Technology and Transit
Or — How I learned that Technology is Just Another Tool to Make My Service Better

by Scott Bogren

In April, CT Editor in Chief Scott Bogren appeared in Springfield, Ill., at the Rural Transit Assistance Center's Spring Conference, to discuss the ways in which smaller transit systems can harness today's technology to improve their operations. This article was developed from that session. If you'd like a copy of the powerpoint used for the session, please contact Scott at bogren@ctaa.org.

In the search for ways in which to improve the efficiency or innovation of one's transit system, technology is often the first place to which a transit manager turns. But far too often, that look to technology is either misplaced or certainly misguided.

Technology is nothing more than a tool — albeit an often confusing one — that has to be properly deployed in order to achieve the desired result. In other words, it is advisable to directly connect all forms of technology to organizational challenges they seek to mitigate. What technology is not, and when it fails us most profoundly, is when it becomes a solution looking for a problem. The purpose of this article is to develop more educated technology consumers in the transit field.

What is Technology?

In the public and community transit industry, technology can be anything from routing and scheduling software to cell phones, laptops, buses and wheelchair-securement systems. In the past two decades, both the role and types of technology in the transit field have changed dramatically. The two-way radios, index cards, photocopied rider alerts and rubber bands have been replaced by cell phones, computerized mapping, Google and Facebook.

Make no mistake, the pace of change and adaptation of technology has hastened significantly in recent years. What's new today is often dated tomorrow. Keeping up with the latest and greatest in technology, however, is an expensive and dangerous game that transit systems and their leadership should be careful in pursuing. Rather than expensively chasing the technology curve, transit managers need to employ a set of filters with which they can evaluate technological advances and make the best decisions.

The Technology Filter

The first filter to use with any new technology is **functionality.** The question on functionality is two-fold: (1) does it do what it says it will do; and (2) if it does do what it says, is that useful to your agency?

The first of these two questions may seem obvious, but is often where technology purchasers first encounter problems. If it's a lowered-floor bus you're looking at, for example, ask yourself these questions: Does it work? Have you talked to other transit providers who've used the vehicle? Will the weather or other issues in your service area impact the technology? Are your mechanics prepared to service and maintain the new technology? And per the second of the two-fold questions, does your system need low-floor buses?

Examples of the functionality filter being ignored, sadly, abound. I can recall in the not-so-distant past one state's new Medicaid payment software system that could not make correct payments. Or computerized back-up systems that saved no data. Or fancy new cell phones that fail to

make phone calls. You get the point.

A key aspect to functionality is **utility** — or keeping, as a dear friend in this industry used to tell me, the main thing the main thing. Technology decisions often experience what I like to call *mission creep* where products and/or service are purchased more for what they *might* do than for what they *must* do. A photocopy machine makes an ideal example. If your office is currently printing and copying on standard 8.5x11" paper, does it make any sense to procure a copy machine with a binding finisher to produce saddle-stitched booklets? Granted, it might be nice to have such a feature when needed, but that is the very definition of mission creep: nice to have, but not really necessary. Ask yourself when considering any technology purchase, how will this make my organization's mission a success? If you can't readily answer the question, then move along.

A desired quality for any technology is **flexibility**. Can a single piece of technology offer multiple solutions? If you travel regularly you know that a reliable cell phone is a must. But in the case where a phone can offer GPS to guide you to faraway meetings and new locations — that flexibility greatly enhances the utility of the technology.

Examples of this flexibility are everywhere. Can your routing and scheduling system do your billing, too? Can your coffee maker also produce hot water for tea? How about a refrigerator that also dispenses water and ice? As you can tell, the more flexible the technology, the more we tend to value it.

The last, but equally important technology filter to consider is **image and relevance**. Transit leaders need to consider their systems' image and how their services fit into the community when considering technology of any type. Facebook and Twitter, for example, make excellent communications strategies in a college town (see page 8) where the majority of passengers use those social networking tools. For a transit operator serving seniors, adopting these technologies would likely fail and go unnoticed by the customers. Additionally, in tough budget environments such as those today, having the latest and greatest might not always sit well with local elected leaders and with funders. Sometimes, a state of good technology repair trumps state-of-the-art.

The Tech Team Approach

At the Community Transportation Association of America, we have adopted a team approach to tackling our technology challenges. Twice monthly, a half dozen carefully selected members of the Tech Team — we chose technologically savvy individuals representing different work teams within the organization — meet and set the Association's technology priorities and carry out oversight, purchasing and training. Our colleagues, in this case, are our customers.

We use the Tech Team to test new products and software before organizational adoption. The team manages technology replacement schedules and engages in routine discussions with our colleagues to gauge their technology needs and their abilities. We test the organization's back-up system to ensure that data losses can be retrieved. Using a simplified email address that goes to all members of the Tech Team, our colleagues can be assured a rapid response to any technology problem they're encountering — from low toner on a photocopier to the dreaded blue screen of death on a laptop.

