



## Microsoft–Based PC Desktop Helps SAMSUNG Increase Business User Productivity by 4 Percent

### Overview

**Country:** South Korea

**Industry:** Manufacturing

#### Customer Profile

Since its founding in 1969, SAMSUNG Electronics Company, Ltd. has established itself as a true innovator and a major global provider of semiconductors, digital appliances, computers, and telecommunications systems.

#### Business Situation

The company's semiconductor business unit needed to identify how upgrading their mixed PC desktop computing environment could promote more effective internal communication and collaboration and help to improve end-user productivity.

#### Solution

A business value study recommended that the semiconductor unit implement a PC desktop environment using Microsoft® Windows® XP Professional, Microsoft Office Professional Edition 2003, and other components of the Microsoft Office System.

#### Benefits

- Business user productivity increased by 4 percent.
- Faster data access and analysis.
- Improved desktop stability and uptime.



"The flexibility provided by the different programs in Office 2003 and the ability to synchronize with our back-end systems by using Windows Server 2003 and Windows XP Professional will help improve our productivity and business agility."

*GahmYong Kim, Principal Engineer, SAMSUNG Electronics Company, Ltd.*

A business value analysis conducted by Lawrence Associates indicates that by implementing a desktop PC environment using Microsoft® Windows® XP Professional and components of the Microsoft Office System, the semiconductor business unit of SAMSUNG Electronics Company, Ltd. can improve overall business user productivity by 4 percent; power users and some knowledge workers are projected to work 10 percent more productively.

The analysis also indicates that implementing a desktop environment that uses the Office System Professional Edition 2003 can contribute 40 percent more user productivity benefits than one consisting of Windows XP Professional and Office XP without adding significant additional investments. The company's semiconductor business unit is projected to realize a 342-percent return on its investment, a 302-percent internal rate of return, and a return on capital in less than 12 months.



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GahmYong Kim  
Principal Engineer  
SAMSUNG Electronics Company, Ltd.

## Situation

As any successful company, the semiconductors business unit of SAMSUNG Electronics constantly monitors emerging information technologies (IT) that can help to streamline business processes, control costs, and help employees work more productively.

As manufacturers of IT products, officials at the semiconductor unit knew that evaluating and installing IT on the basis of costs alone

Quick Facts	
Overall business user productivity	↑ 4%
Productivity related to improved user communication and collaboration	↑ 2%
Productivity related to increased desktop uptime	↑ 1%
Productivity related to improved user personal information management	↑ 1%
Use of Capital	
Internal rate of return (IRR)	302%
Return on investment (ROI)	342%
Payback period	< 12 months

would not provide all of the business value they required to maintain and grow the level of business agility they needed to sustain their market position. Instead, they wanted to understand which aspects of IT would be most important to specific business units, provide specific types of business benefits, and help them operate more efficiently.

Semiconductor unit officials worked with Lawrence Associates, a Microsoft Partner that specializes in assessing the business value of investing in IT, to identify how upgrading the business unit’s mixed desktop computing environment could help improve end-user productivity, promote more effective internal and external communication and collaboration, and generally enhance the company’s competitive advantage.

GahmYong Kim, Principal Engineer at SAMSUNG Electronics comments, “We were

interested in how a company-wide approach to using IT as a strategic tool could help us improve workflow processes and business agility. We were especially interested in the benefits that could be provided by the Microsoft Office System.”

## Solution

Financial and technical analysts from Lawrence Associates conducted a business value analysis, which identified the benefits of using Microsoft desktop productivity and enterprise server software within the semiconductor unit. The study identified performance, hardware support, mobility, connectivity, and many other types of benefits. However only those benefits relating to business user productivity were quantified. Study results indicate that 93 percent of the total end-user productivity value identified could be captured by business-related rather than IT-related benefits. Primary business-related benefits include:

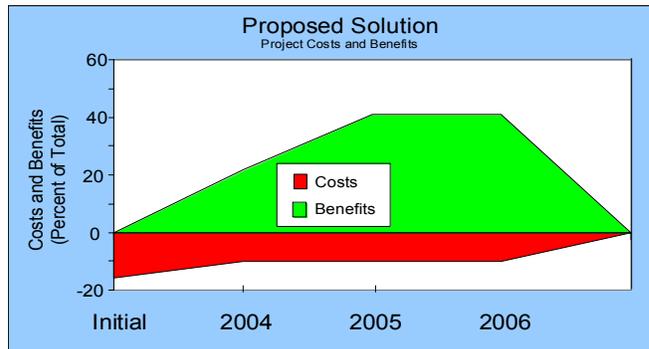
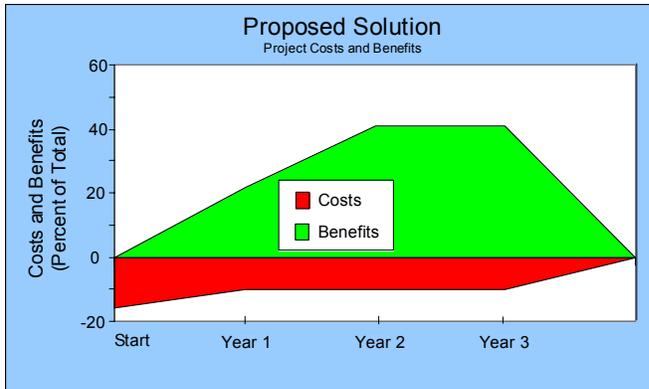
- Enhanced internal communication and collaboration.** Installing Microsoft Office Live Communications Server 2003 and the Microsoft Office Outlook 2003 component of the Microsoft Office System can provide the unit’s business users with both advanced real-time communications services, which use the Microsoft Windows® Instant Messenger client and group scheduling capabilities. Live Communications Server 2003 is an instant messaging (IM) server that enables users to share online presence status, exchange information, and share applications by using audio, video, and data collaboration features, and to participate in multiparty IM conversations. By providing users with instantaneous, rich-media communications that are unrestricted by time zone or

