

IT Foundations - C393

Sunday, August 9, 2020 8:07 PM

- Bios - Basic input/ Output System
 - o Stored in NVRAM
 - o Basic OS of the system
- Buffered, or registered memory modules (RDIMMs), include specialized chips that act as buffers for all signals from the memory controller, except in some cases the data signals. By buffering these signals, the electrical load placed on the controller is reduced because the memory controller communicates in series with the register instead of in parallel with the memory chips.
- Your company has various partners that you want to share common information without compromising security you would use the community cloud model.
- To enhance your performance in virtualization of workstations you would increase CPU cores and RAM.
- Switches And Bridges operate at the data link layer of the OSI model
- If you turn off windows firewall and you still can't reach a port your antivirus software is most likely blocking the incoming connection.
- Fitness monitors provide 24/7 diagnostics and often come with an OHRM
- After you test the theory to determine the actual cause you would develop a plan of action for repair.
- If you want to employ raid and implement disk mirroring you would use RAID 1
- NFC card emulation mode allows you to make payments to a merchant whom uses NFC.
- NTFS with a 64KB cluster size has a Max Volume supported size of 256 TB
- If you are getting a faded printout in a laser printer you are most likely low on toner level
- SMB is the protocol used for file sharing across MAC and Windows OS
- Cloud virtualizations benefits include minimized or eliminated downtime, simplified data center management and reduced capital of operating cost.
- OLED has the best range of visible colors
- When you are troubleshooting you should implement preventative measures in the verify full system functionality step.
- There are 6 Steps in the CompTIA troubleshooting theory
 - o Step one - Identify the Problem
 - o Step Two - Establish a theory of probable cause
 - o Step three - Test the theory to determine the cause
 - o Step four - Establish a plan of action to resolve the problem, and implement a solution.
 - o Step Five - Verify full systems functionality and if applicable implement preventive measures
 - o Step Six - Document Findings, actions and outcomes.
- In order to establish a theory of probable cause in troubleshooting you must conduct research based on the symptoms.
- SMPS - Switched-Mode power supply
- Athlon X4 CPUs use a FM2+ Socket
- Socket B processors have 1366 pins
- Nano-ITX motherboard form factor only supports mini-PCIe and Laptop Ram slots
- By default a PCIe expansion slot will pull 75 watts of power.
- 24-Pin-atx Connector supply's power to a motherboard
- When selecting a PSU for a computer the efficiency rating is not a major factor.
- A 15-pin SATA is a power supply connector which supplies power to SATA-based hard and optical drives
- DDR 4 2400 RAM has a transfer rate of 19.2 GB/sec
- The error correction code (ECC) is a more advanced version of parity that uses an algorithm to encode information into a block of bits.

