



Energy Enterprise Raises Efficiency and Productivity with Infrastructure Upgrade

Overview

Country or Region: United States

Industry: Energy

Customer Profile

TECO Energy is an energy and utility holding company based in Tampa, Florida. It was founded in 1899 and employs 4,200 people.

Business Situation

The company struggled with an aging PC infrastructure and the resulting stability and performance problems, which hindered employee productivity.

Solution

TECO Energy migrated its entire client infrastructure to Windows 7 Enterprise and is using Microsoft System Center Configuration Manager, Microsoft Application Virtualization, and other Microsoft technologies.

Benefits

- PC startup time dramatically reduced
- Reimaging time cut by 75 percent
- Efficiency and productivity savings of more than U.S.\$1 million annually
- Operational savings of \$250,000 annually

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Kevin Sturgill, Director of Business Computing Services, TECO Energy

TECO Energy, one of the largest energy and utility companies in Florida, faced a computing infrastructure of aging hardware, many applications verging on obsolescence, and resulting stability and performance problems, which hindered business productivity. In response, the company replaced 75 percent of its client hardware and upgraded 90 percent of its client software environment to the Windows 7 Enterprise operating system. It also virtualized 70 applications and deployed Microsoft System Center Configuration Manager and other technologies to streamline deployment and maintenance. As a result, TECO Energy is providing its workforce a more stable, standardized, and efficient computing environment, for yearly productivity improvements equivalent to a savings of more than U.S.\$1 million and for yearly operational savings of \$250,000.

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Mark Dorsett, Enterprise Business Analyst, Business Computing Services, TECO Energy

Situation

TECO Energy is an S&P 500 energy and utility holding company headquartered in Tampa, Florida, and comprising four core businesses: Tampa Electric, an electric utility provider that serves nearly 667,000 customers; Peoples Gas System, the largest gas-distribution facility in the state; TECO Coal, a mining company with operations in Kentucky and Virginia; and TECO Guatemala, which owns two power plants in that country. These business units employ a total of more than 4,200 people.

According to Kevin Sturgill, Director of Business Computing Services at TECO Energy, one reason for the company's success is its longtime commitment to providing its information workers—three out of four TECO Energy employees—with the tools and technologies they need to perform at their peak effectiveness. Not long ago, however, Sturgill and his colleagues found it difficult to meet this commitment because of an aging computer infrastructure, particularly on the client side.

“Most of our desktop and mobile PCs had been in daily use for five years or longer, each of them typically running 20 or more of the nearly 900 different applications we had acquired over the years,” Sturgill explains. “Many of these applications were incompatible with one another, causing problems that made PC startup painfully slow, in turn discouraging employees from installing upgrades and security patches that required a system restart.”

As a result, stability and performance problems that could have been addressed by such upgrades might persist for weeks or months. “No matter how conscientious our employees, their PCs were, in most cases, slower and less reliable than they needed,” Sturgill says. “This inhibited employees' efforts to respond promptly to customer requests, perform complex

simulations, research new business strategies, or whatever the task.”

When a performance or reliability problem grew to the point that a PC required reimaging, an employee faced an even greater delay in resuming productive work. “Because of all the different software components residing on a given machine, it was nearly impossible to automate the process, so a typical reimaging required four hours or longer,” Sturgill explains. “As a result, employees would spend an hour, maybe two, in a help-desk consultation, looking for some way around the problem. Those hours with the help desk added up, and when even that didn't work, many employees wound up doing the same thing they did when avoiding upgrades because of slow startups: living with the problem.”

An unclear approach to remote access was particularly problematic for TECO Energy employees who used portable computers on a regular basis. As Sturgill explains, the company had no uniform method for these employees to connect to the corporate network from home or while traveling, a situation that made registering for and accessing the company's virtual private network (VPN) often confusing. “Whether working in or out of the office, whether tackling a complex challenge in customer service, computer modeling, or executive strategy, our information workers were simply unable to do their jobs as well as they wanted,” he says. “We had outgrown our systems, and business productivity suffered as a result.”

