

## Illustrated ICT Asset Identification Guide

An illustrated reference source for Property & Supply Officers and IT Officers to use when completing and compiling the ICT Asset Inventory



Department of Education  
Philippines

Strengthening the Financial Management  
Information System Project  
(Phase II)



## About This Guide

For clarifications and queries, you may contact the Project on:

**Mobile:**

09166598811

**Landline:**

(02)-6335397

**email:**

deped.gifmis@gmail.com

**The primary purpose of the guide is to help identify and classify ICT assets.** This document is designed to support the accurate completion of ICT asset inventory template which has developed to come up with a full ICT inventory and condition assessment for DepEd in preparation for adopting the Government Integrated Financial Management Information System (GIFMIS) in 2015.

### **Who should use the guide?**

The ICT Asset Identification Guide is for use by Property & Supply Officers and IT Officers from the Department of Education (DepEd) who are charged with responsibility to complete an Inventory of ICT assets as set out in *[insert instruction reference and include the memo at Appendix 1: Inventory Instruction (U Sec Varela)]*.

### **What is the scope of the inventory?**

The ICT inventory will be conducted by Regional Offices, Divisional Offices and Implementing Units using the instructions set out at Appendix 2: Instructions on Completing ICT Inventory Template

### **Which ICT assets must be recorded?**

All business relevant ICT assets must be recorded on the template shown at Appendix 3: ICT Inventory Template<sup>1</sup>. This means that ICT equipment acquired for educational purposes (i.e. for the purpose of teaching) should not be recorded. Donated ICT assets such as those coming from Local Government Units (LGUs), special projects and other donors and used for non-educational purposes must be recorded. Each ICT Assets should be classified as one of the following:

- Network/Connectivity
- Hardware
- Software
- Support Facility

### **The following subject matter is covered in this guide:**

- Project overview, which covers the objective of this undertaking and its significance to the overall project objectives;
- Assets identification guide, which describes the most commonly used ICT assets in the organization and how to properly recognize and assess them in terms of valuating estimated acquisition cost and its current condition;
- Additional information, which covers the criticality framework and other reference models used in coming up with DepEd's GIFMIS readiness assessment;
- Summary, which describes the workarounds to existing issues and concerns currently faced by the organization.

---

<sup>1</sup> The template will be supplied in excel format and accompanies this guide. The template is also shown at Appendix 3: ICT Inventory Template

**Contents**

- About This Guide ..... 2
- Table of Figures ..... 4
- Table of Appendices ..... 4
- Project Overview ..... 5
- ICT Assets Classification ..... 6
  - Business ICT Assets ..... 6
  - Network/Connectivity..... 6
  - Hardware ..... 6
  - Software..... 6
- ICT Asset Identification Guide ..... 8
  - Network/Connectivity ..... 8
    - Modems ..... 8
    - Routers..... 9
    - Mobile Broadband USB Stick ..... 11
    - LAN Switch/Hub ..... 12
    - LAN Cables ..... 13
    - Wireless Access Point..... 14
    - 3-in-1 Modem/Router/WAP ..... 16
    - Firewall Appliance..... 16
  - Software..... 17
    - MS Windows ..... 17
    - Ubuntu ..... 19
    - MS Office..... 21
    - Open Office ..... 21
    - Anti Virus Software ..... 22
    - Other Software..... 23
    - Database ..... 24
    - Information System..... 25
- Support Facility ..... 25
  - Server Rack..... 25
  - Generator ..... 26
  - Automatic Voltage Regulator (AVR)..... 27
  - Uninterruptible Power Supply (UPS)..... 29

## Table of Figures

Figure 1: Serial Number on a Modem.....	8
Figure 2: Examples of Modems.....	9
Figure 3: Serial Number on a Router .....	10
Figure 4: Examples of Routers .....	10
Figure 5: Serial Number on Pocket Wifi.....	11
Figure 6: Examples of Pocket Wifi.....	11
Figure 7: Examples of Mobile Broadband USB Stick.....	12
Figure 8: Serial Number on LAN Switch .....	13
Figure 9: Examples of LAN Switch / Hub.....	13
Figure 10: Examples of LAN Cables.....	14
Figure 11: Serial Number on Wireless Access Point .....	15
Figure 12: Examples of Wireless Access Points .....	15
Figure 13: Examples of 3-in-1 Modem/Router/WAP.....	16
Figure 14: Examples Firewall Appliances .....	17
Figure 15: Operating Systems Illustrated.....	18
Figure 16: Examples of MS Windows Operating Systems .....	18
Figure 17: How to Identify your Version of Windows Operating System – STEP 1 .....	18
Figure 18: How to Identify your Version of Windows Operating System - STEP 2 .....	19
Figure 19: Examples of MS Windows Operating Systems .....	19
Figure 20: Ubuntu Operating System Logos .....	20
Figure 21: Examples of Ubuntu.....	20
Figure 22: Versions of MS Office.....	21
Figure 23: Examples of Different Icons of Basic MS Office Applications .....	21
Figure 24: Example of Open Office Logo.....	22
Figure 25: Comparison of Open Office and MS Office.....	22
Figure 26: Examples of Most Commonly Used Anti Virus Software.....	23
Figure 27: Examples of Other Software .....	24
Figure 28: Examples of Databases .....	25
Figure 29: Examples of Information Systems .....	25
Figure 30: Examples of Server Racks.....	26
Figure 31: Examples of a Generator.....	27
Figure 32: Typical setup of an AVR .....	28
Figure 33: Examples of AVR .....	28
Figure 34: Setup of a UPS with computers .....	29
Figure 35: Examples of a UPS.....	30

## Table of Appendices

Appendix 1: Inventory Instruction (U Sec Varela).....	31
Appendix 2: Instructions on Completing ICT Inventory Template.....	32
Appendix 3: ICT Inventory Template .....	33

# Project Overview

The second phase of the “Strengthening the Financial Management Information System Project” for the Department of Education is funded by the Australian government through the Australian Aid (AusAid) under the Philippines-Australia Public Financial Management Program (PFMP).

For further information on the project please contact us on:

**Mobile:**  
09166598811  
**Landline:**  
(02)-6335397  
**email:**  
deped.gifmis@gmail.com

The key objective of this particular project is focused on providing the necessary support to the reforms undertaken by the Philippine government, through the different central oversight agencies on financial reforms (COA, DBM, DoF, etc.), specifically on the implementation of the Government Integrated Financial Management Information System (GIFMIS) which will be piloted to DepEd by 2015.



The identified list of activities for this project is depicted in the following chart. The guide will help to complete activities 3.1, 3.2 and 3.5 in the figure below:

One of the main components of this project, as shown in the above figure, is a **full Information and Communications Technology (ICT) assets inventory** as part of the assessment for DepEd’s GIFMIS readiness.

This document is specifically designed to be a reference for Property & Supply Officers and IT Officers charged with completing the ICT asset inventory in their respective offices and implementing units. The main objective of this document is to help and assist to properly identify, classify, record and evaluate ICT assets.

The list of example ICT assets enumerated in this document are based on the most commonly used/found ICT assets as observed by the project team during the field visits conducted across different levels of offices in DepEd.

