 over prior versions resulting in the need for less servers to support current workloads, and the avoidance of additional servers in order to support growth. The consolidation of servers currently running older versions of SQL server results in hardware purchase savings, licensing cost avoidance (less per processor charges), and ongoing annual energy, space and administration savings.

Using our modeling metrics resulted in similar results, whereby consolidating a single database server can eliminate \$13,000 in annual costs (amortized purchase costs over 5 years and annual operating costs for support contracts, energy and facilities).

In this same study it was found that upgrading could also help to reduce database storage requirements. With compression, SQL Server 2008 could deliver 50% savings. A typical 750GB database environment, with 100% backup/archive storage can be compressed to yield more than \$13,000 in storage savings (at \$15 per GB per year).

Other newer database versions have similar features and utilities to help improve performance, consolidate servers and reduce costs. It is important however to compare the licensing costs between these competitive offerings as we have found growing differences in pricing for new database deployments, some of which could break the bank. Comparing competitive deployments from two of the largest providers for similar sized/performance deployments (using published list prices) resulted in \$177,000 differences in pricing for OLTP workloads, almost \$300,000 in incremental licensing costs for data warehouse applications, and an incredible \$700,000 for business intelligence applications. With vendors hungry for business in this tightened economic environment, , it is important to get competitive bids and business cases, compare total cost of ownership costs over the ownership lifecycle, and not be afraid to negotiate for the best possible competitive deal with a solution provider that understands times have changed.

⁶ Demonstrate the total economic impact of deploying SQL Server 2008: New Independent Study Finds 162% Risk-Adjusted ROI for SQL Server 2008 Deployment (Forrester Consulting study based on large healthcare customer deployment)
<http://download.microsoft.com/download/d/1/1/d11349b8-af33-45c4-a89c0dc64bbd431/TEI%20of%20SQL%20Server%202008%20Upgrade.pdf>

Turkey's Arçelik Moving 5 Terabyte SAP database from Oracle to SQL Server 2008 to achieve 3x greater performance and lower cost of ownership

As one of the largest appliance manufacturers in Europe, Turkey's Arçelik uses SAP enterprise resource planning (ERP) to help manage its global operations. Migrating its SAP ERP infrastructure to the Microsoft Application Platform hosted on HP server computers has enabled Arçelik to enjoy performance that is 3 times faster than its previous platform that used a Sun/Solaris/Oracle technology stack. Arçelik benefitted from easy migration to the Microsoft Application Platform. The company anticipates greater resource efficiency after it upgrades to SQL Server 2008 to take advantage of new compression features. The company also is enjoying a lower total cost of ownership.

The combination of the Microsoft Application Platform running on HP server computers yielded the lower total cost of ownership that Arçelik sought. "We are very happy with the value we've gained from moving to the Microsoft Application Platform hosted on HP server computers," says Ceylan. "We are saving on licensing, hardware, and on systems integration and ongoing administrative and data management costs. The Microsoft Application Platform makes it easy to create integrated solutions that also provide a highly secure infrastructure."

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Storage Provisioning Optimization and Archiving

Because of annual storage growth demands of 30% or more a year, and current procurement practices where storage is purchased en-masse to support this growth, it is estimated that 60% of storage capacity goes unused in most organizations. Of every 1TB of installed storage for growth, the unused capacity amounts to some 600GB of purchased but unutilized storage, a purchase cost of \$9,000 (average of \$15 per GB) and annual energy costs of \$400. Tracking and managing storage growth, implementing better procurement management processes, and using storage solutions with dynamic provisioning can help improve utilization and drive down purchase and operating costs.

Moreover, much of the used capacity within organizations is wasted storage, which could be better managed with archiving and compression, particularly messaging stores. In a typical 1000 person organization, over 600GB of additional storage can accumulate each year in unmanaged e-mail messages, growing on a compound basis.⁷ Annually, this \$9,400 purchase and operating cost can be dramatically reduced through archiving and compression solutions, managing retention policies, eliminating redundant attachments and compressing archived e-mails, and using less expensive storage solutions for messaging archives.

⁷ 40 messages a day, 66kb per message on average (a weighted average of messages with / without attachments), accumulated over 235 business days

Leverage licensing to save more

Most organizations are not tracking their software license usage on an enterprise basis. This results in groups overbuying licenses, failing to consolidate a growing number of solution providers and standardize duplicate solutions, and not taking advantage of enterprise license agreements. Software licensing best practices can yield a whopping 30% savings from current license costs, helping to cut from \$250 to \$500 per user per year from the budget.

In most organizations, according to our research, 7% of annual license costs is overspending on licenses that are unneeded / unused. For desktop applications alone, better management and control of the overspending can result in \$28,000 worth of license cost savings for our 1,000 user example, or \$28 annually per user.

