

CornerstoneMFT

**Lightweight Directory Access Protocol (LDAP)
User Authentication Quick Start Guide**

January 2010

Notices

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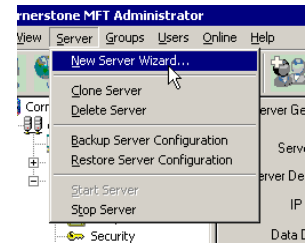
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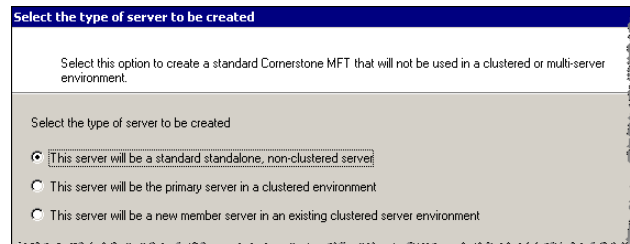
Please Note: The following instructions will help you to set up Cornerstone MFT for user authentication with Lightweight Directory Access Protocol (LDAP). Some screens in this instruction contain options that do not pertain to LDAP Authentication. If you need additional information regarding these steps, please see the [Cornerstone MFT User Guide](#). For the purpose of this quick start guide, we will guide you through these options without configuring additional settings. A listing of Frequently Asked Questions (FAQ) is also available at our [Knowledgebase Support Center](#).

Configuring the Cornerstone MFT Administrator

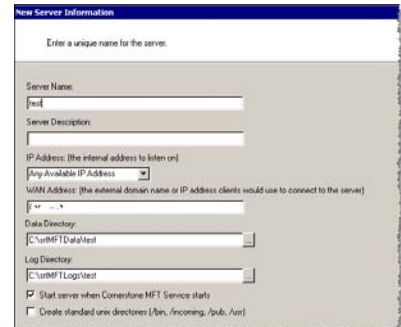
1. Run the *Cornerstone Administration utility* and start the **New Server Wizard**. When the *Administer Domain* window appears, Type the **Administrator Username** and **Administrator Password** and click **OK**.



2. Select the **Server Type** and click **Next**.

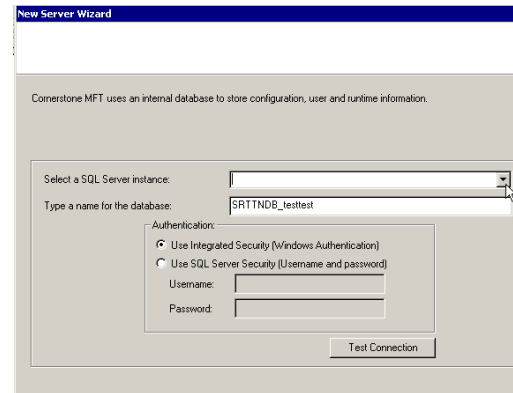


3. Type a unique **Server Name**. Click the drop-down arrow to choose your **IP Address**. (*Any available IP address* indicates that the server will listen on all IP addresses that are configured on the PC along with the local IP address of 127.0.0.0, also known as *localhost*.) Type the WAN address. You do not need to type "**http**", for example, "**myserver.com**". Click the **Data Directory** "..." button to browse to the Data Directory. Click the **Log Directory** "..." button to browse to the Log Directory. Select the check box to start this server when Cornerstone MFT starts. When you are finished, click **Next**.*

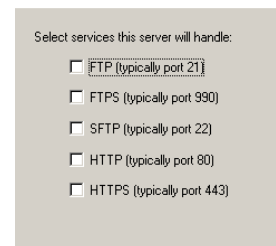


*If you need to create standard UNIX directories you can find additional information in the [Cornerstone MFT User's Guide](#).

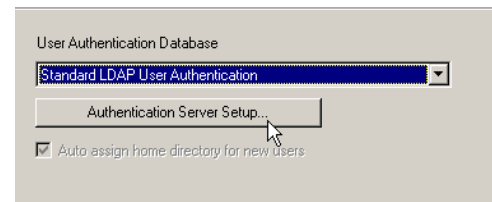
4. Cornerstone uses an internal database to store configuration, user, and runtime information. Use the drop-down arrow to select a SQL Server instance. Type a name for this database. Select **Windows Authentication** or **SQL Server Security**, and then click **Test Connection**. Once you connect successfully, click **Next**.