# ICT Assets Classification

## Business ICT Assets

Business ICT assets are information, system, or hardware assets which are used in the financial accounting, budgeting, and payment activities of the Regional Office, Divisional Office or Implementing Unit. Each classification required to be recorded is explained in more detail below:

## Network/Connectivity

These are assets which provide continuous flow of connectivity from one computer to another within the same network or over the internet. They provide the necessary platform for connecting computers and other devices to a network or over the internet. The following ICT assets are Network / Connectivity articles:

- Modem
- Router
- Pocket Wifi
- Mobile Broadband USB Stick
- LAN Switch/Hub
- LAN Cables
- Wireless Access Point
- 3-in-1 Modem/Router/WAP
- Firewall Appliance

## Hardware

These are tangible assets which provide the necessary computing capability to run various software and system applications for specific use and purpose. It also includes assets which provide the required output for the software and system application. The following ICT assets are Hardware articles.

- Server
- Desktop Computer (CPU, Keyboard & Mouse)
- Laptop Computer
- Tablet Computer
- Monitor
- Printer
- Scanner

## Software

These are intangible assets which provide the necessary tools in assisting users deliver their daily tasks. Majority of these assets are provided off-the-shelf such as Microsoft's Windows, Office, Internet Explorer, etc. Generally, these assets are computer programs designed with specific use and purpose. The following ICT assets are Software articles:

- MS Windows
- Ubuntu
- MS Office
- Open Office
- Anti Virus Software

For queries or clarifications on these classifications please contact us on:

**Mobile:**

09166598811

**Landline:**

(02)-6335397

**email:**

deped.gifmis@gmail.com

- Information System
- Database
- Other Software

### **Support Facility**

These are assets which provide the desired infrastructure support and protection in maintaining the more critical ICT assets in running condition. In case of power failure and/or spikes in electricity supply, assets under support facility classification will provide the necessary backup and support to keep the essential ICT assets working and protected. The following articles are Support Facility Assets:

- Server Rack
- Generator
- AVR
- UPS

# ICT Asset Identification Guide

## Network/Connectivity

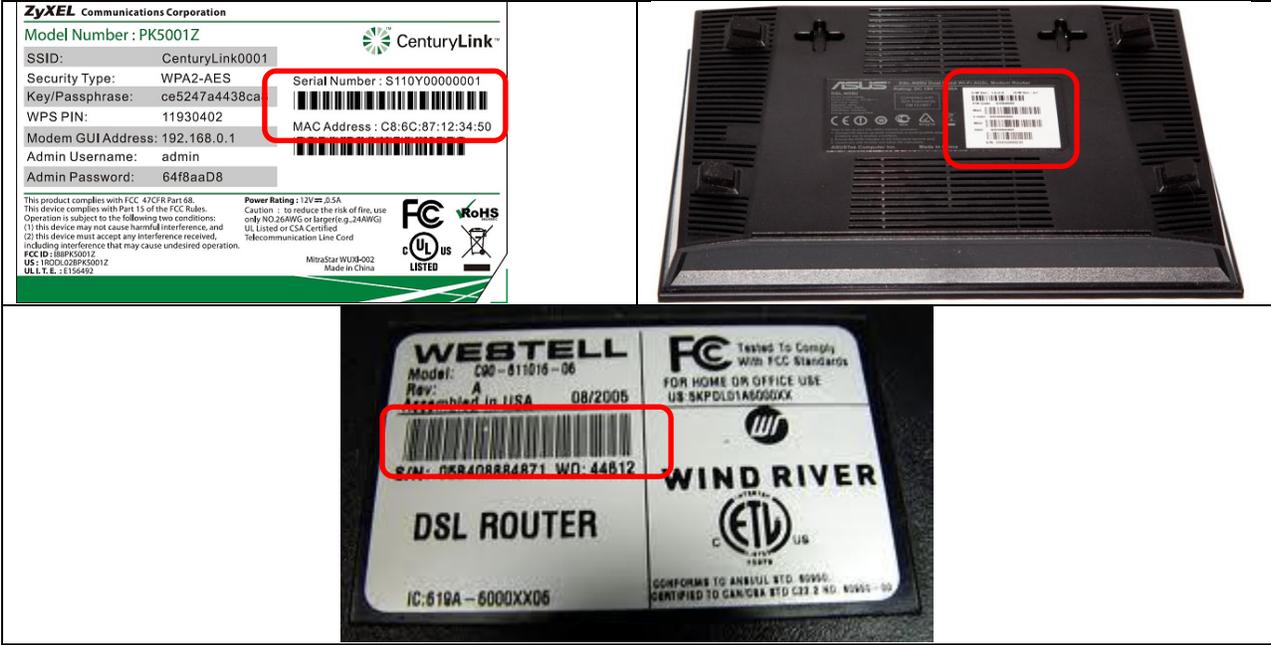
### Modems

A modem (modulator-demodulator) is a device that modulates an analog carrier signal to encode digital information, and also demodulates such a carrier signal to decode the transmitted information. This particular ICT asset is generally provided for by the Internet Service Providers (ISPs) as part of the subscription plan. Their design depends on the type of internet service provided so for cable modems, a slot for coaxial cable connector is present while for DSL modem, a telephone line connector slot is present.

There are several variations of a modem depending on the type of connection that they are providing, i.e. DSL modem, Cable Modem, etc. There are also modems with wireless routers capability and majority of these type of modems can easily be identified through their antenna/s. These types of modems are also known as a 3-in-1 Modem/Router/WAP device. Their main distinction is that wireless devices can connect to it through wifi. More information will be described under this particular asset as we move along.

The serial number for a modem can easily be located at the back portion of the device particularly on the sticker tag with the barcode in it. Refer to the images in Figure 1 and Figure 2 below for sample reference:

Figure 1: Serial Number on a Modem



Normally, modems are found near the main telecommunication medium such as the telephone line for DSL modem and Co-Axial Cable line for Cable modem. Ideally, modems should be located in a protected and air-conditioned area supported and managed by ICT personnel in an office setting. In addition, modems should be placed in an area with ample space for ventilation and airflow as it tend to heat up significantly when used.

**Figure 2: Examples of Modems**



### **Routers**

A router is a device that forwards data packets between computer networks performing the "traffic directing" functions on the Internet. There are 2 types of routers, the wired router and the wireless routers. Their main difference is that wireless routers have an antenna or antennas while the wired router doesn't. The distinctive feature of a router is that it has a 'WAN' or the Wide Area Network port as well as multiple 'LAN' port (*refer to the lower left sample image in Figure 2*). Most wireless router looks similar to wireless access point (WAP) but their main difference is that WAP devices doesn't have 'WAN' port which is the main port need to connect to the modem.

Typically, routers are connected directly to a modem so in most cases you can find it lying next to a modem. However, there are also cases wherein routers are used to make sub-networks. In such cases, routers are acting as the main gateways for sub-networks to the main networks. Thus, sometimes you can find routers even when there's no modem near the device.

Similarly, serial numbers for routers can also be found in the back portion of the devices just like in a modem. Refer to sample images in Figure 3 and Figure 4 below:

Figure 3: Serial Number on a Router



Figure 4: Examples of Routers



### Pocket Wifi

A pocket wifi is a portable device that provides internet connection to mobile devices (normally up to 5 connections) through wifi connectivity. Pocket wifi devices come in different form and design depending on its service provider. Its serial number can be found underneath the battery compartment as shown in the following sample images:

Figure 5: Serial Number on Pocket Wifi



Figure 6: Examples of Pocket Wifi



### Mobile Broadband USB Stick

A mobile broadband usb stick is a portable device that provides internet connection to a single mobile device with usb connection slot. It works in similar manner as a pocket wifi however, it is only limited to one user and needs to be connected to a USB port when used. Some have a serial number found in the back side of the device while some don't. As such, please put the required information in the specific in the template if it's available.