More important are the lack of standards and strategic procurement. Most organizations buy similar / duplicate solutions from multiple vendors and as a result, do not taking advantage of strategic buying agreements or volume licensing. Although impractical, unrealistic and potentially inefficient for enterprises to consolidate to a single vendor for all software, functional areas often lend themselves to related software applications that support a unified approach and solution set. By moving to a more unified and extensive infrastructure from a single vendor, license and implementation costs will decrease. Lack of standards management is prevalent with desktop applications where governance and configuration management policies can be put in place to prevent proliferation. As well, business productivity applications for messaging, communication, enterprise content management, search and collaboration are beneficial to standardize and consolidate. Standardizing IT and centralizing procurement practices for these applications has been proven to save 10-15%, a savings of \$250,000 or more per year for our sample 1,000 user organization, or at least \$250 per user per year.

As well, most organizations are not taking full advantage of enterprise pricing programs from major vendors. In an era where solution providers are ready to negotiate discounted multi-year licensing deals, this can lead to great savings. Current license management issues leads to 30% overspend, and a \$300,000 annual opportunity for a typical 1,000 person organization (\$300 per user).

For example many organizations utilize Microsoft System Center to monitor and manage their servers. To do this, individual licenses are often purchased for Operations Manager and Configuration Manager, as well as a growing deployment of Data Protection Manager and VMM. Licensing for 50 servers for OM, CM and DPM, with 6 management servers costs a typical organization \$117,000 (at Open list pricing). Just by taking advantage of the enterprise licensing available via System Management Server Enterprise (SMSe) agreement from Microsoft can lower the costs to \$81,000 a savings of \$36,000 or 31%. Looking at the potential for enterprise licensing for business applications such as Exchange, SharePoint, Communications Server and ForeFront Security Suite, migrating from individual licenses to enterprise agreements can yield more than \$140,000 in total annual savings.

Leverage cloud computing to avoid over \$15,000 per application per year

Cloud computing, obtaining applications from a provider as a service, can help to reduce the cost of infrastructure and infrastructure management, particularly for non-virtualized data centers. Although service providers charge an annual service fee for the application hosting and administration, this fee is usually not much more than typical software maintenance and support contracts / assurance agreements, therefore providing the application turnkey for a nominal incremental fee.

What the organization is able to avoid as a result of the software as a service is the need to add infrastructure and manage the assets to support the application.

For each application, an organization typically adds from one to three physical servers to support the application, network infrastructure, and storage for the application and related databases. Each server costs on average \$2,470 per year in amortized hardware and software costs, \$980 for energy costs each year, and an additional \$181 for data center space. This totals \$3,631 per server per year for server infrastructure at a minimum. Additional costs for network and storage connectivity pushes the server infrastructure cost to over \$4,000 per year per server. With 2-3 servers per application, costs per year at \$8,000 to \$12,000.

Storage costs add an additional \$5,000 per year depending on storage needs and growth rates.

Administration and support is typically costs \$2,100 per year per server including change management, general administration and support.

The total per application ranges from \$15,000 to over \$23,000 per year, a substantial savings when organizations can take advantage of the service offering.

A virtualized infrastructure will cost ¼ of this, and therefore is much more cost effective, but can still justify the move to cloud computing for certain applications.

Del Monte Foods: Food manufacturer enhances collaboration, processes; cuts licensing costs by \$492,000

The IT vision at Del Monte Foods called for technology to be a driving force for innovation and productivity enterprise-wide. That meant adopting more technologies, paying more in licensing fees, and spending more time managing licenses. To avoid that cost and hassle, Del Monte became a Microsoft Enterprise Client Access License (CAL) Suite customer. As a result, it has cut its software-licensing expense by 16 percent, saving U.S. \$492,000 over three years, even as it increases the range of Microsoft technologies it uses. It estimates the full savings at 50 percent over the cost of individual licenses, saving \$1.5 million. Del Monte has increased its rate of technology adoption, putting technology solutions into production up to a year earlier than expected. The decision to pursue just one new manufacturing solution based on Microsoft technologies ended up generating \$1 million in savings.

"With the Enterprise CAL Suite, we're actually spending less money to use more Microsoft technologies than we did three years ago. An investment doesn't get any better than that."

Jonathan Wynn, Manager, Advanced Technology and Collaborative Services, Del Monte Foods

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Standardize and simplify to reduce IT management and support costs

