Greenbacks for Green Acts

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"There can be economy only where there is efficiency." —Benjamin Disraeli

The Cost of Going Green

The evolution of the "Green" movement in the corporate world has been slow—too slow, some would say. While recognition of the importance of environmental responsibility is growing, cost is still considered a major hurdle. For decades, businesses have viewed "going green" as an expense, requiring costly new processes and equipment. This has resulted in many executives avoiding the issue altogether, fearful of eroding profits—especially during economic downturns, when few would consider spending on anything other than business-critical needs.[1]

The truth is that by overlooking "green" opportunities, corporations are spending enormous amounts of money to sustain expensive, wasteful, and costly inefficiencies in their operations. It's time that we abandon the notion that green is an expensive virtue, and recognize that *green operations are efficient operations, and efficient operations save money.* Green is also important to today's more knowledgeable consumers; being an eco-friendly company is becoming an essential element of maintaining a good business reputation.

The potential savings from going green can be astonishing. Let's take a typical data center as an example. Traditionally, each department within a company is assigned discrete processing and storage capabilities. Accounting and Finance do not share servers with Engineering, and Engineering does not share servers with Marketing. The problem is that no single department maximizes the potential of its servers. The average server in an enterprise data center is utilized at just 25 percent of its capacity—and yet, it is powered 100 percent of the time. This results in a huge expense: buying servers that are 75 percent underutilized, and using a great deal of power to run, and then cool, all this unused capacity.

The answer is simple: share servers across different business units to increase server utilization. This is easily done today, using a technique called virtualization. Fewer servers use less power, even running at peak capacity, and create less heat, resulting in reduced cooling requirements. They also take up less physical space, saving huge costs on accommodation and the seemingly endless growth of data center space requirements.

For example, Cisco is in the process of virtualizing its data centers, increasing its storage utilization from 20 percent (2.4 PB of storage) in 2004 to 72 percent (11.2 PB of storage) today—and we are continuing to drive these efficiencies and savings even harder.

The ramifications go even further. Fewer servers being manufactured means lower consumption of raw materials, with fewer toxins released into the environment. Fewer servers in operation also mean less technological waste as technology upgrades are made.

Cisco provides another real-world example. In 2006, half of Cisco's carbon footprint came from travel. On June 24, 2008, at Cisco Live!, Chairman and CEO John Chambers announced the goal of reducing the company's carbon footprint by 25 percent (to a net footprint of 543,000 metric tons of $CO2e^2$ in greenhouse gas emissions) by 2012.

When this commitment was made, no one knew exactly how it would be accomplished—but it was critically important that Cisco's executives make this bold pledge to stimulate radical thinking and fundamental change. The company began working to reduce its travel needs while simultaneously enabling its workforce to collaborate across the globe more effectively and to increase its customer touchpoints. By using our flagship collaboration technology, Cisco TelePresence, which enables an immersive, high-definition, video-based virtual meeting experience, we dramatically cut costs while increasing employee productivity and boosting sales.

Another collaboration tool that we use extensively is Cisco WebEx. Along with our Unified Communications suite of solutions, WebEx enables employees to meet and collaborate online, sharing documents and holding collaborative working sessions—all without the expense and carbon emissions of air or car travel. These IP-based tools allowed Cisco to cut its travel by 31 percent in FY2008, resulting in annual savings of $287 million. What's more, Cisco's use of Web 2.0 collaboration solutions resulted in bottom-line benefits of $691 million, with a payback period of significantly less than 12 months—and the green impact has been equally weighty.

Businesses simply cannot afford *not* to go green. Being green equates to being efficient—and efficiency conserves money that can be used to grow a business.

Going Green Takes Committed Leadership

Going green is about adopting a dual strategy—a pincer movement of large-scale, bold actions at the corporate level, along with a million small things at the day-to-day, individual-employee level. But the impetus starts at the top.

Going green is a little like losing weight: it's all about commitment. Convincing yourself that going green truly is important—for the myriad of reasons stated above—and then making the commitment to doing something about it is the most important step of all. Once you make that decision and communicate your commitment to the company (and the world—nothing cements one's commitment like a public statement), it becomes a lot easier to drive action and achieve the goal. The CEO must commit the company to concrete goals such as percentage reductions in greenhouse gas (GHG) emissions by a specified date, or the target of specific power consumption reductions. These commitments must be bold, meaningful, and measurable. They should challenge the organization and send a clear message that "our company is serious about changing our impact on the world."

The CEO doesn't have to know *how* this will be accomplished. When John Chambers asked Cisco to reduce carbon emissions by 25 percent, he didn't know that travel reduction would be one of the biggest opportunities. He issued the challenge and the company responded. The CEO's job is to set the course to solve the big problems, and then let employees' ingenuity provide the solutions.

Creating a green culture, under the CEO's aegis, also means making employees aware of the *small* things that can make a difference. For example, ask employees not to print documents unless it's really necessary, and to print double-sided when they do; turn off lights in unused areas; adopt reusable beverage containers instead of disposable cans and bottles; recycle paper and plastic; evaluate usage of materials based on their toxicity or carbon footprint to produce—the list of meaningful ways to contribute is endless. The key is visibility. People *want* to do the right thing, and they will, once they know how. What they need to understand is that turning off the lights in one conference room may not appear to make much of a difference—but if everyone turned off the lights in all unused spaces, the impact would be significant. They also need to know that the executives of their company are serious about being green—they need to see the company taking real action. Not only will this lead to grass-roots green action by the employee base; it will also increase the sense of pride and loyalty toward the company.

