

ISCSI CAKE (CCDISK)

USER MANUAL



Youngzsoft 2008

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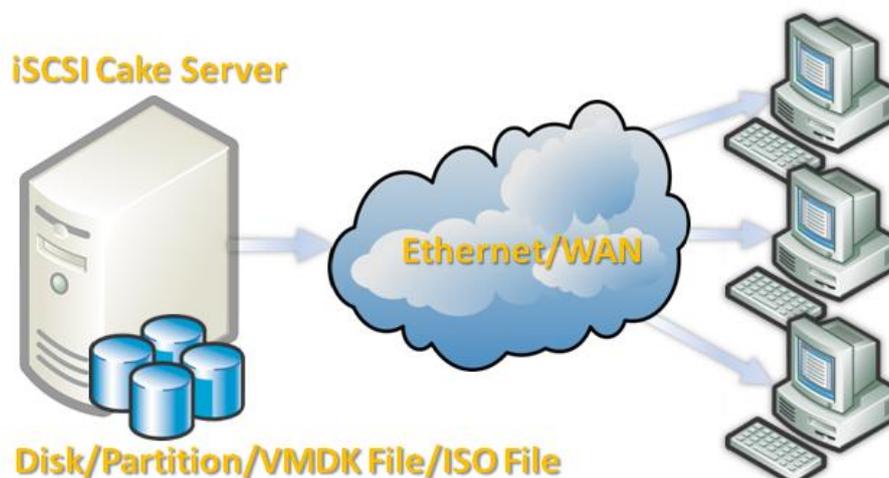
INTRODUCTION

iSCSI Cake is a Windows based iSCSI target. It shares server's disk, partition, VMDK file, or ISO file with iSCSI initiators/clients. Client can access iSCSI disk as local disk, which supports partition, format, read, and write disk operation. The key feature of iSCSI Cake is disk protection which means client can write, delete, format and repartition iSCSI disk without changing any byte in server's disk.

iSCSI Cake provides network administrator a convenient way of software maintain and update. It is no longer necessary to install software on each client repeatedly. And it is no longer to worry about the safety of shared data on server because everything will recover after client reboot.

Key Features:

- 1. iSCSI Compatibility:** Supports iSCSI initiators on Windows, Linux, and Solaris.
- 2. OS Compatibility:** Supports all 32bit/64bit Windows 2000/XP/2003/VISTA and later operating systems.
- 3. 64bit Addressing:** Breaks through the 2TB limitation.
- 4. Cluster Sharing:** Shares storage among cluster nodes.
- 5. VMWare Compatibility:** Exports VMWare VMDK disk file as target disk.
- 6. ISO Support:** Simulates virtual CDROM drive.
- 7. Port Forwarding:** Provides service while under the protection of firewall.
- 8. High IO performance:** Server cache and per-client cache together deliver high IO efficiency.
- 9. Easy to Manage:** Windows based GUI can be installed on any computers to manage iSCSI server.
- 10. COW protection:** Protects server data from unauthorized client.



SERVER INSTALLATION

CCDISK includes two parts:

1. NT Service: CakeService.exe runs in background automatically when computer boots up.
2. GUI: iSCSICake.exe & ControlClient.dll provide user interface for configuration and watch server status.

LOGIN

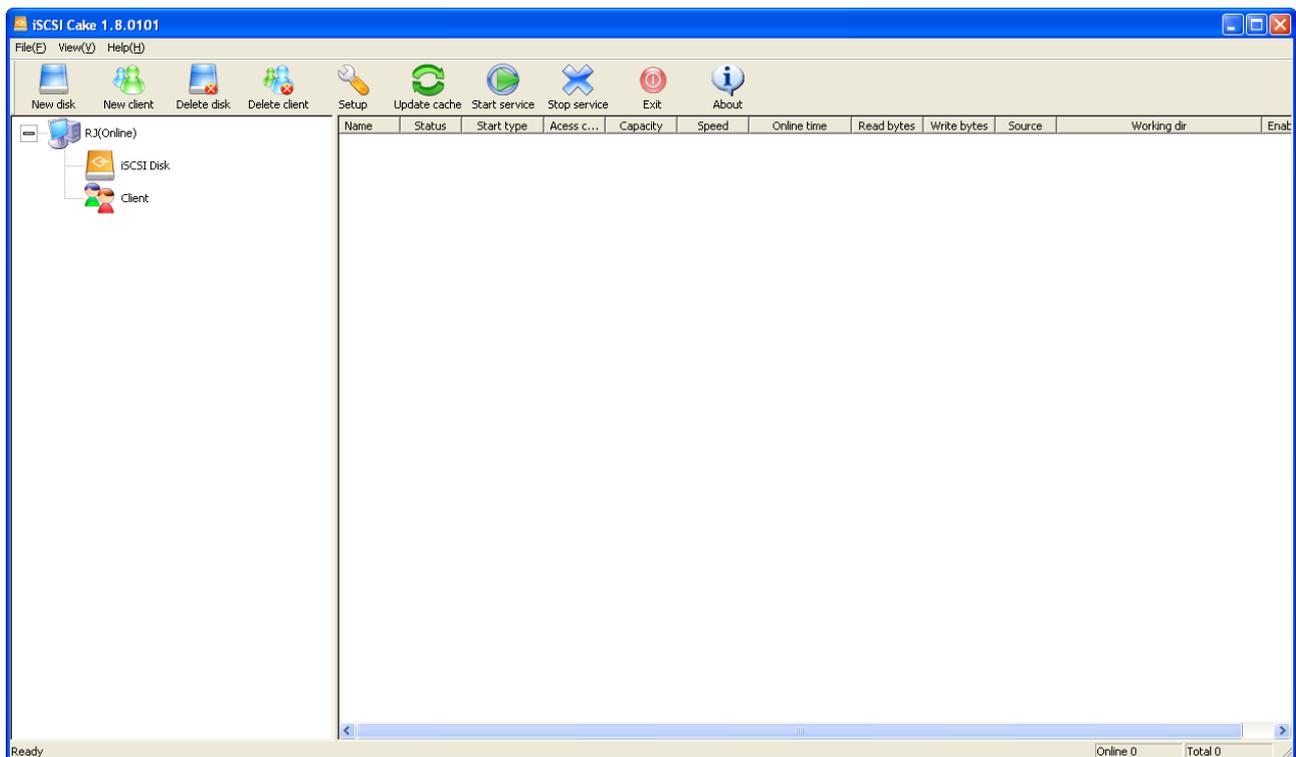
Installation is straight forward, just click "Next" until finish. Then start configuration by double click the shortcut on desktop or quick launch toolbar. The login dialog asks for password and the initial password is empty. iSCSICake.exe & ControlClient.dll can be copied to any other computer to control server as long as the password is not empty.



