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## **ROI CASE STUDY STERLING COMMERCE JOHNSON CONTROLS POWER SOLUTIONS**

### **THE BOTTOM LINE**

**Johnson Controls's Power Solutions Division used Sterling Commerce's Gentran Integration Suite – which uses service-oriented architecture (SOA) that is optimized for multi-enterprise deployments – to reduce consulting and staffing costs, eliminate the costs of obsolete systems, and accelerate integration with new acquisitions and partners.**

**ROI: 81%**

**Payback: 1 year**

### **THE COMPANY**

Johnson Controls is a large and diversified company that provides products and services related to auto manufacturing, power solutions, and building efficiency. The company has a lengthy and consistent track record of revenue growth, earnings growth, and dividend increases. This growth has been achieved with a combination of both aggressive acquisitions and organic growth of existing operations.

### **THE CHALLENGE**

A key component of Johnson Controls's consistent growth has been the creation of efficiencies and economies of scale that add value to the companies it has acquired. In order to achieve this, senior management gives its division managers aggressive goals regarding the rapid integration of acquisitions, as well as the levels of revenue growth and profitability of these acquired businesses.

In 2005, the senior management team of Johnson Controls's Power Solutions Division began looking for ways to more rapidly integrate and add value to its acquired operations. It was about to integrate a recently acquired operation, and wanted to make sure it had the proper tools, solutions, and procedures for integrating with that company's customer base and partner network. In order to evaluate its current state, an internal team worked with Ernst and Young to audit of the division's business-to-business procedures, support systems, practices, and costs. Over a 3-week period, the team found improvements were possible in a number of areas, including:

- Inconsistent systems. Across the Americas, the division was operating 11 different business-to-business support solutions, all with their own dedicated lines, support staff, servers, and license maintenance agreements.

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- Inconsistent practices. Because of inconsistent and incompatible systems, the division had little consistency in the way it processed accounts receivable, integrated new customers, and solved problems.
- Labor-intensive workflows. Inconsistencies among the platforms and practices resulted in conflicting procedures for customers, error-prone accounts receivable workflows, and frequent renegotiations of customer invoices. Additionally, IT staff frequently had to spend time on trouble-shooting projects with staff from the accounts receivable department.

**THE STRATEGY**

In order to create a consistent strategy for business-to-business applications and procedures, the division began looking for a solution that would support this standardization effort. As part of its internal audit work, Ernst and Young analyzed and performed due diligence on solutions from DEC, Microsoft, Harbinger, and Inovia. Ernst and Young suggested — and the division chose to deploy — Sterling Commerce’s Gentran Integration Suite for a number of reasons, including:

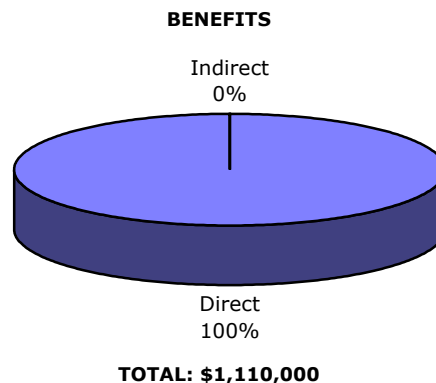
- Oracle compatibility. The application is compatible with Oracle, which was important because Johnson Controls runs Oracle on Unix servers.
- Segregation of duties. The functionality and features of the solution are designed for minimal management and support by IT staff, which would enable Johnson Controls’s developers to focus on development.
- Role-based security. The solution’s security features enabled Johnson Controls to design robust and role-based security.
- Scalability. More acquisitions were anticipated at Johnson Controls, and the team believed the Sterling Commerce Solution was more capable of growing with the company than the other applications.
- SOA approach. Johnson Controls anticipated using service-oriented architecture — the practice of using reusable and platform-independent pieces of software to build applications and integrate siloed applications. Both Johnson Controls and Ernst and Young viewed Sterling’s SOA-based Gentran Integration Suite as particularly good at integrating with external enterprises over an organization’s firewall, which would be key to the success of the project.

In 2005, Johnson Controls decided to buy the Gentran Integration Suite. A team of two employees and one consultant from Sterling Commerce worked for eight weeks to set up a streamlined and standardized platform. First, a gateway was built and loaded with business rules based on interviews with end users. The team then used an SOA-based approach to create internal connections to the ERP platforms in each of the geographies and Oracle Financials. Connections were also built to external parties and partners, including suppliers, retailers, warehouses, original equipment manufacturers, services providers, shippers, and banks. The system is now used to transact all business-to-business activity for this division’s activities in the Americas, as well as key internal integration points.

