

Instructional Terminology

TECHNOLOGY DEVICES MAINTENANCE 15.1202.00



2 Pin - male/female power connectors

4 Pin - 12V standard ATX motherboard power supply connector

9 Pin - DB9 pin connectors used for peripheral devices

15 Pin - SATA Power connector used for optical and HD drives

A

AC - alternating current

Acceptable Use Policy (AUP) - a user's rights and guidelines to access organization's resources

Access points - devices that connect to a router/switch/hub and provide WiFi signals in a large building or office

Active - a multi-functional technology that makes devices agile, efficient, and more user-experience/creativity oriented

Adware - a malware that displays advertisements often as a pop-up

Aero - Authentic, Energetic, Reflective, and Open is a Windows GUI that incorporates glass theme, windows flip, taskbar live thumbnails, and flip 3d features in the OS

Aerosol Can - a cleaning product containing compressed air for delicate components

AES - Advanced Encryption Standard, an encryption specification based on the Rijndael block cipher algorithm

AGP Controller - Accelerated Graphics Port, designed to connect a graphic card to the computer for a high speed graphics channel

Air Cooling - use of fans or piezoelectric pumps to remove heat produced by internal PC components

Airflow - constant and unobstructed airflow to computing devices is necessary

AntiStatic Mat - a mat that protects computer components from ESD damage

AntiStatic Strap - a wrist strap worn to avoid ESD damage to computer components from the technician.

Application - a program or software written to achieve a particular purpose, such as email applications, gaming applications, etc.

ARM (Advanced RISC Machine) - CPUs and chipsets for mobile phone/smartphones

ARP - Address Resolution Protocol, used to find the MAC address of a device in a LAN using the IP address/broadcast request/response

Asset - a device, system, or software with significant usage and value

AT Keyboard - a keyboard with 84 keys released in 1981, which was later replaced by a 101 keys keyboard

ATA Interface - Advanced Technology Attachment, is an interface that connects hard drives, CD/DVD ROM , and other drives. Now known as PATA

ATX - Advanced Technology eXtended, is a motherboard and power supply configuration introduced by Intel

Audio - Most computers provide audio connectors. The pink connector is the microphone jack, which is used to connect a microphone to the system. The blue connector is the line-in connector, which can be used to connect an external audio source to the computer. The green connector is the line-out connector, which is used to connect speakers to the system.

Authentication - process of validating a user to provide access

Automation - use of pre-programmed software or devices to eliminate human effort

AutoPlay - a feature that discovers and automatically opens or plays a removable device, media, or drive

AutoRun - a Windows feature that allows predetermined actions or programs to occur, when a media is inserted

Autorun - automatically running of a software, recommended to be disabled to avoid autorunning of malwares

B

Backup and Restore - the process to back up the data of a device for a later restoration or recovery in case of data loss, device reset

Baiting - leaving behind malicious software/devices in a public area that a user might load on their device thereby infecting their systems

Ball grid array (BGA) - is a type of chip carrier that has balls as a contact between the integrated circuit and mounting surface

Basic command line tools (Linux) - a text interface between user and the linux operating system. Ex. Wikit, Google, etc.

Basic command line tools (Microsoft) - a text interface between user and the windows operating system. Ex. Contents, Powershell, etc.

Basic command line tools (Mac IOS) - a text interface between user and the Mac operating system. Ex. Xcode

Battery - a hardware component that supplies power to the system

Biometric security - use of physical characteristics such as fingerprints/facial recognition to authenticate users

BIOS - Basic Input/Output System is the firmware that contains programs and information relating the basic operation of PC components such as drivers, keyboard, video display and ports

BIOS/UEFI password - a firmware password set to avoid anyone from booting a device without the password

Bit - The smallest unit of digital information. Each individual one and zero in binary sequence is a bit.

Black-hat hacker - an unauthorized hacker who intrudes into a system to exploit it for malicious reasons

Blackout - Complete loss of AC power

Bookmarks - creating shortcuts to websites or links in a browser for quick access

Boot Camp - an Apple Inc. Mac OS utility that assists to install Windows OS on Intel based Mac computers

Botnet - Network of zombie/computers infected by a trojan

Bridge - a network device that interconnects multiple network segments into one

Bring Your Own Device (BYOD) - the policy to allow employees to use their personal devices for professional usage, often increases security risks to organizational data/system

Brownout - reduced power voltage level of AC

Brute force - trying to crack user password by working through all possibilities

Byte (B) - Eight bits together form a byte. The value of a single byte can range from 0 (eight 0;s) to 255 (eight 1s).