MAIN INTERFACE

Here is the management interface.

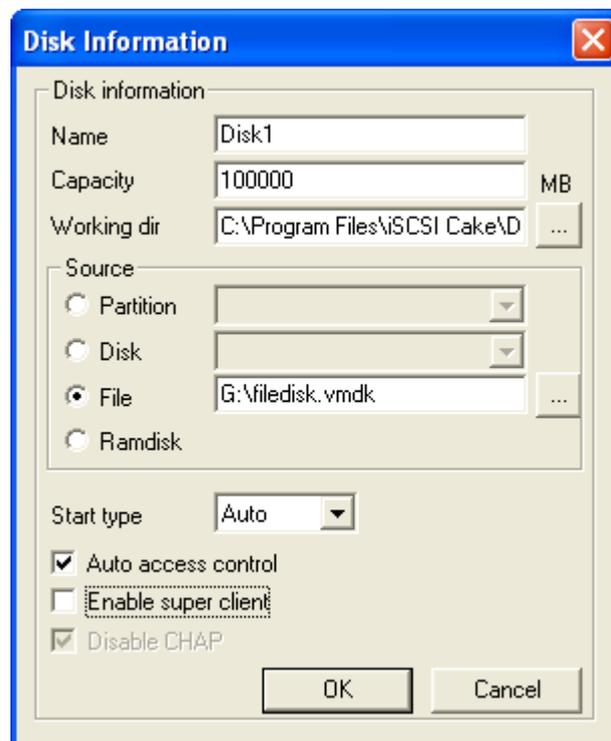
1. New disk: Add new iSCSI disk.
2. New client: Add new client. By default, client is added automatically unless you changed the default setting.
3. Delete disk: Remove iSCSI disk.
4. Delete client: Remove client. For example, remove the client that has used too much bandwidth.
5. Setup: Change server configuration.
6. Update cache: Cache must be updated after data is changed. You don't need to worry about it if you enable super client since the source disk is opened exclusively.
7. Start service: Start iSCSI Cake service.
8. Stop service: Stop iSCSI Cake service.
9. Exit: Exit GUI. (Service is still running background).
10. About: Version information and registration.



