Linux - Users

Overview

User commands in Ubuntu linux.

Creating a User

First add a new user using:

sudo useradd <username>

Then give the user a password using and following the prompts:

sudo passwd <username>

The password command adds the user password to the /etc/passwd file. The file contains a list of users, each with seven fields. For example, for the user 'noreply' the entry would be:

noreply:x:1010:1010::/home/noreply:/bin/sh

The fields are:

* Username
* Password - stored in /etc/shadow in encrypted format
* User ID - UID > 999 (1-99 are predefined accounts, 100-999 are groups)
* Group ID - GID related to user groups based in /etc/group
* User info - extra information for user such as full name
* Home directory
* Shell

There are various flags which can be used to adjust the fields with the useradd command:

* -d <custom-home-directory>
* -u <custom-UID>
* -g <custom-GID>
* -G <comma-seperated-groups>

Check User Details

Use the 'id' command to check user details and joined groups:

id <username>

Create a New Group

Groups can be used to control almost everything about a user, with one of the most important aspects being a specific users access to files through permissions. Create a group using the groupadd command:

sudo groupadd <groupname>

Add a User to a Group

Once a user is made, if there are further groups to add to the user, the usermod append command can be used:

sudo usermod -a -G <group> <username>

All groups along with their members and ID are stored in /etc/group

Change a Users Primary Group

A user always has a primary group, which is the group which will be assinged to the files and folders the user creates. Change the primary group using the -g flag:

sudo usermod -g <group> <username>

Preventing User Shell Login

For security it is important to remove shell login for some users incase accounts have their credentails leaked.

First change the user shell to nologin in the usersettings:

sudo usermod -s /usr/sbin/nologin <username>

Then ensure the ssh daemon only allows login for the specific users required:

sudo vim /etc/ssh/sshd\_config

AllowUsers <allowed-user1> <allowed-user-2>

PasswordAuthentication no