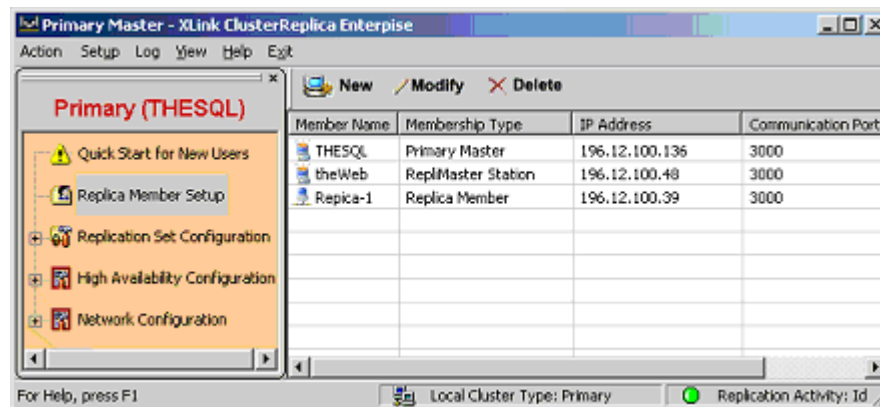


Configure The Primary Master Station

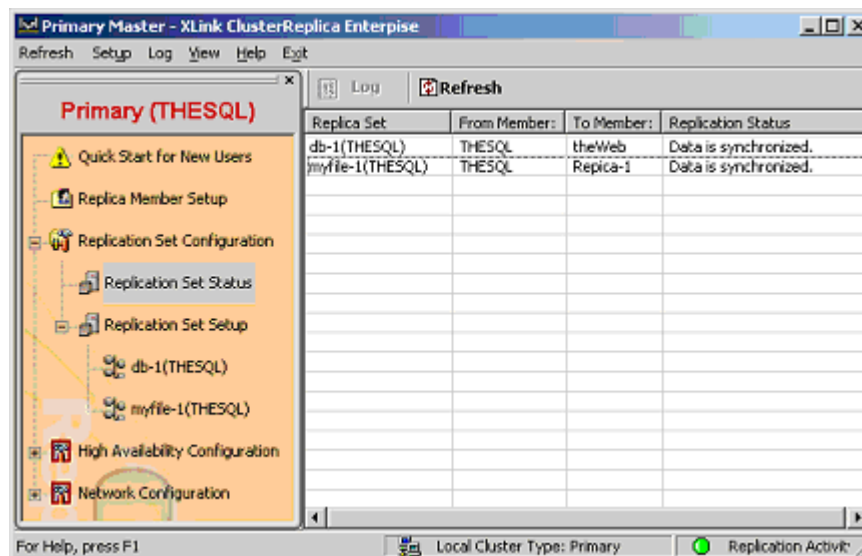
The centralized management of a clustering structure is an important feature of ClusterReplica Enterprise software. Not only all configurations are done on the Primary Master station, it also monitors the number of Replica Members and their roles in the clustering structure. This centralized management creates an easy-to-manipulate and error-free clustering structure.

There are three major parts in configuration to be done on the Primary Master station:

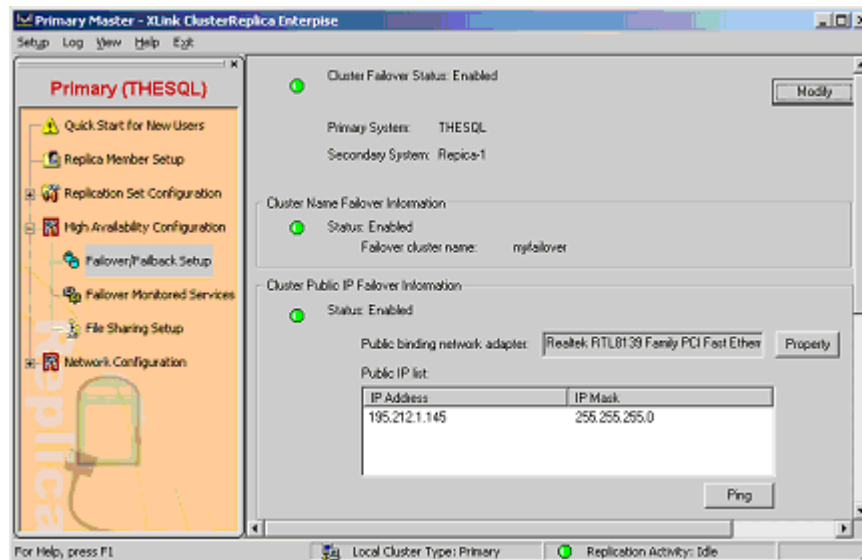
1. [Add new members](#) - this is the first thing to do when constructing a clustering structure. The ClusterReplica software must be already installed on all intended member systems.



2. [Configuration for data replication](#) - data replication can be set to any of the Replica Member station including the Repli-Master and the Primary Master stations.



3. [configuration for server Failover](#) - only one Replica Member can be set as the **Secondary station** for failover purpose.

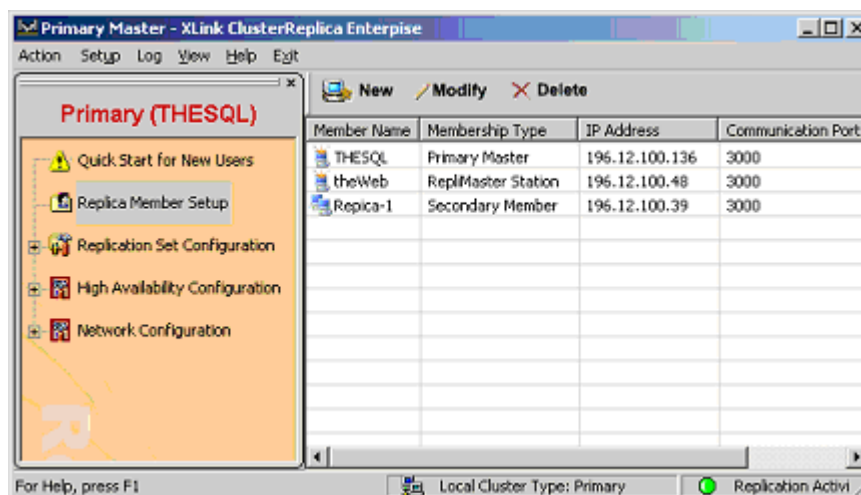


The **Network Configuration** has default values set by ClusterReplica Enterprise. This part of configuration is needed only when users want to change the default values.

Replica Member Setup

This part of the configuration defines the replica members in the clustering. A replica member is basically a data replication destination. One of the replica members, however, can be set as the Secondary station for server failover purposes.

To define a replica member, select **Replica Member Setup** from the main menu to bring out the configuration panel. Click button **New** to add new members to the clustering structure.



Besides the Primary Master station, there can be four types of memberships:

1. [The Repli-Master](#) - It is a remote Replica Member station that can function as the data source as well as data destination for real-time data replications.
2. [The remote Replica Member](#) - It is a remote Replica Member station of a different Windows system from the Master stations and is to be used as the data replication destination.

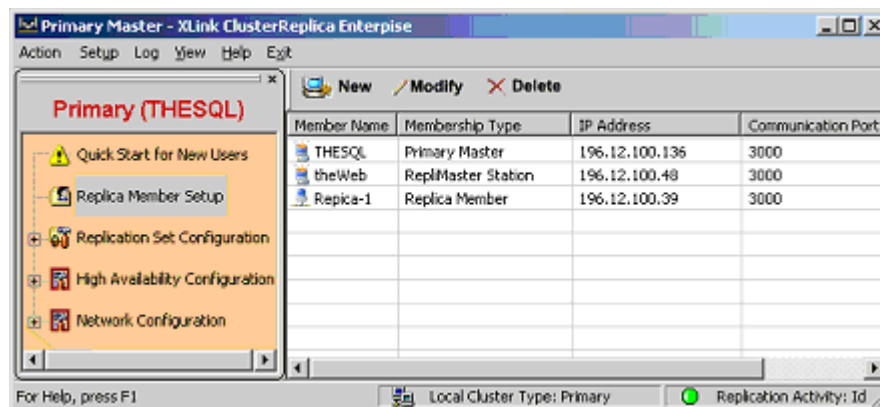
3. [The Secondary member](#) - It is a Replica Member station which, besides being a data replication destination, also functions as the Failover destination. There can be only one Secondary member in a ClusterReplica Structure. Using [Failover Setup](#) to specify the Secondary station.
4. [The local replica member](#) - It is a Windows drive or folder on the same system of the data source, the Master, stations.

Add A Repli-Master

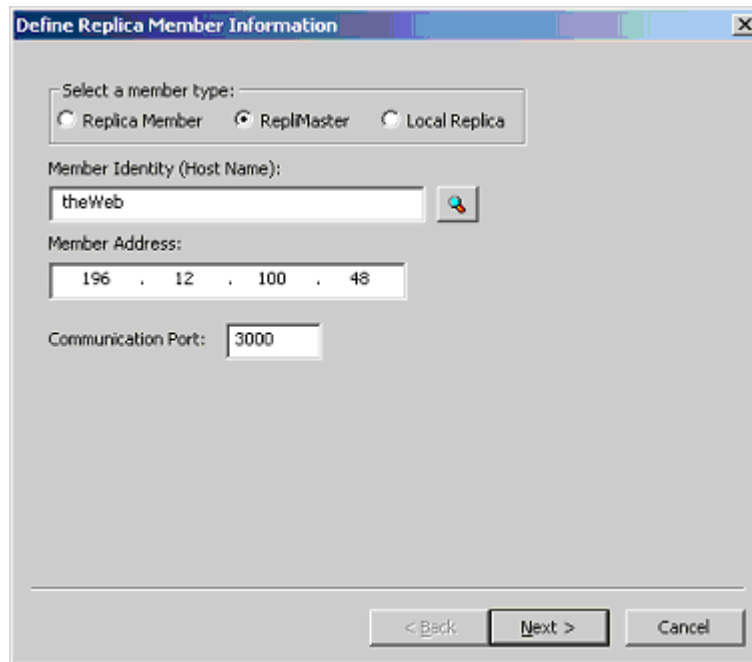
A **Repli-Master** is a unique member in the ClusterReplica structure.

- It is a data replication source server that needs to replicate the data files on it to other servers in local or remote locations.
- Compare to the **Primary Master**, a **Repli-Master** is short of the power in clustering member management, and it also cannot initiate a Failover.
- Compare to a **Replica Member**, a **Repli-Master** is not limited only to be the data replication destination system. It is a system that can both perform real-time date replication and receiving data from other **Master** members.

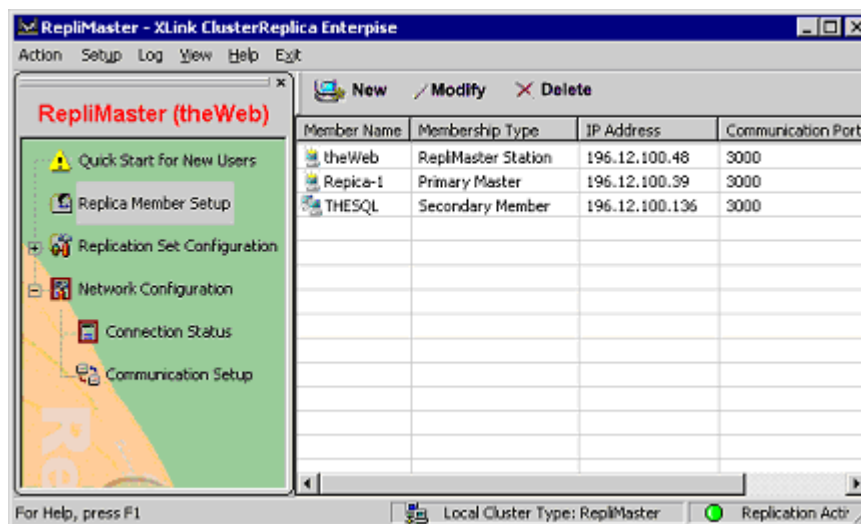
After the successful installation, the system first comes up as a **Replica Member**.



From the **Primary Master**, add the member as a **Repli-Master**



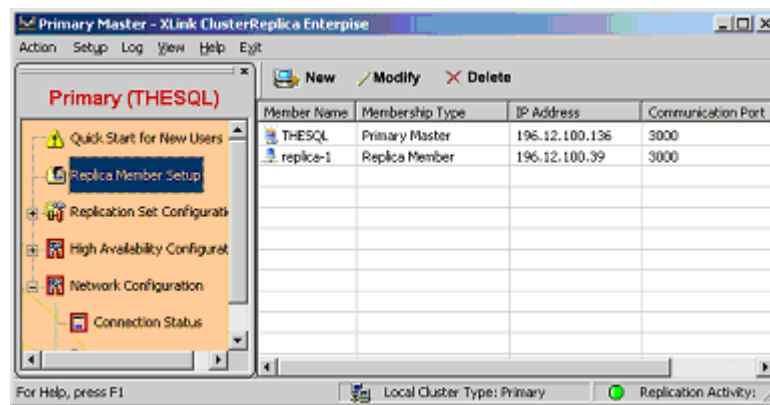
From the **Replica Member Setup** panel, all the defined members in the ClusterReplica Structure are listed.



Add A Local Replica Member

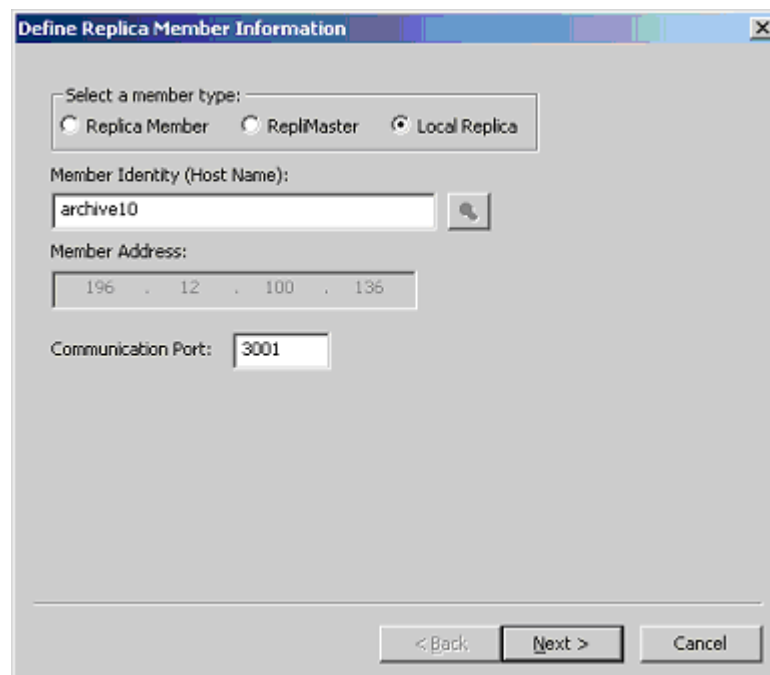
When the replication destination is a drive or a folder on the Primary master server, you need to setup a local replica member. Following is an example showing how to setup a **Local Replica Member**

Click button **New** on the tool bar to open up the tool box. Select the computer from the list of the network, its IP should be automatically filled in.

