



**NUCLEUS  
RESEARCH**

CASE STUDY D134  
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ROI ANALYSIS YOU CAN TRUST™

## ROI Case Study: Microsoft Project Server AMS

### **THE BOTTOM LINE**

AMS implemented Microsoft Project Server to enable managers to automate the process of measuring performance across multiple projects. The system allows AMS to create weekly status and performance reports and conduct earned value metrics analysis in less time.

**ROI: 114%**

**Payback: 11 months**

### **THE COMPANY**

AMS is a global business and IT consulting firm to the government, financial services, and communications industries. AMS applies both proprietary and partner technologies and provides solutions through business consulting, system integration, and outsourcing. Founded in 1970, AMS is headquartered in Fairfax, Virginia, and has offices worldwide. The company has approximately 6300 employees.

### **THE CHALLENGE**

Several years ago, AMS merged a number of product development organizations into a single product development entity. This merger motivated the executive and management teams to assess how the newly created entity was managing its portfolio of products. At the time, project teams at AMS were using Microsoft Project as a desktop application for the planning, scheduling, and reporting functions. While the standalone product provided users with a team- or project-level view, AMS recognized that by implementing an enterprise-level system and introducing a more centralized project planning and scheduling platform, it could directly address the following key business challenges:

- Dispersed project files. The desktop version of Microsoft Project, which was being used as the project planning and scheduling platform, did not provide a centralized project repository that could be used to support and enhance reporting and staffing.
- Difficulty managing resources. The newly formed product development group utilized a matrix approach for managing its resources. Because there was no enterprise view of resource utilization, the ability to evenly allocate resources across projects and understand the overall impact on delivery was missing.
- Difficulty managing multiple dependent projects. With the standalone, desktop version of Microsoft Project, users didn't have access to an enterprise view of projects and tasks — information they needed to fully analyze the impact of dependent tasks across multiple projects and subprojects.
- Cumbersome reporting. The existing process for operational management and executive reporting on projects was cumbersome and time consuming. Additionally, there was no

standardized approach for reporting earned value metrics (EVMS), whereas the company wished to be able to compare EVM data across all projects.

- Limited collaboration. Users at AMS had to follow a time-consuming process for capturing actual hours at the detailed project plan level. AMS needed to implement a more collaborative approach that enabled the project manager to communicate tasks to team members more efficiently, and it needed the team members to report on the status of the tasks, including the actual hours spent per task.

Keeping these target areas in mind, AMS's executives set goals to implement a system to allow them to have a portfolio view of the health of the company's projects in progress. A collaborative project management system would allow AMS managers to:

- Measure project performance and EVMS, allowing for improvements in on-time and on-budget delivery to customers
- Support standardized processes and share consistent and accurate information across different product lines
- Understand the impact of task dependencies in complex projects

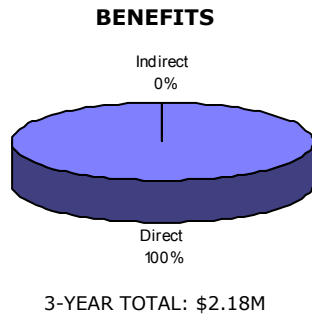
### **THE STRATEGY**

Many AMS project managers were already using Microsoft Project as a desktop application to develop project plans and work breakdown structures (WBSs) on their individual PCs. However, these individual installations were not centralized and did not easily feed critical project performance information to executives. Therefore, in October 2002, when AMS began the vendor selection process for a companywide project management solution, Microsoft Project Server was the natural choice, both because many internal users were already experienced with the application's scheduling and planning functionality and because Microsoft offered the best price point.

In March 2003, AMS chose Microsoft as its project management software vendor and began a pilot program. In June 2003, AMS selected the public sector product engineering group as the first department to begin a pilot program. AMS divided this initial pilot program into the following distinct phases:

- In early July 2003, AMS installed Microsoft Project Server for approximately 20 project managers working on a common product line and trained them in the use of the system.
- In late August, AMS expanded the installation to 170 people in another product line in the same group.
- In late September, AMS trained approximately 10 executives in the decision-support capabilities of the solution, thus enabling them to mine data for reporting purposes.
- Based on the outcome of the initial rollout, AMS has incorporated the pilot into a corporate-funded initiative to deploy an enterprise project management solution that will leverage Microsoft technologies including Project Server, SharePoint Portal Server, and Windows SharePoint Services. AMS will

expand the Microsoft Project Server program to 4000 users companywide in a staged rollout.

