



MSN

MSN INCREASES BUSINESS PRODUCTIVITY AND REDUCES IT SUPPORT COSTS BY STANDARDIZING ON ALTIRIS® DEPLOYMENT SOLUTION™

BUSINESS OPPORTUNITY

- > Improve server build time
- > Eliminate build errors
- > Reduce IT costs
- > Increase server uptime
- > Shorten disaster recovery time

BUSINESS VALUE

The analysis projected a 75 percent reduction in the time needed to provision a server from bare metal to full operating system (OS) and applications, with a further 20 percent reduction in IT operations costs.

"It only requires about ten minutes of the operators time to deploy a server. It takes one minute to schedule the event through a simple drag and drop, and the remaining nine minutes to complete a final QC of the server once the build or rebuild process is complete."
 —Jeff Owen
 Sr. Systems Engineer
 Microsoft Corporation

Facing increasingly complex server requirements, growing scalability needs, and potential security issues, MSN sought ways to improve server deployment and configuration management. A business analysis was conducted to assess the business justification for migrating MSN's existing solution to an integrated architecture based on Windows 2000, SQL Server, and Altiris Deployment Solution.

EXECUTIVE SUMMARY

As the most popular destination on the Internet worldwide, with more than 300 million unique visitors per month, MSN offers industry-leading content for news, shopping, personal finance, music, sports, automotive buying and entertainment.

A business value analysis confirmed that MSN could increase business productivity by upgrading its deployment infrastructure to an integrated deployment and change and configuration management environment based on Altiris and Microsoft technologies.

The analysis showed that such an environment, using Altiris® Deployment Solution™, Windows 2000 Advanced Server and SQL Server 2000 to create an automated, centrally controlled build and change management process, could help MSN realize a 75 percent reduction in the time needed to build servers, decrease server-related support incidents, increase productivity, improve manageability and reduce threats from potential security issues, resulting in substantial cost savings.

After one year of use, a second business analysis validated that MSN has met its business objective of using automation to deploy and rebuild servers from bare metal to a fully functional Web, SQL or file server in less than one hour.

By improving the quality and speed of server builds, MSN has been able to improve resource allocation, respond to potential security issues more quickly and provide a better customer experience on MSN. MSN has also eliminated build discrepancies, reduced rebuild and initial deployment times and increased total uptime.

THE MSN ENVIRONMENT

With more than 300 million unique visitors per month, MSN offers industry-leading content for news, shopping, personal finance, music, sports, automotive buying and entertainment. MSN wanted

to improve its server deployment, and change and configuration management solution to help lower costs, improve MSN's competitive ability to react quickly to online demand fluctuations and to provide a consistently rich customer experience.

The MSN team supports multiple models of HP ProLiant and Dell servers totaling more than 8,500 servers in multiple datacenters worldwide. Add to the environment various operating system configurations, varying levels of service packs and applications in multiple languages, and MSN is faced with a very sophisticated infrastructure environment that requires many manual steps to support.

"Taking a server from bare metal to QC check can be a complicated process," said Jeff Owen, Sr. Systems Engineer, Microsoft Corporation. "Storage type, set up and connection to the server must be configured before we lay down the server OS. Once the OS is on, we have to correctly apply service packs, hotfixes and applications in the proper order to conform to the security architecture and to ensure that the applications will run correctly."

Previously, MSN servers were either built one at a time using a scripted OS install or by simple imaging. MSN would then manually run scripts or enter information such as the computer name or domain membership. Finally, IIS, SQL and other applications were installed by on-site service personnel.

"As new people joined the group, discrepancies would occur," said Owen. "They would not install items in the correct order or from the correct location. These issues persisted despite the creation of thorough build documentation."

Inefficiencies didn't end with deployment. Once the server was up, the team still had to manage failed-component replacement, BIOS and firmware updates, and new security patch rollouts, each of which had the potential to introduce human error.



HALLMARKS OF THE AGILE DATACENTER

- > Automated deployment
- > Change and configuration management
- > Standardized server SKU's
- > SQL backend

TECHNOLOGY ENABLERS

- > Agility - Increased responsiveness to accommodate efficient management of a dynamic online environment
- > Manageability - Lower support and administration costs
- > Reliability - Decreased downtime and incidents; increased productivity

"With automated imaging, scripting and post-configuration, server builds can be completed in less than one hour compared to four to six hours previously. We anticipate substantial cost savings due to improved management and administration made possible by Altiris technologies matched with SQL Server 2000."

—Randall Barnes
SQL Engineer
Microsoft Corporation



altiris®
intuitive > manageability

MSN SELECTS ALTIRIS DEPLOYMENT SOLUTION

"After carefully evaluating all imaging and deployment products in our test labs, we decided on Altiris Deployment Solution as it most closely fit our needs," said Owen. "We tested the Altiris engine, the SQL database backend and the Altiris agent that sits on all of our servers for two things. First, we had to ensure that the Altiris solution would stand up to the rigorous capacity requirements of our data center environment. Second, we had to make sure the agent would not adversely impact performance or code on our servers. Altiris met these requirements with no problems.

