

# InfoSphere Information Server

## Switching Information Server 8.5 and 8.7 to standalone LDAP



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This presentation will discuss how to switch InfoSphere® Information Server 8.5 and 8.7 and WebSphere® 7.0 to use the stand-alone LDAP repository for authentication.

## Objectives

- Set up stand-alone LDAP properties
- Verify user and group filters
- Setting proper base distinguished name
- Set standalone LDAP as current realm definition
- Update Information Server

The objectives of this presentation are to show how to set up the LDAP properties for standalone LDAP, how to verify the user and group filters and how to determine the best base distinguished name. This presentation will also show how to set standalone LDAP as your current realm definition and how to update Information Server with the new WebSphere Administrative ID.

## Set standalone LDAP properties (1 of 2)

- Security => Global security
- Available realm definitions – Standalone LDAP
- Click Configure

The screenshot displays the IBM WebSphere Administrative console interface. On the left, a navigation tree is visible with the following items: Welcome, Guided Activities, Servers, Applications, Services, Resources, Security (highlighted with a red circle), Environment, System administration, Users and Groups, Monitoring and Tuning, Troubleshooting, Service integration, and UDDI. Under the 'Security' item, there are sub-items: Global security (highlighted with a red circle), Security domains, Administrative Authorization Groups, SSL certificate and key management, Security auditing, and Bus security. The main content area is titled 'Global security' and contains the following sections: 'Global security' (with a description and buttons for 'Security Configuration Wizard' and 'Security Configuration Report'), 'Administrative security' (with 'Enable administrative security' checked and links for 'Administrative user roles', 'Administrative group roles', and 'Administrative authentication'), 'Application security' (with 'Enable application security' checked), 'Java 2 security' (with 'Use Java 2 security to restrict application access to local resources' unchecked and options for 'Warn if applications are granted custom permissions' and 'Restrict access to resource authentication data'), and 'User account repository' (with 'Current realm definition' set to 'Standalone custom registry' and 'Available realm definitions' showing 'Standalone LDAP registry' selected in a dropdown menu). A red circle highlights the 'Configure...' button next to the 'Standalone LDAP registry' dropdown, and a red arrow points to it from the left. At the bottom of the main content area are 'Apply' and 'Reset' buttons.

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The first step in setting up the standalone LDAP registry is to open the WebSphere Administrative console. On the left side of the screen, click Security and then Global security. Next, click the drop down for the Available realm definitions and choose Standalone LDAP registry. Click Configure.

## Set standalone LDAP properties (2 of 2)

- Enter LDAP properties
  - Primary administrative user
    - Must be LDAP user
  - Server user identity
    - Automatically generated server identity
  - Type of LDAP server
  - Host
  - Port
  - Base DN
  - Bind DN
  - Bind password
- Click Apply
- Click Save

Global security

Messages

Changes have been made to your local configuration. You can:

- **Save directly** to the master configuration.
- **Apply** changes before saving or discarding.

The server may need to be restarted for these changes to take effect.

Global security > Standalone LDAP registry

Uses the Lightweight Directory Access Protocol (LDAP) user registry settings when users and groups reside in an external LDAP directory. When security is enabled and any of these properties are changed, go to Security > Global security panel. Click Apply or OK to validate the changes.

Test connection

General Properties

Primary administrative user name  
nevsadmin

Server user identity

Automatically generated server identity

Server identity that is stored in the repository  
Server user ID of administrative user or a Version 6.0.0 node

Type of LDAP server  
Microsoft Active Directory

Host  
nevsdc.nevco.com

Port  
389

Base distinguished name (DN)  
DC=nevsco,DC=com

Bind distinguished name (DN)  
DC=nevsadmin,DC=nevsco/Users

Bind password  
\*\*\*\*\*

Search timeout  
120 seconds

Reuse connection

Additional Properties

Advanced Lightweight Directory Access Protocol (LDAP) user registry settings

Related Items

Trusted authentication realms - inbound

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Under the General properties page, enter the name of your primary administrative user. This user must be a valid LDAP user. Next, make sure the Server user identity is set to Automatically generated server identity. Choose the type of LDAP server you are authenticating against. Next, enter the LDAP server name, Port, and Base distinguished name. The base distinguished name defines the starting point for LDAP searches. Making this value more restrictive will limit the number of users and groups returned to Information Server. Be sure that all the users and groups all fall within the defined base. The next slide will discuss the base DN in more detail.

