



FACSys® 5.1

FACSys® 5.1 ENTERPRISE AD (ACTIVE DIRECTORY) SCHEMA EXTENSION

OVERVIEW

For enterprises that incorporate Microsoft® Windows 2000-2003 Active Directory Services, the FACSys® Enterprise 5.1 server enhances and simplifies administration by automatically synchronizing the FACSys® accounts and groups from within the Active Directory (AD).

Addressed within this document are the types and effects of integration, as well as pre-installation tasks and installation itself. There will also be an explanation of the configuration options, all of which are available through the Active Directory Schema Extensions.

AVAILABLE TYPES OF INTEGRATION

The FACSys® AD Integration can be achieved with or without extending the AD schema. The difference between the two options is whether the FACSys®-specific attributes are stored in the AD or not.

When the AD Schema has been extended, the following features become available in a new tab under the Active Directory Users and Computers tool:

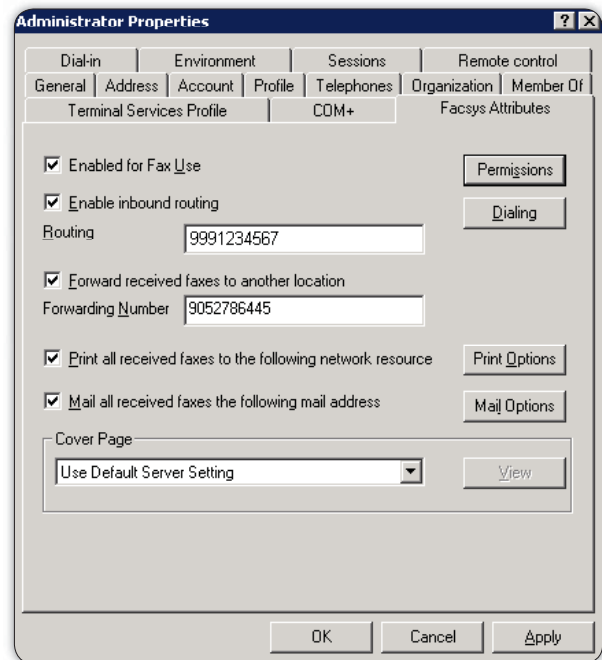
- **EXTENSIVE USER PROFILE OPTIONS AND PERMISSIONS**
On the FACSys® Attributes tab, the AD administrator can now define the FACSys® User Permissions.
- **ENABLE A USER FOR FACSys® FAXING CAPABILITIES**
By checking this option, desktop faxing is enabled for users.

■ REPLICATION OF FACSys® USER PROFILES

When creating and configuring the Active Directory User Objects, the FACSys® Attributes are automatically replicated to the FACSys® users in the FACSys® Administrator Program.

■ COVER PAGES

The Network Administrator can manage the cover pages for all Active Directory users and computers. All cover pages are shared and are available to all users and servers that are part of the AD.





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When the AD Schema is not extended, the FACSys® server can be configured to automatically import and synchronize all the users from a certain AD group. Any FACSys®-specific attribute can be configured through the FACSys® Administrator tool.

In both cases, when the users log in to the FACSys® Desktop Client, they will be authenticated directly against the AD. No user passwords are stored in the FACSys® database.

Starting with FACSys® 5.1, the following Active Directory integration enhancements have been added to the product:

■ **GROUP-BASED SYNCHRONIZATION IS NOW AVAILABLE EVEN WHEN THE AD SCHEMA HAS BEEN EXTENDED.**

As a result, administrators now have the ability to manage the FACSys® users and their FACSys® attributes through the AD, but may only synchronize a certain subset of users in the AD to a specific FACSys® server. This is useful in maintaining distinct boundaries between various, regional offices of the same corporation at a networking level. As a result of the fact that each FACSys® server can be configured to import only the users that belong to its regional office, autonomy and accountability are easily enforced.

■ **ENHANCED GROUP SYNCHRONIZATION ALLOWS FOR THE RETENTION OF NESTED GROUPS WITHIN THE AD GROUP DURING AD INTEGRATION.**

The server will also assign new group memberships for the imported users to reflect their former associations in the AD.

INSTALLATION

INSTALLING THE FACSys® AD SCHEMA

The following steps should be performed only when using the AD Integration with extended schema:

- Setup and test the fax server prior to any installation tasks. FACSys® 5.1 Enterprise Services must already be installed on a server OS such as Windows Server 2000 or 2003. Also, all FACSys® services must be configured to run under an account with Domain Administrator privileges.
- Log on to an AD Domain Controller with an account that is a member of the Schema Admins and Enterprise Admins groups.
- To allow Schema update, make a registry change under the following path:
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\NTDS\Parameters
- Add a DWORD Value "Schema update allowed" (please note the spaces between the words) and set the value to 1.
- Extract the zip file into a directory and run the FACSysADExtension.msi file. If this is the first installation, select "Yes" when the setup prompts for an extension of the AD schema. If the AD schema was already extended by a previous installation, or this installation is to a second server, select "Cancel".

