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ROI CASE STUDY STERLING COMMERCE CROWLEY MARITIME

THE BOTTOM LINE

Deploying Sterling Commerce's Sterling Integrator enabled Crowley Maritime to support growth without adding new staff, accelerate the onboarding of new customers, and eliminate costs of participating in a value-added network.

ROI: 91%

Payback: 1.10 years

THE COMPANY

Crowley Maritime provides maritime services, including shipping, barge towing, ship escorting, and ship management. These and other services are provided using a fleet of more than 210 vessels, consisting cargo ships, tankers, tugs and barges. Crowley also has land-based facilities and equipment that include terminals, warehouses, tank farms, office buildings, trucks, trailers, containers, chassis, cranes, and other specialized vehicles.

THE CHALLENGE

Crowley's business requires the rapid on-boarding, billing, and invoicing of customers, each of which need to complete a variety of different and complex transactions with Crowley. In 2004, the company's EDI transaction volume had increased by 500 percent over the prior five years, and the senior management wanted to ensure that the company would be capable of sustaining this growth rate without harming service delivery. Crowley had been using EDI over its mainframe and a value-added network (VAN) in order to complete transactions and orders with customers, as well as partners such as railroads, United States Customs, and freight forwarding companies.

After evaluating its systems, Crowley determined that it had a number of challenges that made it difficult for employees to cost effectively and rapidly onboard and complete transaction with customers, including:

- **Cost.** Access to the VAN cost the company an average of \$24,000 per month, depending on the level of activity.
- **Integration.** Message routing and programming all ran through Crowley's IBM mainframe, but the company had begun purchasing and creating important commerce-related standalone programs that required integration with the mainframe. As a result, go-live dates and productivity benefits were delayed

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while the company's IS department created homegrown ways to integrate these new applications with the mainframe.

- Programmer dependence. Costly developer-level expertise was required for troubleshooting, as well as some of the more complex but routine transactions with customers and partners.
- Labor intensive. When non-developer employees such as business analysts used the system, many of the workflows were complex, labor-intensive, and error prone. Most of these processes also lacked standardization, which made it difficult to complete rework and improve workflows.

THE STRATEGY

In late 2005, Crowley maritime began looking for ways to simplify how it exchanged data and completed transactions with partners and customers. Crowley looked at solutions from the leading integration platform vendors and Sterling Commerce. Sterling Integrator was chosen for a number of reasons, including:

- Integration. The system is capable of integration with a variety of development languages, platforms, and protocols.
- SOA. Crowley anticipated using service-oriented architecture — the practice of using reusable and platform-independent pieces of software to build and integrate applications. Crowley viewed the SOA-based Sterling Integrator as a way to begin adopting SOA practices.
- Usability. Crowley was confident that the ease of use built into the suite would enable far more workflows to be completed by the company's business analysts, and reduce their dependence on programmers.

Sterling Integrator was deployed at Crowley Maritime over a 4-month period by two consultants from Sterling, two employees from Crowley, and one third-party consultant. The deployment was completed in November 2007 and involved the following:

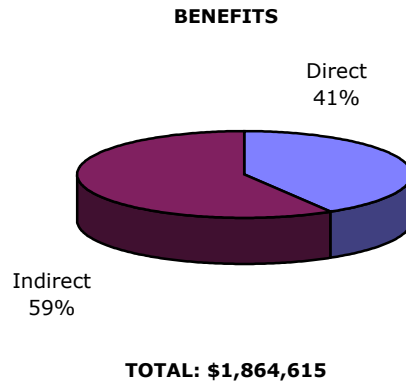
- Infrastructure. The deployment team first installed new servers, loaded the application and data onto them, and then tested them for both security and employee access.
- Transaction setup. Sterling Integrator was customized for the most commonly-used Crowley-specific transactions such as onboarding and a variety of shipping activities. Once they were tested and accepted by the end users, the deployment team began moving Crowley's largest customers to Sterling Integrator from Crowley's old EDI platform.
- Training. Prior to the go-live date, business analysts and developers were trained on Sterling Integrator so that they could both build new functionality on the platform and complete transactions for customers.

Sterling Integrator is now used for 36 of Crowley's largest customers and 72 of its most commonly utilized transactions. As a result, it supports 90 percent of Crowley's business-to-business transactions. In fact, a portion of these transactions are now completed in minutes by staff in Crowley's call center. The breadth of the deployment is continually being expanded and new transactions and functionality are being added on a regular basis.