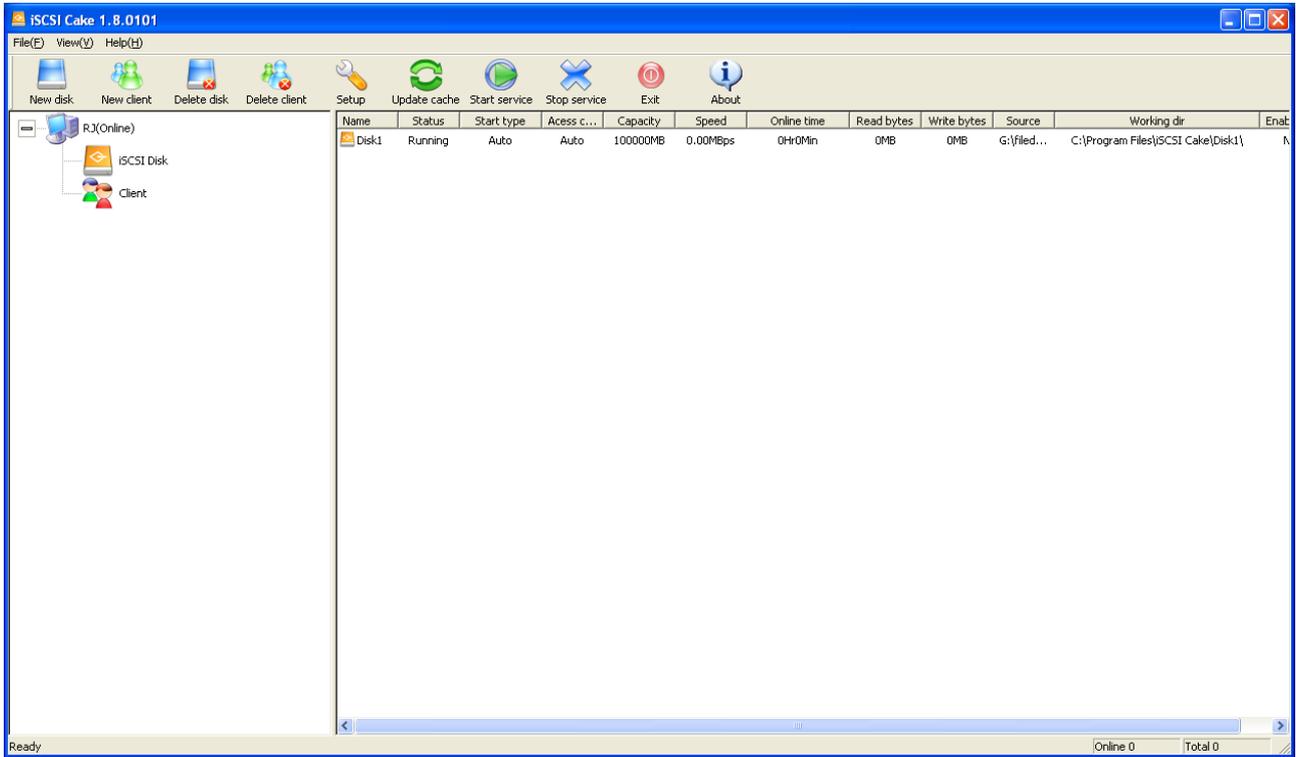
ADD ISCSI DISK

Add an iSCSI disk by clicking "New disk" button and the disk property dialog will show up.

1. Name: Disk name.
2. Capacity: Source disk capacity.
3. Working dir: Where client's data is placed.
4. Source: Partition or physical disk that is going to be shared with client.
5. Start type: Auto start or not when Cake service starts. Auto start is recommended.
6. Default: Client is added automatically if "Default" is checked, otherwise you have to add client manually.
7. Enable super client: If it is checked, client can really write to source disk otherwise client's data will be discarded after client disconnected. In super client mode, the source is opened exclusively. If the source is partition, you won't be able to access that partition when Cake Service is running. If the source is physical disk, all the drive letter on that disk must be removed in Windows disk manager. (Attention: It is NOT to remove partition that may destroy all your data). You can restore those drive letters if you stop Cake Service or disable super client.
8. Super client is protected by CHAP by default. However, CHAP can be disabled by checking "Disable CHAP" option.



Click OK and return to main interface. The disk status should be running and you can right click the disk to stop it or change its configuration. The configuration cannot be changed when iSCSI disk is running. Disk status including speed, read/write bandwidth usage can help user to maintain the iSCSI Cake server.



ADVANCED SETTINGS

Though iSCSI Cake works great with default setting, you can also customize it by clicking "Setup" button.

1. Service port: Default is 3260.
2. Cache size: Server cache size in MB.
3. TCP_NO_DELAY: Reduce response time of small request.
4. Refresh interval: Status refresh interval time in second.
5. Control port: Accept GUI control, default is 3258.
6. Admin password: Password for GUI control.
7. Super client password: Password for super client, length 12-15. Client uses it for CHAP secret.
8. [Initiator setup]: This part control client cache and need iSCSI Client to be installed in client side.
9. Enable local cache: Enable client side cache and cache size in MB.
10. Memory cache: Use client memory as cache.
11. Disk cache: Use client disk as cache and where to place the cache file.
12. Save client data on server when shutdown: Flush data in client cache to server when client disconnect.
13. Cache write only: Cache write request only.

Setup

[target setup]

Service port: 3260

Cache size: 768 MB

TCP_NO_DELAY:

Refresh interval: 5 S

Control port: 3258

Admin password:

Super client passwd:

[initiator setup]

