

Virtualization

on the Mac with

vmware®

hvmac

Or....

How to run Mountain Lion on 2008 XServe's ! ;-)

humac

Me....

- CTO for the Humac group
- Responsible for IT operations
- Responsible for consultancy
- Responsible for solution development

hu

Why Virtualize



Why Virtualize

- Utilization
- Administration
- Availability
- Cost



Why Virtualize

- Utilization

Multiple servers (VMs) on same HW

Sharing of resources

Load balancing

Appliance usage



Why Virtualize

- Administration
 - Cloning
 - Migration
 - Snapshot
 - Deployment
 - Central Administration



Why Virtualize

- **Availability**

Clones / Replicas

High Availability (HA)

Fault Tolerance (FT)

vMotion

Storage vMotion



Why Virtualize

- Cost

Power consumption

Sharing resources

Faster and Easier administration

Higher availability

Better / Higher utilization



Why Virtualize

In the end.....its all about



EULA

Enough confusion, myth, hearsay, lies, spin !

2. Permitted License Uses and Restrictions.

A. Preinstalled and Single-Copy Apple Software License. Subject to the terms and conditions of this License, unless you obtained the Apple Software from the Mac App Store or under a volume license, maintenance or other written agreement from Apple, you are granted a limited, non-exclusive license to install, use and run one (1) copy of the Apple Software on a single Apple-branded computer at any one time. For example, these single-copy license terms apply to you if you obtained the Apple Software preinstalled on Apple-branded hardware.

B. Mac App Store License. If you obtained a license for the Apple Software from the Mac App Store, then subject to the terms and conditions of this License and as permitted by the Mac App Store Usage Rules set forth in the App Store Terms and Conditions (<http://www.apple.com/legal/itunes/ww/>) ("Usage Rules"), you are granted a limited, non-transferable, non-exclusive license:

(i) to download, install, use and run for personal, non-commercial use, one (1) copy of the Apple Software directly on each Apple-branded computer running OS X Lion or OS X Snow Leopard ("Mac Computer") that you own or control;

(ii) If you are a commercial enterprise or educational institution, to download, install, use and run one (1) copy of the Apple Software for use either: (a) by a single individual on each of the Mac Computer(s) that you own or control, or (b) by multiple individuals on a single shared Mac Computer that you own or control. For example, a single employee may use the Apple Software on both the employee's desktop Mac Computer and laptop Mac Computer, or multiple students may serially use the Apple Software on a single Mac Computer located at a resource center or library; and

(iii) to install, use and run up to two (2) additional copies or instances of the Apple Software within virtual operating system environments on each Mac Computer you own or control that is already running the Apple Software, for purposes of: (a) software development; (b) testing during software development; (c) using OS X Server; or (d) personal, non-commercial use.

The grant set forth in Section 2B(iii) above does not permit you to use the virtualized copies or instances of the Apple Software in connection with service bureau, time-sharing, terminal sharing or other similar types of services.

C. Volume or Maintenance License.

If you obtained the Apple Software under a volume or maintenance license program with Apple, the terms of your volume or maintenance license will determine the number of copies of the Apple Software you are permitted to download, install, use and run on Apple-branded computers you own or control. Except as agreed to in writing by Apple, all other terms and conditions of this License shall apply to your use of the Apple Software obtained under a volume or maintenance license.

EULA

Enough confusion, myth, hearsay, lies, spin !

2. Permitted License Uses and Restrictions.

A. Preinstalled and Single-Copy Apple Software License. Subject to the terms and conditions of this License, unless you obtained the Apple Software from the Mac App Store or under a volume license, maintenance or other written agreement from Apple, you are granted a limited, non-exclusive license to install, use and run one (1) copy of the Apple Software on a single Apple-branded computer at any one time. For example, these single-copy license terms apply to you if you obtained the Apple Software preinstalled on Apple-branded hardware.

B. Mac App Store License. If you obtained a license for the Apple Software from the Mac App Store, then subject to the terms and conditions of this License and as permitted by the Mac App Store Usage Rules set forth in the App Store Terms and Conditions (<http://www.apple.com/legal/itunes/ww/>) ("Usage Rules"), you are granted a limited, non-transferable, non-exclusive license:

(i) to download, install, use and run for personal, non-commercial use, one (1) copy of the Apple Software directly on each Apple-branded computer running OS X Lion or OS X Snow Leopard (Mac computer) that you own or control;

(ii) If you are a commercial enterprise or educational institution, to download, install, use and run one (1) copy of the Apple Software for use either: (a) by a single individual on each of the Mac Computer(s) that you own or control, or (b) by multiple individuals on a single shared Mac Computer that you own or control. For example, a single employee may use the Apple Software on both the employee's desktop Mac Computer and laptop Mac Computer, or multiple students may serially use the Apple Software on a single Mac Computer located at a resource center or library; and

(iii) to install, use and run up to two (2) additional copies or instances of the Apple Software within virtual operating system environments on each Mac Computer you own or control that is already running the Apple Software, for purposes of: (a) software development; (b) testing during software development; (c) using OS X Server; or (d) personal, non-commercial use.