Next, enter your bind distinguished name and password. This is the distinguished name of the user that is used to bind to the directory service. It does not have to be the same user as the primary administrative user. If your directory service support is an anonymous bind, you can leave these fields blank.

When the information has been entered, click Apply at the bottom of the screen and then click Save in the message box at the top. Click Test Connection to make sure your connection to your LDAP server is working properly.

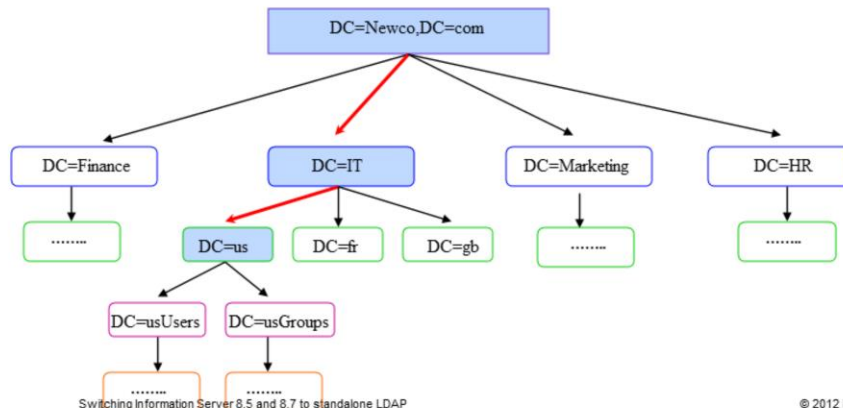
## Setting proper base distinguished name (1 of 3)

- Sets starting point for LDAP search
- All users and groups must fall within defined base
- Use to restrict number of users and groups
- Use to decrease search time

The base distinguished name sets the starting point for LDAP searches in the directory service. Setting this appropriately for your user and group search can help to limit the number of users and groups returned to Information Server and decrease the search time. The appropriate value for this field depends on the layout of your directory service.

## Setting proper base distinguished name (2 of 3)

- Example 1 – Only want users and groups in US
  - Sample User DN  
CN=scooper,DC=usUsers,DC=us,DC=IT,DC=Newco,DC=com
  - Sample Group  
CN=DSDev,DC=usGroups,DC=us,DC=IT,DC=Newco,DC=com
- Best base DN  
DC=us,DC=IT,DC=Newco,DC=com



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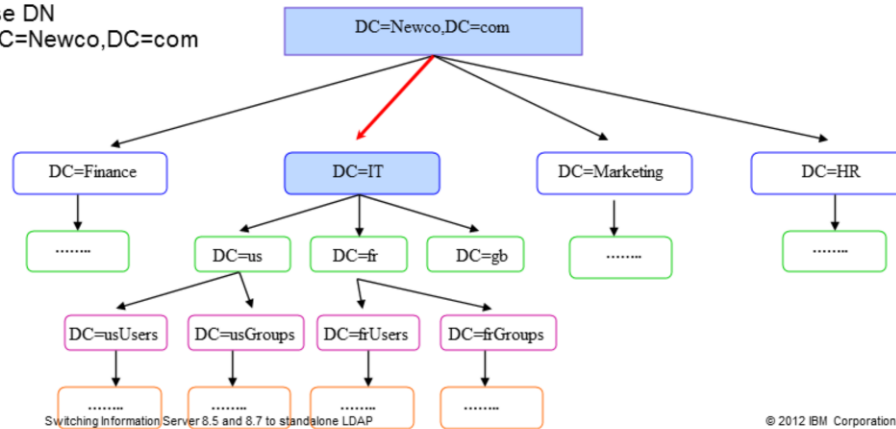
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In the example displayed on this slide, the company Newco only wants their US users and groups to appear in Information Server. This slide displays an example distinguished name for user scooper and group DSDev. If Newco uses DC=Newco,DC=com for their base DN, whenever they do an LDAP lookup or attempt to get a list of users and groups, LDAP will have to search all four branches. Searching the four branches, Finance, IT, Marketing, and HR, can be time consuming in a large directory service and will return thousands of unwanted users and groups. Since all of the users and groups are under the DC=us branch, it is much more efficient to make the base DN DC=us,DC=IT,DC=Newco,DC=com. In this case, if an LDAP search, user list, or group list is requested, the search will begin at the DC=us branch making the search much more efficient.

