

# GREEN IT AND YOUR BUSINESS: BOOST YOUR BOTTOM LINE WHILE BEING ENVIRONMENTALLY RESPONSIBLE

## EXECUTIVE OVERVIEW

In this tough economy, green business practices have practical benefits for businesses above and beyond environmental sustainability. Telecommuting, web Web conferencing and the virtual office concepts are examples of practices that can help companies decrease costs, drive greater productivity and increase revenue. Information and communications technologies can be used to realize greater energy efficiency and reduce harmful emissions, while at the same time, protecting and promoting economic opportunities. This paper examines the ways in which businesses can leverage environmentally sound practices and technologies to build environmentally sustainable business architectures that save money through enhanced productivity and business efficiencies.

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## THE POWER OF SUSTAINABLE GREEN IT

Environmental sustainability currently dominates the global agenda. In our quest for sustainability, we must consider balancing a growing economy, protecting the environment and maintaining our social responsibilities, which we can refer to as the "triple bottom line" approach. The good news is that by being socially and environmentally responsible, we can increase our business's bottom line, as well.

Service providers such as Qwest are making it easy to deploy green information and communications technologies (ICT) and take advantage of the cost-savings and productivity gains they can deliver. There are a number of tools and applications that enable companies to manage and reduce energy consumption. Employing those tools requires companies to rethink business practices, but the result is better communication and collaboration.

From an IT perspective, power management must be applied at every stage. Administrators must maximize utilization of existing hardware and software, and standardize energy management while delivering guidance and education to employees. On the other hand, employees need the right tools to support the lower-cost energy model-- tools that offer visibility to the environmental footprint and empower employees to work remotely and more efficiently

## MANAGE ENERGY AND THE IT FOOTPRINT USING REMOTE MANAGEMENT

Businesses can begin to reduce their energy costs by focusing on three areas: Built-in energy efficiency, resource optimization and virtualization technology.

Reducing energy consumption begins with deploying products that have energy-efficient components built-in. For example, whether an operating system is Windows, MAC or Linux, the system should be able to go into hibernation mode when not in use, but still be available and easy to boot up. According to IEEE Internet Computing, power management features that operate by default can save up to \$50 or more per PC per year (Green IT, July/August 2009, vol. 13 no.4).

Another way to save is by optimizing resources. Administrators can code software to be more efficient and less demanding on the systems. Conservative estimates from industry experts say virtualization can help to reduce the need for CPU by

more than 15%, on average. Virtualization allows administrators to run multiple applications or multiple systems on single servers to reduce hardware requirements and overall energy costs.

Monitoring and managing the systems in the IT environment can significantly affect the costs of running your business. When you're talking about communications, a lot of resources—human, financial and the earth's—can be wasted on fixing problems in the network, monitoring system health and troubleshooting outages. Solutions that offer centralized control and reporting can reduce the administrative overhead, streamline group policy management and help IT keep systems running optimally. Effective data reporting and analysis helps to identify where resources are being wasted, where utilization is low, and where efficiencies can be improved. Data needs to be collected and combined from all sources for reporting and compliance—and this requires centralized management.

It is also important to set up and monitor goals and objectives for minimizing the overall energy footprint. Solutions for collecting the data and viewing reports easily help you make informed decisions.

### **RETHINK BUSINESS PRACTICES**

Possibly the most important area involves analyzing how a business is run and rethinking business practices to become more cognizant of how greener policies and practices can replace existing ones. Reducing travel, automating paper processes and empowering employees to be more productive are all ways to reach the end goal of reducing energy consumption.

A number of communication tools and applications exist that assist remote collaboration. The result is increased productivity and reduced travel—thereby reducing travel costs and benefiting the environment. For example, Unified Communications (UC) combines messaging, conferencing and other collaboration tools into an integrated product suite. Using UC, companies can cut travel costs by 10–30% (Forrester, Oct. 2007). Companies should also look for tools that enable them to move paper and physical processes online. These applications can eliminate manual tasks, so that employees can spend their time on revenue-generating endeavors.

Empowering employees requires giving them flexible data access so they can be productive no matter where they are. Telecommuting options are dependent on ITC solutions that are secure, easy-to-use and flexible enough to accommodate different access modes and devices. They reduce the dependence on location, enabling employees who are spread out geographically to communicate and collaborate efficiently. Using hosted or on-demand communications services reduces costs further, enabling administrators to tap into hosted "cloud" offerings and reduce the demand on the internal IT infrastructure.

### **DIRECT AND INDIRECT OPPORTUNITIES TO REDUCE AND SAVE**

Direct opportunities to save money and promote energy efficiency with new communications technologies can be found through simplifying operations in your datacenter and network infrastructure.