Twice a year, the CTAA Tech Team stages organization-wide training fairs where we provide hands-on skill training on topics that directly
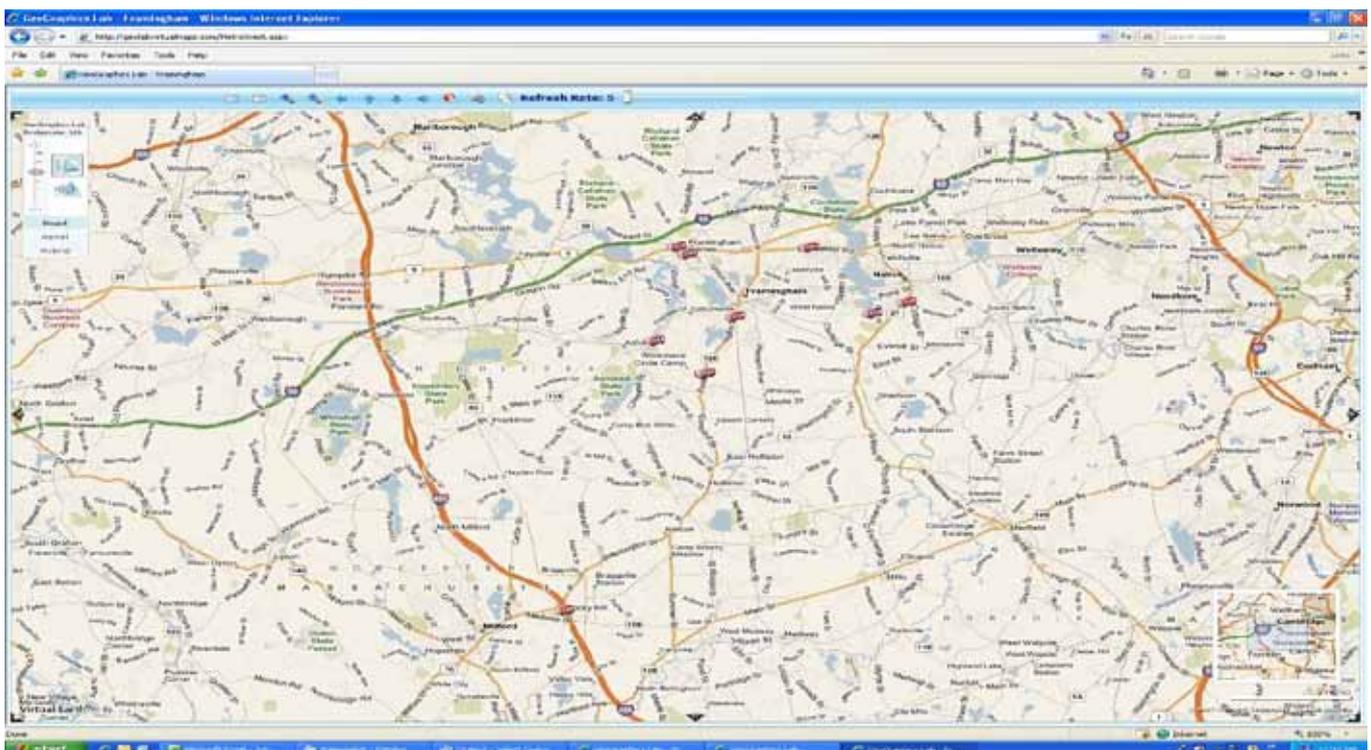
When Evaluating Any Technology

· Consider your customers and passengers
· Consider the future… but not too far
· Consider what it HAS to do first
· Consider what it might do next
· Consider your staff and your equipment
· Consider the local environment
· Consider state/regional/local approaches

file naming, managing email and much more. We develop the topics in these sessions directly from our work answering emergency emails and observed inefficient technology uses. The goal is never to embarrass or demean — the Tech Team seeks to help our colleagues better use the tools the Association has provided.

With now more than three years of experience leading the Association's Tech Team, the next section of this article shares some basic tenets we've learned and that guide our team in its efforts.

The Technology Basics

Simpler is Better. We are always looking for the simplest, most efficient and most cost-effective ways to manage the Association's technology. People have to use the technologies we select. If we have to provide days and days of training just to get our users up to speed, it's probably not the right technology. We have to have the right hardware, for example, to run the software we place on everyone's computers. "Can we do this simpler?" is a common refrain in Tech Team meetings.

Look for Off-the-Shelf Solutions. A key ingredient in keeping things simple is looking for commonly used technology to deploy. You're going to need people to run the technology you select. It will be much easier to find potential employees who have experience with off-the-shelf technology — just as it will be easier to find someone to troubleshoot or maintain it. We like some other organization to be on the leading, or bleeding, edge of technology. We like to adopt tried and tested technology that is easiest to deploy, to train and to maintain.

Avoid Customization. We believe that as soon as you begin customizing any technology, you've likely selected the wrong one. This is particularly true of computer software, where customization can impact your ability to service the product. If you buy the right product, customizations should be limited.

Ask Around. Before we adopt any new technology, we like to talk to other customers and find out from them whether they like it or not. We ask for and diligently check all references. We ask other Associations in the area and maintain a group of such organizations that we can readily use for these purposes. Let's face it, salespeople and company information is designed to sell you the product, whether you really need it or not. Your peers and other users will tell you what the technology does, and that's the most important perspective to have. A great source of this information is the web. There are hundreds of useful web sites out there dealing with any slice of technology that make impartial recommendations that can greatly assist you in making the right choices.

Try It, Then Buy It. We insist on testing periods and phases for any new technology in the Association — a brief window where we can assess, does it really do what we want it to do? Any company that believes in its product will offer a testing period, so ask for one and use it wisely.

We Can Help

The CTAA Technology Team stands ready to help you. We have developed some successful strategies in technology adoption, oversight and training that we can share with your organization. To schedule a technology training team to come to your next state or regional conference, please contact CTAA's training department coordinator, Len Cahill, at 202.4159653 or via email at cahill@ctaa.org.