



Imperatives and integration

Confederate Gen. Stonewall Jackson was, beyond his steely reserve, renowned for maintaining one of the most mobile forces on either side during the U.S. Civil War.

One day, with a much larger Union Army force on his heels, Jackson and his troops found their progress halted by a small river.

The general called an impromptu meeting of his engineers and the wagon master. From his saddle, he ordered the engineers to design and build a bridge over the small waterway, pointing out that the Union Army was growing closer to their lines by the minute. It is imperative, Jackson told the small group, that the wagon train and artillery cross the river as soon as possible.

As the engineers retreated to their slide rules and diagrams to design the bridge, the wagon master enlisted troops to scrounge the local area for material to construct the bridge.

Shortly before dusk, and with Union scouts already reaching the Confederate rear echelons, the wagon master entered Jackson's now-pitched command tent and reported that the wagon train and artillery were safely across the river. Expressing his gratitude, Jackson stepped out of his tent, mounted his horse and rode to view the bridge, the wagon master right behind him.

The cobbled together thing that Jackson found straddling the river could hardly have passed for a bridge by any definition. Seeing the wagon train safely on the other side, though, was all the evidence Jackson needed to divine the structure's stability.

Jackson asked the wagon master where the engineers were at, surprised they had designed this functional yet hideous thing before him.

Still in their tents, said the wagon master, drawing up the plans for the bridge.

While the engineers had calculated and planned the day away, the wagon master and a handful of troops had literally piled every log, rock, fence rails and anything else they could find into the river until the crude structure was passable.

Today, just as 150 years ago, imperatives must often be met with flexibility, innovation and the will to succeed.

While not rising to the level of life and limb, logistics service providers now face an imperative being driven by global business trends and internal challenges, according to software giant Oracle.

"This imperative becomes deploying a scalable, sustainable differentiating information management platform, one step at a time," said Greg Smith, Oracle industry director for transportation and logistics.

For those not familiar with tech-speak, Smith offers another definition: "Think of the little jack on your iPod or other music player. You can take your \$400 Bose noise-canceling headphones and plug them in and they work. Or, you can plug in the \$2 dollar throwaway headphones you get on the airplane. They are just as compatible. And all because the music player industry has standardized the plug and the socket."

The benefit of these types of standards to LSPs, ac-

ording to Smith, takes the form of something called Service Oriented Architecture.

The aim of SOA is to couple IT processes with operating systems, programming languages and other technologies that underlie applications. SOA separates individual IT processes into distinct units, or services, which are made accessible over a network in order that they can be combined and reused in the production of business applications. For example, a logistic firm's enterprise resource planning or supply chain management software would each become separate services within an SOA platform. These services communicate by passing data from one service to another, or by coordinating an activity between two or more services — essentially working together through the SOA platform.

SOA overcomes what Smith calls a major problem in logistics IT today. "The old IT systems that almost all transportation firms run today are based on point-to-point systems," he said. These forego efficiency and connect various parts of the system through brute force. Each point in the system talks separately to each of the other points creating a bird's nest of connections that share no true integration.

"It requires a new platform to integrate the whole process," Smith said. "Your IT system has to be an enabler and the older systems are kind of stopping that. Service Oriented Architecture is that enabler."

It isn't even important to understand what SOA is, he said, just to understand that it serves the same purpose in the IT world as the standards for those iPod headphone plugs. "The technology of SOA

has advanced to such a degree that it allows you to integrate all of your individual IT processes into a single platform," he said.

This includes any kind of software solution that a firm might be using, by any maker. Everything from global trade management systems to transportation management systems to quote-to-cash systems can all be plugged into an SOA platform and all work together.

The goal of this unified platform, called single-keying, is to remove the errant hand of human operators as much as possible — to achieve a system where "once you have received that order, it moves through all of those processes without anyone touching it again," Smith said.

"When you analyze where things go off the rail, it is always human error," he said. "By reducing the human contact you streamline the whole process and reduce a vast majority of the errors."

Another advantage of SOA is that it allows even small and mid-sized firms to run IT systems that are powerful and efficient.

"FedEx and UPS were the first to have track-and-trace capabilities and they spent large sums of money to develop it," he said. "The technology has advanced to such a degree that if you are a freight forwarder today you can use the same efficient, reliable and powerful IT system that these two giants have."

And, in case you had not already guessed, for a lot less money.

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