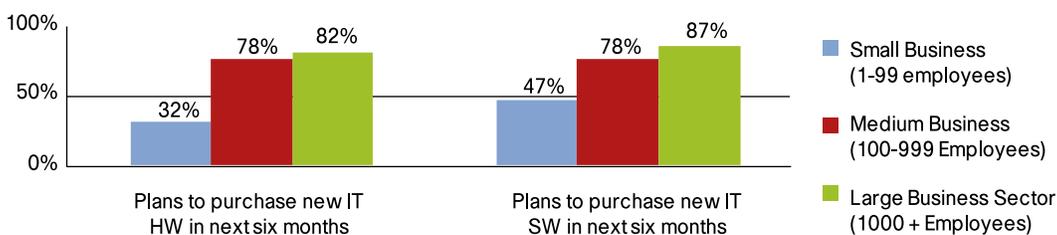


## Future-Proof Networking: Making Decisions That Last

A funny thing happened on the way to the recession. As the global economy slowed in 2008, then came to a screeching halt in 2009, it sent a wave of change through the IT community. A mind shift gradually began to take place and CIOs found themselves pausing and reevaluating their investment decisions, realizing that now was the time to make sure every investment being made was not only in line with their company's strategic vision, but also driving them diligently toward their goals. (See Figure 1.)

**Figure 1.** 2009 IT Investment Projections



IT infrastructure purchasing decisions everywhere were being scrutinized. Is this purchase strategic to our business? What will we really gain in the long run? Are we applying resources in the right areas? Will this investment proactively prepare us for the inevitable upturn as well as the next downturn? Every investment decision was being revisited to evaluate its worth.

IT has matured and become pervasive. The recognition of its value, the growing dependence companies have on IT and the role it plays as an integral part of business success is no longer debated. A company's IT infrastructure is now recognized as vital to business growth and productivity. As a strategic part of doing business, many organizations have become more thoughtful in their IT investments and less apt to cut IT budgets and resources as a way to reduce costs.

Value is today's challenge and motivator. The new test of a good value in IT has shifted from how inexpensively something can be purchased to how this investment serves the company's strategic vision. If there is a silver lining to be found in this economic downturn, it might be that it brought us back to a more balanced way of making IT investments.

### Funding and Investment Challenges in IT

Despite the cutbacks and bleak economic outlook (Gartner, Forrester, and IDE have all cut their original 2009 IT spending projections by at least 56 percent), CDW IT Monitor has reported 84 percent of large and 77 percent of midsize businesses plan to purchase new IT hardware in 2009.

Clearly, this is an indication that smart CIOs have become more strategically minded and are positioning their companies to thrive after surviving these tough economic times.

“In today’s business environment, savvy organizations prioritize strategic IT investments as a way to increase market share and profitability.”<sup>1</sup>

—CDW Vice President Mark Gambil

### **Strategic Vision to Thrive in Tough Times**

To succeed in tough economic times, a business must be able to make strategic plans for growth while running a lean operation. Increased efficiencies and productivity have become the mantra of strategically focused CIOs. Opportunities to increase productivity, lower maintenance costs, and improve the overall effectiveness of existing resources are all being examined in hopes of finding further ways to optimize operations. The following are the seven primary areas where businesses can maximize IT opportunities:

#### **Identifying the Big Bets**

Find important strategic areas in your infrastructure where large returns can be realized. For example, mobility is more than a technology buzzword; it is the starting point for enhanced productivity. Mobility empowers employees and enhances productivity and creativity by providing the means for workers to stay connected regardless of location. And staying connected allows employees to stay engaged, productive, and creative.

By recognizing the value of creating a strong wired infrastructure for their wireless LANs, strategically minded CIOs can plan for the high speeds of 802.11n to encourage employees to make use of reliable real-time collaboration.

“You can’t win unless you know where you’re going and how you’ll get there, and communication is a key, strategic enabler to everything we’re doing.”

—John Brock, CEO Coca-Cola Enterprises

#### **Prioritizing Strategic Investments**

A sure way businesses have cut costs during the economic downturn has been restricting business travel. It is a tactical decision that is easy to implement and immediately improves overall profitability. Businesses that were able to benefit by this strategy while maintaining their productivity and competitiveness were businesses that had recognized the benefits of video conferencing and assigned it a high priority in the overall company strategic vision.

This type of strategic IT planning allowed employees the opportunity to “travel” without leaving their office. By implementing on this strategic plan, businesses could continue to “meet” with their clients, and each other, and still maintain the feeling of meeting face to face. Companies using video conferencing were able to continue to do business without disruption and were able to actually extend their company’s virtual reach even further.

