



**NUCLEUS  
RESEARCH**

RESEARCH NOTE C28

ROI ANALYSIS YOU CAN TRUST™

# ROI Case Study: Microsoft BizTalk Server ENMAX

## **THE BOTTOM LINE**

ENMAX achieved a positive ROI from its BizTalk Server deployment by automating the customer enrollment and contract process, reducing administrative overhead while improving efficiency and customer satisfaction.

**ROI: 106%**

**Payback: 1.7 years**

## **THE COMPANY**

ENMAX Corporation, a wholly owned subsidiary of the City of Calgary, Canada, provides electricity, natural gas and value-added services to more than 400,000 residential, commercial, and industrial customers in Alberta through its subsidiary companies. The company reported net earnings of \$249.6 million Canadian in 2001.

## **THE CHALLENGE**

Facing energy industry deregulation and increasing competition, ENMAX needed to improve the speed and quality of service it provided while managing new customer acquisition costs. The company had a paper-based process for requesting and managing contracts. Although the process for residential customers was fairly straightforward, the internal approval process for business customers, which involves credit checks and legal verifications, was complex for business customers and often took months to complete. ENMAX needed to develop a contract management system to automate its customer acquisition process and the transmission of customer information between business units and partners. The system needed to be able to manage information transactions between a number of different systems and file formats and be flexible enough to change over time as the customer acquisition process evolved.

## **THE STRATEGY**

In August 2001, ENMAX evaluated Vitria, Microsoft BizTalk Server, webMethods, and Tibco and spent four weeks with the vendors creating sample scenarios. The company had already invested in Vitria in other parts of its business, where Unix systems are the dominant technology. After narrowing it down to Vitria and BizTalk Server, ENMAX chose BizTalk Server in September, for a number of reasons including the following:

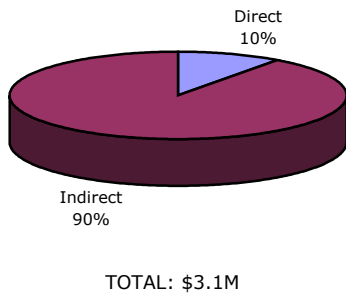
- Flexibility. The company needed to be able to respond to new marketing programs quickly as a way to entice and maintain customers, and ENMAX felt that tools offered the ability to modify the workflow relatively easily and handle the range of services offered, including gas and electricity for residential and business customers.
- File compatibility. BizTalk Server's ability to support a number of different file transmission formats enabled ENMAX to connect the contract system to a range of disparate systems and Unix-based applications.

- Microsoft relationship and Visual Basic experience. Familiarity with Microsoft products and Visual Basic enabled the IT staff to get the application up and running more quickly and change it in the future than if it had to learn the programming environment for a particular EAI tool.

ENMAX developed an initial pilot of the contract system by late September and contracted with a Calgary consulting company, which helped develop and launch the application in October. ENMAX technical people also spent time with Microsoft consulting services to learn more about the technical underpinnings of BizTalk Server. ENMAX IT employees are now making enhancements to the system.

The contract management system is sent customer information from the enrollment system for the creation of a new contract. The system approves or rejects the contract based on ENMAX's legal verification process. New customer information can come from any of three sources: ENMAX's Onyx customer relationship management application, a self-service application on the Web, or manual data entry.

### BENEFITS

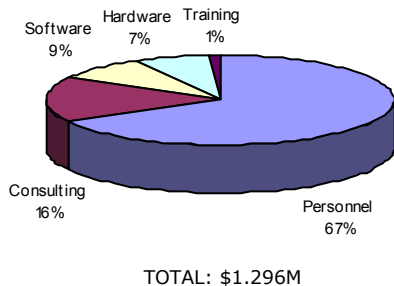


### KEY BENEFIT AREAS

ENMAX achieved a number of benefits from its BizTalk Server deployment, including the following:

- Reduced administrative overhead. The company was able to reassign one clerk in the contract management group, originally hired to perform the manual process of handling new contracts.
- Increased productivity. Reduced time to retrieve and track contacts, find contract history, copy contract documents, and respond to customer questions enables ENMAX sales and contract personnel to more rapidly serve customers with accurate information.
- Reduced cost of data entry. Integration of the billing and enrollment systems enabled ENMAX to reduce the need for manual entry of information into both systems and the possibility of errors or omissions.

### COSTS



### KEY COST AREAS

Key cost areas in ENMAX's implementation of Microsoft BizTalk Server include software, hardware, consulting, personnel, and training. Outside consulting, which was spread over the first two years, represented the majority of the costs involved in the project. Other significant costs included the software licenses, new server hardware, printer and personnel. Training was a minor cost because of ENMAX employees' familiarity with Microsoft products.

### LESSONS LEARNED

A key part of ensuring effective process management and data transfer between applications for ENMAX was determining how it structured its XML contract documents and Microsoft BizTalk Server orchestrations. The company found that understanding the level of granularity of document attributes and elements needed as well as the appropriate granularity of the BizTalk Server orchestration was critical to effective process management and flexibility of the workflows over time.

ENMAX also quickly discovered that there is a 4-megabyte limit to the size of MSMQ messages in Windows and is working on ways to break

down document sizes so that they can be supported by the system. ENMAX is waiting for a publish-and-subscribe toolkit for BizTalk Server, which will ease administration of the overall system.

#### **CALCULATING THE ROI**

Nucleus Research calculated the costs and benefits over a 3-year period to determine the ROI from ENMAX's BizTalk Server investment.

Direct benefits calculated included the reassignment of one clerk and reduced photocopying costs. Indirect benefits calculated included reduced time to retrieve and track contracts, reduced time to generate reports, and reduced time for manual data entry. Returns were calculated based on time savings adjusted by a correction factor for the inefficient transfer of time and multiplied by the fully loaded hourly cost of an employee.

**ENMAX**

**Summary**

Project:	<b>Microsoft BizTalk Server</b>
Annual Return on Investment (ROI)	<b>106%</b>
Payback Period (years)	<b>1.72</b>
Net Present Value (NPV)	<b>490,634</b>
Average Yearly Cost of Ownership	<b>432,089</b>

<b>Annual Benefits</b>	<b>Initial</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Direct	0	73,196	99,794	139,691
Indirect	0	586,358	879,537	1,319,305
<b>Total per Period</b>	181,659	36,332	36,332	36,332

<b>Depreciation Schedule</b>	<b>Initial</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	98,740	19,748	19,748	19,748
Hardware	82,919	16,584	16,584	16,584
<b>Total per Period</b>	181,659	36,332	36,332	36,332

<b>Expensed Costs</b>	<b>Initial</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	11,821	0	0	0
Hardware	8,000	0	0	0
Consulting	341,500	532,500	0	0
Personnel	51,500	76,500	40,000	40,000
Training	12,788	0	0	0
Other	0	0	0	0
<b>Total per Period</b>	425,609	609,000	40,000	40,000

<b>Financial Analysis</b>	<b>Results</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Net cash flow before taxes		50,554	939,331	1,418,996
Net cash flow after taxes		43,443	487,831	727,664
<b>Annual ROI – direct and indirect benefits</b>				<b>106%</b>
Annual ROI – direct benefits only				-11%
<b>Net Present Value (NPV)</b>				<b>490,634</b>
<b>Payback (years)</b>	<b>1.72</b>			
Average Cost of Ownership (TCO/years)		1,216,268	628,134	432,089
3-Year Cumulative ROI	224%			
3-Year IRR	60%			

**Basic Financial Assumptions**

All Government Taxes	50%
Discount Rate	15%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the application profiled in the accompanying case.

All figures are in Canadian dollars.