



Windows Concerns In a Mac Office

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Why Not...Mac Concerns in a Windows Office?

- Isn't that mostly where you'll work?
 - 2% are 100% Mac! (OK, I'm guessing!)
 - 98% has some percentage of Windows PCs!
- You need to know:
 - Active Directory, Exchange Server, Extreme Z-IP - definitely!
 - ADmit Mac, Parallels, VMware, Bootcamp?

Issues-Mac Only Sites

- External Clients with Windows
 - You get files/give files - how compatible do you need to be?
- Do you really need MS Office? $\$280 \times 100 = \$28,000!!$
- What about OpenOffice? Pretty close. A/P would love you!
 - Go to openoffice.org, download it, test it! Install it if users say OK.

...Mac Only Sites

- Is Apple's iWork the way to go?
 - \$60 for all 3 desktop apps
 - \$30 more for IOS devices = \$90 still better than \$280
- Vendors with Windows
- Windows browser-only websites
 - Internet Explorer 6? Give me a break!
- Firefox won't work? Get me a damn Windows client!

Other 98%?

- Lots of 50-50 companies - learn some Windows
- Lots of 90-10 companies - fewer issues, still learn some Windows
- You have to have some Windows skills if you want a job - especially these days!
- Get me a damn Windows client!

Why do I need a Windows client?

- Welcome to the Real World
- Supporting Windows users
 - If you don't have it/use it, you won't be good at it
- Mission critical software
 - MS Access, MS Project, Visio, Quicken
- #1 job: make your users happy - some people just need Windows
- #2 job: Make A/P (and the bosses) happy.
- Is a Kia really cheaper than a BMW? That's another presentation!

Basic Windows Skills

- Map Network Drive
- Backup: user data/clone drive
- Setup Printers - thank you Windows 7
- Create Users with AD Users & Groups
- Edit permissions on Windows Server
- Etc., etc., etc.

Active Directory

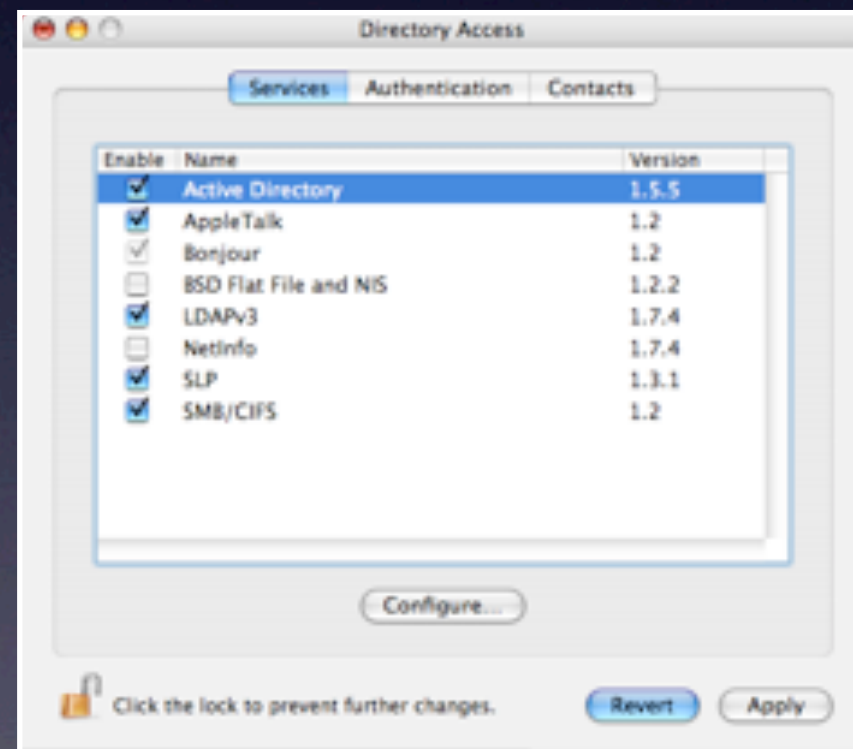
- Apple can “extend the schema” - add Mac specific fields to the AD DB.
- Couple of days, a few thou, there may be problems!
- Great if you have AD and TONS of Macs
- Only 1 server to deal with!
- But, a better (and cheaper) way could be...

The Golden Triangle!

