



## Document Management Software Provider Designs for Identity and Access Flexibility

### Overview

**Country or Region:** Canada

**Industry:** Professional Services

### Partner Profile

FileHold Systems, based in Vancouver, British Columbia, develops document management software that helps companies create, organize, and manage large libraries of electronic documents.

### Business Situation

The company needed to design its flagship product, FileHold'06, to provide ease and flexibility of deployment and integration with the most demanding IT scenarios and to greatly simplify ongoing system management.

### Solution

The company designed its product, FileHold'06, using Microsoft® technology, including Active Directory® Application Mode and Authorization Manager, to help solve product deployment and management issues.

### Benefits

- Easier to deploy and use
- Better manageability
- More flexibility and security

“ADAM allows us to go to customers with just one solution and present a comprehensive, easy-to-use system that can handle the vast majority of directory server scenarios that are presented to us.”

Ian Booth, Vice President of Products, FileHold Systems

FileHold Systems is the developer of document management software that helps companies create, organize, and manage large libraries of electronic documents. When designing its flagship product, the company needed technologies that could help its clients to easily synchronize domain users and user groups that reside in their corporate Active Directory® services. FileHold Systems used Microsoft® technologies, including the Active Directory service, Active Directory Application Mode (ADAM), and Authorization Manager (AzMan), to create FileHold'06. The product expedites enterprise system deployment and integration with the existing IT infrastructure without duplicating users. The use of AzMan also allows for centralized but flexible user role management, including the ability to make modifications to the permissions associated with existing user roles and the easy creation of new roles.

## Situation

FileHold Systems provides powerful, cost-effective document and record management solutions for midsize companies, helping organizations to manage the life cycle of content from creation to disposition. FileHold Systems has sold consulting services and third-party products to organizations in government, financial services, manufacturing, engineering, and other vertical markets. Customers include major corporate names such as American Express and Panasonic.

The FileHold staff had years of experience integrating third-party document management solutions into a wide variety of customers' IT environments. Some of the challenges that the staff has encountered include:

- Situations where users belong to more than one Active Directory® service or where there is a need to provide application access to non-employee users not listed in Active Directory.
- Providing a single logon environment for domain users when accessing the document library. This can be a challenge that is difficult and costly to implement for many customers.
- Situations that require application customization to support the authorization rights and permissions for a specific group (role) of users in a customer's organization. Role customization can be a time-consuming activity that is prone to errors. Ian Booth, Vice President of Products for FileHold, says, "This can have a negative impact on the initial deployment and long-term maintenance of the solution for the customer."

The company wanted to overcome these problems by creating a product that would scale to enterprise-level deployments while

offering midsize companies an easier way to manage user authentication for documents.

## Solution

To reach a wider potential base of customers with software that is easy to use and manage, the company created FileHold'06, which was released to market in June 2006. FileHold'06 can scale to enterprise deployments, but the primary target is midsize companies and departments of Fortune 500 organizations with 50 to 250 users.

FileHold'06 was designed from the ground up using Microsoft® technology, including Active Directory Application Mode (ADAM), a stand-alone, lightweight directory service based on Active Directory technology—a component of Windows Server 2003—and Authorization Manager (AzMan) for role-based access control.

These technologies helped FileHold solve deployment, user-role management, and user authentication and authorization issues. FileHold'06 was also designed using the Microsoft .NET Framework, Microsoft ASP.NET 2.0, and Microsoft SQL Server™ 2005.

Based on a service-oriented architecture, FileHold'06 supports user access to its content library through a standard Web browser or Windows®-based smart client and from within Microsoft Office System applications.

Because ADAM runs as a service, it does not require deployment on a domain controller. It provides a directory for user accounts that are not in Active Directory and group memberships that are specific to FileHold. Active Directory user accounts and groups of accounts can be synchronized into ADAM user and group objects and become members of the FileHold-specific groups. Companies can add and synchronize users or

**Figure 1. FileHold'06 works with Active Directory Application Mode (ADAM) and Authorization Manager (AzMan) to provide companies with integrated authentication and flexible authorization of users throughout an organization.**

groups of users from objects in Active Directory, in Microsoft Windows NT® operating system domain servers, in any server using the lightweight directory access protocol (LDAP), or even in non-LDAP-based directory services.

