

# CornerstoneMFT

## Windows NT Security Accounts Manager (SAM) User Authentication Quick Start Guide

## Notices

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The following instructions will help you to set up Cornerstone MFT for user authentication with Microsoft Windows NT Security Accounts Manager (SAM). If you need additional assistance, the [Cornerstone MFT User Guide](#) is available on line. Also, a listing of Frequently Asked Questions (FAQ) is available at our [Knowledgebase Support Center](#).

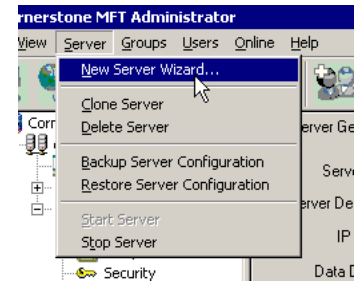
## Creating a Special Windows User Account

If you would like to use Windows NT SAM (Security Accounts Manager) for user authentication with Cornerstone MFT, a special Windows User Account must be created. The special Windows User Account will be used by the Cornerstone Service when it needs to authenticate FTP clients when they connect to the system (it will **not** be used by the FTP clients to connect to the server). This special Windows User Account will be given certain rights not usually available to other Windows User accounts. The Cornerstone Service will also need to be modified to use this new Windows User account that will be created. Please see the [Appendix](#) for instructions on how to create a special Windows User Account for use with Cornerstone MFT.

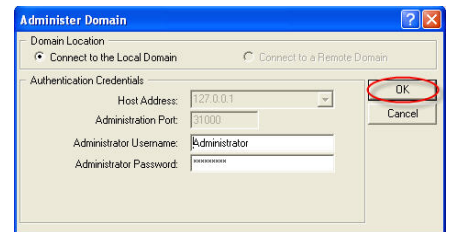
**Please Note:** Some screens in this instruction contain options that do not pertain to Windows NT SAM Authentication. If you need additional information regarding these steps, please see the [Cornerstone MFT User Guide](#). For the purpose of this Windows NT SAM User Authentication Quick Start guide, we will guide you through these options without configuring additional settings.

## Configuring the Cornerstone Administrator

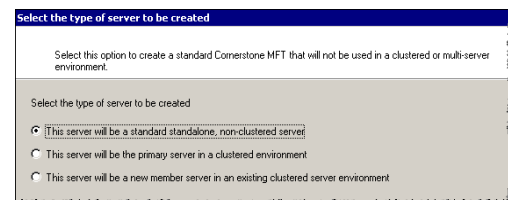
1. Run the *Cornerstone Administration utility* and start the **New Server Wizard**.



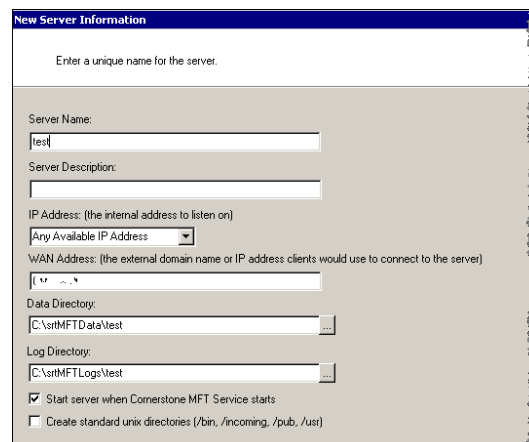
2. When the **Administer Domain** window appears, select the radio button to connect to the Local Domain. Choose the **Host Address** by using the drop-down arrow. Type the **Administration Port**, **Administrator Username**, and **Administrator Password** and click **OK**.