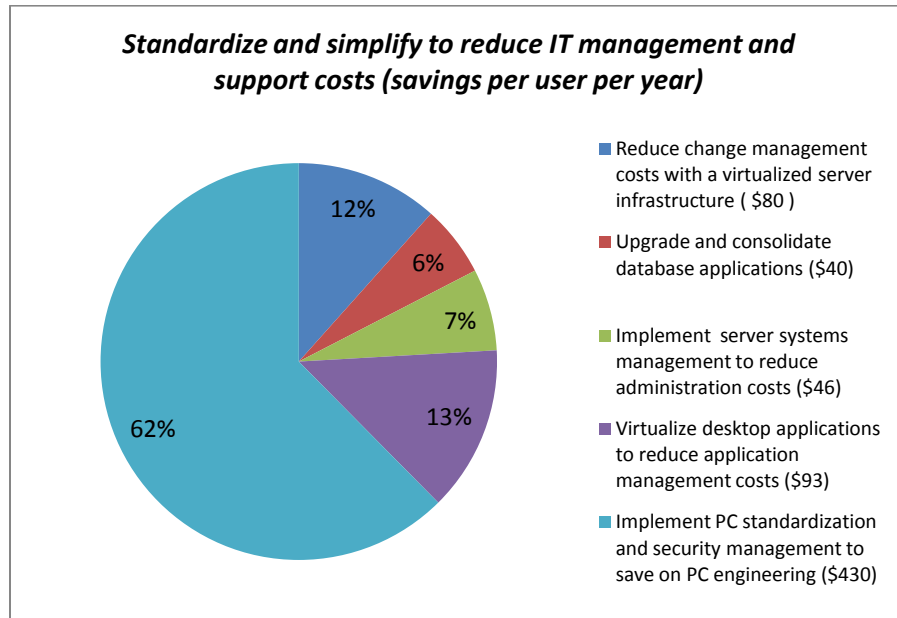
According to TCO studies by IDC, labor and equivalents remains the largest cost in the IT budget, consuming over 50% of total annual expenses. So it comes then as no surprise when CIOs are asked to cut expenses, that precious IT personnel are at risk, even though finding skilled resources in the future to replace these resources upon economic recovery can be one of the largest inhibitors to growth and missing the next wave. The risk to staff is highlighted in Tech Target's 2009 IT priorities survey where the highest response level of 37% of indicate that staff is the area most likely affected by the down economy.⁸

So how can you maintain headcount needed to support the business and fend off the budget cutting mavens? For a total of almost \$700 per user per year in IT labor savings, the following simple savvy savings programs are recommended

- Reduce change management costs with a virtualized server infrastructure - > save \$80 per user per year,
- Upgrade and consolidate database applications -> save \$40 per user per year,
- Implement server systems management to reduce administration costs -> save \$46 per user per year,
- Virtualize desktop applications to reduce application management costs -> \$93 per user per year,

⁸ Survey: Economy puts nonessential IT projects on back burner, Linda Tucci, 12 November 2008, SearchCIO.com / Tech Target

- Implement PC standardization and security management to save on PC engineering -> \$430 per user per year.



With IT labor the highest TCO contributor and also greatest at risk for cost cutting, leveraging your people assets can yield to savings of almost \$700 per year.

Reduce change management costs with a virtualized server infrastructure

Along with the infrastructure savings already discussed, consolidating servers with server virtualization can have a substantial impact on improved IT productivity and potential labor cost savings.

Although virtualized infrastructures are admittedly more complex to setup and manage than their physical counterparts, consolidating physical servers can have its advantages. When provisioning of new workloads is required, the provisioning can be made virtually, without requiring a new physical server to be procured, unpacked, setup and deployed. This can reduce deployment person hours from 5 hours per physical server to 0.2 per virtual server. With modest assumptions regarding provisioning, this can save on average about \$60 per year per server, and \$3,000 per year in our 50 server example. More dynamic environments can experience much more savings.

Similarly, server moves, adds and changes may be able to be virtualized as well, eliminating the need to touch as many physical servers a year, and reducing change management workload. As well, reducing the amount of physical servers also helps to reduce overall physical environment overhead administration. This includes asset inventory and security management.

In total, a typical virtualized server environment will cost 58% less than non-virtualized environments, a savings of \$1,600 per year per server on average, or \$80,000 per year in our example.

United Kingdom Local Authorities' Body Streamlines View of Customers and Improves Services

The Local Government Association (LGA) represents the local authorities of England and Wales — some 450 bodies in total. It acts as a lobbying organization on their behalf, organizes conferences, publishes a range of publications, and provides an enquiry service. Over time, dozens of islands of information had grown up built around different technologies, which made it increasingly difficult for anyone to get a full picture of the LGA's activities. Because the LGA's legacy systems could not communicate with each other, it was decided to consolidate all the contacts and their related activities into a single database making it accessible to everyone in the organization.

With all a contact's details instantly available, LGA staff spend less time sharing information among them and so have more time to concentrate on their core jobs. With more of the organization's data readily available, it means that the management team can get a better overview of what is going on and adjust their efforts and focus accordingly.

The reduction in the number of databases has resulted in fewer system administration tasks. As the LGA has moved away from its use of disparate technologies to standardize on a single database solution and application interface now pays for fewer software licenses.