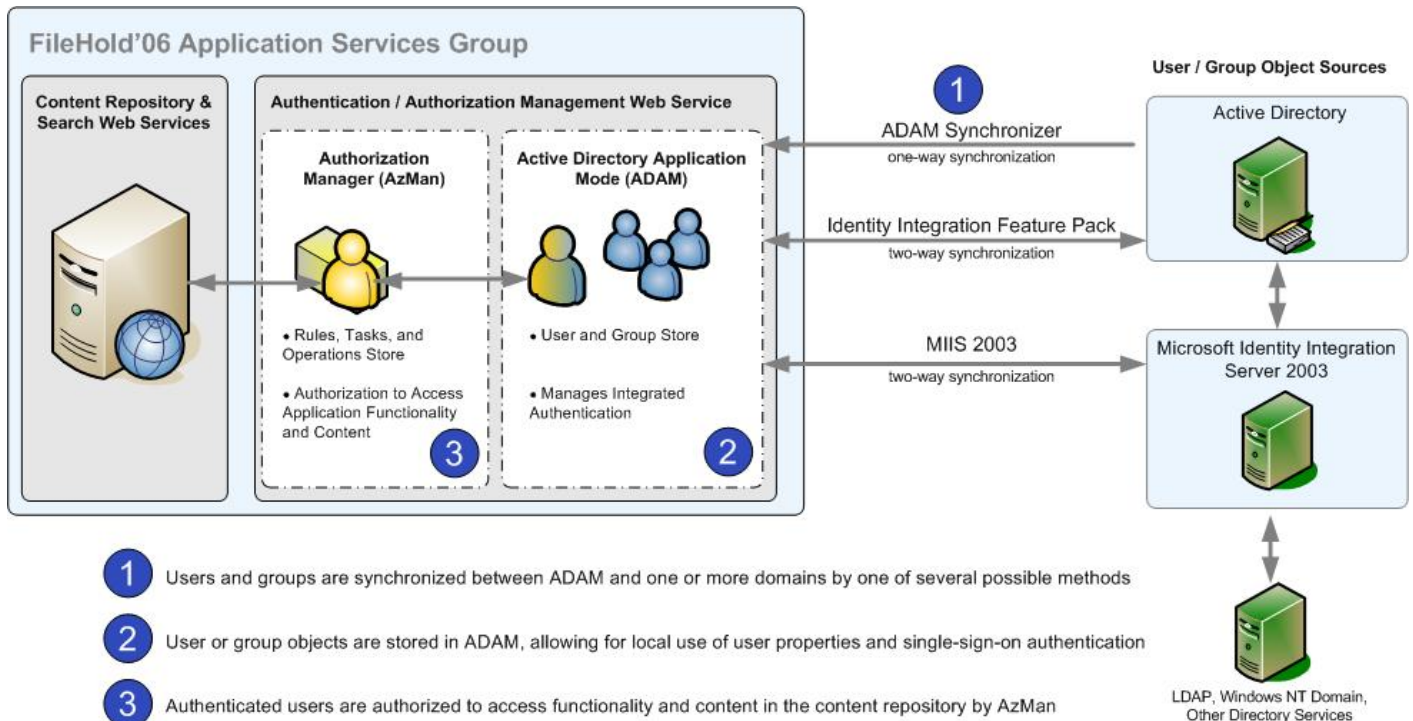
Depending on the sophistication of an organization's IT infrastructure and its directory services integration requirements, various synchronization scenarios are available with FileHold'06, including:

- A simple one-way integration scenario using the ADAM synchronizer feature.
- A two-way integration using the Microsoft Identity Integration Feature Pack.
- Integration with multiple heterogeneous directory services using Microsoft Identity Integration Server (MIIS) 2003 (see Fig. 1).

Assisting in the FileHold'06 functionality is AzMan, a flexible authorization manager that is tightly integrated with ADAM in FileHold'06. By mapping FileHold-specific user groups to AzMan roles, customers can establish permissions to access specific areas of an application and perform specific document-related tasks and operations. Examples include adding new documents, checking out documents, creating new metadata schema, or changing documents' metadata.

FileHold'06 comes with five different types of user roles already established in its AzMan policy store, including:

- Read-only
- Publishers (users who can read, add, and edit content)
- Publish plus delete (users who can delete documents)



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Jacek Lipowski  
Chief Technology Officer  
FileHold Systems

- Library administrators (users who can manage an entire library of documents for a company or department)
- System administrators

Companies can also create their own categories of user types with associated permissions. The flexible authorization management system in FileHold'06 allows for roles to be modified or features to be disabled based on an organization's needs without requiring code-level customizations that are unique to the customer.

