

# Using UNC Paths for Data Storage

## Introduction

SRT’s server products, GroupDrive Collaboration Server and Titan FTP Server, support a powerful feature that allows for the storage and access of data which is physically stored on any server in your network. Access to the remote data is through a public UNC<sup>1</sup> which specifies the company name, share name, and optional subdirectory where the data is stored. An example would be a computer **QALAB1** which has a shared folder called **SrtData** with a subdirectory called **Cluster Test**. The UNC needed to reference the location would be

```
\\QALAB1\SrtData\Cluster Test\
```

The main benefit to using UNC's to refer to data storage locations is scalability.

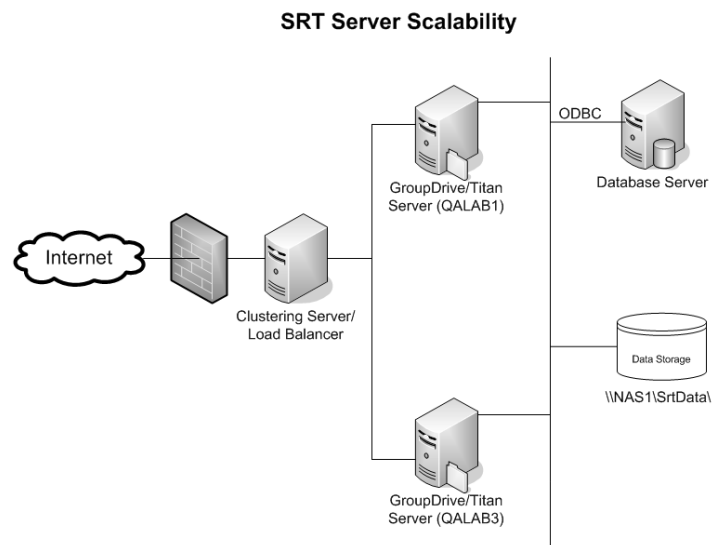
## Scalability

GroupDrive and Titan both support the ability to be deployed in a scalable environment, meaning that one or more servers can be run in parallel and can access the same back end data storage to service the same front end clients.

If you intend to scale your GroupDrive or Titan Server to multiple boxes, you will need to configure the server so that all data file access is done through a UNC share rather than a local drive or a mapped network drive letter.

For illustration purposes, let’s assume that you will have multiple GroupDrive/Titan Servers in your multi server cluster.

QALAB1 is the primary/first Server that will be installed; QALAB3 will be backup server that will be added at a later date. With a multi-server environment, there are two scenarios, but both will require the same configuration.



<sup>1</sup> UNC, or Uniform Naming Convention, specifies a common syntax to describe the location of a network resource, such as a shared file, directory or printer. The UNC syntax for Windows systems is \\computername\sharedfolder\resource.

Scenario 1 – User data will be stored on a local fixed disk on the QALAB1 primary server box. Both QALAB1 and QALAB3 Servers will need access to this same data.

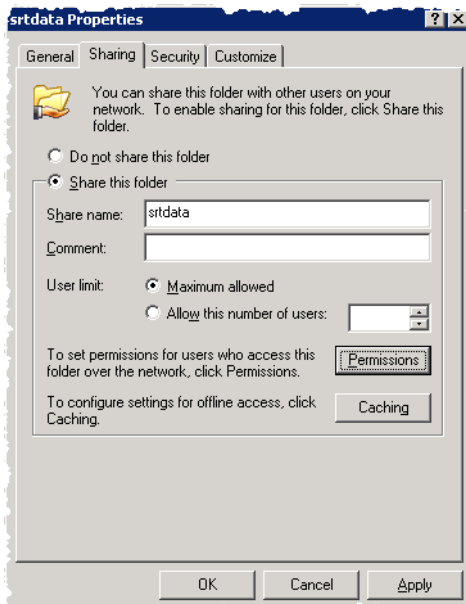
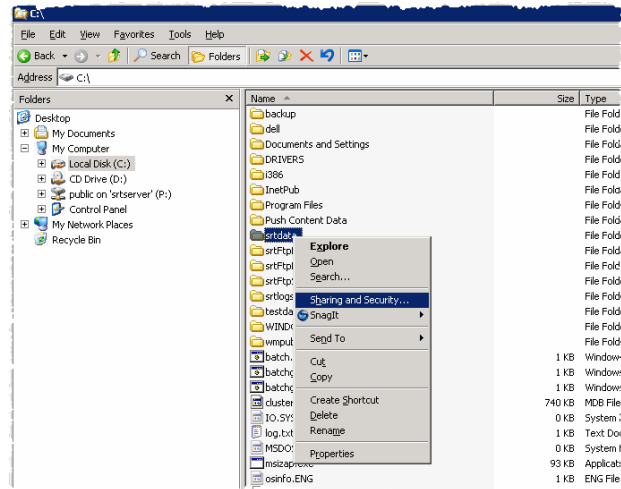
Scenario 2 – User data will be stored on a remote/third box on the network; a box that is neither QALAB1 nor QALAB3. Network Attached Storage (NAS1) would be an example.