- Bind OS X Server to Active Directory
- User credentials authenticate against the AD (configured in AD) while workstation policies are pulled from Open Directory (configured with Workgroup Manager)
- www.afp548.com/netboot/mactips/activedir.html (A Mike Bombich paper)

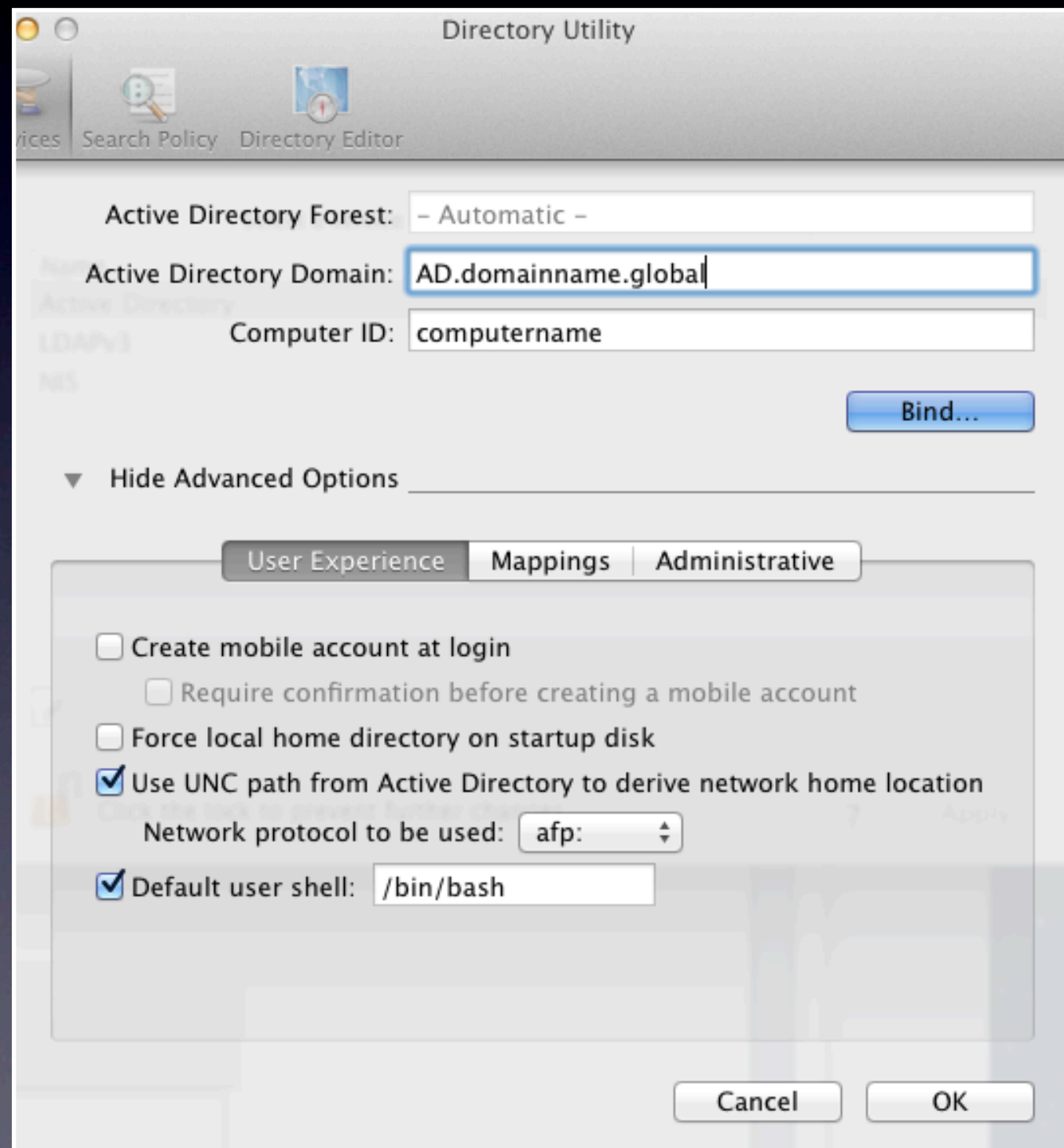
Binding to AD

- Open “Directory Access” located in System/Library/CoreServices



- Check “Active Directory”