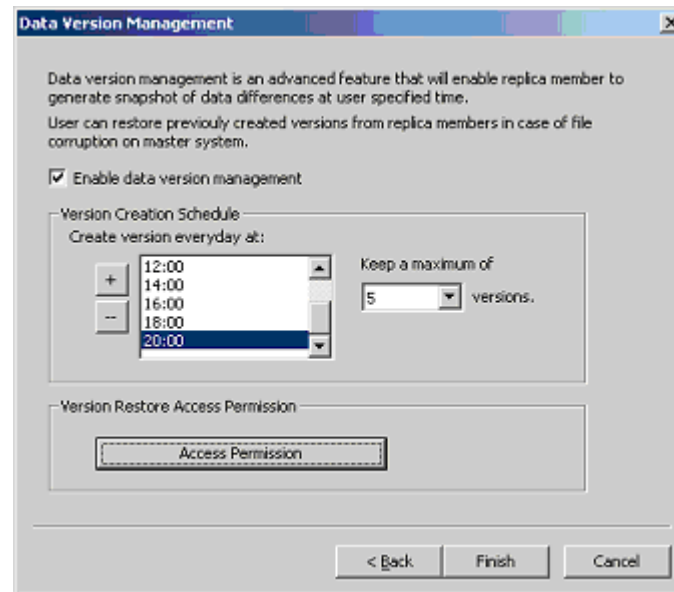


Things require attention:

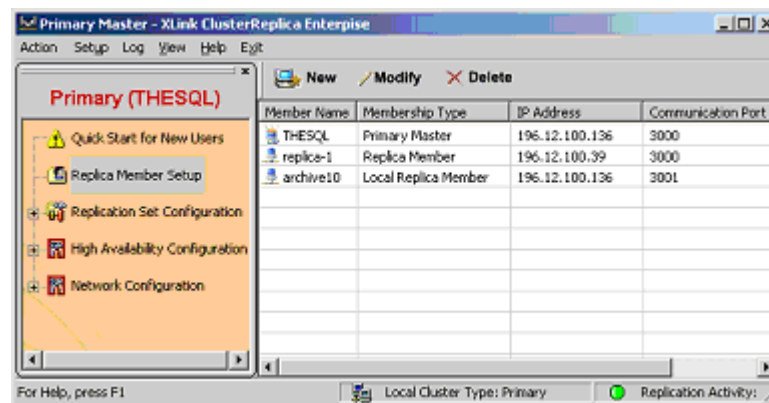
- The **Member Identity** - create a name for the Member Identity. It can be anything, but not the system name of the Primary master.
- The **Communication Port** - use a different port from the default of 3000 which is reserved for the communication with the remote members.



Click **Next** to decide if this member is to be used as **Data Version Manager**. If multiple versions are desired, this function should be activated.



Click **Finish** to complete the process. In the member status panel, the Membership type indicates **Local Replica Member**

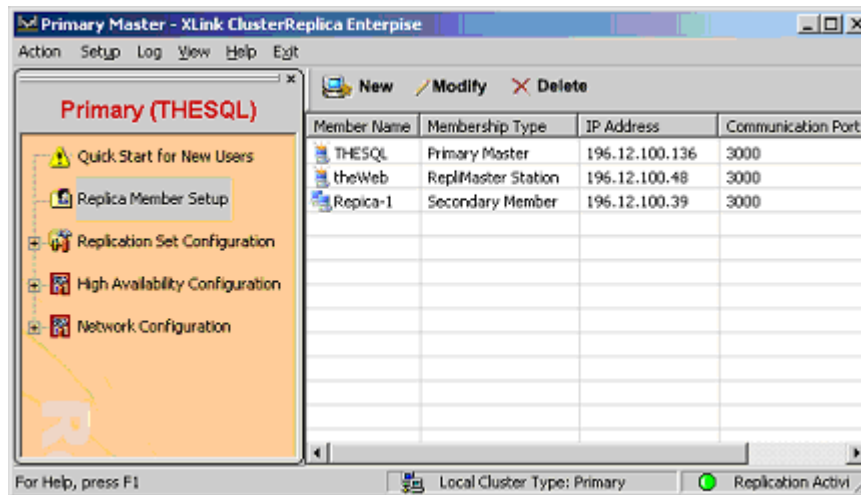


Add A Remote Replica Member

To add a remote replica member, a Windows system of 2003/XP/2000 platform is to be brought into the clustering structure. This system will be used as a data replication destination. This system can be in the same location as the Primary master server or a different location hundreds of miles away.

Note: Make sure the number of Replica Member stations defined matches (or less than) the purchased Replica stations number in the license.

Select **Replica Member Setup** from the main menu to bring out the configuration panel.

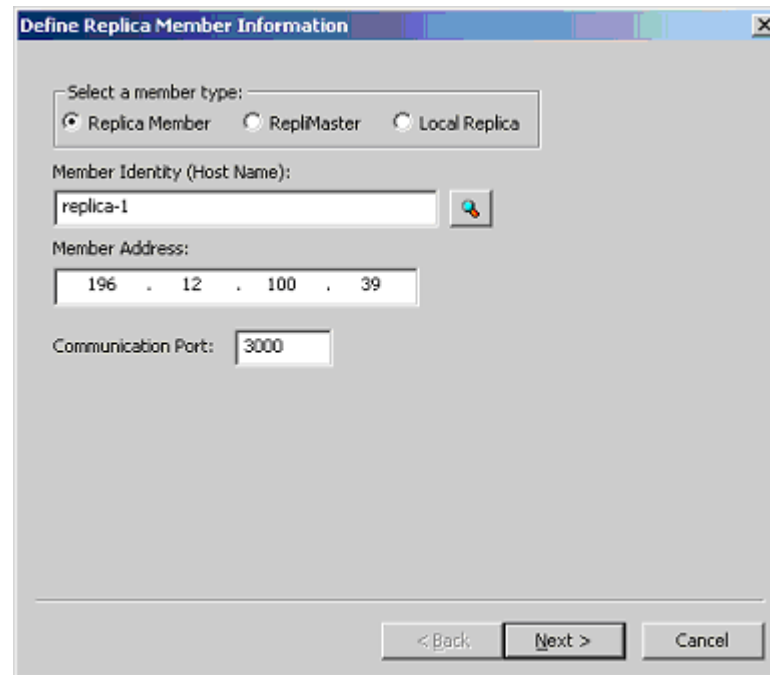


- **Step 1** - click button **New** on the tool bar to open up the dialog box. Two things are to be set here:
 1. Determine the member type
 2. Input the intended machine's information for clustering connection

For member type, you have the choice of **Replica Member**, **Repli-Master** and **Local Replica**. Their difference is:

- **A Replica Member** - It is a data replication destination system that takes in new data from a **Master** system for data protection purposes. It can be also configured as a **Data Version Management** station to allow network end users self manage data files remotely.
- **A Repli-Master** - It is mainly a system that holds the data replication source. However, if really needed, it can also be used as the data replication destination to take in replicated data from other **Master** systems. It does not have the power to initiate failover or perform clustering management as the **Primary Master**.
- **A Local Member** - It is a data replication destination that is on the same machine of the Primay Master or a Repli-Master station. Typical examples of this type of Replica Member can be the USB or data drives of the systems.

The system information can be either typed in or by browsing in the network. The communication port can be modified to fit your system environment.



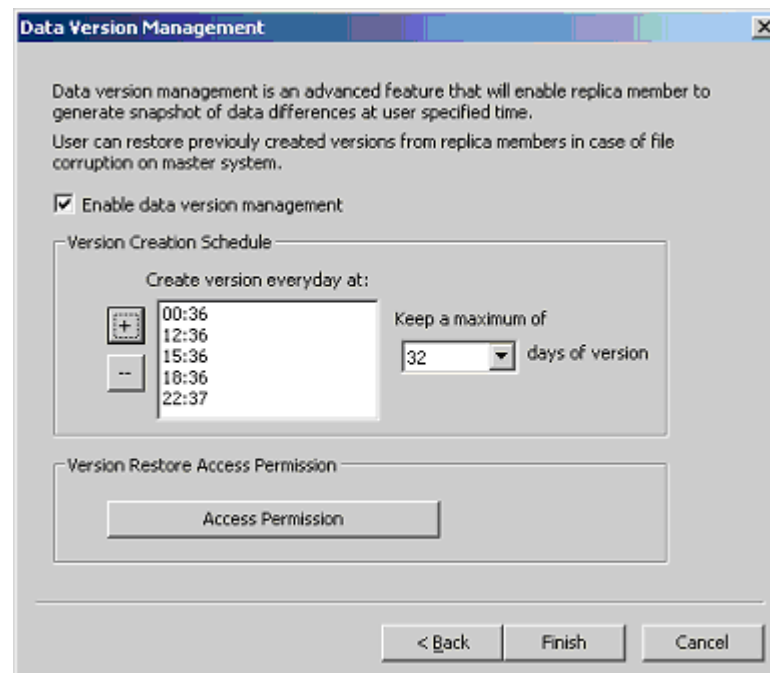
The dialog box is titled "Define Replica Member Information". It contains the following fields and controls:

- Select a member type:** Three radio buttons: Replica Member, ReplMaster, and Local Replica.
- Member Identity (Host Name):** A text box containing "replica-1" and a browse button.
- Member Address:** A text box containing the IP address "196 . 12 . 100 . 39".
- Communication Port:** A text box containing "3000".
- At the bottom, there are three buttons: "< Back", "Next >", and "Cancel".

- **Step 2** - this step allows you to decide if **Data Version Management** feature is needed for a **Replica Member** station.

[Learn more about Data Version Management](#)

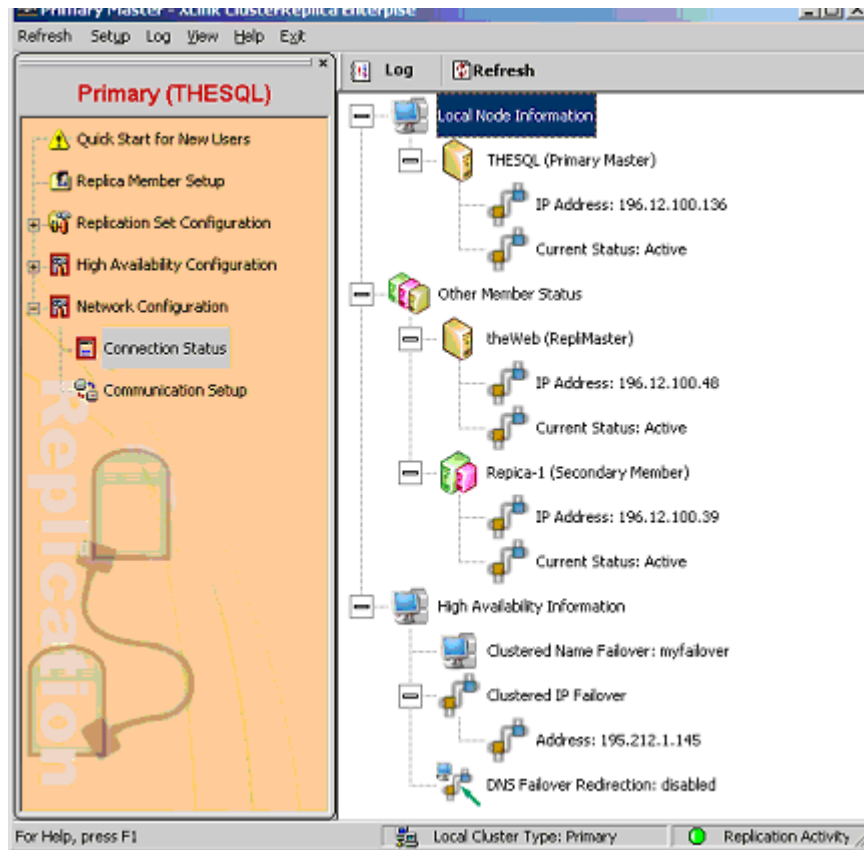
For our example, the **Data Version Management** feature is checked on and the schedule for multiple version data replication is set. Eight time points are set to update the files in every two hours. The maximum versions of a file to be kept is set to **5**. This means when the sixth modification of the file comes, the first one will be pushed out.



The dialog box is titled "Data Version Management". It contains the following information and controls:

- Text:** "Data version management is an advanced feature that will enable replica member to generate snapshot of data differences at user specified time. User can restore previously created versions from replica members in case of file corruption on master system."
- Enable data version management:** A checked checkbox.
- Version Creation Schedule:**
 - Text: "Create version everyday at:"
 - Time selection: A list box showing times: 00:36, 12:36, 15:36, 18:36, 22:37. There are "+" and "-" buttons to the left.
 - Text: "Keep a maximum of" followed by a dropdown menu showing "32" and the text "days of version".
- Version Restore Access Permission:** A button labeled "Access Permission".
- At the bottom, there are three buttons: "< Back", "Finish", and "Cancel".

- Click **Finish** to complete the process. The next screen shows the list of defined members. When Failover is configured, one of the Replica Member set to pair up with the Primary Master for Failover becomes the **Secondary station**. All members defined can be modified and removed, except the Primary Master.