C

Cable/DSL modem - DSL phone connection lines used for transmitting voice, video, and data

Capacitor - device that holds electric charge

CD - Compact Disc is an optical disc data storage media that can store up to 700MB of data

Cleaning cloth - usually a microfiber cloth used for cleaning the PC components

Closed-ended question - used to get a yes or no or an expected answer

Cloud - storage and retrieval of data over the internet instead of local computer storage

Cloud Storage - refer to Cloud

Cloud-based network controller - used to automatically move less used data over to cloud storage

CMOS- Complementary Metal-Oxide Semiconductor(CMOS) is a technology used for creating low power ICs

CMOS battery - a battery that maintains configuration settings such as time, date, etc. and is attached directly to PC's motherboard

Coaxial - a type of network transmission cable commonly used in bus topology

Coaxial (RG-59) - coaxial cable grade used in cable tv and cable networking

Coaxial (RG-6) - coaxial cable grade used in cable tv, satellite TV, and cable networking

Coaxial (BNC) - coaxial cable connector used in 10Base2 Ethernet networks

Code of Ethics - rules to define ethical behavior

Compatibility - how well softwares or system components connect and operate together

Composite Audio/Video - a cable standard that transfers audio/video signals through single cable and connector

Compressed air - pressurized air stored in cans to clean computer components

Control Panel - a Windows component that provides access to view and update system settings

Cooling fan - small fans used to expel heat from the internal computer components

Copyright - protections granted by the government to creators, and inventors for rights to copy, sell, distribute, or use their work

Cost Analysis - process of projecting and analyzing the cost/benefit of proposed system or network plan

CPU (Central Processing Unit) - the principal microprocessor in a computer or smartphone responsible for running operating system and applications software

CPUID - CPU IDentification is a string that identifies the features a processor supports

Crimper - a tool used to attach wires and connectors

Cron - a software utility used to schedule jobs in a Unix-like OS

Cyberbullying - use of technology/internet to bully or intimidate a person

D

Daisy-Wheel - a type of impact printing technology

Data Integrity - maintenance of accurate and consistent information/data

Data redundancy - existence of multiple copies of data in different locations

Data remanence - remnants of data that can be used to recover deleted data using a recovery software

Data wiping - permanent removal of data from a device using techniques such as data wiping software, degaussing wand, etc.

Day Zero - refer to zero-day attack

DC - Direct current

DDR - Double Data Rate memory (RAM) transfers twice as fast as regular SDRAM chips

Debris - particles of dust or dirt deposit over components usually cleaned using compressed air or other safe cleaning equipment

Decryption- reverse process of encryption to decode secured data.

Degaussing Wand - a strong magnetic wand that wipes data from hard drive platters

Denial of Service (DoS) - an attack to overwhelm network servers down by sending a large number of false requests, results in denial of service to legitimate users

Desktop - personal computers (PC) designed for home or office as a standalone or network client

Device Manager - utility in windows used to control and manage computer hardware

DHCP - Dynamic Host Configuration Protocol, is a network protocol which automatically configures devices on networks

Dial-ups - use of telephone networks to dial up and connect to an Internet Service Provider

Dig - command line tool to query and troubleshoot DNS problems

Digital Audio - audio signals encoded in the digital format

DIMM - Dual Inline Memory Module comprises one or more RAM chips on a printed IC

Direct - a. a link between two devices via single cable/connection
b. (routing) packet source and destination are in the same physical network

Disk Cleanup - a Windows maintenance utility used for free up disk space

Disk Manager - a Windows utility that helps create, delete, format, manage disk drives

Display/Screen - an output device that provides visual presentation of data

Distributed DoS (DDoS) - a DoS attack created by using Zombie computers that makes it difficult to trace the origin of attack

Distribution - packaging of data on to a medium which users can access and download data from

DMZ - DeMilitarized Zone, is a subnetwork of an organization that is unsecured and exposed for external services

DNS - Domain Name System, a directory system to convert website names to IP addresses

DNS Poisoning - a TCP/IP attack, where the DNS of a legit site is changed by an attacker, thereby redirecting users trying to access that site to another website

Dock - a device that provides access to a power supply for devices to connect and charge

Domain - names used in URLs to identify IP addresses. Ex. google.com

Dot-Matrix - 2D matrix of dots used in printing, electronic displays to display/print data

DRAM - Dynamic Random Access Memory

Driver - software programs that enable devices to connect and communicate with the operating system

Drivers - refer to Driver

Dual Channel - memory chipsets that provide two data channels

Dual Core - a CPU with dual processors

Dumb terminal - a terminal device with no processing capabilities

Dumpster diving- process of searching for sensitive information in the trash

DVD (Digital Video/Versatile Disk) - Digital Video/Versatile Disk

DVI (Digital Video Interface) - Video adapter designed to replace the VGA port used by CRT monitors. The Digital Visual Interface (DVI) connector is designed to connect digital monitors to a computer. It is typically white with three rows of eight pins.