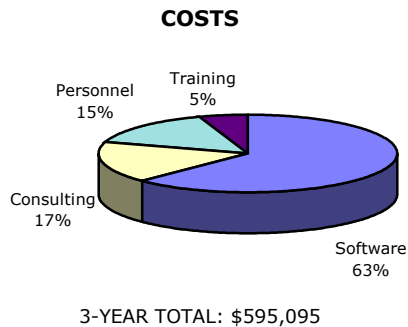


### KEY BENEFIT AREAS

With the pilot program well under way, AMS is already seeing benefits from Microsoft Project Server. The system has helped AMS meet its goal of creating a more collaborative project management system that allows managers to view metrics and create schedules with a view of resources across projects and across the entire organization. The collaborative nature of Microsoft Project Server allows team members, team leaders, and project managers to complete EVM reporting more quickly, resulting in a cost savings for the project and product line. The quantifiable benefits from the Microsoft Project deployment include:

- Productivity gains from automated weekly reporting processes. Consultants and developers now spend less time each week creating weekly status and performance reports, leading directly to more time available for billable hours.
- Productivity gains from automated earned value metrics analysis. Team leaders and project managers now spend less time processing and analyzing status and performance reports from team members.

The Microsoft Project Server deployment also allows AMS project managers to get a better sense of project status metrics in real time. This capability of the system could help users ensure fewer project budget and cost overruns because project managers can quickly make adjustments to keep projects profitable.



### KEY COST AREAS

The largest cost area for AMS's deployment of Microsoft Project Server was the software license, making up 63 percent of the total cost of the project. Other cost areas over the 3-year period included consulting, training, ongoing maintenance, and personnel costs associated with everyday use of the system.

### LESSONS LEARNED

Overall, AMS's Microsoft Project Server implementation went well. AMS's managers attribute the project's success to their staged pilot program approach. Planning a phased rollout with predefined checkpoints and opportunities for collecting feedback was key to a smooth deployment.

AMS's managers also stress that companies considering similar implementations not underestimate the training and change management efforts necessary to make Microsoft Project Server a success. Project managers, especially those without PMI certifications, will often need to undergo training on how to build effective WBSs, how to plan and schedule complex projects, and how to adjust WBSs to changing project conditions. Further, the training needs to be tailored to the specific needs of different user groups. A key reason for AMS's success was that it provided

targeted training for executives, project managers, and team members.

A Microsoft Project Server implementation also requires a high level of communication between team members and project managers. This is especially important with regard to communicating the inputs, steps, expected output, and dependencies of complex business processes.

Lastly, AMS's managers also recommended that companies carefully look at their internal processes for building WBSs, especially ones for complex projects that require more than 500 tasks. Some of AMS's projects contained upwards of 2500 tasks, which was well above Microsoft Project's practical limit of 500 tasks for single project, requiring the revision of existing WBSs.

### **CALCULATING THE ROI**

Nucleus Research analyzed the costs of software, personnel, consulting, and training over a 3-year period to quantify AMS's investment in Microsoft Project Server. Because AMS was an early adopter, and because it agreed to participate in trade shows and marketing ventures, the company received some consulting services from Microsoft at no cost, though AMS did use internal consultants for a portion of the implementation. Companies currently considering Microsoft Project Server for similar enterprise implementations must take consulting costs into account when they evaluate potential ROI.

Benefits also were quantified over a 3-year period. Direct benefits included time savings for team members and team leaders when EVM reports were created as well as faster creation of weekly status and performance reports for consultants and developers. Benefits not quantified because of the early stage of AMS's deployment included reduced project budget and schedule overruns. However, Nucleus recommends that companies considering Microsoft Project Server evaluate this potential benefit.

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**SUMMARY**

Project:	<b>Microsoft Project Server</b>
Annual return on investment (ROI)	<b>114%</b>
Payback period (years)	<b>0.95</b>
Net present value (NPV)	<b>489,489</b>
Average yearly cost of ownership	<b>198,365</b>

<b>ANNUAL BENEFITS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Direct	0	728,000	728,000	728,000
Indirect	0	0	0	0
<b>Total Benefits per Period</b>	0	728,000	728,000	728,000

<b>DEPRECIATED ASSETS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	232,600	0	0	0
Hardware	0	0	0	0
<b>Total per Period</b>	232,600	0	0	0

<b>DEPRECIATION SCHEDULE</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	46,520	46,520	46,520
Hardware	0	0	0	0
<b>Total per Period</b>	0	46,520	46,520	46,520

<b>EXPENSED COSTS</b>	<b>Pre-start</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Software	0	69,780	69,780	0
Hardware	0	0	0	0
Consulting	63,011	40,000	0	0
Personnel	59,660	9,672	9,672	9,672
Training	31,248	0	0	0
Other	0	0	0	0
<b>Total per Period</b>	153,919	119,452	79,452	9,672

<b>FINANCIAL ANALYSIS</b>	<b>Results</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Net cash flow before taxes		608,548	648,548	718,328
Net cash flow after taxes		327,534	347,534	382,424
<b>Annual ROI - direct and indirect benefits</b>				<b>114%</b>
Annual ROI - direct benefits only				114%
<b>Net present value (NPV)</b>				<b>489,489</b>
<b>Payback (years)</b>	<b>0.95</b>			
Average annual cost of ownership		505,971	292,711	198,365
3-year cumulative ROI	158%			
3-year IRR	96%			

**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.