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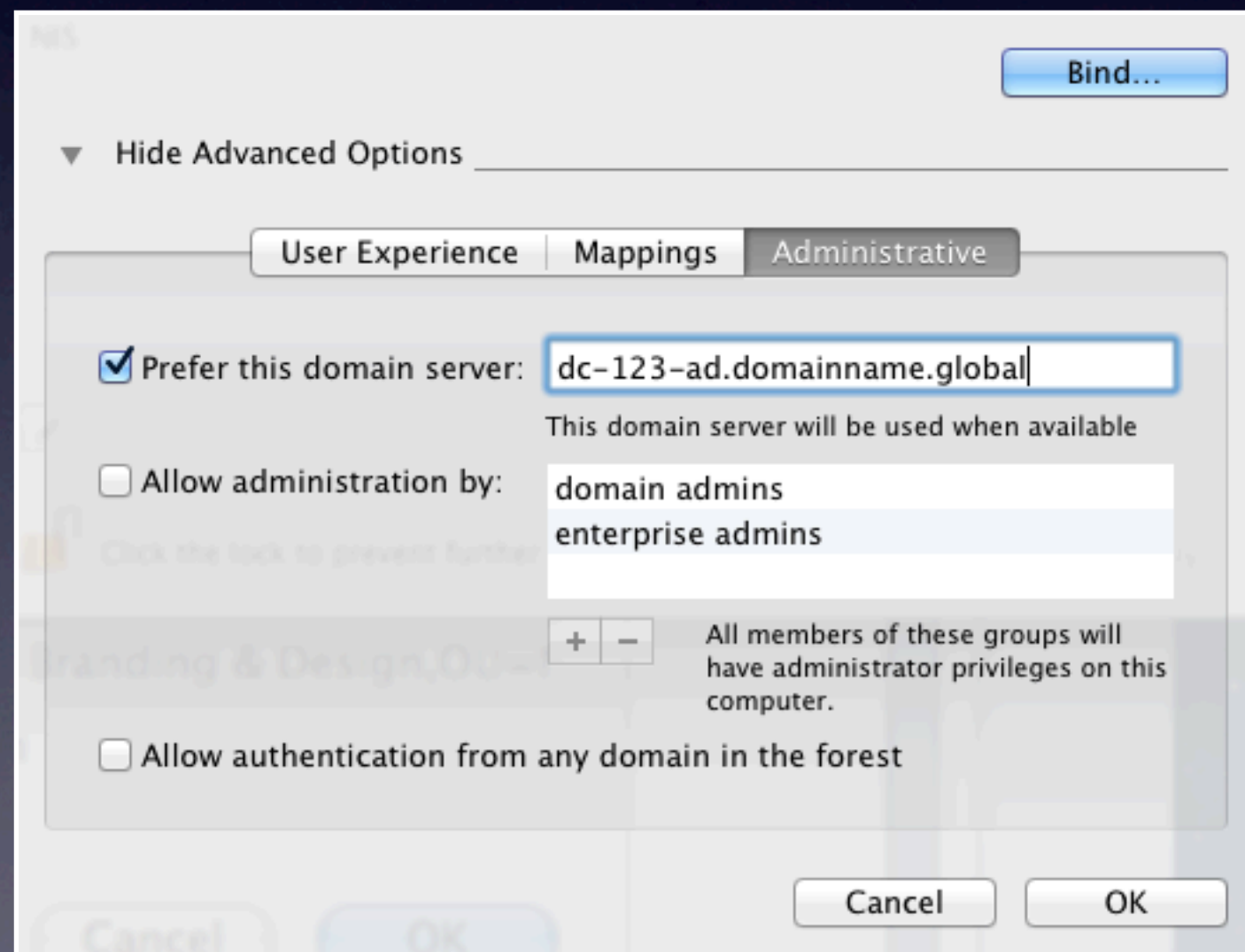


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- Enter Directory Domain Name for Active Directory Domain
- Uncheck “create mobile account” and “Force local home” (Work Group Manager will provide these settings)
- Change “Network Protocol to be Used” to AFP

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- Then choose the “Administration” tab