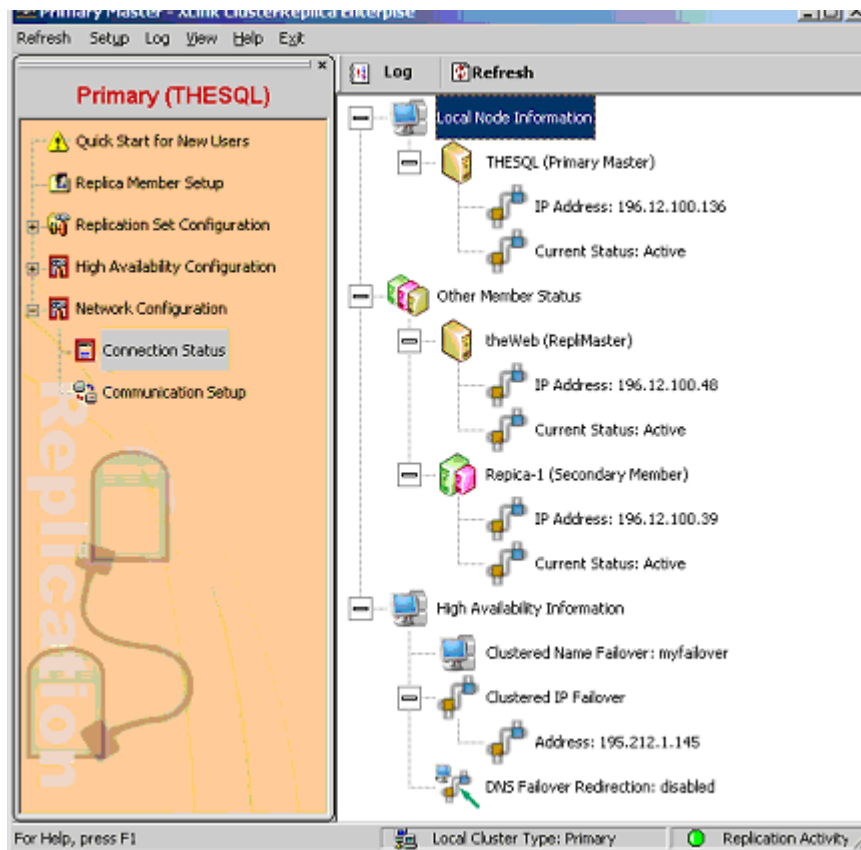
Add A Secondary Station

A Secondary station is a remote replica member defined as the Failover station. Since a repli-master can also be functioning as a replica member, it can also be set as a Secondary station. The process of adding a Secondary station takes two steps:

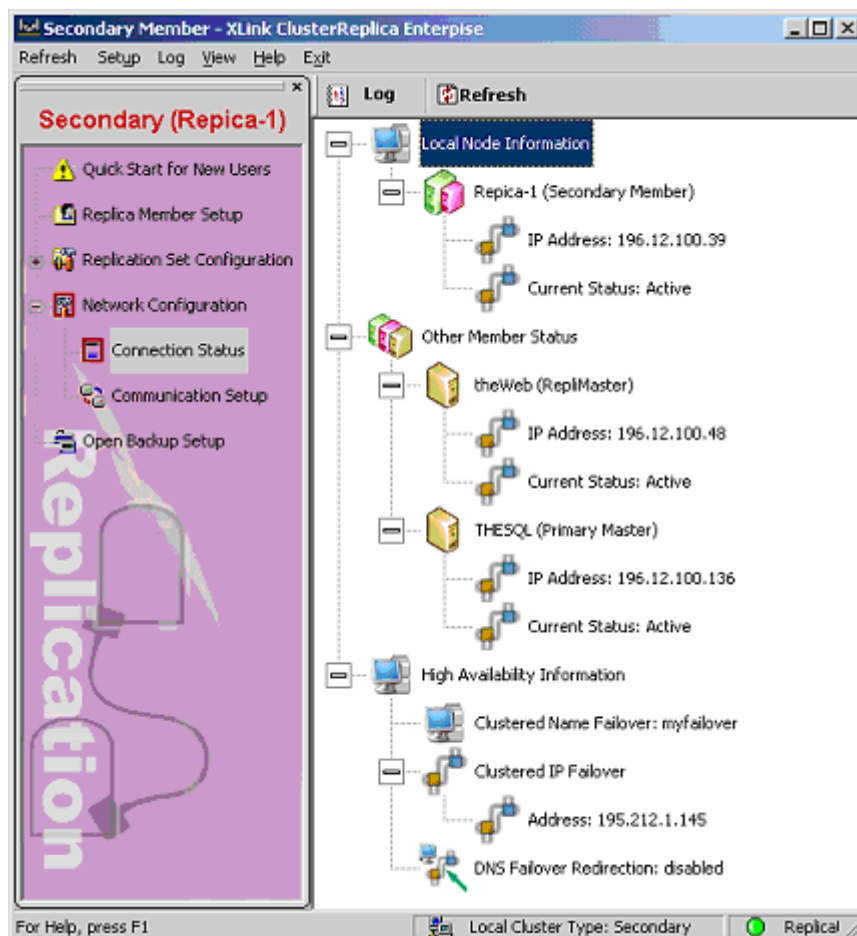
1. Add the remote system as a replica member
[See details in Add a remote replica member.](#)
2. Configure Failover Setup and select the replica member as the Secondary station for failover.
[See details in Failover Setup.](#)

With correct configuration, the Connection status should show:

On the Primary master

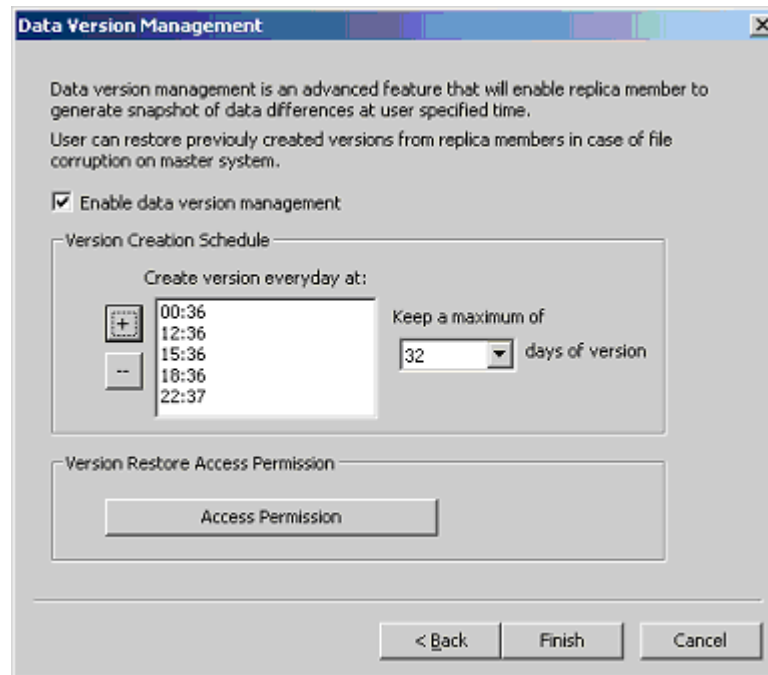


On the Secondary station



Data Version Management

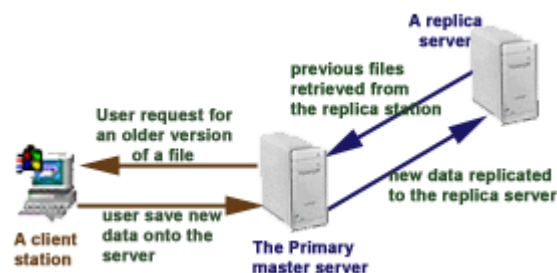
When a **replica** member is defined with **Data Version Management (DVM)** feature turned on, it is set to handle the multiple version data replication and allow network clients to self-restore replicated files. This **replica** member is now functioning as an equivalent of a Microsoft Data Protection Manager.



The two ways archived files can be restored are:

1. [Directly on the data replication source system](#) - this is for the MS SQL and IIS web server files.
2. [Accessed by the LAN end-users from their own desktop systems](#) - this is for the Windows regular application files.

As described in the picture below, the end-users of a file server can retrieve archived files interacting only with the file server. By accessing a Windows mapped drive on his computer, an end-user can manage all his archived files with ease even though the files may actually be on the **Replica** member server some thousands of miles away.

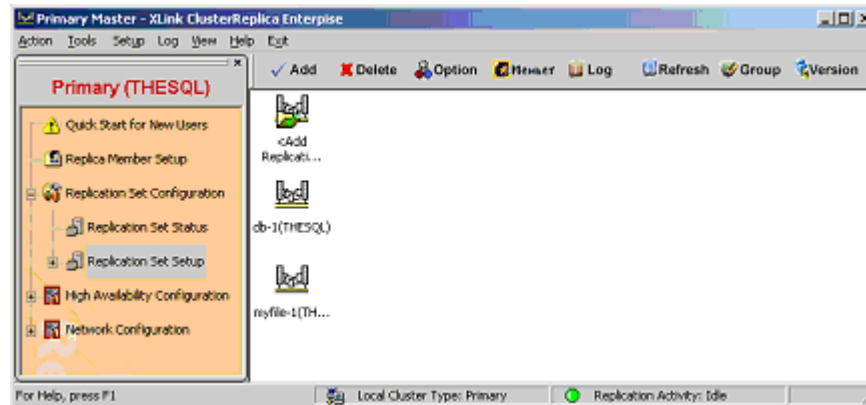


Data Restore From the Replication Source System

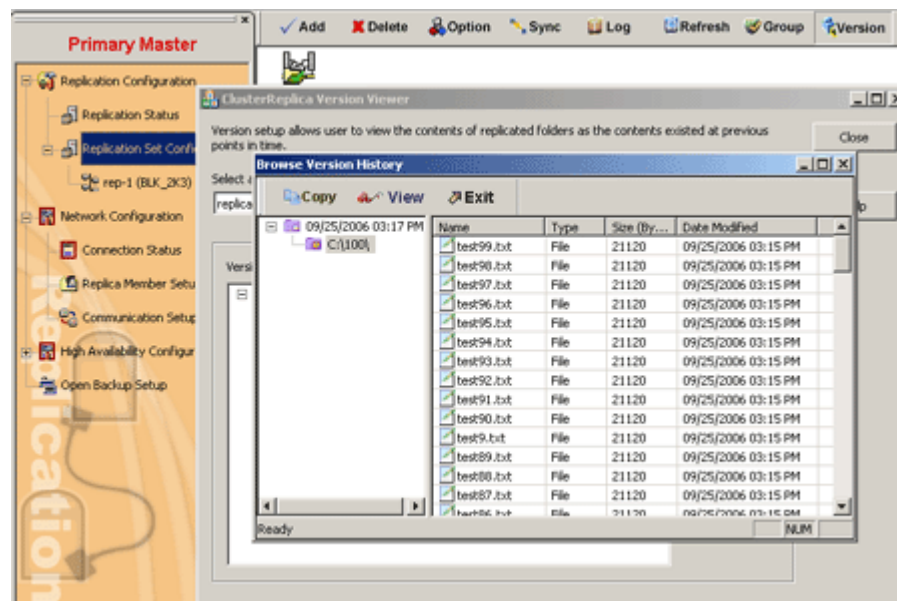
When the data replication source system is a MS SQL server or an IIS Web server, or a server that runs both SQL and Web server services, data restore can only be done from the replication source system.

To check on a previous version of a file on the **Primary master server**

- Under the replication Set Configuration, select the defined replicaion set and click button **Version** to open up the file management utility box



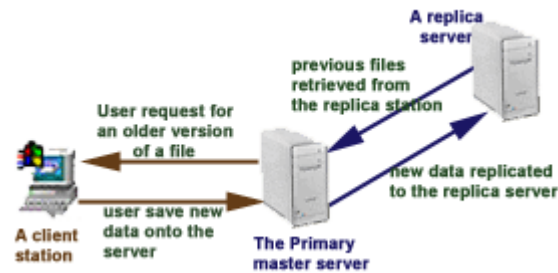
- Select the **replica** station you want to access in the **host** menu to access the files on that station.



Data Restore by the LAN End-users

When a **replica** member is defined with **Data Version Management (DVM)** feature turned on, it is set to handle the multiple version data replication and allow network clients to self-restore replicated files and allow file server end-users self-restore of archived files.

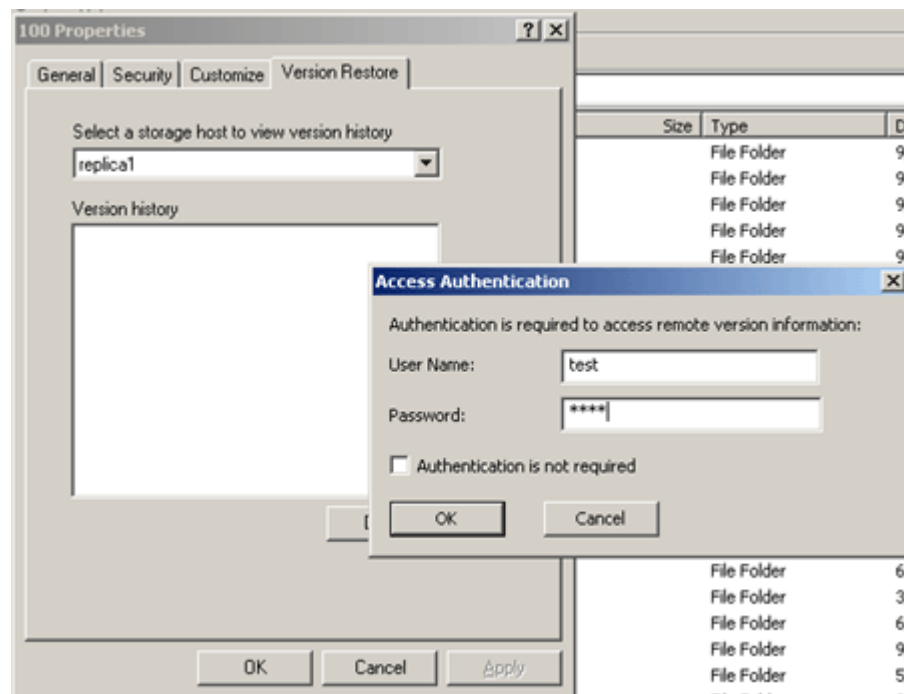
By accessing a Windows mapped drive on his computer, an end-user can manage all his archived files with ease even though the files may actually be on the **Replica** member server some thousands of miles away.



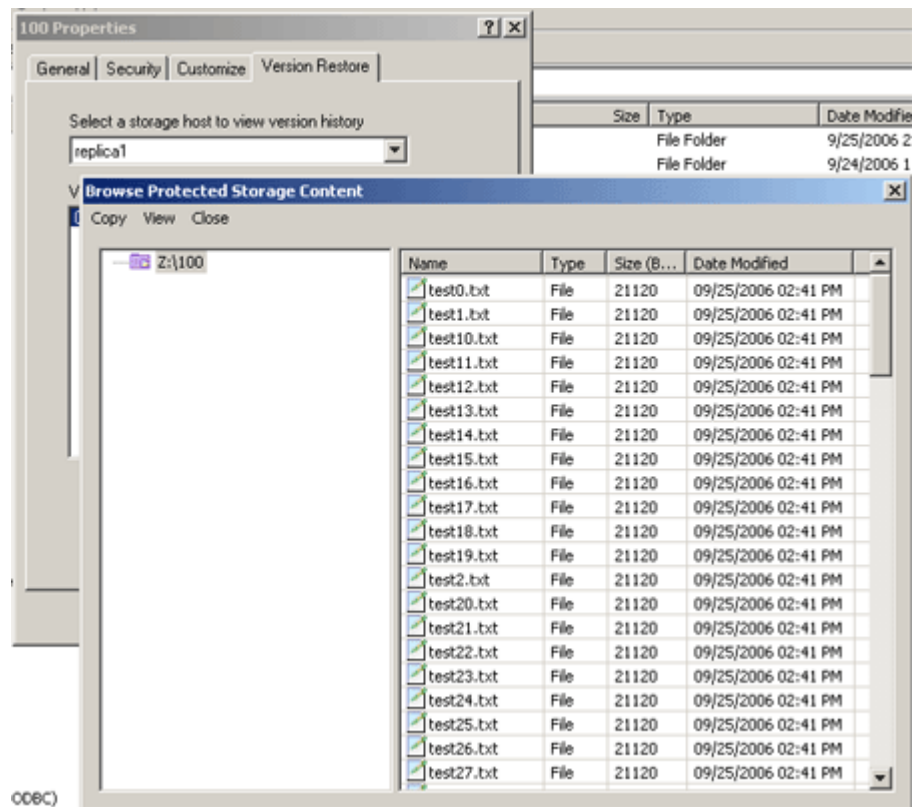
On a LAN end-user's desktop system, a small utility tool extracted from the installed folder of ClusterReplica Enterprise on the Primary Master server (default C:\Program Files\ClusterReplica Enterprise) of name **crrstClient.exe** must be first installed. Successful installation adds an item **ClusterReplica Restore Client** in the Windows Add/Remove programs box.