Dynamic IP - an IP address that changes and is assigned by network

E

Eavesdropping - unauthorized listening to sensitive information

EMI, ElectroMagnetic Interference - when electromagnetic waves/signals distort or interfere with media such as copper cables

Encryption - process of transforming data into a secured code based on an algorithm or established rules

End User - user that a software or hardware device is designed for

EP - ElectroPhotographic is a technique used in LED and laser printing

Error checking - techniques used to detect errors in data transmission, ex. Parity check, CRC, checksum

Error codes - a numeric code used to identify the type of error in data transmission or any other system errors

Error Correcting - detecting errors and reconstructing original data in transmission

ESD, ElectroStatic Discharge - flow of static electricity from a charged object to another

Ethernet - connecting devices together in a network as per the IEEE 802.3 standard

Ethernet (Cat 5) - unshielded cable, max speed 10/100 Mbps, max bandwidth 100 MHz

Ethernet (Cat 5e) - unshielded cable, max speed 1000Mbps/1 Gbps, max bandwidth 100 MHz

Ethernet (Cat 6) - shielded/unshielded cable, max speed 1000Mbps/1 Gbps, max bandwidth 250 MHz

Ethernet (Cat 6a) - shielded cable, max speed 10000Mbps/10 Gbps, max bandwidth 500 MHz

Ethernet (Cat 7) - shielded cable, max speed 10000 Mbps/10 Gbps, max bandwidth 600 MHz

Ethernet (Plenum) - ethernet cable rated to run in the plenum space of a building

Ethernet (Shielded Twisted Pair) - copper wiring twisted together and coated with electromagnetic insulation

Ethernet (Unshielded Twisted Pair) - ethernet wiring twisted together to avoid cross talk or noise

Ethernet (568A/B) - wiring standards used for creating straight through cables

Ethernet (RJ45) - used in twisted pair cables, has 8 connectors

Ethernet (RJ11) - used in twisted pair cables for telephone wiring, has 4 connectors

Ethernet over Power - used to connect devices with no built WiFi connectivity to the internet

Ethical Hackers - refer to White-hat hackers

Exabyte (EB) - 10^{18} bytes of data

Expansion cards - printed circuit boards that connect to the motherboard for added functionality

Extruder - part that ejects printing or bonding material in 3D printers

F

Fans - refer to cooling fan

FAT - File Allocation Table, file system standard for computers to track and locate files/fragments

FAT32 - improved version of FAT that uses more bits to identify clusters, can support upto 2 TB storage

Favorites - feature that allows browsers to store links/websites for easy access later.

FAX - also known as telefax, used to transmit scanned documents via telephones connected to printers.

Fiber - use of fiber strands to transmit/receive optical signals in a cable.

Fiber (Single-mode) - cables that transfer data using single light path, cable core is 8-10.5 microns

Fiber (Multi-mode) - cables that transfer data using multiple light paths, cable core is 50-100 microns

Fiber (ST Connector) - push-in and twist/set-and-twist/straight tip connector, used in single and multi-mode cabling

Fiber (SC Connector) - set-and-click/square connector uses a ceramic ferrule for core alignment and prevents light ray deflection

Fiber (LC Connector) - lift-and-click/Little connector, half the size

Fiber (MT-RJ Connector) - plastic connector with locking tab, used for single and multi-mode

Filament - threadlike conductor used in incandescent lighting

Files - collection of information stored in a computer drive

File History - a quick and easy to use backup tool used in Windows 8/10

Firewall - a device/network security system to monitor and manage incoming and outgoing traffic

FireWire - based on the IEEE 1394 standard; was to be a competitor to USB. Some computers provide a FireWire connector. FireWire connectors are rectangular in shape with a bevel on one end to keep you from inserting them the wrong way. FireWire allows you to connect external devices, such as digital cameras, external hard drives, and scanners to the computer.

Firmware - a software embedded into hardware

Floppy Controller - a chip/circuit used to read/write a floppy disk drive

Force Quit - to close a frozen or unresponsive application when manually closing isn't possible

Forensic investigation - gather evidence and identify the methods used in an incident/attack

Front Panel Connectors - f panel or system panel connections is where the HDD activity lights, power light on, key lock are connected.

