ATOL: Installation of Linux Server

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Advanced Topics of Linux Administration

Participant Introductions

► Please introduce yourself to the rest of the class

Objectives of PV209

- ▶ Audience — Linux or UNIX system administrators, network specialist and other UNIX or Linux power users
- ▶ Prerequisites — Experience in UNIX or Linux at the power user, network operations, or system administrator level
- ▶ Technical Objective — Train specific concepts and skills at the system administrator level

The Big Picture

- ▶ Foundation: Building Block
  - ▶ System operations
- ▶ Management: Keep It Running
  - ▶ System level maintenance
- ▶ Networking: Connecting
  - ▶ Establishing and securing
- ▶ Services: The Enterprise
  - ▶ Infrastructure and applications

Selecting appropriate Linux distribution I

- ▶ Desktop-oriented vs Server-oriented
- ▶ Community vs Enterprise
    - ▶ Rolling updates vs Certification process
    - ▶ New versions vs Backporting
    - ▶ Fixing security bugs vs Fixing bugs
    - ▶ Long term support
    - ▶ Tools for automatization routine tasks

Selecting appropriate Linux distribution II

- ▶ SOHO segment
- ▶ Enterprise segment
    - ▶ Red Hat Enterprise Linux
    - ▶ SUSE Linux Enterprise Server
    - ▶ Mandriva Corporate Server
    - ▶ Oracle Unbreakable Linux, CentOS
    - ▶ Ubuntu LTS, Debian stable

Accessing the Installer

- ▶ Graphical Installation
- ▶ VNC based Installation
    - ▶ Activate with vnc and protect the session with *vncpassword=*
    - ▶ Set network parameters with *ip=* and *netmask=*
- ▶ Text based Installation
- ▶ Serial Installation
    - ▶ Used automatically when no graphic card is detected
    - ▶ Enable with: *serial=device*

Installation Overview

- ▶ Installation Method
    - ▶ Local CD/DVD ROM
    - ▶ Hard drive
    - ▶ NFS image
    - ▶ FTP / HTTP
- ▶ Language and keyboard installation
- ▶ Disk partitioning
- ▶ Bootloader configuration
- ▶ Network and time zone configuration
- ▶ Package selection

Configuring File Systems

- ▶ Must select mount points, partition sizes, and file system types in installer
- ▶ Typical mount points: /boot, /home, /usr, /opt
- ▶ Swap space is typically 2x physical RAM
- ▶ Mount point / must include /etc, /lib, /bin and /sbin
- ▶ /boot filesystem about 100MB in size to hold files needed by the BIOS at boot time. One limitation on /boot is that most boot loaders expect it to be on a normal disk partition or RAID 1 device.

Kickstart

- ▶ kickstart (RHEL), autoinstall (SLES)
- ▶ Scripted Installation method
- ▶ `/root/anaconda-ks.cfg` is automatically created during install
- ▶ *system-config-kickstart*, *ksvalidator*
- ▶ Installation methods
  - ▶ *ks* boot option have to be used
  - ▶ *linux ks=http://server/path/to/kickstart*
  - ▶ *linux ks=nfs://server:file*

Lab: Installation

- Goals:
    - Successfully install selected Linux distribution
    - Create a kickstart configuration file and perform automatic installation

Lab: Prepare a paper

- Themes:
  - Compare kickstart, autoinstall and other methods of automatic installation (1 person)
  - Compare binary package format (deb, rpm, tgz, . . .)
- Format:
  - Short presentation (15–20 minutes; 5-7 slides)
  - Paper containing comparision (500 words)