

On the Go FedEx GIS Tracking Operations

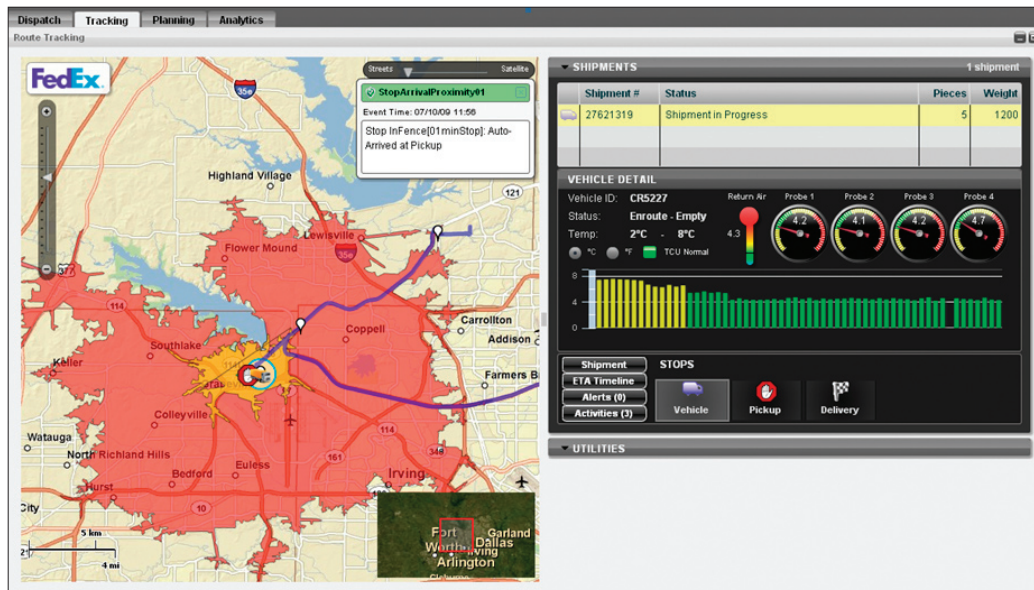
FedEx uses GIS to meet delivery deadlines. FedEx® technology strategist Adam Mollenkopf explains what happens behind the delivery operations' scenes. "Our customers often have urgent shipping needs or require specialized care and handling. We use GIS to help us to meet delivery requirements and timelines."

Examples of urgent shipping needs are perishables demanding a stable temperature range at all times. Some items require special equipment such as cryogenic containers and special driver skill sets such as knowing how to handle museum art work or having government security clearances. Adding these factors to a delivery pushes GIS analysis beyond route management.

Mollenkopf describes the scenario of a driver who has been dispatched. GPS and sensor technology in the vehicles enables the office to synchronize with what the driver experiences in near real time. Using ArcLogistics™ Navigator, information about shipments and stops can automatically be sent to the driver. This means that the driver does not have to enter stop information into the log. To compute a route, the navigation tool connects wirelessly to ArcGIS® Server. Weather, traffic and other factors affecting the route are accessed online and included in the route computation. Solving route problems via ArcGIS Server ensures that the office has the same information the driver has on the vehicle dashboard including route approaches, expected time of arrivals, and miles remaining. This is very accurate tracking.

The perspective that the operations center sees while tracking this shipment is the same route the driver is being guided along via ArcLogistics Navigator. In the scenario, the driver is carrying pharmaceuticals that require strict temperature controls. The temperature is monitored and viewed in the GIS back at the office. If a mechanical failure causes the temperature to rise, the system automatically sends a notice to the driver identifying the problem. In this example, it's a T12, a blown fuse. The system then locates the nearest repair location and offers re-route options. It also recalculates a new arrival time. An auto notification from the office alerts the customer if there is a pickup or delivery delay.

"The delivery service is time sensitive, success depends on it," says Mollenkopf. "GIS tracking is a key ingredient to operations. By leveraging ArcGIS Server for Java™ the FedEx team is able to create real-time, synchronized views of its delivery vehicles that result in flawless execution and an outstanding customer experience."



FedEx uses ArcGIS Server to track the vehicle's route, estimate stop and arrival times, and, for sensitive shipments, temperatures that affect cargo.

