By Till Brehm Published: 2007-01-16 17:37

Using XenExpress To Virtualize Your Server

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This Howto covers the installation of XenExpress and the creation of virtual machines with the XenServer Administrator Console. <u>XenExpress</u> is the free virtualization platform from XenSource, the company behind the well known Xen virtualization engine. XenExpress makes it easy to create, run and manage Xen virtual machines with the XenServer Administrator Console. XenExpress can run up to 4 virtual machines at the same time with a max. total amount of 4GB RAM. The XenExpress installation CD contains a full Linux distribution which is customized to run XenExpress.

Installing XenExpress

Download the latest version of XenExpress from the XenSource website and burn the ISO-Image on CD.

XenExpress Download: http://www.xensource.com/download/xenexpress.html

Insert the CD in your CD-Drive and start your server. Make sure that your BIOS is configured to boot from CD. The installation process starts automatically when you power on your server.

Select your keymap:



The server does not contain any operating system, so I select Install XenServer Host and then Ok:

Plea	se select an	operation:	XenServer	
	* Install Xen	Server Host	this weaking to .	Y
	* Convert an	existing us on	this Machine to a	(Xenom (F20)
	Ok		Exit and rel	boot

Confirm the installation:

Copyright ((c) 2006 XenSource, Inc.
Ī	Welcome to XenServer Setup
	This setup tool will install XenServer on your server.
	This install will overwrite data on any hard drives you select to use during the install process. Please make sure you have backed up any data on this system before proceeding with the product install.
	Cancel Installation
<tab>/<al< td=""><td>lt-Tab> between elements (Space> selects ; <f12> next screen</f12></td></al<></tab>	lt-Tab> between elements (Space> selects ; <f12> next screen</f12>

Accept the EULA:

Welcome to	the XenServer Installer - Version 3.1.0 (#1332)
Copyright	End User License Agreement
	XenServer End User License Agreement #
	IMPORTANT - BY CLICKING THE "ACCEPT" BUTTON OR BY INSTALLING, COPYING OR OTHERWISE USING XENSOURCE'S PRODUCTS AND ANY UPDATES
	THERETO, YOU AS LICENSEE ("YOU") ARE AGREEING TO THE TERMS AND CONDITIONS OF THIS LICENSE
	AGREEMENT. IF YOU DO NOT AGREE WITH THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT, CLICK THE "CANCEL" OR "BACK" BUTTON TO
	TERMINATE INSTALLATION OF THESE PRODUCTS, DO NOT INSTALL OR USE THE PRODUCTS.
	Accept EULA Back
<tab>/<al< td=""><td>t-Tab> between elements <space> selects <f12> next screen</f12></space></td></al<></tab>	t-Tab> between elements <space> selects <f12> next screen</f12></space>

In case the server does not support the latest hardware virtualization techniques from Intel or AMD, you will get this screen. You will still be able to run various Linux distributions as virtual machines.



If you want to run virtualized versions of Linux only, this is fine. Just Windows virtualization won't work without hardware virtualization support.

Select Local media (CD-ROM) as installation media:



Skip the media verification:



Hould you like to verify the integrity of your installation repository/media? (This may take a while to complete and could cause significant network traffic if performing a network installation.)



<Tab>/<Alt-Tab> between elements (<Space> selects (<F12> next screen

Enter your root password:



Select your region:



and City:

Welcome to the XenS	Gerver Installer - Version 3.1.0 (#1332)
Copyright (c) 2006	Select Time Zone
	Please select the localised area that
	the managed host is in (press a letter
	to jump to that place in the list).
	Athens
	Belgrade #
	Berlin
	Bratislava
	Brussels
	Bucharest
	Budapest
	Chisinau
	0k Back
<tab>/<alt-tab> b</alt-tab></tab>	etween elements <space> selects <f12> next screen</f12></space>

I choose to synchronize my clock with NTP:



My DHCP server does not configure NTP automatically, so I choose to manually configure NTP by deselecting the automatic configuration and entering pool.ntp.org as timeserver:



I choose to not configure my server by DHCP as I want to configure it with a static IP address:



Enter your network configuration:



Set your hostname and DNS server(s):

elcome to the XenServer Installer - Version 3.1.0 (#1332)
opyright (c) 2 Hostname and DNS Configuration
Hostname Configuration
() Automatically set via DHCP
(*) Manually specify:
xenexpress.local
DNS Configuration
() Automatically set via DHCP
(*) Manually specify:
DNS Server 1: 192,168,0,1
DNS Server 2:
DNS Server 3:
Uk Back
<tab>/<alt-tab> between elements : <space> selects : <f12> next screen</f12></space></alt-tab></tab>

Confirm to install XenExpress:



The installation starts:

•	Installin
	eparing for installation

When the installation is finished, select *Ok* to reboot the server.

GNU GRUB version 0.95 (638K lower / 591808K upper memory)
XenServer
XenServer (Serial)
XenServer in Safe Mode
Use the \uparrow and \downarrow keys to select which entry is highlighted. Press enter to boot the selected OS, 'e' to edit the commands before booting, 'a' to modify the kernel arguments before booting, or 'c' for a command-line.
The highlighted entry will be booted automatically in 1 seconds.

