

# ELM

## A Corticon Customer Success Story



### ABOUT ELM RESOURCES

ELM Resources is a not-for-profit organization that provides a single point of data exchange for the student financial aid community. ELM administers a web-based loan delivery system called ELMNet that serves as the gateway between postsecondary education institutions and lender loan processing systems. The company was established in 1994 by a group of Federal Family Education Loan Program (FFELP) participants who wanted to improve loan processing for their customers through the creation of a common data channel. It is owned by these member institutions, which include lenders, servicers, and guarantors of student loans – such as Bank of America, Chase, Citibank, National Student Loan Corporation, Sallie Mae, and more.

As the only open system in the student loan industry that allows any school to work with any loan provider or guarantor, ELM processes nearly 35% of the FFELP loans each year. The company manages a complex web of federal regulations, data transmission standards, and individual policies of 1,600 lenders, 1,700 schools and 15 guarantors, collectively representing over \$20 billion in loans in 2005. ELMNet shields the financial aid community from the complexities of data exchange inherent in this massive network, streamlining the loan processing experience for lenders, schools and students alike.

### THE CHALLENGE

Decisions and the business rules that drive them are a critical component of ELM Resource's business. Their system is driven off a large and complex set of decisions that govern thousands of one-to-many relationships between schools and lending institutions (known as trading partners). Every school has its own process for managing financial aid. Similarly, each lending institution has its own data validation rules and requirements for loan processing. As such, ELMNet manages millions of variations of rules while providing a single pipeline for thousands of trading partners to interact. This is further complicated by federal regulations that govern the distribution of financial aid in the United States. "ELM is about rules – that's who we are," said Pierre Vedel, SVP and CIO for ELM Resources. "We take information from our customers and partners, apply business rules and make loans happen. You could say that we are 100% rules-driven."

Today, the millions of rules that drive ELMNet are dispersed across their system, which has evolved organically over the past 10 years to accommodate increased demand. Many of the rules that govern trading relationships are written into custom mapping code that is called as files between trading partners and passed through the system. Other rules are coded into web interfaces, custom integration middleware, and file processing applications. The rules exist in multiple languages, including C, C++, and SQL, and are managed by multiple owners – business analysts that handle trading partner accounts, and IT staff that manages the system. Within this environment, adding new trading partners or making changes to existing rules drives up costs. When a change is required, the team must scan through hundreds of thousands of lines of code, make

the modification, and perform extensive testing to reduce the risk of unexpected results. “Our SLA to bring a new school online is about 30 days – much longer than we’d like,” said Marshall Edgison, Director of Application Development. “This is primarily because each school we ‘onboard’ requires some level of this custom mapping work. We do it all in code, with a full development cycle, including requirements, coding, testing, validation. We wanted to offer our customers a faster turnaround.”

Today, the ELM team is modernizing their entire architecture. They used IDS Scheer’s ARIS platform to model their entire process and found that decisions and their associated business rules were the most critical piece. They saw this as an opportunity to assemble all the business rules into a modular, service oriented system that would provide easy access, enable rapid change, and cut significant costs out of their loan processing efforts. For this they turned to Business Rules Management technology.

## KEY REQUIREMENTS

*Intuitive interface that enables business analysts to manage rules.* ELM business analysts come from financial aid backgrounds, and know how the programs work. They needed a tool that could provide an easy-to-use interface to manage and apply rules as requested by trading partners. “We are shifting the ownership and management of rules into the part of the business that makes sense,” said Edgison. “We wanted a model that enables our analysts to express rules in a way that is meaningful to them – a business layer that can exist over the system itself.”

*Increase speed and agility of rule development/maintenance.* Rules change daily at ELM, because of modifications in federal regulations, the addition of new trading partners a school wants to work with, or because a lender is choosing a new school. When development and QA serve as middlemen, the rules take longer to go into effect. The right solution would streamline the process and allow IT to move from critical path to a supporting role.

*Support for complex logic.* With over a million rules that impact thousands of entities, the system would have to support the expression of complex logic. Ideally, it would also have tools that would make the team more effective at expressing that logic – as it is difficult for anyone to think of all the possible permutations of a rule, or to ensure that nothing has fallen through the cracks.

## SELECTION

The ELM team looked at several possible solutions. They were initially drawn to Fair Isaac (in combination with Oracle’s SOA stack) because of their forms capabilities, which seemed like a good way to shield business users from coding rules. They saw a demo of the form builder process, and several user friendly forms. ELM asked Oracle and Fair Isaac for a POC that would both demonstrate how they worked together and test the form building process. “We gave them a straightforward project that included building forms,” said Edgison. “After two weeks were unable to build anything that looked like the original forms they showed us – even working with some of their resources. The debriefing was more around the complexity of the process than what we had to show for it.”

The Corticon solution caught ELM’s attention first because of the spreadsheet-like interface for rule modeling. Corticon showed that the business analysts could express their logic in plain English directly within the Rule Modeling Studio – no need to create



superficial forms that camouflage complex code. "We were very impressed by the user interface, which was clearly intuitive" said Edgison. "We could see that Corticon had made a big investment in providing a front end that non technical users could manage."

ELM also liked Corticon's version management and workflow capabilities, which would give all parties involved in the development of rules the opportunity to review. And the rule analysis tools were an unexpected bonus. "Corticon's validation functionality really wowed us. The ability to spot rules that are conflicting with each other, or show variations of rules that haven't been represented yet was something no other vendor could demonstrate," said Edgison. Corticon's performance was also key – because ELM enforces millions of variations of rules every day on a high volume of transactions; the team liked the fact that Corticon expresses rules as Java code at run time.

To validate these features, ELM asked Corticon to present a POC. They chose a scenario that was challenging the entire industry at the time – the implementation of a new loan program announced by the US Department of Education. ELM had been working on this implementation for several months. Corticon demonstrated their ability to design, test and implement the rules – in two days. "It was astonishing to both the IT and business side of the house how quickly Corticon was able to accommodate those changes," said Edgison. We allowed some of our member banks to participate in demo – they were tremendously impressed, as they all knew how the entire industry was going through a mad rush to implement those very same changes at great expense in IT staff resources and dollars." As a result, ELM Resources selected Corticon as their Business Rules Management System.

**EXPECTED RESULTS**

Corticon will play a central role in ELM's new architecture – from the point where the initial financial aid application is submitted, to data validation, routing, approvals, and ultimate disbursement of funds. This will help reduce loan processing costs, lighten the development burden, and speed up turnaround times for their customers. One of their key metrics is the cost per loan, and they expect Corticon will contribute to significant savings. In addition, they expect to see a reduction of up to 80% of the cost of implementing a customer, and managing current customers that require rule level changes. Corticon will also help reduce the turnaround time for onboarding customers from 30 days to two weeks, by relieving IT of the coding and testing that delays the process.

"Ultimately, we are striving to be a valuable resource for the entire financial aid community", said Vedel. "Faster processing for schools and their students. More consistency for lenders. A single platform for institutions to consolidate information. And a seamless experience for everyone. I am confident that Corticon will help us get there, and look forward to a strong partnership."

**For more information, call Corticon today at +1.888.619.2424 or email us at [info@corticon.com](mailto:info@corticon.com)**

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