**Figure 7: Examples of Mobile Broadband USB Stick**



### **LAN Switch/Hub**

A Local Area Network (LAN) switch or hub is a device that is used to build a network connection between the attached computers (it allows computers to talk to each other). It can also be used to connect other network devices as well such as printers, routers, WAPs, and/or another LAN switch. Generally, a LAN switch is used to provide access to a number of computers accessing a shared network resource such as a single internet connection, a server, or a printer through LAN cables. Typically, a LAN switch is acting like a distribution box across many computers and other devices in a network.

LAN switches are usually found in closed spaces such as rooms or offices with two or more computers connected through a wired environment in a main network. Ideally, it should be placed in an area where there is ample space for ventilation and airflow.

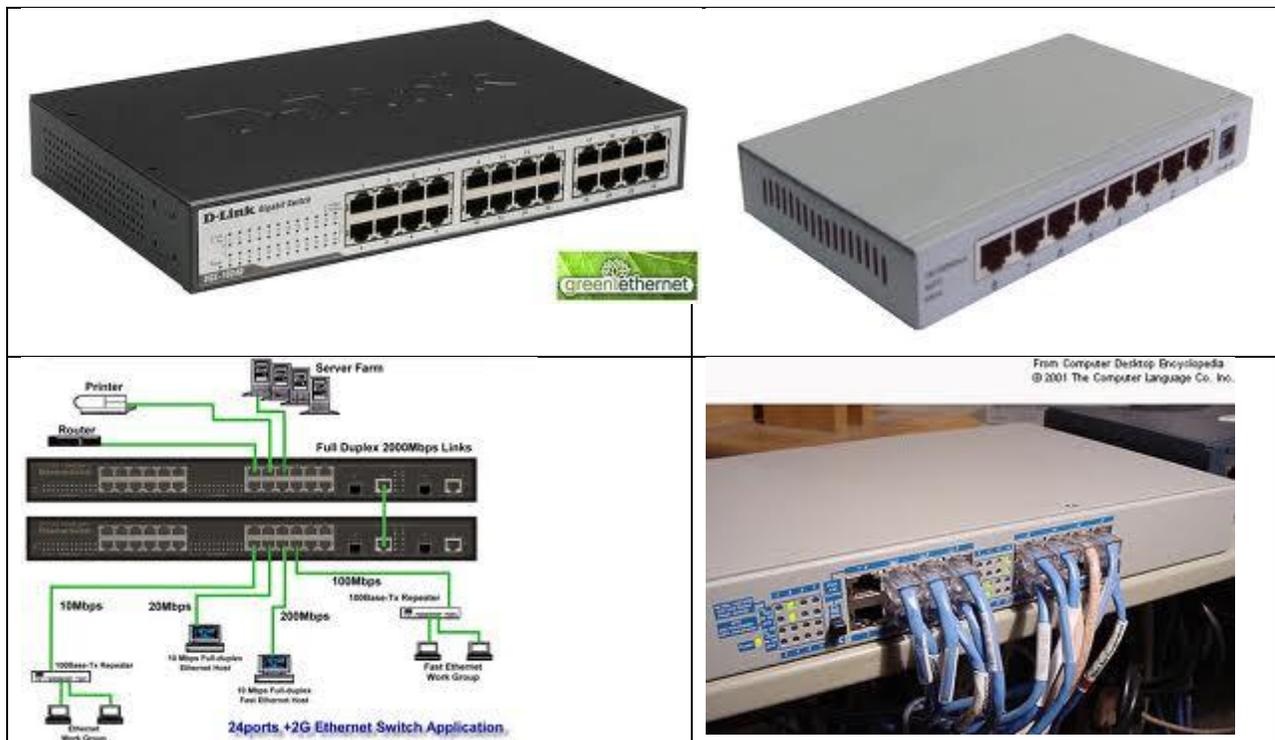
LAN switches are also very visible in Rack Servers especially in data centers where a local area network is critical in providing the necessary support for systems and application to run properly. Although it looks similar to a wired router, its main distinction is that it doesn't have a WAN port and it tends to have more LAN ports as compared to a router.

LAN switches are also known as Ethernet switches. And for its serial number, you may find it at the back or under side of the device. Refer to Figure 8 and Figure 9 below for identification.

Figure 8: Serial Number on LAN Switch



Figure 9: Examples of LAN Switch / Hub



## LAN Cables

LAN cables or Ethernet cables connect devices on local area networks such as computers, routers and switches. It is basically the backbone of a computer network especially for wired network environment. It is the physical wire that connects various network devices.

Ideally, LAN cables should be structured properly as it is prone to signal interference from its surrounding. As such, it is not advisable to have LAN cables bundled together alongside an electric wire as the latter can cause signal interference which leads to loss of packets during data transmission. This is one of the major causes why some network users have slower connection speed as compared to others.

In GIFMIS perspective, this is a very critical asset considering that GIFMIS is highly dependent on network connectivity and based on observations from different levels of offices in DepEd, LAN cables are not properly structured and much less maintained to the point of being taken for granted as an ICT asset. Some LAN cables are running along the office floor and some are just hanging along outdoor ceilings subjected to harsh weather of rain and sunlight to the point that even its protective coating is starting to shed and fall apart.

LAN cables don't have serial numbers and other related information required in the inventory template, however, the most critical information needed for this particular asset will be on its condition. Also include other observations you deem necessary for feedback which can be used for ICT assessment. Information such as how long has the LAN cables been setup in the office, are there any instances where LAN cables are running alongside electrical wires, are the connector jacks (RJ-45 connectors) broken, etc.