Users can then mount to the file server function as the Primary master or a repli-master in the clustering structure using Windows **Map network drive** and access the user interface with following steps:

- From Windows Explorer, select the folder that is mapped to the Primary master server for file retrieving. Double click the mapped drive name to open up the dialog box as shown below. The user login requirement ensures one person's file can be retrieved only by him/her-self.

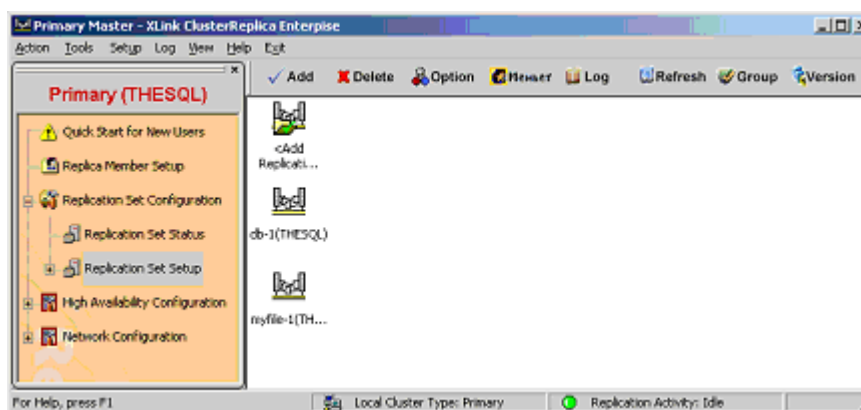


- With correct login information, an end-user can view all previous versions of the working files.



Replication Set Configuration

This part of configuration allows you to define data **Replication Set** for real-time data replication. A data **Replication Set** is a group of settings under one name that defines the data source and the replication destinations. A replication [Advanced Settings](#) utility is provided to allow users modify the data replication environment according to their individual situation.



Issues involved in configuring data replication are:

1. Use or not use the replication template

- Using a template - typically, when there are more than one folder of source files under a same application to be replicated to one location, template is used for better data management and easy configuration.

1. [Using the default template](#) - the Windows default MS SQL and IIS Web server files needed for data replication are collected into two default templates for users convenient
 2. [Using the user-defined template - create a new template](#)
- Not using the template - if only one folder is to be the source of data replication, it will be unnecessary to use the replication template.
2. **Data Replication with an identical data path or a different one**
- Data replication to the identical data path on the destination system - Because some Windows applications require the services to be stopped for new data to be written in, a typical example is the MS SQL database files, data replication in this situation involves the decision of whether the application service is to be kept on.
 1. Service to be kept on - new data is to be replicated to a temporary location and updated to the real location in the user defined time duration.
 2. Service to be turned off - new data is to be replicated directly to the real location.
 - Data replication to a different location on the destination system - change the data path for the data replication destination.

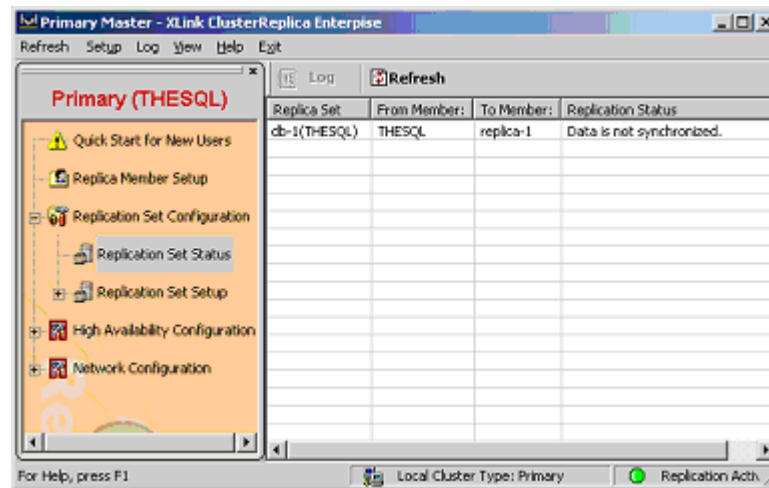
Replication Status

When **Replication Sets** are defined, real-time data replication will take place to replicate modified data to the defined destination(s).

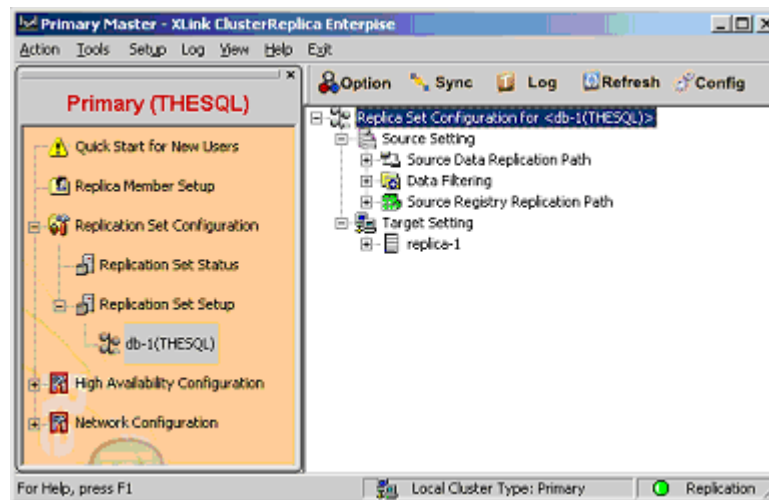
Three types status for data replication can be found:

1. Data is not in sync
2. Replication is in progress
3. Data is in sync

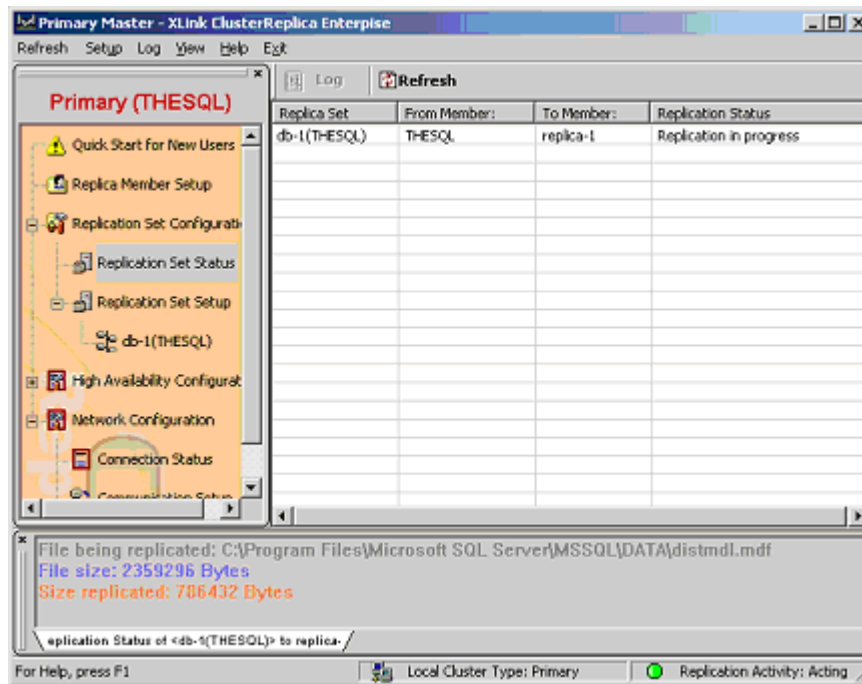
-
1. Typically, when a new **Replication Set** is defined, the replication status will show **Data is not synchronized**. An initial file sync is required. Other situations such as changes in the **Replication Set** or corrupted files can also bring this status to display.



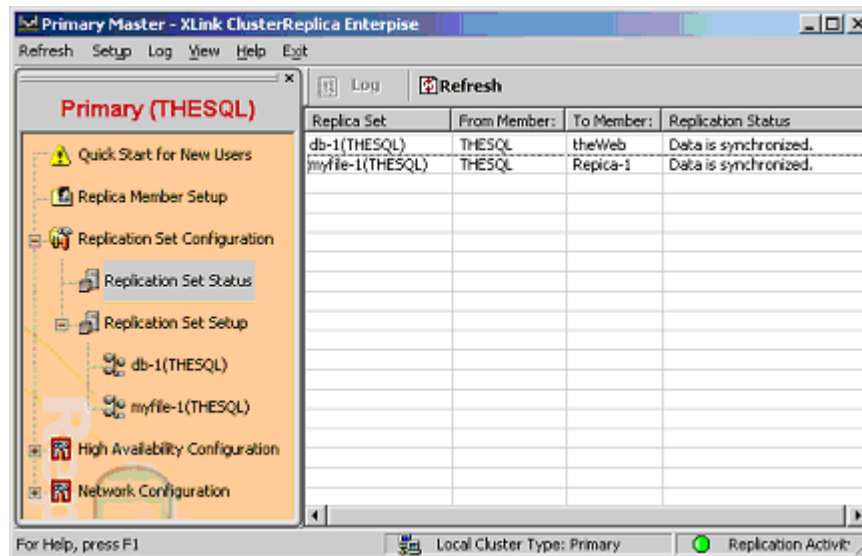
- To bring data of a **Replication Set** on a **replica** station in sync with the data on the Primary master, run the **Sync** process on the Primary master. Before the file sync process is completed, the **Replication Set** displays Replication status.



Click bottom **Sync** to begin the manual full sync process. To view the replication status screen, select the **Replication Set** that is in process.



- When the data replication process is completed, the status displays the **Data is in sync** condition.

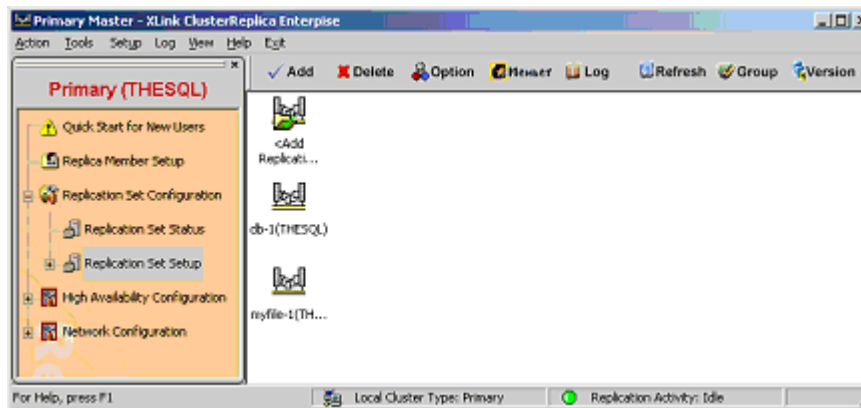


Replication Advanced Settings

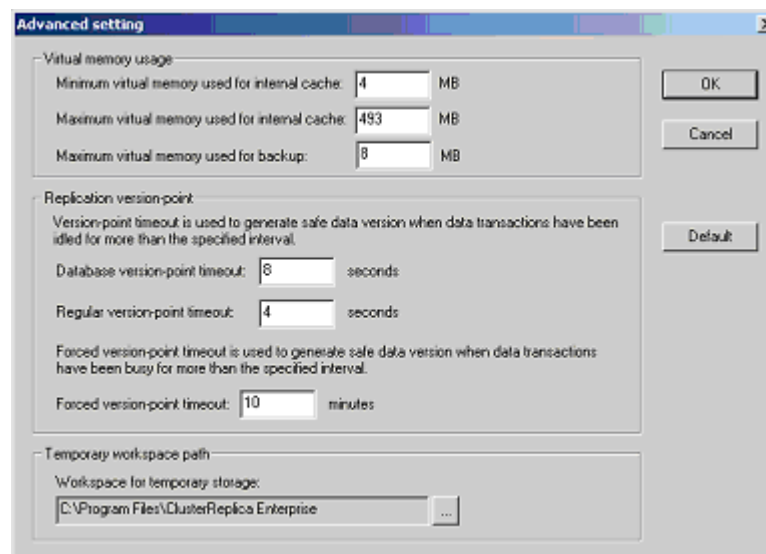
ClusterReplica Enterprise replicates modified data of database files and non-database files in real-time. With successful installation, some default values of memory space allocation and timing arrangement for data replication operation are set as recommended values for best performance.

Users, however, still have the power to change these values to best fit their system environment. This flexibility promises the highest product efficiency and user satisfaction.

From the main manual select **Replication Set Configuration/Replication Set Setup**



Click button **Option** to open up the box for **Replication Advanced Settings** to make modifications.

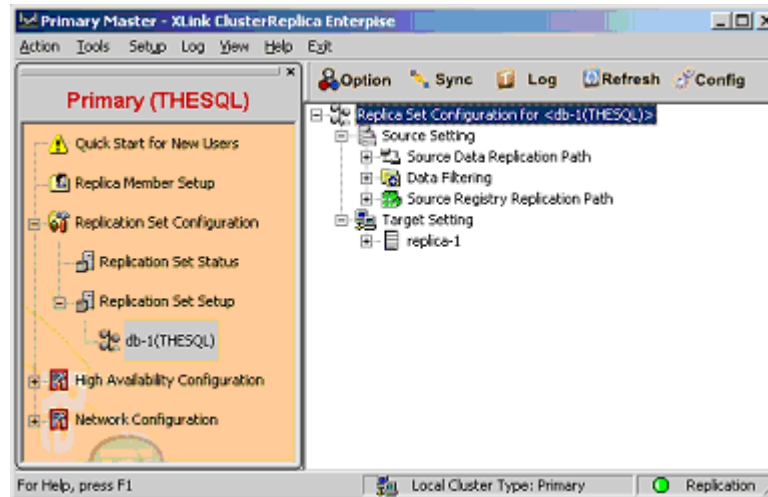


Explanations of the values and their consequences.

