

TRAINING

Creating Local User Groups

Overview

Groups are an important way of managing users' abilities to access, write, and execute files on a Linux system. Adding a user to the correct group can enable them to do things like read web server logs without allowing the user to modify the logs. Appropriately managing groups for multiple users along with file permissions can enable users to collaboratively edit files. On systems where `su` or `sudo` access are not available, `newgrp` and `sg` tools can be used to run tasks with a different group if elevated privileges are required. Creating and managing groups is usually only done as root.

Key Ideas

GID: numeric value of a group's ID

groups: command to show a user's group memberships

groupadd: tool to add groups to a Linux system

groupmod: tool to modify groups on a Linux system

groupdel: tool to remove groups on a Linux system

/etc/group: File where group information is stored

/etc/gshadow: File where secure group information is stored

Example Scenario

Create a new group in order to collaborate with other users on a system. Create an example directory with some files in it such that group members can collaboratively edit the files. Finally, remove the group from the system.

Now Do It

1. Create a group called 'developers' with GID 5000
2. Create a directory called 'shared-files'
3. Make a few empty files inside the shared-files directory
4. Change the group ownership of the directory and files inside it to 'developers'
5. Check that the files and directory have the correct ownership
6. Now rename the group to 'devs'

7. Check the files and directory ownership again
8. Ensure that members of the developers group can write to the directory and files
9. Remove the 'devs' group

If you remember nothing else...

groupadd is used to create a new group on a system. groupmod is used to change a group name or GID. Groupdel is used to delete a group.

Answer Key

1. # groupadd -g 5000 developers
2. # mkdir shared-files
3. # touch shared-files/test1.txt; touch shared-files/test2.txt; touch shared-files/test3.txt
4. # chgrp -Rv developers shared-files
5. # ls -alh shared-files
6. # groupmod -n devs developers
7. # ls -alh shared-files
8. # chmod g+rx shared-files; chmod g+rw shared-files/*
9. # groupdel devs



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