Enable local cache: 1024 MB

Memory cache

Disk cache: C:\CakeCache

Save client data on server when shutdown

Cache write only

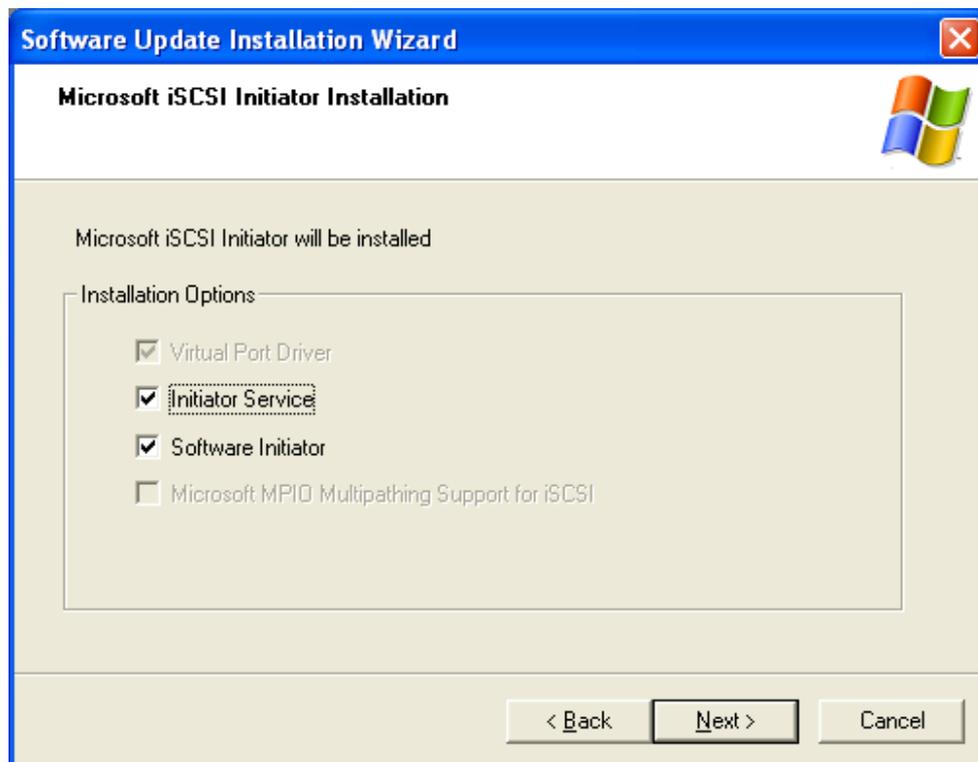
Update cache Save Cancel

CLIENT INSTALLATION

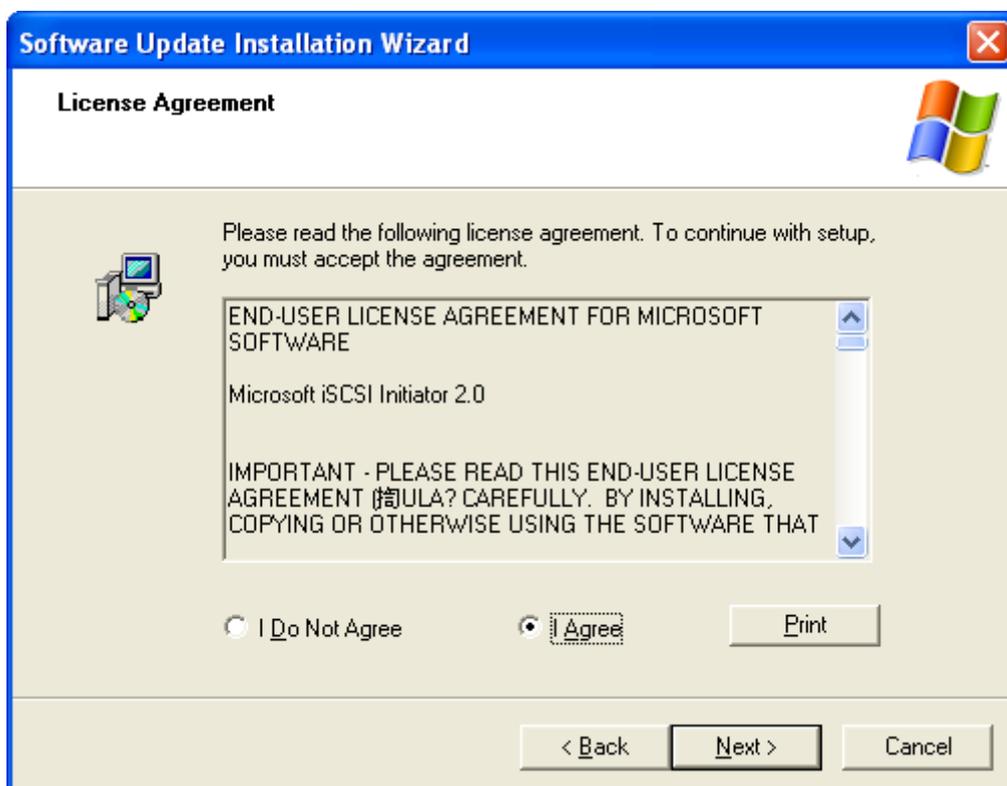
Microsoft provide standard iSCSI initiator to support iSCSI solution. It can be downloaded from [Here](#) . We will take version 2.07 for example. Note : Microsoft iSCSI initiator supports Windows 2000/XP/2003/Vista and later Windows system.



Install both components.



Agree whatever to continue.



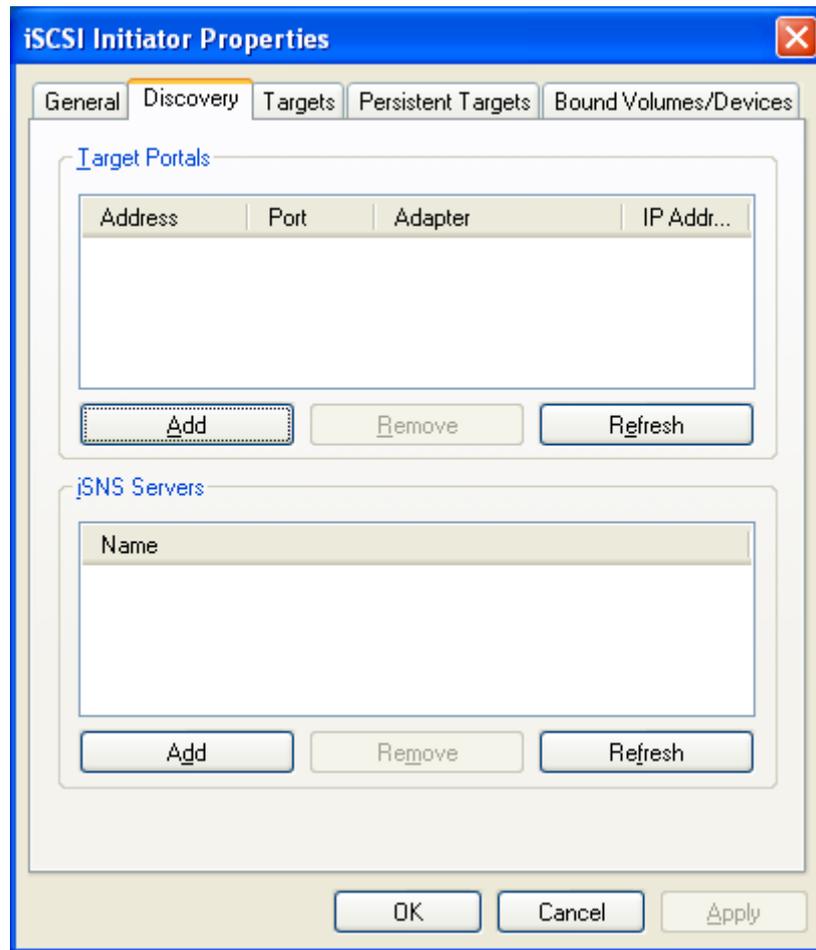
The confirmation at the end of the installation.