This setup creates the FACSys® attributes in the AD, and installs the MMC extension required to edit these attributes. It is necessary to run the FACSysADExtension.msi file on every domain controller that needs the ability to edit FACSys®.



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For more control over the changes made in the Active Directory, a VBScript and LDS file are provided (**FacsysSchemaExt.ldf** and **FADExtend.vbs**). Please note that these scripts will only extend the AD schema with the FACSys® user attributes. It will still be necessary to run the **FACSysADExtension.msi** in order to be able to edit the FACSys® attributes in the AD Users and Computers tool.

EFFECTS OF THE FACSys® AD SCHEMA INSTALLATION

- A **FACSys® Attributes** tab is added to each user under the **AD Users** and **Computers** tool.
- For each shared folder, it is now possible to right-click on the folder, navigate to **All Tasks**, and select **Create New Cover Page** to launch the **Cover Page Editor**.

FACSys® SERVICES CONFIGURATION

The settings related to the AD Integration can be found under the **FACSys® Administrator** → **Server Properties** → **Active Directory** tab:

- **ACTIVE DIRECTORY INTEGRATION IS ENABLED ON THIS SERVER:**
This option turns on/off the AD integration.

■ TYPE OF INTEGRATION:

This option specifies the type of integration that FACSys® should use. If group-based integration is preferred, choose the first option. If the AD Schema has been extended, choose the second option. *Note that group-based integration precludes the storage of FACSys®-specific attributes in the AD.*

- *Group-based integration requires the specification or selection (via the browse button) of the group name under the option "Synchronize the users who are part of the following Active Directory Group."*
- *AD Schema integration allows this parameter to be optional. If left blank, all the AD users that have the "Enabled for fax use" option turned on will be imported. If a group is specified here, then only the users that are part of that group, and who have the "Enabled for fax use" option turned on, will be imported.*

■ ALIAS TYPE:

This option controls which of the user's AD attributes will be used for the user's Alias (logon name). The following are the different FACSys® Alias types available:

- **Windows Logon Account**
- **Email Alias name**
- **User Principal Name (available in Active Directory)**
- **Email Address**
- **First Name of the user**

■ TIME INTERVAL:

This option controls how often the program will check for changes in the AD in order to synchronize.

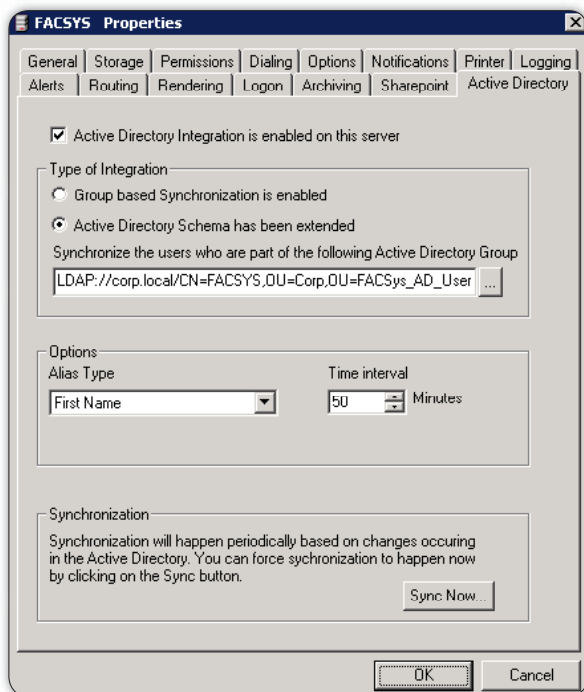


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■ SYNC NOW:

This button allows the administrator to force an on-demand synchronization.



NOTE: If user Exchange aliases do not match the user account in the AD when using FFC200x to route faxes, set the Alias Type to “Email Alias name” or the FFC200x routing will not work correctly. Common errors of this type include the inability to send a fax and the creation of duplicate user accounts.

The following information from the AD will be used when creating users:

- Alias (based on Alias Type)
- Address
- DisplayName
- PhoneNumber
- FirstName
- FaxNumber
- LastName
- Mailing Address
- Department

If a FACSys® Attribute is not part of the AD schema, the attribute will not be overwritten when synchronization takes place. As such, certain FACSys® attributes that cannot be controlled from Active directory will be controlled from the FACSys® Administrator UI, and will not be overwritten when synchronization takes place. Examples of such FACSys® attributes include user archiving settings and some user permissions.

