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This article first appeared in the April 2009 issue of *Novell Connection* magazine.

Novell iFolder 3.7—Data Accessibility and Disaster Recovery Made Easy

You work hard delivering the services that your organization needs to succeed, but are there any new services that you've given your users in the past few years that they've *really* thanked you for? More than likely the answer is "no." It's not necessarily because your user base is full of ingrates; it's simply likely, that there's nothing very extraordinary about the basic file, print and backup services that you spend so much time providing them. However, by introducing Novell iFolder into your environment, you're bound to get some much overdo recognition from the rank-and-file all the way up to executive management.

Novell iFolder gives innovative anytime, anywhere, any machine data accessibility. With Novell iFolder, users' data can basically follow them wherever they go, from machine to machine, and location to location. It consists of a lightweight client that resides on Windows, Linux or

Mac machines, synchronizing user data across multiple user machines and the server. It eliminates the constant thumb drive shuffle that often happens when users need to move data from their office computer to their home computer. With the solution's Web access capabilities, mobile users making sales calls can even access their data on a customer's loaner machine.

Additionally, iFolder automatically synchronizes user data from local desktops or laptops to your servers, providing inherently powerful disaster recovery capabilities. If your computer crashes, all your iFolder data will automatically follow you to a new replacement machine. And with the iFolder data on all your corporate laptops and desktops synchronized to your servers, that user data can now be automatically backed up as part of your regular backup operations.

Figure 1: *The look and feel in the iFolder 3.7 administration console has been streamlined to make it easier to use and navigate.*

The screenshot displays the iFolder Administrator web interface. At the top, the browser window shows the URL `https://172.17.2.137/admin/iFolders.aspx`. The page header includes the title "iFolder Administration" and a "Logged in as admin" status with "Help" and "Log Out" links. Below the header is a navigation menu with tabs for "Users", "iFolders", "System", "Servers", and "Reports". The "iFolders" tab is selected, and the main content area shows a list of iFolders. The list has columns for "Name", "Owner", "Members", and "Last Modified". The folders listed are:

Type	Name	Owner	Members	Last Modified
<input type="checkbox"/>	Dataeckel	Norman Toro	1	1/20/2009
<input type="checkbox"/>	Default_kenb	Ken Baker	2	2/17/2009
<input type="checkbox"/>	Default_ntoro	Norman Toro	1	1/11/2009
<input type="checkbox"/>	Default_rnew	Robert New	1	1/12/2009
<input type="checkbox"/>	HR-ifolder	Ken Baker	1	2/17/2009
<input type="checkbox"/>	iFolder-fs7-Reports	admin	1	1/11/2009
<input type="checkbox"/>	salesdata09	Norman Toro	1	1/11/2009
<input type="checkbox"/>	TeamProject	Ken Baker	1	2/17/2009

At the bottom of the page, there are navigation controls including "1 - 8 of 8 iFolders" and "Disable" and "Enable" buttons.

Originally provided as an add-on enhancement to NetWare (iFolder 2.x), Novell iFolder 3.x comes standard in Novell Open Enterprise Server Linux. And with the recent SP1 release of Novell Open Enterprise Server 2, new features and enhancements have been added to iFolder that further augment its data accessibility and disaster recovery capabilities.

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A few of the key new features and enhancements for Novell iFolder 3.7 fall in the following categories:

- Enhanced administration
- Improved file conflict management
- Added support for Vista and Macintosh platforms
- Simplified install, migrate and merge capabilities

You manage iFolder services via the iFolder 3 plug-in to Novell iManager. If you've administered Novell iFolder before, one of the first improvements you'll notice in the 3.7 version is the enhanced administration console. The look and feel is now streamlined to make it easier to use and navigate. (See Figure 1.)

Also new to the management interface is the ability to detect and manage orphaned iFolders. When users are removed from the directory, their iFolders are automatically flagged as orphaned and are temporarily assigned to an iFolder admin that you've previously assigned for that user. The iFolder admin could be you, another administrator or the user's manager. As its owner, iFolder admins have full control rights to the iFolder with the ability to manage membership and access rights for other users of that iFolder, remaining the owner until the iFolder is reassigned or deleted.