#### **Understanding Product Lifecycles**

In light of the rapid advancements of technology and the growing demands of today’s applications, it is understandable that network equipment has a finite value and that product lifecycles need to be monitored so business productivity does not suffer. Existing products need to be measured by the benefits they deliver.

A good example of this is the role switches play at the access layer. The new access layer switches (or edge switches) now provide enhanced security features, power voice-over-IP (VoIP) phones and wireless access points, and can even monitor and regulate energy usage. Although purchasing inexpensive access switches might sound attractive, these switches should be evaluated for their long-term value in the network and the productivity increases

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<sup>1</sup> CDW IT Monitor, March 4, 2009.

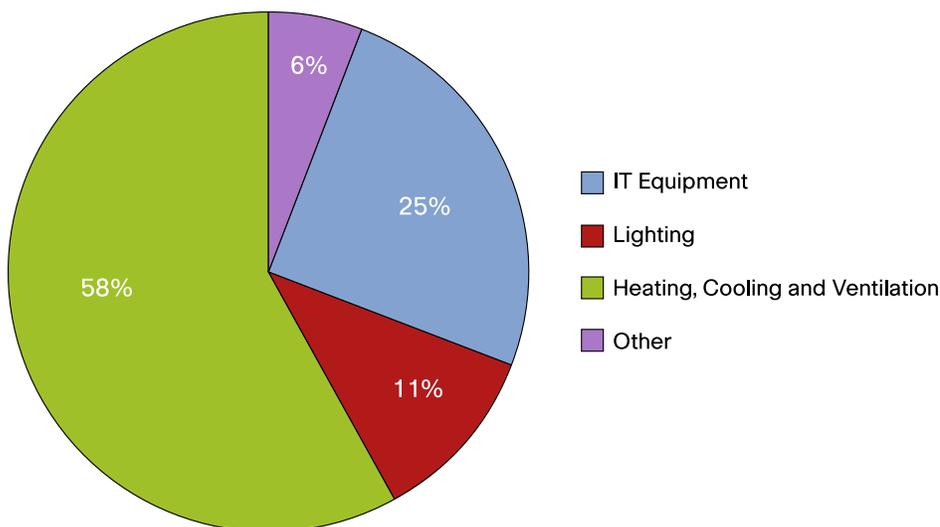
they provide. If your business strategy is to optimize business operations by deploying VoIP phones and wireless access points, the wise investment choice is to deploy switches at the edge that support these technologies.

### Practicing Lean and Green

The rising costs of energy are rapidly encroaching upon business profitability. When making purchasing decisions, a holistic approach should be taken.

Is this product meeting my green goals of lowered energy consumption? Does this product allow me to control power setting and create policies so they can be easily implemented? Will deploying this switch save me money in operating costs? (See Figure 2.)

**Figure 2.** Energy Use in Offices<sup>2</sup>



The breakdown of expenses in Figure 2 shows that IT equipment consumes approximately 25 percent of the energy in offices. It also is responsible for a portion of the 58 percent reported for cooling and ventilation because “it takes twice the amount to remove the heat generated as it takes to run the equipment.”<sup>2</sup>

Looking at the big picture, it is clear that implementing a green strategy is a crucial for cost savings. It also goes a long way in showing your company’s concern for the environment.

**“CIOs need to be decisive and resourceful in building an effective enterprise that can meet current and future challenges. Leading enterprises recognize the seriousness of economic conditions, but they are not paralyzed by them. Their leaders have confidence in their ability to use IT to achieve results.”**

—Mark McDonald – Gartner Group EXP, January 14, 2009

### Lowering Administrative Costs

There is an immediate savings in time and labor costs when IT administrators deploy products that are easy to install and configure. Ease-of-use features that automatically detect connected devices and configure themselves appropriately save countless hours, avoid configuration errors, and are especially vital in dynamic environments.

<sup>2</sup> UK Energy Efficiency Best Practice Program Energy Consumption Guide 19: Energy Use in Offices.

Scripting and network policies improve efficiencies even further and allow important administrative resources to be freed up for more strategic activities. However, that is not the only administrative criterion to consider. To truly lower administrative costs, you need to understand the level of your IT team's in-house networking expertise.

In a high-performance, high-demand network, there is zero tolerance for downtime or delays. This is why normal maintenance, software upgrades, and troubleshooting are usually done when the network is in use, such as weekends and evenings. If your in-house IT team requires configuration or troubleshooting support during these off hours, it is important that the support your network vendor provides can be delivered outside of normal business hours.