## Setting proper base Distinguished name (3 of 3)

- Example 2 – Want users and groups in US and in FR only
  - Sample Users DN  
 CN=scooper,DC=usUsers,DC=us,DC=IT,DC=Newco,DC=com  
 CN=bpeters,DC=frUsers,DC=fr,DC=IT,DC=Newco,DC=com
  - Sample Groups  
 CN=DSDev,DC=usGroups,DC=us,DC=IT,DC=Newco,DC=com  
 CN=IADev,DC=frGroups,DC=fr,DC=IT,DC=Newco,DC=com
- Best base DN  
 DC=IT,DC=Newco,DC=com



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In the example displayed on this slide, the company Newco, only wants both their US and France users. The base DN will have to be less restrictive and use DC=IT,DC=Newco,DC=com so that it will include both the user and groups from the US and France. Since the Great Britain users are also under the IT branch, DC=gb will always be searched as well. Even with this being the case, the search will still be more efficient than searching the entire Newco domain. If you want to use multiple base DN's for searching, you have to set WebSphere up to use federated repositories.

## Verify filters (1 of 2)

- Verify user and group filters
  - Additional Properties
    - Advanced Lightweight Directory Access Protocol (LDAP) user registry settings

**Global security > Standalone LDAP registry**

Uses the Lightweight Directory Access Protocol (LDAP) user registry settings when users and groups reside in an external LDAP directory. When security is enabled and any of these properties are changed, go to Security > Global security panel. Click Apply or OK to validate the changes.

Test connection

**General Properties**

Primary administrative user name  
[msadmin]

Server user identity

Automatically generated server identity

Server identity that is stored in the repository

Server user ID or administrative user on a Version 6.0.x node

Password

**Additional Properties**

[Advanced Lightweight Directory Access Protocol \(LDAP\) user registry settings](#)

**Related Items**

[Trusted authentication realms - inbound](#)

Type of LDAP server

Microsoft Active Directory

Host

[NewcoAD.Newco.com]

Port

[389]

Base distinguished name (DN)

[DC=Newco,DC=com]

Bind distinguished name (DN)

[DC=msadmin,DC=NewcoUsers]

Bind password

[\*\*\*\*\*]

Search timeout

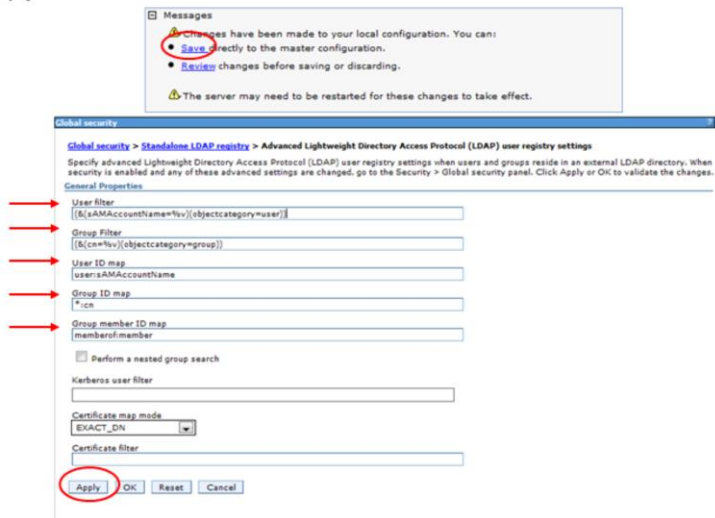
[120] seconds

The next step in setting up the standalone repository is to verify that the default user and group filters are correct. While in the General Properties screen for the LDAP repository, click Advanced Lightweight Directory Access Protocol user registry settings under Additional Properties.