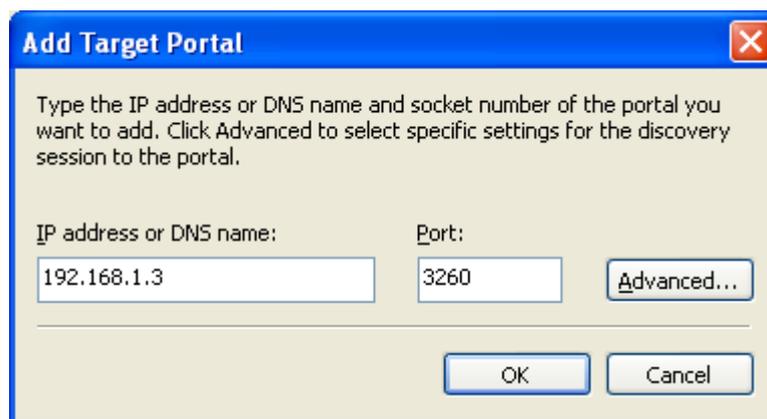
There is a shortcut on desktop after installation.



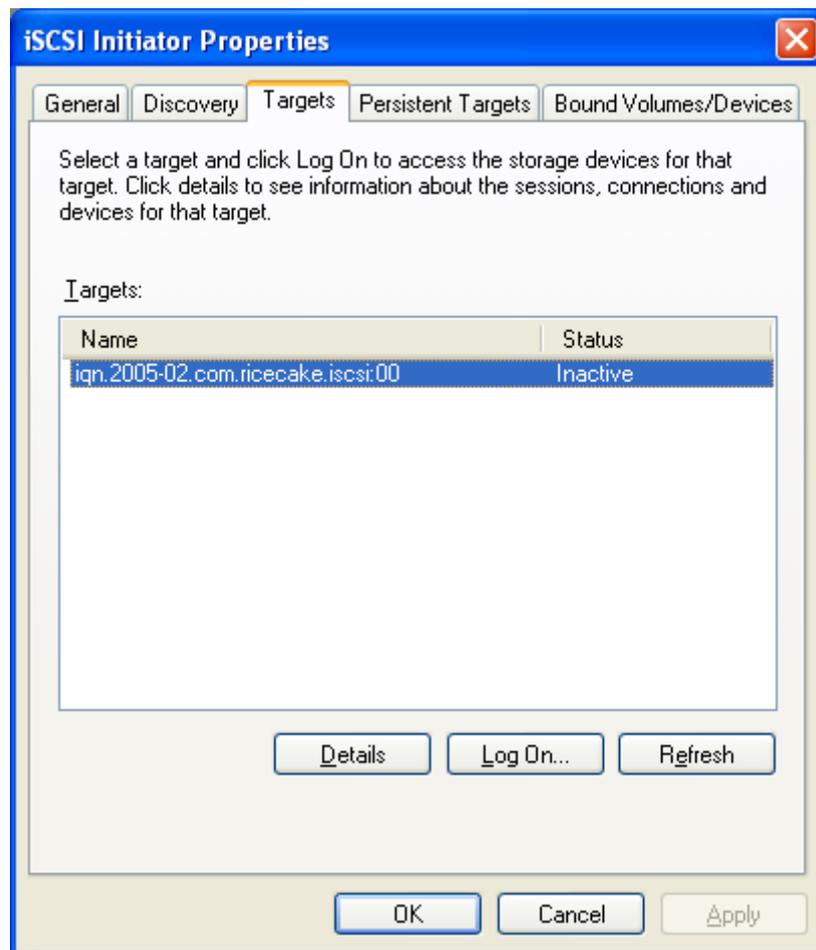
Double click the shortcut to run initiator. Choose 'Add' to add target address.



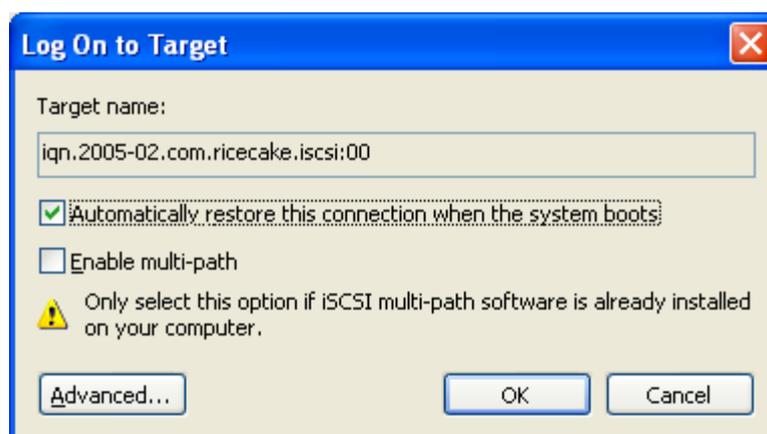
Fill out the table with your server's address. The socket is 3260 by default.



Target is added and ready to be connected.

