

# Third Federal performs complete migration from Novell to Microsoft for increased collaboration and communication with Customers and Suppliers

## Overview

### Location

Cleveland, Ohio, USA

### Customer Profile

Third Federal is a leading provider of savings and loan products and services. As of June 30, 2007— total assets of \$10 billion.

### Business Situation

Third Federal's IT leadership made the strategic decision to replace the legacy Novell Netware environment with a Microsoft platform that could enable a flexible, scalable and reliable infrastructure to enable customer and vendor facing services and reduce implementation times for new business driven ideas.

### Solution

Third Federal chose to migrate all of its Novell Netware environment to Microsoft based technologies including Windows Server 2003 R2, Exchange Server 2007, Outlook 2007, Systems Management Server 2003, Business Desktop Deployment 2007, Identity Integration Server 2003 SP2, Windows SharePoint Services 3.0, Windows Server 2003 R2 based Distributed File System and Clustering

### Benefits

- Flexible and scalable architecture
- Seamless user and system provisioning
- Enhanced manageability
- Proactive system monitoring
- Streamlined system administration and reduced TCO, TCD
- Enhanced collaborative capabilities

## Company Profile Today

Third Federal Savings and Loan Association is a leading provider of savings and mortgage products. Founded in 1938 by Ben and Gerome Stefanski, Third Federal is dedicated to serving consumers with competitive rates and outstanding customer service. Third Federal, an equal housing lender, serves customers in Ohio and Florida. As of June 30, 2007, Third Federal had nearly 1,000 associates and total assets of \$10 billion.



## Focused on Growth

Since 1987, Third Federal has grown from a \$1.8 billion thrift into a \$10 billion thrift by focusing on internal growth and ongoing technological improvements. These investments in people and processes enable Third Federal to provide competitive pricing and superior service.

## Technology Roadmap

In an effort for Third Federal to realize its strategic vision for technological improvements, it was clear that a reduction in the number of disparate or loosely coupled systems would be required before building future collaboration solutions for customers and vendors. Most of Third Federal's existing infrastructure relied heavily on Novell products like NDS, GroupWise, BorderManager, and ZENworks for network authentication, File and Print, email, and workstation management. Most every new project and initiative was based on the Microsoft platform and development technologies.

The deeply ingrained Novell environment had years of custom configuration and development to tightly control all aspects of workstation, application, and server management. A project to remove the Novell infrastructure would need to encompass Directory Services, Messaging, Internet Connectivity, File and Print, Application Packaging and Distribution, Operating System Imaging / Deployment and Solution Collaboration and Systems Management and Monitoring. As the technical staff focused on gathering the business and technical requirements for migrating off of the Novell infrastructure, the IS executive staff analyzed the most beneficial licensing cost models for making the wholesale change to the Microsoft platform and technologies.



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# Solution Summary - Project Framework and Collaboration

## *Software, Hardware and Services*

### Software

Windows Server 2003 R2  
Windows Server 2003 R2 (64-bit)  
Windows XP SP2  
Identity Integration Server 2003  
Windows SharePoint Services 3.0  
Exchange Server 2007  
Outlook 2007  
Systems Management Server 2003  
SQL Server 2005 SP2  
Business Desktop Deployment 2007  
Distributed File System  
Windows Cluster Services  
Wise Package Studio 7  
SMS Companion

### Hardware

Dell OptiPlex Workstations  
Dell PowerEdge Servers

### Services

Blue Chip Consulting Group

## **Third Federal Enabling Change**

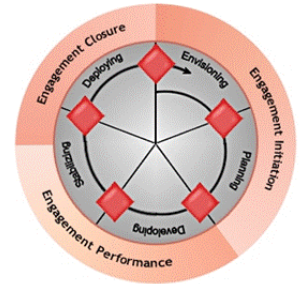
In 2006, Third Federal began executing on its technological vision of creating a consistent infrastructure through the signing of an Enterprise Agreement with Microsoft. This was a major step in demonstrating the organizations commitment to utilize the Microsoft platform to development the next generation applications and tool sets for its customers, partners, and business processes.



With this commitment, Third Federal began to embark on what was perceived to be an insurmountable task of overhauling the entire infrastructure. As Third Federal continued collecting its business requirements for this project, it was determined that the services of a Microsoft Partner was needed to ensure success and Third Federal solicited the assistance of Microsoft to identify several capable Partner candidates. Blue Chip Consulting Group was ultimately selected as the Microsoft Gold Certified Partner to assist Third Federal on deploying this vision.