FTP - File Transfer Protocol, used to transfer files over a network

FTPS - File Transfer Protocol Secure, adds Transport layer security to the FTP

G

Gantt Chart - a bar chart that illustrates a project schedule

Gestures - alternative way to enter information using motion sensors

Ghost images - also known as cloning, is the backing up of data contents and converting them into an image

Gigabyte (GB) - unit of storage equivalent to 2^{30} bytes

Grayware - a legitimate software that also contains malicious content that a user might be unaware of

Grey-Hat hackers - an unauthorized hacker who intrudes into systems, but without malicious intent, often to disclose system vulnerabilities to authorities or law enforcement

H

Hacking - unauthorized intrusions into a computer or network system

Hard drive - hardware component used to store digital data

Hardware locks(1) - device required to make certain softwares operable on a computer, e.g. dongles

Hardware locks(2) - locks, locked-cases, cabinet-locks, cable-locks, etc used to prevent device theft

HDMI (High Definition Multimedia Interface) - most widely used graphic device interface; HDMI connector is used to connect a computer to an HDMI monitor or TV

Heat sink - is a device that incorporates either a fan or some other means to keep a hot component, such as a processor, cooled down

Heating, ventilation, and air conditioning (HVAC) - system installed in a building to supply heat and air conditioning

Homegroup - a group of computers connected together to share files, printers, or data

HTTP - HyperText Transfer Protocol is an application layer protocol to transfer hypertext messages between clients and servers

HTTPS - extension of HTTP, used for secure communications

Hub - a network device to connect devices, operates on Physical layer level

Humidity Level - ideal humidity level for devices is between 10 - 80 percent

I

Ifconfig - command line tool used to manage IP address and control network connections

IMAP - Internet Message Access Protocol, used to access emails over the internet from email servers

Incident response - actions taken to deal with an incident during and after the incident

Indirect - (routing) data packet goes from router to router to reach the destination

Ink Cartridge - used in inkjet printers, contains ink in one or more reservoirs

Intellectual Property - creations/inventions owned by a copyright holder

Interface - allows for software/hardware/peripheral devices to interact and exchange information

Internet appliance - an electronic device that provides tools for online activities such as web surfing ex. smart appliances

IoT, Internet of Things - concept of connecting a variety of devices to the internet

IP address - a numeric label assigned to a device that uses Internet Protocol for connections/communications; ex. 123.26.5.23

Ipconfig - a Windows command line utility used to manage network connections on devices, usually displays current TCP/IP network configurations

ITX - Information Technology eXtended is a compact motherboard form factor used to design small computers

K

Kernel - the core part of the operating system that provides communication means between software and the hardware

Key fob - a small device used for two-factor authentication, can be attached to a key chain

Keychain - a MacOS application used to store account information/passwords to reduce the number of passwords a user has to remember

Kilobyte (KB) - data unit equal to 1,024 (2^{10}) bytes

L

Land grid array - an IC that has sockets with pins to mount the CPU on

Launched - to start a program or utility

LED - Light Emitting Diode, is an electronic device that lights up when electric signals are passed through

Legacy buses (AGP) - Accelerated Graphics Port, is an early port used to connect a graphics card to the PC

Line In - also called a sound in or mic in, a jack to connect external audio devices

Liquid Cooling - the process of circulating a heat transfer liquid through the computer internally to dissipate heat

Local - software/storage or anything that is on-site or on-device

Local backup - a data backup done on a storage device maintained closer to the device or connected through the LAN

Log file - a file that documents details of specific activities performed on a system; e.g. backlogs, repair-logs etc.

M

MAC -Macintosh is a device or operating system that is manufactured by Apple Inc.

Malware - software created to perform malicious activities

Man-in-the-Middle (MitM) - an attacker intercepts communications between two systems, and use to gain access or falsify/edit the communications

Masquerading - pretending to be an authorized user to gain access

Medium - a. a storage device such as hard drives
b. a transmission channel for communication such as cables

Megabyte (MB) - data unit equal to (2^{20}) bytes

Memory - a device or chip that stores digital data

Memory Controller - a chip/circuit that controls the data flow from/to the computer's main memory

Memory/Storage - the storage capacity of storage devices

Menu - a list of options displayed in a GUI for the user to choose from

MHz - a unit used to measure the transmission speed of electronic devices. Equals 1 million cycles per second

Micro ATX - a type of PC motherboard that glues together all the components via slots

Micro DVI - an Apple Inc. proprietary video port for MacBook Air, used for DVI to DVI or DVI to VGA connections

Micro ITX - a type of motherboard form factor

Microchip - a small device that enables a computer to be built into a single board

Microphone - hardware used to record audio; can be connected to a desktop system using a USB connector, an audio jack, or a wireless connection. Laptops and mobile devices already have integrated microphones and are less likely to have an external microphone attached.