5. Select the **Services** that this server will handle.



6. Use the down arrow to select **Standard LDAP User Authentication** and then click the **Authentication Server Setup** button. This will launch the *LDAP User Authentication sub-wizard*.*



*Once you select a User Authentication Database in Cornerstone, you cannot change to a different method once the server wizard has completed.

7. Type your **LDAP Domain Name**. Use the drop-down arrow to choose your **LDAP Server Name**. Type your **port number** (the default port is 389). Select **Use SSL for Connection*** if you would like to use a secure connection. Select additional options using the check boxes. We recommend that you select both **Get home directory from users profile** and **Hide disabled user accounts**. To use the access rights of individual users to authenticate against UNC shares or the NT File System, select **Impersonate user after login**. When you are finished, click **Next**.

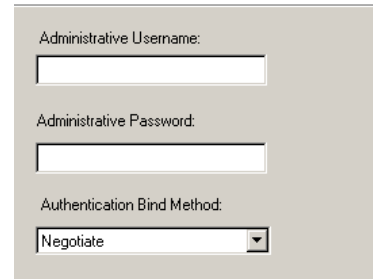


***NOTE:** LDAP over SSL requires that the Cornerstone Server and the LDAP server are members of the same domain. The default port for LDAP over SSL is 636.

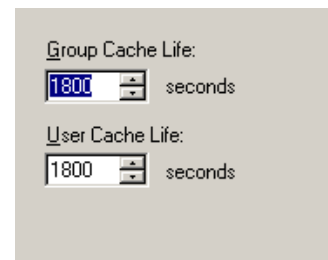
8. Type the **Administrative Username** and **password**. The Domain Administrator must have full administrative access to the LDAP server. For most LDAP servers, you will want to use the Domain Administrator account. The format for the username must be:

<username>@<domainname>.

Choose your **Authentication Bind Method** using the drop-down arrow. For most LDAP servers you can choose **Simple**. When you are finished, click **Next**.



9. Set the **Group Cache Life*** using the up/down arrows. Click **Next**.

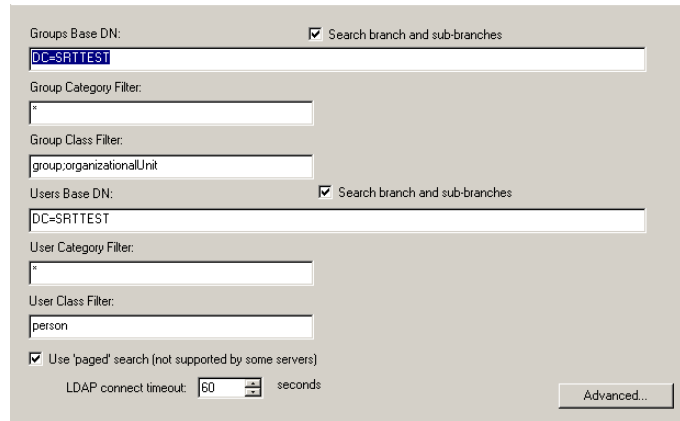


*Cornerstone MFT will cache user and group information to increase performance and decrease the load on your back-end authentication server. The number of seconds that Cornerstone caches this information is controlled by the *User Cache Life* and *Group Cache Life* values. The *Group Cache Life* value is used by Cornerstone MFT to determine how long to wait before refreshing the group information and also the list of members of that group. Once the cache life has expired, Cornerstone will flag the cached group information as “stale” and the next time Cornerstone needs that group information it will reload the group properties (and the list of members of the group) from the remote database. This means that if you modify the membership of the group by adding new users, or deleting users from the group, those changes will not appear in Cornerstone until the *Group Cache Life* value has expired and Cornerstone can reload that information. Therefore, if you have a dynamic system where the users/groups change frequently, set the *Group Cache Life* value to a short value, such as 300 seconds (5 minutes). The same applies to the *User Cache Life* setting. If you make a change to a user account in the back-end authentication server, these changes will not appear in Cornerstone until the *User Cache Life* value has expired on that user account. The exception to the rule is the user’s password. Cornerstone MFT never caches user passwords so any changes to the user’s password in the Active Directory user database will take effect immediately.