### Benefits

With ADAM and AzMan at its core, FileHold'06 is easier to deploy, more flexible, and provides users with easier access to information. The streamlined deployment also benefits management tasks, lightening the burden on IT departments to handle user identities. ADAM also helps organizations increase the flexibility and security of document management tasks.

### Easier to Deploy and Use

Ian Booth, Vice President of Products for FileHold, says the inclusion of ADAM support in FileHold'06 helps organizations to rapidly deploy FileHold'06 to end users in a wide array of potential customer environments.

"The key question we always get from IT departments is about how our product integrates with their particular directory scenarios," says Booth. "Because of the capabilities of ADAM, we can easily deploy into approximately 90 percent of organizations, greatly increasing our potential customer base."

Jacek Lipowski, Chief Technology Officer of FileHold, says the tight integration of ADAM technology in FileHold'06 with Active Directory helps an organization's IT department in many ways. The users and user groups are managed centrally. Plus, the

same domain-level credentials are used to grant users seamless access to the FileHold'06 application through a single user logon.

"Using ADAM and AzMan allowed us to eliminate the problems introduced by many third-party applications, which forced IT departments to manage these solutions as 'application islands'," says Lipowski. "In contrast, FileHold'06 can be endorsed as a well-behaved 'corporate citizen' and part of a seamlessly integrated enterprise solution."

Tight integration between Active Directory and ADAM provides users of FileHold'06 with another significant benefit. Integrated authentication can be used when logging on to both a Web client and smart client. This means that after successfully logging on to their Windows domains, users do not have to log on to the FileHold'06 application because their credentials have already been authenticated by the Active Directory service.

### Better Manageability

The ease of deployment extends to the manageability of the FileHold'06 software. "An easy deployment is just one of the benefits that ADAM delivers to our product," says Booth. "It also makes our application easier to manage. For example, something as simple as adding new employees can be a complicated process if you have to manage their rights and permissions independently on both the Active Directory and an application-specific level.

"Using ADAM, we can apply synchronization and mapping between Active Directory groups and FileHold-specific groups in ADAM and AzMan roles," he says. "That way, when an organization adds someone at the domain level, that person is automatically given access to the document-related operations and library content which that person's group and role is allowed to perform and access."

### **More Flexibility and Security**

Organizations using FileHold'06 have great flexibility in distributing documents to non-employees who would not otherwise be able to access an internal corporate application because user roles established in ADAM are not directly linked to a central domain directory. For example, customers can add non-employees directly to the ADAM user store and grant them permissions and access to the FileHold library and documents in the same manner as for domain users. Or they can use the FileHold user/group management Web service to authorize document flow from or to third-party systems into the FileHold library.

"ADAM and AzMan help make our software operate seamlessly with Web sites and extranet portals," Booth says. "For example, say a company wants to make product support documentation available to customers. Our user/group management Web service can be used to retrieve and expose a subset of documents on a public-facing portal."

Booth says the flexibility of ADAM and AzMan open up many different configurations and deployment scenarios, which in turn creates greater market potential for the product.

"ADAM allows us to go to customers with just one solution and present a comprehensive, easy-to-use system that can handle the vast majority of directory server scenarios that are presented to us," Booth says.

Additionally, Booth says that using ADAM and AzMan in FileHold'06 provides another benefit to FileHold customers.

"It enables them to use enterprise security standards such as encryption, authorization, and password enforcement," he says. "These aspects of the FileHold'06 application based on ADAM and AzMan are a part of Microsoft

best practices and recommendations and were followed explicitly. This helps us deliver a flexible product that offers enterprise security options out of the box."

## 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 FileHold Systems products and services, call (604) 734-5653 or visit the Web site at: [www.filehold.com](http://www.filehold.com)

## Microsoft Windows Server System

Microsoft Windows Server System is a line of integrated and manageable server software designed to reduce the complexity and cost of IT. Windows Server System enables you to spend less time and budget on managing your systems so that you can focus your resources on other priorities for you and your business.

For more information about Windows Server System, go to:

[www.microsoft.com/windowsserversystem](http://www.microsoft.com/windowsserversystem)

## Software and Services

- Microsoft Servers
  - Microsoft Windows Server 2003
  - Microsoft Identity Integration Server 2003
  - Microsoft SQL Server 2005
- Technologies
  - Active Directory Application Mode (ADAM)
  - Authorization Manager (AzMan)
  - Microsoft ASP.NET 2.0
  - Microsoft .NET Framework

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