iStorage Server: iSCSI SAN for Xen Server

Monday, Apr 25, 2011



KernSafe Technologies, Inc.

www.kernsafe.com

Copyright © KernSafe Technologies 2006-2011. All right reserved.

Table of Contents

Overview
Install Xen Server
Configuring on iStorage Server
Choose the Authentication Mechanism4
Create Target
Configure Xen Server
Log On to Xen Server
Add iSCSI storage device into Xen Server14
Create a virtual machine
Install Operating system24
Contact

Overview

iStorage Server is a network based storage virtualization software powered by KernSafe Technologies, Inc. Being a powerful, full-featured and software-only iSCSI Target SAN solution, that can quickly convert existing Windows computer into IP SAN. Storage media of iSCSI Target can include existing storage devices such as the entire hard disks or partitions, CD-RWs, tapes and USB storage devices, as well as disk image file or CD image files including ISO9660(,iso), .bin, .mdf, .cdi, .b5i, .nrg, .ccd, .sub, .img, .raw and other image file formats. Furthermore, iStorage Server also supports a lot of features such as: VHD (Virtual Hard Disk) target, snapshots, STPI, RAID-1 and failover, these features are very important and poplar in storage industry world and make iStorage Server is suitable for any size of business.

Citrix Xen Server[™] is the only enterprise-class, cloud-proven virtualization platform that delivers the critical features of live migration and centralized multi-server management at no cost. Xen Server is an open and powerful server virtualization solution that radically reduces datacenter costs by transforming static and complex datacenter environments into more dynamic, easy to manage IT service delivery centers.

This article demonstrates how iStorage Server works under XenServer. Such powerful combination will expand the application scope of your virtual server, thereby enabling WINDOWS server to expand the storage of your virtualized server. It also allows you to directly use the storage devices of the existing Windows server for XenServer. With IP SAN solution provided by iStorage Server, you may set up operating systems, install applications and server software's, as well as store data required by your virtual machines. Your XenServer storage can be expanded in the following 3-most-commonly-used ways:

- Use Virtual Image File Disk Device to create a file-based virtual storage device for Citrix Xen Server, this allows quick data migration and backup.
- Directly use the physical disk or partition of Windows server. This enables you to make good use of resource. No additional configurations, just add the storage media to iSCSI Targets.
- Use CD/DVD/RW bridge device or Virtual CD/DVD to map physical CD/DVD drives or CD/DVD image files (iso, .bin, .mdf, .cdi, .b5i, .nrg, .ccd, .sub, .img, .raw) on your Windows server to CD/DVD devices on Citrix Xen Server virtual machine.

After iStorage Server 2.0, it supports server side mirroring, synchronous replication and failover which allows user to create a high-availability iSCSI SAN for Citrix XenServer.

Install Xen Server

You need a server running Xen Server. Xen Server must first be installed on to a suitable machine that will be used to create the virtual environment. For how to obtain or install Citrix Xen Server, please contact the Citrix supplier.

Configuring on iStorage Server

Choose the Authentication Mechanism

Decide which authentication mechanisms you would want to use: **Anonymous, CHAP, IP address** or **Mixed** authentication.

1) Anonymous:

All initiators will get full access permission without any authorization required.

2) CHAP (Challenge-handshake authentication protocol)

All initiators need to specify a CHAP user and secret to connect to the target. iStorage Server has a built-in user called "Guest", which is used for initiators without CHAP secret specified.

3) IP Filters

All initiators will be authorized by the incoming IP address defined by IP Filter roles.

4) Mixed

Security policy is determined by both CHAP and IP Filters.

Open iStorage Server Management Console.

3 iStorage Server Management Cons	sole			_ D X
<u>Storage</u> <u>Clients</u> <u>View</u> <u>T</u> ools	<u>H</u> elp			
Create Delete Start	Stop Refresh Ac	ld Remove View	Access Settings	About
E@ kernsafe-PC È@ Targets	iStorage Server: kernsa	fe-PC		
iqn.2006-03.com.ki Applications	eneral Targets Applications IP Filt	ers Users Groups Logs		
······································	Storage General Pro	operties	Prope	rties
	General			
	Hostname:	kernsafe-PC		
	Bind Address:	All Address		E
	Port:	3260		
	Management Method:	Active Directory		
	State:	ОК		
	Status			
	Status:	Started		
	License:	20-Days Trial		
	Server Portal			-
				Pour Triat
Done			Sonnected: kernsafe-PC (20)	D-Days Frial)

Create User

Right click **Users** Tree Node on the left tree view.

