

Pengenalan Virtualisasi

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Apa : Virtualisasi

Adalah teknologi yang memungkinkan pengalokasian resources / sumber daya IT secara dinamis

Berbagai Jenis Virtualisasi

- **Network Virtualization** : VLAN, Virtual IP (untuk clustering), Multilink
- **Memory Virtualization** : pooling memory dari node-node di cluster
- **Grid Computing** : banyak komputer = satu
- **Application Virtualization** : Dosemu, Wine
- **Storage Virtualization** : RAID, LVM
- **Platform Virtualization** : virtual computer

VirtualBox

- Platform Virtualization
 - Open Source
- Light / Faster than some competitors
 - Many features



New



Settings



Start



Discard

New (Ctrl+N)



Details



Snapshots



Description

Welcome to VirtualBox!

The left part of this window is intended to display a list of all virtual machines on your computer. The list is empty now because you haven't created any virtual machines yet.

In order to create a new virtual machine, press the **New** button in the main tool bar located at the top of the window.

You can press the **F1** key to get instant help, or visit www.virtualbox.org for the latest information and news.



Create New Virtual Machine

VM Name and OS Type



Enter a name for the new virtual machine and select the type of the guest operating system you plan to install onto the virtual machine.

The name of the virtual machine usually indicates its software and hardware configuration. It will be used by all VirtualBox components to identify your virtual machine.

Name

OS Type

Operating System:



Version:

< Back

Next >

Cancel

Create New Virtual Machine

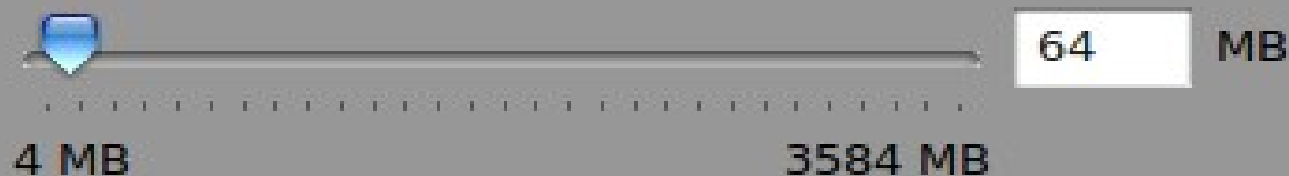
Memory



Select the amount of base memory (RAM) in megabytes to be allocated to the virtual machine.

The recommended base memory size is **256** MB.

Base Memory Size



< Back

Next >

Cancel

Create New Virtual Machine

Virtual Hard Disk



Select a hard disk image to be used as the boot hard disk of the virtual machine. You can either create a new hard disk using the **New** button or select an existing hard disk image from the drop-down list or by pressing the **Existing** button (to invoke the Virtual Media Manager dialog).

If you need a more complicated hard disk setup, you can also skip this step and attach hard disks later using the VM Settings dialog.

The recommended size of the boot hard disk is **8192** MB.

Boot Hard Disk (Primary Master)

<no media>

New...

Existing...

< **B**ack

Next >

Cancel

Create New Virtual Disk

Hard Disk Storage Type



Select the type of virtual hard disk you want to create.

A **dynamically expanding storage** initially occupies a very small amount of space on your physical hard disk. It will grow dynamically (up to the size specified) as the Guest OS claims disk space.

A **fixed-size storage** does not grow. It is stored in a file of approximately the same size as the size of the virtual hard disk. The creation of a fixed-size storage may take a long time depending on the storage size and the write performance of your harddisk.

Storage Type

- Dynamically expanding storage
- Fixed-size storage

< Back

Next >

Cancel

Create New Virtual Disk

Virtual Disk Location and Size



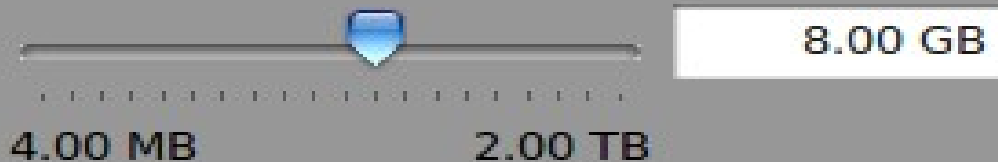
Press the **Select** button to select the location of a file to store the hard disk data or type a file name in the entry field.

Location



Select the size of the virtual hard disk in megabytes. This size will be reported to the Guest OS as the maximum size of this hard disk.

Size



< Back

Next >

Cancel

Create New Virtual Machine

Summary



You are going to create a new virtual machine with the following parameters:

Name: Puplets
OS Type: Linux 2.6
Base Memory: 64 MB
Boot Hard Disk: Puplets.vdi (Normal, 8.00 GB)

If the above is correct press the **Finish** button. Once you press it, a new virtual machine will be created.

Note that you can alter these and all other setting of the created virtual machine at any time using the **Settings** dialog accessible through the menu of the main window.