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location, Live Communications Server 2003 helps users avoid communications delays inherent in standard e-mail

environment than is available with previous versions of Windows. Windows file protection, side-by-side DLL support, a dramatic reduction in reboots, and advanced device and application compatibility help business users avoid service interruptions and recover more rapidly when interruptions occur.



messaging and the time and costs of attending meetings.

Tight integration between Outlook 2003 and Windows SharePoint™ Services, the new Web-based collaboration technologies in Windows Server™ 2003, facilitates meeting planning and scheduling by enabling team members to extract data from Windows SharePoint Services team sites without exiting Outlook 2003.

■ **Improved desktop availability.**

Standardizing desktop operating system software on Microsoft Windows XP Professional as a part of the normal 3.5-year hardware refresh cycle will provide the unit with a more stable, reliable desktop

users need to compile and act on business data. The XML-based data format that underlies all Microsoft Office System programs makes it easy for business users to import data structured with customer-defined XML schemas from different applications and platforms, manipulate and analyze it, and then export it to other users or applications without engaging in time-consuming reformatting chores. Use of a common data format also expedites integration between desktops and back-office information resources.

Although IT professionals at the semiconductor unit are currently engaged in pre-deployment evaluation, the company

■ **Faster data access and**

**reporting.** Using the XML-based programs and technologies of the Microsoft Office System to find, integrate, and exchange data throughout the company can significantly reduce the time and effort that the unit's business

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Principle Engineer  
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anticipates deploying a desktop environment based on Windows XP Professional and Microsoft Office System software in the near future. When deployment begins, Windows XP Professional software would be deployed as part of the hardware installation by the original equipment manufacturers (OEMs), and many end users would install Office 2003 software in automated installations off the network.

### Benefits

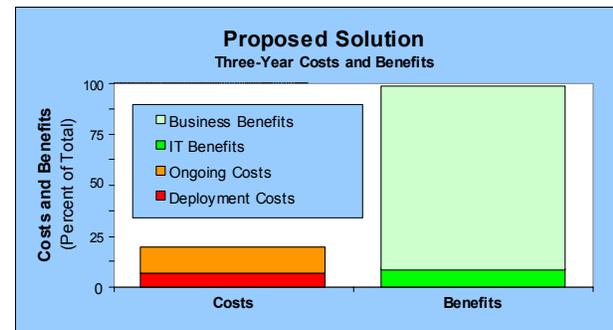
Results of the business value analysis conducted by Lawrence Associates indicate that by implementing a desktop environment based on Windows XP Professional and selected programs of the Microsoft Office System, the SAMSUNG Electronics semiconductor unit can improve business user productivity by 4 percent; the productivity of power users and many knowledge workers is projected to increase by as much as 10 percent. The analysis also indicates that the unit can achieve a 342-percent return on its investment and a 302-percent internal rate of return on its use of capital, all within a 12-month payback period.

GahmYong Kim notes, “Implementing Microsoft Office 2003 rather than Office XP will provide significant incremental improvements in user productivity for virtually the same deployment costs. The flexibility provided by the different programs in Office 2003 and the ability to synchronize with our back-end systems by using Windows Server 2003 and Windows XP Professional will help improve our productivity and our business agility.”

### Rich-Client Collaboration Platform Improves Productivity by 2 Percent

At the semiconductor unit, communication and collaboration is a labor-intensive process that relies heavily on face-to-face meetings and manual scheduling and document

creation tasks. Business stakeholders identified that the current process of scheduling and coordinating meetings, creating documents, and sharing information



with colleagues in other departments and facilities is not as effective as it could be. Scheduling meetings for and communicating with colleagues outside of South Korea is especially challenging.