## Verify filters (1 of 2)

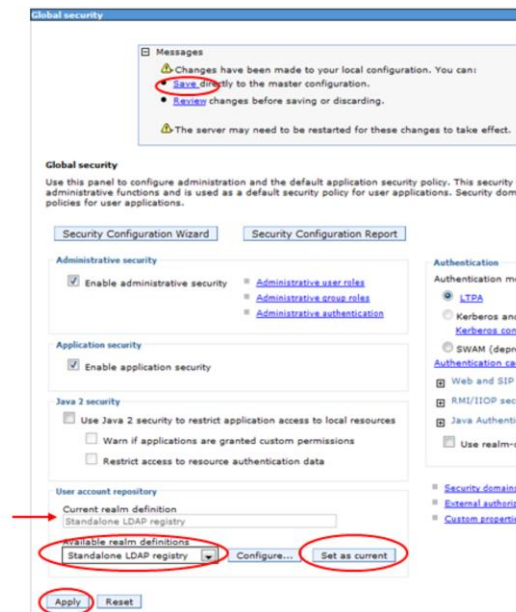
- Verify/update user and group filters
- Click Apply and save



Verify that the filters match what was supplied to you by your LDAP administrator. If the values do not match, make the appropriate changes and click Apply and Save.

## Set current realm definition

- Set Available realm definitions – Standalone LDAP registry
- Click Set as current
- Click Apply
- Click Save
- Restart WebSphere



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The last step in WebSphere is to set the standalone LDAP repository as the current realm definition. Be sure that Standalone LDAP registry is selected under Available realm definitions and click Set as current. The current realm definition should change to Standalone LDAP registry. Next, click Apply. If no error appears in the message box at the top, click Save. If a message appears, you need to review your LDAP properties and filters. You also need to restart WebSphere for the changes to take effect.

## Update Information Server

- Login to Domain server
- Run AppServerAdmin
  - UNIX® or Linux®

```
cd IBM/InformationServer/ASBServer/bin
/AppServerAdmin.sh –was –user wasadmin –password waspasswd
```
  - Windows®

```
cd IBM\InformationServer\ASBServer\bin
/AppServerAdmin.bat –was –user wasadmin –password waspasswd
```
- Wasadmin user automatically set to Information Server Suite Administrator
- Login to IS web console as wasadmin
  - Set up roles
  - Add additional suite admins
- Advanced LDAP filtering information
  - Refer to IBM Education Assistant module:  
Information Server 8 Advanced LDAP filtering techniques to minimize Information Server user list
- Configuring Federated Repositories for LDAP authentication
  - Refer to IBM Education Assistant module:  
Switching Information Server 8.5 and 8.7 to use federated repositories for LDAP authentication

On the Information Server side, you need to run the AppServerAdmin command line utility to update Information Server with your new wasadmin user and password. cd into the InformationServer/ASBServer/bin directory and run the AppServerAdmin command as displayed on this slide.

Once that has completed successfully, you are ready to go into the Information Server web console. The first time you login to the Information Server Web console, you need to use the primary administrative user you specified on slide four. This user will automatically be an Information Server suite administrator. Once you open the Information Server Web console, you can then go in and set the user roles and add any additional users as suite admins.

For information on more advanced LDAP filtering techniques, see the IBM Education Assistant module “Information Server 8 Advanced LDAP filtering techniques to minimize Information Server user list”.

For more information on how to configure Information Server and WebSphere to use federated repositories, see the IBM Education Assistant module “Switching Information Server 8.5 and 8.7 to use federated repositories for LDAP authentication”.

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