For example, server virtualization in the datacenter reduces heating and cooling needs substantially by improving utilization and eliminating the need for standby network devices. Built-in energy conservation measures help companies transition out of using non-efficient components to deploying more cost-effective, power-efficient ones. Companies can leverage new technologies to use sustainable energy sources when possible, including solar, wind and bio-fuels. To augment their own efforts, corporations should look to vendors across the supply chain who also use energy efficient solutions.

Even more powerful are the indirect opportunities to save money and energy with communications technologies. Increasingly, new applications and services such as smart technologies, e-commerce and travel substitution help to reduce CO<sup>2</sup> emissions.

E-commerce technology dematerializes the way we work and operate, replacing high-carbon physical products and activities with virtual low-carbon equivalents. Technologies like video conferencing and teleconferencing reduce travel, enabling more flexible work arrangements and reducing CO<sub>2</sub> up to 130 MMT for a \$40-billion savings. If Americans telecommute 1.6 days per week, the nation could save 1.35 billion gallons of fuel annually.

### **SAVE THE EARTH, AND YOUR BUDGET**

ICT technologies benefit your business's bottom line while helping to protect our environment. ICT is a powerful enabler of energy-efficient technologies that replace manual, mechanical and physical processes with greener, more efficient, automated ways of working smart and fast. Companies can leverage ICT to make faster, better informed decisions and decrease the importance of physical location of decision makers, workers and consumers.

## QUANTIFIABLE RESULTS

- Globally, ICT can enable other business sectors and consumers to achieve global reductions in annual manmade global emissions of 15% by 2020, while delivering energy efficiency savings worth more than \$946.5 billion worldwide. In the U.S. alone, ICT enabled solutions have the potential to cut U.S. annual CO<sub>2</sub> emissions by up to 22 percent by 2020. This figure translates into gross energy and fuel savings of as much as \$240 billion. The widespread use of broadband applications can achieve a net reduction of 1 billion tons of greenhouse gases over 10 years, and just a 7% increase in U.S. broadband adoption can result in a %6.4 billion per year in mileage savings from unnecessary driving and 3.2 fewer pounds of carbon emissions.\*
- Efficiencies in transport and storage can lead to a global emissions savings of as much as 1.52 GtCO<sub>2</sub> in emissions and \$441.7 billion by 2020. Through better building design, management and automation, smart building technologies can enable 1.68 CtCO<sub>2</sub> emissions savings, worth about \$340 billion. And the smart grid enables better monitoring and management of electricity for a potential 2.03 GtCO<sub>2</sub> emissions savings, worth almost \$125 billion. In the U.S. alone, this translates to a reduction of \$35 billion in energy and fuel costs.

\* Source: Alliance for Telecommunications Industry Solutions (ATIS): ATIS Report on Environmental Sustainability, March 2009.

## CONNECT. SIMPLIFY. ENHANCE.™

with Qwest Business Solutions®



Qwest is focused on helping you work smarter, with services that leverage the latest technology and award-winning support. Here are a few solutions that can address the issues covered in this solutions brief:

**Qwest iQ Unify™.** Is a managed I voice and data solution that combines the Qwest iQ® Integrated Access Package with the Cisco Unified Communications IP PBX (UC520). It brings together local and long distance voice and data in a single, affordable platform with an extensive feature set including unified messaging2, auto attendant and conferencing.

**Managed IP Communications.** Is a managed CPE-based solution composed of IP Telephony, Voice Mail/Unified Messaging, Wireless LAN, IP Contact Center and paging.

**Qwest iQ® Integrated Access Package.** Simplify your voice and data networks onto a single circuit that dynamically allocates bandwidth between voice calls and data traffic over an Internet connection.

**Qwest Conferencing.** Fully integrates audio and Web conferencing into one intuitive interface, using patented technology to ensure that audio and Web are completely synchronized. Manage your conferences with simple point-and-click commands. All you need is a computer, Internet connectivity and a telephone.

**Qwest Managed Applications.** Are you ready for business? Not just open doors—but open for communication via e-mail and through Web sites? With Qwest Managed Applications you can select from Qwest Web Mail, Hosted Exchange®, Microsoft SharePoint®, e-commerce capabilities and storage space at affordable prices.

## WHY QWEST

Qwest delivers reliable, scalable data and voice networking solutions, across one of the U.S. largest fiber footprints. Qwest serves businesses of all sizes, ranging from small business to 95 percent of Fortune 500 companies, with industry-leading SLAs and world-class customer service.

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