## lesson notes Intro to Linux

#### System Management

1.7.1 Configuration Files

#### Lesson Overview:

#### Students will:

• Understand how configuration files are updated and where they are located on the file system

Guiding Question: How are configuration files updated and where are they located?

Suggested Grade Levels: 9 - 12

Technology Needed: None

#### CompTIA Linux+ XK0-005 Objective:

1.7 - Given a scenario, manage software configurations

- Updating configuration files
  - Procedures
    - Restart service
    - Reload service
  - o .rpmnew
  - o .rpmsave
  - Repository configuration files
    - /etc/apt.conf
    - /etc/yum.conf
    - /etc/dnf/dnf.conf
    - /etc/yum.repo.d
    - /etc/apt/sources.list.d

This content is based upon work supported by the US Department of Homeland Security's Cybersecurity & Infrastructure Security Agency under the Cybersecurity Education Training and Assistance Program (CETAP).





CYBER.ORG THE ACADEMIC INITIATIVE OF THE CYBER INNOVATION CENTER Copyright © 2024 Cyber Innovation Center

All Rights Reserved. Not for Distribution.

# **Configuration Files**

### **Updating Configuration Files**

Updating configuration files involves making changes to the settings and parameters that define how a particular software or system operates. Configuration files are usually in plain text and contain instructions or configurations for different aspects of the software.

When it comes to updating configuration files, there are typically a few steps involved. Locate the configuration file associated with the software or system to be configured. Before any changes are made, create a backup of the current configuration file. Use a text editor, like nano, to open the configuration file and review the existing settings. Modify the necessary settings to whatever requirements are needed and save the changes. After updating the configuration file, the corresponding service may need to be restarted for changes to take effect, while some only need to be reloaded which is usually faster and doesn't interrupt the service. These changes can be tested, monitored for issues, and then documentation should be made regarding the changes for future reference.

When updating packages in RPM-based systems, if a configuration file has been modified and the package includes an update, the new version may be saved with a **.rpmnew** extension to avoid overwriting user changes. Similarly, the original configuration file may be saved with a **.rpmsave** extension.

### **Repository Configuration Files**

Repository configuration files are files that contain settings and configurations specific to a version control system repository. These files are used to define how the repository interacts with the version control system and may include various settings related to user permissions, branch configurations, hooks, and more. The specific configuration file names and formats can vary depending on the version control system being used.

The configuration file for the Advanced Package Tool (APT) used in Debian-based systems (e.g., Ubuntu) is **/etc/apt.conf** and contains various settings for package management. The **/etc/yum.conf** configuration file is for the Yellowdog Updater, Modified (YUM) in RPM-based systems (e.g., Fedora, CentOS) and includes global settings for package management. The **/etc/dnf/dnf.conf** configuration file is for DNF (Dandified YUM), used in newer Fedora and CentOS systems. The **/etc/yum.repos.d** directory contains individual repository configuration files in YUM-based systems with each file corresponding to a specific repository and including settings for package sources. The **/etc/apt/sources.list.d** directory contains additional configuration files for software repositories in APT-based systems.