Press **Add** button in the tool bar.

Create/Edit User dialog is shown.

Create/Edit User	×			
User Name:	XenUser 👻			
Password:	•••••			
Confrim password:	••••••			
User name and	d password are case sensitive.			
OK Cancel				

Type user name and password as you like, but we recommend that the password should be 12-16 characters. We take the user name **XenUser** and password **111111111111111** as an example. Press **OK** button to complete creating user.

Create group

After creating user, we need a group to hold this user.

Right click **Groups** tree node in the left tree view.

Press Add button on the toolbar, a Create/Edit Group Dialog is shown.

Create/Edit Group	,		
Group name:	XenGroup		
Default Access:	Full Access		•
Members:			
& XenUser			
Add	Remove		
		ОК	Cancel

Take a group name as you like and then click **Add** button and then select the user which we just created, we take **XenGroup** as an example.

Create Target

Launch the **iStorage Server management consolle**, press the **Create** button on the toolbar of iStorage Server management console, the **Create Device Wizard** is shown.

Select a device type

Create iSCSI Target Wizard	×
iSCSI Device Type Select which device type of the iSCSI target you want to create.	<u></u>
 Hard Disk Create iSCSI target by using physical disk, partition, standard image file or VHD. CD/ DVD Device Create iSCSI target by using physical optical drive or CD / DVD image file. Generic SCSI Create iSCSI target by using generic SCSI device, such as disk, CD-ROM, tape, printer. 	
< Back Next >	ancel

Choose Hard Disk.

Press the **Next** button to continue.

Select a medium type.

Create iSCSI Target Wizard	×
iSCSI Medium Type Select medium of the iSCSI disk you want to create.	
 Image File Create iSCSI disk by using standard image file or Virtual Hard Disk (.VHD). RAM Space Create iSCSI disk by using memory space. Security Images 	
Create iSCSI disk images for each initiators, any image is individual for each initiator.	
Create iSCSI target by using a disk partition.	
Physical Disk Create iSCSI target by using physical disk.	
< Back Next > Car	ncel

Choose Image File in iSCSI Medium Type window.

Then press **Next** button to continue.

Select an Image type.

Create iSCSI Target Wizard	×
iSCSI Image Type Select image type of the iSCSI disk you want to create.	
Standard Image File Create iSCSI disk by using a standard disk image file.	
Virtual Hard Disk (VHD) Create iSCSI disk by using a Virtual Hard Disk image file.	
< Back Next >	Cancel

Choose Standard Image File.

Press the **Next** button to continue.

Specify image file path and size.

Create iSCSI Target Wizard	×
Image Disk Configuration You can specify a image file as an iSCSI device.	4
Device Parameters	
 Use existing image file Create a new image file 	
F:\XenData.img Browse	
Device Size in MBs: 10240	
Options Use sparse file on NTFS file system Note: Using sparse file can save your harddisk space, the size of disk image file only depend on its content used. But we recommentd that using this feature when image 	
file size is less than 1T bytes	
< Back Next > C	ancel

Specify the image file.

Specify the device size.

If you check **Use sparse file on NTFS file system**, the size of disk image file only depends on its content used, it can save your hard disk space.

Press the **Next** button to continue.

Set authorization mode.

Create iSCSI Target Wizard	X
Authorization You can select an authorization mode, Anonymouns, CHAP or IP filter.	
Anonymous Select this option to disable any authorization.	
CHAP Select this option to use CHAP authorization.	
IP Filter Select this option to use IP address authorization.	
Mixed Select this option to use both CHAP and IP address authorization.	
Inherit security roles from global settings.	
< Back Next > Ca	ncel

Choose CHAP Authorization.

Press the **Next** button to continue.

Finish creating iSCSI Target

Create iSCSI Target Wizard	×
Completing the Create iSCSI Wizard You can specify a target name and other options to complete iSCSI target creating.	
Basic Target Information Enter Target Name:	
iqn.2006-03.com.kemsafe.KemSafe.Xen Target Report as readonly device when initiator can not get write access Enable multiple initiators with full access connected (sharing and clustering)	
Note By default, only one client has full access right, when the second initiaor log on with full	
access, it will fail. But this option is usfull for clustering, disk sharing and NAS.	
< Back Finish C	ancel

Type a target name in the Target Name field, or use the default.

