

**NUCLEUS
RESEARCH**

RESEARCH NOTE D83

ROI ANALYSIS YOU CAN TRUST™

ROI Case Study: Microsoft Office InfoPath MCS

THE BOTTOM LINE

Microsoft Consulting Services (MCS) used Microsoft Office InfoPath to improve the efficiency of the contract creation and management process. The project has increased the productivity of consultants by simplifying the creation and review of forms and has virtually eliminated the need for data entry between systems.

ROI: 149%

Payback: 9 months

THE COMPANY

Microsoft Consulting Services (MCS) is the worldwide IT and consulting business run by Microsoft to address the needs of enterprise customers and partners. MCS offers a broad range of programs for advanced technology requirements, such as e-commerce, enterprise application planning, and distributed network architecture computing. MCS consultants focus on driving business value through technology innovation while transferring knowledge, satisfying customers, and collaborating with partners. The MCS community consists of more than 5000 people worldwide.

THE CHALLENGE

To manage client engagements, MCS follows a series of steps internally, beginning with contract creation and moving on to project tracking and fulfillment. Each time MCS signs on to a new project, consultants must complete and review several forms, such as master service agreements, work orders, and project set-up forms. In addition, MCS's escalation requirements mandate that contracts whose value exceeds a certain amount be reviewed by the appropriate executives. For example, a contract for more than \$1 million requires the review of a different set of executives than do smaller contracts.

MCS realized that the contract creation and management process needed improvement in a number of areas. In particular, the following issues needed to be addressed:

- Inefficient and costly data transfer. Data collected from forms was manually transcribed into back-end systems for purposes such as billing. This process was time consuming and occasionally led to errors.
- Proliferation of forms. Because there was no adherence to a single standard for creating and saving forms, MCS staff would often have problems finding the latest versions of contracts, work orders, or status reports.
- Adherence to escalation requirements. MCS needed a better way to ensure the consistent application of escalation requirements for all contracts.

MCS's goal was to improve the contract creation and management process so that consultants could more effectively share and reuse critical information. In particular, MCS needed to find a workflow and a technology that would better support engagement processes and to ensure that adherence to escalation requirements was not contingent on user behavior and discretion.

THE STRATEGY

In January 2003, MCS Canada began searching for a contract management solution. This project, which was initiated on a local level by MCS Canada, concentrated on improving the contract creation phase and was to be deployed to a small user population in the Canadian offices of MCS. MCS Canada closely evaluated the beta version of Microsoft Office InfoPath and chose to implement InfoPath for the following reasons:

- InfoPath's capabilities for dynamic forms control, data validation, and conditional formatting could directly address inefficiencies — such as with version control — in the contract creation process.
- InfoPath would function well on the .NET platform, along with the other technologies that MCS Canada already owned and used, including BizTalk Server and SharePoint Portal Server version 2.0.

MCS Canada began the project with a team that consisted of two internal personnel and consultants from Sunaptic Solutions, a third-party professional services firm chosen specifically because of its expertise in application integration. Following the initial definition of requirements by senior MCS consultants, the internal project leaders spent eight weeks creating standard forms, connecting those forms to existing back-end applications using BizTalk Server, setting up workflows with InfoPath tools, and developing a programmatic interface with a document repository and SharePoint Portal Server. The team from Sunaptic focused on assisting the internal project leaders with various development and integration activities.

In July 2003, the Microsoft InfoPath-based solution was deployed to 135 users at MCS Canada. The application is hosted on two servers: one in the Vancouver MCS office and another in the Toronto office.

The MCS Canada project also served as the initial test bed for a broader initiative that will eventually support other engagement processes for MCS staff across North America and abroad. Following MCS Canada's decision to implement InfoPath, MCS Corporate concurrently began evaluating solutions to support other parts of the client and contract management process across MCS. The organization evaluated a number of alternatives, including an internally developed contract management database technology, two third-party applications, and the beta version of Microsoft InfoPath. Microsoft now plans to extend use of InfoPath to thousands more internal MCS users in other global locations in the

future. In particular, MCS will use InfoPath to support the creation, tracking, and documentation of status reports that are generated for each engagement so that client queries or issues that arise after a project is completed can be addressed speedily and efficiently.

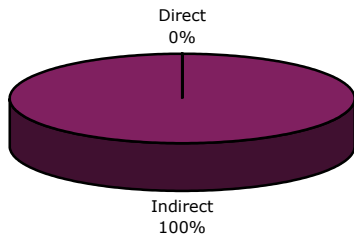
KEY BENEFIT AREAS

Using Microsoft InfoPath in conjunction with BizTalk Server and SharePoint Portal Server has enabled MCS Canada to improve the efficiency of various contract creation and management processes.