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Finish

Cancel

VirtualBox OSE

File Machine Help



New



Settings



Start



Discard



Puplets

Powered Off



Details



Snapshots



Description



General

Name:	Puplets
OS Type:	Linux 2.6
Base Memory:	64 MB
Video Memory:	5 MB
Boot Order:	Floppy, CD/DVD-ROM, Hard Disk
ACPI:	Enabled
IO APIC:	Disabled
VT-x/AMD-V:	Disabled
Nested Paging:	Disabled
PAE/NX:	Disabled
3D Acceleration:	Disabled



Hard Disks

IDE Primary Master:	Puplets.vdi (Normal, 8.00 GB)
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CD/DVD-ROM

Not mounted



Floppy

Not mounted



Audio

Disabled

Configure the selected virtual machine

Puplets - Settings

- General
- Hard Disks
- CD/DVD-ROM**
- Floppy
- Audio
- Network
- Serial Ports
- Shared Folders

CD/DVD-ROM

Mount CD/DVD Drive

Host CD/DVD Drive

MATSHITA CD-RW CW-8221 (/dev/sr0)

Enable Passthrough

ISO Image File

X-Pup_412.iso (347.53 MB)



Invokes the Virtual Media Manager to select a CD/DVD image to mount.

Help

Cancel

OK



Virtual Media Manager



Actions



New



Add



Remove



Release



Refresh



Hard Disks



CD/DVD Images



Floppy Images

Name	Size
X-Pup_412.iso	347.53 MB

Location: /home/harry/old-data/temp/downloads/X-Pup_412.iso

Attached to: Puplets



Help

Cancel

Select



VirtualBox OSE

File Machine Help



New



Settings



Start



Discard



Puplets

2.6

Powered Off



Details



Snapshots



Description



General

Name: Puplets
OS Type: Linux 2.6
Base Memory: 64 MB
Video Memory: 5 MB
Boot Order: Floppy, CD/DVD-ROM, Hard Disk
ACPI: Enabled
IO APIC: Disabled
VT-x/AMD-V: Disabled
Nested Paging: Disabled
PAE/NX: Disabled
3D Acceleration: Disabled



Hard Disks

IDE Primary Master: Puplets.vdi (Normal, 8.00 GB)



CD/DVD-ROM

Image: X-Pup_412.iso



Floppy

Not mounted



Audio

Disabled

Start the selected virtual machine



Machine DeVICES Help

Puppy Video Wizard

Welcome to the Puppy Video Wizard!

Puppy has two X servers (to run Puppy in graphics mode):

Xvesa: A very small and simple "Kdrive" X server.

Xorg: A very large and sophisticated X server.

Xvesa works flawlessly on most video hardware, simple to configure, but one major disadvantage is that screen refresh rate is fixed.

Also, Xvesa has limited support for input devices, and lacks features like hardware-acceleration (video may be jerky on slow PCs).

It is recommended that you choose the <Xorg> button now, but some quirky video hardware does not work with Xorg, in which case you can run this Wizard again and choose the <Xvesa> button.

Press ENTER for Xorg **probing will take several seconds...**

Press TAB (or right-arrow) key then ENTER key for Xvesa...

<Xorg >

<Xvesa>

Xvesa Video Wizard

Video modes

- 640x480x16
- 640x480x24
- 640x480x24
- 800x600x16
- 800x600x24
- 800x600x24
- 1024x768x16
- 1024x768x24
- 1024x768x24
- 1152x864x16
- 1152x864x24
- 1152x864x24
- 1280x1024x16
- 1280x1024x24

Welcome to the Xvesa Video Wizard!

The current video mode is 800x600x16. If you want something else, make a choice on the left then click the 'CHANGE' button. If you are happy with the current screen resolution, click the 'OKAY' button.

NOTE: x16 is 16-bit color which is 65,536 colors (HighColor), x24 is 24-bit color which is 16 million colors (TrueColor).

IMPORTANT: if a mode does not work, press CTRL-ALT-BACKSPACE (hold down CTRL and ALT keys and tap BACKSPACE key). Please remember this key combination. It is the standard Linux technique for emergency shutdown of the X graphics server.

For the experts, X server startup options:

CHANGE

OKAY

Wastebasket

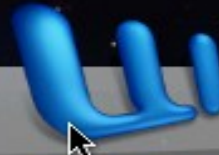
Task Manager

Memory: 37 MB of 59 MB used

CPU%	RSS	VM-Size	PID
8%	1878 kB	12392 kB	4087

Quit

OpenOffice.org Word Processor



Mengapa Virtualisasi ?

- Penghematan Biaya
 - Efisiensi Resource
- Murah : software gratis / FOSS
 - Mudah maintenance
- Reliabilitas : less physical server = less problems
 - Backup mudah

Mengapa Virtualisasi ?

- Less heat
- Less cooling
- Less electricity
- Less space
- Fast Disaster Recovery

Mengapa Virtualisasi ?

- Easier (physical) server management
 - Instant hardware standardization
 - Easy Load Management
 - Resiliency for cheap

Mengapa TIDAK Virtualisasi ?

CPU intensive application

Contoh: Anti-spam server,
Nyaris selalu 100% CPU utilization

Contoh : Render farm

Penutup

Virtualisasi tadinya hanya ada di mainframe dan komputer super mahal.

Kini sudah tersedia untuk komputer PC biasa sekalipun.

Mari kita manfaatkan.

Terimakasih

Requirements

Tutorial mengasumsikan hal-hal sebagai berikut ini :

- Praktek langsung pada komputer :
 - Telah terpasang Ubuntu Linux versi 8.04 atau lebih baru
 - Memory / RAM minimal 256 MB
- Paket 'virtualbox-ose' terpasang
- Ada file X-Pup_412.iso di desktop

Lisensi & History

Lisensi :

Dokumen ini berlisensi GPL v2

<http://www.gnu.org/licenses/gpl-2.0.html>

History :

20090530

Rilis pertama

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20090607

Halaman Lisensi & History, halaman Requirements

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