**KEY BENEFIT AREAS**

Using Sterling Commerce’s Gentran Integration Suite to consolidate, standardize, and streamline its business-to-business initiatives enabled Johnson Controls to improve productivity, redeploy staff, and eliminate costly and redundant systems. Key benefits from the solution include:

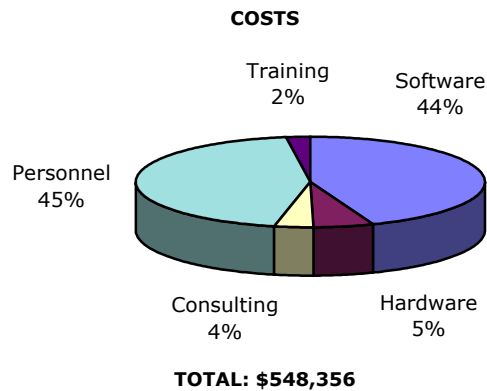
- Reduced staffing levels. Because the Gentran Integration Suite automates workflows, fewer staff are needed for completing projects, on ramping new partners, and supporting disparate and incompatible B2B systems. As a result of a reduced project backlog, the division has not only a reduced staffing needs but also a more responsive IT department.
- New operational efficiencies. Because the Gentran Integration Suite standardizes and simplifies Johnson Controls's business-to-business procedures, staff spends less time helping end users, trouble shooting partner problems, and assisting with accounts receivable disputes.
- Eliminated software costs. By adopting Sterling's Gentran Integration Suite, Johnson Controls was able to retire three value-added networks, seven servers, and 11 different business-to-business translation applications that were incompatible and had become obsolete. Also eliminated were the costs of upgrades, license maintenance, dedicated modems, phone lines, server space, server power, and server support for these applications and tools.



The deployment also enabled the division to reduce help-desk support requirements and improve time to market for integration of new partners and acquisitions. Because the benefits of these improvements were not yet measurable, they were not included in the calculations of benefits and ROI.

### KEY COST AREAS

Key cost areas for the deployment included software, personnel, hardware, and consulting. Two Johnson Controls employees and one Sterling Commerce consultant spent eight weeks creating the platform, which includes Sterling Commerce's Gentran Integration Suite, a database solution from HP, server software from Oracle, and a Sterling networking solution that directs data traffic among the various assets on the platform. The Gentran Integration Suite resides on server space that is leased, and it is supported by one IT staff member who spends less than half of their time on the solution. A Sterling Commerce consultant gave a week-long training program that was attended by three employees.



### LESSONS LEARNED

Having a mandate was a critical success factor in completing the deployment and achieving a high return on investment. Prior to purchasing the software for the deployment, the IT staff prepared a business case for the deployment which assured senior management that the following benefits could be achieved:

- Minimal disruption. The deployment team worked with Sterling Commerce to devise a deployment strategy that would neither disrupt existing operations nor jeopardize current customer satisfaction levels.
- Reduced support. The deployment team focused their efforts on creating consistency and simplicity of workflows so that minimal support would be required from help desks and other staff that had been distracted by troubleshooting and problems caused by the existing solutions and workflows.
- Reduced costs. A firm timeline was established for the elimination of redundant systems, the employees who supported them, and long-term contractors.
- Self-financing. The financial impacts of the benefits of reduced staff and support were calculated in order to make sure that savings would be sufficiently high to pay for the deployment.

As a result of support from senior management, the deployment team was able to achieve the momentum and mandate necessary to obtain input from end users during the deployment and adoption by end users after the deployment.

### CALCULATING THE ROI

Nucleus calculated the costs of software, hardware, consulting, personnel, training, and other investments over a 3-year period to quantify Johnson Controls's total investment in Sterling Commerce Gentran Integration Suite.

Direct benefits included the fully-loaded annual cost of employees who were redeployed as a result of the deployment and the elimination of costs to upgrade, maintain, and support applications that were discarded after the deployment.

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# DETAILED FINANCIAL ANALYSIS

## JOHNSON CONTROLS POWER SOLUTIONS DIV

### SUMMARY

Project:	<b>Sterling Commerce</b>
Annual return on investment (ROI)	<b>81%</b>
Payback period (years)	<b>1.10</b>
Net present value (NPV)	<b>143,547</b>
Average yearly cost of ownership	<b>182,785</b>

<b>ANNUAL BENEFITS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Direct	0	370,000	370,000	370,000
Indirect	0	0	0	0
<b>Total Benefits Per Period</b>	0	370,000	370,000	370,000

<b>DEPRECIATED ASSETS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	125,000	0	0	45,000
Hardware	0	0	0	0
<b>Total Per Period</b>	125,000	0	0	45,000

<b>DEPRECIATION SCHEDULE</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	25,000	25,000	25,000
Hardware	0	0	0	0
<b>Total Per Period</b>	0	25,000	25,000	25,000

<b>EXPENSED COSTS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	24,000	24,000	24,000
Hardware	0	10,000	10,000	10,000
Consulting	20,769	0	0	0
Personnel	41,538	67,500	67,500	67,500
Training	11,548	0	0	0
Other	0	0	0	0
<b>Total Per Period</b>	73,856	101,500	101,500	101,500

<b>FINANCIAL ANALYSIS</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Net cash flow before taxes	268,500	268,500	223,500
Net cash flow after taxes	146,750	146,750	101,750
<b>Annual ROI - direct and indirect benefits</b>			<b>81%</b>
Annual ROI - direct benefits only			81%
<b>Net present value (NPV)</b>			<b>143,547</b>
<b>Payback (years)</b>			<b>1.10</b>
Average annual cost of ownership			182,785
3-year IRR			67%

### FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	15%