The grant set forth in Section 2B(iii) above does not permit you to use the virtualized copies or instances of the Apple Software in connection with service bureau, time-sharing, terminal sharing or other similar types of services.

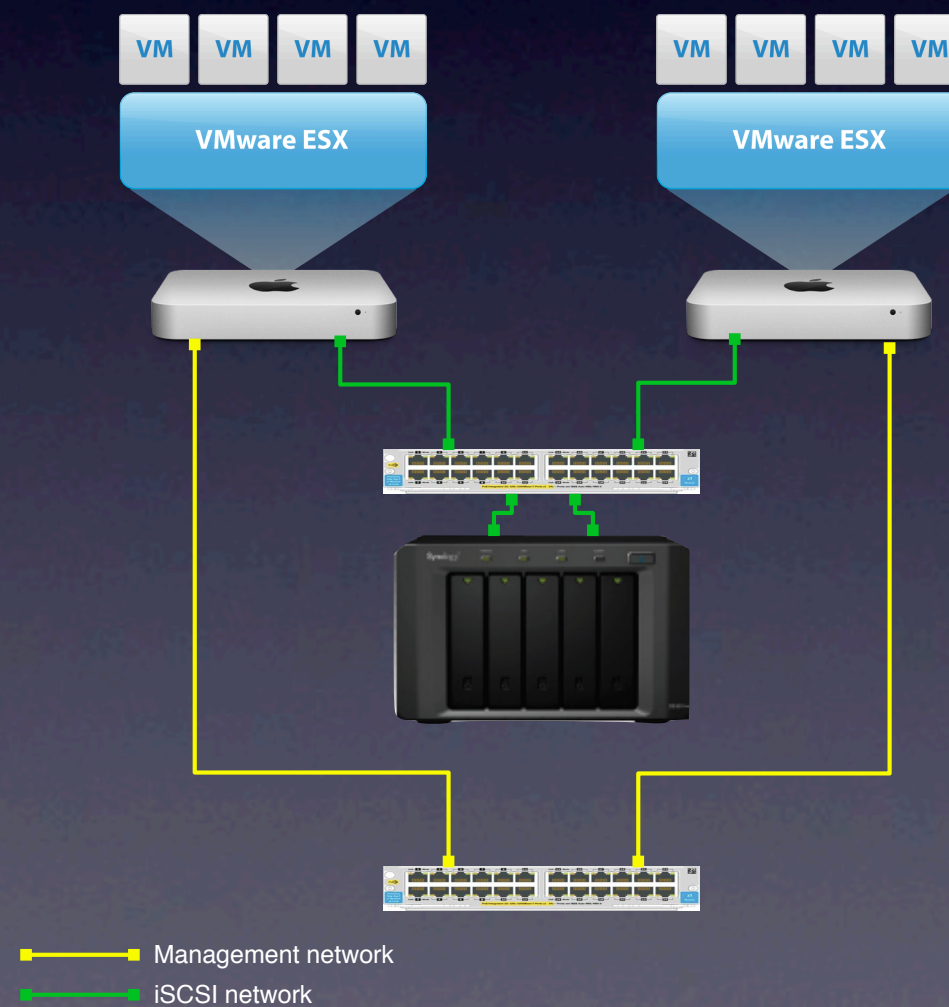
C. Volume or Maintenance License.

If you obtained the Apple Software under a volume or maintenance license program with Apple, the terms of your volume or maintenance license will determine the number of copies of the Apple Software you are permitted to download, install, use and run on Apple-branded computers you own or control. Except as agreed to in writing by Apple, all other terms and conditions of this License shall apply to your use of the Apple Software obtained under a volume or maintenance license.

You NEED to buy licenses !

Demo

What has been prepared



An Introduction to Word Press

MacTech Magazine
April 2012 • Issue 28.04

MACTECH

The Journal of Apple Technology

Virtualization and the Mac

Why you would want to virtualize and how to get started.

