Home Lab - what is it all about?

Michael White, Director, Product Management & Customer[0], DataGravity

vBrisket, 1/20/15

Agenda

- What is it?

- History

- Let Start at the beginning

- Things to be aware of

- Specific Suggestions

- Miscellaneous

- Appendix

What is it?

- A home lab is an enabler - learn about different software - virtualization, networking, security, in a way that will enable you to do better at a customer, or at your place of work

- Technology - computers and software that together provide you with the ability to .....

History

- My first was maybe 17 years ago - Compaq ProLiant 1600 with Novell Netware - Compaq laptop

- but, Chad Sakac and Michael Webster are big traditional,

- William Lam is the non traditional big - meaning Mac Minis and a big desktop that is used for nested

2008
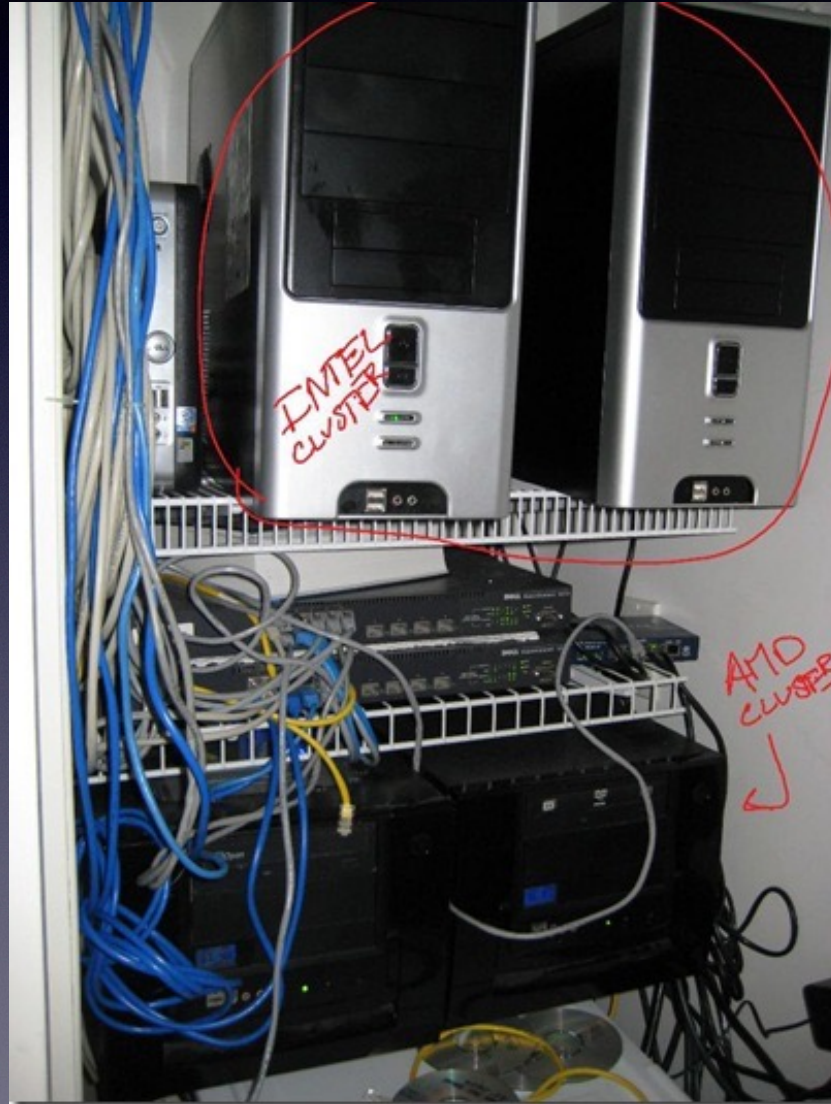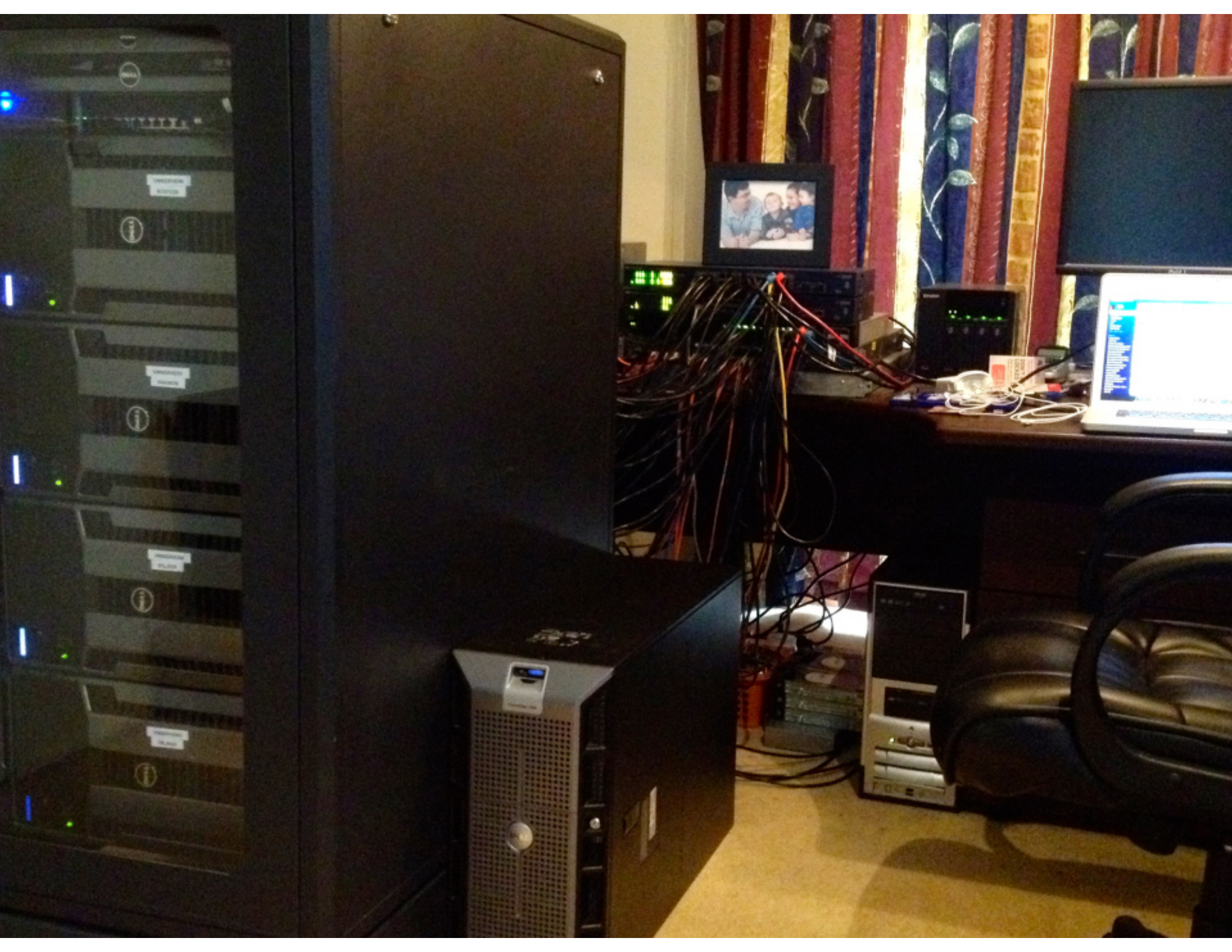
- 2015

- 2015

- 2015

Another way to think of it

- Big boxes at home - Proliant 1600

- 'gifts' from customers, built by hand

- Dell / SuperMicro boxes from eBay

- Big workstations using Nested

- Mac Minis with ESXi and Nested

- vCloud Air

Lets Start at the beginning!

- What would you like to do? The answer can determine what you end up with and how much it costs!