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

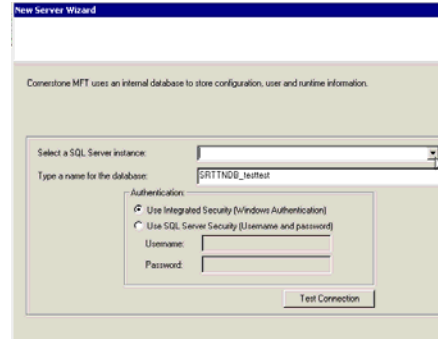


4. Type a unique **server name**. Click the drop-down arrow to choose your **IP Address**. (Any Available IP Address indicates that 127.0.0.1 is localhost.) Type the **WAN address**. You do not need to type "http", for example, "**myserver.com**". Click the **Data Directory "..."** button to browse to 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**.\*

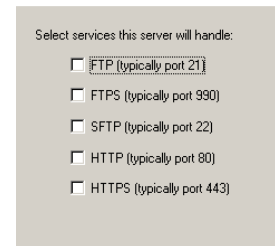


\*If you need to create standard UNIX directories you can find additional information in the *Cornerstone MFT User's Guide*.

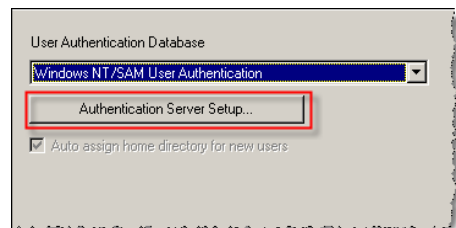
5. Cornerstone uses an internal database to store configuration, user, and runtime information. Use the drop-down arrow to select a **SQL Server instance**. Type a **name** for this database. Select **Windows Authentication** or **SQL Server Security**, and then click **Test Connection**. Once you connect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



6. Select the **Services** that this server will handle. Click **Next**.

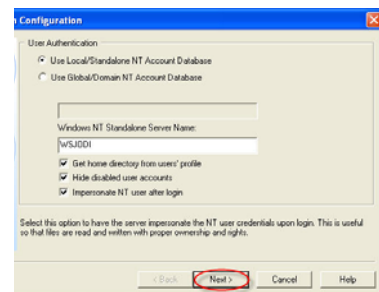


7. Select **Windows NT/SAM User Authentication** and then click the **Authentication Server Setup** button. This will launch the Windows NT/SAM User Authentication sub-wizard.

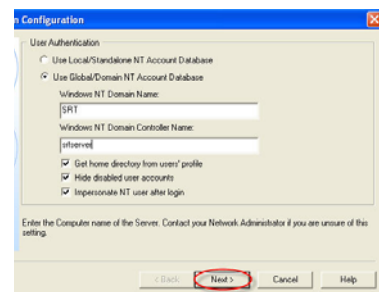


Choose either *Use Local/Standalone NT Account Database* or *Use Global/Domain NT Account Database*. Configuration options will vary depending on which option you choose.

If you select **Use Local/Standalone NT Account Database**, the *Standalone Server Name* will be pre-populated with the name of the local computer. Select additional options using the check boxes. We recommend that you select all three additional options.



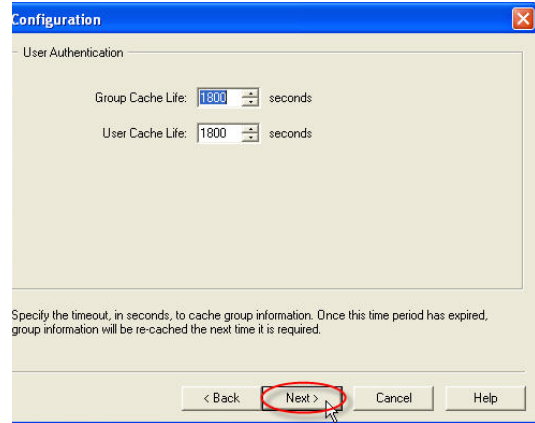
If you select **Use Global/Domain NT Account Database**. \* Type the *Windows NT Domain Name* and the *Windows NT Domain Controller Name*. Select additional options using the check boxes. We recommend that you select all three additional options.



When you are finished, click **Next**.

\*A special Windows User Account must be created to use NT SAM User Authentication with Cornerstone MFT. See the [Appendix](#) for instruction on how to create this special Windows User Account.