Press the Finish button to continue.

Configure Xen Server

Log On to Xen Server

Open Xen Server console.

XenCenter				
File View Pool Server VM Sto	orage Templates Tools W	indow Help		
🕞 Back 👻 🐑 Forward 👻 🛛 📑 🖬 Add N	ew Server 🕴 🎼 New Pool 🧉	New Storage New VM	🕐 Shut Down 🛛 🖌 No System Alerts 💡	
Show: Server View 🔎 🔻	XenCenter			
XenCenter	Home Search Tags Log	s		
152100,0175		Citrix Xe	enServer	
		Enterprise-class. C	Cloud-proven. Free.	
	LEARN ADD GET			
	about using XenCenter	a server	Essentials for XenServer	
	• Network with other XenServer users • Visit the Citrix Knowledge Center • Learn more about partner offerings			

Click Add New Server in the tool bar.

Add New Server dialog is shown.

🛛 Add Ne	w Server		?	×
	Connect to a Hostname: User name: Password:	server by entering its IP address or hostname: 192.168.0.149 root		
		Connect	Can	cel

Input IP address / Name with which running Xen Server, User name and password.

Press the **Connect** button to continue.

The XenCenter which connect to Xen Server is shown.

XenCenter							. 🗆 🗙
File View Pool Server VN	M Storage Templates Tool	s Window Help					
🚱 Back 🔹 💮 Forward 📼 📑	🖁 Add New Server 🕴 🎬 New Po	ol 💣 New Storage 💣 New V	M 🕴 🕘 Shut I	Down 👸	Reboot 🕕 Suspen	d 🧹 No	System Alerts
Show: Server View 🔎 💌	localhost.localdomain				Logged	in as: Loca	root account
🖂 😣 XenCenter	Search General Storage Netv	vork NICs Console Perform	ance Logs				
Iocalhost.localdomain DVD drives	Storage Repositories						
Local storage							
Removable storage	Name	Description	Туре	Shared	Usage	Size	Virtual allo
	Removable storage		udev	No	0% (0 B used)	0 B	0 B
	Cocal storage		LVM	No	0% (4 MB used)	29.6 GB	0 B
	DVD drives	Physical DVD drives	udev	No	100% (1024 MB used)	1024 MB	1024 MB
	4						
	·						

Add iSCSI storage device into Xen Server

Click New Storage, New Storage Repository dialog is shown.

New Storage Repository - loca	alhost.localdomain	
💣 Choose the type of r	new storage	3
Type Location	Virtual disk storage NFS VHD isCSI Hardware HBA	Shared Logical Volume Manager (LVM) support is available using either iSCSI or Fibre Channel access to a shared LUN. Using the LVM-based shared SR provides the same performance benefits as unshared LVM for local disk storage, however in the shared context, iSCSI or Fibre
Advanced StorageLink technology NetApp Dell EqualLogic ISO library		Channel-based SRs enable VM agility — VMs may be started on any server in a pool and migrated between them.
CITRIX	 Windows File Sharing (CIFS) NFS ISO 	
		< Previous Next > Finish Cancel

Input IP address and port (if not 3260) of the Host that runs iStorage Server, press the **Discover IQNs** button, a list of Targets in drop-down control is shown.

🗴 New Storage Repository - localhost.localdomain					
Enter a name and pat	th for the new iSCSI sto	brage		0	
Туре	Name:	iSCSI virtual disk storage			
Location	Target Host:	192.168.0.195	: 3260		
	Use CHAP CHAP Authenti CHAP User: CHAP Secret:	cation			
	Target IQN: Target LUN:	iqn.2006-03.com.kernsaf	ie.KernSafe.XenTarge ▼	Discover IQNs Discover LUNs	
CITRIX					
		< Pr	evious Next >	Finish Cancel	

Select desired target in the list.

If the target you want to connect to has CHAP Authentication, check **Use CHAP** and input user name and secret.

Press the **Discover LUNs** button.

The iSCSI Target now contains a valid LUN. Here we create a 10G image file device as a demo.