## **Microsoft Solutions Framework Provides Project Structure**

Blue Chip Consulting Group (Blue Chip) utilizes the Microsoft Solutions Framework as its project methodology for organizing projects into a consistent phased approach. With the Migration Project affecting so many areas within the Third Federal IS organization, it was important to clearly define Project Areas and utilize a consistent approach. The specific Project Areas were Active Directory, Exchange, BDD 2007 / SMS, and File & Print Migration. Each of the defined Project Areas were required to complete each of the following phases: Design Review and Planning, Development, Engineering and Testing, Pilot, and finally the Deployment.



Third Federal had collected a majority of the business requirements and developed a proposed design. Blue Chip utilized this effort as the Envisioning Phase to proceed directly into design validation and in-depth project planning.

## **Project Team Collaboration with Windows SharePoint Services 3.0**

All project collaboration, communication, and notification was performed with a Microsoft Windows SharePoint Services 3.0 Team Site. This project site was used for Documentation, Scheduling, Meeting Agendas, Notes, and Status Tracking. This site became the hub for communications and team members relied on this site for all project documentation. The ability to check out documents for edits, notification of changes to documents, and the granular access for persons loosely related to project activities became a key enabler to overall project success.



# Solution Summary - Active Directory and Identity Management

## Software, Hardware and Services

### Software

Windows Server 2003 R2  
Windows Server 2003 R2 (64-bit)  
Windows XP SP2  
Identity Integration Server 2003  
Windows SharePoint Services 3.0  
Exchange Server 2007  
Outlook 2007  
Systems Management Server 2003  
SQL Server 2005 SP2  
Business Desktop Deployment 2007  
Distributed File System  
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Wise Package Studio 7  
SMS Companion

### Hardware

Dell OptiPlex Workstations  
Dell PowerEdge Servers

### Services

Blue Chip Consulting Group

## Directory Services with Active Directory and Identity Management

Third Federal had an existing Active Directory environment to manage their legacy application environment. While many of the current processes and security practices were suitable for extending this existing Active Directory environment, Third Federal had the desire to create a new Active Directory environment to provide the ability to meet additional business requirements and future identity management objectives. The new Active Directory logical and physical design included the extension to the required branch locations while providing adequate redundancy, availability, and centralized management. The enhanced Active Directory design was able to meet all new business requirements with the exception of account provisioning and password synchronization.



Third Federal utilized Novell's IDM to provide password synchronization, as well as user account provisioning for other Third Federal business systems. Upon analyzing the requirements Microsoft's Identity Integration Server (MIIS) 2003 SP2 was recommended to replace the existing processes.

While MIIS 2003 SP2 was capable of meeting all of the existing functionality of Novell's IDM, the solution also needed to support the interim migration period. MIIS



2003 was used to link the existing accounts in the legacy Active Directory environment with accounts in the new Active Directory environment to automatically enable and disable user accounts as well as synchronize passwords.

One of Third Federal's business systems was also a primary source of employee identities. Oracle Internet Directory (OID) was utilized in multiple forms at Third Federal with several different Oracle client versions. MIIS 2003 completely automated the administration of OID by provisioning native OID objects for the new Oracle clients as well as creating the database entry level mapping objects for the older legacy Oracle clients. Blue Chip developed a custom MIIS 2003 management agent to facilitate the OID management tasks. These tasks included:

- ◆ Data Synchronization
- ◆ Provisioning and De-provisioning
- ◆ Account Enablement and Disablement
- ◆ Password Synchronization

Blue Chip was able to provide the expertise to transition the current functionality performed by Novell's IDM, while providing the guidance and foundation for Third Federal to utilize future capabilities of user provisioning, task automation, and overall identity management.



# Solution Summary - Messaging

## *Software, Hardware and Services*

### Software

Windows Server 2003 R2  
Windows Server 2003 R2 (64-bit)  
Windows XP SP2  
Identity Integration Server 2003  
Windows SharePoint Services 3.0  
Exchange Server 2007  
Outlook 2007  
Systems Management Server 2003  
SQL Server 2005 SP2  
Business Desktop Deployment 2007  
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## Messaging with Exchange Server 2007 and Office Outlook 2007

Third Federal's existing messaging environment was deployed based on localized post offices at each branch office or on each departmental server. Although the existing email and calendaring functions were adequate, the administrative overhead for maintaining the systems was demanding. Each system required local management and backups while providing no fault tolerance. As email became increasingly important as a collaboration resource the Third Federal business requirements began to increase.