Figure 10: Examples of LAN Cables



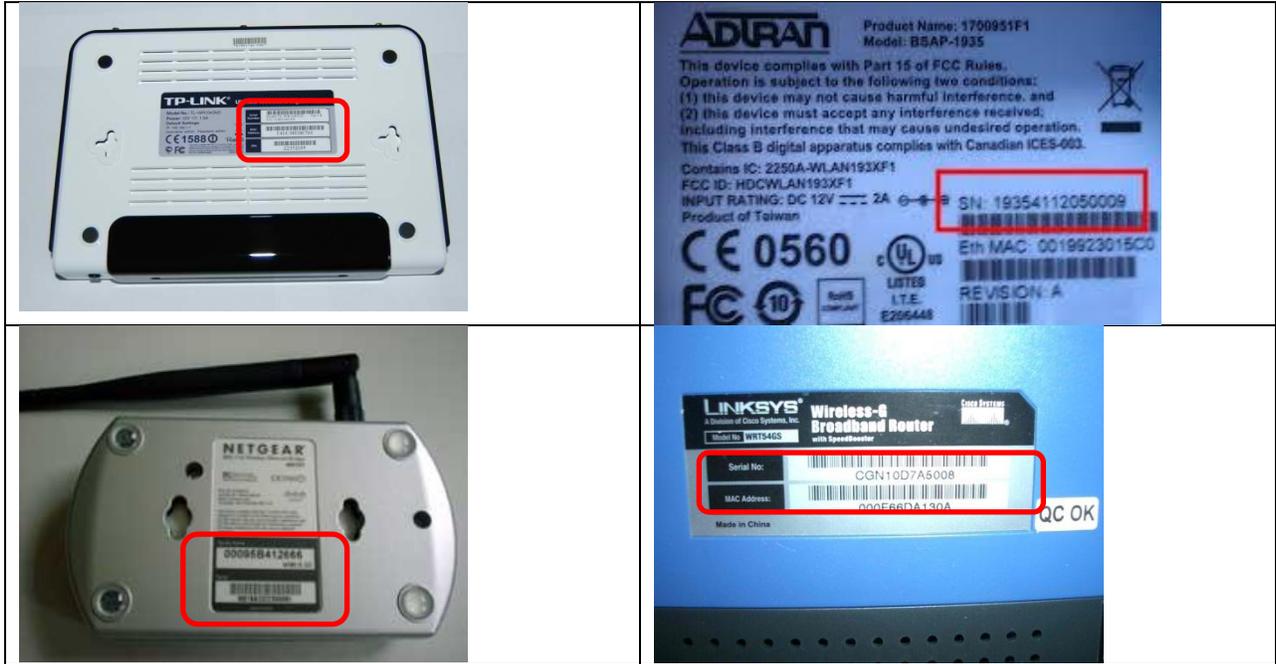
### Wireless Access Point

A Wireless Access Point (WAP) is a device that allows wireless devices to connect to a wired network using Wi-Fi connection. Most WAP devices look similar to a wireless router but their main difference is that WAP devices don't have a 'WAN' port but rather have a single 'LAN' port (refer to sample image below).

Generally, WAP devices are found in areas where there are wifi signals. This is evident when you can find available networks when searching for wireless connections in your mobile phone or mobile computers particularly laptops and tablets. Its serial number is found in the underside of the device.

Refer to Figure 11 and Figure 12 below for examples.

**Figure 11: Serial Number on Wireless Access Point**



**Figure 12: Examples of Wireless Access Points**



### 3-in-1 Modem/Router/WAP

A 3-in-1 Modem/Router/WAP device is basically a modem with wireless router functionality. As with most modems, this device is also normally provided by the Internet Service Provider (ISP). Thus, if your ISP provides you with a modem with wifi capability, then most likely it is a 3-in-1 Modem/Router/WAP device. Relatively, in the Philippines, that is the basic approach in identifying this particular ICT asset.

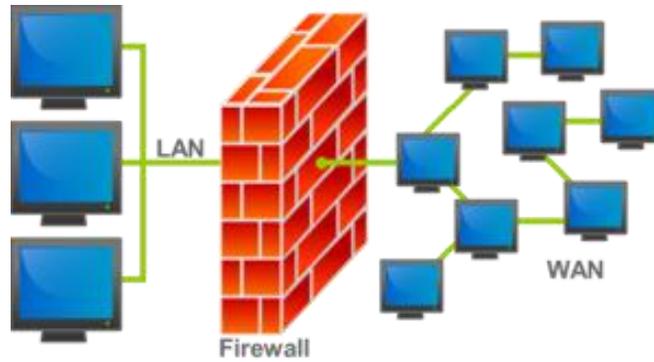
Depending on the type of internet connectivity that the ISP provides, the 3-in-1 Modem/Router/WAP device comes in different form and design. Some have antenna or antennas while some don't, but still having the same set of features. Similarly, their serial numbers can be found in the underside just like in the regular modem devices (please refer to examples under modem devices).

**Figure 13: Examples of 3-in-1 Modem/Router/WAP**



### Firewall Appliance

To know what a firewall appliance is, it will be better if one understood first what a firewall really means. A firewall, in computing term, is a software or hardware-based network security system that controls the incoming and outgoing network traffic by analyzing the data packets and determining whether they should be allowed through or not, based on a set of rules. A firewall establishes a barrier between a trusted, secure internal network and another network, most commonly the internet, which is not assumed to be secure and trusted. For easier understanding, it simply filters data packets going in and out of a particular network (please refer to the diagram below):



Going back to a firewall appliance, it is basically the hardware-based type of firewall as defined earlier. Most firewall appliances have additional features in them depending on their type, quality, and manufacturer. Some even have Virtual Private Network (VPN) or tunneling capability including Demilitarized Zone (DMZ) functionality. In a typical network, it is generally placed between a modem and a router. In addition, it is commonly found in data centers where there is greater security concern on systems and databases. But for small offices where there are no data centers in place, the firewall component is embedded as software in routers and/or each network device. But for GIFMIS readiness perspective, we will only identify the firewall appliance as part of our ICT asset inventory.

Identifying a firewall appliance is a bit tricky considering that it looks similar to a typical network switch. However, the key defining features it has as compared to a network switch is that it is usually designed for mounting at a server rack and it normally comes with various connection slots such as USB, firewire, HDMI and VGA slots. Also, it is more expensive than any typical network switch.

**Figure 14: Examples Firewall Appliances**



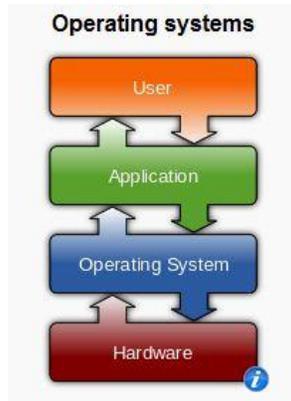
## Software

### MS Windows

To better understand MS Windows, one has to learn first what an operating system is. An operating system is a collection of software that manages computer hardware resources and provides common services for computer programs. It is basically the software platform for systems and applications to run on. It provides the necessary linkage between specific software application and the input and output hardware component that makes computers behave as desired. For more clarification, please refer to

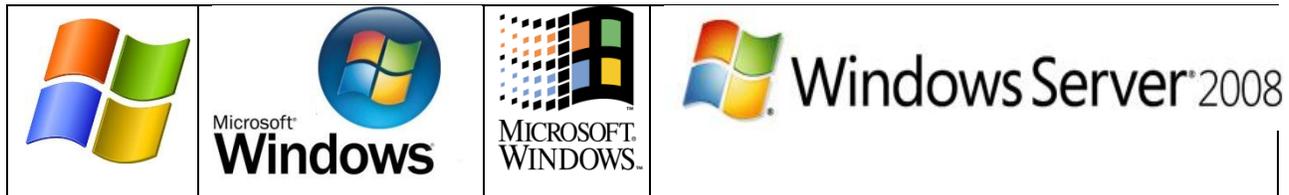
Figure 15 below:

Figure 15: Operating Systems Illustrated



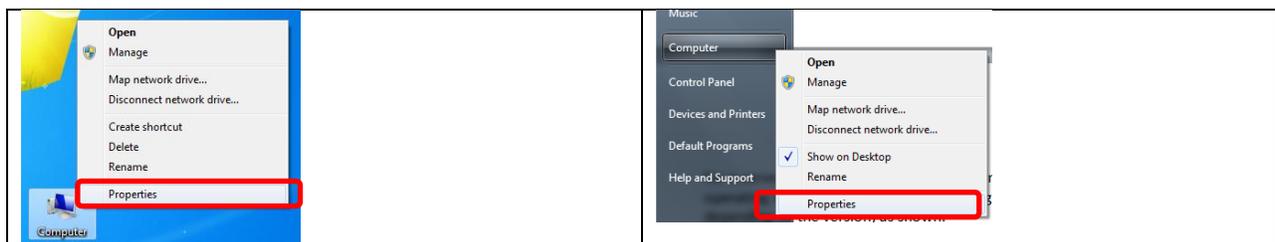
Going back, MS Windows is the most commonly used operating system worldwide. It is developed by Microsoft which over the years has produced several variations designed for personal computers from Windows 3.1, 95, 98, Vista, XP, 7, and most recently the Windows 8 version. It also has different versions for a server type computer such as the Windows Server 2003, 2008, and 2012. Typically, MS Windows operating system is easily identified through its familiar logo (although it has many variations as well depending on the version) as shown in Figure 16 below:

Figure 16: Examples of MS Windows Operating Systems



The majority of computers used in DepEd are currently using a variation of MS Windows. To identify its specific version, simply right click the “Computer” (or sometimes named “My Computer”)  icon in the desktop and click on Properties option. This is shown in Figure 17, Figure 18 and Figure 19 below:

Figure 17: How to Identify your Version of Windows Operating System – STEP 1



Both methods would open a new window that would look similar to the one below and amongst the information that should be captured here are shown in Figure 18 below:

**Figure 18: How to Identify your Version of Windows Operating System - STEP 2**



**Figure 19: Examples of MS Windows Operating Systems**

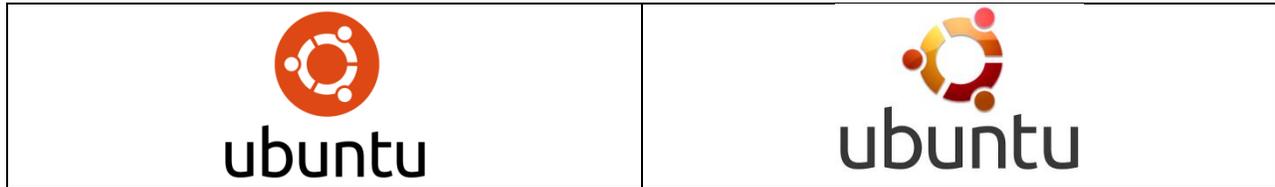


**Ubuntu**

Ubuntu is another type of operating system which is based on the Linux kernel. It is one of the most commonly used open source operating system designed for personal computers and laptops. Similarly, Ubuntu is Graphical User Interface (GUI) based just like MS Windows where users would just click and drag icons. However, unlike MS Windows which is commercial, Ubuntu is free.

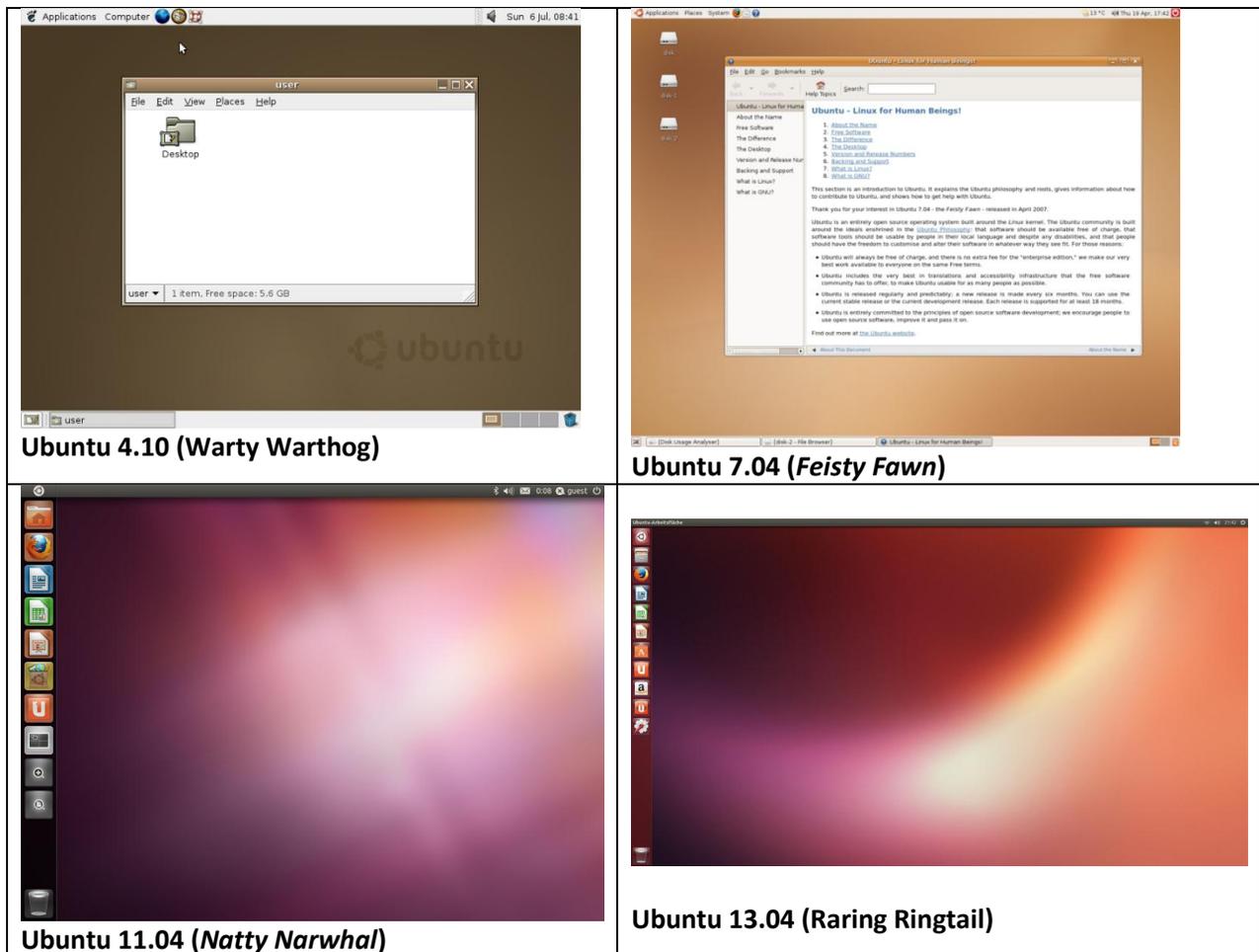
For DepEd, Ubuntu is commonly found in computers donated by the defunct Commission on Information and Communications Technology (CICT). Majority of these computers running Ubuntu are located in computer laboratories and training centers. In addition, it can easily be identified with the following logo as shown in Figure 20:

**Figure 20: Ubuntu Operating System Logos**



Ubuntu also has several variations over the years starting from Ubuntu 4.10 (Warty Warthog) which was released on 20 October 2004 to Ubuntu 13.04 (Raring Ringtail) which was released on 25 April 2013. A newer version called Saucy Salamander (Ubuntu 13.10) is expected to be released by 17 October 2013.

**Figure 21: Examples of Ubuntu**



**Ubuntu 4.10 (Warty Warthog)**

**Ubuntu 7.04 (Feisty Fawn)**

**Ubuntu 11.04 (Natty Narwhal)**

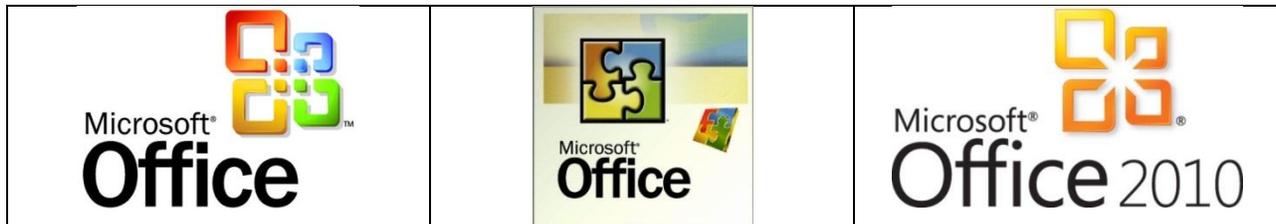
**Ubuntu 13.04 (Raring Ringtail)**

## MS Office

MS Office is an office productivity suite of desktop applications, servers and services for the Microsoft Windows operating system (and also for OSX, the operating system for Apple computers such as the Macintosh). It is designed to provide users with tools to help ease the burden of daily office tasks such as word processing functionality, visual presentations, and spread sheets among others.