Linux OS
VM1

OS X Server
VM2

Windows OS
VM3

VMWare ESXi

Server Hardware

**Blocks in Cocoa
and Cocoa Touch**

**Managing
Firefox 10 ESR**

MACTECH.COM

\$8.95 US, \$12.95 Canada



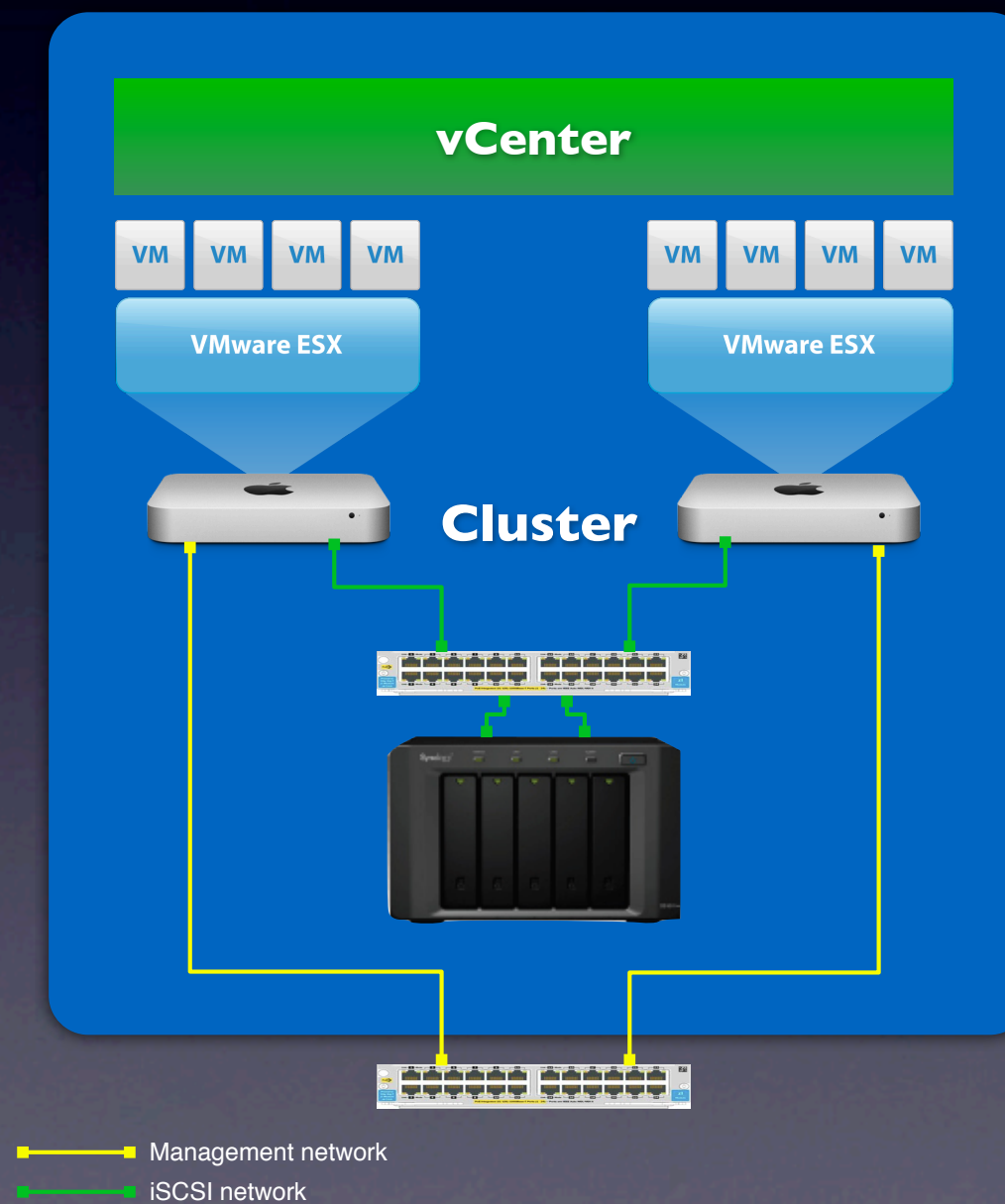
ISSN 1067-8360 Printed in U.S.A.