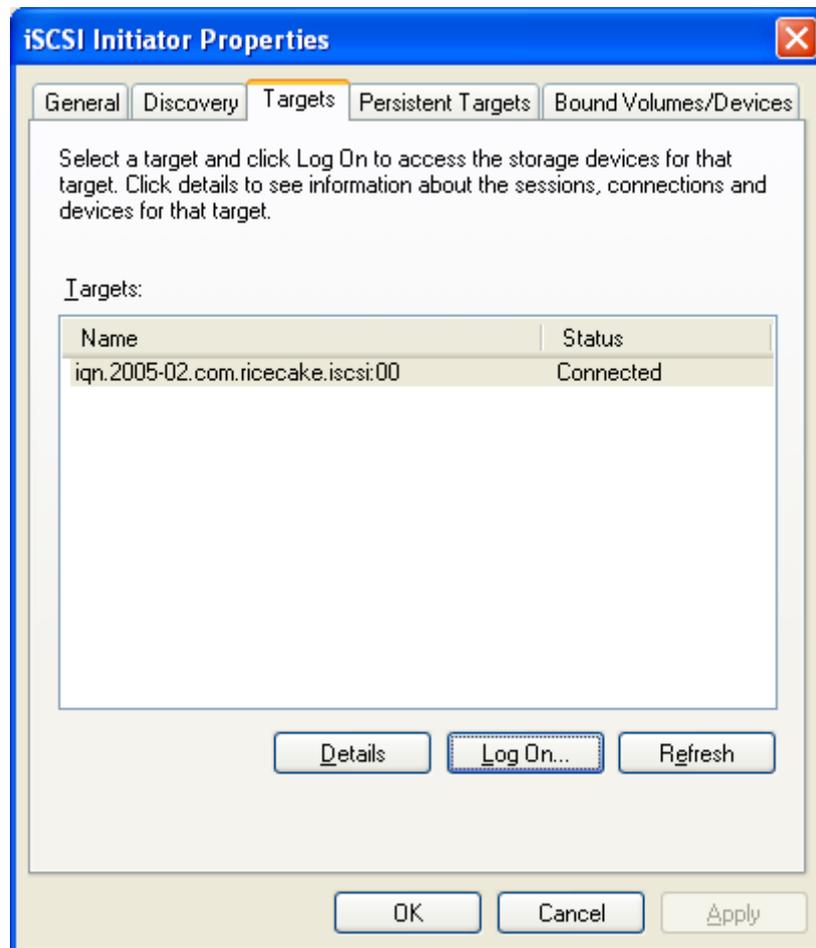


Select 'Log On' to connect to target.

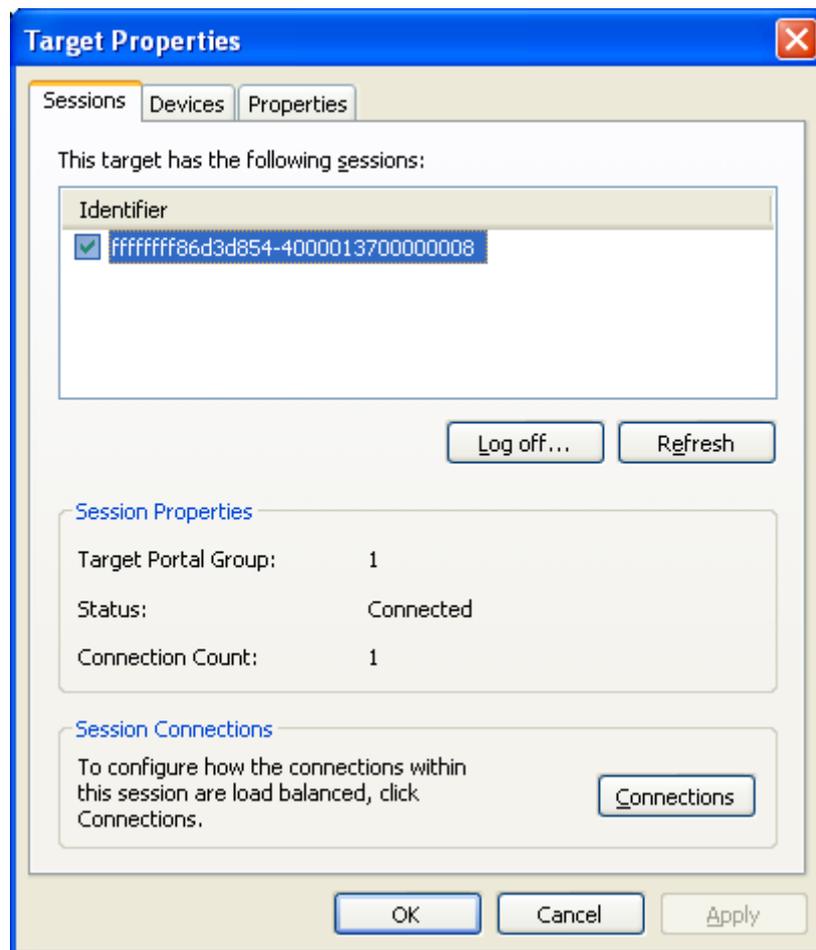


Note : Client will connect target automatically each time boots up if 'Automatically restore' is selected. You can delete the target from 'Persistent Targets' if you don't want to reconnect automatically.

After connected, the status will change from 'Inactive' to 'Connected'. You can check the new disk in system disk management.



Connection can be closed by clicking Details and Log Off selected connection.

