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Endicia uses Fiery® APIs to build and automate production workflows.

Challenge:

Endicia's PictureItPostage™ customized postage offering was a niche product for the company until it contracted with a leading online photo merchandise provider. According to Patrick Farry, application architect at Endicia, "This deal had the potential to scale our custom postage volumes by several orders of magnitude. We had to automate to process that volume."

Even though the orders came in through the Internet, the company's fulfillment and manufacturing processes were not very automated. Between 11 and 17 steps were involved to complete an order.

Part of the appeal of PictureItPostage is that the service offers an image area up to twice as large as other products on the market and gives customers the choice of portrait or landscape format plus a variety of photo-editing options. They can also choose a background color that matches or complements an image.

Postal regulations require Endicia to review all images used by the PictureItPostage service to ensure they meet USPS® guidelines and add security barcodes. Endicia prints the stamps on sheets of pre-cut, self-adhesive label stock on a digital press that uses an EFI™ Fiery digital front end (DFE) and mails them out.

To efficiently handle the higher volume of work resulting from the new partnership, Endicia also needed to integrate its systems with its partner's order system. The new partner also expected a high degree of accuracy in the fulfillment process.

Endicia used an EFI Fiery API to automate the workflow needed to produce unique postage designs.

"When we found the Fiery API, it just couldn't have been simpler. Using it, we had a demonstration app up and running within a couple of days."

PATRICK FARRY,
APPLICATION ARCHITECT,
ENDICIA

endicia®

![endicia logo]

Tapped by the U.S. Postal Service® back in the 1990s to develop a solution that would print the POSTNET (Postal Numeric Encoding Technique) barcode used to sort and process mail directly on an envelope, executives at Endicia soon realized they could do more. Since that initial project, Endicia has gone on to invent many more products and services to automate postal processes and address the needs of its customers.

Today, Endicia is the leading provider of shipping technologies and services for ecommerce businesses, with more than $12 billion in postage printed. Endicia's PictureItPostage service prints real first class U.S. postage. Customers create personalized postage with family photos, company logos, or custom designs printed on sheets of 20 self-adhesive stamps.

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Endicia's John Garibaldi and Marcus Schutzenhofer and their EFI Fiery digital front end.

Solution:

Endicia used the EFI Fiery application programming interface (API) to create a custom software application that builds the postage stamps and sets up custom integration between its partner's ordering system and Endicia's Fiery DFE. When an order comes in through the partner website, it goes to the Endicia system to create the unique security barcode. According to Farry, that involves some cryptography and database work. The barcode and images are placed in the correct template, and the system creates the stamp sheet as a PDF file. At that point, the system calls the Fiery API and sends the print job to the Fiery DFE.

As Farry describes it, "Once the reviewer hits 'approve' on the screen we built, the whole process takes place automatically. The stamps are submitted to the Fiery print queue in a 100% non-manual process. So we went from 11 steps to one."

"We went from 25 orders a day to several thousand each day during our busiest period, and we only hired one more full-time person to handle the increased business."

PATRICK FARRY,
APPLICATION ARCHITECT,
ENDICIA

Farry says Endicia considered using job-description-format (JDF) language through Fiery JDF to build the application. Though JDF is broadly adopted by the printing industry for large-scale interoperability between vendors, it was too complex for Endicia's development effort. He says, "When we found the Fiery API, it just couldn't have been simpler. Using it, we had a demonstration app up and running within a couple of days." Endicia was also impressed with the Fiery support team and the help it gave their developer.

The web-based API is available for a variety of desktop and mobile platforms. Simple and easy to use, developers can create custom tools or applications built on modern, web-based technologies such as WebSockets that enable live, bi-directional interaction with Fiery DFEs. Designed to complement Fiery JDF, Fiery API fills gaps in the JDF specifications.

Fiery users can easily create apps in whatever programming language and development tool they choose to solve day-to-day challenges, just as Endicia did.

Production Supervisor John Garibaldi and Application Architect Patrick Farry are charged with improving Endicia's production workflow. Fiery APIs have made innovation even easier for their growing production volumes.

Results:

Endicia processed 3,000 postage requests a day during the holiday season. Farry says, "Automation is the key. We can process the volume quickly by eliminating the manual steps. The job goes directly from our custom application to the Fiery server. We also use the new application to query the Fiery server about status and run some reports."

But delivering the right order to the right customer is also a major focus. So Endicia used the Fiery API to create a workflow that integrated the printing of the stamps with the printing of a shipping label and invoice. All the information comes out of the same ordering system. Everything is submitted as a single job. The Fiery server splits the stamps and the invoice/shipping label into different trays on the printer and both come out at the same time, but in their respective output trays. Operators peel off the label, grab the stamps, put them in an envelope with the invoice, and stick the label on the front. Farry says, "That was key to keeping the error rate down at the kind of volumes we now have."

In the future, Endicia plans to implement automatic print and automatic reprint functions. Since the system is still new and ink is expensive, the company kept an extra quality check to make sure everything was working right. "The concept that you could just hit the approval button," Farry says, "and a few seconds later be on the printer was pretty hard to believe."

"The Fiery API is a thing of beauty."

PATRICK FARRY,
APPLICATION ARCHITECT,
ENDICIA

EFI fuels success.

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