New Storage Repository - local	host.localdomain	
Enter a name and pat	h for the new iSCSI sto	orage 🕜
Туре	Name:	iSCSI virtual disk storage
Location	Target Host:	192.168.0.195 : 3260
	🔽 Use CHAP	
	CHAP Authenti	cation
	CHAP User:	XenUser
_	CHAP Secret:	•••••
	Target IQN:	iqn.2006-03.com.kernsafe.KernSafe.XenTarge 👻 Discover IQNs
	Target LUN:	LUN 0: 000000000000000: 10 GB (KernSafe)
CITRIX		
		< Previous Next > Finish Cancel

Press the Finish button to continue.

The following dialog is shown.

Location	
4	Creating a new virtual disk on this LUN will destroy any data present. You must ensure that no other system is using the LUN, including any XenServers, or the virtual disk may become corrupted while in use. Do you wish to format the disk?
	Yes No

press the Yes button to continue.

Now Xen Server is carrying on a series of operations, such as **Creating SR**, to create data structures required by data repositories.

XenCenter			
	Creating SR		
		Cancel	

Sorted! You now see an iSCSI storage device successfully added into Xen Server.

XenCenter			_ D X
File View Pool Server V	M Storage Templates T	ools Window Help	
GBack 👻 💮 Forward 👻 🛛	🖡 Add New Server 💠 🎼 New	Pool 🔮 New Storage 💼 New VM 🕘 Shut Down 🛛 🗸 N	o System Alerts 💂
Show: Server View 🔎 💌	iSCSI virtual disk stor	rage Logged in as: Lo	ocal root account
🖃 😣 XenCenter	General Storage Logs		
DVD drives	Storage General Prope	erties	Properties
iSCSI virtual disk stor Local storage Removable storage	General		^
	Name:	iSCSI virtual disk storage	
	Description:	iSCSI SR [192.168.0.195 (iqn.2006-03.com.kernsafe.KernSafe.XenTarget)]	
	Tags:	Add Tag	
	Folder:	<none> Change</none>	
	Туре:	LVM over iSCSI	
	Size:	4 MB used of 10 GB total (0 B allocated)	E
	SCSI ID:	200000000000000	
	Status		
	State:	ок	
	localhost.localdomain:	Connected	
	Multipathing		
4 III >	localhost.localdomain:	Not active	-
			.::

Create a virtual machine

Click **New VM** on Xen Server console.

Select Windows 7 x64 in the following wizard.

X New VM - localhost.localdom	ain 📃	×
Select an operating :	system for the new virtual machine	?
Template Name Location CPU & Memory Virtual Disks Virtual Interfaces Finish	Templates: SUSE Linux Enterprise Server 9 SP4 SUSE Linux Enterprise Server 10 SP1 SUSE Linux Enterprise Server 10 SP2 x64 SUSE Linux Enterprise Server 10 SP2 x64 SUSE Linux Enterprise Server 11 SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 2003 SUSE Linu	
CİTRIX.	Windows 7 x64 Description: Clones of this template will automatically provision their storage when first booted an then reconfigure themselves with the optimal settings for Windows 7 x64. VCPUs: 1 Memory: 2 GB	nd

Input the desired name and description.

New VM - localhost.localdomain						□ X
💼 Enter a name and desc	ription for the r	new virtual machine				•
Template Name Location CPU & Memory Virtual Disks Virtual Interfaces Finish	Name: Description:	Windows 7 x64 (1)				
CITRIX						
			< Previous	Next >	Finish	Cancel

Press the **Next** to continue.

Select installation media for operating system.

New VM - localhost.localdoma	3) New VM - localhost.localdomain						
👚 Enter the location of the guest operating system installation media							
Template Name	Select a physical DVD/CD-RO for your guest operating syste media.	M drive and insert the installation media em, or use an ISO image of your installation					
Location	Physical DVD Drive:	DVD drive 0 on localhost.localdomain					
CPU & Memory	ISO Image:	xs-tools.iso					
Virtual Disks	-						
Finish							
1111311							
CITRIX							
		< Previous Next > Finish	Cancel				

Choose **physical DVD Drive** on XenServer.

Press the **Next** button to continue.

Specify the number of CPUs and memory size.

New VM - localhost.localdom	ain 📃 🗖	x
💣 Set the number of C	PUs and the initial memory allocation for the new VM	?
Template Name Location	Number of vCPUs: Initial memory: 1024 MB	
CPU & Memory Virtual Disks Virtual Interfaces Finish	localhost.localdomain Physical CPUs: 2 Total memory: 2029 MB Free memory: 1623 MB	
CITRIX		
	< Previous Next > Finish Car	ncel

Select number of vCPUs.

Specify initial memory size.