The solution's policy-based management of the iFolder system, user accounts and users' iFolders has also been improved. One of these improvements deals with file synchronization restrictions. In previous versions of iFolder, all files in your iFolder were synchronized, including .mp3, .avi and .jpg file types. In iFolder 3.7, you can set file type restrictions by policy to prevent synchronization of certain file types. Policies can be applied system-wide, to individual users or to individual iFolders. Also, in the past, file sizes were only limited by the server and client's local file system (i.e., 4GB for FAT32 and 2GB for ext2). Novell iFolder 3.7 allows you to set system-wide maximum file sizes by policies.

Novell iFolder 3.7 also provides better support for multi-server configuration, enabling you to set up multiple servers to participate in a single iFolder domain. This ability to host a single iFolder domain on multiple servers makes it easier to provision many users on that domain, as well as host large amounts of data on it. It also gives you the ability to leverage under-utilized servers to better support domain performance. The solution gives you increased storage scalability with its multi-volume support that can manage large amounts of data above a volume's file system limits.

By policy, you can also mandate which servers in an iFolder domain must utilize SSL communication, or you can grant users a specific level of control regarding which of their iFolders should synchronize via SSL. With its multi-threaded asynchronous engine, iFolder synchronization performance over version 3.6 has been improved by 400 percent or more for small files.

> Improved File Conflict Management

Novell iFolder 3.7 has an event infrastructure that provides near real-time indication of changes in the iFolder repository of files and folders. This event infrastructure improves the solution's ability to handle file conflicts that occur when two users simultaneously open and later wish to synchronize the same file within a shared iFolder.

Novell iFolder 3.7 handles such file conflicts by automatically saving the file of the first user to perform a synchronization. When the second user tries to synchronize the file, a Conflict Resolution alert dialog box pops up on their screen. (See Figure 2.) The second user has the option to open the local version of the file, the version of the file stored on the server by the previous user, or both. The user can then compare the different versions of the file and view their details to determine which file version to keep. The user also has the option to locally store their file version in a conflict bin, which they can refer to later if needed.

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> Simplified Install, Migration & Merge

Whether you're moving from an older version of iFolder, or installing it fresh, the enhancements in version 3.7 make it easy to perform silent installs on new clients, migrate 2.x iFolder servers to 3.7 and merge 2.x client iFolders into 3.7 iFolders.

Novell iFolder 3.7 has a silent install for both Windows and Linux clients that eliminates much of the user intervention that was previously required to deploy the solution's thin client. To do this, it gives you an auto-account creation facility that leverages a user-friendly XML-based response file. In a scripted XML format, you use the response file to supply the default credential and server information needed to create and configure multiple iFolder user accounts. When users start iFolder for the first time, their accounts are created based on the information in the response file, prompting the user only to supply a password.

Whether you're moving from an older version of iFolder or installing it fresh, the enhancements in version 3.7 make it easy to perform silent installs on new clients, migrate 2.x iFolder servers to 3.7 and merge 2.x client iFolders into 3.7 iFolders.

To further facilitate the silent install, you have the option to use any deployment manager, such as Novell ZENworks, to push out the response file and client RPMs to your users' machines. With ZENworks you can automate and greatly streamline the overall deployment and configuration of the iFolder client.

The migration tool in Novell Open Enterprise Server 2 SP1 simplifies the server-side migration of iFolder 2.x and iFolder 3.2 to iFolder 3.7. The specific steps and procedures you follow for your overall migration will vary depending on your specific migration strategy and scenario (i.e., NetWare to Linux, ID transfer, server consolidation, etc.). However, in terms of migrating iFolder 2.x and iFolder 3.2 server files to an iFolder 3.7 server, the steps are fairly basic.

If you're migrating from 2.x, first install, configure and run iFolder 3.7 on the target server. Next, from within the migration tool interface, select Novell Migration Tools from the Computer | More Applications | System menu option. Then authenticate to your source and target servers and select iFolder from the associated services listed in the Services panel. When the iFolder Service window displays, simply fill in the appropriate fields to configure your migration. (See Figure 3.)

You should note that the server migration will not migrate encrypted folders. It is expected that encrypted folders will be migrated on the client side. You can easily migrate both encrypted and unencrypted iFolders on the client side using the solution's merge capabilities.

After you migrate your iFolder 2.x servers to version 3.7, you can choose to download the migrated server iFolders to your client machines. However, these iFolders might already exist on the clients as 2.x iFolders. If so, the Migration Assistant provided in the iFolder client makes it easy to simply merge your 2.x iFolders with your 3.7 iFolders. This lets you avoid unnecessary data transfer from the server to the client.