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Upgrade and consolidate database applications

Standardizing on newer database software can not only save by consolidating infrastructure as discussed in the prior section, but also deliver administrative leverage, as these newer databases are on average 30% more scalable, and include important management utilities and administrative features which can help less DBAs manage more databases. According to a Forrester TEI study as one example, using Microsoft SQL database as the study target, resulted in a 30% improvement in how many databases a single DBA could manage, saving an average of almost \$40,000 per year.

Implement server systems management to reduce administration costs

Some organizations have not implemented system monitoring and management of their server infrastructure, or have not standardized these solutions to help integrate automation and reduce learning / usage issues.

Manutencoop : Environmental Services Firm Consolidates Infrastructure, Improves IT Management

Facility and environmental services provider Manutencoop Group was losing productivity due to a fragmented and inconsistent technical infrastructure. Besides improving its IT systems and streamlining applications, the organization wanted to simplify software distribution, updating, and licensing while keeping costs down.

Manutencoop implemented a standardized configuration management solution to optimize the management of business software packages.

"We've obtained excellent results," comments Lucia Bernardini, Infrastructure and Network Coordinator, Manutencoop Group, "recording an 80 percent overall improvement in the management of systems and infrastructure. What's more, the adoption of standard server and server management technologies has allowed us to centralize a series of services, thereby significantly cutting down costs and management expenses." In turn, the group has been able to reorganize its IT personnel, who now exclusively take care of the company's business support activities, resulting in greater job satisfaction.

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With current server systems management tools, organizations can:

- automate key tasks around monitoring servers including end to end service management, server and application health monitoring and management and performance reporting and analysis,
- better manage and deploy patches, OS and application configuration management and deliver software upgrades,
- consolidate and centralize data protection and management,
- automate key tasks for managing virtual machines including configuration management, server consolidation and resource utilization optimization, physical to virtual and virtual to virtual conversions.

Implementing PC management and application virtualization can help reduce unmanaged workloads by up to 36%. A typical organization spends \$124 per user per year on server monitoring and management, a \$124,000 per year annual cost (1.3 full time equivalents (FTEs) for a typical 1000 person organization. A 36% reduction can yield up to \$46 per year per user in savings, or \$46,000.

Virtualized desktop applications to reduce application management costs

Desktop application management can be costly in most organizations, where the deployment of new applications and on-going upgrades can consume precious labor. With application virtualization, application changes for new application deployments, upgrades and retirement require less hours, because key tasks which can be dramatically reduced or eliminated including:

- Regression Testing (Image Desktop Test System, Install new application, regression testing),
- Change Management (Track Applications Changes, Document the Installation Process),
- Application Packaging and distribution – Test (Application Packaging Cycle, Distribute Application Packages, Assign Package to Test Users, User acceptance testing) ,
- Application Packaging and Distribution – Production (Assign Package to Production Server Base, Delivery and Installation of Applications – Manual or ESD, Update core image).

In non-virtualized environments, the average cost for application management is \$77 per PC per year. Virtualizing the applications can yield to savings of 90% or more according to WiPro studies on solutions such as Microsoft's App-V, and our research of Citrix's AppManager.⁹ In a typical 1,000 person environment, with 20% of the desktop PCs having application's virtualized, this can result in savings of \$20,000 per year or more.

With applications virtualized, PC kiosks can be used to replace dedicated per user PCs to help support a reduction in the overall total number of PCs needed, and help reduce office space / facilities costs. Depending on consolidation ratios of physical PCs, assuming an average of 15% savings in a 1,000 PC environment where 300 PCs have application virtualization enabled, can result in \$13,500 in PC recycling / retirement benefits and up to \$60,000 in potential office space savings.

⁹ Microsoft Desktop Optimization Pack for Software Assurance (Wipro TCO White Paper)
<http://www.microsoft.com/downloads/details.aspx?FamilyID=518ccda-84f0-4b08-9b29-6979eb8a73f9&displaylang=en>

Kent School District : Innovative school district supports growing IT environment with application virtualization

Kent School District, the fourth largest school district in Washington, is an early adopter of technology, using it to enhance education. Its 3,400 staff support 40 schools with 27,000 students.

With fewer IT staff and double the number of computers it had eight years ago, KSD needed a more efficient solution for deploying and managing applications both in a free-seating environment--where people could log onto any computer and get their specific applications--and in the one-to-one environment where students had their own laptops. "We needed a way to support a growing, changing computer base while ensuring teachers and students could get the applications they need in a timely fashion. And we had to do this within a finite budget," Whiteman says.

KSD created an agile application virtualization infrastructure that enables it to quickly deploy and efficiently manage applications in a growing computing environment, providing teachers and students enhanced service without adding IT staff.

"By centralizing application management and eliminating application conflicts, Microsoft Application Virtualization helps us support more computers more efficiently, with the same staffing," Whiteman says. "This is especially critical to the success of our one-to-one initiative."

Nguyen adds, "We can be much more flexible in the way we support users and the way we assign staff. We can shift IT staffing resources to put the more technical people in our central office and put people with more specific skills in the field. This has significant implications on our budget and on our ability to efficiently handle a more dynamic IT environment."