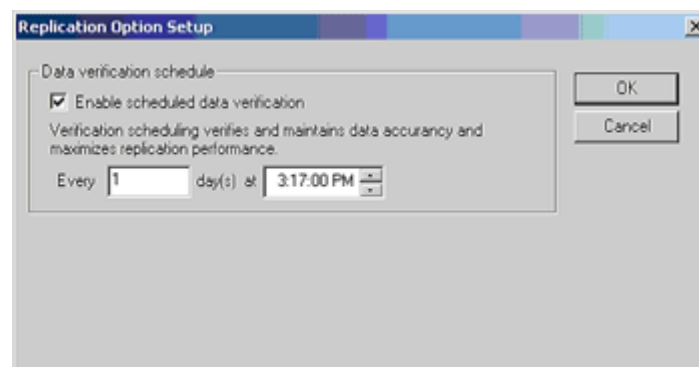
1. **Virtual memory usage** - the virtual memory allocated here is for ClusterReplica data replication internal process use. More memory allocated here, the better performance for ClusterReplica data replication. However, too much memory used by this one application may hinder performance of other applications. So, balanced setting is recommended.
2. **Replication Version-point** - values included in this section are related to how often a new batch of data is to be transported from the Primary station to the Secondary station.
 - **Database version-point time out** - this value indicates that data transport for database files takes place at every eight seconds.
 - **Regular version-point timeout** - this value indicates that data transport for non-database files takes place at every four seconds.
 - **Forced version-point timeout** - This value indicates that if there is a non-stop in-flow of new data, ClusterReplica will force a break on the data in-flow and perform the data transport at every ten minutes.
3. **Temporary workspace path** - this location is where ClusterReplica store temporary files during operation. Users can re-define these locations to fit their disk structure. If large database files are to be replicated and **report mode** is activated, a large space for this temporary workspace may be needed. Users can change the location to a larger drive for this consideration.

Replication Options

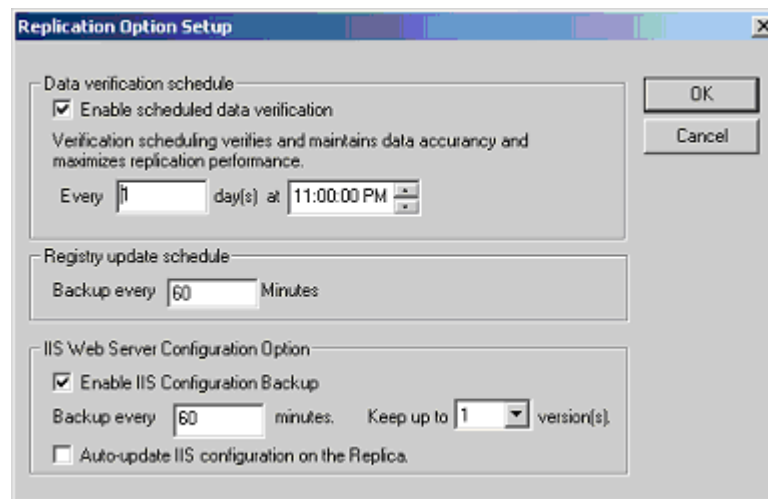
The replication options provide additional utilities for easy management on more efficient data replication. Select a defined **Replication Set**, click the **Option** button on the display panel, to open up the box for setup the replication options.



If the Replication Set is not defined with the IIS Web server template, or does not contain the IIS Web server files, the replication option will be looking like this:

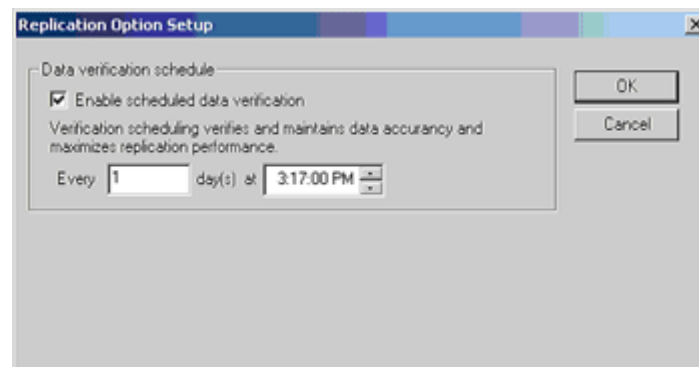


If IIS Web server template is used to define the Replication Set, the replication option will include the web server configuration option. Check the **Auto-update IIS** box to have the IIS configuration replicated automatically to the Replica Member stations.



Replication Verification Schedule

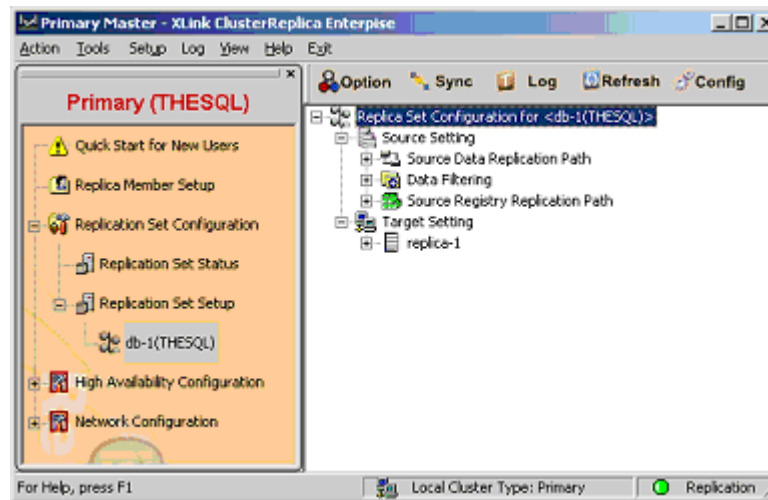
ClusterReplica Enterprise can run automatic data replication verifications which will auto update files on the Secondary system whose file dates or file size does not match that on the Primary system. The default set on this data replication verification is as shown. You can change the verification schedule according to your needs.



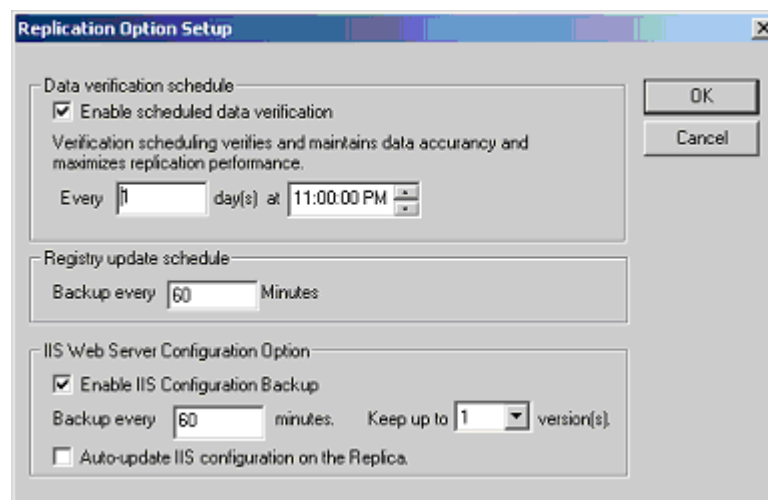
IIS Web Server Configuration Setup

ClusterReplica Enterprise is specially designed for MS IIS web server data replication and failover. While the web server files replication can be set with the default IIS Web server template, the default settings of the web site replication configurations are to be set at the same time. Users can change the configurations here according to their own needs.

This feature ensures the matching of all web sites on the replica member servers to that on the Primary web server. **Data Replication Set** for each of the new web site can be easily defined using the default template. Modified web pages are replicated to the replica members in real-time; and successful failover is then guaranteed.



Click the **Option** button on a selected Replication Set to open up the dialog box. If the Replication Set is defined with the IIS Web server template, the replication option should display the IIS Web server Configuration Options.



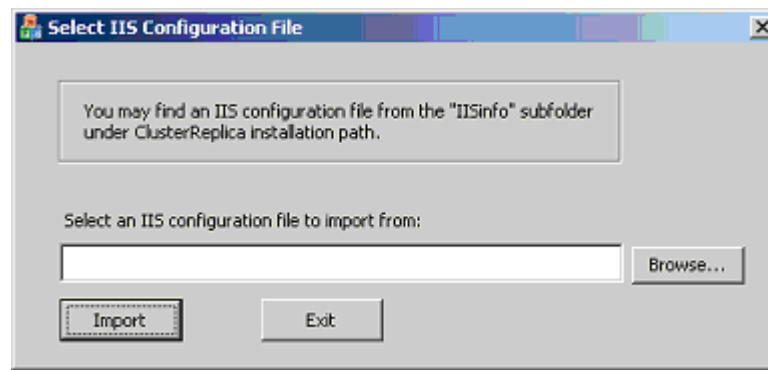
With both boxes under **IIS Web Server Configuration** checked, the web server configuration changes on the Primary Master will be automatically updated on the Replica Member station.

If users choose not to update the IIS web server configuration automatically, an [IIS Configuration Importer](#) tool is provided for users to update the changes on the Replica Member manually.

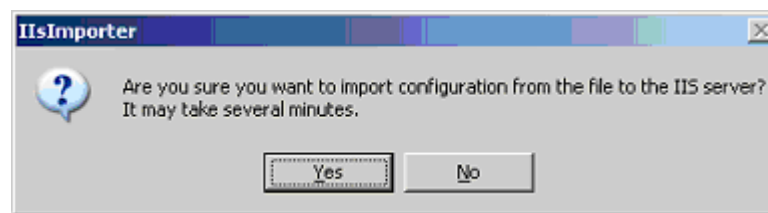
IIS Web Server Configuration Update

ClusterReplica Enterprise is specially designed for MS IIS web server data replication and failover. While changes of the web server configuration on the Primary Master can be automatically updated on the Replica Member stations, users have the choice to do it manually.

The **IIS Configuration Importer** tool is designed for this purpose. From the **Replica Member** station where the IIS Web configuration is to be updated, click the button **Setup** on the menu-bar and select **IIS Configuration Importer**.



Browse to select the file which contains the IIS web server configuration and click the button **Import** to get the changed configuration updated on the Replica Member station.



A general warning opens for confirmation. Click **Yes** to proceed.

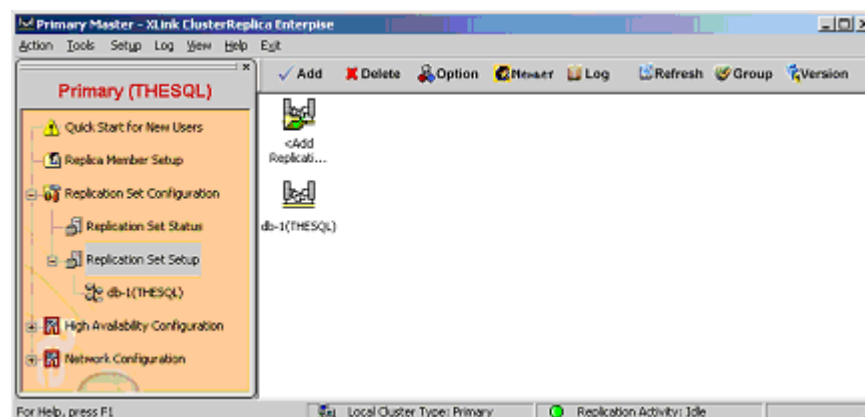
Replication Set Configuration

This part of configuration allows you to define **data replication set** for real-time data replication. A **data replication set** is a group of settings under one name that defines the data source and the replication destinations.

ClusterReplica Enterprise offers a template utility to help with simplifying the configuration process and better managing of the replication jobs. However, using the template for a **data replication set** is completely optional. [See details on creating a new template.](#)

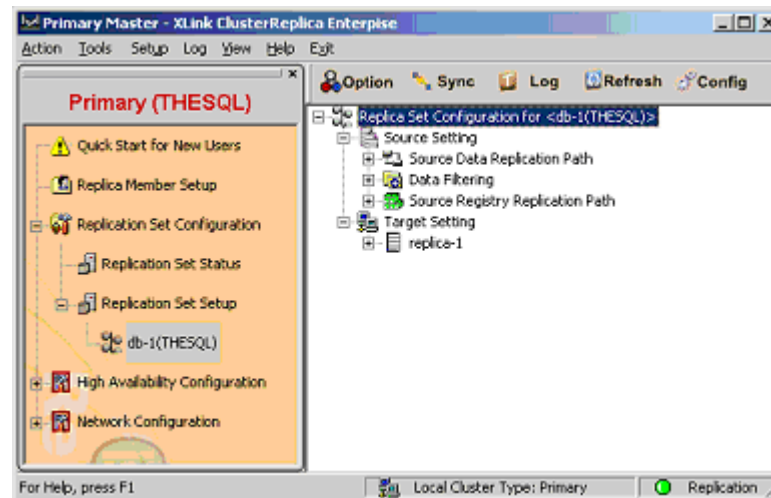
Steps on creating a new **data replication set**:

1. Select **Replication Configuration/Replication Set Configuration** to get the configuration panel open up on the right side.



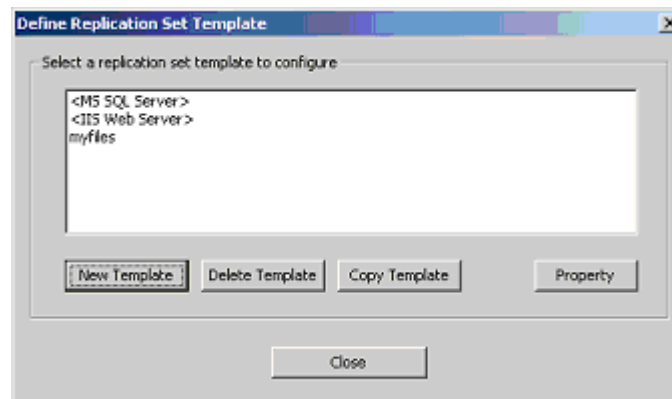
2. Click **Add** to begin the process of creating a new **data replication set**

- [create a new data replication set with the default template](#)
 - [Create a new data replication set with a user-defined template](#)
3. Run the initial file sync to ensure matching file structures on the **source** and the **destination** locations for successful data replication and restore. Click the **Sync** button to start the process.



Define Replication Set With A Default Template

ClusterReplica Enterprise provides two default templates for date replication definitions. The templates include all files and folders under the MS SQL and IIS Web server applications needed for successful data replication and restore. Using the same template, more than one data **Replication Sets** can be defined easily without the repeating of the same work.



