

2019

# Windows NT/SAM User Authentication with Cornerstone MFT Server

Instructions for configuring Cornerstone MFT Server to leverage Windows NT/SAM for user authentication.

*QuickStart Guide*



# Configuring Windows NT/SAM for User Authentication

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 online at [https://southrivertech.com/wp-content/uploads/Cornerstone\\_Print.pdf](https://southrivertech.com/wp-content/uploads/Cornerstone_Print.pdf), and the knowledge base can be found at <http://srhelpdesk.com/>.

## Creating a Dedicated Windows User Account

To use Windows NT/SAM (Security Accounts Manager) for user authentication with Cornerstone MFT, a special Windows User Account must be created, which will be dedicated to Cornerstone. Please see the Appendix for instructions on how to create a special Windows User Account for use with Cornerstone MFT.

The Cornerstone Service will use this account to authenticate FTP clients connecting to the system; FTP clients will not use this account to connect to the server. This account will have permissions not usually available to other Windows User accounts. To use this account, the Cornerstone Service will need to be modified.

## Configuring the Cornerstone Administrator

Use the following steps to configure a new server to utilize Windows NT/SAM as the user authentication engine.

1. Run the Cornerstone Administration Utility and start the New Server Wizard.
2. Walk through the Server Wizard, selecting the desired options, until you reach the User Authentication Database page.
3. Select Windows NT/SAM User Authentication and click the Authentication Server Setup button. This will launch the Windows NT/SAM User Authentication sub-wizard.
4. 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:
  - a. 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 four additional options; the last two are hardwired together to provide Cornerstone clarity on which permissions to follow.
  - b. If you select Use Global/Domain NT Account Database. Type the Windows NT Domain

## Configuring Windows NT/SAM for User Authentication

Name and the Windows NT Domain Controller Name. Select additional options using the check boxes. We recommend that you select all additional options.

5. When you are finished, click Next.
6. Set the Group Cache Life and User Cache Life using the up/down arrows.

Cornerstone MFT will cache user and group information to increase performance and decrease the load on your back-end authentication server.

The **User Cache Life** and **Group Cache Life** values control the number of seconds Cornerstone caches user and group information. Cornerstone uses the Group Cache Life value to determine the list of members in a group and how long to wait before refreshing group information. Once the cache life expires, Cornerstone flags the cached group information as “stale.” When Cornerstone needs a list of group members, it will reload the group properties (and the list of members of the group) from the remote database. Therefore, if you modify the membership of the group by adding or deleting users, those changes will not appear in Cornerstone until the Group Cache Life value has expired and Cornerstone can reload that information.

**Note:** Avoid setting the Cache Life values **too** low. At very low values, Cornerstone will spend so much of its resources flushing and reloading the user/group information from the authentication server, performance will degrade.

If you have a dynamic system in which the users/groups change frequently, set the Group Cache Life value low, for instance 300 seconds (5 minutes).

These rules also apply to User Cache Life setting. Changes to a user account in the back-end authentication server 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.

7. Click Next.
8. Click Test to test the configuration and ensure that you are able to communicate with the User Authentication Server.

If an error is displayed, Cornerstone was not able to connect to the server. If this process fails, most commonly either the Domain Name was not specified correctly or the Server Name is not accessible. Click the Back button to return to previous pages and adjust the values.

If Cornerstone MFT can successfully communicate with the Authentication database the message that displays is Success.

9. Click OK.
10. 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.

## Configuring Windows NT/SAM for User Authentication

11. Click Yes to test the generation of a list of Users. Click Finish.
12. You are now returned to the Cornerstone MFT New Server Wizard. Click Next.
13. Step through the remaining pages in the Server Wizard, selecting the options you desire. On the final page of the Wizard you will see a list of options selected for your server.
14. Click Finish to create the server.

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. 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 from the NT/SAM database. To do this, you must run the New Group Wizard to add a new group to the Cornerstone MFT.

1. Expand the server menu and click Groups. Click New Group to launch the New Group Wizard.
2. Select one or more NT Groups to be granted access to this server. Click Finish.

## Appendix: Creating a Special Windows NT/SAM Account

If you would like to use Windows NT/SAM for user authentication with Cornerstone MFT Server, a special Windows User Account must be created. Cornerstone MFT must be able to access the Windows NT/SAM User Accounts Database whether Cornerstone MFT is installed on a standalone/single server network or 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.

Use the following steps to create the new Windows User account:

1. On the Domain Controller, 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.
2. Make Cornerstoneuser a member of the Domain Admins and Domain Users groups.
3. Open the Local Security Policy applet on the Domain Controller 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. Open the Services Control Panel Applet and scroll down to the Cornerstone MFT service. Right-

**NOTE:** DO NOT use these names in your actual configuration or risk exposure to hackers.

## Configuring Windows NT/SAM for User Authentication

click on the Cornerstone MFT service and select Properties.

5. Modify the Log On As section so that the Cornerstone MFT Service will log on using the Cornerstoneuser/Cornerstonepass account that was created.
6. Stop and Restart the Cornerstone MFT Service.

Cornerstone MFT is now configured properly. The Cornerstone MFT Service will use 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 an FTP client attempts to connect to a Cornerstone MFT Server that has been set up to use NT Authentication, Cornerstone sends the FTP client's username and password over to the PDC User Accounts Manager asking if the FTP client Windows Username/password are valid. If they are, Cornerstone will allow the FTP client to connect.

# System Requirements

## Supported Operating Systems

- Windows Server 2012, all editions, 32-bit and 64-bit
- Windows Server 2008-R2, all editions, 32-bit and 64-bit
- Windows Server 2008, all editions, 32-bit and 64-bit
- Windows Server 2016, all editions, 32-bit and 64-bit

## Minimum Hardware Requirements

- 2 GHz Pentium® class processor
- 4GB of RAM is required; 8GB of RAM is recommended
- Minimum 100MB of free disk space for the application
- Minimum SVGA (800x600) resolution display is required to run the Administration console program.

## Minimum Software Requirements

- Microsoft .NET Framework v4.0 is required
- Microsoft SQL Server 2005 or later is required
- Microsoft SQL Server Management Studio Express is recommended

## Limitations

- Cornerstone MFT server is a multi-threaded, dynamic server solution for the Microsoft Windows operating system. While designed to handle an unlimited number of user connections and servers, like all software, Cornerstone is limited by the resources of the computer; most notably, those limitations imposed by the Windows Sockets (WINSOCK) Library.

## About South River Technologies

South River Technologies (SRT) is an innovator in secure file management software. SRT software allows users to securely access, manage, and collaborate on files over the Internet, streamlining business processes to improve productivity. SRT's products enhance customers' existing applications by instantly enabling secure access and collaboration within those applications. More than 90,000 customers in 140 countries use SRT's software to make remote file access and collaboration more efficient for their customers, partners, and distributed workforce.

For more information, please visit [www.southrivertech.com](http://www.southrivertech.com). South River Technologies, Cornerstone MFT, Titan FTP Server, WebDrive, and DMZedge Server are registered trademarks of South River Technologies, Inc. in the U.S. and other countries. Any information in this document about compatible products or services should not be construed in any way to suggest SRT endorsement of that product or service.

## Contact Information

South River Technologies, Inc.  
1910 Towne Centre Blvd  
Suite 250  
Annapolis, Maryland 21401  
USA

Toll Free: 1-866-861-9483  
Main: 443-603-0290  
Fax: 410-266-1191  
Corporate Web site: [www.southrivertech.com](http://www.southrivertech.com)  
Online Support: [www.srthelpdesk.com](http://www.srthelpdesk.com)