Better still, link green behavior to a rewards system. Incentivize green actions and discourage waste at the institutional level. For example, award special green bonuses to departments that recycle the most paper and plastic, or give a percentage of each business unit's travel savings back to them as increased R&D budget—or to increase the business unit's bonus pool.

Green Technology

Green technology goes beyond solar energy generation or biodegradable materials. In fact, the hero of the day might well be information and communications technology (ICT). While it is true that ICT consumes energy and produces about 3 percent of the world's GHG emissions, it has been shown that ICT can be used to reduce more carbon dioxide than it produces.[3] The areas where ICT can make the greatest difference immediately—using proven technologies—are travel, buildings, and workspaces.

Travel

We have already talked about how web-based collaboration tools can reduce travel. Another way is to reduce GHG emissions created by employees commuting to work. Eighteen percent of GHG emissions are caused by road traffic.[4] By allowing employees to work from home, connected over high-speed broadband connectivity, corporations can significantly reduce their carbon footprint. Studies show that employees who are allowed to telework at least part of the time are more productive—largely because they are able to convert commute time to work time. In fact, research shows that 70 percent of the time saved by an employee is directed toward productive work—the remaining 30 percent being used to increase work/life balance, thus increasing job satisfaction.

Buildings

Buildings emit about 50 percent of the world's GHG emissions, presenting a huge opportunity to make a green impact.[5] Inefficiency is the primary reason for the wastefulness

of buildings. They heat and cool empty rooms just as much as rooms full of people. Modern office buildings tend to be closed environments that do not—and cannot—respond to external changes in the weather, maintaining an artificial and isolated internal environment.

By converging a building's heating, ventilation, air conditioning (HVAC), and other systems with an IP network, organizations can introduce intelligence into building operations. An intelligent building can sense when areas are unused, and then turn off lighting and power down computers, printers, and other devices that are not being used. As an example, Cisco's Unified Communications Manager V4 allows the displays on all the IP phones connected to a network to go dark at a given time after business hours. This reduces a phone's energy consumption by up to 25 percent. Organizations can also adjust heating and cooling according to the number of people in a space by responding to external clues from the environment, or by predicting heating and cooling needs based upon Internet weather forecasts. By making a building responsive and intelligent, enormous amounts of energy can be saved—and this keeps money in the corporate pockets.

Workspaces

Traditionally, office space is largely wasted. Frequent travelers, for example, often have space dedicated to them back at the home office that is used perhaps 30 to 40 percent of the time. Employees who don't travel still use the space dedicated to them only part of the time. But even when unused, those spaces are consuming energy in the form of lighting, heating, ventilation, power for a variety of office equipment.

Cisco has moved about 10 percent of its employees into "mobile workspaces," increasing office space usage by nearly 40 percent. This was accomplished by providing open areas populated with a variety of work environments—workstations, "living rooms," small audio privacy rooms, and conference rooms. The entire area provides wireless connectivity. Employees have no assigned spaces, working where they wish and employing only the resources they need. This has reduced the amount of furniture, electronic equipment, and square footage required per employee—a huge savings to the company—and cut energy consumption in these areas by 40 percent.

Value of a Green Reputation

Consumers are better informed today than ever before, thanks to the Internet. In the not-so-distant past, they bought the goods and services they preferred without considering a company's manufacturing practices or carbon footprint. Today, a conscientious consumer can quickly determine if a corporation is a polluter or lax about GHG emissions, and if so, will purchase elsewhere—no matter how much he or she may prefer the company's products. The new generation of shoppers entering the consumer market today—those who have been brought up on the Internet and the green movement—are particularly attuned to the ecological impacts of the companies from which they buy. They know they will have to live with the world they inherit, and they are taking a keen interest in ensuring the products they support are coming from ecologically responsible companies.

Whatever you may personally believe about global warming or conservation, green is a hot topic, and it is not going away anytime soon. Consumers care about green, and they want to buy from companies that are doing something substantive about it.

If any further proof is needed, try googling “green investing.” There are more than 90 million hits, which should tell you that many investors view green as an important aspect of economically viable growth. Investors care. A recent survey of 1,263 wealthy Americans, each with at least $500,000 in investable assets, revealed that 71 percent have “socially responsible” and “green” investments in their portfolio. Fifty-seven percent say they have up to 25 percent of their portfolio in such investments, while 9 percent have between 25 and 50 percent. Twenty-five percent believe that green investments will gain in 2009.[6]

It’s Never Too Early

Green represents a unique opportunity for businesses to improve efficiency and reduce costs—and to look good while doing it. It’s one of those rare instances where you really *can* do well by doing good. Corporations who embrace green operations will be the ones best suited to weather the current global economic crisis because they will have trimmed costs and streamlined operations. And these businesses will also be the ones best poised to take advantage of the economic upswing when it comes.

So don’t wait. Being green is just plain good business.

For more information about how ICT can impact your green profile, please contact:

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Endnotes

1. "Slow Growing Green," Mary K. Pratt, *Computerworld*, January 1, 2009.
2. CO2e, or carbon dioxide equivalent, is a measure that describes how much global warming a given type and amount of greenhouse gas may cause, using the functionally equivalent amount of carbon dioxide (CO_2) as the reference. CO2e is a convenient way of expressing the global warming effect over time of different types of greenhouse gases, such as methane, perfluorocarbons, and nitrous oxide.
3. "Saving the Climate at the Speed of Light," Gartner Group, April 2007.
4. CNN, 2007.
5. "Building Design Leaders Collaborating on Carbon-Neutral Buildings by 2030," United States Green Building Council, May 2007.
6. "Wealth and Values Survey," PNC Wealth Management, January 2009.

More Information

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