Mini DVI - a connector used as an alternative to Mini-VGA in Apple computers

Mini PCI - a smaller PCI card form factor

Mini VGA - a connector used as an alternative to the standard VGA for video output

Mission Control - a MacOS feature that allows users to view all the open applications/windows/spaces in full screen or split view

MMC (Microsoft Management Console) - a Windows component used to create and customize administrative tools to manage the system

Modem - Modulator/Demodulator is a device that connects devices, and converts computer signals to/from audio signals

Modems - refer to Modem

Motherboard - also called system board, provides the basic foundation for all of the computer's hardware including the processor, RAM, BIOS, and expansion cards

msconfig - system configuration utility - a Windows utility used to troubleshoot the startup process

msinfo32 - system information tool - a command line tool that displays a device's hardware/software/system components comprehensive view

Multimeter - Tool to measure the circuit integrity and electricity quality

Multiprocess - running two or more programs or processes simultaneously on multiple processors

Multitasking - running two or more programs simultaneously on a single processor

Multithreading - running several parts or threads of a program simultaneously

N

NAS - Network Attached Storage; dedicated file storage used to store and retrieve data for a network's user group

NAT - Network Address Translation; used on a router to map private IP addresses to a public IP address

Nbtstat - a command line utility used to diagnose NetBIOS name resolution issues

NetBIOS - Network Basic Input/Output System, operates as the Session layer for applications on different devices to communicate over a LAN

Netiquette - the appropriate way to act over the internet

NETstat - a command line utility used to see TCP connections, routing tables, and other network interface information

Network interface card (NIC) - is necessary for internet connection - wired or wireless

Network monitor - a system of consistent monitoring of a network and informing network administrators of any issues

Network Settings - the settings used to view and manage the network connections on a device

Notification bar/area - on the right-hand side of the taskbar

Nslookup - Name Server Lookup is a command line utility used to see the DNS records for a domain

NTFS - New Technology File System is a Windows OS file system used to store and retrieve data files

O

Ohm's Law - Voltage across a conductor is directly proportional to the Resistance and Current flowing; $V = IR$

Onboard Audio - an embedded sound card system on a motherboard

Open-ended question - for obtaining general information, and not an expected yes-no response

Open-source - software/component that anyone can enhance, and modify

Optical drive - a disk drive that lets users play/write DVD/CD/Blu-Ray Discs

P

P-A-S-S - memory aid to remember fire extinguisher rules, Pull the pin- Aim at the base of fire- Squeeze the lever- Sweep the nozzle from side to side

Paper feed - automatic insertion of paper through the printer

Parallel Port - interface on PCs to connect peripheral devices

Partition - a section created on a storage device such as hard disk

Passive - a type of security attack where network traffic and data is monitored, recorded, and analyzed, no changes are done to them

PATA - Parallel Advanced Technology Attachment; technology to transmit data over parallel data channels between storage drives and motherboard

Patch - a change done to a software or application to fix bugs, vulnerabilities, or enhance performance

Patch management - the process of creating, installing, and testing patches on systems to address bugs, vulnerabilities, and errors

Patch panel - a hardware device which organizes/joins networks or devices together with its multiple ports/jacks

Patent - a license that ensures inventors complete ownership of their invention

PCB (Printed circuit board) - the motherboard

PCI - connects the CPU, memory and peripherals to a 32-bit working at 33 MHz. PCI supports bus mastering, IRQ steering, and Plug-and-Play. Later versions developed 64-bit operation and 66 MHz clock but were not widely adopted on desktop PCs.

PCI Expansion Bus - connects and provides input/output pathway between CPU and peripheral devices

PCI-X - Peripheral Component Interconnect eXtended is a type of system bus and interface standard, has higher bandwidth than the traditional PCI

PCIe - is an interface standard for connecting high-speed components. Every desktop PC motherboard has a number of PCIe slots you can use to add GPUs (aka video cards aka graphics cards), RAID cards, Wi-Fi cards or SSD (solid-state drive) add-on cards

PCIe Controller - a set of connection interfaces for high performance connectivity to motherboards, PCs and embedded systems

Performance Options - a Windows setting under advanced system settings and can be managed to adjust for best performance

Peripherals - Devices that connect to a computer, e.g. monitor, keyboard, mouse, etc.

