

ROI Profile: Microsoft Exchange Aventis, Germany

ROI:	415%
Payback:	9 months

Bottom Line

Aventis's return on investment from Exchange came from building a single global architecture to support both messaging and real-time communications — and having a global impact on employee productivity.

The company

Aventis Pharma is a global pharmaceutical company committed to creating value for patients, shareholders, employees, and society. Aventis was created through the December 1999 merger of Hoeschst and Rhone-Poulenc. The company discovers, develops, and commercializes innovative products with the goal of satisfying unmet medical needs and lowering healthcare costs. With sales of more than 16 billion euros in 2000, Aventis is a global organization with teams focused on developing prescription drugs, vaccines, and therapeutic proteins to meet medical needs around the world.

The challenge

The 1999 merger created an organization with approximately 55,000 employees in more than 100 country sites around the world. Aventis is truly a global organization, meaning that teams working on specific projects and research are often located in a number of different offices. Aventis needed a common architecture that could support a large volume – about 1.3 terabytes per month – of e-mail communications.

In addition to needing a new architecture to support communication across the newly-integrated business units, Aventis teams also sought new functionality such as instant messaging and videoconferencing that would enable them to work in virtual meetings across locations. Part of Aventis was already using an earlier version of Exchange, but Aventis needed to build a global messaging architecture that could support the message-intensive business activities of the company.

The strategy

Aventis began upgrading its Exchange environment to Exchange 2000 shortly after the release of Exchange 2000. It first deployed Active Directory and then Exchange using a backbone of 5 main servers and local mail servers at most

company sites (smaller sites were supported by remote servers). Because conferencing functionality was a key reason for selecting Exchange 2000, Aventis planned for a network that could support up to 100 concurrent users. A step-by-step training guide was developed to explain to users how to set up and use the conference features.

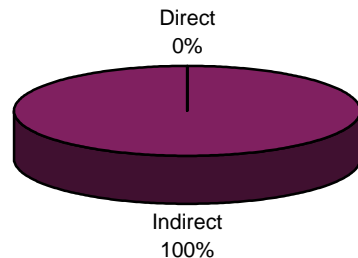
Today, Aventis has 55,000 Exchange users and about 1000 who use the conferencing functionality on a regular basis. The company's Active Directory and Exchange architecture is designed both to support a high volume of asynchronous communications and to support effective use of the Exchange conference server for real-time virtual meetings.

Key benefit areas

Creating a global messaging and collaboration architecture has enabled Aventis to increase the productivity of its employees

by reducing the amount of time they spend communicating with one another. Sending messages across time zones, arranging virtual conferences to reduce travel time and cost, and increasing efficiencies because employees in the two merged companies can communicate in an efficient and cost-effective way translate into increased productivity for the organization.

Figure 1 - Direct and Indirect Benefits



Although Aventis believes the Exchange environment has reduced travel for employees, it is also clear that the amount and quality of communication between employees has increased. Aventis gains benefit from this communication both in the product development effort and in a greater sense of community for the employees of this global company.

Key cost areas

Personnel costs associated with supporting Aventis's Exchange environment make up more than two-thirds of the total ongoing costs of the technology. Clearly, supporting 55,000 users for at a number of different sites with different levels of technology takes a significant ongoing personnel investment.

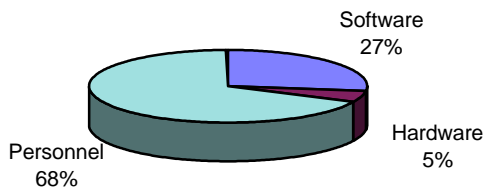
Because of the size of its organization and its agreement with Microsoft, Aventis has an enterprise licensing agreement for Microsoft products which includes Active Directory

and Exchange. Software costs were the second largest cost associated with the deployment Exchange; it is likely that per-user costs would be higher for users without an enterprise agreement with Microsoft.

Lessons learned

Aventis planned its Active Directory deployment before its migration to Exchange 2000, and upgraded its NT account domains. Careful planning of domains and naming resolutions as well as a fully-deployed Active Directory environment were key factors in Aventis’s successful deployment. That said, the company has found other benefits from and applications of Active Directory including a virtual company yellow pages.

Figure 2 - Costs



In planning its use of the conferencing functionality, Aventis looked beyond the cost savings from potential reduced travel. Making conferencing effective and easy to use means employees can easily spend more time collaborating while spending less time on the road — enabling them to be more effective in the office and to spend more time at home.

Calculating the ROI

The key benefit area for Aventis was in using messaging and real-time communication to increase the productivity of its employees — and with 55,000 employees in an organization, even a small increase in individual productivity can have a significant impact on returns for the entire organization.

3-year Financial Analysis	
Total Benefits:	\$59,512,500
Direct	0%
Indirect	100%
Total Costs:	\$5,400,000
Software	27%
Hardware	5%
Consulting	0%
Personnel	68%
Training	0%
Other	0%
ROI:	415%
Payback:	.79 years
TCO:	\$6,610,000

In calculating the return from an increase in productivity, Nucleus applied a correction factor to account for the inefficient transfer of time and calculated the return based on the fully-loaded cost per hour of the average employee.

Aventis

Summary

Project:	Microsoft Exchange
Annual Return On Investment (ROI)	415%
Payback Period (Years)	0.79
Net Present Value (NPV)	13,484,052
Average Yearly Cost of Ownership	6,610,000

Annual Benefits	Initial	Year 1	Year 2	Year 3
Direct	0	0	0	0
Indirect	0	9,951,923	19,704,808	29,855,769
Total Benefits Per Period	0	9,951,923	19,704,808	29,855,769

Depreciation Schedule	Initial	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	1,000,000	200,000	200,000	200,000
Total Per Period	1,000,000	200,000	200,000	200,000

Expensed Costs	Initial	Year 1	Year 2	Year 3
Software	0	1,800,000	1,800,000	1,800,000
Hardware	0	0	0	0
Consulting	0	0	0	0
Personnel	1,380,000	4,000,000	4,000,000	4,000,000
Training	50,000	0	0	0
Other	0	0	0	0
Total Per Period	1,430,000	5,800,000	5,800,000	5,800,000

Financial Analysis	Results	Year 1	Year 2	Year 3
Net cash flow before taxes		4,151,923	13,904,808	24,055,769
Net cash flow after taxes		2,175,962	7,052,404	12,127,885
Annual ROI - direct and indirect benefits		127%	269%	415%
Annual ROI - direct benefits only		-163%	-163%	-163%
Net Present Value (NPV)		177,140	5,509,771	13,484,052
Payback (Years)	0.79			
Average Cost of Ownership (TCO/Years)		8,230,000	7,015,000	6,610,000
3-Year Cumulative ROI	886%			
3-Year IRR	222%			

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.