Warning: Avoid setting the Cache Life values too small. If you set the values too small, the performance could degrade because Cornerstone will be spending too much time flushing and reloading the user/group information from the authentication server.

If you add and delete users frequently, change the Group Cache to 300 seconds.

10. Type your **Groups Base DN, Group Category Filter, Group Class Filter, Users Base DN, User Category Filter** and **User Class Filter**. * To Use *paged search*, be sure that the check box is checked. Click the **Advanced**** button for additional configuration options. When you are finished, click **Next**.



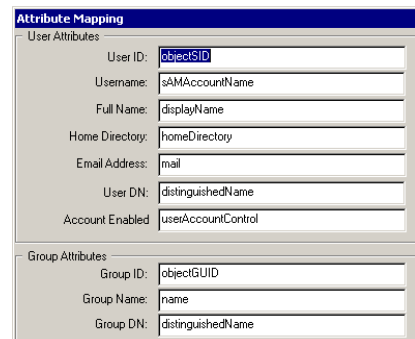
*Cornerstone MFT needs to be configured with the proper search strings in order to locate user and group information in LDAP. For most LDAP installations, the default values can be used and will return the proper user and group information from LDAP. However, there are some instances where these values may need to be enhanced to allow Cornerstone MFT to find the user information in LDAP.

Group/User Base DN—These values specify the LDAP search string(s) necessary to search the various trees/paths in LDAP. By default, Cornerstone MFT will search under the **Users** and **BuiltIn** paths of LDAP. Since these paths are sub-paths under the Domain that you specified in step 6, the full Distinguished Name (DN) for the search path needs to include the parent domain. To search the **USERS** path, the DN needs to be **“CN=Users, DC=SRT”**. If the domain name that you specified was **“XYZ.COM”**, then the DN would be **“CN=Users,DC=XYZ,DC=COM”**. Since Cornerstone MFT will search multiple paths, each path is separated with a **semicolon**. The complete entry to search both **Users** and **BuiltIn** is **“CN=Users,DC=SRT;CN=BuiltIn,DC=SRT”**.

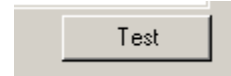
Group/User Category—These values are used to filter out certain categories of users and groups. In general you will want to include all users and groups, so this value should remain as an **asterisk**.

Group/User Class Filter—These values are used to filter out certain classes of users and groups. Multiple classes should be separated by **semicolons**.

If you wish to configure Advanced User and Group Attributes, type your information and then click **OK. You will then click **Next** to test your settings.



11. Click **Test*** to test the configuration and ensure that you are able to communicate with the User Authentication Server.

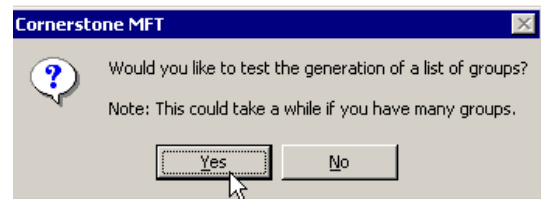


*If this process fails, the most common reason is that either the LDAP Domain Name is not specified correctly, or the LDAP Server Name is not accessible. Click the **Back** button to return to previous pages and adjust the values.

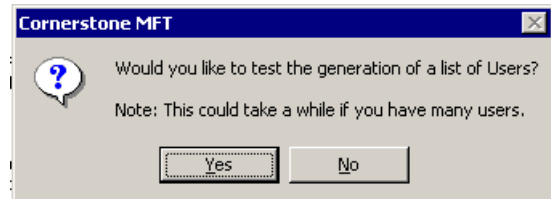
12. If Cornerstone MFT can successfully communicate with the LDAP Authentication database the message that displays is *Success*. Click **OK**. (If an error is displayed, Cornerstone was not able to connect to the server.)



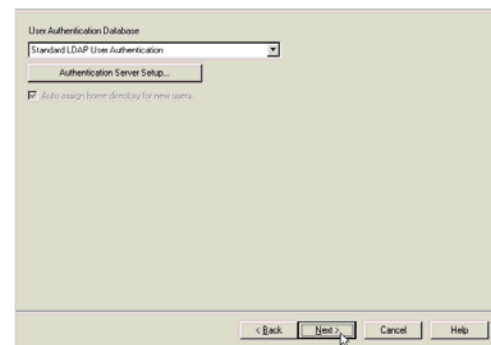
13. After Cornerstone MFT successfully connects to the database, Cornerstone will attempt to generate a list of groups. Click **Yes** to test the generation of a list of groups.