Key benefits of the solution include the following:

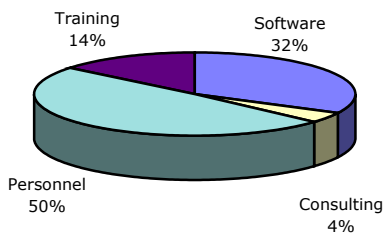
- Reduced time spent on data entry. Automating the flow of data between back-end systems and InfoPath allows the MCS Canada practice to free up the time of one full-time employee responsible for data entry and data reconciliation and to reassign this employee to another task.
- Increased productivity of consultants. Process improvements enabled by Microsoft InfoPath eliminate the need for MCS Canada consultants to spend several hours each month reviewing, searching for, or editing contracts and other documents.
- Reduced legal exposure. Better documentation and organization of all forms and documents — such as contracts and work orders — improves access to records of past engagements, making it easier and more efficient to address and resolve queries or issues posed by a client after a project is completed.

BENEFITS



3-YEAR TOTAL: \$626,454

COSTS



3-YEAR TOTAL: \$232,960

KEY COST AREAS

Key costs involved in MCS Canada’s InfoPath project included software, personnel, consulting, and training. Personnel made up the largest cost category, accounting for 50 percent of total project costs. This included both time spent by MCS consultants on initial development and ongoing personnel support for InfoPath.

Software was the next-largest cost category, at 32 percent of overall costs. Nucleus has included the full list price of initial InfoPath licenses and ongoing Software Assurance fees for 135 users as a proxy for this project’s software costs. MCS Canada already had access to SharePoint Portal Server, BizTalk Server, and Windows 2003 Server software, and these costs have not been included in this analysis.

The cost of providing hour-long training sessions to all the users across MCS Canada was the third-largest cost area. MCS Canada also engaged consultants from Sunaptic Solutions, and consulting made up the remainder of the company’s investment in the Microsoft InfoPath-based solution. MCS Canada was able to reallocate existing servers to support the solution and did not have to incur hardware costs.

LESSONS LEARNED

While the overall development of the solution proceeded smoothly, the project team faced a few challenges because the hardware

initially used was both outdated and inadequate to meet the needs of this specific user population. The MCS project team recommends that companies considering an implementation of this scale should make sure to satisfy hardware requirements for both the client and the server. The server environment should include at least two servers, each with a minimum memory of 512MB. For Windows 2000 and Windows XP clients, 64MB of RAM — with an additional 8MB of RAM for applications running simultaneously — should be sufficient.

In addition, the implementation team found that securing the approval of staff members in the organization was a significant part of the deployment process and was critical to timely project completion. Because a form-management technology often affects a large population of users at varying levels in an organization, obtaining buy-in from all stakeholders on such issues as standard forms and preferred workflows can pose a challenge for design and development teams and should be considered beforehand.

CALCULATING THE ROI

Nucleus quantified the costs of software, consulting, personnel, training, and other investments over a 3-year period to quantify MCS's total investment in Microsoft InfoPath. As a proxy for this project's software costs, Nucleus has included the full list price of initial InfoPath licenses and ongoing Software Assurance fees for 135 users. MCS Canada already had access to SharePoint Portal Server, BizTalk Server, and Windows 2003 Server Software; therefore, these costs have not been included in this analysis. Other companies already operating on the Microsoft platform are also likely to have this access, but organizations that don't own these technologies should factor in their costs when quantifying deployment costs.

Indirect benefits including increased productivity of consultants and reduced data entry time were calculated based on the average fully loaded cost of employees. Time savings associated with reduced data entry and faster contract creation and review were multiplied by a productivity correction factor to account for the inefficient transfer of time from time saved to additional time worked. Benefits not quantified included the reduced legal exposure because of better documentation of various forms generated with the contract creation step.

SUMMARY

Project:	Microsoft Office InfoPath
Annual return on investment (ROI)	149%
Payback period (years)	0.77
Net present value (NPV)	134,348
Average yearly cost of ownership	77,653

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	0	0	0
Indirect	0	208,818	208,818	208,818
Total Benefits per Period	0	208,818	208,818	208,818

DEPRECIATED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Total per Period	0	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Total per Period	0	0	0	0

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	27,000	16,200	16,200	16,200
Hardware	0	0	0	0
Consulting	10,000	0	0	0
Personnel	76,800	12,480	12,480	12,480
Training	0	33,120	0	0
Other	0	0	0	0
Total per Period	113,800	61,800	28,680	28,680

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
Net cash flow before taxes		147,018	180,138	180,138
Net cash flow after taxes		73,509	90,069	90,069
Annual ROI - direct and indirect benefits				149%
Annual ROI - direct benefits only				-35%
Net present value (NPV)				134,348
Payback (years)	0.77			
Average annual cost of ownership		175,600	102,140	77,653
3-year cumulative ROI	236%			
3-year IRR	129%			

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. Financial modeling tool, format, and methodology copyright Nucleus Research Inc., all rights reserved.