CHALLENGE
Link and match shipment recipients to inaccurate and inconsistent customer name and address data, while aligning new records to services and customer service initiatives.

SOLUTION
Trillium Software System ®
FedEx InSight package tracking

RESULT
Fortify customer loyalty by enabling customers to track inbound, outbound, and third-party packages more accurately and quickly via FedEx.com, while increasing the use of FedEx services by its largest, globally distributed customers.

INDUSTRY
Logistics and transportation

"The Trillium Software System let FedEx target specific data issues and quickly modify rules to resolve them. There's a certain amount of confidence you have to have in the product. You have to trust in what it's doing."

– Senior Technical Analyst, FedEx

Cost Savings All Day Long
How does FedEx make the case for IT spending? Cost savings is a large component. In particular, an innovative Web-based customer service portal, called FedEx InSight, has aligned with significant increases in the use of FedEx services by some of the company's most valuable customers.

With FedEx InSight, business customers view all outgoing, incoming, and third-party shipments online and they prefer interacting with FedEx Insight over other channels. In fact, they like it so much that they forgo lower rates from competitors in order to have access to FedEx online tracking.

Cutting costs while increasing customer loyalty, InSight is considered by FedEx to be a milestone technology. The innovative Web service lets business customers instantly access all their current FedEx cargo information, tailor views, and drill down into freight information including shipping date, weight, contents, expected delivery date, and related shipments. Customers can even opt for email notifications of in-transit events, such as attempted deliveries, delays at customs, etc.

The Perfect Match
InSight works because FedEx can link shipper and receiver data on shipping bills with entries in a database of registered InSight customers. The linking software FedEx chose to support InSight had to be superior in terms of its ability to recognize, interpret, and match customer name and address information. Fast processing speed and flexibility were also top criteria. After a broad and thorough evaluation of vendors in the data quality market, the delivery giant chose Trillium Software®.

The real matching challenge was not with the records for outgoing shippers, who could be easily identified by their account numbers. Linking shipment recipients to customers in the InSight database was far more difficult. It relied on name and address information, which is notoriously fraught with errors, omissions, and other anomalies—especially when entered by individual shippers around the globe. The point of pain was being able to match on addresses, because what FedEx receives on the airbills is not very standardized.

FedEx airbills had another problem: too much information. "For the purpose of matching customers to shipments, the airbills contain a lot of garbage," said FedEx's senior technical analyst. "Information such as parts numbers, stock-keeping units, signature requirements, shipping contents, delivery instructions, country of manufacture, and more obscures the name and address data, making it difficult to interpret that free-form text and correctly identify name and address information."

A Deeper Look at Data
As Trillium Software® demonstrated to FedEx during the sales cycle, no matching software would be successful for FedEx airbills without some intelligent interpretation of free-form text and standardization. Matching is more accurate when it acts on more complete and standardized data.

The Trillium Software System® first investigates data entries word by word—not just line by line—in order to understand maximum data content. Valid content is often "hidden" when it's entered in the wrong field or free-form text fields. Trillium technology reveals this hidden data by identifying individual data elements in each shipping bill, interpreting the real meaning of each element, and ensuring that all valid data elements are part of the matching equation. It then standardizes content into a consistent format.

Beyond Address Correction

In the logistics industry, accuracy is everything; FedEx needed to identify customers reliably based on a variety of data elements, including business names, office suite numbers, and other address elements. Its chosen data quality solution had to identify and distinguish between companies on different floors of an office tower or divisions within a geographically dispersed corporate campus. It had to link customers based on detailed analyses of abbreviations, nicknames, synonyms, personal names, street addresses, and other information.

FedEx knew they needed more than address verification software that only confirmed that an address was internally consistent and correct according to postal authorities. They needed precision matching capabilities that would lie at the heart of InSight. The Trillium Software System had all these capabilities, in addition to usability features that allowed FedEx to tune and test quickly and iteratively the matching process until the match results met the company's stringent requirements.

Split-Second Processing

Speed was another requirement. To efficiently handle the volume of FedEx's daily transactions, the software had to identify and resolve matches at sub-second rates. Only the Trillium Software System could demonstrate this capability and process millions of records per day—as many as 500,000 records per hour.

Surgical Precision

"That we could customize [business] rules and surgically make changes was a big, big winning point," said the senior technical analyst. The Trillium Software System lets FedEx target specific data issues and quickly modify rules to resolve them. The business rules, written in plain text, were understandable, traceable, and repeatable. Because the analyst team could see what the rules were and how they worked, they were more confident about the matching process. "There's a certain amount of confidence you have to have in the product. You have to trust in what it's doing."

Rapid Rollout

FedEx took only about four months to implement its solution fully. Trillium Software professional services helped FedEx get started. After just three days, the senior technical analyst was ready to work on his own: "Once I understood it, it was just a matter of applying that knowledge," he stated.

He also gives Trillium Software Customer Support a lot of credit: "The Trillium Software tech support is just terrific. Most of my support is done through email and someone always gets back to me quickly. If I call, there's no kind of triage. I tell them what language I speak, and then I get to talk to someone."

Award-Winning InSight

FedEx won several e-commerce awards for its innovation, and customers raved about their InSight experiences. In fact, FedEx customers communicated that they would forgo lower shipping rates from competitors, because they prized the ability to track their incoming and outgoing shipments so easily with InSight.

FedEx also realized concrete gains from its investment. Repeatedly, implementation of InSight was shown to align with significant increases in use of FedEx services by some of the company's largest customers.

International Expansion

Based on the success of InSight in the US and Canada, FedEx extended the service to other countries simply by adding global modules. With geographic validation for every country on the globe and in-depth support for more than 60 countries in Europe, Asia-Pacific, and the Americas, the Trillium Software System kept up with FedEx InSight.