

Leading Software Developer Automates Change Management Process to Drive Business Forward

Overview

Country or Region: France

Industry: Information Technology

Customer Profile

Dassault Systèmes is a leading global provider of product lifecycle management software using three dimensional representations. Its software is revolutionising the design and production of complex products, such as cars and aeroplanes.

Business Situation

The company uses the latest software to develop its products, but must upgrade approximately 5,000 computers every 18-to-24 months. Change management was based on manual processes making it difficult to manage.

Solution

Dassault Systèmes worked with Microsoft® Services and then implemented Zero Touch installation and Zero Touch provisioning, a Microsoft Solution Accelerator for Business Desktop Deployment.

Benefits

- Significant reduction in deployment errors
- Greater clarity in change management
- Helpdesk responds to problems quickly
- Centralised image building
- Cost savings from reduced support work

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Philippe Kervoelen, Manager, IT Innovations, Dassault Systèmes

Dassault Systèmes software is revolutionising the design and production of complex products and the manufacturing facilities needed to produce them. Its three dimensional representation software make it possible to design and create products using digital simulations. To ensure the company maintains its leading position it needs to provide developers with the most up-to-date software tools to create products. But change management procedures were entirely manual. With almost 5,000 computers upgraded every 18 months to two years, the process was very complex and difficult to manage. Following an engagement with Microsoft® Services, the company introduced Zero Touch installation and Zero Touch provisioning, two key elements of the Microsoft Solution Accelerator for Business Desktop Deployment. Combined with the benefits of Microsoft Software Assurance, Dassault Systèmes realised a dramatic reduction in the number of errors, improved management visibility, and benefited from plunging support costs.

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Philippe Kervoelen, Manager, IT Innovations,
Dassault Systèmes

Situation

Dassault Systèmes is the world leading provider of product lifecycle management software using three dimensional representations. Its software is revolutionising the design and production of extremely complex products, such as cars and aeroplanes, and the manufacturing facilities needed to produce them. Headquartered in Suresnes, France, the company has 107 offices and sales agencies in 22 countries.

Every 18 months to two years, at its headquarters Dassault Systèmes upgrades its 3,000 desktop PCs, 800 laptops, and 700 servers to ensure staff have the best computing tools available. Philippe Kervoelen, Manager, IT Innovations, Dassault Systèmes, says: “Producing software is our business and consistently developing leading products is dependent on having superior quality tools.

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At any one time, the company can have 30 different versions of Microsoft® operating systems in its inventory for headquarter staff including different language versions such as English, French, Korean, Chinese and Japanese. It also has three different end-user profiles, information worker, developer, and robot used for automatic testing of software products.

It took an engineer at least one week to manually build system images for new hardware so computers were often out of use and configuration mistakes were not uncommon. As a result, there were often delays of up to two weeks when deploying new computers. Further, because of the scale

of changes it wasn't unusual for groups of computers and users to be temporarily overlooked.

Philippe Kervoelen says: “The fact is the manual process we used for deployment of new images was poor. It was difficult to accurately track changes and in turn IT staff were involved in unnecessary support activity. This cost time and money and it was also slowing down our research and development work. We really needed to gain greater control over software deployment with a reliable and easily manageable solution that automated the entire process.”

Solution

Once the decision was made for automatic software deployment the company turned to Microsoft Services. Philippe Kervoelen says: “We already made extensive use of Microsoft products and had developed a close relationship with the company. We simply spelt out what we were looking for and a Microsoft consultant helped us develop this even further by illustrating how we also needed to factor in other features we had not considered.”

The outcome was the adoption of Zero Touch installation and Zero Touch provisioning, two key elements of the Microsoft Solution Accelerator for Business Desktop Deployment. Zero Touch is the implementation of actions, workflows, and operations to automate software deployments and the creation of processes required for users to self-subscribe to services and software.