ESXi 5.1 iso file with included Thunderbolt
EtherNet driver

ESXi 5.1 iso file with included Thunderbolt EtherNet driver

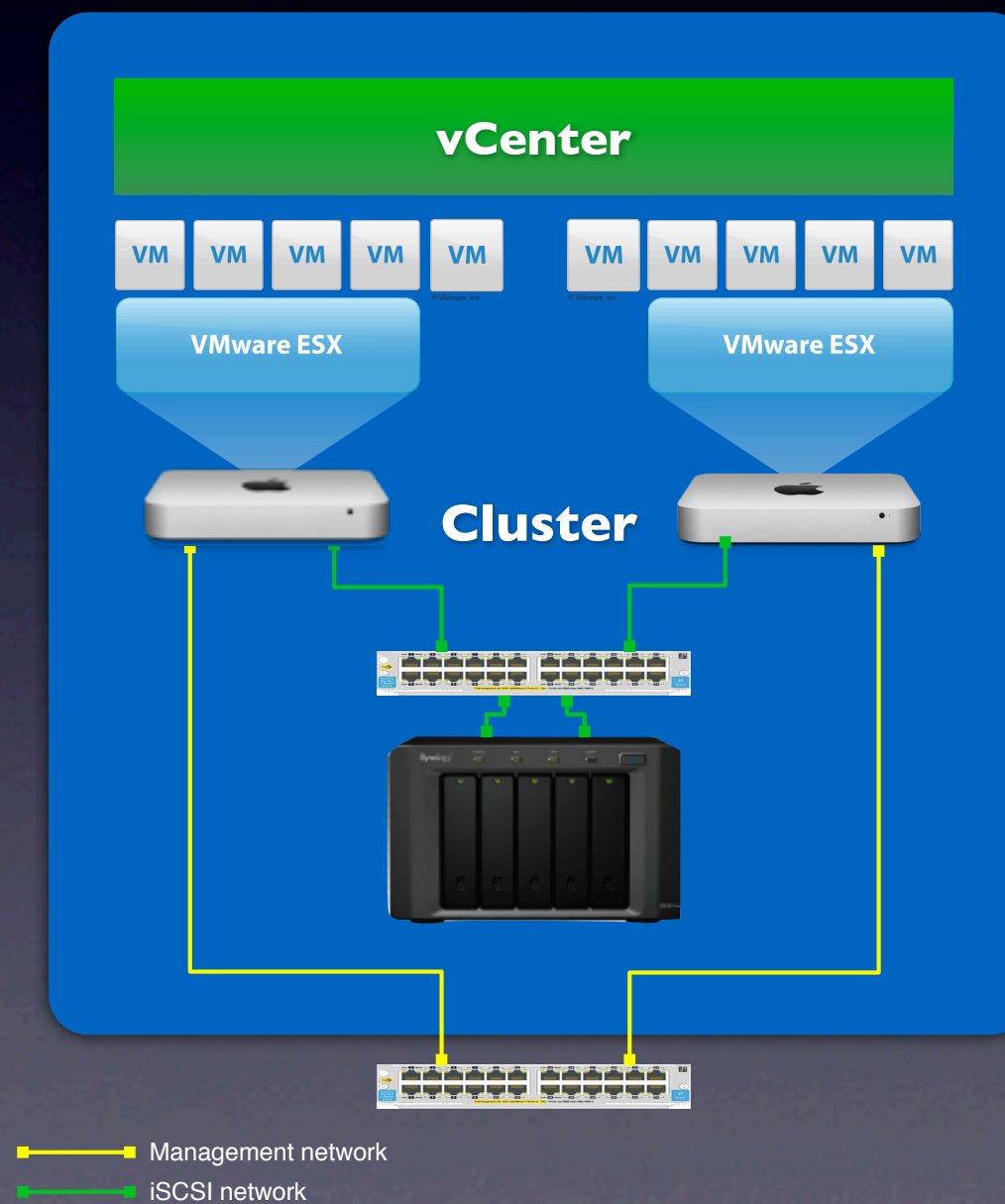
All attendees will shortly receive a url where they can download a ISO file

Demo



Demo 2

HA & FT



Cluster

Concept of a VMware cluster



Cluster

Concept of a VMware cluster



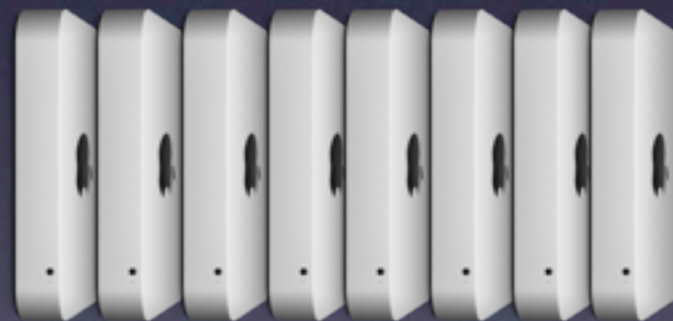
RAID

Cluster

Concept of a VMware cluster



RAID



RAIC

Now Demo

P2V Migration

osx2esxi.sh

A migration tool for you

This session was based upon fact. Any similarity with fictitious events or characters was purely coincidental.

No animals were injured or harmed during this session.

Q & A