TECHNICAL COLUMNS

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IT'S A 'GREEN' THING

By RON HRANAC

In the business we call cable, it's all too easy to get caught up in our day-to-day jobs with little time to be concerned about just how the things we're doing and the equipment we're using might affect the bigger world around us. Indeed, for a long time, being "green" was something that only environmentalists worried about.

The so-called green movement took on a much higher level of importance for most of us when gasoline reached $4.00/gallon in the United States. If you thought that caused pain at the pump, at its peak, gasoline was going for upwards of $9.00 to $12.00/gallon in Europe! While gas prices have dropped during the last several months, the interest in things green has not diminished. Why? Two reasons come to mind: It's good for the environment, and there is potential to save money.

How times change

When I was an installer and tech back in the 1970s, we often let our cable company trucks and vans idle while parked at job sites. Of course, gasoline was selling for 30 cents or so per gallon, and green was a color rather than an environmental or political statement. Fast forward to today.

United Parcel Service now optimizes its routes for more efficient package delivery, and to do things as simple as minimize the number of left hand turns that each driver has to make. In 2007, route optimization saved UPS some 3 million gallons of fuel. You've probably noticed that UPS drivers turn off their trucks' engines at each delivery stop, even if for only a few seconds (I believe FedEx does this, too).

UPS has used telematics in some markets to track delivery vehicle driving time, idle time, and so forth, and the results pointed to ways to reduce vehicle idle time by an average of 24 minutes per driver per day. The math worked out to a savings of $188 per driver per year, which doesn't seem like a lot at first glance. But multiply those dollars by 90,000 drivers, and you'll see how little things can add up. UPS details its sustainability initiatives at www.responsibility.ups.com.

Cable operators

What's cable doing to be green?

According to Tom Gorman, Charter Communications has "managed to knock off (in round numbers) about 4,000 miles per vehicle per year using automated workforce management solutions." For more on automated WFM, see "Dynamic Dispatch" in the April 2007 issue of CT. Cox Communications is outfitting its field service reps in most systems with GPS technology for more efficient routing. Cox also is using flex-fuel vehicles in many instances and is replacing fleet vehicles with more efficient models, including some hybrids and those that can run on bio-diesel. For more on what else Cox is doing, see www.coxconserves.com.

Clearly, a lot can be done at the corporate and system level. One potential area for savings at the system level is outside plant line powering. Does your network design ensure that supplies are loaded high enough to operate most efficiently? Are your power supplies metered, or do you pay a flat rate to the electrical utility? Regarding the latter, several years ago I looked at a cable company's line powering as part of a

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comprehensive technical audit. The cable op had a flat billing arrangement in place, but the billing was based on each power supply's name plate maximum power consumption. When we did some field checks, it was discovered that none of the power supplies was drawing anywhere near its maximum rated input. Bottom line? The operator was paying for electricity that was not actually being used. OK, this example isn't exactly in the green category, but it shows how one might be able to reduce energy costs.

I was surprised to hear that the 11-year-old building where my office is located just obtained an Energy Star rating, something I thought would be more applicable to newer buildings.

Curious, I tracked down Cisco's Denver area facilities manager to find out more. He said several steps led to getting an Energy Star rating: Any remaining non-security lights are turned off at night; motion sensors have been installed in many rooms to turn off lights when no one is present; proximity sensors are used in the restrooms for water, soap, and paper towels; variable air volume HVAC equipment has been installed; window line diffusers are used to reduce solar gain in the daytime; quarterly preventive maintenance is performed on all of the building's equipment (he said this is a major factor in reducing energy usage); coffee makers are gravity fed, using insulated carafes rather than burners to keep coffee warm; and more efficient T8 fluorescent lighting has been installed rather than T12 or T16 lighting.

Vendors

What is the industry's vendor community doing to be green?

Cisco urges employees to take individual steps to be green. We're encouraged to bring our own cups and mugs to the office rather than use paper or polystyrene cups. Bottled water is going away, and as I write this a filtered drinking water dispensing system is being installed in the building's break rooms. All employees have a recycle bin at each desk for paper, plastic, glass, and other odds and ends. The company sponsors annual personal electronics recycling events, during which we can bring old computers, TV sets, and similar gadgets from home that otherwise might end up in a landfill. Taking the stairs instead of the elevator, turning off computer monitors at lunch and at night, and getting in the habit of turning off lights are among things on the list, too. Cisco supports telecommuting for those for whom it makes sense, resulting in a commute that's a short walk down the hall at home instead of fighting rush-hour traffic in the car. Additional information can be found at www.cisco.com/web/about/index.html. Scroll down to "Environmental Sustainability" and click on the area of interest.

Some companies are designing products to be more energy efficient, yielding a lower electric bill for the same functionality. Adding increased functionality to a given product may allow one box to do jobs that used to require several boxes. Upgradeability is environmentally friendly, too. After all, if a device can be upgraded with nothing more than, say, a firmware tweak, that product's useful life was just extended. Some product designs are incorporating recyclability, which allows the product to be recycled rather than thrown in the dumpster when it reaches the end of its useful service life. Even the choice of materials used to produce a product, as well as its packaging, have entered the world of green. Some manufacturers have trade-in or trade-up programs in place, which help to keep older technology out of the local landfill or recycle bin.

Things that manufacturers are doing that may not be obvious in the end product include energy efficient buildings; purchasing green power - typically based upon renewable resources such as wind or solar - where available; installing grid-tie photovoltaic systems (solar panels) to reduce the amount of electricity needed from the power company; using collaboration technologies such as videoconferencing to reduce travel; installing Energy Star appliances and equipment; and collecting and recycling materials that used to go to the landfill.

How 'bout you?

What are you and your company doing to be green? Post a comment on CTChatter, Communications Technology's new interactive broadband community site at www.ctchatter.com.

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