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



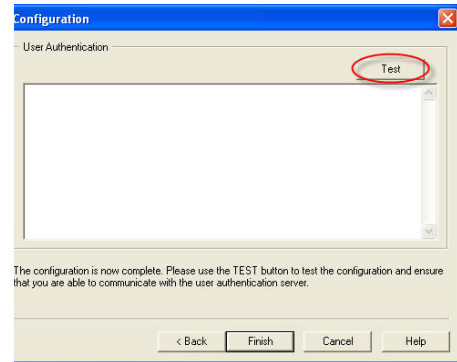
\* Cornerstone MFT will cache user and group information to increase performance and decrease the load on your back-end authentication server. The number of seconds that Cornerstone caches this information is controlled by the *User Cache Life* and *Group Cache Life* values. The *Group Cache Life* value 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 NT SAM 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.

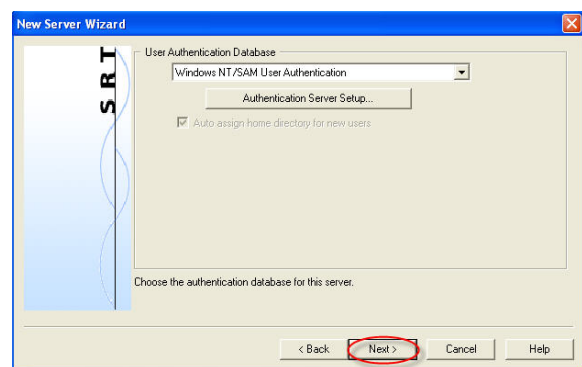
9. Click **Test** to test the configuration and ensure that you are able to communicate with the user authentication server.



If Cornerstone MFT can successfully communicate with the NT SAM Authentication database the message that displays is *Success*. Click **OK**. (If an error is displayed, Cornerstone was not able to connect to the server.) 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. Click **Yes** to test the generation of a list of Users.

Click **Finish**.

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



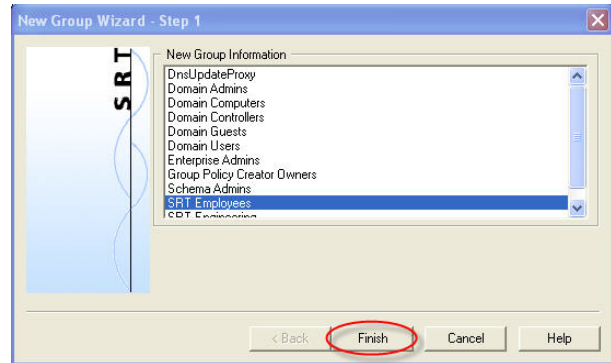
You have now configured Cornerstone MFT for NT SAM user authentication. Depending on the Services that you selected, the New Server Wizard will guide you through additional configuration options. For more information about these additional configuration options, see the [Cornerstone MFT User Guide](#) or the [Cornerstone Quick Start Guide](#) for your specific server configuration.

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.\*

**\*PLEASE 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 NT SAM user database, groups that will participate in the Cornerstone MFT must be selected/mapped into Cornerstone MFT from the NT SAM database. To do this, you must run the *New Group Wizard* to add a new group to the Cornerstone MFT.

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

12. Select one or more **NT Groups** to be granted access to this server. Click **Finish**.



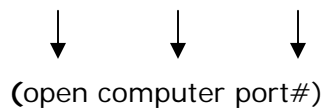
It is now time to test the server.\*

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

Type either:  
**open localhost**  
-OR-

```
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.
ftp>
```

the **IP Address** that you specified in step 4.  
If you specified a port number, 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 the next page for an alternate method to test the server.\*

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:

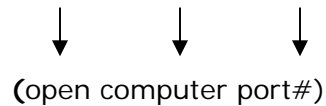
**open localhost**

-OR-

the **IP Address** that you specified in [step 4](#).

If you specified a port number, you must add the port number.

For example, type: open localhost 21



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.

