Intro to Linux

1.6.1 - Software Installation Methods

Package Management

Different Linux distributions use various package management tools to handle software installation, updates, and removal

- DNF (Dandified YUM) and YUM (Yellowdog Updater Modified) are used in Red Hat-based Linux distributions such as Fedora and CentOS

- APT (Advanced Package Tool) is used in Debian-based Linux distributions such as Debian, Ubuntu, and Kali

Package Management cont'd

- RPM (Red Hat Package Management) is a low-level package management tool used primarily in Red Hat-based distributions, including Red Hat Enterprise Linux (RHEL) and CentOS

- dpkg is the package manager used at the core of Debian-based Linux distributions

- ZYpp (libzypp) is the package manager used in openSUSE and SUSE Linux Enterprise

Sandboxed Applications

Package and distribute software with isolated environments to enhance, security, compatibility, and ease of use

- snapd (Snap Package Manager) was developed by Canonical for Ubuntu and other Linux distributions
  - Key features include isolation, automatic updates, and cross-distribution
  - Run in isolated environments called snaps

Sandboxed Applications cont'd

- Flatpak (formerly xdg-app) is a sandboxing framework and package manager that allows developrs to create and distribute applications with their own runtime and libraries
  - Runs in isolated environments called runtimes

- AppImage is a format for packaging applications as a single, self-contained executable file
  - Single binary files able to run on various Linux distributions

System Updates

- Maintain the stability, security, and performance of computer systems
- Kernel updates involve updating the core of the OS
  - The kernel is responsible for managing hardware resources and providing essential system services
- Package updates involve updating software packages and applications installed on the system
  - Include security patches for vulnerabilities in software components
  - May introduce new features, enhancements, or bug fixes