Third Federal had defined business requirements that included a solution that was highly recoverable and available while providing centralized management and services. The initial Third Federal plans were to migrate the Novell GroupWise environment to a centralized, highly available Exchange 2003 Active / Passive Cluster for Mailboxes and Public Folder storage. The proposed disaster recovery plan included a third party log shipping product and an additional Exchange 2003 server in a disaster recovery location.

In reviewing the proposed solution with Third Federal, Blue Chip suggested that Exchange Server 2007, with Cluster Continuous Replication, could provide the same level of high availability and disaster protection but at a lower cost. The Exchange Server 2007 solution would only require two physical servers versus three in the original Exchange 2003 design, while providing the increased benefits in functionality and integration capabilities.

Microsoft  
**Exchange Server 2007**

The Exchange Server 2007 solution coupled with Office Outlook 2007 provided further benefits, including the following:

- Availability Service and the Scheduling Assistant which replaced System Folder-based Free/Busy lookups
- Outlook client auto-configuration using the Autodiscover Service
- Tighter centralized controls on the Outlook client through Group Policy
- Enhanced resource utilization with Shared and Room mailbox types
- Extended collaboration with SharePoint Services and Microsoft Office SharePoint Server integration



The Exchange Server 2007 solution achieved the Third Federal requirements of centralized email services while providing high availability and disaster recovery. The final collaboration solution achieved added value by avoiding the future upgrade to Exchange Server 2007 while realizing immediate cost savings in the form of reduced physical server count.

# Solution Summary - Systems Management

## *Software, Hardware and Services*

### Software

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Windows Server 2003 R2 (64-bit)  
Windows XP SP2  
Identity Integration Server 2003  
Windows SharePoint Services 3.0  
Exchange Server 2007  
Outlook 2007  
Systems Management Server 2003  
SQL Server 2005 SP2  
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### Services

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## **Workstation & Application Management with SMS 2003**

The legacy Novell ZENworks environment provided a highly managed desktop environment and it was the desire to maintain as much of this functionality as possible after the migration. While Systems Management Server 2003 (SMS 2003) provided a solid foundation for managing the Windows devices, Third Federal was able to identify several gaps in the SMS capabilities.



Blue Chip worked with Third Federal to quantify the specific business needs in an effort to more closely map these needs to the new and differing Microsoft technologies. Where gaps did exist custom or third party solutions were identified, evaluated, and recommended as possible solutions. The resulting suite of products and custom applications was able to meet or exceed all of the Third Federal expectations.

Third Federal was interested in the ability to distribute applications after normal business hours. By utilizing mandatory SMS advertisements and the SMS Companion add-on from SMS Expert for the Wake-on-LAN capabilities, the workstations were started, updated, and shutdown without any user intervention during a time when network utilization was at its lowest.

In an effort to support a growing and expanding environment, the Third Federal Support Staff required the ability to remote control client workstations as a resource to assist end users in troubleshooting issues. The SMS Remote Control client was utilized to effectively provide the desired capabilities. Blue Chip further enhanced the capability of SMS Remote Control by creating a custom menu option that allows the Third Federal Support Staff to query the workstation of a particular user through a simple "right click." This query searches and identifies the last logged-on computer for that user and automatically sends a remote control request to the appropriate workstation.

SMS Query-based collections were used to provide a targeted advertisements for specific types of software for departments and individual workstations. These collections took advantage of Active Directory Security Group Membership to easily manage the delivery of applications based on each workstation's membership. Through the implementation of SMS Query-based collections Blue Chip was able to achieve the requirement of granular application management.

## **Enhancing the Delivery of One-Off Applications at the Time of Deployment**

The existing ZENworks environment prevented legacy application conflicts by controlling the order of their installations. The application conflict knowledge that was obtained through the reliance on this ZENworks feature proved to be a more effective approach than managing dependencies through application repackaging. While SMS 2003 had no feature that could provide this solution, Blue Chip was able to overcome this obstacle by creating a custom application that gave Third Federal the ability to create "build types" and order applications. An intuitive web front-end was developed to allow the association of each workstation to a specific build type. The end result was a fast, reliable way of building each workstation without legacy application conflicts.