### **Interoperability Considerations**

Simplicity is crucial to lowering costs. IT infrastructure is a combination of multiple parts all working together in harmony. This requires the administrative staff to fulfill many roles. Because of its intricate nature, IT administrators in those roles are required to be experts in the all technologies the infrastructure supports.

When creating a strategic plan for your network to minimize downtime, complexity, and administrative overhead, make simplicity the guiding principle. Mixing and matching vendors with disparate feature sets and separate support groups can be complex and time consuming. Interoperability from one device to another must be well thought out and thoroughly tested.

Keeping it simple allows IT administrators to focus on areas of optimization and innovation possibilities rather than troubleshooting interoperability issues.

### **Protecting Your Data**

Another way to avoid unnecessary costs and downtime is by proactively protecting your network access and the data that it transmits. For such a widely known problem, there is still much that needs to be done to protect against network break-ins or malicious users, perhaps because the costs associated with data and productivity loss are not easy to measure. In fact, the 2008 CSI Computer Crime and Security Survey admits that security professionals "almost certainly don't have an exact and accurate reckoning of losses due to, say, a denial-of-service attack (there's no standard way for arriving at such a number, so how could they?)."<sup>3</sup>

What is clear is that as your network becomes more open to communication through wireless access, proactive steps must be taken to authenticate users and assign appropriate user policies.

It is important to know if your IT infrastructure complies with the industry regulations designed to help ensure the security of data and information and that the solution implemented protects the IT infrastructure end to end.

### **Successful Implementation**

#### **Creating a Migration Plan**

If the economic downturn has taught us anything, it is that no one is recession-proof. Knowledge and skill set continually need to be kept up in order to maintain a competitive edge.

The same goes for IT equipment. Is it up to date with the latest technology, and does it comply with the latest regulations that will maintain your company's competitive edge?

Practically speaking, often IT equipment is a mix of old and new technology for diverse but vital user groups. While it is difficult to consider replacing equipment that seems to be working satisfactorily, continuing to support environments with mixed old and new technologies is costly and resource intensive. Additionally, maintaining the status quo with existing equipment can prevent you from making strategic investments in your company's future.

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<sup>3</sup> Robert Richardson, CSI Director 2008 CSI Computer Crime and Security Survey.

The good news is that creating a phased migration plan allows you to make gradual network changes without disruption to your business. To create your migration plan:

1. Understand your company's long-term business strategy and plans for growth
2. Identify the most important concerns
3. Prioritize strategic investments
4. Identify obsolete or inefficient products
5. Understand your company's green goals
6. Lower operating and administrative costs

### The ROI Question

Return on investment continues to be the goal that IT decision makers seek to gain validation of their purchases.

The return on investment formula is simple:

$$\text{ROI} = (\text{gain from investment} - \text{acquisition cost}) / \text{acquisition cost}$$

In the IT networking world, this simple calculation has become confused with inexpensive acquisition costs and free services that at first glance appear to be attractive. However, value extends beyond the initial expenditure.

The reality is that ROI calculations can be easily manipulated to suit the user's purposes, and, as a result, the simple ROI formula became skewed with a limited view on short-term capital expenses rather than their long-term operational expense effects.

To successfully measure the real effects that IT investments and implementation will have on ROI, the considerations used to calculate the ROI value must include:

- Improvements in employee productivity
- Lowered deployment costs
- Disaster recovery protection (redundancy, security, and storage)
- Operational/administrative costs
- Support for future technology innovations
- Energy consumption and its effects on the environment

Unfortunately, in the IT world, ROI is not a one size fits all proposition. Each business has its own priorities to consider in order to determine what factors can be used in calculating its ROI. (See Figure 3.)

**Figure 3.** Sample ROI Considerations



## Realizing Your Strategic Vision

The next step to realizing your strategic vision and creating a highly productive and efficient IT infrastructure is to collaborate with a network solutions expert that understands your long-term business goals and how to maximize your business's success.

As a trusted advisor, Cisco can help you to build a sustainable network infrastructure that will solve more than just your current needs. Cisco will also work with you to overcome current economic constraints so you can develop and implement an IT business plan that is primed to address future challenges and support new technologies.

Cisco has been promoting innovation networking solutions to its customers since 1984. Experienced in consistently and reliably delivering solid networking products, Cisco delivers solutions supported by award-winning technical teams throughout the world. Expert advice and design assistance can be reached with just a single phone call.

As a leader in technology innovation, Cisco is committed to fostering changes in the industry that are priorities to you and your business and to supporting you every step of the way.

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