



INSTALL AND CONFIGURE WINDOWS OS



Outline



- Prepare for Installing an OS
- Types of Installation
- Partitioning Storage
- Volumes
- Workgroup vs. Domain
- File System Types
- Install Windows 7
- Install Windows XP
- Windows Features



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- Prepare
 - Hardware compatibility and system requirements
- Methods
 - USB create or purchase a USB storage device that has installation software
 - CD-ROM Older OS (Windows XP), configure BIOS, boot options to boot from CD
 - DVD Modern OS (Windows Vista, 7), configure BIOS, boot options to boot from DVD
 - PXE Preboot Execution Environment allows installation from a network storage device





- Types of Installation
 - Clean Install fresh new install on a new computer or after wiping a HD for a full upgrade
 - Image copy an installed OS hard drive to be transferred to another computer (i.e. Windows Deployment Services)
 - Minimal driver installation for different hardware
 - Unattended Installation automatic installation of OS with little human interaction
 - Answer file is created to automate the process
 - Upgrade i.e. Windows Vista \rightarrow Windows 7



- Repair Installation using installation media/software to fix the operating system, ensure data is backed up, cannot upgrade
- Multiboot Install more than 1 operating system on a computer (i.e. Windows XP and Windows 7)



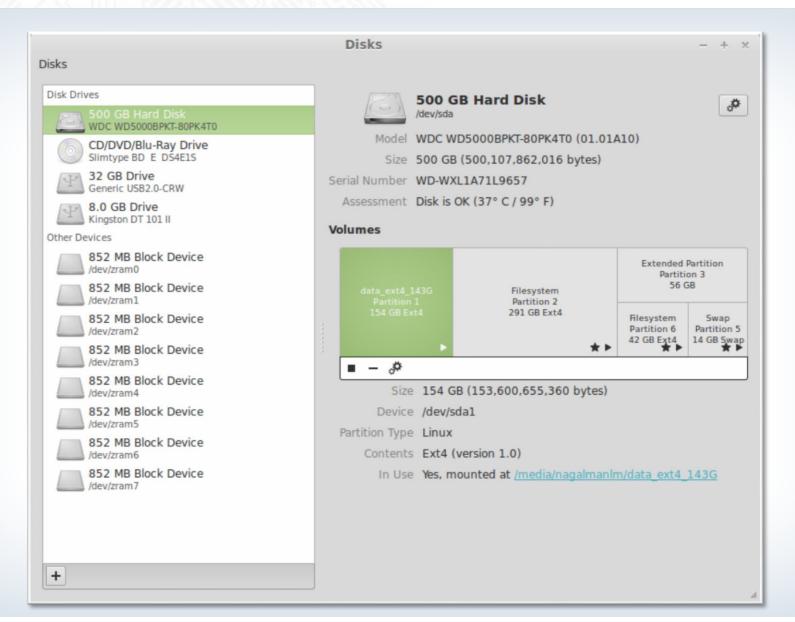


- Basic single drive
 - 4 partitions max for Master Boot Record (MBR)
 - Each partition formatted with a file system (typically FAT32 and NTFS for Windows)
- Primary contains only 1 file system
- Extended can be subdivided into several file systems
- Logical a partition that operates as an independent unit or separate drive. Contrast to dynamic partition
- Dynamic volumes that can span multiple disks
- Volume single storage unit of free space in a single drive, a partition, or dynamic partition spanning multiple drives
- Factory Recovery Partition small partition that stores OS installation software and manufacture drivers, setting, and configuration. Designed for a clean or repaired installation



Partitioning Storage











- Basic Volume single drive
- Spanned Volume span multiple drives
- Striped Volume RAID 0
- Mirrored Volume RAID 1
- RAID 5 striping across 3 or more drives





- Workgroup peer to peer environment without a domain/Active Directory server connection
- Domain connecting to an Active Directory domain





- FAT File Allocation Table, legacy
 - FAT 16 max 2GB
 - FAT 32 max 32GB
 - USB, flash, portable storage uses FAT
 - Very compatible
- NTFS New Technology File System
 - Typical Windows file system
 - Features: journaled FS, encryption, large volumes and file size (16GB), compression, short and long file names, quotas, volume mount points, symbolic links, etc
- CDFS Compact Disk File System
 - Optical disk media
- Quick Format setup and configure partition only
- Full Format setup, configure, and drive scanned and tested for errors





Use Virtualization





Use Virtualization





- 32 and 64 bit versions
- Aero transparency to windows, graphical switching of applications
- User Account Control requires user (live local not remote) to give permission for software to perform certain actions
- Standard user access own files, change password, network access, may ask for administrator password
- Power user (Windows XP) install software, additional hardware configuration
- Administrator full access to system and system administration



- Volume Shadow Copy live file backup with multiple versions
- System Restore revert OS settings to a previous point in time for configuration errors
 - Does not "backup software" or solve malware issues
- Sidebar introduced w/Vista, gadgets
- ReadyBoost use flash drive to add system memory
- Compatibility mode running older software with previous version of Windows
 - actually runs a small virtual environment of the previous OS



- Windows Easy Transfer allows migration of user settings and applications from Windows XP to Windows Vista or Windows 7
- Administrative Tools Control panel utilities
- Windows Defender anti malware software on Windows Vista and 7
- Windows Firewall Control panel → Security Center
- Windows Event Viewer Overview of system events: Applications, System, and Security



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THANK YOU