"Altiris also includes its own PXE Server and a separate boot environment tool for non-PXE servers that allows us to use multiple NIC configurations and be very flexible in our environment.

"The GUI functionality is a very important part of our project plan. The Altiris interface provides an easy-to-use hierarchical view of servers, groups and events. We simply drag-and-drop to launch events to one or multiple servers in groups. With one click we can see in real time all of the currently running events in addition to a history by event or by computer. We can also see if someone is logged into a server and remotely ask them to log off before launching an event."

Since the MSN team supports many different server configurations, Altiris' ability to natively integrate scripting into the task sequence allows MSN to manage user accounts, manipulate disk partitions and script the latest application installations such as SQL Server 2000 on top of the imaging process. Altiris technology also seamlessly integrates with the HP Smart Start Scripting Toolkit and Rapid Deployment Pack, which are built on Altiris technology to facilitate bare-metal server provisioning. "Altiris workflow capabilities allow us to lock down item installation order and source location," said Owen.

MSN opted to set up different security levels for the main engineering team and the actual datacenter operators. The site service personnel in the datacenters remotely log into consoles from their workstations and have permissions that only allow them to launch events on specific servers. Altiris role and node-based security enables MSN to meet its overall security objectives.

"Using SQL Server as the backend is another major benefit of the solution," said Owen. "All the server state and inventory information, such as IP address, subnet mask, default gateway, domain membership, MAC address and serial number, is stored in the Altiris database. That makes it very easy to automatically reconfigure computers after an imaging event. The events and tasks are also stored in the database and can be imported from or exported to deployment servers in each datacenter. Because Altiris uses SQL server as the data repository, it is able to deliver intelligent workflow and task sequencing management."

ALTIRIS DEPLOYMENT SOLUTION AND SQL SERVER 2000 IMPROVE PRODUCTIVITY WHILE REDUCING THE NUMBER OF SERVER INCIDENTS

After one year of use, a second business analysis validated that MSN met its business objective of using automation to deploy and rebuild servers from bare metal to a fully functional Web, SQL, or file server in less than one hour.

"It only requires about ten minutes of the operators time to deploy a server," said Owen. "It takes one minute to schedule the event through a simple drag and drop, and the remaining nine minutes to complete a final QC of the server once the build or rebuild process is complete.

"By automating the build process, we have eliminated the possibility of human error and reduced the time required to build a server. "The former solution took approximately four to six hours to complete the server build process."

By improving the quality and speed of server builds, MSN has been able to improve resource allocation, respond to potential security issues more quickly and provide a better customer experience on MSN. By implementing Altiris Deployment Solution for server provisioning and ongoing management, MSN has also eliminated build discrepancies, reduced rebuild and initial deployment times and increased total uptime.

In addition to the base imaging and deployment capabilities, the MSN team is able to use more advanced features of Deployment Solution such as the automated migration from NT 4.0 domains into the OU structure of the Windows 2000 Active Directory-based domain environment.

"We typically rebuild each server at least once per year and add about 100 additional servers every month. It is critical that we can deploy and rebuild servers as fast as possible. The Altiris-based solution has successfully demonstrated that we can complete time-sensitive deployments, change configuration tasks and rebuilds from a central location in a headless environment.

"Often, we can image just the operating system if a server has problems or needs a security update while maintaining the data integrity on other drives. This reduces the amount of downtime for any one server and is critical in preventing a disruption in service to MSN customers."

—Jeff Owen

Sr. Systems Engineer
Microsoft Corporation

Active Directory integration is a great help to the MSN build process. MSN uses Altiris in conjunction with Sysprep to create clean images. After laying down the server image, a post-configuration task automatically places the server into the correct OU. MSN can also move existing computers in the database to a new domain with a click of the mouse.

MSN also regularly uses Altiris inventory information to remotely confirm networking information such as computer name, domain membership, IP address, subnet mask, DHCP server, default gateway, DNS and WINS addresses.

GOING FORWARD

For the future, MSN requires a successful, competitive deployment infrastructure that:

- > Streamlines build and rebuild processes
- > Automates time-consuming tasks
- > Saves money by reducing server build time and the number of servers required
- > Improves consistency and security by eliminating human error

An enterprise capable deployment environment based on an integrated suite of Altiris Deployment Solution, Windows 2000, and SQL Server 2000, provide the solid foundation for MSN to achieve its business goals.

ABOUT ALTIRIS

Altiris, Inc. offers a full line of Web-enabled solutions that empower organizations to easily manage desktops, notebooks, handhelds, and Windows and UNIX servers throughout the IT lifecycle. Altiris provides fully integrated, complete systems management solutions for client and mobile, server, and asset management. Altiris' vision is to automate, simplify, and reduce the cost and complexity of IT lifecycle management with a rapid return on investment. For more information, visit www.altiris.com.



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