Getting Tablet PCs Ready for the Classroom

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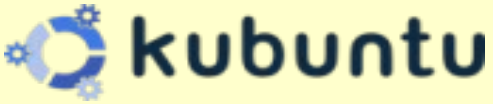
Presentation Outline

- Dual Boot Overview
- Importance of School Ownership
- Imaging Method
- Software Overview

Dual Boot

- The tablets can be booted to two operating systems
  - Windows XP Tablet PC edition
  - Ubuntu Linux
- Permits versatility in software
- Emphasis on interoperability of the operating systems

Partition Breakdown

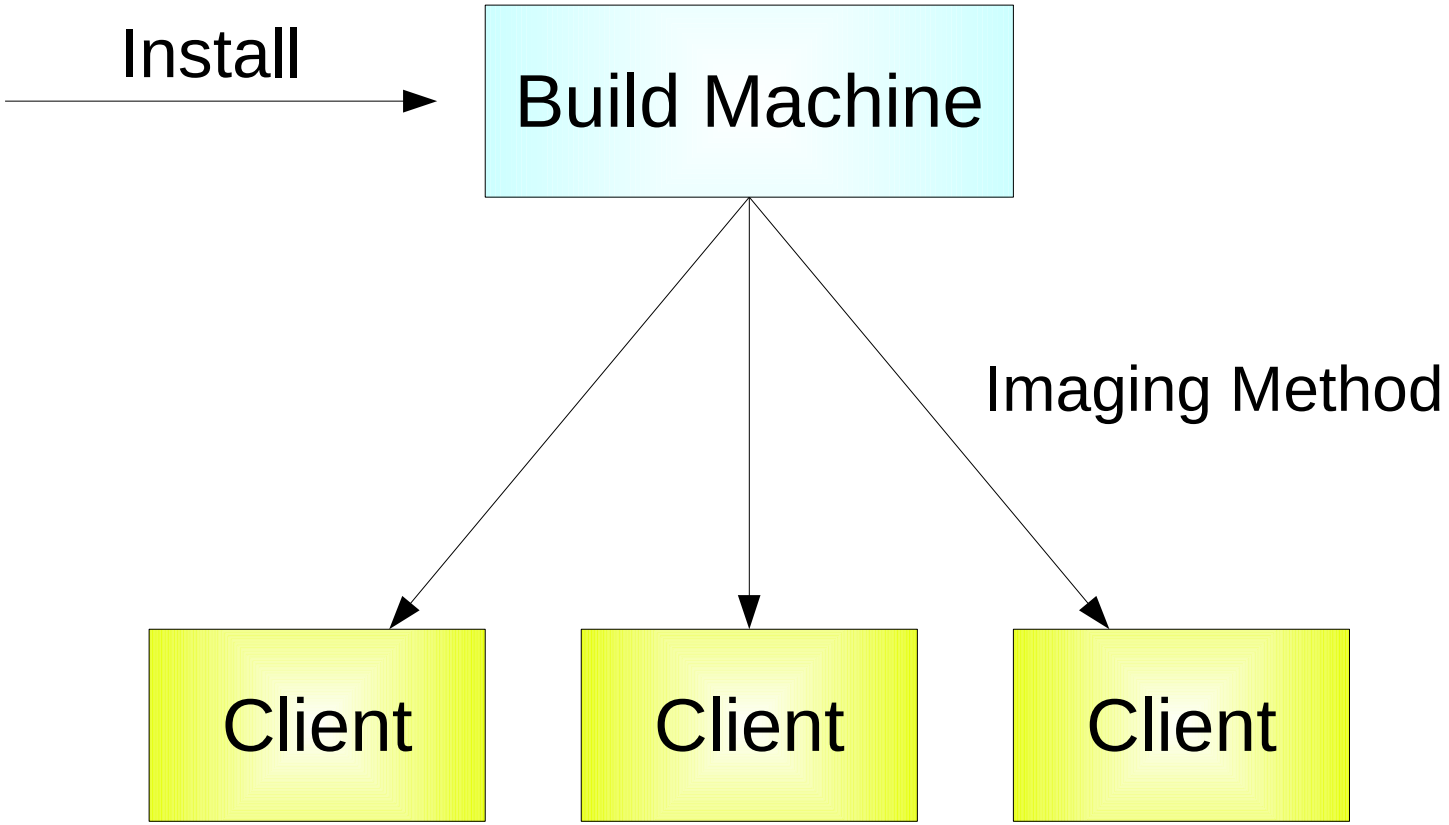
15 GB	
10 GB	
10 GB	FAT32 Exchange Partition
5-25 GB	Unallocated Space

School Ownership of the PCs

- Permits the use of school licensed software
- Provides insurance against damage and theft
- Supports user responsibility
- Permits unit recalls to standardize software builds

Why Image?

- Speed, Redundancy, Uniformity



Imaging Procedure

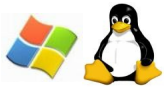
1. Produce a finalized build machine
2. Configure a DHCP server for network boot (Using DHCPd on Linux)
3. Compile a network boot image to be transferred to the computers at boot time
    1. Using tftp-hpa
    2. Network image built from Debian Linux
4. Using UDP-cast: transmit the network image to the waiting machines

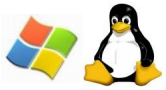
Imaging Orchestration

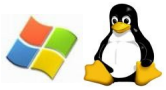
- A script was written to connect to all the computers and run the necessary commands
- A network switch should be used with UDP cast to avoid packet collisions on the network
- Verify the image integrity on the fly using the MD5 checksum and a FIFO drive

Useful Software

- Proprietary Software Choices


StarOffice


Mathematica


LabVIEW


Journal

- Open Source Software Choices


Jarnal


CutePDF Writer


GhostScript


Cygwin


7-zip

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Thank You for Your Attention