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# Solution Summary - Desktop Imaging and Deployment

## Software, Hardware and Services

### Software

Windows Server 2003 R2  
Windows Server 2003 R2 (64-bit)  
Windows XP SP2  
Identity Integration Server 2003  
Windows SharePoint Services 3.0  
Exchange Server 2007  
Outlook 2007  
Systems Management Server 2003  
SQL Server 2005 SP2  
Business Desktop Deployment 2007  
Distributed File System  
Windows Cluster Services  
Wise Package Studio 7  
SMS Companion

### Hardware

Dell OptiPlex Workstations  
Dell PowerEdge Servers

### Services

Blue Chip Consulting Group

## Operating System Imaging and Deployment with BDD 2007

Third Federal made a significant investment in optimizing the Novell ZENworks infrastructure over the years. It was Third Federal's desire to improve upon the highly managed desktop environment by re-evaluating the desktop and application management capabilities provided by ZENworks to redefine business requirements.

Blue Chip designed, developed, and deployed a solution based on Microsoft Systems Management Server (SMS) 2003, Business Desktop Deployment (BDD) 2007, Wise Package Studio 7 for software packaging, Active Directory Group Policy Objects (GPO) and a custom web-based SMS/BDD integrated management console. SMS 2003 is primarily used as a comprehensive solution for inventory, software distribution and configuration change management. BDD 2007 is used as a set of tools and guidance to optimize operating system (OS) deployment based on best practices. Blue Chip created a custom automation tool to complement the core Microsoft SMS and BDD functionality by adding effective and efficient management to what would have otherwise been an arduous manual effort.



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Third Federal had one large back office central location and 45+ branch offices with limited network connectivity. BDD 2007 was used for creating, managing, and deploying OS images. Once the images were created and validated, Windows Deployment Services was used at remote branch offices to localize the OS image installation thus enabling the WAN to be accessible for application usage.

A custom Blue Chip web-based management console was developed to integrate SMS data into the BDD database. This allowed for the desired granular control of unique, automated application deployments. Applications required by all workstations in a department were deployed automatically according to build type via BDD and the Blue Chip web-based management console during the OS build process. Specialized applications were installed by SMS 2003 after the customized process completed.

As a result of the BDD based implementation, the average desktop imaging and application deployment process was reduced from 90 minutes to 40 minutes for a single desktop image. The time required to logon to the network was reduced by 80%. The total number of application packages required in the environment was reduced by 15%.

# Solution Summary - File and Print Services

## *Software, Hardware and Services*

### Software

Windows Server 2003 R2  
Windows Server 2003 R2 (64-bit)  
Windows XP SP2  
Identity Integration Server 2003  
Windows SharePoint Services 3.0  
Exchange Server 2007  
Outlook 2007  
Systems Management Server 2003  
SQL Server 2005 SP2  
Business Desktop Deployment 2007  
Distributed File System  
Windows Cluster Services  
Wise Package Studio 7  
SMS Companion

### Hardware

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Dell PowerEdge Servers

### Services

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## **File and Print Services Based on Windows 2003 R2 DFS and Clustering**

The existing Novell based File Services were deployed based on location for the branch offices and by department for the back office environment. This model over time became difficult to manage, required duplication of resources, and was not effective for collaboration. Third Federal had the desire to streamline this approach, centralize management, and consolidate resource and process redundancies.

Blue Chip was able to uniquely identify File and Print Services requirements between the branch and back office environments. The branch offices required automated data redundancy and central of management and backups. The back office environment required high availability, centralized management, recoverability from end user deletions, and quota management. In addition, Third Federal had the desire to recreate a centralized share structure that closely matched the legacy environment.



The Branch Office File and Print solution utilized the following Windows Server 2003 R2 features:

- Distributed File System and dynamic site selection provides redundant file access
- File Replication Service replaced the need for localized backups
- Centralized Management of Printing through the Print Management Console
- Centralized Management of DFS through the Management Console

The Back Office File and Print solution utilized the following Windows Server 2003 R2 features:

- Cluster Services for high availability
- Centralized Management of Printing through the Print Management Console
- Volume Shadow Copy Service for reliable backups while files are in use
- Previous Copy for user restore ability
- Quota Tracking and Disk Usage Calculation for data usage management
- Access-based Enumeration to mimic the data access view of a Novell Server

With Windows Server 2003 R2 all of the business and technical requirements of Third Federal for a File and Print environment were met including the ability to reduce resources and duplication of data. The back office file server count was reduced from eight servers to two servers and the backup tasks at the branch offices were effectively replaced by the File Replication Service.