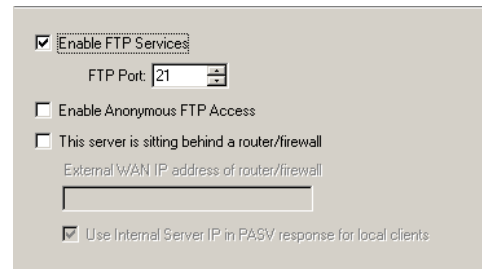
14. Click **Yes** to test the generation of a list of Users. Click **Finish**.



15. You are now returned to the *Cornerstone MFT New Server Wizard*. Click **Next**.

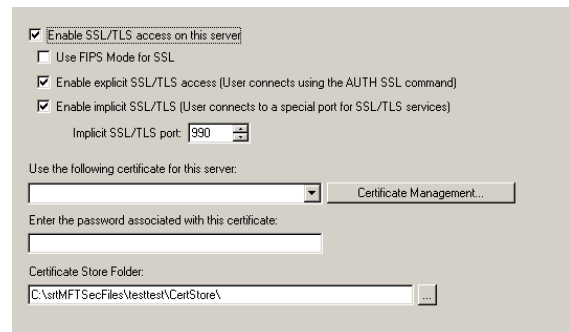


16. If you wish to enable FTP Services select the *Enable FTP Services* check box. Select the *FTP Port* number by using the up/down arrows. To enable anonymous FTP access, select the check box. If your server is sitting behind a router/firewall select this check box and type the external WAN address of the router/firewall. You do not need to type “**http**”, for example, **mywanaddress.com**. When you are finished with *FTP Services* options* click **Next**.



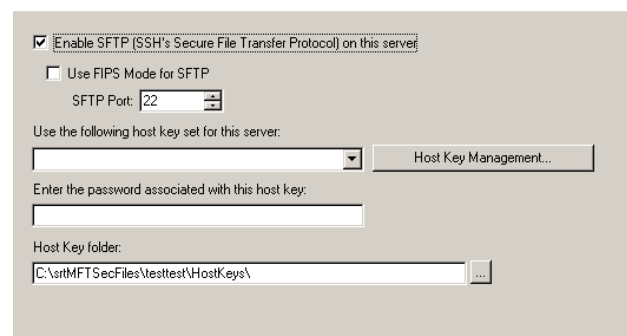
* You must enable FTP access if you are using FTPS with explicit SSL (also known as AUTH SSL). For more detailed information pertaining to these configuration options see the [Cornerstone MFT User's Guide](#).

17. To enable SSL/TLS access on this server, select this check box and choose the appropriate sub-options. Click the drop-down arrow to choose the certificate. Click **Certificate Management** to configure a certificate for this server. Enter the password associated with the certificate. Use the “...” button to browse to the *Certificate Store Folder*. When you are finished configuring SSL/FTPS Security Settings,* click **Next**.



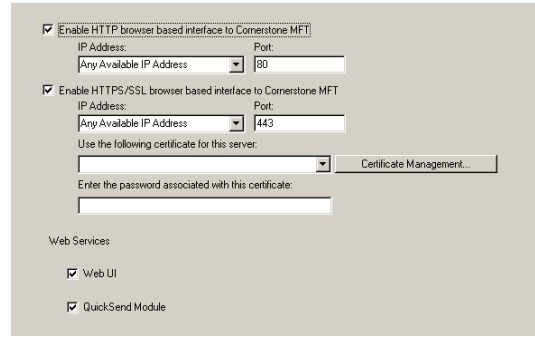
*For more detailed information pertaining to these configuration options see the [Cornerstone MFT User's Guide](#).