To help you merge the iFolders, the Migration Assistant will automatically detect the existence of the 2.x iFolders and ask you if you want to merge them. When you click OK, it will display a list of available 2.x iFolders. Simply select the iFolders you want to merge, and then click Migrate. The Migration Assistant will guide you through a few more steps, giving you choices on how to complete the merging of your client iFolders.

For a 3.2 server upgrade, you can either upgrade the source server to Novell Open Enterprise Server 2 SP1, which will upgrade the iFolder to 3.7 and enable it for new features, or you can use the Novell Migration Tools to migrate the 3.2 data to a target server.

To make it easier to provision your iFolder users, iFolder 3.7 now supports LDAP group provisioning. This allows you to set an LDAP group attribute such that when the users of a group log in for the first time, the group attribute will identify them as iFolder users and provision them to the appropriate home server. You can also

Figure 2: *iFolder 3.7 has been enhanced to better handle file conflicts between users simultaneously opening the same file.*

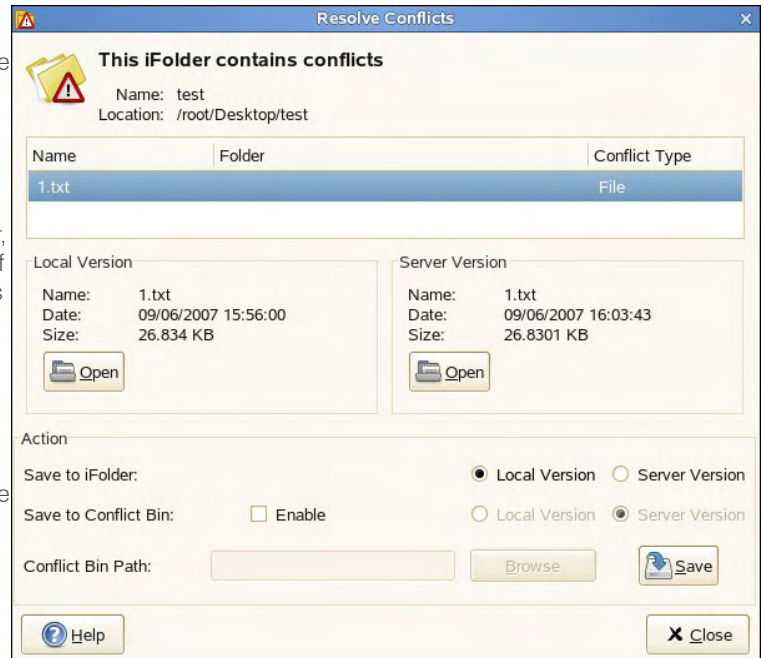


Figure 3: The migration tool in Novell Open Enterprise Server 2 SP1 simplifies the server-side migration of iFolder 2.x to iFolder 3.7.

The screenshot shows the 'iFolder Service' migration tool window. It is divided into three main sections: 'Source Information', 'Target Information', and 'Partial Migration Details'.
- **Source Information:** Features two radio buttons: '2.x Migration' (selected) and '3.2 Migration'. Under '2.x Migration', there is a text field for 'iFolder 2.x Data Path' containing '/var/ifolder2/data' and a 'Browse' button. Under '3.2 Migration', there are text fields for 'iFolder 3.2 Data Path', 'iFolder 3.2 Admin Name', and 'iFolder 3.2 Admin Password', each with a 'Browse' button.
- **Target Information:** Contains text fields for 'iFolder 3.7 Admin Name' (filled with 'iFolder37Admin') and 'iFolder 3.7 Admin Password' (filled with '*****').
- **Partial Migration Details:** Includes a 'Partial Migration' checkbox (unchecked). Below it are two radio buttons: 'User List File' (selected) and 'Select LDAP Users'. Each has a corresponding text field and a 'Browse' button.
At the bottom of the window are three buttons: 'Help', 'OK', and 'Cancel'.

> Data Accessibility and Disaster Recovery at its Best

With the new enhancements and features included in Novell iFolder 3.7, now is a great time to discover the benefits of having your users' files automatically follow them wherever they go. Whether it's to make your mobile professionals more productive, simplify the way all your

users use files, or automatically secure and protect your user files, deploy iFolder and your users will thank you. Of course the only way to get the data accessibility and disaster recovery benefits of Novell iFolder 3.7 is with your Novell Open Enterprise Server 2 SP1 license. So, upgrade today and let iFolder help you finally get the well-overdo appreciation you deserve. **N**