Using an application virtualization has also enabled KSD to free up IT staff to handle other infrastructure needs, such as managing the network and the servers in the data center.

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Implement PC standardization and security management to save on PC engineering

According to IDC research of 141 for-profit enterprises with 1,000 to 20,000 users, each PC costs the organization in PC engineering labor costs alone over \$1,320 per unmanaged PC per year. For a typical 1,000 PC organization, this costs \$1.32 million per year in staff and services costs.¹⁰

¹⁰ Optimizing Infrastructure: The Relationship Between IT Labor Costs and Best Practices for Managing the Windows Desktop (IDC Whitepaper), http://download.microsoft.com/download/a/4/4/a4474b0c-57d8-41a2-afe6-32037fa93ea6/IDC_windesktop_IO_whitepaper.pdf

The study focused on what could be done with people, process and technology improvements to most cost effectively reduce this labor costs. The research showed that:

- A standard desktop strategy, including minimizing hardware and software configurations could be implemented to save up to \$110 per PC per year. This best practice consisted of enforcing PC procurement policies for hardware, software, and system configurations, standardizing upon the latest Windows operating system within 18 months of release, and using a minimal number of corporate images to reduce the cost of image management.
- Centrally managing PC settings and configurations , keeping deployed PCs standardized by preventing users from making changes that compromise security, reliability and the application portfolio, resulted in savings of \$190 per PC per year. This includes implementing controls for No or limited administrative rights assigned to end users, use of group policies to prevent users from
- Improving security management, in particular proactively addressing security risks and management costs with antivirus, antispyware, patching, and quarantine helped to drive an additional \$130 in savings per PC per year. This includes equipping notebooks and desktops equipped with antivirus and antispyware/malware utilities, protecting notebooks with centrally managed PC firewalls, implementing Network Access Control (NAC) used for PCs entering the network, and implementing an automated patch distribution system in place for all notebooks and desktops.

In addition to these \$430 per PC per year in potential cost savings, IDC also determined that service levels improved 10%, improving the quality and timeliness of IT services delivered to the business, and a 20% improvement in business agility, the IT department's ability to adapt to changing business.

To implement these impressive desktop savings programs, IDC indicated the organization should concentrate on some simple practice improvements and deploying some basic tools and technologies to help ease the management burden. These suggestions include:

- Developing an overall 3 to 4 year strategy for the desktop,
- Minimizing hardware and software configurations,
- Implementing critical security functionality such as anti-virus, automated patching anti-spyware and quarantine,
- Controlling the user's ability to change PC configuration settings,
 - Limiting the ability for users to install software outside the approved PC application portfolio,
 - Investing in PC and application virtualization.

IDC researches savings of \$430 per year via PC standardization and security management

CIOs are under tremendous pressure to reduce IT costs while improving services to the business and end users. To understand what it takes to be successful, IDC conducted a research project to determine what successful organizations are doing right to achieve these goals.

To understand the best practices to achieve greatest rewards, IDC analyzed 141 for-profit enterprises in the United States with from 1,000-20,000 PCs. Each organization was interviewed about its IT assets, IT staffing levels, and management practices. The research also captured metrics about the quality and timeliness of IT services. The end goal of the research was to identify best practices that could provide guidance to other firms desiring to improve IT operations.

In this research, IDC evaluated more than 20 potential best practices and identified three that are consistently used by top-performing IT departments for optimizing Windows desktops.

- Standard desktop strategy (savings of \$110/PC). Deploying a standardized desktop by minimizing hardware and software configurations.
- Centrally managed PC settings and configuration (savings of \$190/PC): Keeping deployed PCs standardized by preventing users from making changes that compromise security, reliability and the application portfolio.
- Comprehensive PC security (savings of \$130/PC): Proactively addressing security with antivirus, antispyware, patching, and quarantine.

The analysis bottom line: a total savings potential of \$430 per PC per year via improved PC standardization and security management.

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Help reduce unnecessary business costs and waste

Through better utilization of assets and leveraging staff more efficiently IT can clearly save with little incremental investment and help contribute to significant corporate savings programs.

However, it is important that forward looking IT execs shift the discussion from how the IT budget can be cut 20%, to how IT can help the business cut costs. As Forrester research warns, "CIOs need to ensure that IT emerges from this downturn as an integral, not marginalized player in their companies' business strategy."¹¹

The benefits of the right projects applied to reducing business costs, streamlining business processes, managing supply chain and boosting productivity, can mean much more to the bottom line than IT cutbacks. As Mckinsey indicates, "When business and IT executives jointly take an end-to-end look at

¹¹ Forrester: How IT rides out the recession, Linda Tucci, November 05 2008, SearchCIO.com / Tech Target