The server is now ready to run other operating systems in Xen virtual machines.

Installing XenServer Administrator Console

The XenServer Administrator Console is used to create and manage Xen virtual appliances. This application has a graphical interface to run on your workstation. The Administration console is available for Windows and Linux.

Installation Of The XenServer Administrator Console For Windows

Insert the XenExpress installation CD in the CD drive of your workstation, open the file explorer and navigate to the folder client_install. Double-click

on the file xenserver-client.exe to start the installation of the Windows client.

There is not much to say about the Windows installation, just go trough the dialogues, confirm the licence, choose the installation directory and install the application.

When you first start the Administrator console, you are asked to create a master password.

XenSource XenServ	er Master Login 🛛 🛛
The Master Password encrypted form and t master login.	l is used to save host login information to disk in to optionally restore the last session upon
New Master Password:	****
Confirm Password:	******
	Skip Login

Then enter the login information of the XenExpress server.

XenSource Xe	nServer 🛛 🛛
XenServer Host:	192.168.0.110
Username:	root
Password:	****
🔽 Remember Me	
	OK Abbrechen

Our XenExpress server is listed in the interface. Now we choose to create a new virtual machine by clicking on the Install XenVM button.

🕱 192.168.0.110 XenSource XenServer								
File Xen Virtual Machine XenServer Host Help								
Name 🔺 Status	CPU Usage		Used Memory		06k		Network	
xenexpress.local 🔰 On	1 1 %	1 CPU	30 %	679 MB	4 KB/s	1 disk	0 KD/s	
xenexpress.local				😞 Install Xe	nVM 🛖 Im	port XenVM	C Rebort	() Shuttown
• • • • • • • • • • • • • • • • • • •				instal a	new Xer/M o	a best	<u> </u>	<u> </u>
🚱 Overview 🔚 Text Console 🖉 Perform	ence 🚇 History			- marc		in a start		
-]
Attributes	and a	-						
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Installed Fri Jan 12 05	:39:42 CET 2007		vanior	Description	VII	ethD		Deraum
Product Version/Product Build 3.1.0/1332		_	No INFIN			COID		
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- Storage								
Disk 2048 MB	228	88 MB						
-Memory (579 MB)-								
NO VPIS								
							Apply	Cancel
							- controls	

Now choose which operating system we want to install. I chose a Debian server and named it Debian Fileserver.

192.168.0.11	0 XenSource 3	XenServer										
File Xen Virtual Mac	thine XenServe	r Host Help									100 mg	
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Boot Parameters:	quiet					Anel	twork Int	erfaces				
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Disk 2040	MD				22888 MB							
						레						
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										Canco	Instal	

If you want to start the virtual server automatically when your XenExpress server is powered up, enable the *Start on Server Boot* option. Now click on *Install* to start the installation process.

The new virtual machine is now listed with the status *Installing* in the list of virtual machines.

	urce Xenserver					
File Xen Virtual Machine Xe	anServer Hest Help					
Norre 🔺	Status	CPU Usage	Used Memory	Cisk	Networ	k.
 xenexpress.local 	≽ On	K00 💽	4 CPU	579 MB 477 KB	As a dise O KB.	s
Debian Fileserve	••• Installing					
conoxpross.local		1.00.001		👩 Install XerVM 👘	Import XenivIM 🔇 Reb	oot 🕧 Stuldser
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IP Address	192.168.0.110					
Xen Version	5.0.3.0	42 CET 2002	Network	Description	NIC	Default
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When the status has changed to On in the virtual machine list, click on the virtual machine and enter the root and VNC password in the text-console window.

X 192.168.0.110 XenSource XenServer							
File Xen Virtual Machine XenServer Host Help							
Name 🔺 Status	CPU Usaga	Used Memory		Disk		Metwork	
zenexpress.local > On	10% 1	CPU <u>88%</u>	576 MB	21 KB/s	1 diek	0 KB/s	
Debian Fileserva 🕸 🍃 On	2 % 1	CPU 0%	256 1.19	0 KD/s	2 disks	0 KD/s	
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Setting the System Clock using the Handware Clock a	s reference						~
Bysten Dlock set. Local time: Fri Jan 12 12:34:41 U	TC 2007						
Initializing random number generatordome. Recovering nvi editor sessions dome,							
Setting up % server socket directory /tnp/,%11-unix Setting up 10E socket directory /tsp/,10E-unixda	.,,done,						
INIT: Entering runlevel; 2 Stanting canton in discount contend							
Starting kernel log daewon: klogd.							
ptarting sengroud:	010010						
Configuring Debian NGT: (This will only appear the first time you boot this.	guest.)						
Picase specify a rest password;							
Enter new UNIX possword; Retube new UNIX possword;							
passud; passuord updated successfully							
Please specify a VNC password: Descende							
Venify:							
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The Debian virtual machine is now installed. Now you can log in and configure the services to suit your needs.

All trademarks belong to their respective owners. We thank <u>XenSource</u> for the permission to write this Howto.

Links

- <u>XenSource</u>
- <u>XenExpress</u>