



FedEx Custom Critical, Inc.
an operating subsidiary of FedEx
Corporation

Challenge

Providing real-time visual tracking information to customers waiting for time-sensitive expedited shipments.

Solution

The Shipping Tool Kit, a comprehensive Web-centric shipment tracking application that provides detailed tabular information on shipment activity and links to a dynamic HTML mapping application that shows both real-time locations and breadcrumb trails of trucks enroute.

Technology

Java™, SpatialFX™ Server from ObjectFX Corporation.

Results

- First to market in its industry with this type of application.
- Enhanced reputation for technological innovation.
- Enhanced customer service.
- High customer acceptance and usage, with over 2,200 registered users.
- Matched shipment delivery times for real-time visual tracking information.
- Numerous other potential applications using the same SpatialFX™ Server technology.

Background

FedEx Custom Critical is North America's largest time-specific critical shipment carrier. That means FedEx Custom Critical will go to any lengths to deliver sensitive shipments within the most demanding customer time frames, all the way up to chartering a plane if that's what it takes.

Who needs such a service? In today's nonstop business world, many manufacturers must keep production lines running around the clock. A late shipment that shuts down a line can cost hundreds of thousand of dollars a minute. Other customers include major pharmaceutical suppliers, who ship enormously valuable and time-sensitive biotechnology products; government agencies, who have strict handling and security requirements; even the vendors who deliver sports championship T-shirts and memorabilia minutes after the big game ends.

Based in Akron, Ohio, FedEx Custom Critical virtually created the market for door-to-door expedited shipping in 1980. Today, the company has about 700 employees. Its North American fleet consists of more than 2,100 independent contractors who operate out of 148 Express Centers in the U.S. and Canada.

Technology-driven customer service

Technology-driven customer service and a corporate culture relentlessly focused on exceeding service goals are largely responsible for FedEx Custom Critical's success. The company delivers over 96 percent of shipments within 15 minutes of its time-specific promise. A large customer service organization is available 24 hours a day, 365 day a year, to provide critical shipping services to customers.

Employee pay is linked to monthly customer service satisfaction surveys by an independent firm.

Recently, a Web-centric Java™-based shipment tracking application was created as part of FedEx Custom Critical's Internet Shipping ToolKit. The application provides summary and drill-down information to customers in tabular format. The information is based on satellite polling data from FedEx Custom Critical trucks, which are each outfitted with the company's Customer Link® satellite communications systems.

The tracking application was created because FedEx Custom Critical customers' need for information about the progress of a shipment can, in some ways, be almost as important as the shipment itself. For example, when production schedules have to be carefully matched to shipment delivery times, real-time visual tracking information can be an invaluable aid to plant managers and others.

FedEx Custom Critical began exploring adding mapping to the Shipping Toolkit two years ago, after several major customers requested the feature, says Larry Chapman, E-commerce Developer. "We wanted to give customers the ability to connect with and look at their shipment any way they wanted to," Chapman recalls.

FedEx Custom Critical's biggest requirement for a mapping application was a Java architecture, so it could integrate easily with the existing Shipping Toolkit shipment-tracking application. Then and now, Java-based SpatialFX™ Server was the only dynamic mapping application that met this need. "It turned out to be just what we needed," Chapman says. "It allowed us to be the first ones in our industry out there with this kind of application at a very affordable price point."

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How the application works

Using the Shipping Toolkit requires registration and a password. When customers log on, using any web browser, they can see up to 28 days' worth of shipment-tracking data. The original HTML summary and drill-down application allows customers to access numerous levels of information for one shipment or many. Customers also see a visual status report on whether a particular shipment is being dispatched, is on time or late, or is being delivered.

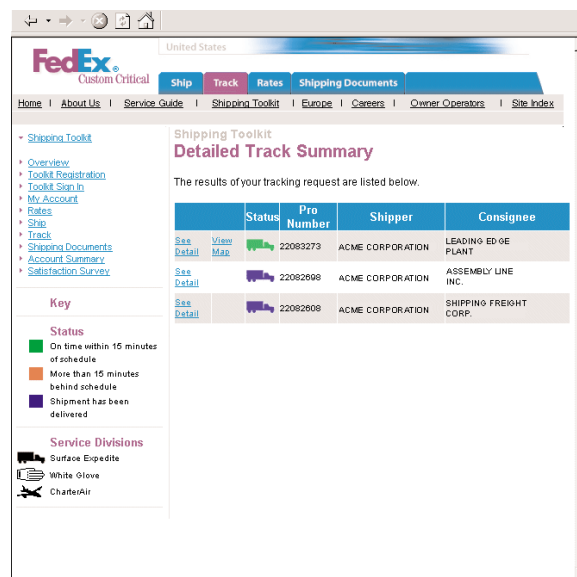
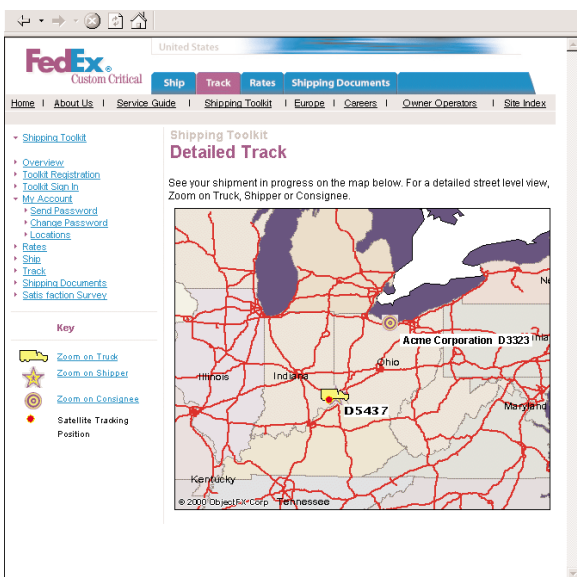
With SpatialFX Server, customers can click on the map icon and see a dynamic, real-time HTML map that shows the location of a particular shipment and a "breadcrumb" trail based on previous polling data. The information is based on the latest satellite poll of the truck's location. Three points are plotted—the shipper, consignee and current location of the truck. Customers can click on each for the exact location and drill down to street level views.

The architecture of the application is Java based, Chapman says, and poses relatively little security risk. "We run a Java servlet on the web server, which talks to a Java application server behind our fire wall. The server verifies

the commands coming in and makes a connection via JDBC to our Ingres database. The Java application server then builds a SpatialFX Server dynamic HTML map image and returns it back to Java servlet on the web server. The servlet is really the only thing on the Internet. We feel this architecture provides us with a secure application."

Greater choice and convenience

The tracking application was created to give FedEx Custom Critical customers greater choice and convenience in tracking sensitive shipments. Many customers rely on telephone calls to FedEx Custom Critical customer service representatives, but an increasing number are using the online options provided by the Shipping Toolkit. Interest in its new SpatialFX mapping component has been higher than expected, Chapman says. "What's also been unexpected is that fact that a lot of people are using it from home. We're surprised so many want to be able to trace shipments after they leave the office. This is definitely technology that customers appreciate."



FedEx Custom Critical customers can check the status of time-sensitive shipments using any web browser. Views include summaries and real-time maps driven by SpatialFX technology with drill-down options by truck, shipper or consignee.



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