Press the **Next** button to continue.

Select storage device.

New VM - localhost.localdomain Enter the information	about the virtual	disks for the new virtual machine	e 3
Template Name Location	The default vir You can add, r Virtual disks in	tual disks for the template you have se modify or delete virtual disks, if required stalled on the new machine:	lected are listed below. d. When you have finished, click "Next" to
	Size (GB)	Location	Shared
Virtual Interfaces Finish	y	ISCSI Virtual disk storage	Yes
CITRIX			Add Edit Delete
		< Previous	

First you see an **iSCSI Virtual disk storage** device, which is previously created by iStorage Server. It is Xen Server's default storage device. If you want to add other virtual disk, press the **Add** button.

Select **iSCSI virtual disk storage...** and then press the **Next** button, the **Disk Settings dialog** is shown.

D	Disk Settings					
	Enter the settings for the new virtual disk			Disk Access Priority		
	Size: p.0 🔤 Gt	8 🔲 Read Only	owest	1 I I I	Highest	
	Location:					
	Name 🔺	Description		Size (GB)	Free Space (GB)	
	iSCSI virtual disk stor	iSCSI SR [192.168.0.195 (iqn.2006-0)3.co	9	9	
	Local storage on loca			29	29	
				OK	Cancel	

Specify the size of the new virtual disk.

Press the **OK** button to finish the wizard.

A virtual machine is built.

Note that before Version 5.5 update1 in the Storage labels of your virtual machine, you need to exchange the position of iSCSI Virtual Storage and Local Storage (make sure iSCSI Virtual Storage at position 0) so that the operating system can be installed on this iSCSI device.

Install Operating system

Run the virtual machine and set up the operating system.

The process is just like on real machine.

File View Pool Server VM Storage Templates Tools Window Help Show Server View Image: Server View	XenCenter	
Back Image: Constraint of the second o	File View Pool Server VM Storage Templates Tools Window Help	
Show: Server View Windows 7 x64 (1) Logged in as: Local root account General Storage Network Console Performance Snapshots Logs UD Drive: DVD drive 0 on localhost.localdomain Looking for guest console UD Drive: DVD drive 0 on localhost.localdomain Looking for guest console Windows 1s loading files Send Ctri-Alt-Del Scale UDdock (Alt+Shift+U) Fullscreen (Ctri-Alt)	🔾 Back 🔹 🛞 Forward 🕞 📑 Add New Server 🎼 New Pool 📑 New Storage 📷 New VM 🔘 Shu	it Down 🖌 🖌 No System Alerts 👳
SkenCenter Image: Storage Storage VD Drive DVD drive 0 on localhost.localdomain DVD drive DVD drive	Show: Server View P 💌 🚯 Windows 7 x64 (1)	Logged in as: Local root account
Windows 7 x64 (1) DVD drives DVD drives SCS1 virtual disk stor. Local storage Removable storage Removable storage Windows 1s loading files Windows 1s loading files Send Ctrl-Alt-Del	General Storage Network Console Performance Snapshots Logs	
DVD drives iSCSI virtual disk store iSCSI virtual disk store imediate and the storage imediate and the storage	Windows 7 x64 (1) DVD Drive: DVD drive 0 on localhost.localdomain	✓ Looking for guest console
Clocal storage Removable storage Windows 1s loading files Windows 1s loading files Send Ctrl-Alt-Del Scale Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)	DVD drives Signature Signature	
Image: Send Ctrl-Alt-Del	Coal storage	
Windows is loading files Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del	😭 Removable storage	
Windows is loading files Image: Windows is loading files Send Ctrl-Alt-Del Image: Scale Image: Undock (Alt+Shift+U) Image: Fullscreen (Ctrl+Alt)		
Windows is loading files Send Ctrl-Alt-Del Scale Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)		
Windows is loading files Send Ctrl-Alt-Del Scale Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)		
Windows is loading files Image: Send Ctrl-Alt-Del Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del		
Windows is loading files Image: Send Ctrl-Alt-Del Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del		
Windows is loading files Image: Send Ctrl-Alt-Del Image: Scale Image: Undock (Alt+Shift+U) Image: Fullscreen (Ctrl+Alt)		
Windows is loading files Send Ctrl-Alt-Del Scale Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)		
Windows is loading files Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del		
Windows is loading files Image: Send Ctrl-Alt-Del Send Ctrl-Alt-Del Image: Send Ctrl-Alt-Del		
Image: Send Ctrl-Alt-Del Image: Scale Image: Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)	Windows is loading files	
< III ► Send Ctrl-Alt-Del Scale Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)		
✓ III ► Send Ctrl-Alt-Del ✓ Scale Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)		
Scale Undock (Alt+Shift+U) Fullscreen (Ctrl+Alt)		
	<	dock (Alt+Shift+U) Fullscreen (Ctrl+Alt)