ADDITIONAL REGISTRY KEYS

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\FaxServer\ActiveDirectory\ADGateway

This String value specifies which gateway should be selected under the Routing options of a FACSys® profile when synchronizing the users from the AD. The value of the key should be set to the actual name of the desired gateway as it appears under the FACSys® Administrator/Mail Gateways. If this registry key has not been set, the user profiles will be created without a selected gateway, in which case the server will use the Default Gateway for routing, as per the Server settings/Routing tab.



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■ HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\FaxServer\ActiveDirectory\ADRemoveUsers

The DWORD value of this key controls ramifications within the FACSys® account if the user is deleted or disabled from the AD.

Possible values:

- **0** - if the "Enabled for fax use" permission in the AD is taken from the user, the account will be disabled in FACSys®.
- **1** - if the "Enabled for fax use" permission in the AD is taken from the user, the user will be removed from FACSys®.
- **2** - if an AD user is deleted completely, this option will force FACSys® to delete the user as well.
- **3** - sum of 1 and 2.

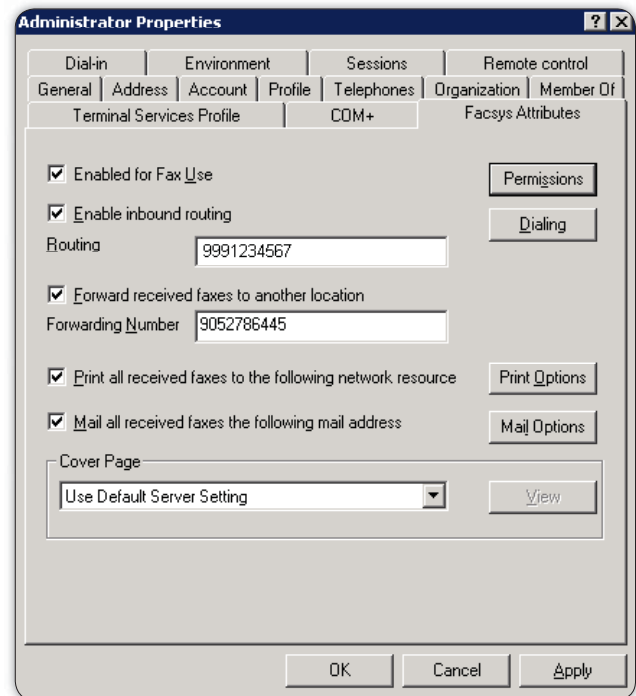
■ HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\FaxServer\ActiveDirectory>LastUsedUSN

The DWORD value of this key allows FACSys® to keep track of which users have been synchronized already. Deleting this key will force the server to synchronize all users again. It is recommended to delete all the FACSys® accounts imported from the AD before forcing this.

CONFIGURING THE USER OPTIONS IN THE AD

After the installation, it will then be possible to select a user profile in order to configure the FACSys® attributes on the newly created FACSys® Attributes tab. The options pictured below directly reflect the options that will be available in each user's profile.

THE FACSys® ATTRIBUTES TAB IN ACTIVE DIRECTORY USERS AND COMPUTERS



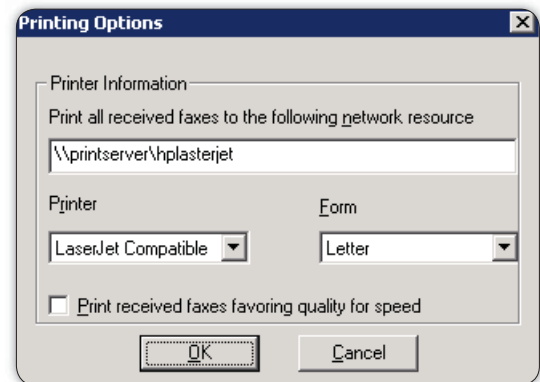
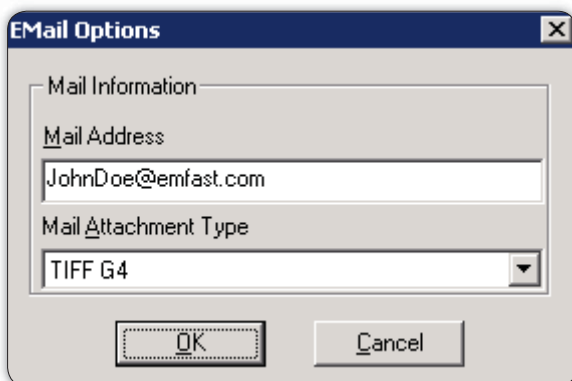
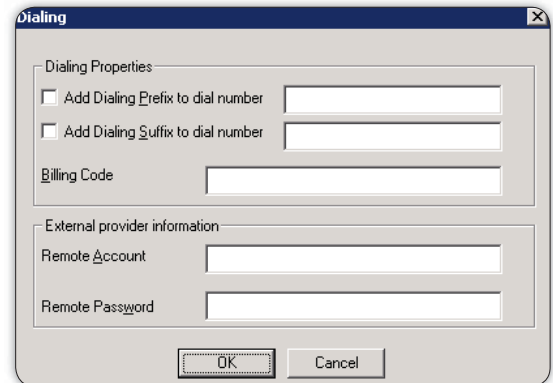
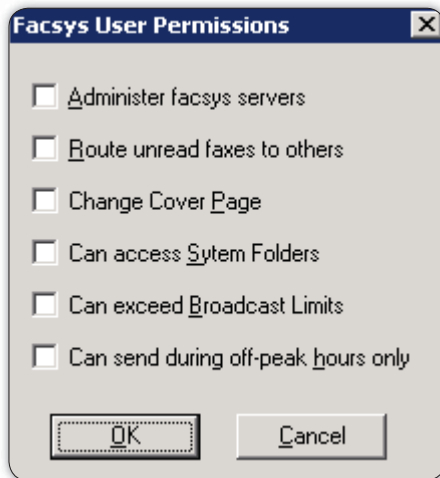