18. To enable SFTP (SSH's Secure File Transfer Protocol) on this server select the check box and choose the SFTP port (default port 22) using the up/down arrows. Choose the *host key set* by using the drop-down arrow. Click **Host Key Management** for host key configuration options. Type the password associated with the host key. Click the “...” button to browse to the *Host Key folder*. For



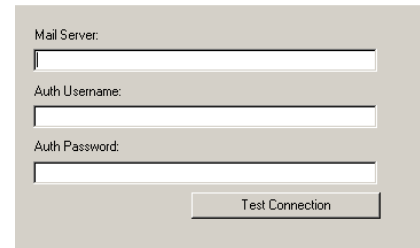
more detailed information pertaining to these configuration options, see the [Cornerstone MFT User's Guide](#). Click **Next** when you are finished configuring SSH/SFTP Security Settings.

19. To enable **HTTP browser based interface** to this server, select the check box. To enable **HTTPS browser based interface** to this server, select the check box and use the drop-down arrow to select a certificate or click **Certificate Management** to manage certificates. Select the **Web UI** check box if you would like to enable the Cornerstone Web User Interface on this server. Select **QuickSend Module** if you would like to enable ad-hoc transfer.

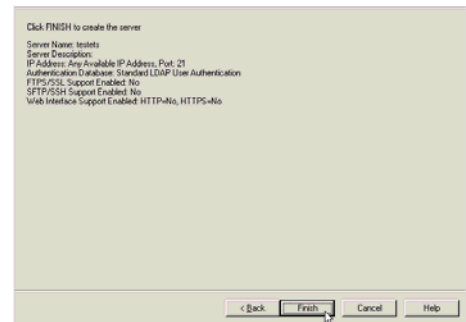


NOTE: QuickSend and the Cornerstone Web UI are optional modules. For more information, contact sales@southerntech.com.

20. Type the URL or IP address of the SMTP mail server that will be used to send email notifications to users. You may test the connection by clicking **Test Connection**. (For more detailed information pertaining to these configuration options see the [Cornerstone MFT User's Guide](#).) When you are finished, click **Next**.



21. Click **Finish** to create the server.



22. Once the server is created, the server starts and appears in the main Cornerstone MFT Administrator window. A green icon appears to indicate that the server is running. At this point, there are no external groups or users mapped to Cornerstone MFT.*

* **NOTE:** All Cornerstone MFT users must belong to a group. Before any users can access the system, you must add one or more groups to the server. Because Cornerstone MFT uses the LDAP user database, groups that will participate in the Cornerstone MFT must be selected/mapped into Cornerstone MFT from the LDAP database. To do this, you must run the *New Group Wizard* to add a new group to the Cornerstone MFT.

23. Expand the server menu and click **Groups**. Click **New Group** to launch the *New Group Wizard*.



24. Select one or more LDAP Groups to be granted access to this server. Click **Finish**.

25. It is now time to test the server.*

Open a command prompt and type: **ftp** and then press the Enter key.

Type either:
open localhost

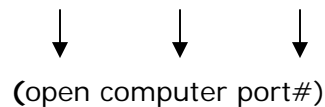
```
C:\WINDOWS\system32\ftp.exe
ftp> open localhost
Connected to wsjodi.
220 Service ready for new user.
User (wsjodi:(none)): user1001
331 User name okay, need password.
Password:
230>Welcome user1001 from 127.0.0.1. You are now logged in to the server.
230 User logged in, proceed.
ftp>
```

-OR-

the IP Address that you specified in step 3.

If you specified a port number in Step 16 you must add the port number.

For example, type: open localhost 21



This will begin an FTP session with the local Cornerstone MFT that you created.

When prompted, enter the user name: **user1001**

When prompted, enter the user's password: **password**

You are now logged on to the Cornerstone MFT.

Type **quit** to exit DOS and return to Windows.

If you enabled SFTP, please see step 26 for an alternate method to test the server.

26. If you enabled SFTP you can download an SFTP client, such as psftp.exe, to test your server. After you have downloaded your SFTP client:

Open a command prompt and type: **psftp** and then press the enter key.

Type either:

open localhost

-OR-

the IP Address that you specified in step 3.

If you specified a port number in [Step 16](#) you must add the port number.

For example, type: open localhost 21

↓ ↓ ↓
(open computer port#)

This will begin an SFTP session with the local Cornerstone MFT that you created.

When prompted, enter the user name: **user1001**

When prompted, enter the user's password: **password**

You are now logged on to the Cornerstone MFT.

Type **quit** to exit DOS and return to Windows.

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