



**NUCLEUS
RESEARCH**

RESEARCH NOTE C38

ROI ANALYSIS YOU CAN TRUST™

ROI Case Study: Microsoft BizTalk Cinergy

THE BOTTOM LINE

Cinergy achieved a marginal ROI increase of 49 percent over its initial investment in an integration platform by moving its existing integration projects to Microsoft BizTalk Server.

ROI: 49%

Payback: 2.1 years

THE COMPANY

Cinergy Corporation was created in 1994 from the combination of the Cincinnati Gas & Electric Company and PSI Energy, Inc., the largest electric utility in Indiana. Based in Cincinnati, Ohio, Cinergy is one of the leading diversified energy companies in the United State. It has two core businesses: energy merchant and regulated operations. Cinergy's energy merchant business is a leader in low-cost generation, owning 7000 megawatts of capacity. Its regulated operating companies serve more than 1.5 million electric customers and 500,000 gas customers in Indiana, Ohio, and Kentucky. Cinergy employs approximately 8950 people.

THE CHALLENGE

Like many utility companies facing deregulation in the late 1990s, Cinergy needed to improve customer service while reducing operating costs. The company looked to integrate its existing applications into one customer service application but found that because it stored data in different applications and formats, it needed an integration platform that would support all of them. Cinergy worked with Ernst & Young to develop a technology strategy and began deployment of the integration solution on ActiveWorks, a Java-based platform. By late 2000, Cinergy had several integration projects supported by the ActiveWorks platform but began to question its technology choice for a number of reasons:

- Because the platform was still evolving, Cinergy needed ongoing support from the company to fix bugs and manage patches and specific development challenges.
- Most of Cinergy's development team had limited Java experience, so the company had to hire contractors if any significant development efforts were needed.
- When ActiveWorks was purchased by WebMethods, a new licensing model made it likely Cinergy would have to pay additional license fees to use the software.
- The upcoming release version of the software would increase performance and stability but would require significant investment in redevelopment of existing integrations.

Cinergy reconsidered its overall integration strategy and began to look for other integration options that would support similar benefits with lower ongoing costs.

THE STRATEGY

Cinergy began discussions with Microsoft about BizTalk Server in early 2001 and completed a proof of concept to determine if BizTalk Server could support its integration projects. In June 2001, Cinergy decided to migrate its integration projects to BizTalk Server. It believed that even though there would be some additional costs to port the existing solutions to the new environment, it was a more cost-effective option than staying with a Java-based platform.

Cinergy's development staff reviewed its existing integration solution to determine which design patterns and implementations were most commonly used and then began porting them to BizTalk Server. Microsoft consulting services were used to support orchestration implementation. Cinergy planned a total migration period of 6 months. During that period, Cinergy also changed hardware platforms, replacing its Sun Solaris server leases with a leased clustered Compaq NT server environment.

BizTalk Server supports two key integration projects that were migrated from the old system: an electric customer choice application that was required to comply with the state's regulation requiring opening up the purchase of electricity for computation and a digital utility application allowing customers to access account information and schedule services from the Web.

KEY BENEFIT AREAS

Cinergy had already achieved business benefits from application integration — moving to BizTalk Server enabled it to sustain those benefits while reducing the ongoing IT cost. Specific benefits it achieved include the following:

- Reduced hardware costs. Moving to BizTalk Server enabled Cinergy to swap leased Sun Unix servers for a less expensive Compaq NT cluster lease.
- Reduced software costs. Cinergy reduced total ongoing software license costs by moving to BizTalk Server.
- Reduced developer labor costs. By moving to BizTalk Server instead of the new version of its existing software, Cinergy eliminated the additional development costs that would have been needed just to maintain the existing integration projects.

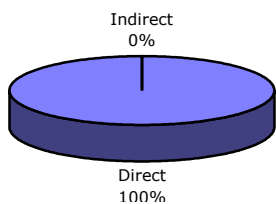
KEY COST AREAS

Personnel made up the largest cost area of Cinergy's investment in Microsoft BizTalk Server, at 65 percent of the total project cost.

LESSONS LEARNED

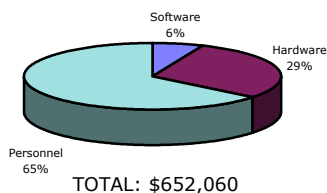
Cinergy had already received the benefits from integration with its initial technology strategy — but found that over time, its cost and developer skill requirements made the solution less attractive for its ongoing integration projects. Cinergy took a hard look at the ongoing costs and benefits of the technology and determined that writing off its old investment and moving to Microsoft BizTalk Server, even if it required some redevelopment, was the best strategy: It enabled Cinergy to continue to reap the benefits from integration while reducing its ongoing costs.

BENEFITS



TOTAL: \$1.24M

COSTS



TOTAL: \$652,060

Moving to BizTalk Server also enabled it to standardize on a Visual Basic development environment and reduce the training and consulting costs needed to develop projects in a Java environment.

CALCULATING THE ROI

Nucleus quantified the total costs and benefits associated with Cinergy's move from its existing integration platform to Microsoft BizTalk Server over a 3-year period to determine the return on investment from the project. Costs quantified included the software, hardware, and personnel needed to develop, launch, and maintain integration projects.

Because Cinergy had already achieved business benefits from its initial integration projects — including reduced customer service costs, reduced administrative overhead, and increased customer satisfaction — those ongoing benefits were not quantified in the analysis of the returns from moving to Microsoft BizTalk Server. The benefits calculated in this case were direct savings in software, hardware, and contract developers, and they represent the additional marginal ROI of moving from Cinergy's former integration platform to BizTalk Server.

Cinergy

Summary

Project:	Microsoft BizTalk Server
Annual Return On Investment (ROI)	49%
Payback Period (Years)	2.10
Net Present Value (NPV)	48,581
Average Yearly Cost of Ownership	217,353

Annual Benefits	Initial	Year 1	Year 2	Year 3
Direct	0	440,926	357,101	440,277
Indirect	0	0	0	0
Total Benefits Per Period	0	440,926	357,101	440,277

Depreciated Assets	Initial	Year 1	Year 2	Year 3
Software	209,365	0	0	0
Hardware	0	0	0	0
Total Per Period	209,365	0	0	0

Depreciation Schedule	Initial	Year 1	Year 2	Year 3
Software	41,873	41,873	41,873	41,873
Hardware	0	0	0	0
Total Per Period	41,873	41,873	41,873	41,873

Expensed Costs	Initial	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	63,729	63,729	63,729
Consulting	0	0	0	0
Personnel	419,000	0	0	0
Training	0	0	0	0
Other	0	0	0	0
Total Per Period	419,000	63,729	63,729	63,729

Financial Analysis	Results	Year 1	Year 2	Year 3
Net cash flow before taxes		377,197	293,372	376,548
Net cash flow after taxes		209,535	167,622	209,210
Annual ROI - direct and indirect benefits				49%
Annual ROI - direct benefits only				49%
Net Present Value (NPV)				48,581
Payback (Years)	2.10			
Average Cost of Ownership (TCO/Years)		524,602	294,166	217,353
3-Year Cumulative ROI	112%			
3-Year IRR	22%			

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.