1. Template for **MS SQL Server** [See example](#)

The template for MS SQL server is specially designed for the database file replication. Following points are brought out for special attention:

- If the Replica Member is running its own SQL database and you do not want the registry file on the Primary Master station to be copied to the Replica Member station, remove the **Source Registry Replication** entry here.
- If the SQL service on the Replica Member station is to be kept alive during real-time data replication, the entries in the **Services To Be Stopped on Repl**

Members must be removed.

- Because a database normally involves many files, change in one of them affects the entire database. The data replication process on a **Replication Set** for the database files would quit when an error is found in one file. So, it is recommended that non-database files are not included in the database file Replication Set.

2. Template for IIS Web server [See example](#)

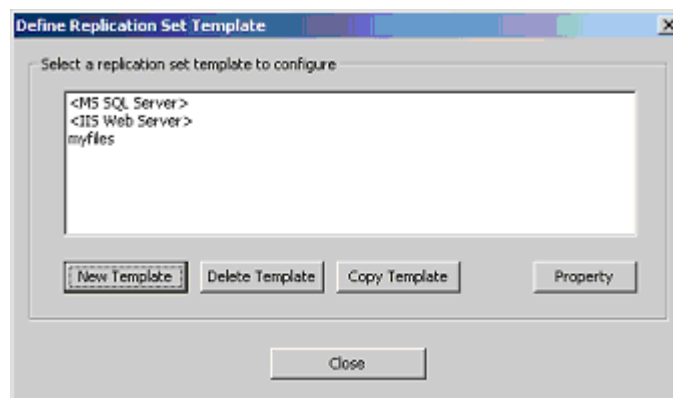
When IIS web server is activated on the Primary server, IIS web server files are to be replicated for file protection and server 24x7 availability. For newly added web sites, ClusterReplica Enterprise is able to create the reciprocal web sites on the replica servers and copy the files into the location. All is done automatically if the data replication [option](#) is properly set.

Define Replication Set With A User-defined Template

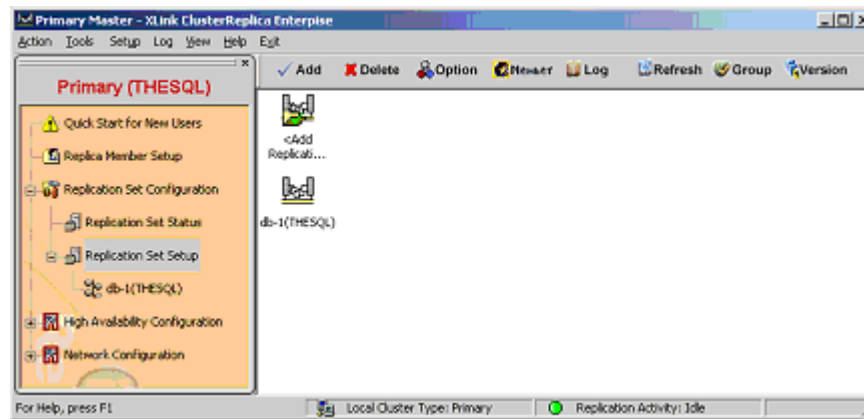
Suppose you are the buyer of your company. Every month, you need to setup buying schedules, create the list of products and generate reports. To make it easier to manage, you keep the files in four folders:

1. myproducts
2. myschedules
3. myreports
4. 1000 - for miscellaneous files

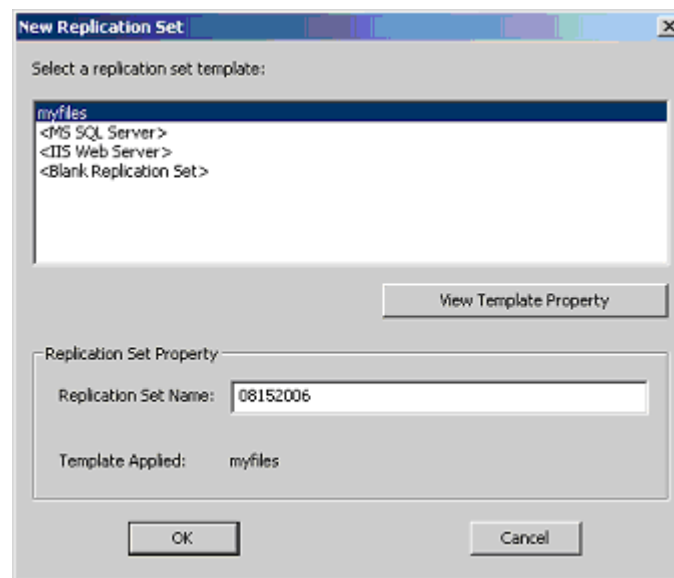
Now you have **ClusterReplica Enterprise** to backup your monthly working record. To make the data replication configuration simpler, you [created a template](#) for your monthly record. It includes four folders of your routine and you name the template **myfile**



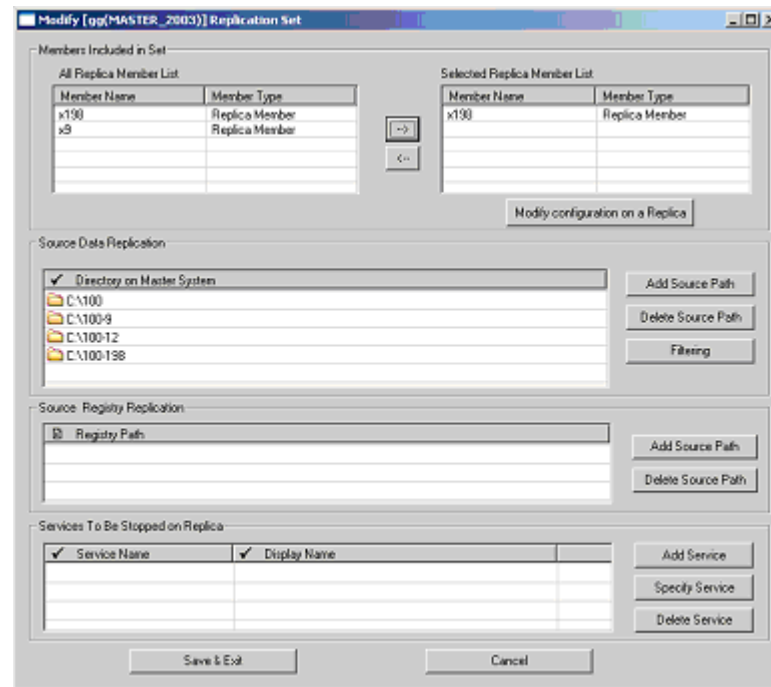
To define a new data **Replication Set**, select **Replication Set Configuration/Replication Set Setup**.



Click the **Add** button to open up the dialog box for defining a new **data replication set**. Select the template and type in a name in the **Replication Set Name** and click **OK** to go to the next step for setup..

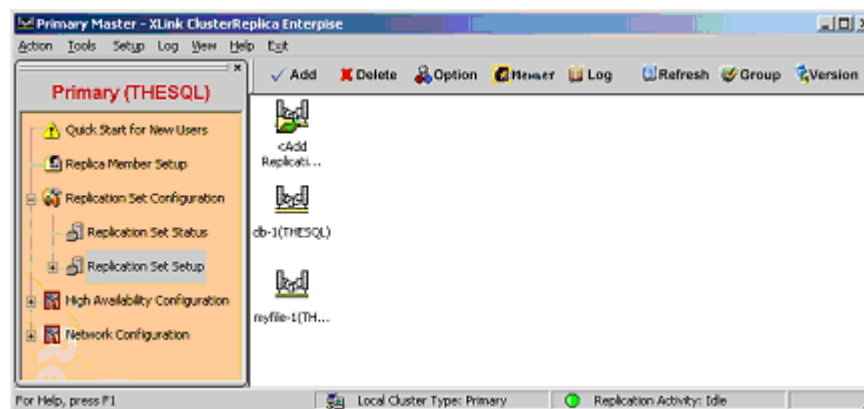


In next step, **ClusterReplica Enterprise** finds all folders and files in the **myfile** template and puts them in the **source** listing for data replication. All you need to do here is to decide the replication destination for this **data replication set**.



A list of cluster members are shown on the right column (we have only one member set in our example). Select the system name in the list, and add it to the column on the right by clicking the **arrow button** in the middle.

Click **Save & Exit** to complete the configuration for the **data replication set**. An initial file sync is required for all **data replication sets**. Click button **Sync** to run the file sync.



Failover And Failback

Failover is the process specifically associated to cluster systems. Typically it means when the Primary station of a cluster system fails, the Secondary station will be activated to take over the active duty of the Primary station.

ClusterReplica Enterprise monitors the Primary station in the cluster system and the pre-defined services listed in the data replication configuration panel to determine if the cluster system is in the situation that a Failover is required.

Failover triggering events in ClusterReplica Enterprise

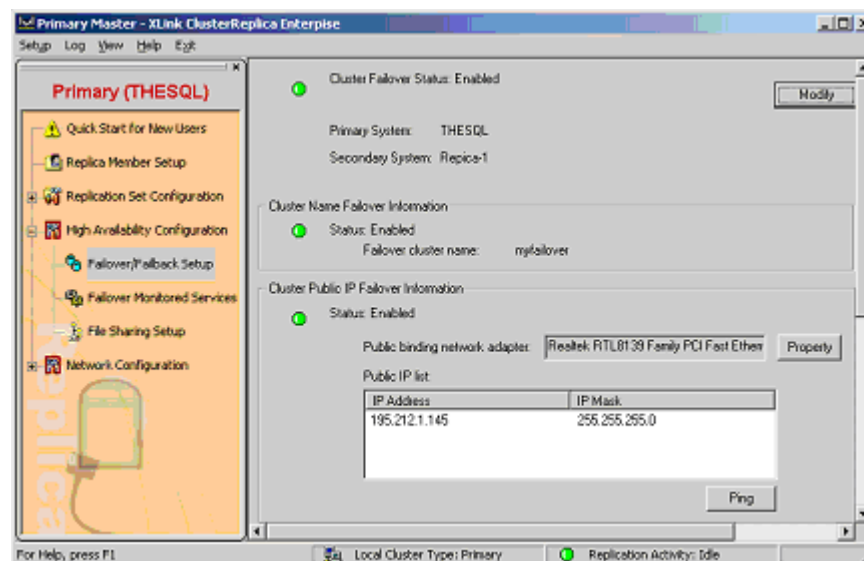
There are **three** situations that will trigger Failover:

1. **Receive no response during keep-alive period** - The Secondary station monitors the active state of the Primary station in a pre-set duration of time. The default setting of the keep-alive period is 15 seconds. Users can make adjustments to this time period for ClusterReplica to determine when to Exercise Failover
2. **Monitored services malfunction or fail to start** - when any one of the monitored services defined is detected in malfunction, failover will be activated
3. **Public connection network adapter fails to function** - when the public connection to the Primary station fails either due to network card malfunction or the disconnection of the network cable, failover will be activated

Failover Setup

ClusterReplica Enterprise is more than a data protection application, its unique design also includes capability of automatic server failover/failback for server high availability.

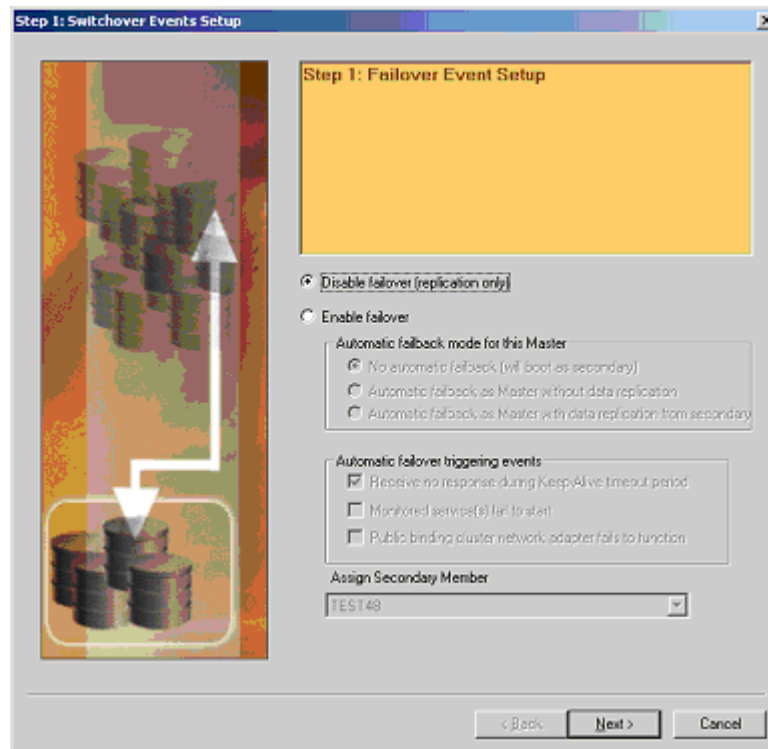
To setup failover, from the main menu select **High Availability Configuration/Failover-Failback Setup** to bring up the configuration panel on the right-hand side. Click button **Modify** to begin the configuration process.



- o **Step 1:** Data Replication and Failover/Failback Event Setup.

Two selections are to be considered in this area:

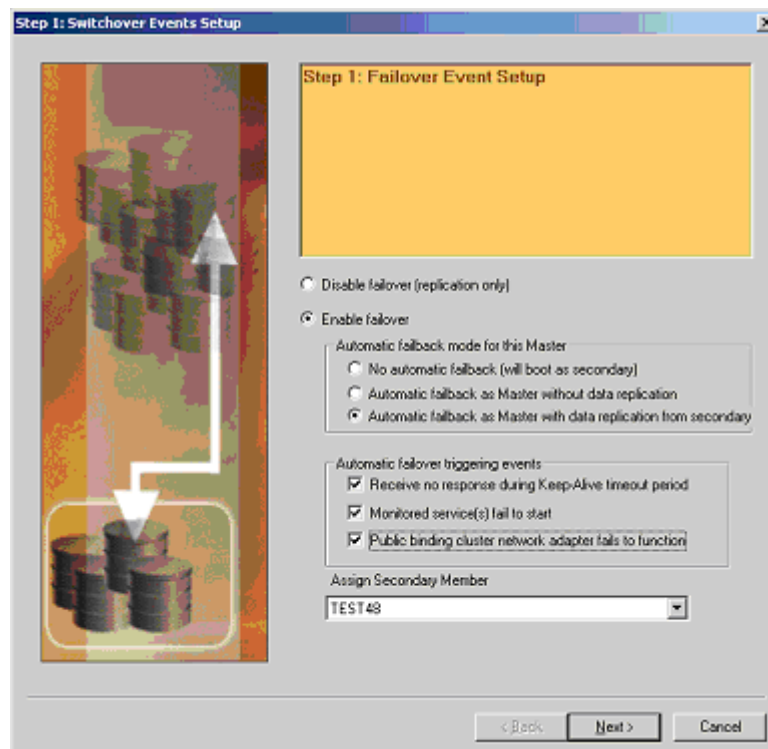
1. Disable failover (replication only)
2. Enable failover



1. With successful installation, the cluster server is set by default in **Replication Only** mode as shown in above picture. In this mode, the **Failover/Failback** functions are disabled and the local system will **always** be the Primary station.