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FACSys® USER PERMISSIONS AND E-MAIL OPTIONS

THE DIALING AND PRINTING OPTIONS



NOTE: Creating and configuring the Active Directory FACSys® user replicates all attributes automatically to the FACSys® Admin User Profiles. All user administration should now be handled in the Active Directory. All other FACSys® configuration (including connections and reporting) will still be addressed in the FACSys® Admin program as previously.



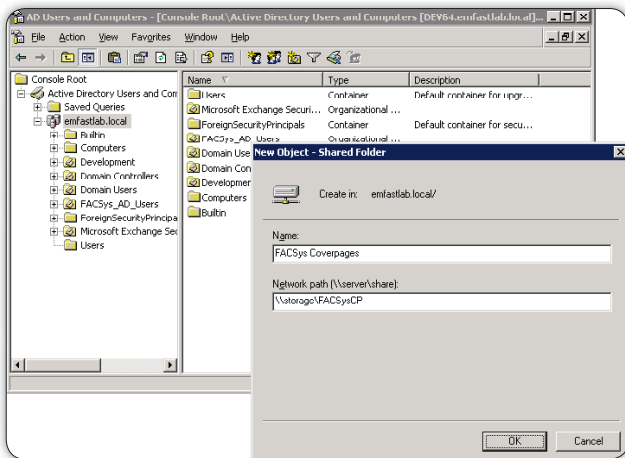
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COVER PAGES

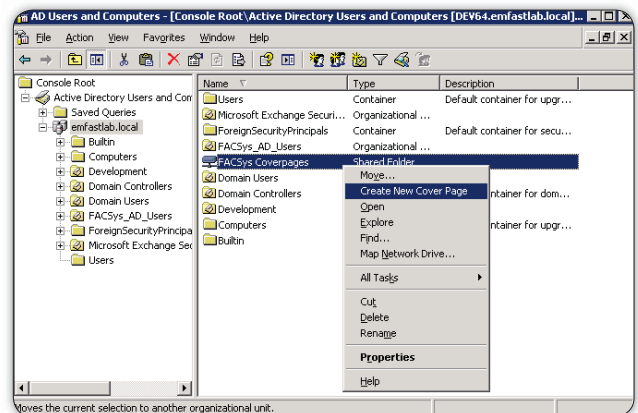
Cover pages are now managed within the Active Directory. All newly created cover pages will be stored in the shared folder (volume).

To create a new shared folder, a network server, preferably the FACSys® server, must already have a pre-existing shared folder. Then, to create the shared folder in Active Directory Users and Computers, simply right-click in the desired location, and select **New → Shared folder**. Designate a folder name and, in the **Network Path** field, enter the **UNC** of the previously created network share.



Next, right-click on the shared folder, and select **Create New Cover Page**. This will automatically add an attribute to the folder (the keyword FacsysCP), which will mark the folder as a FACSys® Cover Page storage folder, and launch the FACSys® Cover Page Editor.

When saved, the newly created cover page will appear in the Active Directory user properties as well as in the FACSys® Desktop Client anytime a new fax message screen is created.



NOTE(S):

All cover pages are shared, and, therefore, will be visible to all users on any system accessed. The Administrator is the only one who can modify the cover page.

KNOWN ISSUE:

It is important to avoid use of file names that contain spaces for both the shared folder as well as any cover pages.