Solution

Around the same time that IT management team members at TECO Energy recognized the need for a major initiative to resolve the problems of their aging client infrastructure, they also were considering moving the company closer to an all-Microsoft strategy by implementing a Microsoft Enterprise Agreement.

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Wes Charlow, Lead Systems Analyst, Applications Development, TECO Energy

“We had long relied on Microsoft technologies at the server and client level alike, and we understood it was time to bring our client systems up-to-date on a large scale,” says Mark Dorsett, Enterprise Desktop Analyst, Business Computing Services at TECO Energy. “We looked at the Windows 7 operating system and liked its improved approach to memory utilization and power management, the Aero desktop experience, and DirectAccess, among other capabilities. It just made sense for us to leverage our Microsoft Enterprise Agreement—which included Windows 7 along with other Microsoft products for simplifying configuration management, virtualization, and access—in addressing these challenges.”

Extensive Preparation

According to Wes Charlow, Lead Systems Analyst, Applications Development at TECO Energy, members of the team that would deploy the eventual solution easily recognized the magnitude of the project. “Hardware, software, systems, practically our entire client infrastructure was involved,” he says. “We recognized this deployment would be a project on the scale of our preparations for the year 2000.”

Considering that, Dorsett, Charlow, and the project team spent six months identifying applications, developing remediation plans, performing user-acceptance testing, and developing an internal deployment methodology. In October 2010, the team began replacing 75 percent of the company’s client PCs and rolling out the new software: Windows 7 Enterprise 64-Bit, Microsoft Office Professional Plus 2010, Microsoft System Center Configuration Manager 2007 R3, Microsoft Desktop Optimization Pack (MDOP)—including Microsoft Application Virtualization (App-V)—and other select products. (MDOP is available to customers with Microsoft Software Assurance, a feature of the

Microsoft Enterprise Agreement chosen by TECO Energy.)

Upon project completion, targeted for May 2011, TECO Energy will have upgraded 1,800 desktop and 900 portable computers. They constitute over 90 percent of the Windows-based client computers used by the company’s 3,000 information workers throughout Florida and Kentucky.

During deployment, team members used System Center Configuration Manager to help them build a base image; bundle department-level applications; and manage application licensing compliance, inventory, and policy. To simplify image deployment in general, they moved much of the departmental customization to Group Policy settings in Windows 7. Team members also used MDOP and, in particular, App-V to help remediate the nearly 900 applications throughout the company and virtualize 70 of them. In Windows 7, team members used DirectAccess to simplify remote access to the corporate network. They also deployed Windows 7 BitLocker and Microsoft Forefront Endpoint Protection 2010 to replace third-party applications that the company had been using for drive encryption and network protection, respectively.

Deployment in One-Third the Time

Sturgill and his colleagues consider the deployment effort “exceptionally smooth,” thanks largely to their team’s extensive preparation and their decision to implement System Center Configuration Manager and MDOP with App-V. “With the automation provided by System Center Configuration Manager and by using Group Policy settings in Windows 7 for departmental customization, we are vastly simplifying image creation and deployment. From out-of-the-box to user ready, a machine needs no longer than an hour or two to get the image from the

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server and less than 10 minutes of hands-on involvement from the technician.”

The contrast with the way such tasks were done in the past is dramatic. “Compared with a similar migration, from Windows 95 to Windows XP, we will have spent just one-third of the time and resources on this one,” Sturgill reports. “With MDOP and App-V, we have an excellent remediation option for applications that can be challenging to deploy in the new environment. Moreover, by virtualizing some of these applications, we avoid the compatibility problems of the past.”

