

What About the Trucks? Workforce and Fleet Management

By Tim Young

This issue has focused on the use of various solutions and best practices to reduce energy consumption and therefore, promote both carbon reduction and cost reduction along the way. However, most of the conversation has been around how data centers and infrastructure elements can be greened, or how billing processes can be refined to sidestep physical mailings in favor of e-billing.

However, one source of massive cash—and carbon—output can be found idling alongside worksites all over the globe.

Communications Service Providers manage massive fleets of heavy, thirsty vehicles that are deployed on a variety of errands, creating enormous impacts on balance sheets of major operators. AT&T, for instance, has over 75,000 vehicles in its fleet, ranging from small to massive. That makes it the owner of the largest commercial fleet in the United States.

Verizon sports its own massive fleet, with some 65,000 cars, trucks, and vans of its own. Comcast has some 39,000 vehicles in its fleet, which it calls the fifth largest fleet of vehicles in the United States in its [corporate responsibility statement](#). If you leave



out the United States Postal Service and only count non-government fleets, like publication [Fleet Central](#) does, it's the fourth largest fleet in the US.

And these fleets can rack up some serious miles. One case study I recently read (from fleet services provider Trimble) stated that US cableco Cox Communications manages 5,000 vehicles, which collectively travel 80,000,000 miles in a calendar year.

That's roughly 167 trips to the moon and back. In fact, depending on the position of the two planets relative to one another, that's more miles than you'd travel on an Earth-to-Mars-to-Earth round-trip.

And that's a much smaller fleet than a provider like AT&T has to maintain. While I couldn't find a figure on miles traveled by the AT&T stable, I did find that the vehicles collectively consume around 80,000,000 gallons of fuel per year. At current fuel prices (US national average today is \$3.57/gallon for gasoline and \$3.89/gallon for diesel), that's an annual cost of roughly \$300,000,000 for fuel alone.

Relieving the Agony of the Fleet

With this large price tag, small wonder that service providers are taking an increasingly active role at looking at fuel costs and other costs associated with maintaining fleets, along with the environmental impact of massive numbers diesel- and petrol-based vehicles operating in a way that isn't always as efficient as it could be.

Methods for increasing efficiency range from the simple to the grandiose.

AT&T, for example, is making massive strides towards reducing the number of petroleum-powered vehicles in its fleet. The carrier famously announced in March

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of 2009 that it would be replacing 15,000 of its vehicles with models powered by alternative fuel by 2018. Compressed natural gas, or CNG, plays a major part in that strategy, as some 8,000 of these vehicles will run on CNG.

At the time of the announcement, AT&T had only a handful of CNG vehicles. However, by summer of 2010, that number had spiked to 1500 and continues to climb, passing 2,900 as of the writing of this article. Furthermore, the carrier reports that in 2010 alone, it was able to avoid the purchase of 1 million gallons of fuel through its use of more efficient vehicles.

"In addition to our efforts in the alternative fuel vehicle space, we are also focused on evolving our fleet as a whole towards more fuel efficient vehicles," said Mari Melguizo, spokesperson for AT&T. "For example, the Ford Transit Connect offers ample cargo capacity with a fuel economy over twice that of gasoline-powered vans."

Comcast, meanwhile, also sports a healthy percentage of alternative fuel capable vehicles in its fleet. "We have 165 hybrid and over 2,400 flex fuel vehicles in our approximately 39,000 vehicle fleet," said the cable powerhouse in its annual corporate responsibility statement, "which means six percent of our fleet is alternative fuel capable; the highest percentage in our industry." Companies like Deutsche Telekom and Verizon have invested in biodiesel vehicles to diversify their energy sources and reduce overall emissions. Verizon hopes to debut more than 1,100 such vehicles this year alone.

In addition, BT is helping itself along towards its goal of an 80% total reduction in carbon by 2020 by introducing electric vehicles into its fleet of nearly 25,000 total autos.

But sometimes a brand new vehicle is neither feasible nor the quickest way to reduce cost. NTT, for example, began retrofitting start-stop devices into non-hybrid vehicles within its massive fleet. Each device cost about 70,000 Yen, which, at the moment, is equal to about \$850 USD. That's a modest investment when you consider that field trials of vehicles equipped with these devices in Tokyo showed a 10-25% reduction in fuel consumption.

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The Value of a Little Planning

But let's step back, for a moment, from the idea of making changes to the fleet, as it stands. Let's say you don't have the cash on hand to make long-term investments in the vehicles themselves. That doesn't mean you can't impact cost and carbon emissions. It isn't always what you drive, after all. Sometimes it's how you drive it.

Fleet management firms like California-based Trimble specialize in taking a hard look at vehicle routing, driving patterns, and other areas in which waste may emerge. A gateway installed in each vehicle reports information about the vehicle's position and movement to a central information repository, which the client is able to view through a SaaS platform.

According to Joyce Tam, Director of Product Marketing for Trimble's Fleet Solutions division, their telematics systems can better understand a number of key indicators about the way their vehicles are being operated. GPS systems help in more efficient route planning, which is a tremendous fuel-saver as well as a great way to reduce unnecessary man-hours. Trimble reports reductions as high as 20-30% in fuel and time costs through more efficient routing.

"Another component," said Tam, "looks at the worker by monitoring driver behavior." Hard braking. Hard acceleration. Harsh turning. These things all impact fuel use, vehicle wear and tear, and vehicle safety.

Trimble reports that in their work with Cox Communications, they were able to save that company \$2 million in fuel costs each year.

Tam also said that the use of telematics can impact insurance premiums as well. "There is a positive push towards insurance companies asking fleet owners to make fleets safer," said Tam. Telematics can provide that insight into driver behavior that increases fleet safety, and can, therefore, result in positive premium consideration for fleet owners and operators. In addition, Tam said that one customer realized after

a year of watching fleet activities that they simply had too many vehicles, many of which were barely being used. As a result, they were looking at a 5-10% reduction in fleet size after one year.

There's also a customer service angle to better managing installation and service fleets. "As competition increases in areas around satellite and Internet providers, telcos and cable companies have a greater need to differentiate, to be more efficient, and effective," said Rich Chinitz, Director of Marketing for TOA Technologies. TOA is one of a number of companies focusing on mobile workforce management, and they emphasize that efficiency is a boon to customers, as well as a way to reduce emissions and cost.

"Now, with more transparent social media channels like Twitter, there is greater opportunity for customers to voice their dissatisfaction on services they receive," said Chinitz. "Enhanced workforce management can better manage appointments and being on time can significantly improve customer satisfaction."

And this, of course, is also a cost issue at its heart. "Customer retention is much less expensive than attracting new customers – and all cable, satellite and telcos must make this of highest importance," said Chinitz, "as they're not growing as rapidly as they once had in the past."

When these workforce management solutions are integrated into a wider management/activation suite, which they often are, the customer satisfaction benefits are even more obvious. Cycle30 integrates TOA's planning and scheduling modules into its platform, for example.

So while providers are striving to modernize their fleets and embrace alternative energy to reduce carbon emissions, there may be ways to enhance user experience and reduce costs and emissions while those next-gen fleets are still on the way. Smart management goes a long way towards making that happen.

Happy customers. Happy investors. Happy planet.

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