KEY BENEFIT AREAS

Deploying Sterling Integrator has enabled Crowley to avoid staff additions, improve productivity, and eliminate VAN-related costs. Key benefits from the solution include:

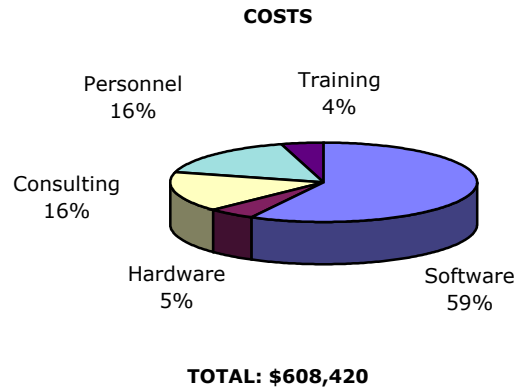
- **Avoided headcount.** As a result of the deployment, the company spends far less time creating custom code, troubleshooting system problems, and correcting transaction errors. Not having to complete these tasks at a time when most categories of business-to-business transaction volumes were growing by 60 percent annually meant that Crowley was able to avoid hiring three new developers and one new business analyst.
- **Eliminated VAN costs.** Because so many systems, partners, and customers are now integrated into Sterling Integrator, the majority of volume-based costs for accessing the VAN have been eliminated.



- **Improved productivity.** As a result of the deployment, business-to-business transactions with customers and partners can now be completed more rapidly, usually by lower-cost employees — and sometimes are entirely automated within the Sterling Integrator. By offloading to the application transactions related to new EDI bookings and inquiries regarding the status of rail car reservations, the company has eliminated one full-time equivalent in the call center.
- **Eliminated mailing costs.** Before the deployment, Crowley used a paper-based system for transmitting bill-of-lading transaction details. This is now done without paper by the Sterling Integrator, resulting in avoided paper, postage, and sorting costs for 5,000 transactions per year.

KEY COST AREAS

Key cost areas for the deployment included software, consulting, personnel, and training. Software costs consisted of the cost of Sterling Integrator and annual license maintenance. The application was deployed by three Crowley employees, one Sterling consultant, and one third-party consultant over a 4-month period. The application and supporting data were deployed on two new servers. Prior to the go-live date, six employees attended a 5-day training class in order to learn how to use the application and fine tune it to create new, Crowley-specific transactions on it.



BEST PRACTICES

A key factor in the success of the deployment was the focus on usability. Throughout the deployment, the team focused on making Sterling Integrator as IT- and developer-independent as possible. This was accomplished by aggressively exploring and experimenting with application features, such as mailboxing and messaging, which make it easier for business analysts to independently perform exception management. Because the platform can be used by less costly employees who are closer to Crowley's customers, the company has been able to avoid new hires while also improving service delivery for its rapidly growing customer base.

CALCULATING THE ROI

Nucleus calculated the costs of software, consulting, personnel, training, and hardware over a 3-year period to quantify Crowley's total investment in Sterling Integrator.

Direct benefits calculated included eliminated costs of participation in a VAN and avoided headcount costs. Indirect benefits consisted of productivity improvements for developers and business analysts. These benefits were calculated based on the average fully loaded annual cost of these employees, and the benefit was adjusted by a correction factor in order to account for the inefficient transfer of time from time saved to time spent on new work.

DETAILED FINANCIAL ANALYSIS

CROWLEY MARITIME

SUMMARY

Project:	Sterling Commerce
Annual return on investment (ROI)	91%
Payback period (years)	1.10
Net present value (NPV)	363,306
Average yearly cost of ownership	202,807

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	256,519	256,519	256,519
Indirect	0	365,019	365,019	365,019
Total Benefits Per Period	0	621,538	621,538	621,538

DEPRECIATED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	194,000	0	0	0
Hardware	30,000	0	0	0
Total Per Period	224,000	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	38,800	38,800	38,800
Hardware	0	6,000	6,000	6,000
Total Per Period	0	44,800	44,800	44,800

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	0	52,500	52,500	52,500
Hardware	0	0	0	0
Consulting	100,000	0	0	0
Personnel	100,238	0	0	0
Training	26,683	0	0	0
Other	0	0	0	0
Total Per Period	226,920	52,500	52,500	52,500

FINANCIAL ANALYSIS	Pre-start	Year 1	Year 2	Year 3
Net cash flow before taxes	(450,920)	569,038	569,038	569,038
Net cash flow after taxes	(337,460)	306,919	306,919	306,919
Annual ROI - direct and indirect benefits				91%
Annual ROI - direct benefits only				37%
Net present value (NPV)				363,306
Payback (years)				1.10
Average annual cost of ownership				202,807
3-year IRR				74%

FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	15%