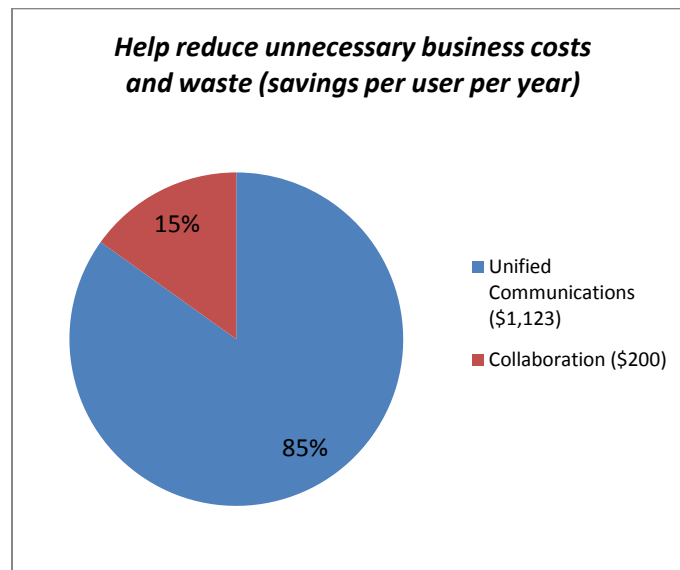
business processes, the resulting investments can have up to ten times the impact of traditional IT cost reduction efforts”¹²

Analyzing project returns, Mckinsey research indicates that IT cost cuts of 15% can deliver 0.5% to bottom-line profitability (EBIT), but successful business investments can deliver much more. A successful decision support solution for retailers can deliver 1-2% increase in EBIT, while optimizing supply chain processes with streamlined systems contributes 3-4%, and delivering better pricing via reduced revenue leakage from unnecessary discounting and poor sales force management can result in from 3 to 5% bottom-line impact.

Concentrating on quick payback projects as frugal executives demand, are there relatively simple business projects which can deliver superior ROI and tangible / low risk cost avoidance and savings?

Looking to the business and trying to find areas to cut costs leads to two solutions that can work well regardless of industry, and without breaking the bank:

- Unified Communications -> Saving over \$1,123 per user per year in business and IT costs,
- Collaboration -> saving over \$200 per user per year from customization and administrative cost avoidance (build vs. buy), forms, printing and mailing savings.



How IT can help the business save money is ultimately the key to greater rewards. Helping the business unify communications can alone contribute over \$1,123 per year per year, while hard savings from collaboration can deliver \$200 in build vs buy, printing, forms and mailing costs, with enormous upside potential for additional productivity improvements.

¹² Managing IT in a downturn: Beyond Cost Cutting, Kaplan, Roberts and Sikes, 2008 McKinsey & Company

Unified Communications

Unified Communications can help organizations save 35% in overall communication costs by helping to converge voice telephony and networking solutions into a single infrastructure that will help reduce telephony costs via IP routing, reduce and consolidate voice mail solutions and save on infrastructure and administration costs. Unified Communications has been proven to enable users to reduce travel costs, and enable flexible work environments to help reduce office costs. In total, the IT and business savings help cut communications and business overhead costs a significant \$1,123 per user per year.

According to Forrester TEI studies, Unified communications can help:¹³

- Reduce travel costs - Replace internal meetings, in-person training and customer / partner visits with LiveMeeting, saving 20-40% on current travel and training expenses per year. Assuming based on Forrester TEI case studies and research that 50% of employees travel and each takes 8 trips per year with \$1,500 average expenses per trip, a 22% savings results in \$1320 savings per employee per year, or \$1.3 million for a typical 1,000 user organization. A more conservative analysis puts the average number of traveling employees at 35% with 4 trips per employee per year, yielding an easier to realize \$462,000 in savings per year, or \$462 in savings per employee annually.
- Reduce real estate & facility costs - Reduce the office space per employee and improve space utilization with tele-working and remote working, saving 30-40% of current costs. With 100 square feet per employee, \$28/sq. foot office space and 30% savings according to Forrester TEI research, the savings potential is \$840 per user per year, or \$840,000 for a 1,000 person organization. A more conservative 15% savings still puts the savings at \$420 per user per year which should be achievable by most organizations.
- Reduce telephony and audio conferencing charges - Replace long distance and audio conferencing call charges by routing calls through the network and avoiding toll charges with VoIP, savings from 10 to 40% per year. Assuming modest long distance telephony costs of \$200 per user per year, and 40% potential reduction in toll charges from Forrester TEI, results in \$80 per user per year savings, or \$80,000 for a 1,000 user organization. Additional cost avoidance by eliminating audio conferencing charges can result in \$20 more per user per year, or \$20,000 for our sample organization (assuming a modest \$50 per user per year in charges and 40% savings).
- Reduce the cost of voice mail - Replace and consolidate disparate voice mail and fax systems with Unified Messaging saving 20-60%. Assuming a cost of \$40 per user per year and a 40% savings, results in a \$16 per user per year voice mail consolidation /cost avoidance, \$16,000 per year for a 1,000 user organization.
- Reduce IT infrastructure and administration cost- Extend existing investments in the computer network, consolidating legacy Voice PBX and other telephony solutions and vendors, saving 50%. Assuming a \$250 per user per year cost for the infrastructure, consolidating to save 50% can yield \$125 per user per year in savings, or \$125,000 for our sample organization.