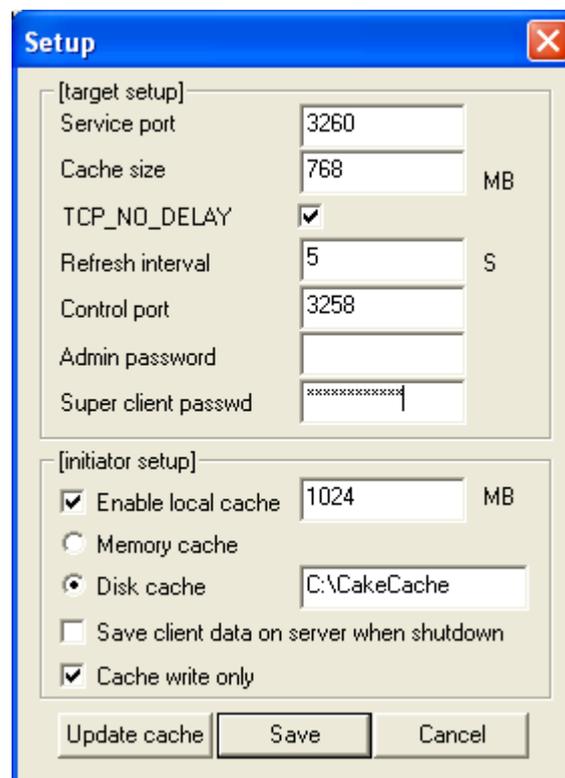


SUPER CLIENT

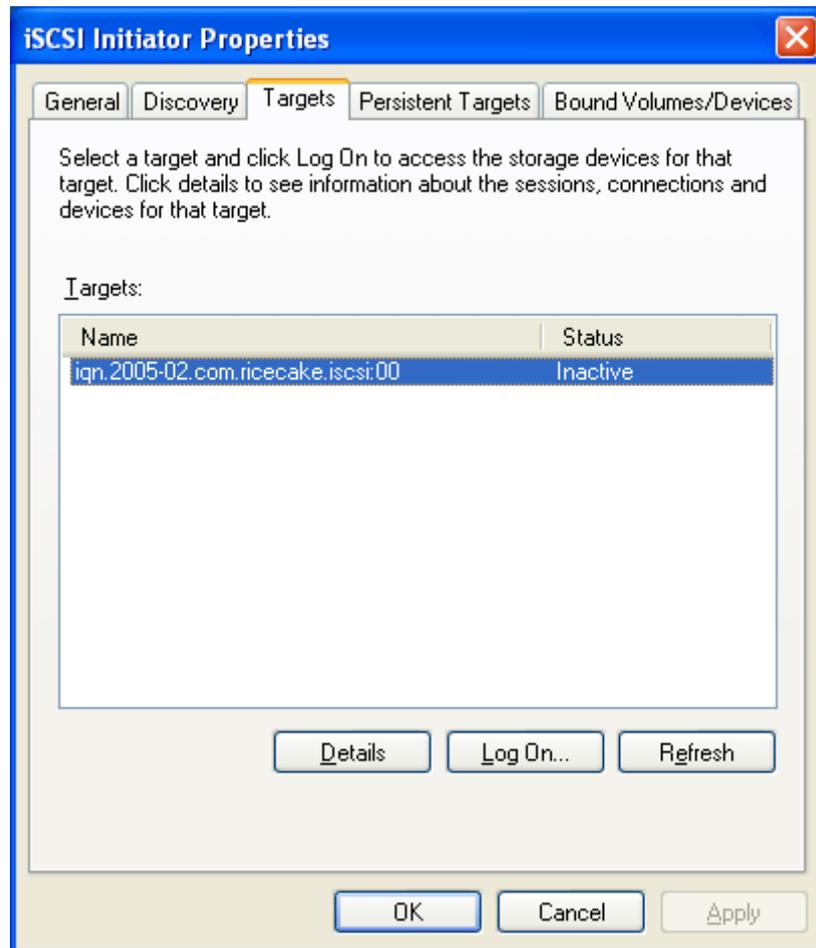
1. Add a disk with Enable super client option. (Existing disk can be modified after it is stopped.)



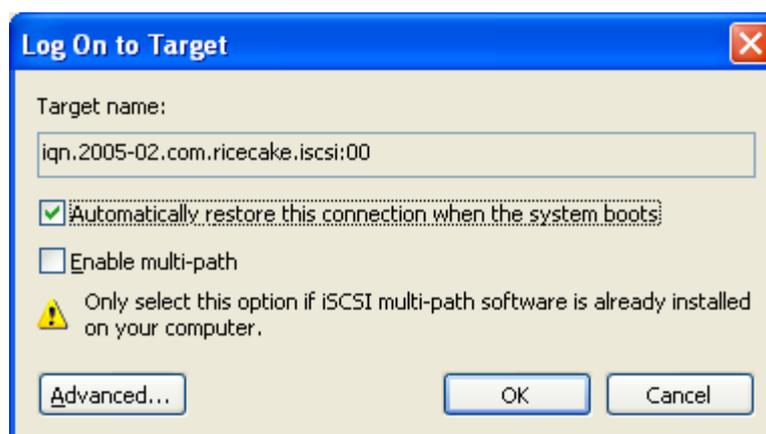
2. Enter setup and change the Super client password to any password with the length between 12 to 15 characters.