Philippe Kervoelen says: “This is a process that Microsoft itself uses. It is designed to deliver automatic software deployment with minimal human interaction which reduces the chances of costly errors and administration overheads.” The project began in February

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2004 and the first group of computers had been upgraded by December 2004.

With Zero Touch the company addressed two central problems, the installation of software for end-users and control over what is installed.

The IT team gathers the image specifications and uses these to build installation packages. The configuration is described in a Zero Touch database, which is then installed on a single computer. The generated image is then deployed to other specified computers using Zero Touch.

It also implemented both Microsoft Systems Management Server Service Pack 1 and Microsoft Remote Installation Service (RIS) for Windows Server 2003, for the remote distribution of images and applications. RIS creates an account within the network domain so the remote installation server can set up the computers.

The company also built an intranet based portal using Windows SharePoint Services so end users can request software that is not installed by default with the original image.

Zero Touch also dovetails with the company's use of Microsoft Software Assurance benefits. Philippe Kervoelen says: “Software Assurance has been part of our licensing strategy since 2000 when it was incorporated into an Enterprise Agreement.

“It provides our developers with mandatory access to all Microsoft technologies at any given time ensuring developers have immediate access to all of the latest software.

“This licensing model fits perfectly with Zero Touch and gives us the technical agility we need to continue growing our business. We install what is needed immediately and are

not constrained by business or inventory limitations.”

Benefits

Reduction in Deployment Errors Leads to Cost Savings

Software deployment errors have been dramatically reduced. The Zero Touch concept guarantees that all configurations are now uniform. Philippe Kervoelen says: “We have a large farm of robots used for testing software and generating reports, which informs executive decision making for research and development. If software implementations are inaccurate, bad results and negative indicators are generated. Executive managers ask developers to analyse the reports but often the results were not because of faulty code but due to software implementation errors.

“Engineers used to waste time analysing the wrong problem, which in turn was expensive. The cost was also multiplied because the image was duplicated across the enterprise, which meant staff could not work effectively.

“Much of the cost of previous installations was the result of support, with staff required to spend approximately 20 minutes on each computer implementation. But we no longer need to do this thanks to Zero Touch.”

Greater Clarity in Change Management Process

Zero Touch provides greater visibility and control of the change management process. Philippe Kervoelen says: “The approach today is so different. We know what we are managing and providing. We have a clear view on configuration deployments and far greater control over what we need to change and when we need to change it.”

We needed to provide a means for users to access software while at the same time having a monitoring and validation process.”

Philippe Kervoelen, Manager, IT Innovations, Dassault Systèmes

Helpdesk Responds to Problems Quickly and Efficiently

The number of calls to the helpdesk has fallen following the reduction in deployment errors. But when mistakes do happen the helpdesk has immediate access to the relevant configuration.

Philippe Kervoelen says: “Previously helpdesk staff did not know what they would find or where to begin searching for the error. But now they can immediately see the constituent components of that particular configuration and where to locate the problem.”

Access, Monitoring, and Validation of Software Upgrades for End Users

Zero Touch has not only improved the management of software installations but has also improved the process by which end users request software. Philippe Kervoelen says: “We needed to provide a means for users to access software while at the same time having a monitoring and validation process.”

Now, as users request software from the intranet, developed using SharePoint Portal Server 2003, an automatic validation process is initiated. An e-mail message is sent to a manager to verify whether the software is needed and an IT purchase team also checks the budget. As soon as the two validations are received automatic installation begins. Free software is also available in which case the validation process is automatically approved.

Philippe Kervoelen says: “We provide software that is not installed by default with the original image on the intranet site. This is a very useful tool that ensures developers have immediate access to any extra software they need to carry out their work.”

Centralised Image Building Leads to Global Roll Out

Zero Touch implementation was initially designed for use at Dassault Systèmes Suresnes global headquarters. But its impact has been so beneficial it is also being used to develop configuration images for other locations. Prior to its use, the company could not distribute images across the group because different hardware systems were being used. But Zero Touch is hardware independent.

