



MINISTRY OF EDUCATION  
TVET Federal Agency  
Ethiopia

# ICT543 - System and Network Administration

## Information Sheet 2.1: User Management and Administration

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**Department of Information and Communication Technology**  
**Master of Science in ICT Teachers Education**

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## **Learning Objectives: At the end of the topic, the students will be able to:**

- know the concepts of user management
- understand the user registration, account policy and user support services
- Create users and assign it to a group
- Create User policy, rights and privilege
- Demonstrate user and group registration and administration in Linux Server and Windows 2012 Server

# User Management

- Without users, there would be few challenges in system administration
- . System administrators must cater to all needs, and ensure the stability and security of the system.
- From User Registration, Account Policy, controlling users resources, etc.

# User registration

- For **small organizations**, user registration is a relatively simple matter. Users can be registered at a centralized location by the system manager, and made available to all of the hosts in the network by some sharing mechanism, such as a login server, distributed authentication service or by direct copying of the data.
- For larger organizations, with many departments, user registration is much more complicated. The need for centralization is often in conflict with the need for delegation of responsibility.
- It is convenient for autonomous departments to be able to register their own users, but it is also important for all users to be registered under the umbrella of the organization, to ensure unique identities for the users and flexibility of access to different parts of the organization.
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# Local and network accounts

- With a **local account**, a user has **permission to use only the local host**.
- With a **network account**, the user can use **any** host which belongs to a **network domain**.
- They will need access to system resources wherever they are. It follows that they need **distributed accounts**.

# Account policy

- Most organizations need a strict policy for assigning accounts and opening the system for users.
- Users *are* the foremost danger to a computing system, so the responsibility of owning an account should not be dealt out lightly

# Account policy

## What should an account policy contain?

1. Rules about what users are allowed/not allowed to do.
2. Specifications of what mandatory enforcement users can expect, e.g. tidying of garbage files.
3. Any account policy should contain a clause about weak passwords. If weak passwords are discovered, it must be understood by users that their account can be closed immediately.

# *Types of Users*

**Passive users** utilize the system often minimally, quietly accepting the choices which have been made for them.

**Active users**, on the other hand, follow every detail of system development. They frequently find every error in the system and contact system administrators frequently, demanding upgrades of their favorite programs



# Controlling User Resources

- *Disk quotas*: Place fixed limits on the amount of disk space which can be used per user. The advantage of this is that the user cannot use more storage than this limit
- *CPU time limit*: Some faulty software packages leave processes running which consume valuable CPU cycles to no purpose.
- *Policy decisions*: Users collect garbage. To limit the amount of it, one can specify a system policy which includes items of the form

# Moving and Deleting Users

- When disk partitions become full, it is necessary to move users from old partitions to new ones. Moving users is a straightforward operation, but it should be done with some caution. A user who is being moved should not be logged in while the move is taking place, or files could be copied incorrectly.
- Users who leave an organization eventually need to be deleted from the system. For the sake of certainty, it is often advisable to keep old accounts for a time in case the user actually returns, or wishes to transfer data to a new location

# Moving and Deleting Users

Then we have to remove the following:

- Account entry from the password database.
- Personal files.
- E-mail and voice mail and mailing lists.
- Removal from groups and lists (e.g. mailing lists).

Revocation of smartcards and electronic ID codes

# Computer usage policy

Let us formulate a generic policy for computer users, the like of which one might expect company employees to agree to. Information Technology Policy Documents are becoming more widely used. Their practice has to be recommended, if only to make it clear to everyone involved what is considered acceptable behavior. Such documents could save organizations a great deal of money in law-suits. The policy should include:

- What all parties should do in case of dismissal
- What all parties should do in case of security breach
- What are users' responsibilities to their organization?
- What are the organization's responsibilities to their users?

# Managing Ubuntu Linux Users and Groups

- **Adding a User to an Ubuntu Linux System**
- **Deleting a User from an Ubuntu Linux System**
- **Adding a New Group to an Ubuntu Linux System**
- **Deleting a Group from an Ubuntu Linux System**

# Adding a User to an Ubuntu Linux System

Create a user and its home directory

- `Sudo adduser --home /home/habtamu habtamu`

# Adding a User to an Ubuntu Linux System

Create a user

- **Sudo adduser habtamu**

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# Adding a User to an Ubuntu Linux System

Create a user and its home directory

- **Sudo adduser --home /home/habtamu habtamu**

```
ubuntu@ubuntu:~$ sudo adduser --home /home/tigist tigist
Adding user `tigist' ...
Adding new group `tigist' (1002) ...
Adding new user `tigist' (1002) with group `tigist' ...
Creating home directory `/home/tigist' ...
Copying files from `/etc/skel' ...
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
Changing the user information for tigist
Enter the new value, or press ENTER for the default
    Full Name []: Tigist Tesfaye
    Room Number []: 111
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
ubuntu@ubuntu:~$
```



# Delete a User to an Ubuntu Linux System

Delete a user and its home directory

- **Sudo deluser -remove-home tigest**

```
ubuntu@ubuntu:~$ sudo deluser -remove-home tigest
Looking for files to backup/remove ...
Removing files ...
Removing user `tigest' ...
Warning: group `tigest' has no more members.
Done.
ubuntu@ubuntu:~$ █
```

# Adding a New Group to an Ubuntu Linux System

**Add Group:**

**Sudo addgroup masters**

```
ubuntu@ubuntu:~$ sudo addgroup masters
Adding group `masters' (GID 1002) ...
Done.
ubuntu@ubuntu:~$
```

**Add User to Group:**

**Sudo addgroup tigist masters**

# **Check for Group and Users**

**Check Users:**

**Sudo Compgen -u**

**Check Groups:**

**Sudo Getent group**

# **Remove a User and a Group to an Ubuntu Linux System**

**Remove Users in a group:**

**Sudo deluser tigist masters**

**Remove Groups:**

**Sudo delgroup masters**

# References:

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**Thank You!!!**