- Infrastructure like server management, provisioning means you need something different,

- Compared to scripting, OS certs

- Like working with your hands?

Things to be aware of

- Infrastructure hosts are expensive and loud

- Networking is important - LACP is important to learn and need 'good' networking gear to practice

- Once you buy, you are committed!

- Really know what you want to do before you start!

Specific Suggestions

- **Infrastructure**

  - Find on eBay, work a deal with customers

  - Find old UPS - even ones that don't work, and get new batteries - cheap!

  - Cisco SG300 switches recommended - full function and great price

  - This supports vendor specific stuff like OpenManage, or HP Management, UPS, networking, and is great for PSO

  - Maybe mix Tier 1 with no tier - like Mac Mini's or Intel NUC

Specific Suggestions

- **OS learning / testing / certification**

  - Big desktop, 32 GB, quad core

  - Use VMware Workstation

  - This supports specific stuff like playing with different OS, script stuff, dev work

Miscellaneous Thoughts

- Hardware - eBay, HP Microservers, Intel NUC, Mac Mini

- Dell R710 are quiet, VGA on front, easy to work on

- Every lab should have remote use - View for example,

- i5, four core with Virtualization support minimum

- Boot to SD or USB

- AutoLab - nice way to build things

Miscellaneous Thoughts

Nested ESXi

- Good way to maximize your capabilities!

- Devil is in the details!

- http://www.virtuallyghetto.com/nested-virtualization

- http://vcloud.vmware.com/

Miscellaneous Thoughts

Licenses

- Microsoft - MSDN

- VMware - VMUG - http://www.vmug.com/p/cm/ld/fid=8792 - finally - 9 products with 365 day NFR

- Employers

- Thing is to remember - you might be able to use work licenses at home - but do not make money with them!

- vExpert - easy to get and you get licenses and perks

"Thank you."

— **Michael White - notesfrommwhite.net**

Appendix

- Useful Links

Useful Links

- Long White Virtual Clouds - http://longwhiteclouds.com/2011/08/24/my-lab-environment/

- Virtual Geek - http://virtualgeek.typepad.com/virtual_geek/2008/06/building-a-home.html

- Ethan Banks - http://ethancbanks.com/2014/03/15/my-home-lab-esxi-5-5-server-build-and-the-logic-behind-it-all/

Useful Links - Continued

- Boerlowies - https://boerlowie.wordpress.com/2011/11/30/building-the-ultimate-vsphere-lab-part-1-the-story/

- Homeserver - http://thehomeserverblog.com/esxi-lab-specs/

- Techhead - http://techhead.co/vmware-esxi-home-lab-why-what-and-how-considerations-when-building-your-own-home-lab/

Useful Links - Continued

- Chris Colotti - http://www.chriscolotti.us/vmware/vsphere/vmware-vcloud-in-a-box-for-your-home-lab/

- Wahl Network - http://wahlnetwork.com/2013/12/02/new-haswell-fueled-esxi-5-5-home-lab-build/

- VirtXpert - http://www.virtxpert.com/the-under-800-vmware-quad-core-32gb-home-lab/

- AutoLab - http://www.labguides.com/2014/12/10/autolab-version-2-0-released/

Useful Links - Continued

- Storage IO Blog - http://storageioblog.com/server-storage-io-intel-nuc-nick-knack-notes-second-impressions/

- VirtuallyGhetto - Apple - http://www.virtuallyghetto.com/apple

- VirtuallyGhetto - Nested - http://www.virtuallyghetto.com/nested-virtualization

Useful Links - Continued

- HP Microserver - <u>click here</u>

- Intel NUC - <u>http://storageioblog.com/server-storage-io-intel-nuc-nick-knack-notes-second-impressions/</u>

- Dell OpenManage Plugin for vSphere - <u>http://www.dell.com/learn/us/en/555/virtualization/management-plug-in-for-vmware-vcenter</u>

- APC monitoring vSphere - http://vcdx181.com/stage-xiv-apc-vsphere-integration.html

"Thank you."

–Michael White