



14945 SW Sequoia Parkway #110  
Portland, OR 97224  
[sterling.net](http://sterling.net)

503-968-8908 (phone)  
503-270-5299 (fax)

## DATA CENTER CASHES IN ON COOL IDEAS AND HOT TECHNOLOGY

**PORTLAND, OR (2010)** — Investments in energy-efficient air conditioning and servers have resulted in significant savings for Sterling Communications, a Portland-area Internet technology services company. Reducing costs and energy consumption were Sterling's primary goals, but the company and its customers are also benefitting from better, faster, more reliable equipment that takes up less space.

The \$94,500 project involved two major initiatives: an air conditioning upgrade in the colocation facility and server consolidation. Colocation clients depend on Sterling for secure, reliable equipment storage in a carefully controlled environment. Cooling is necessary to protect equipment and ensure its performance. Typically, air conditioners cool the re-circulating inside air. Sterling installed a custom air economizer that engages "free cooling"—it brings cooler outside air into the building and exhausts the warm air. When the outside temperature rises, the system can revert to an inside air conditioning mode. Sterling's new system takes advantage of Oregon's milder climate and uses 30 percent less cooling energy than is typically required for a data center its size.

The heart of Sterling's phone, fax and Internet services business is the server farm. By 2008, the company had acquired 50 separate servers as it added customers and new services. Based on recommendations in a study from the Oregon Department of Energy, Sterling consolidated the 50 discrete servers into eight blade servers that take up two racks instead of eight. Virtualization software and storage area networks (SAN) combine with the blade servers to create a virtual system that cuts power consumption by 10%.

"The improvements are making a financial difference, and we believe they're better for the environment too," says Bill Anderson, vice president of engineering at Sterling. These two initiatives are reducing energy use by an estimated 192,000 kWh a year, equal to about \$11,000 in cost savings. Sterling also received a one-time cash incentive of \$32,291 from Energy Trust of Oregon, plus a \$34,500 Oregon Business Energy Tax Credit.

"The payback on these projects was long enough that we had to look closely at the dollars and cents," explains Anderson. "From a business perspective, the numbers didn't add up if we had to do it all on our own. But the tax credit and Energy Trust incentive tipped the scale. We want to do the right thing—the sustainable thing—but it has to be a good business decision all around. We're right where we hoped to be."

### About Sterling Communications

Sterling Communications provides infrastructure and bandwidth to support regional businesses with VoIP phone systems, high-speed Internet access, Web hosting and colocation facilities from its offices in Portland, Oregon. Since 1997, the company has taken care of its customers while making the Internet more productive for them. Find out more about who we are and how we work at [www.sterling.net](http://www.sterling.net)

###

*your business, well connected.*