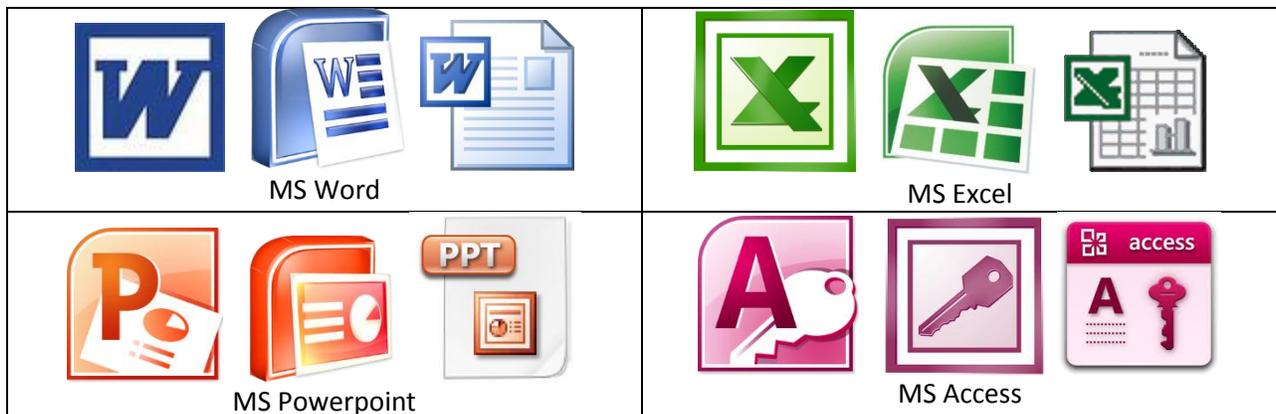
MS Office has released a range of different versions over the years and it can easily be associated with the following familiar logo shown in Figure 22 below:

Figure 22: Versions of MS Office



Typically, MS Office comes with a variety of features but the basic of these are the MS Word for word processing, MS Excel for spread sheets, MS Powerpoint for visual presentations, and MS Access for basic Relational Database Management System (RDBMS). These 4 basic features can easily be associated with the following icons in most computer desktops as shown in Figure 23:

Figure 23: Examples of Different Icons of Basic MS Office Applications



## Open Office

Open Office is another type of office productivity suite which can run on top of different variations of operating systems such as MS Windows, OS X, Linux, and Solaris. Similarly, Open Office has the basic features of MS Office as well from word processing to spread sheets and visual presentations. Its major difference is that Open Office is free and open source unlike MS Office which is commercial. Although the Open Office project was discontinued by Oracle Corporation in 2011 when it acquired Sun Microsystems which was the previous owner of the project, its core programs were succeeded by 3 different projects and one of these is the LibreOffice which is the default office productivity suite for later versions of Ubuntu operating system.

Open Office can easily be associated with the following logo show below in Figure 24:

**Figure 24: Example of Open Office Logo**



In comparison to MS Office, the 4 basic features of an Open Office based office productivity suite include the following: Writer for word processing, Calc for spread sheets, Impress for visual presentations, and Base for basic RDBMS. For better understanding and comparison, please refer to Figure 25 below:

**Figure 25: Comparison of Open Office and MS Office**

Office Productivity Feature	Open Office Application	Open Office Icon	MS Office Application	MS Office Icon
Word processing	Writer →		MS Word →	
Spreadsheets	Calc →		MS Excel →	
Visual presentation	Impress →		MS Powerpoint →	
Basic RDBMS	Base →		MS Access →	

For DepEd, majority of the computers running Ubuntu are using Open Office based office productivity suite considering that it is already included as part of the installation package for all versions of Ubuntu operating system. Thus, it can easily be found on computers running Ubuntu.

### Anti Virus Software

Antivirus or anti-virus software (usually written as the abbreviation AV) is a software used to prevent, detect and remove computer viruses of different types such as malwares, malicious scripts, keyloggers, Trojans, worms, adwares and spywares. There are different types of antiviruses running on different OS platforms. However, these can be classified into two versions, a commercial version and a free version.

Majority of the developers of antivirus software produce both classifications, a commercial version, which comes with full support and virus updates, and a free trial version which doesn't have full support and the virus update expires at a defined period of time. There are also those that produce a free version with renewable virus update subscription but the features are limited such as it only detects certain level of viruses but not the worms, malwares, and keyloggers. And to avail of the full or advance feature and functionality, one must pay a particular premium for it. This business model is what is known as a freemium. Most commonly used antivirus softwares are shown in Figure 26 below:

**Figure 26: Examples of Most Commonly Used Anti Virus Software**

Antivirus Software	Developer	Application Type	Icon / Logo
Avast!	AVAST Software (Czech Republic)	Freemium	
Nod 32	Eset (Slovakia)	Commercial	
Norton	Symantec (USA)	Commercial	
Avira	Avira Operations GmbH & Co. KG (Germany)	Freemium	
AVG	AVG Technologies (Czech Republic)	Freemium	
Kaspersky	Kaspersky Lab (Russia)	Commercial	
McAfee	McAfee Inc. (USA)	Commercial	
Trend Micro	Trend Micro Inc (Japan)	Commercial	
Panda	Panda Security SL (Spain)	Commercial	

### Other Software

Other Software category under the ICT Asset Inventory Template includes softwares which are not listed as an article item under the Software classification. This includes software such as office creativity suite like Adobe Creative Studio which covers Adobe Photoshop, Flash, Fireworks, Illustrator, and InDesign. Another would be PageMaker, Adobe Premiere and After Effects. Part of this category also includes

development or compiler software such as Eclipse, Netbeans, and Microsoft Visual Studio.

In GIFMIS readiness perspective, it is also important to identify the different types of available software, especially the ones which are licensed, currently being used by the organization as a tool to assist in basic service delivery such as PeachTree, Quickbooks, Crystal Reports, etc. However, it is not necessary to record softwares, not covered so far, which are readily available for download on-the-fly such as Skype, Mozilla Firefox, Google Chrome, Google Drive, Acrobat Reader (except Acrobat Professional), etc. In addition, please specify if the software is licensed, free, unlicensed or not known. Examples are shown in Figure 27 below:

**Figure 27: Examples of Other Software**

 <p>Adobe Photoshop Image Editing Software</p>	 <p>Peachtree Accounting Software</p>
 <p>Quickbooks Accounting Software</p>	 <p>Adobe Premiere Video Editing Software</p>

### Database

A database is an organized collection of data stored in many forms such as through spreadsheets, application databases, file servers, etc. Its purpose is to provide a storage facility wherein data retrieval is orderly and can be easily accessed either through basic user search or through a specific information system application. If an information system application is used for a particular database, it is then referred to as an application database. Such databases can only be accessed by that particular application or a third party software (with proper user/administrator credentials for login) compatible with that existing database format.

In GIFMIS readiness perspective, database in the ICT assets inventory assessment refers to application databases. Generally, application databases are commonly found in database servers especially in application systems using a client-server topology. However, there are also databases which are stored at the end user side such as application systems which are stand alone in design. Examples of this type of databases are the Financial Reporting System (FRS) and Budget Monitoring System (BMS) of DepEd. Both systems are using MS Access database to store information fed by the users through the application interface. Typically, an application database is also known as the back-end while the user's interface application (where the user inputs data) is referred to as the front-end.