If this is desired, make no changes and move on.

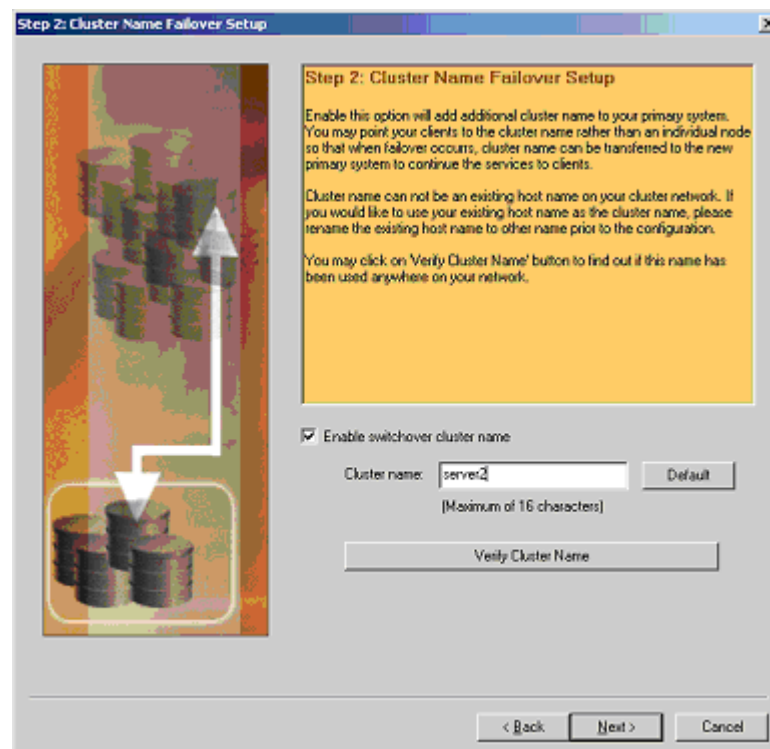
2. If you want to utilize the Failover/Failback features, select the radio button on the top: **Data Replication with failover/failback enabled.**



Under this selection, three parts are required to be set.

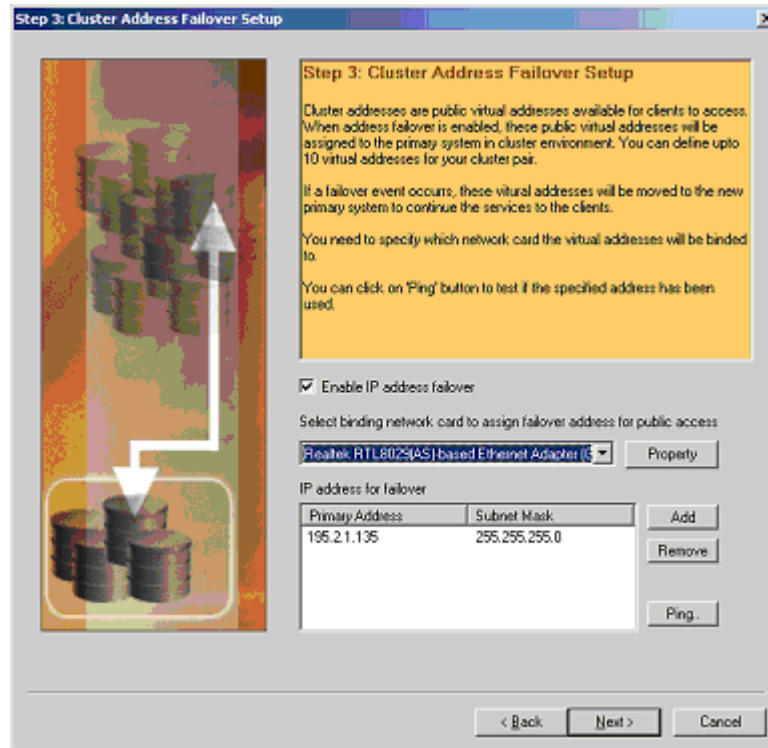
1. **Automatic failback mode** - you can choose to:
 - Not failback - with this selection, when the original Primary master is brought back to the clustering, it will remain to be the Secondary station. The current Primary station will automatically replicate all current data to the newly started machine.
 - Automatic failback without data replication - with is selection, users can keep data on the original Master server after a failover.
 - Automatic failback with data replication - with this selection, the failback process will first replicate all current data on the standalone server, and then switch the roles to make the newly started server to become the Primary Master again.
 2. The **Automatic Failover triggering events** are optional except the first one.
[See detailed explanation on the Failover triggering events.](#)
 3. **Assign Secondary station** - because ClusterReplica ENT allows multi-nodes clustering and only one of the **Replica** stations can be assigned to be the Secondary station for Failover purpose. The Secondary station must be specified here.
- **Step 2:** cluster name failover setup. This is normally the name of the SQL server, but it cannot be the Windows system name.

If DNS setup is configured, this cluster name can be optional.



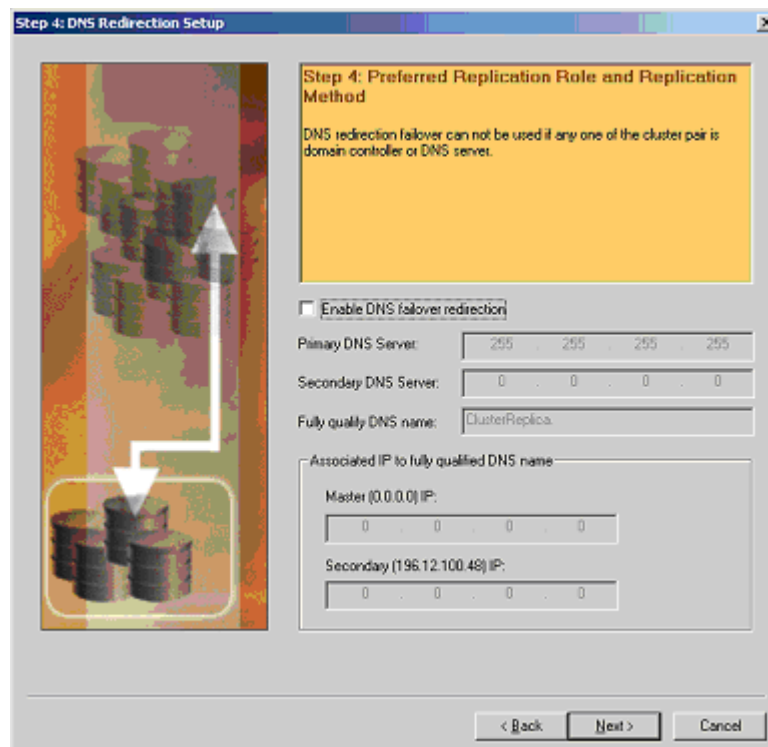
- **Step 3:** cluster address failover setup. This is the IP address that is to be attached to the Primary station of the cluster server for network clients to connect to the server. If you have more than one network cards in the system, use the drop down menu to select the card with the IP you wanted.

If DNS setup is configured, this cluster IP can be optional.

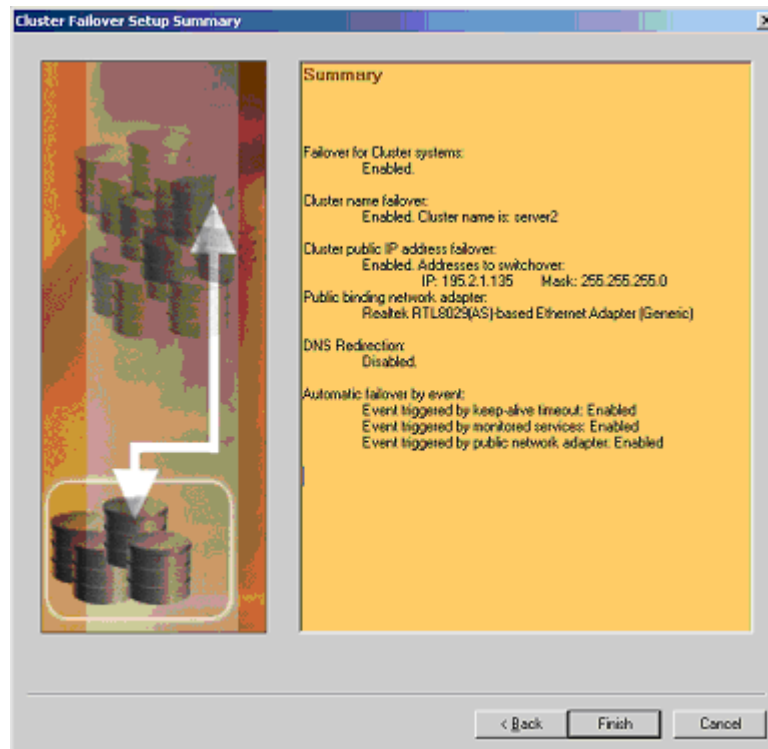


- **Step 4:** DNS redirection setup. [See details on configuring DNS.](#)

No DNS setup is done in this example, so leave it disabled.



- **Step 5:** the summary page shows you the complete setup. If there is anything you want to change, click **Back** to make the changes. Otherwise, click **Finish** to complete the process.



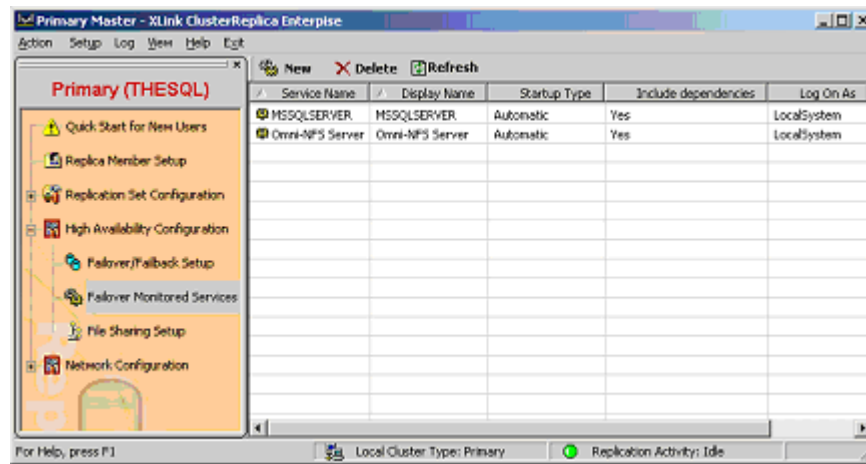
From the **Connection Status** panel, the **Failover** configuration can be viewed.

Failover Monitored Service

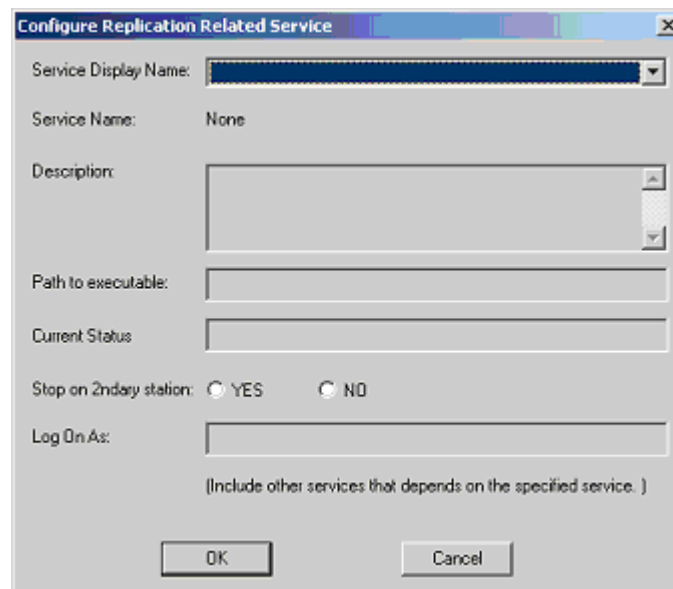
Some files may require specific applications to access (for example, the database files require SQL application to access). To ensure proper handling of the files in the situation of failover, ClusterReplica Enterprise provides a tool to monitor these services.

- When both Primary and Secondary stations are functioning normally, all services in the list are checked periodically. If the malfunction of a service is detected, a failover will take place.
- When the Primary station fails, the Secondary station should take over the active role. The monitored services on the Secondary station are to be activated automatically for regular access.
- **The monitored services added here are for failover purpose only. They should not affect the data replication application service configuration.**

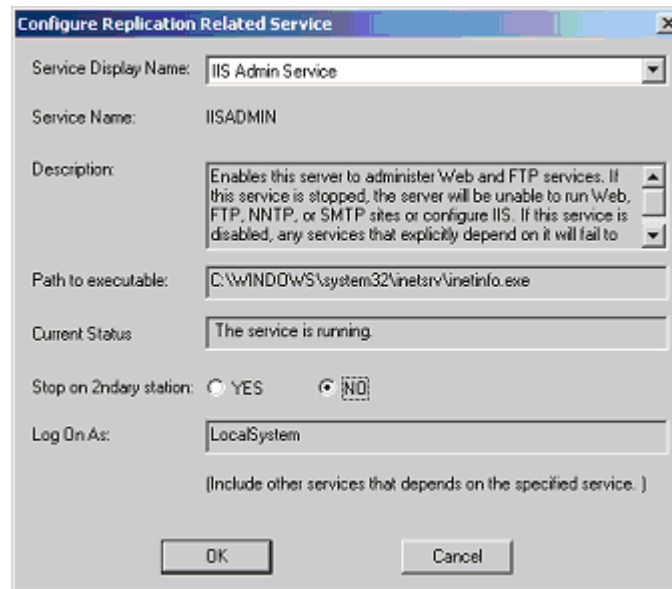
To use this tool, you need to add the application services in the monitored list. From the main manual select **High Availability Configuration/Monitored Service Setup** to add the services you want to be monitored. Click button **New** to open up the dialog box for selecting the services for monitoring.



- Using the drop-down menu to select a service for monitoring by ClusterReplica. With the selection of **Service Display Name** the default properties of **description**, **data path**, the **service status** and the **LogOn As** account for the service will be filled in.