Petabyte (PB) - data unit equal to 2^{50} bytes

Phishing - a malicious attack that looks legitimate, used to trick users into providing sensitive information or install malware

Physical Topologies - the connection infrastructure and cables used to connect physical devices in a network

Physical Topologies (Bus) - a topology with a single cable that connects all the devices, and has two endpoints; aka linear topology

Physical Topologies (Ring) - a ring like connection where each device has two neighboring connections

Physical Topologies (Star) - a topology where each device connects to a central node/hub

Physical Topologies (Mesh) - a topology where all devices connect to each other, like Point-2-point setup

Physical Topologies (Logical Topologies) - the ways a network is set up physically, but the messages are sent out in a different logical topology manner

Piggybacking - entering a secured area by following an authorized user

Pin grid array- a type of IC where cpu has the contact pins and drops into the holes of the socket, also known as zero insertion force socket

Ping - a command line utility that tests the reachability or connectivity of the host to an IP address

Piracy - crime of using/copying/distributing someone else's intellectual property

Plug and Play - when a device is connected via the port, Windows can identify the device and try to install a driver for it automatically

POP - Post Office Protocol is an application layer protocol that is used for email retrieval from an email server

POS (Point of Sale) - a set of devices including a computer, barcode scanner, thermal printer, display, and cash drawer to make up a cash register

Power over Ethernet (PoE) - systems that pass over electric and digital data on a single Ethernet cable to devices such as WAPs, Voip phones, etc.

Power over Ethernet (Injectors/switch) - a switch that is used to inject power to a PoE cabling for the devices connected to it

Power Supply - an electronic device that supplies power to the internal PC components, converts AC to low voltage DC power

Power surge - sudden increase in voltage supply, for a very short duration (nanoseconds)

Power/Panel - front panel leads are set of wires that connect the motherboard to the power, hard drive activity and other switches and LEDs

Principle of Least Privilege - level of access provided to users only based on need

Print Queue - the list of print jobs/files waiting for the printer

Privacy - ability of an individual or organization to choose what data or information is shared with third parties

Privacy filter - polarized sheet used to reduce screen visibility

Productivity Loss - the loss in productivity in case of IT systems failures

Programs & Features - a Windows utility that provides information and control on installed applications management

Proprietary - a software/component that the creator owns the intellectual rights to

PS/2 - a 6 pin mini-DIN connector that connects keyboards and mice to a compatible computer device

PSU - Power Supply Unit (refer to Power supply)

Punchdown tool - to terminate wires into termination blocks

PXE - Preboot Execution Environment, is a process of booting a networked computer from a remote server prior to the booting of the local operating system on that computer

Q

Quad Core - a CPU with four processing cores in a single IC chip

R

Radio Frequency Interference (RFI) - signals caused by devices such as cordless phones, microwave ovens that interfere with the network

RAID - Redundant Array of Independent/Inexpensive Disks is a technology to store data across multiple disks for redundancy

RAID 0 - RAID level 0 strips and distributes data across a minimum of two disks

RAID 1 - reads and writes the same data across a minimum of two disks and provides failover

RAID 5 - combines features of RAID 0 and 1 by striping data along with Parity block

RAID 10 - performs data striping and mirroring with a minimum of four disks, costliest of all Raid levels

RAM (Random Access Memory) - is the principal storage space for computer data and program instructions - being volatile in the sense that once power has been removed or the computer has been rebooted, data is lost

Ransomware - a malware that denies access to infected systems and demands a ransom to remove restricted access

Recovery - the process of obtaining lost, corrupted, destroyed, or formatted data from a secondary storage media

Regedit - Windows Registry Editor, a GUI tool to access and manage windows registry

Remote backup - process of backing up data and files on a remote location such as cloud through online connection

Remote Disc - a MacOS feature that allows users to access files stored on a CD/DVD plugged into another computer

Removable Storage - a media storage device that can be removed and transported easily, e.g. USB/flash drives, CD/DVD, external hard drives, etc.

Repeater - a replicating network device that simply regenerates and relays signals to avoid transmission loss

Replay - Similar to MitM attack, but used to record the intercepted information and replaying it back to the destination devices

Research - exploration of information, details, solutions, cost, etc for a product, service, issue pertaining to technology

Restore point - a Microsoft Windows feature that saves a snapshot of data, files, and system settings at a particular point in time for later recovery

Revenue Loss - a loss incurred due to potential customers choosing to get pirated versions of a product or service

Ribbon - a Microsoft Office user interface that has toolbars with buttons and tabs for graphical control elements

Riser card - a printed circuit board for compact motherboard or to provide additional slots for adapters

RJ11 - a type of 4-wire connector used in twisted pair cabling for telephone connections

RJ45 - a type of 8-wire connector used in twisted pair cabling for Ethernet and Ring token connections

ROM - Read Only Memory, a non-volatile memory where the data isn't lost when the device is turned off

Rootkits - a malware program used by hackers to gain administrative-level access to a device

Routers - a data/packet forwarding network device that navigates a path for the packets

S

S-Video - signaling standard for SD video, usually 480i or 576i

Safety Data Sheet (SDS) - A document containing the specifics of safe-handling and disposal of dangerous components