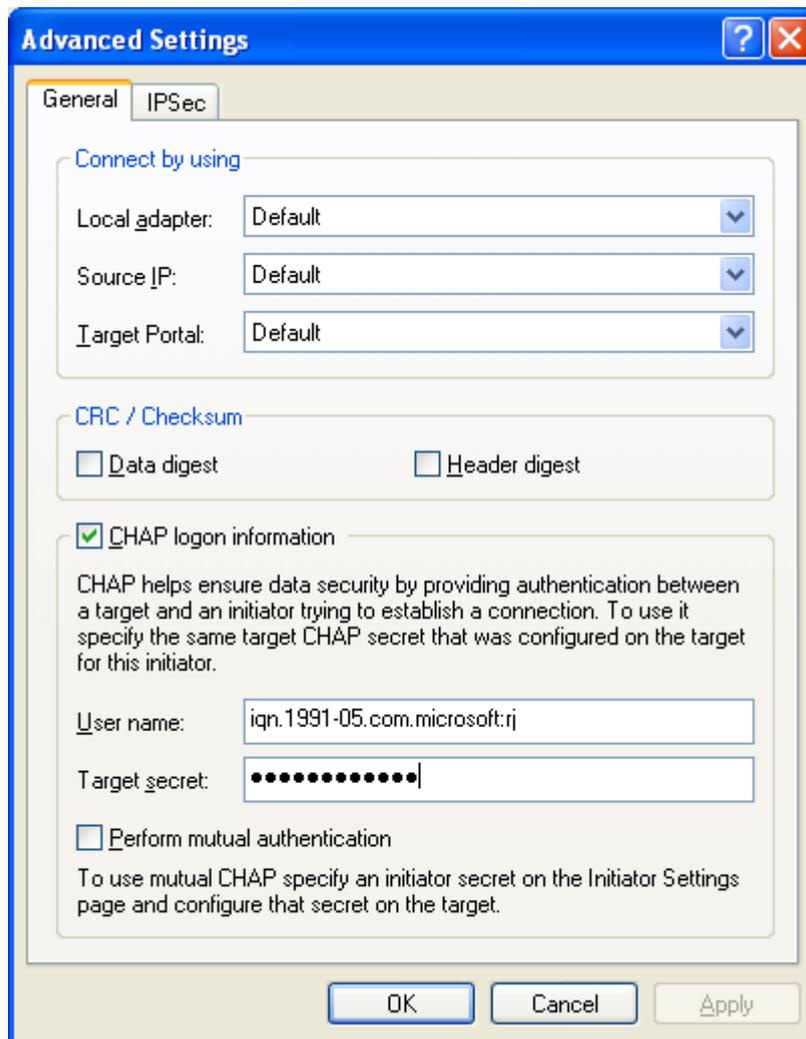
3. Open Microsoft Initiator and add target address.



4. Open Advanced options before log on target.



5. Enable CHAP and enter the password with any user name.



The image shows a Windows-style dialog box titled "Advanced Settings" with a blue header bar containing a help icon and a close icon. The dialog has two tabs: "General" and "IPSec", with "IPSec" selected. The "Connect by using" section contains three dropdown menus: "Local adapter:" set to "Default", "Source IP:" set to "Default", and "Target Portal:" set to "Default". The "CRC / Checksum" section has two unchecked checkboxes: "Data digest" and "Header digest". The "CHAP logon information" section is checked and contains a text box for "User name:" with the value "iqn.1991-05.com.microsoft:rij" and a text box for "Target secret:" filled with 12 black dots. Below this is an unchecked checkbox for "Perform mutual authentication" with explanatory text. At the bottom are "OK", "Cancel", and "Apply" buttons.

Advanced Settings

General | **IPSec**

Connect by using

Local adapter: Default

Source IP: Default

Target Portal: Default

CRC / Checksum

Data digest Header digest

CHAP logon information

CHAP helps ensure data security by providing authentication between a target and an initiator trying to establish a connection. To use it specify the same target CHAP secret that was configured on the target for this initiator.

User name: iqn.1991-05.com.microsoft:rij

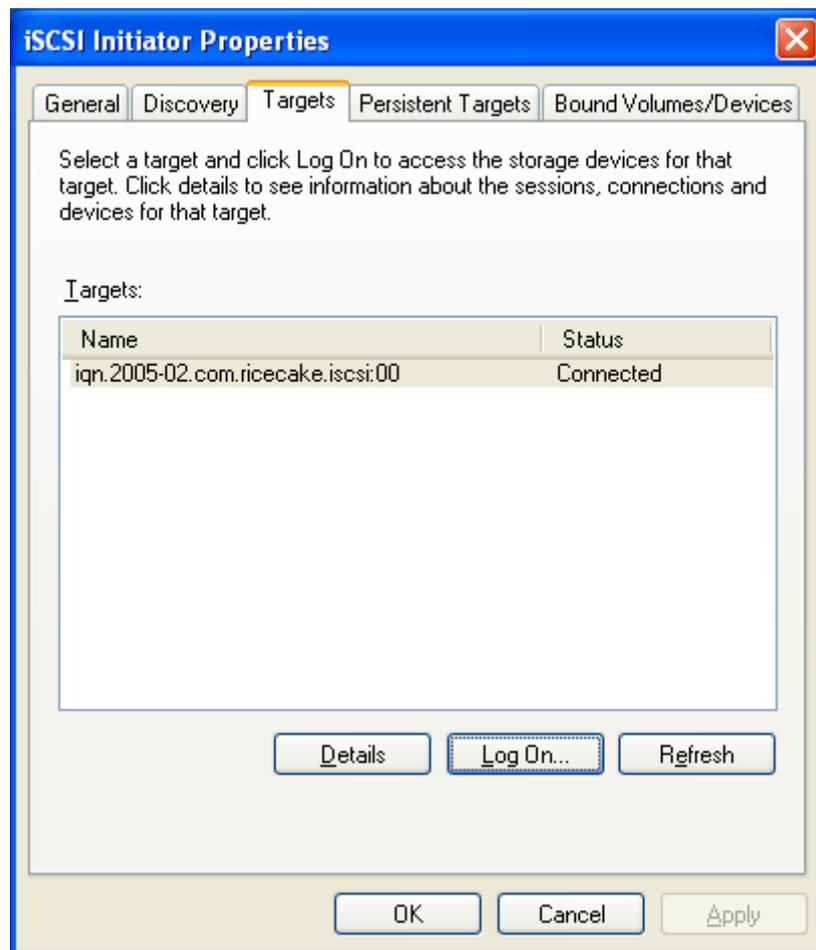
Target secret: ●●●●●●●●●●●●

Perform mutual authentication

To use mutual CHAP specify an initiator secret on the Initiator Settings page and configure that secret on the target.

OK Cancel Apply

6. Super client is connected successfully and you can write data to target.



CONTACT

iSCSI Cake(CCDisk)

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Product Page: <http://www.iscsicake.com/>

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