Application databases come in different formats depending on the type of application it is being designed for. Example would be Microsoft's Structured Query Language (MS SQL) which is currently used by DepEd's Asset Management System (AMS) and COA's Electronic National Government

Accounting System (eNGAs). Part of the ICT asset inventory would be to cover all the different databases available across all levels of the organization. As such, all databases available in your respective offices must be recorded in the ICT Assets Inventory Template including the name/names of Developer under the Manufacturer column. Also, under the model column, it is recommended that the database version will be recorded instead.

**Figure 28: Examples of Databases**

Database	Database Format
Financial Reporting System (FRS) Database	MS Access
Budget Monitoring System (BMS) Database	MS Access
Asset Management System (AMS) Database	MS SQL
eNGAs Database	MS SQL

### Information System

An information system is an integrated set of components for collecting, storing, and processing data which can be used for delivering specific information and knowledge. Generally, information systems are composed of the front-end application and the corresponding back-end database. However, for the ICT Asset Inventory Template, we refer to information system as the front-end application considering that database is already covered as a separate article.

In GIFMIS readiness perspective, the most commonly used system application in DepEd are the Financial Reporting System (FRS) and eNGAs in accounting units, Budget Monitoring System (BMS) in budget section, and the Asset Management System (AMS) in supply/property section. However, for the ICT asset inventory, it is advisable to record all types of information system including the payroll system, human resource information system, etc. Whatever information system used currently in your office must be detailed in the ICT Asset Inventory Template. In addition, place the front-end language in the remarks column, however, if not known, put “front-end language not known” instead.

**Figure 29: Examples of Information Systems**

Information System	Front-End Language
Financial Reporting System (FRS) Database	MS Access
Budget Monitoring System (BMS) Database	MS Access
Asset Management System (AMS) Database	MS Visual Basic (MS VB) & Active Server Pages (ASP)
eNGAs Database	MS Visual Basic

### Support Facility

#### Server Rack

A Server Rack is basically just a typical rack where servers are primarily mounted on. Aside from servers, it can also mount various network devices such as routers, switches, firewall appliances, etc. It also has provisions for KVM switches, monitor screens, keyboard, and mouse. Generally, server racks are designed and built to hold computers, servers, patch panels, network equipment, and other electronic equipment. In addition, it is designed to provide ample ventilation for airflow, protection against static electrical surges through proper grounding, and optimized utilization of floor space. Lastly, server racks are commonly found in data centers where majority of the servers and network equipment are located.

Examples of server racks are shown in Figure 30 below:

**Figure 30: Examples of Server Racks**



## Generator

Generators in the ICT Asset Inventory Template refer to electric generators. Electric generators are devices that convert mechanical energy to electrical energy. Typically, in the Philippines, backup generators are powered by gasoline or diesel. Generators are used to provide backup electricity in case of power failure. In GIFMIS perspective, generators will provide power source for critical ICT assets during blackouts which is widespread nowadays especially in areas located in Mindanao. To identify generators, refer to sample images shown in Figure 31 below.

Figure 31: Examples of a Generator

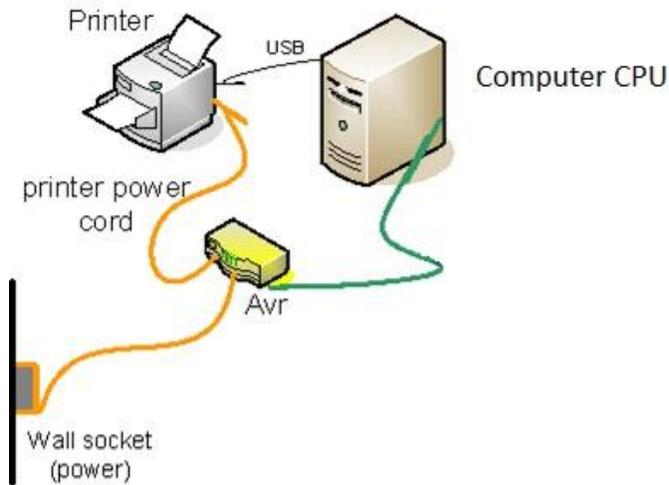


### Automatic Voltage Regulator (AVR)

AVRs or Automatic Voltage Regulators are electrical devices which are designed to automatically maintain a constant voltage level. It protects sensitive electronic equipment from sudden blackouts (wherein power is out and then suddenly comes back up again) and over-voltages. Uncorrected voltage fluctuations gradually degrade the life of electronic components, potentially causing premature failure.

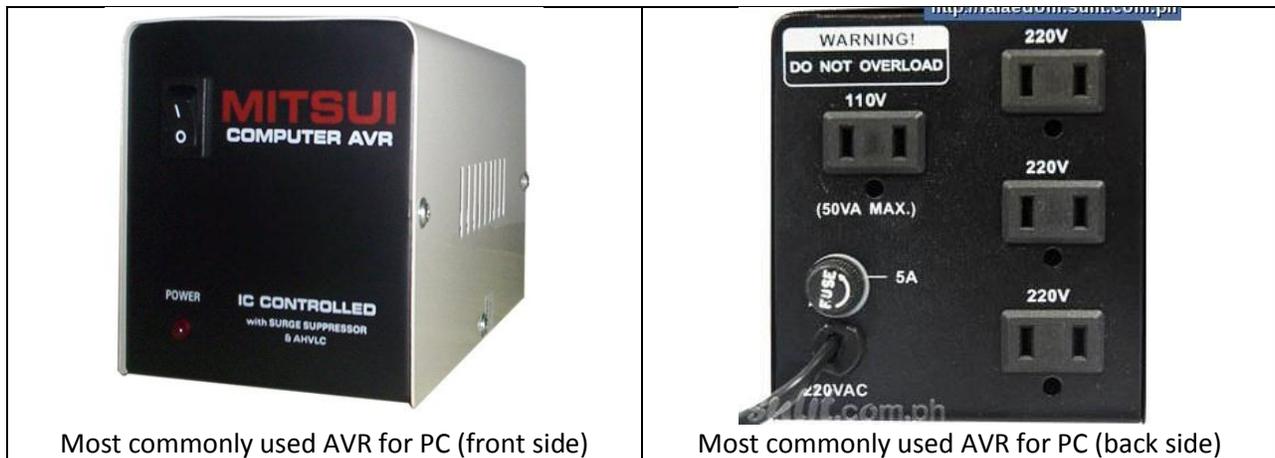
An AVR not only adjusts voltages to safe levels but also provides surge protection against electrical surges and spikes including effects caused by lightning. In addition automatic voltage regulators are commonly found in devices such as computers where they stabilize the DC voltages used by the processor and other elements. Typically, AVRs are setup as shown in Figure 32 below for computers and other equipment.