Sag - a sudden under-voltage supply that lasts milliseconds

SATA - Serial Advanced Technology Attachment is an interface to connect storage drives to a PC bus

Scareware - to make users believe that they have a malware with the intent to make them purchase fake antivirus software

Screwdriver - tool for screwing/unscrewing

SDRAM - Synchronous DRAM that is connected and operates in sync to the system clock

Search - usually where you see the magnifying glass

Sensors - a small device that detects changes or events and sends update signals to a specific component or processor

Serial ATA - Serial Advanced Technology Attachment, is a hardware interface to connect PC and storage devices/drives

Serial Port - a connector to attach a serial/bit-stream line between PC and peripherals

Server - is any computer providing services to other computers, but usually the term server implies a powerful computer that supports a number of users simultaneously in a network

Service pack - a group of updates to a software including patches, bug-fixes, and enhancements released together

Settings - a panel or utility that provides information and ways to manage the application, hardware, OS and other programs on a device

Shoulder surfing - looking over the shoulder of someone's device for information

SIMM - Single Inline Memory Module, is an older memory circuit that has 6-9 chips per board, with a 32 bit bus

Single Channel - a RAM that operates on one 64-bit data channel

Single Core - a single microprocessor chip

Smart Card - a card with a chip used to store private information in encrypted and safe form

Smart devices - Interactive and autonomous electronic gadgets

SMTP - Simple Mail Transfer Protocol, is a standard protocol for email communication

Social Engineer - an attacker who uses social engineering techniques such as phishing, spamming, or tailgating to gain access

Social Engineering - when an attacker tries to gain access to a system by tricking users into providing access information

SODIMM - Small Outline Dual Inline Memory Module, is a memory built with integrated circuits

Software Update - the process of replacing/upgrading a software with its newer version

Soldering - joining two components together using a melted filler material

Spam - a junk email used for advertising, or sending malicious contents

Speakers - audio output to a set of speakers, which may be integrated into the device itself or plugged into an external connector. On a desktop system, speakers can be connect using a USB cable, an audio jack or a wireless connection.

Spear-Phishing - the act of creating phishing attacks targeted towards a specific target or individual in an organization

Speed and transmission limitations - the communication distance and maximum possible speed for data transmission for various media

Spike - sudden rise in voltage for a short duration, usually caused by lightning strikes

Spoofing - an attack where a computer pretends to be another device to gain resource access, usually by forging MAC or IP addresses

Spotlight - a feature in MacOS and iOS that helps perform a system wide search

SPS, Standby Power Supply - a device that provides a standby battery to provide backup during voltage outage

Spyware - a malware similar to adware, but collects and sends browsing

or sensitive user data to the attacker without the user's knowledge

SRAM - Static Random Access Memory, is a volatile memory with on-chip memory for small access time

SSD (Solid State Drive) - RAM only works while power is on, when the computer is turned off, programs and data are stored on a HDD or SSD

SSH (Secure Shell) - SSH protocol is a network protocol used for secured access and communication over an unsecured network

Start - a button in windows GUI that allows access to programs, settings, and other applications/utility on a computer

Static IP - an IP address that is assigned permanently to a device

Stereo/headphones - headphones capable of playing distinct audio in the left and right speakers

Subnet Mask - a numeric pattern that separates the network id from the host address

Surface Mounted - the item sits directly on top of the surface/socket it's mounted on

Surge protector - a device that switches off systems to protect from over-voltages

Surge suppressor - a device that suppresses surge and protects systems from damage from a power surge

Surround Sound - sending several audio signals to different speakers around a space to produce enriched sound systems

Switches (managed/unmanaged) - a network device that connects systems and redirects data on a network.

Unmanaged- a basic switch with plug-n-play functionality.

Managed- a switch with advanced control features such as managing, controlling LAN settings.

Syn Flood - an attack where multiple SYN requests flood a web server, thereby denying TCP sessions to valid users

SYN request - initial request sent to request a TCP session with a web server

System Explorer - an advanced Windows Task Manager utility that provides additional functionality

System Preferences - a MacOs application for viewing/updating system settings

System restore - the process of reverting a PC to an original or old state/version

T

Tablet - a small portable computer with a touch screen

Tailgating - an act of gaining access to restricted areas and systems by following an authorized user

Task Manager - a windows OS component that provides information about the current processes and applications on a PC

Task scheduler - Microsoft Windows component used to schedule programs or scripts

Taskbar - a GUI component that shows information and/or provides access to open applications in a PC

TCO (Total Cost of Ownership) - to estimate the direct and indirect cost of a system or network

TCP - Transmission Control Protocol is a standard for establishing network connections for data transmission

TCP/IP - Transmission Control Protocol/Internet Protocol is a suite of protocols to connect and transmit data over the Internet