XenCenter	
File View Pool Server VM Storage Templates Tools Window Help	
Shut Down	✓ No System Alerts 👻
Show: Server View P View Windows 7 x64 (1)	Logged in as: Local root account
Storage Network Console Performance Snapshots Logs	
Windows 7 x64 DVD Drive: DVD drive 0 on localhost.localdomain	Looking for guest console
 iSCSI virtual dis 	
Cocal storage	
Windows' /	
Install now 🌚	
	÷.
What to know before installing Windows	
Expansion Scottiguetti Copyright & 2009 Microsoft Corporation: All rights warrend.	
Send Ctrl-Alt-Del	Shift+U) Fullscreen (Ctrl+Alt)

Press the Install Now button to install OS.

XenCenter				
File View Pool Server	VM Storage Templates Tools Win	dow Help		
🚱 Back 👻 💮 Forward 👻 🛛	🕈 Add New Server 🕕 🎼 New Pool 📑 I	New Storage 👕 New VM	🕐 Shut Down	🧹 No System Alerts 👳
Show: Server View 🔎 💌 🖣	Windows 7 x64 (1)		Logg	jed in as: Local root account
🖃 🐼 XenCenter 🛛 🕞	eneral Storage Network Console Perform	nance Snapshots Logs		
Windows 7 x64	DVD Drive: DVD drive 0 on localhost.localdomain			oking for guest console
G ISCSI virtual dis Cocal storage Removable stor	Proteil Windows Where do you w Protein Protein	nt to install Windows? Tetal Size sted Space 9.0 GB = space for installation is 10338 MB.	Free Space: Type 9.0 GB Drive options (glvancet) Elect	
	Send Ctrl-Alt-Del	✓ Scale	Jundock (Alt+Shift+U) Fullscreen (Ctrl+Alt)

Select the 9G disk. Just like that on a real hard disk.

Setup starts copying files



Last, with all work done, we'll see iSCSI virtual storage device in the virtual operating system.

XenCenter		_ 🗆 X	
File View Pool Server VM Storage	e Templates Tools Window Help		
🚱 Back 🔹 🛞 Forward 🖂 📑 Add New Server 🎼 New Pool 💣 New Storage 💼 New VM 🕘 Shut Down 🛛 🖌 No System Alerts 🛫			
Show: Server View 🔎 💌 🚯 Windows	7 x64 (1) Logged in a	as: Local root account	
Contenter ge Network Console Performance Snapshots Logs	for every converte		
Windows 7 xb4 DVD Drive:	DVD drive 0 on localhost.localdomain	for guest console	
iscSI virtual dis	Computer Management	123	
Removable stor	💠 🕪 🔰 QEMU HARDDISK ATA Device Properties		
	General Policies Volume Details ystem Status Actions > Is system Tes volumes contained on this data are lated below. Is system Status More Actions > Is system Data Data Is system Healthy to the status More Actions > Is system Status Online Is system More Actions > Is system Data Data Is system More Actions > Is system Status Online More Actions > Is system Data Data Is system More Actions > Is system Data Data Is system Is system > Is system System Reserved 100 MB Is system Is system		
	Concel	,	
	💖 🖉 🚆 🐲	/2010	
Send Ctrl-Alt	-Del 🛛 Scale 💭 Undock (Alt+Shift+U)	Fullscreen (Ctrl+Alt)	

Likewise, you may install Windows Server 2003, Windows XP, Vista and Windows Server 2008, or even any version of Linux as you wish.

Contact

Support:	support@kernsafe.com
Sales:	sales@kernsafe.com
Marketing:	marketing@kernsafe.com
Home Page:	http://www.kernsafe.com
Product Page:	http://www.kernsafe.com/product/istorage-server.aspx
Licenses	http://www.kernsafe.com/product/istorage-server/license-compares.aspx
Forum:	http://www.kernsafe.com/forum



KernSafe Technologies, Inc.

www.kernsafe.com

Copyright © KernSafe Technologies 2006-2011. All right reserved.