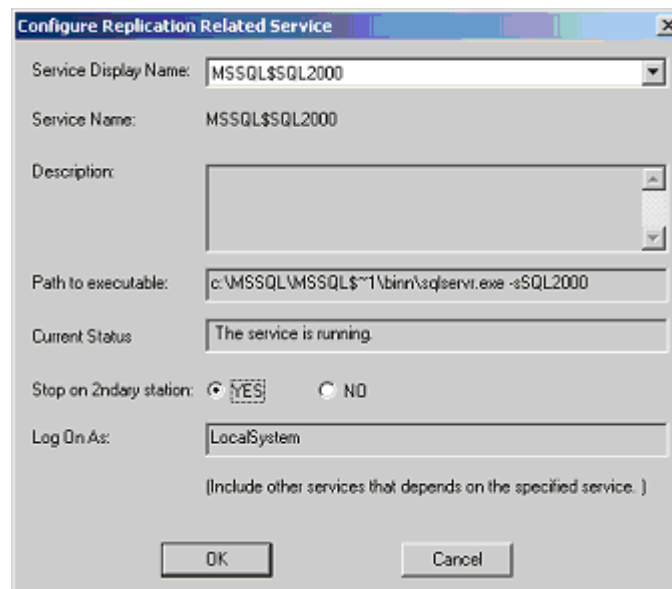
- An example is presented below. The selected **Service Display Name** is IIS Admin Service. Please notice, all dependency services of the IIS service are also included for monitoring with its selection.



Now, close attention is required on the item **Stop on Secondary Station**. It is set by default on **Yes**. This means, during normal operation, the services listed in the **Monitored Services** on the Secondary station are stopped and to be started when the Failover takes place.

The reason for this setting is that some of the applications, such as MS SQL, require the service to be stopped to update files. If you need the SQL service to be running on the Secondary station and still have the real-time data replication, you can copy the updates to a temporary location on the Secondary station and update them to the SQL location at a preset time period using ClusterReplica's [Application DataSync](#) tool.

- Following is an example of set MSSQL service for monitoring.

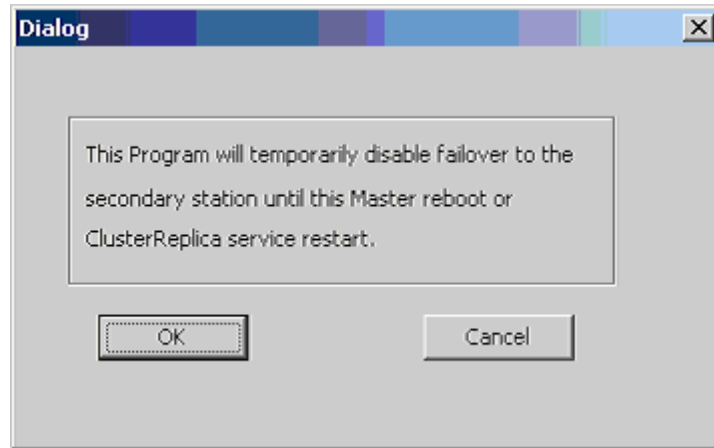


- Click **OK** to complete one selection. Repeat this process till all services to be monitored are added.

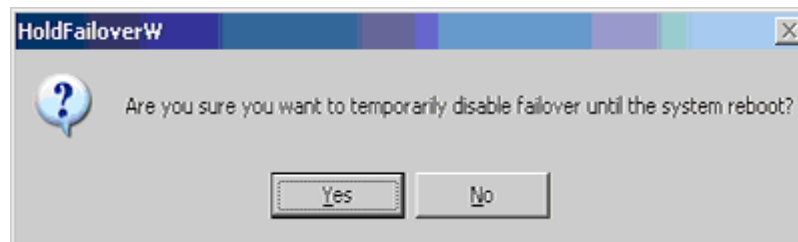
Temporary Disable Failover

ClusterReplica Enterprise can be set to automatically failover when malfunction of the Primary station is detected. However, sometimes system maintenance requires system reboot. To avoid failover in this situation, ClusterReplica provides this utility tool to temporarily disable the failover setup.

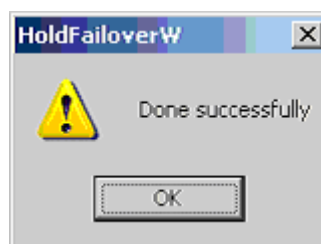
From Windows Start/Programs/ClusterReplica Enterprise, select **Temporary Disable Failover**.



As indicated by the message, this setting will allow one system reboot without failover. Click **OK** to continue.



This box confirms your decision. Click **Yes** to execute configuration.

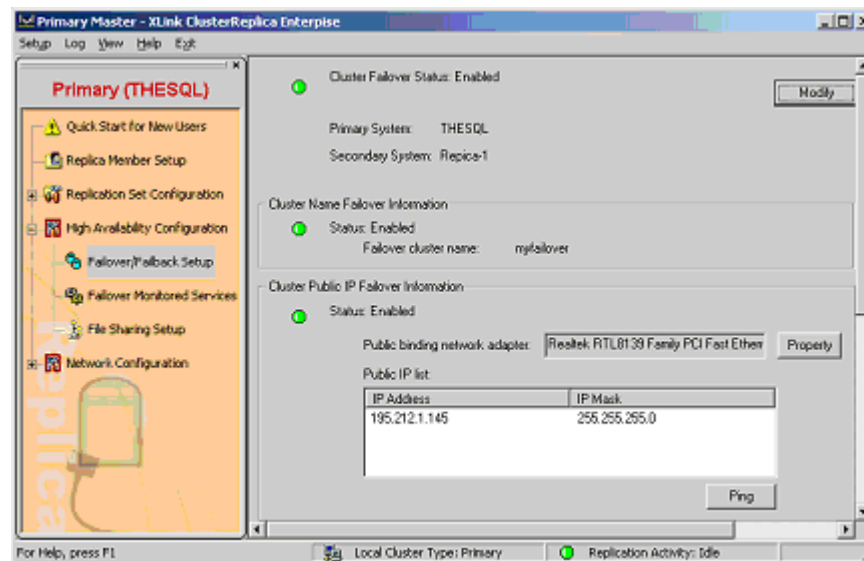


Click **OK** to complete the setup. Now you can perform system maintenance and reboot the system once without Failover.

When the system is up from the reboot, the Failover configuration is reset. A second reboot of the system will cause the failover to take place. If you need to reboot the system again, set **Temporary Disable Failover** again.

DNS Setup

Setting up DNS connection in ClusterReplica Enterprise is easy. However, there are some conditions and issues require special attention.



The most important condition being that the clustered systems must **not** be the domain controller or the DNS server.

Other issues involve DNS configurations are:

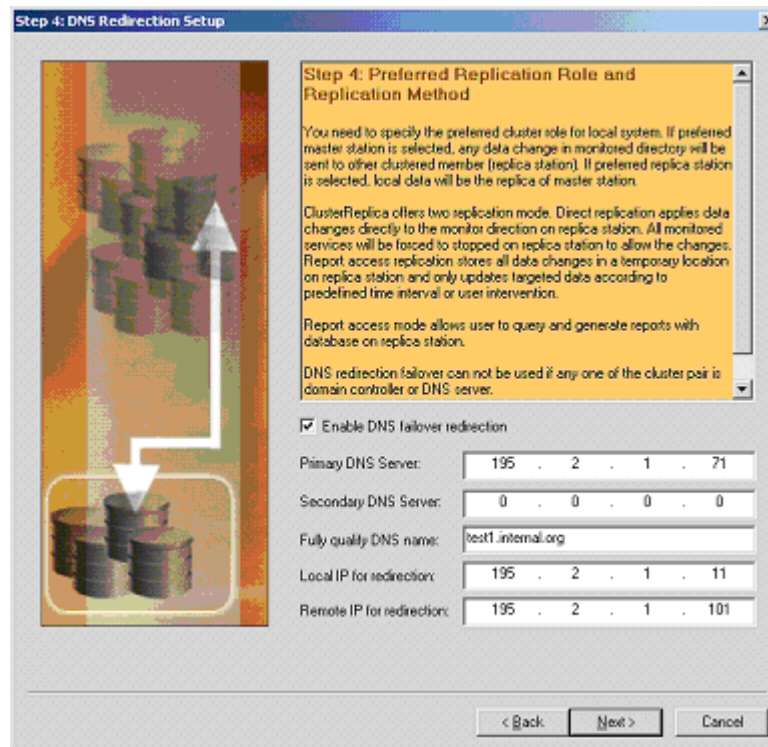
- Users must be able to authorize DNS dynamic update
- Join the DNS server to a domain (if it is not on the same system of a domain server)
- The DNS server IP must be added on the Primary and Secondary stations network cards (where you define the IP for the Windows system)
- When **Cluster IP** (in Failover setup step 2) is enabled, the network card that is binding the Cluster IP must check off "Register this connection's addresses in DNS" in the Advanced TCP/IP settings. This must be done on both Primary and Secondary stations.

For example:

Assume you have a domain with name "domain2" and the DNS server has IP 123.123.123.10

1. With the DNS server joined to the domain of domain2, two zones are created: Clark.local and domain2_local.com
2. When you define DNS in ClusterReplica, the "fully qualified DNS name" will be domain2.local.mydns
3. With this set, you will see under domain2.local the name "mydns"; and under domain_local.com, the IP of the Primary station. When there is a failover, the IP will be replaced with the IP of the Secondary station.

The first step in enable DNS setup is to check the box **Enable DNS Failover Redirection**. Following is an example on DNS configuration.



Here,

- Primary DNS: 195.2.1.71 - this is your DNS server's IP address
- Secondary DNS: 0.0.0.0 (if you have a Secondary DNS server, enter it's IP number here)
- Full qualify DNS name: test1.internal.org - this is a **virtual DNS name** in your DNS table that is always point to the Primary server's IP.

For example, in the DNS table you have:

- mygroup.internal.org mapped to 195.2.1.11 - mapping of the Primary server
 - mygroup2.internal.org mapped to 195.2.1.101 - mapping of the Secondary server
 - test1.internal.org mapped to 195.2.1.11 - the virtual name mapping
- Local IP for redirection: 195.2.1.11 - this is the physical IP on the Primary server
 - Remote IP for redirection: 195.2.1.101 - this is the physical IP on the Secondary server

The **Fully qualify DNS name**, test1.internal.org, is set initially mapped to 195.2.1.11 (the Primary server). When there is a failover, the Secondary server (as part of the failover process) will send a request to the DNS server (at 195.2.1.71) to have test1.internal.org to be mapped to 195.2.1.101

File Sharing Setup

- **When To Use The File Sharing Tool**

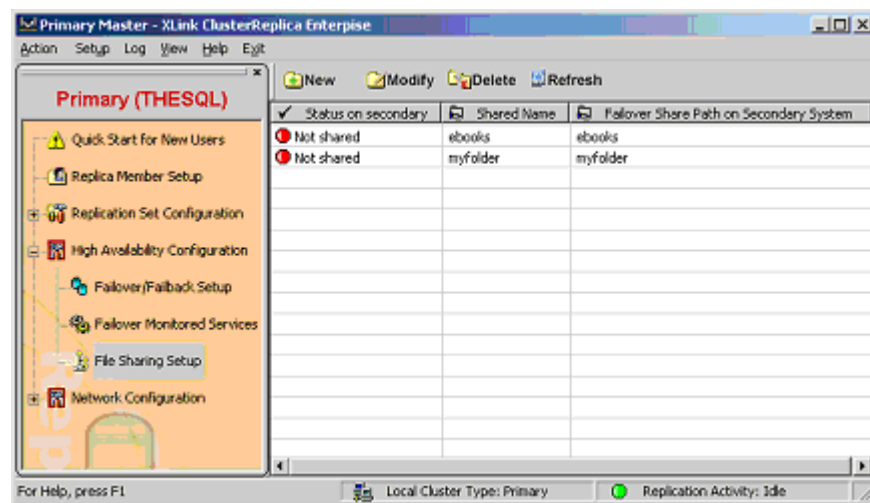
The File Sharing is designed for network drive sharing.

When used as a file server or even a web server, chances are you will need to share out some of the drives or folders for network access. If you shared out folders and drives for network usage (through Windows **map network drive**) on the Primary station, you will need to setup this configuration to ensure the drives or folders are shared out on the Secondary server when the Failover takes place.

■ File Sharing Setup For Failover

Here are the steps for **File Sharing Setup**:

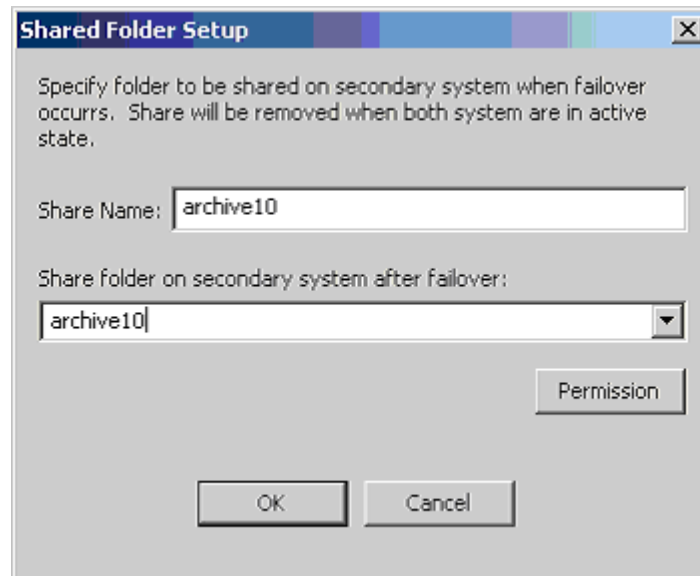
1. Select **File Sharing Setup** from the main menu to open up the user interface on the right panel



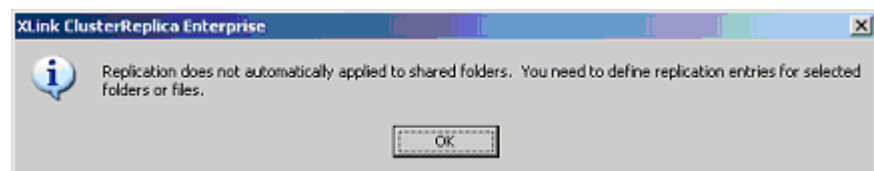
2. Click button **New** to add to the monitored list the shared folder on the Primary station so that the defined drive/folder on the Secondary station will be shared out when the Failover takes place. Enter the local shared folder name in **share name** and browse the local file system structure for the entry on **Share folder**.

The two things that are important about Share Folder Setup are:

1. The defined drive must already exist on the Secondary server.
2. If files in the shared folder are also to be replicated to the Secondary station, you must add the file path to the file replication list in the **Replication Set Configuration**.



Following pop-up message to remind you that with this configuration, the shared folder will not be automatically shared on the Secondary station before **Failover**.



Click **OK** to complete the configuration.

