Understanding File Permissions

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Exam Objectives

List, set, and change standard file permissions

Evaluate and compare the basic file system features and options

Demo

Linux file systems

Listing permissions with ls and stat

Understanding umask and default permissions

Setting permissions

Changing file ownership

Linux File Systems and Permissions

In general Linux file systems will support permissions; however, FAT based file systems do not.

Linux ACLs

Additional permissions can be added via ACLs. In the default XFS file system of CentOS 7 this is built-in. In EXT based file systems the mount option acl needs to be added.

Demo: Listing Permissions

Demo: The umask

Demo: Setting Permissions

Demo: Ownership

Summary

Permissions and ACLs

Default file 666

Default directory 777

Umask can adjust defaults

List permissions
- ls -l
- stat -c %a
- stat -c %A

Chmod can be used symbolically or octally

Ownership set with chown and chgrp