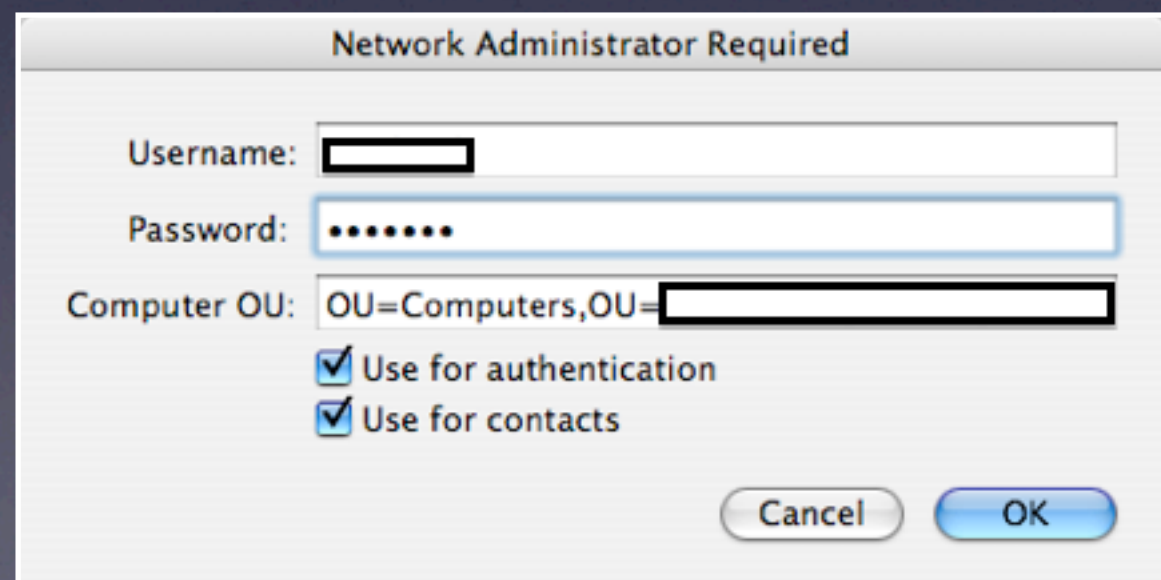


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- In the administration tab you will be checking “Prefer this domain server” and entering your local Active Directory server.
- Uncheck “Allow Authentication from any domain in the forest”.
- Click Bind...

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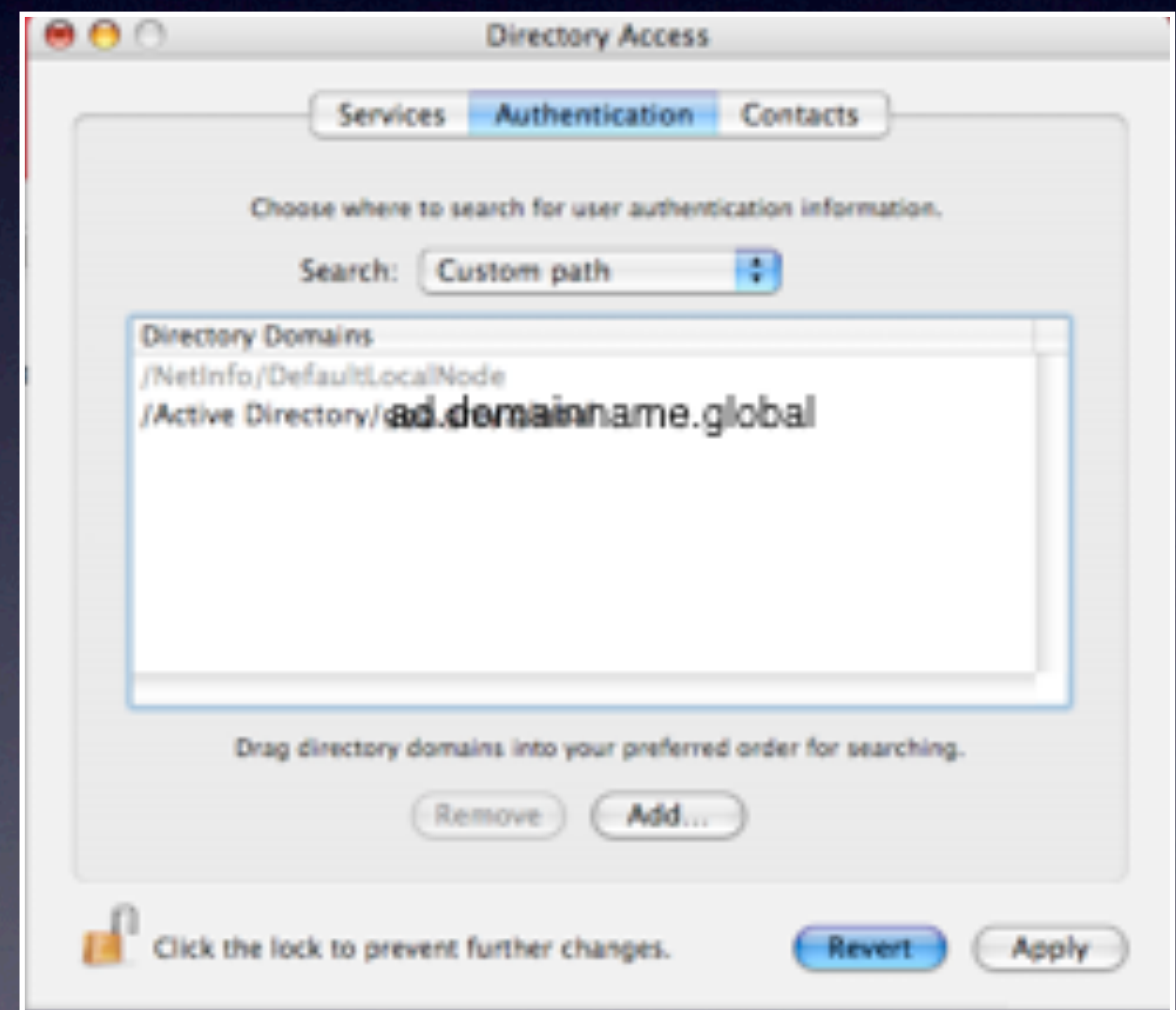
- Next put in a user name and password that can add computer accounts in AD. In “Computer OU” type your search path, like: “OU=Computers,OU=Company Name,DC=ad,DC=domainname,DC=global”
- Click “OK”