For either scenario, the configuration setup is basically the same.

The first step involves setting up the UNC so that it can be accessed by the GroupDrive Server. This requires a UNC share and NTFS permissions adjustments to the folder where the data is stored.

Run Windows Explorer and locate the directory where data will be stored. For our example, all data is stored under C:\SRTDATA\.

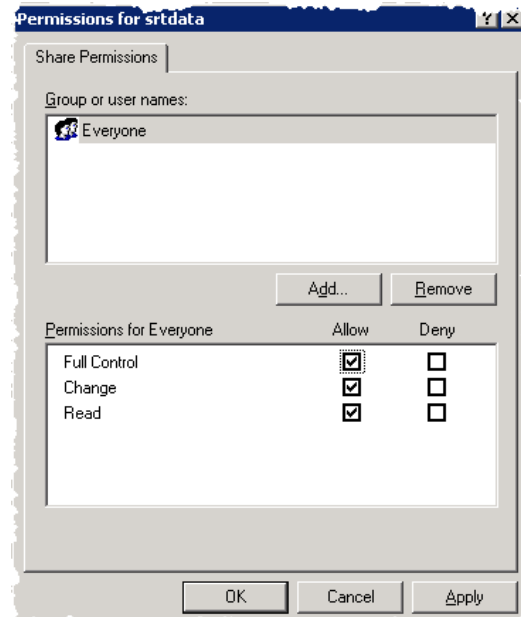
Right-click on the folder and select **Sharing and Security** from the pop-up menu. This will display the UNC Sharing dialog for the selected folder.



Select the appropriate options to **Share This Folder** and then update the **Permissions** on the share so that the GroupDrive Servers will be able to access data on the share. This part is very important since incorrect permissions will prevent GroupDrive from being able to access the data. Typically the GroupDrive Service runs under the context of one of the special built-in Windows system accounts such as Local System or Local Service.

These built-in accounts do not have proper NTFS rights to access files stored on remote UNC's. There are two options: you can

either grant full NTFS rights to all users which will allow GroupDrive to gain access to the UNC, or you can create a special NT User Account<sup>2</sup> for the GroupDrive Service and then add that special NT User Account to the ACL list for both the share and the underlying NTFS file system. (NOTE: the ACL for the SHARE is different than the ACL for the underlying folder on the NTFS drive). If you create a special NT user account for the GroupDrive Server, and you plan to have that NT user account gain