¹³ The Total Economic Impact Of Microsoft Unified Communications Products and Services, Forrester Research - October 2007, <http://www.microsoft.com/presspass/presskits/uc/docs/TEIMSUC.pdf>

Lifetime Products Realizes Benefits of \$850,000 with Unified Messaging

Lifetime Products manufactures tables, chairs, outdoor sheds, and basketball equipment for customers in more than 50 countries. Its employees, located in the United States and China, depend on messaging technologies to stay connected to customers and the office. To improve productivity, Lifetime deployed a unified messaging system empowering employees can access their e-mail, voice-mail, and fax messages in their inboxes—while at work, at home, or on the road. As a result, Lifetime has been able to achieve estimated benefits of \$850,000.

Lifetime has been able to save \$43,000 annually by dropping its voicemail maintenance contract. Instead of having a separate voicemail system with a separate directory, Lifetime now centrally manages voicemail and e-mail users with the Active Directory server. John Bowden, Chief Information Officer for Lifetime explains "The total removal of the voicemail system has happened. The maintenance contract is gone, saving \$43,000 per year. Most companies don't believe that they can get rid of their voicemail system, but we've proved it can be done."

With the unified messaging system in place, Lifetime has been able to consolidate and reduce the IT support required for voice and messaging. The IT support required for voice and messaging has been reduced by over 1,000 hours, resulting in an annual savings of \$28,000.

Within an eight-month period, Lifetime got rid of 300 desktop phones, for an annual savings of \$180,000. Bowden says that while getting rid of desktop phones is not mandatory, employees can opt to do so if they already have a wireless device and use their desk phone for less than an hour a day or are away from their office for much of the day.

The company has also removed almost 300 of its desktop fax machines, each of which costs about \$2,000 per year, as employees realize the benefit of having faxes delivered to their inboxes. In addition to the annual savings of \$600,000, this capability also significantly reduces the possibility of lost or incorrectly delivered faxes, helping to improve customer service.

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Collaboration

Collaboration solutions enable organizations to connect people to each other and information, helping to improve productivity. Collaborative workspaces, content management, portals, eForms, social computing capabilities that include wikis, blogs, RSS feeds, and user profile sites, mobility and accessibility are combined to create a platform for connections and information.

As a result, these applications can help to:

Brink's Home Security avoids \$70,000 in IT Costs with Collaboration Solution

Through the migration of the company intranet to Office SharePoint Server 2007, Brinks Home Security is making vital information and announcements more easily accessible to employees. One form of such information is "hot topics," which constitute an important segment of the overall content on the intranet. "Much of the 'hot topics' content is essential for enabling support specialists to provide better customer care," Yvonne Zagumny, Manager of Application Development, Brink's Home Security explains. "Now, the 'hot topics' and all other intranet content items are rapidly, easily updated by our business users without the need for any IT involvement."

What this means, Zagumny adds, is that content updates or additions are no longer delayed, making the overall content of the intranet more timely. It also means that BHS is saving 40 hours a week in IT time, the equivalent of one full-time IT professional, and enabling those professionals to focus on more strategic pursuits, like the enhancement of line-of-business solutions.

This equates to a savings of roughly U.S.\$70,000 annually from freeing up one full-time resource to be allocated to work on other important projects that were previously out of scope due to budget and time constraints.

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- Connect People to the Best Information - Finding and accessing news, status and basic business performance information, Sharing and collaborating on documents, as well as building, tracking, editing and managing collaborative workflows,
- Connect People to the Best Ideas - Aggregation and correlation,
- Connect People to each Other - Making meetings more productive, Finding people, capabilities, roles, organization and contacts information,
- Connect organizations to their Customers - Provide access to customer information and resources to help handle customers to reduce customer care costs,
- Connect Organizations to each Other - Understand business costs and friction / errors in workflows helping to reduce overall SG&A expenses and COGs.

Collaboration solutions can have a dramatic impact on individual and group productivity, but these savings are hard to predict and measure, and although they can be quantified, are not hard savings that would qualify for our simple savvy savings program.