The screenshot shows a dialog box titled "Network Administrator Required". It contains three input fields: "Username:" with an empty text box, "Password:" with a masked password of seven dots, and "Computer OU:" with the text "OU=Computers,OU=" followed by an empty text box. Below these fields are two checked checkboxes: "Use for authentication" and "Use for contacts". At the bottom right are "Cancel" and "OK" buttons.

...finished?

- Once binding is successful, check that “Authentication” and “Contacts” to point to “ad.domainname.global”, instead of “All Domains”.
- At right is what the Authentication tab should look like (Contacts is the same).



One More Thing...

- If you are only using AD, the user's "Primary Group" in Active Directory MUST BE the group you are using to configure their Managed Preferences.
- In other words, change it from "Domain Users" (or whatever) to "Creatives Group" (or however you are grouping them).
- They don't teach you this in ACTC class!

Configuring Exchange Clients

- Macs - easy-peasy:
 - Email address, username and password (domain is optional)
- Entourage - if you use the OWA URL, you can connect from anywhere - no VPN!
- Outlook - at last, my love has come along? OK, but better than before!
- Take note of which version of Exchange Server is in place, with Exchange Server 2007/2010 the number of Mac users having to run windows has come down dramatically.

Exchange Alternatives

- Mac OS X Server
 - Mail Server, iCal Server, Address Book Server - get a cert and you can skip VPN
- Communigate Pro - 25 users:\$1299
- Kerio - Server (5 users): \$540 + \$29/user
- Zimbra - \$399-\$2231

Extreme Z-IP

- Provide the same file and print access and resources to Mac users as Windows users
- AFP file server access - upgrades to the current version
- Network Spotlight
- Time Machine
- Bonjour resource discovery
- Auto-configuration of network printers

Extreme Z-IP

- Elimination of 'dot underscore' files
- Support for Mac file 'resource forks'
- Proper handling of long file names
- The ability to browse DFS namespaces
- Compatibility with Mac OS 9 through the latest OS X 10.7 Lion.

Virtualize Windows!

- Runs Windows and Mac OS side by side without reboot
- Can work with a disk image that's deployable
- Can run multiple number of VM's at once
- Can more easily share files between Mac and PC
- Networking has more configuration options
- Overhead is minimal at this point
- Intel-based Mac, Windows licenses, Plenty of RAM

Products for running Windows on Mac

- Intel-based Mac, Windows licenses, Plenty of RAM
- Options:
 - Boot Camp - Apple, free
 - CrossOver Impersonator - Codeweavers, bet. \$40-70 (for Pro), no Windows license!

More products for running Windows on a Mac

- VMware Fusion 3 - \$80.
- Parallels 6 - \$80. #1 choice of users.
- VirtualBox - Sun Open Source, free

Boot Camp

- Run Boot Camp Installer
- Create Boot Camp Partition (dynamic partitioning)
- Insert Windows install disc
- Install Windows
- Have to reboot
- Run Software Update in Windows
- OR: use a Windows disc image IT gives you

Boot Camp Issues

- The machine is now a PC, subject to malware and security issues - you must install Windows AV SW!
- File transfer can be an issue. Check out macwindows.com
- You can use your Boot Camp partition with Parallels, etc.