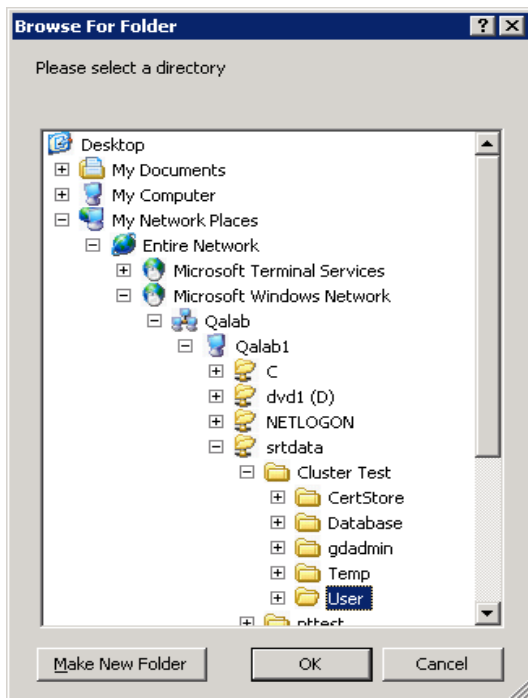
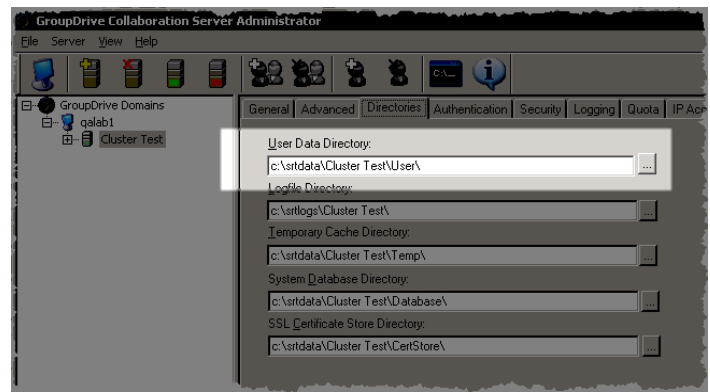
<sup>2</sup> A White Paper discussing the topic of Creating a special NT User Account to be used by a Server Service is available on our website at <http://www.southrivertech.com/>

access to the data on the UNC share, you will need to give that NT user account an Access Control Entry (ACE) for the underlying folder AND an ACE in the Access Control List (ACL) for the Share.

Once you have properly set the permissions for the NTFS folder and share, close the dialogs and return to Explorer to view the shared folder.

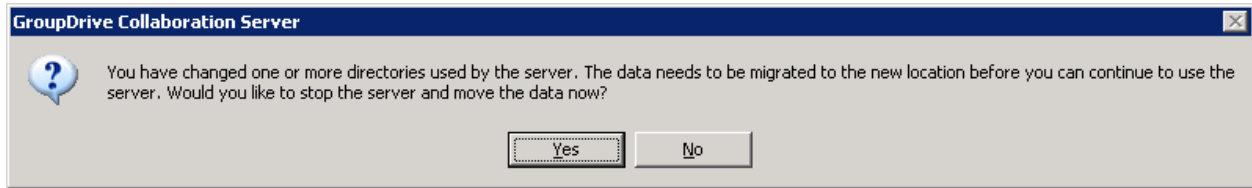
## Updating the User Data Directory

Once you have configured the UNC for access by the GroupDrive Server, you can run the GroupDrive Administration program and launch the New Server Wizard to configure your server. NOTE: You can also re-configure an existing server to use the UNC instead of the local drive. For example, if you create a GroupDrive Server and all user data is stored under “C:\SRDATA\Cluster Test\”, you can reconfigure GroupDrive by creating a UNC Share that points to \\QALAB1\SRDATA\Cluster Test\ and then update the Data Directory in GroupDrive to point to the new UNC. The data will not be different, but accessing the data will be more generic and will allow for easier scalability.



To update or set the default User Data Directory, launch the GroupDrive Administration program and select the server that will be modified. On the Directories tab, click the ‘...’ button just to the right of the User Data Directory entry. The Browse For Folder dialog box will appear. Using the Browse For Folder dialog box, browse the **NETWORK PLACES** and find the machine name, share name, and folder where the GroupDrive User Data will be stored. Click OK to accept the new directory and return to the main Directories tab of the GroupDrive Administrator. Click **Apply** to save the new directory settings.

Note: If you change the User Data Directory, GroupDrive will internally update all Shares, Links and ACL's that referenced the old location to reference the new location. It will also ask you if you would like to migrate all of your user data from the old location to the new location.



### If you did not change the physical location of the user data, DO NOT migrate the data!

The reason you do not want to move the data is because the source and destination are the same physical location, but if you tell GroupDrive to move the data, the data will be moved and not copied so the source data may be deleted.

Once the primary GroupDrive Server has been configured to use UNC based data directories, you can install the GroupDrive Server on additional nodes.