**Figure 32: Typical setup of an AVR**



The front of the AVR usually has a power switch to turn the device on and off. In the back are the power sockets where electronic devices are plugged in. Ideally, AVRs works side by side with an Uninterruptible Power Supply (UPS) device for better protection and power backup. Examples of AVR are shown in Figure 33 below:

**Figure 33: Examples of AVR**



Most commonly used AVR for PC (front side)

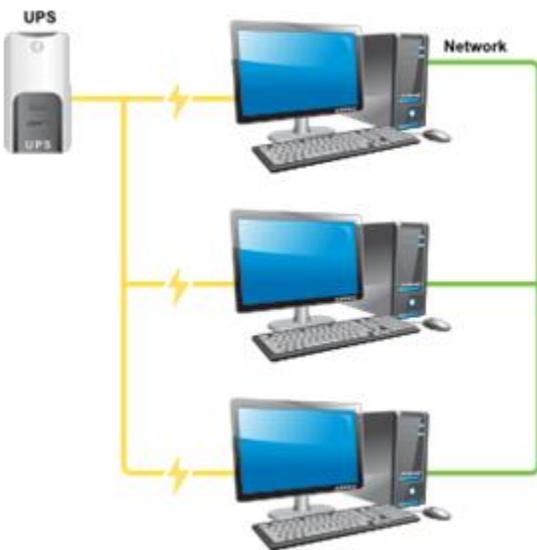
Most commonly used AVR for PC (back side)



### Uninterruptible Power Supply (UPS)

Uninterruptible Power Supply (UPS) is an electrical device that provides emergency power to a load when the input power source, typically the main power, fails. It provides near-instantaneous flow of power supply, during input power interruptions and blackouts, from energy stored in batteries. Generally, a UPS is found between the utility power (power from the wall outlet) and the computer. In other words, the computer and accessories are plugged into the UPS and the UPS plugs into the wall outlet. The set up is illustrated below in Figure 34.

Figure 34: Setup of a UPS with computers



UPS devices are also known as battery backups and they come in many shapes and sizes but are most commonly rectangular and free standing, intended to sit on the floor near the computer. All UPSes are very heavy due to the batteries located inside the device. One or more batteries inside the UPS provide power to the devices plugged into it when power from the wall outlet is no longer available. Normally, the batteries are rechargeable and often replaceable.

The front of the battery backup will usually have a power switch to turn the device on and off and will also sometimes have one or more additional buttons that perform various functions. Higher-end battery backup units will also often feature LCD screens that show information about how charged the batteries are, how much power is being used, etc. In addition, the amount of time a single UPS can provide depends on its capacity and the amount of load connected to it.

Ideally, UPSes are setup in tandem with AVRs. This means that the AVR protects the electronic devices from voltage fluctuations while the UPS provides back up power during power failures. In such cases, the electronic device is directly plugged to the UPS while the UPS is plugged into the AVR wherein the AVR is connected to the main power supply or the wall outlet. Examples of UPS are shown in Figure 35 below:

**Figure 35: Examples of a UPS**



Appendix 1: Inventory Instruction (U Sec Varela)



**Republika ng Pilipinas**  
**Republic Of The Philippines**  
**KAGAWARAN NG EDUKASYON**  
**DEPARTMENT OF EDUCATION**



ULTRA Complex, Meralco Avenue Pasig City, Philippines

*Undersecretary, Finance & Administration*  
*Pangalawang Kalihim*

Telefax: 631-96-40  
Direct Line: 633-93-42  
Website: <http://www.deped.gov.ph>

MEMORANDUM

TO: REGIONAL DIRECTORS  
SCHOOLS DIVISION SUPERINTENDENTS  
Regional Accountants  
Division Accountants  
All Others Concerned

FROM:   
**FRANCISCO M. VARELA**  
Undersecretary

SUBJECT: Strengthening the Financial Management System in the Department of Education (Phase II)

DATE: August 15, 2013

The Public Financial Management Program (PFMP) is a joint initiative of Australia and the Philippines. Foreign and local consultants were engaged to work as the Project Management Team (PMT) on the project of "Strengthening the Financial Management System in the Department of Education (Phase II)".

The major objectives of the project are:

1. to assist the Department in its readiness to the implementation of the Government Integrated Financial Management Information System (GIFMIS) in 2015;
2. to facilitate the introduction of the Unified Account Code Structure (UACS) intended to harmonize the account names and classifications for all budget and accounting transactions;
3. to assist in the consolidation of DepED bank accounts in preparation for the introduction of the Treasury Single Account (TSA);
4. enhancement and roll out of the Department's Asset Management System to facilitate the inventory of all DepED property and equipment specifically IT equipment as part of logistical readiness for GIFMIS.

To ensure the attainment of these objectives, the PMT group headed by Mr. Paul Seeds shall visit selected DepED field offices (Regional, Division and Secondary Schools that are IUs) to conduct extensive mapping of systems, procedures and practices pertaining to the financial activities of the Department.

Related to this, it is requested that assistance and full cooperation be extended to them including access to financial records/reports, information and internally developed programs/systems.

Thank you for your continued support and compliance.

## **Appendix 2: Instructions on Completing ICT Inventory Template**

### ***Introduction***

1. There are 4 Worksheets (*Instruction, Template, Reference, and List*) composing this ICT Inventory file.
2. The *Instruction* worksheet provides the introduction information and the instructions on how to use this particular ICT Inventory file. It also includes the Name(s) of responders, their office, and the date accomplished.
3. The *Template* worksheet is where you provide the required data and information for the ICT Asset Inventory.
4. The *Reference* worksheet is your reference for better understanding the *Template* worksheet. It provides descriptions, clarifications, examples, and other related information relevant to accomplishing the *Template worksheet*.
5. The *List* worksheet is a protected worksheet which contains the necessary data for data validation purposes on the *Template* worksheet. You DON'T need to read this worksheet.

### ***Instruction***

1. Go to the *Template* worksheet and observe/familiarize the column headers.
2. Go to the *Reference* worksheet and read through each itemized row corresponding to the column headers of the *Template* worksheet. Make sure you understand the description, information guide, and remarks entries.
3. Start completing the *Template* worksheet.
4. Once finished, GO BACK to the *Instruction* template and complete the accomplishment form (top right of this worksheet). Provide the NAME(S) of personnel who accomplished the *Template* worksheet, OFFICE and DATE ACCOMPLISHED.
5. Save file and send to [deped.gifmis@gmail.com](mailto:deped.gifmis@gmail.com)

### ***Reminders***

1. DO NOT alter or modify the properties of all rows and columns in all worksheets.
2. DO NOT merge cells.
3. Provide brief and precise answers to each required field in the *Template* worksheet.
4. For clarifications and queries, you may contact us through mobile: 09234250293 , phone: (02)-6335397 or email: [deped.gifmis@gmail.com](mailto:deped.gifmis@gmail.com)

### Appendix 3: ICT Inventory Template

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ref	Article	Asset Classification	Manufacturer	Model	Serial Number	Specification	Property Number	Source of Fund	Date of Acquisition	Cost of Acquisition	Name of Accountable Officer	Position of Accountable Officer	Asset Location	Condition	Remarks
001		✓ #N/A													
002		✓ #N/A													
003		✓ #N/A													
004		✓ #N/A													
005		✓ #N/A													
006		✓ #N/A													
007		✓ #N/A													
008		✓ #N/A													
009		✓ #N/A													
010		✓ #N/A													
011		✓ #N/A													
012		✓ #N/A													
013		✓ #N/A													
014		✓ #N/A													
015		✓ #N/A													
016		✓ #N/A													
017		✓ #N/A													
018		✓ #N/A													
019		✓ #N/A													
020		✓ #N/A													
021		✓ #N/A													
022		✓ #N/A													
023		✓ #N/A													
024		✓ #N/A													
025		✓ #N/A													
026		✓ #N/A													
027		✓ #N/A													
028		✓ #N/A													
029		✓ #N/A													
028		✓ #N/A													
029		✓ #N/A													
079		✓ #N/A													