Good Bootcamp Practices

- Repeat: You must install Windows AV SW!
- Make an image of your Boot Camp partition (next slide)
- Store your working data on a non-Windows partition in case it goes South!

Winclone/Paragon

- Winclone was great and free, now it's dead (no longer supported).
- Winclone on 10.6 has an issue cloning Windows 7 (NTFS) partitions. Disabling compression in Preferences may resolve this (uncheck the "Compressed" check box).
- Alternative: Paragon Hard disk Manager 2011 (you can find it for \$40 online).

CrossOver Impersonator

- WINE implementation, doesn't require a Windows license
- Not Windows, but allows you to run many, but not applications - IE 6 works great!
- Won't do certain "Windows things" like VPN or directory integration


VMware Fusion

- Huge appliance library
- Rich networking stack
- Fits into a VMware world of products in Enterprise and other platforms

What is an “Appliance” virtual machine?

- A virtual appliance is a virtual machine image designed to run on a virtualization platform (e.g., VirtualBox, Citrix XenApp, VMware Workstation, Parallels).
- Not a complete virtual machine platform, but rather a software image containing a limited software stack designed to run on a virtual machine platform which may be a Type 1 or Type 2 hypervisor.
- A virtual appliance is usually built to host a single application; it therefore represents a new way of deploying network applications.

Virtual Appliance Example



BitNami Tomcat Stack 7.0.20-0 (Ubuntu 10.10)

By: bitnami

VMware virtual machine to develop and deploy Java applications.

Average Customer Rating ★★★★★ (0 reviews)

VIRTUAL APPLIANCE

- ▶ [Download](#)
- ▶ [Learn More](#)

Parallels Desktop

- Usually reported as fastest running emulator
- Graphics and gaming compatibility very good
- Coherence Mode hides the Windows desktop

Couple of Issues in Parallels, VMware

- OEM Windows Licences will often not work long term in a VM
- Windows doesn't optimize install until 3 days after install

VirtualBox

- Useful Open Source solution. Do not install for any end-user.
- No support.
- GUI not appropriate for them.

Another Approach to Virtualization

- Dump Parallels/VMware and Windows on your Macs
- Get a MS Remote Desktop License for each user, and install the needed Windows application(s) on the server (the “Terminal Services” version, get a site license from MS).
- Install MS Remote Desktop Client on all Macs to access the Terminal Server. Now they have access to a Windows environment that is centrally managed and fast.
- Best Practice: Macs can use Managed Mobile accounts bound to AD to ensure profile data is stored to the server. Now all of their data is centrally stored for simple local and offsite backups.
- Cost Analysis: a Remote Desktop License is \$85 a seat. After you pay MS for the Terminal Server version of their app, the upfront costs may be similar, but the money you save by not incurring the labor to setup and maintain each individual virtualized environment is huge! Time is money!

Thursby's ADmit Mac

- ADmitMac turns a Mac into a true Microsoft Active Directory client.
- ADmitMac is a solution for end-to-end Mac-Windows management and security, ensuring compliance with security standards such as SOX, PCI DSS and HIPAA.
- Includes DAVE technology for file and print sharing on Windows network
- Pricy: \$120/seat at 25 Macs, \$3600 w/maintenance for 25 users. After 50 they'll give you a better deal.
- If you do not need Active Directory, only storage and print integration, get...

Thursby's Dave

- Full support for commercial grade Microsoft DFS (Distributed File Systems)
- Full support for commercial grade Microsoft SMB/CIFS (Server Message Block/Common Internet File System)
- Especially designed with networked Final Cut Pro, Creative Suite, Avid and MS Office for Mac apps in mind. Supports Lion.
- Client-based solution requiring no server software of any kind on Windows or OS X Server
- Native Microsoft protocol implementations, not protocol conversion around AFP or Appletalk
- Pricey: \$120/seat at 25 Macs, \$3000 w/maintenance for 25 users. After 50 they'll give you a better deal

Protocol Acronyms

- SMB?
- AFP?
- NFS?
- FTP?

Security: Some Say...

- OS Market share drives whether there's viruses on a platform
- More Mac viruses coming as the market share grows
- I say: it's more complicated than that

Have a complete PC and Mac Security plan

- Several great free Mac AV choices: ClamXav, Sophos, iAntivirus, Avast Antivirus
- Free Windows AV choices: AVG, Kapersky, MS Security Essentials, Clamwin

Questions?