

THE BACKGROUND

When Continental Airlines jets lift off from the various 200 airports the company serves, ACOM Solutions, Inc. is present on board -- not in the cabin and not in the electronically tricked-out environment of the flight deck, but in the cavernous cargo hold, where tons of U.S. Mail share space with merchandise of every description and sometimes, even a beast or two.

The airlines are critical to the operations of the U.S. Postal Service (USPS), which has aggressively pursued the implementation of EDI* communications with aviation business partners for several years, in order to speed the two-way flow of shipping, manifest and carrier information and correspondingly, the flow of the mail itself. According to Senior Technology Analyst Wally Mensing, Continental Airlines began working with USPS, its biggest cargo customer, four years ago to develop means to exchange information electronically. The development work continues, as both trading partners expand the amount and kind of data being exchanged. And for the past year, ACOM's EZConnect EDI/XML solution has formed the basis of much of Continental's development work.

THE PROBLEM

Until the EDI initiative began, all of the information flow between the USPS and Continental (and other airlines) followed a paper trail -- and in fact, paper copies remain the "official" documents in the process by which the postal service ships its mail. The paperwork accompanies shipments to the airport.

So why the extensive and expensive EDI initiative? One word: efficiency. Exchanging information on cargo commitments and space availability ahead of the paper work enables the postal service to optimize the scheduling of its shipments, and at Continental's end, enables allocation of personnel and equipment resources for the greatest efficiency and effectiveness. A device used by the postal service computerizes information generated when the shipping labels are prepared, and when enough mail is assembled for a shipment, an EDI message goes out.

"We receive some 15,000 of these EDI messages per day from the postal service, and we send the USPS about 60,000 to 80,000 EDI messages per day, with transmissions every 30 seconds," Mensing says. "We provide flight schedules one week in advance, and in the interim, furnish a stream of constantly updated information about every flight -- time changes, cancellation, insertions, cargo space available and so on -- everything they need to know for their own planning. Their information informs us of how much mail to expect, whether the shipments are bulk or containers, the type of mail -- priority, first class, parcels, express, letters, boxes, etc.

If they have information in place early enough, they even designate the flight they want the shipment to move on."

The EDI solution has proven to be immensely valuable in load planning -- coordinating the passenger, cargo and fuel factors with the personnel and equipment requirements. For example, Mensing says, if you have 8,000 pounds of bulk mail, it requires more people for handling it than if you have a container, which requires different handling equipment.

"If you can have the information before the shipment arrives at the airport, you can make the necessary arrangements ahead of time and get the job done faster and better," he says. "Thirty minutes of lead time makes a vast amount of difference."

Continental first began its EDI initiative with the postal service by hiring a contractor to write a program to handle the exchange of information and build the program code into the airline's IT system. The EDI program, written in object-oriented C++, resides on an SQL Server database. It obtains streaming information from the various operations applications and populates other elements of the database structure with the information. It also forwards the relevant information about the USPS' activities to the shipper. A reverse process is followed with the information arriving from the USPS.

The information exchange is automatic and transparent, with both Continental and the postal service operating their own proprietary TCP/IP networks. The postal service maintains a server at Continental's IT facility, where essentially it operates as a limited access, password protected node on the Continental network. Both incoming (to Continental) and outgoing (to USPS) traffic move through the server with little or no manual intervention.

However, in operation, parts of this C++ program proved to be cumbersome, particularly those involving the analysis, evaluation and transmission of the information to USPS.

In addition, their initial EDI program was expensive and difficult to modify, Mensing says. "For example, one change required a programmer to spend four months on a single upgrade."

THE SOLUTION

Continental decided it was time to replace or bypass the problem code. Mensing looked at several EDI solutions, among them was Sterling and ACOM's EZConnect, which he had considered as a translator solution earlier in the effort. Taking a second look, he found that he could dial-in to ACOM for a live demonstration of the product. He did so and liked what he saw.

ACOM's EZConnect EDI/XML is a complete SQL-based EDI system that connects applications in real time to build, import/export and print (if desired) trading partner data. EZConnect integrates directly with any ODBC-compliant database and is fully extendible, scalable and flexible to fit any EDI system need. It supports all EDI and EDIFACT standards and is compatible with all VPNs, VANs and proprietary networks. The solution includes translation and mapping software, a trading partner management tool, security module and a documentation tool – with an SQL Server relational database available for non-stored partner documents.

The Sterling solution, Mensing says, was more than twice as expensive as the ACOM solution, and while researching the Sterling solution internally, he heard expressions of dissatisfaction from users of the software.

"Moreover, the ACOM solution afforded great flexibility on how we could use it," he says, "while the Sterling solution was rigid -- 'use it this way; and that's it.' EZConnect lets you take the pieces you need and use them how you need them – it's not a cookie-cutter approach."

THE IMPLEMENTATION

Mensing purchased EZConnect and asked ACOM Professional Services to implement "Add a Message," the Cardit message that conveys the cargo information electronically to Continental. Cardit is an EDIFACT document format developed by the Universal Postal Union that is similar in principal to the X12 document types used for domestic EDI. It is a versatile, internationally acceptable document format that communicates cargo routing, transfer and destination information from the postal service to its carriers.

"ACOM said: 'Tell us your data structure and how you want to populate it, give us some message samples, and we'll get it going'," Mensing says. "Two weeks later, it was ready to run. It's powerful and easily handles the load."

Initially, EZConnect deals only with incoming Cardit traffic, polling the USPS server every 10 minutes and relaying the collected data to the SQL Server database. Different applications then examine the data and pass it on to the field operations sector that handles postal service cargo -- instantaneously.

Continental's own data will remain on the old system until the company changes the way the data streams come in from operations, at which time outgoing message traffic will also be handled by EZConnect. Meanwhile, Mensing and his colleagues have mapped the data for international mail and are

developing methods for providing the postal service with comprehensive reports from intermediate points. Mensing has also collected operations data on international shipments and has mapped the response portion of that process.

SUCCESS!

"We were the first airline to be certified for this EDI activity, and we try to be the front-runner," Mensing says. "The postal service is a tremendously important part of our cargo division operations, and they are such an immense organization that it is difficult for them to inaugurate changes, so we strive to lead the way as much as we can."

With its power and flexibility, Mensing says, ACOM's EZConnect makes that job easier.

###