Telnet - a client-server protocol to start a bidirectional/command line text interaction over a LAN or Internet

Temperature level - ideal temperature for devices is between 45 - 90 degrees Fahrenheit

Terabyte (TB) - 1024 GigaBytes or 10^{12} bytes

Terminal - a. Devices that help users input to or receive output from a system, ex. Keyboard, monitor, etc.

b. An interface to access the command line

Thick client - a fully functional computer system that can operate independently

Thin client - an optimized computer system that depends on remote servers for major functions such as data storage

Third party applications - applications provided by manufacturers different from the device manufacturer

Time machine - a software application used for creating backups on a MacOS

TKIP - Temporal Key Integrity Protocol is an IEEE 802.11 WLAN security/encryption protocol

Toner Cartridge - cartridges used in laser printers and contain powder instead of ink

Toner Generator & Probe - two-part tool used to trace cables for connection issues

Traceroute - another name for the tracert command

Tracert - a command line command that shows the path a packet follows to reach from a source to a destination

Tracking services - services that enable device tracking and locating in case of theft, may also offer remote locking, data-wiping, device-disabling

Transceiver - a device that transmits and receives data

Trays - also known as system trays; part of the taskbar in a windows desktop, which displays clock and certain icons

Triple Channel - an architecture used in intel Core i7-900 processors, where three /multiples of three memory modules are placed in three-channel slots

Trojan Horse - a malware program that looks useful but is malicious

Trolling - act of provoking users online often through offensive posts, and arguments

U

UDP - User Datagram Protocol is a connectionless and unreliable Transport Layer protocol

UEFI - Unified Extensible Firmware Interface

UPS - Uninterruptible Power Supply, a device that provides consistent voltage supply during blackout, brownouts, etc.

USB (Universal Serial Bus) - the standard means of connecting peripheral devices to a computer

USB A - for connection to the host. Universal Serial Bus (USB) Type A connectors are rectangular in shape. One end is typically plugged directly into the computer, and the other is plugged into a peripheral device. They are designed for devices that may be plugged in and out frequently, such as keyboards, mice, cameras, flash drives, and external hard drives.

User Account Control - a Windows security feature that prevents unauthorized changes to the operating system

User Profiles - a digital representation of user data or information

Utilities - softwares that provides additional functionality to a device for better performance

V

VGA (Video Graphics Array) - A 15-pin HD connector has been used to connect the graphics adapter to a monitor - fast becoming obsolete The Video Graphics Array (VGA) connector is used to connect older monitors to a computer. You can identify this connector by its blue color and three rows of pins.

Virtualization - creation of virtual resources like operating system, storage, desktop, server, etc.

Virus - a malware that attacks a system by replicating when activated, transferred through email, USB drives, file transfer, etc.

VLAN - Virtual Local Area Network, a custom network that combines multiple wired/wireless networks into a single logical network

VoIP - a technology that provides voice service over computer networks, compared to traditional telephony services

Volatile - in context to technology, it refers to a memory that is lost or erased when the device is unplugged

VPN -Virtual Private Network, used to create secured connections to other networks over the Internet

W

WEP - Wired Equivalent Protocol is a security protocol in IEEE standard 802.11b, to provide security and privacy to WLAN

White-hat hacker - an authorized hacker who works with an organization to help strengthen the latter's security system. Also called as ethical hackers

Windows Explorer - the file management application in Windows, also known as file explorer, used for navigation of the folders/subfolders in a computer's hard drive

Windows Update - service from Microsoft for operating systems to download Microsoft Software updates over the Internet

Wire Stripper - tool used to remove insulation from wires

Wired - uses an Ethernet port to connect to the internet (RJ 45)

Wireless - uses Wi-Fi radio networking

Workgroup - group of systems that share data over a network

Worm - self-replicating malware, attacks network operations and spreads by exploiting software vulnerabilities; doesn't require an activation mechanism

WPA - WiFi Protected Access is a protocol for secured wireless networks

WPA2 - WiFi Protected Access is a protocol that adds security to WPA for stronger data protection and access control

WWAN - Wireless Wide Area Network uses mobile telecommunication cellular network technologies such as 2G, 3G, 4G, 5G

Y

Yottabyte (YB) - Unit of data which is equal to one septillion (10^{24}), or 2^{80} bytes

Z

Zero-Day attack - an attack that exploits a system's vulnerabilities that the vendor is unaware of

Zettabyte (ZB) - Unit of data equal to one sextillion bytes (10^{21})

ZIF (Zero Insertion Force) - a type of IC socket or connector that connects or inserts with very less force

Zombie - a device infected by a trojan, and controlled by a remote master