## Appendix Creating a Special NT Account

If you would like to use Windows NT SAM (Security Accounts Manager) for user authentication with Cornerstone MFT, a special Windows User Account must be created. The special Windows User Account will be used by the Cornerstone Service when it needs to authenticate FTP clients when they connect to the system (it will **not** be used by the FTP clients to connect to the server). This special Windows User Account will be given certain rights not usually available to other Windows User accounts. The Cornerstone Service will also need to be modified to use this new Windows User account that will be created.

Cornerstone MFT must be able to access the Windows NT SAM User Accounts Database whether Cornerstone MFT is installed on a standalone or single server network, or on a multi-server network. There can be other servers on the network, but Cornerstone will only interact with the server that stores the Windows NT SAM User Accounts database.

**If Cornerstone MFT is installed on the PDC, use the following steps to create the new Windows User account:**

1. On the PDC, create a new domain user account and make note of the username and password. For our example, we will use *Cornerstoneuser* as the username and *Cornerstonepass* as the password. **NOTE: DO NOT USE THESE NAMES IN YOUR CONFIGURATION; USE SOMETHING VERY DIFFERENT TO PREVENT SOMEONE FROM POSSIBLY HACKING IN TO YOUR SYSTEM!**
2. Make *Cornerstoneuser* a member of the *Domain Admins* and *Domain Users* groups.
3. Open the **Local Security Policy** applet on the **PDC** and under **Security Settings - > Local Policies -> User Rights Assignments** make sure that *Cornerstoneuser* is granted the right to **Access Computer From The Network** and **Act As Part Of Operating System**.
4. Install Cornerstone MFT on the PDC and restart the PDC.
5. Open the **Services** Control Panel Applet and scroll down to the **Cornerstone MFT** service. Right-click on the **Cornerstone MFT** service and select **Properties**.
6. Modify the **Log on As:** section so that the Cornerstone MFT Service will log on using the *Cornerstoneuser/Cornerstonepass* account that was created.
7. **Stop** then **Restart** the Cornerstone MFT Service.

If Cornerstone MFT is not being installed on the PDC, then the PC on which Cornerstone is installed must be a Member Server of the domain:

1. On the **PDC**, create a new **Domain User Account** and make note of the username and password. For our example, we will use *Cornerstoneuser* as the username and *Cornerstonepass* as the password. **NOTE: DO NOT USE THESE NAMES IN YOUR CONFIGURATION; USE SOMETHING VERY DIFFERENT TO PREVENT SOMEONE FROM POSSIBLY HACKING IN TO YOUR SYSTEM!**
2. Make *Cornerstoneuser* a member of the *Domain Admins* and *Domain Users* groups.
3. Open the **Local Security Policy** applet on the **PDC** and under **Security Settings -> Local Policies -> User Rights Assignments** make sure that *Cornerstoneuser* is granted the right to **Access Computer From The Network** and **Act As Part Of Operating System**.
4. On the **Member Server**, create a new **Local User Account** using the same username and password as the user in step 1. Make this user a member of the **Power Users** group.
5. Open the **Local Security Policy** applet on the **Member Server** and under the **Security Settings -> Local Policies -> User Rights Assignments** make sure that *Cornerstoneuser* is granted the right to **Log on as a Service**.
6. Install Cornerstone MFT on the **Member Server** and restart the **Member Server**.
7. Open the **Services** Control Panel Applet on the **Member Server** and scroll down to the **Cornerstone MFT** service. Right-click on the **Cornerstone MFT** service and select **Properties**.
8. Modify the **Log on As:** section so that the Cornerstone MFT Service will log on using the *Cornerstoneuser/Cornerstonepass* account that was created.
9. **Stop** then **Restart** the Cornerstone MFT Service.

At this point, Cornerstone MFT is now configured properly. The Cornerstone MFT Service is now using a special Windows User Account that has the proper rights necessary to query the PDC User Accounts Database during the authentication of an FTP client session. When a FTP client attempts to connect to a Cornerstone MFT that has been set up to use NT Authentication, Cornerstone MFT sends the FTP client's username and password over to the PDC User Accounts Manager asking if the FTP client's Username/password are valid. If they are, then Cornerstone MFT will allow the FTP client to connect.

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