Benefits

TECO Energy is realizing significant benefits from its move to Windows 7 and from the application remediation it did as part of the effort to update its computing infrastructure. The time required to start up or reimage a computer is dramatically reduced, enabling employees to avoid or resolve stability and performance problems. Employees working remotely have an easier way to connect to the corporate network, helping them remain productive while visiting a customer or supplier or otherwise working offsite. All employees are working in a more stable and higher-performing client environment, for efficiencies that generate the equivalent of U.S.\$1 million in yearly cost savings. The company also is saving a total of \$250,000 yearly on third-party software licensing and support, and on utilities.

Dramatically Faster PC Startup

By implementing virtualization with the help of MDOP and App-V, members of the deployment team removed the source of so many performance and reliability problems for employees: the multiple and sometimes incompatible applications that resided almost exclusively on individual desktop PCs.

“Now, startup time is dramatically reduced—from as long as 30 minutes down to less than two—so that employees will no longer be reluctant to deploy the system and application upgrades that require a restart of their PCs,” Sturgill points out. “Employees will be able to keep their systems running more smoothly and securely and do their work a lot more efficiently.”

On the rare occasion when an employee might need to reimage his or her PC, that process can now be completed in less than a quarter of the time it took before. “By using System Center Configuration Manager to make our client image hardware independent and Group Policy settings in Windows 7 to make it department independent, we have cut the time for reimagining a PC from a half day down to just over an hour,” Sturgill reports. “As a result, employees will no longer have to spend hours on the phone with the help desk or simply live with the problem. With this deployment, employees can focus on what they do best: supporting customers, seeking new business opportunities, and making TECO Energy a more efficient and effective enterprise.”

Efficient Environment, Onsite and Offsite

In addition to a far more efficient imaging process, information work in general at TECO Energy is more efficient with the deployment of Windows 7. According to Jose Aponte, Consulting Engineer, Energy Supply at TECO Energy, engineers and analysts are working more productively in the five or six windows they typically have open at a time with the help of the Peek and Snap features in Windows 7 and the enhanced Windows Taskbar.

Improved memory utilization makes an equally important difference. “In operations planning, for example, analysts running large modeling applications report performance increases of 25 percent or

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And thanks to DirectAccess in Windows 7, employees working from home or otherwise offsite can access their individual PCs and the company network, including all the applications on it, as if they were working in the office. This is a particularly welcome advantage for operations personnel and others who work on-call over weekends and holidays, according to Sturgill. “With DirectAccess, employees working remotely no longer need to register for VPN or go through multiple prompts just to get where they want,” he says. “One employee even phoned the help desk just to say how grateful he was to have DirectAccess in place.”

Savings Throughout the Enterprise

From a more stable, higher-performing working environment to easier remote access, nearly all TECO Energy employees are using their time and talents far more efficiently. “Since the upgrade of our client infrastructure, including deployment of Windows 7, we are seeing efficiency improvements throughout the company,” Sturgill reports. “These improvements represent a savings of \$1 million each year.”

TECO Energy is generating further savings in operations, particularly in the areas of third-party licensing, third-party support, and energy. Using Windows 7 BitLocker and Forefront Endpoint Protection 2010 in place of third-party applications, and with the power-management capabilities of Windows 7 and new computer hardware, the company is saving \$250,000 yearly in operational costs.

For More Information

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For more information about TECO Energy, call (888) 223-0800 or visit the website at:

www.tecoenergy.com

Windows 7

Works the way you want: Windows 7 will help your organization use information technology to gain a competitive advantage in today's new world of work. Your people will be able to be more productive anywhere. You will be able to support your mobile workforce with better access to shared data and collaboration tools. And your IT staff will have better tools and technologies for enhanced corporate IT security and data protection, and more efficient deployment and management.

For more information about Windows 7, go to:

www.microsoft.com/windows/windows-7

Software and Services

- Windows 7 Enterprise
- Microsoft Office
 - Microsoft Office Professional Plus 2010
- Microsoft Desktop Optimization Pack
 - Microsoft Application Virtualization
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