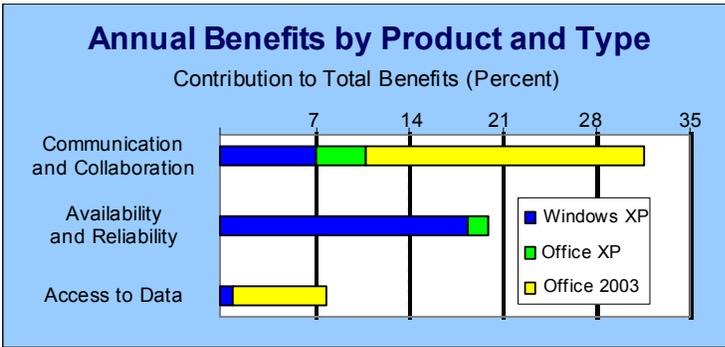
For example, business users are already engaged in electronic collaboration and team-related communications. They use a groupware application developed inhouse to schedule meetings and events. However, users report that it responds slowly and lacks the functionality that they need to communicate with colleagues, especially those in other countries. Some users look forward to using electronic messaging, collaboration and meetings tools with more sophisticated capabilities that can help them avoid time-consuming travel to face-to-face meetings. Many other users consider face-to-face meetings to be the more appropriate way to communicate.

As a result, business unit IT managers are interested in finding flexible, easy-to-use communication and collaboration tools that can replace underperforming custom applications, enable users to choose the best communication tool for a given situation, and reduce the time and effort of creating documents and scheduling and attending meetings.

Results of the Lawrence Associated business value analysis indicates that the IM capabilities enabled by Live Communications Server 2003, the shared document management capabilities of Windows SharePoint Services, and the shared calendar and scheduling capabilities of Microsoft Office Outlook 2003 can help the unit's business users spend less time setting up and attending meetings. The resulting

recovering from and dealing with crashes and other system issues. While IT professionals diagnose the problem and reinstall operating system software, end users spend an average of 1.5 hours per month to recreate lost data or recover lost files, business user work is delayed, and business agility is compromised.

Deployment of Windows XP Professional is projected to help the unit's business users reduce service interruptions by more than 90



percent, lower Tier I help desk costs, and improve individual user productivity by an estimated 1.3 percent. This projected improvement can contribute 19 percent of

projected productivity improvement of 2 percent can contribute 32 percent of benefits measured.

GahmYong Kim comments, "The real-time communications capabilities of the Microsoft Office System and Windows XP Professional can enable us to organize and participate in meetings thousands of miles away as easily as one down the hall—without incurring the time and expense of travel."

**Desktop Availability Improves User Productivity, Reduces IT Costs**

For many users at the semiconductor unit, handling large, complex spreadsheets and manipulating data between many open windows are common tasks. When desktop operating system instability and application compatibility problems cause service interruptions, however, user downtime can occur.

When the semiconductor unit's business users experience desktop-related downtime up to 2 to 4 times a day, they spend 4 hours a month

benefits measured.

GahmYong Kim concludes, "The superior reliability of Windows XP can help users at the semiconductor unit work more productively by limiting unanticipated downtime. Not only will we be able to decrease help desk tickets and enable our IT staff to focus on other value-added activities, our IT costs will be lower."

**Faster Data Access Promotes Timely Regulatory Compliance**

At the semiconductor unit, business users rely on complete, up-to-date information to provide executives with an accurate view of the company's financial and competitive position. However, business users must search through information presented in different data formats and housed in isolated databases and computing systems located throughout the company. Time-consuming data search, compilation, reporting, and analysis tasks delay the transfer of vital information to company decision-makers.

The Lawrence Associates business value study shows that by integrating data with XML-enabled Office 2003 applications and publishing it to the company intranet, the unit can eliminate manual data retrieval and compilation tasks and ensure timely reporting of financial and regulatory compliance information. Study results also indicate that business user productivity can increase by 1 percent for general business users and up to 10 percent for some categories of knowledge workers. This improvement can contribute 14 percent of total benefits measured.

## For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to: [www.microsoft.com](http://www.microsoft.com).

For more information about Lawrence Associates products and services, call (412) 344-5103 or visit the Web site at: <http://www.lawrence-associates.com>.

For more information about SAMSUNG Electronics products and services, visit the Web site at: <http://www.samsung.com>.

## Microsoft Office System

Microsoft® Office is the business world's chosen environment for information work that provides the software, servers, and services that help you succeed by transforming information into impact. For more information about Microsoft Office System, go to <http://www.microsoft.com/office>.

### Software and Services

#### ■ Products

##### Microsoft Office System

- Microsoft Office 2003 Enterprise Edition
- Microsoft Office Word 2003
- Microsoft Office Excel 2003
- Microsoft Office Access 2003
- Microsoft Office Outlook® 2003
- Microsoft Office PowerPoint® 2003
- Microsoft Office Publisher 2003
- Microsoft Office InfoPath™ 2003
- Microsoft Office OneNote™ 2003
- Microsoft Office Live Communications Server 2003
- Microsoft Windows® XP Professional
- Microsoft Windows Server™ 2003
  - Microsoft Windows SharePoint™ Services
  - Windows Rights Management Services

#### ■ Technologies

- [O]Extensible Markup Language (XML)
- XML-based Web services
- Smart documents
- Custom Smart Tags

### Partner

- Lawrence Associates LLC

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