Philippe Kervoelen says: “Building and deploying configurations is now centralised, which makes it easy to find image software. This has had a profound impact on the company and now all the IT teams at the subsidiary level are aiming to mirror our work. For example, when I deploy a particular image, my colleague in the U.S. can deploy the same image. Before Zero Touch everybody was developing their own software packages, but today we can share the same image when appropriate across all company sites.”

Microsoft Services Galvanises Zero Touch Implementation

Microsoft Services was instrumental in supporting Dassault Systèmes through the creation and installation of the Zero Touch methodology. Philippe Kervoelen says: “Without the consulting support from Microsoft we would not be where we are today. I have a very skilled team but the fact that Microsoft already had the experience we required saved us an enormous amount of time. We only needed one engineer, but without Microsoft we would have needed three engineers and even then I am not sure that we would have got the precise solution we required.”

“The combination of Microsoft Services expertise, Zero Touch, and Software Assurance benefits means our developers and technical users can continue using top quality tools to provide our customers with the best products and service on the market.”

Philippe Kervoelen, Manager, IT Innovations,
Dassault Systèmes

Preinstallation Tool Leads to Greater Productivity

A key feature of the benefits associated with Software Assurance is the Windows Preinstallation Environment (Windows PE) which is benefit available through Software Assurance. Philippe Kervoelen says: “Windows PE helps to deploy and support desktop PCs and servers. Using Windows PE the deployment process is streamlined and maintenance and troubleshooting tools are far more powerful than in the Microsoft MS-DOS operating system.

“We don’t have to spend time building and maintaining MS-DOS bootable disks. Windows permits us to boot from different media types including DVD, CD or Network so we no longer need to use disks to deploy software and images. As a result, deployment and recovery efforts are less time-consuming and the IT team is more productive.

Guaranteed Rates for Software Drives Forward Business

The company’s Software Assurance maintenance coverage, in tandem with the Zero Touch initiative, removes the uncertainty of being able to respond quickly to growing business needs.

Philippe Kervoelen says: “We are a fast growing business and we need the agility to respond quickly to new developments. Software Assurance supports us in our endeavours to provide accurate budget estimations to our subsidiaries while ensuring they have the full support provided by the Software Assurance model.

“It provides us with all the Microsoft software we need in one single contract at fixed and predictable prices and budgets. This means we remain up-to-date with the latest software versions at any time, while Zero Touch

ensures we can deploy it quickly, effectively and accurately.

“The combination of Microsoft Services expertise, Zero Touch, and Software Assurance benefits means our developers and technical users can continue using top quality tools to provide our customers with the best products and service on the market.”

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

For more information about Microsoft Services products and services, visit the Web site at: www.microsoft.com/services/microsoftservices

For more information about Dassault Systèmes products and services, visit the Web site at: www.3ds.com

Microsoft Windows Server System

Microsoft Windows Server System is a comprehensive, integrated, and interoperable server infrastructure that helps reduce the complexity and costs of building, deploying, connecting, and operating agile business solutions. Windows Server System helps customers create new value for their business through the strategic use of their IT assets. With the Windows Server operating system as its foundation, Windows Server System delivers dependable infrastructure for data management and analysis; enterprise integration; customer, partner, and employee portals; business process automation; communications and collaboration; and core IT operations including security, deployment, and systems management. For more information about Windows Server System, go to: www.microsoft.com/windowsserversystem

Software and Services

■ Products

- Microsoft BizTalk Server 2004
- Microsoft Office SharePoint Portal Server 2003
- Microsoft Small Business Server 2000
- Microsoft SQL Server 2000
- Zero Touch Installation
- Remote Installation Service for Windows Server 2003

- Microsoft Solutions Framework
- Zero Touch Provisioning
- Solution Accelerator for Business Desktop Deployment
- Software Assurance Benefits
 - Windows Preinstallation Environment Kit
 - Problem Resolution Support for Servers
 - Windows Preinstallation Environment

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