However, these solutions have been proved to have some important, but more pedestrian cost savings with regard to buy vs. build and printing, mailing and forms savings. These include:

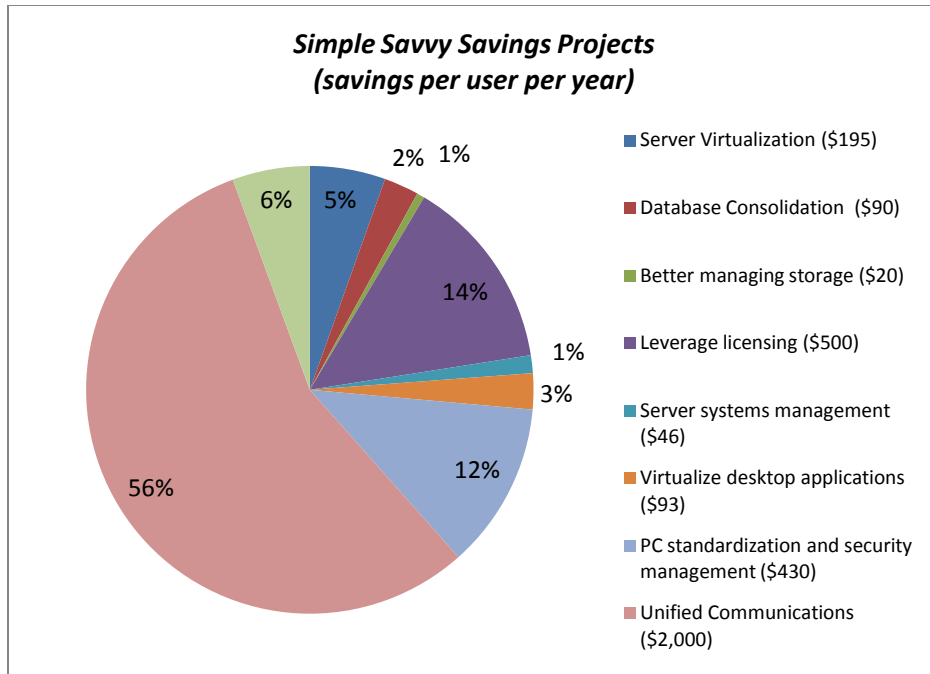
- Freeing IT from having to build, customize and support portals, shared workspaces and social networks, a net savings of 40% of the effort IT spends now supporting these user requests and custom initiatives. Standardizing business unit collaboration solutions also helps to reduce or eliminate shadow IT from these business users and groups in building, customizing and supporting their own collaboration solutions such as custom portals, shared workspaces, and social networks. This can lead result in \$456 in an average savings per user per year,
- Savings from eForms, resulting in 40% reduction in paper based forms, saving an average of \$48 per user per year in custom form printing and mailing costs,
- Savings in reports for users, customers and partners by providing the information on-line and accessible via portals and shared workspaces, resulting in 40% less printing of related reports, a \$156 per user per year in reduced printing and mailing costs.

Conclusion

Many of these programs you were already aware of and may well be down the path on implementing. Others may represent a fresh way of looking for savings. While others provide a quantification of what might have been hard to prove before. As these simple savvy savings prove, you don't need to look hard to find fast payback projects to deliver significant annual cost savings.

In total, we outlined nine easy and quick payback projects to deliver on these savings, including:

1. Server Virtualization to reduce infrastructure investments, energy and operations overhead costs, and help improve server administration → \$195 savings per user per year,
2. Database Consolidation → \$90 savings per user per year,
3. Better managing storage - \$20 savings per user per year,
4. Leverage licensing to save more - \$250 to \$500 savings per user per year,
5. Implement server systems management to reduce administration costs → save \$46 per user per year,
6. Virtualized desktop applications help reduce application management costs → \$93 per user per year,
7. Implement PC standardization and security management to save on PC engineering → \$430 per user per year,
8. Unified Communications → Saving over \$1,123 per user per year in business and IT costs,
9. Collaboration → saving over \$200 per user per year just from printing and mailing savings.



To implement the Simple Savvy Savings program, nine projects contributed to produce savings of \$3,750 per user per year.

Subtotaling these projects into three improvement areas, yields savings of over \$2.67 million per year that can be realized by a typical 1,000 person organization, including:

1. Making better use of what you already have - > saving \$650 per user per year in reduced infrastructure, energy and operating overhead costs,
2. Standardizing and simplifying to reduce IT management and support costs -> \$700 per user per year in IT labor savings,
3. Helping reduce unnecessary business costs and waste -> over \$1,320 per user per year in business costs and overhead avoidance.

In times of uncertainty, one thing is clear regarding these savings plans, and presenting them to executives in order to help the organization create wise cost cutting plans, and preserve as much IT budget as possible - time is of the essence. As Ellen Kitzis, research VP Gartner puts it, "Cutting costs is never an activity with long lead times."¹⁴

Without a timely plan, IT will often be hit proportionately more than other groups, and will not contribute as much as it could to achieve organizational goals for cutting costs. These Simple Savvy Savings guidelines can provide the quantification needed to prove the value of IT and justify these high reward savings plans.

¹⁴ Gartner: 25 ways to cut IT costs, Linda Tucci, October 21, 2008, SearchCIO.com / Tech Target