- Advanced configuration power interface (ACPI) allows the operating system to control the amount of power given to each device and to power down when not in use.
- RS-232 is a low-speed serial connector found in old PCs and is used for mice, modems and various other devices.
- Micro USB A connector is used for on-the-go devices such as cellphones, GPS and PDAs.
- DVI-I single-Link is a 18 pin connector designed to carry both digital and analog signals allowing for one TMDS link.
- USB physical interface standard is used to connect up to 127 peripheral devices to a computer.
- NFC (near Field Communication) is designed to allow two devices to communicate temporarily over short distances and only one device even needs to be powered.
- Express card technology was replaced by Thunderbolt
- USB Mini B is a small five pin connector used for mobile devices.
- Sectors of a drive represent the smallest addressable unit.
- Compact Flash is the solid state memory card standard used mainly in portable electronic devices.
- Blu-ray BD-XL quadruple-layer optical discs can hold 128GB
- SDXC or Secure Digital eXtended Capacity memory cards can hold a max of 2TB
- SCSI or Small Computer Systems interface is a set of standards for physically connecting and transferring data between computers and peripheral devices.
- SDIO or Secure Digital Input Output is a type of secure digital card interface which can be used as an interface for input and output devices.
- Surface acoustic wave touch screens use a glass panel with a receiving and sending transducer mounted along the sides of a panel.
- Plasma is a flat panel screen that uses small cells filled with noble gases and phosphors to create color.
- Digital Light Processing (DLP) uses a single chip with a reflective surface composed of thousands of tiny mirrors corresponding to individual pixels.
- The substrate layer of an OLED acts as the structural framework. Red, green, and blue tinted plastic layers are added to the substrate to produce color.
- Passive Matrix uses a grid of horizontal and vertical wires with an LCD element at each intersection
- IPS or In-Plane Switching allows polarized crystals to move more freely into the desired alignment of LCD screens.
- HSPA+ is one of the fastest widely deployed 3G technologies, it supports data rates up to 84Mbps down and 22Mbps upstream using MIMO.
- A hub is a simple networking device that lets you connect multiple nodes in a star configuration.
- RG-11 Cables are used for long distance and underground cable installations
- The best solution to resolve the attenuation problem is to segment the cables with repeaters.
- RG-8 cable is used in 10BASE5 "Thicknet" ethernet.
- The Buffer in fiber optic cable strengthens and protects the fiber itself but does not affect its optical properties.
- In IPv6 Leading Zeros in a group do not need to be displayed, Multiple consecutive zeros in a group are displayed as :0:
- 0.0.0.0 is a non-routable address. It is usually used to indicate a default route, or all addresses but is not a routable IP
- 802.1x is WPA-Enterprise
- SNAT or source network address translation changes the source address of outgoing packets. It works best for the local client systems which initiate connections with outside servers, but don't usually receive incoming connections.
- z-Wave supports throughput up to 40kbps over distances of 10-100 meters
- ZigBee is an open standard based on the IEEE 802.15.4 PAN Standards. It operates at 2.4 GHz and 915 MHz bands being the most common.
- A demilitarized zone (DMZ) refers to a host or network that acts as a secure and intermediate network or path between an organizations internal network and the external.

- Platform as a service (PaaS) is a cloud service model that is used to develop and host web-based applications.
- Windows Virtual PC is an example of a Hosted Hypervisor.
- Rapid elasticity is the ability to quickly increase or decrease the amount of resources required from a cloud service provider.
- Messaging application programming interface (MAPI) usually uses TCP port 135
- The probable cause of the flickering display in a mobile device is improper display settings or drivers.
- ANT+ is a wireless tech that can be used for connecting to other devices and accessories most commonly Mobile wearable devices.
- PDF or portable document format file preserves the precise format of a document so that it will look the same on any display device as it would appear on printed paper.
- At the developing stage of the laser printing process, the drum passes by a developing roller covered in toner.
- Impact Printers use continuous form of paper arranged into a roll or folded stack.
- At the exposing stage of the laser printing process, the laser projects the image on the photosensitive drum.
- The thermal transfer printing technology uses ribbon printer cartridges containing waxy ink.
- An Audio/Video editing workstation requires specialized audio and video cards with multi monitor support.
- The maximum transfer speed of a USB 1.1 is 12 Mbps.
- Three types of DVI are DVI-D, DVI-A and DVI-I
- USB hubs have a maximum of 127 devices when daisy-chained together.
- Drive thrashing occurs when an excessive amount of data is moved between RAM and the paging file.
- The four factors that affect drive thrashing are Hard drive, memory, paging file and the running process.
- Single sided dual layer DVDs hold 8.5 GB of storage.
- Single Sided single layer disks hold 4.7 GB of data.
- SATA stands for Serial Advanced Technology Attachment
- RAID stands for Redundant array of independent disks
- Network bridge separates network traffic into segments And connects similar networks.
- Network hubs are layer 1 devices
- A brouter is a combination device of a bridge and a router.
- RDP uses port 3389
- Telnet uses port 23
- LDAP uses port 389
- SMTP uses port 25
- IMAP uses port 143
- POP3 uses port 110
- FTP uses BOTH ports 20 and 21
- AFP uses port 427 and 548
- Touch flow and multi touch are two primary touch technologies used in mobile devices
- ACPI is advanced configuration and power Interface
- SMTP email servers can be configured as outgoing e-mail servers
- Push sync occurs automatically
- RG6 Coaxial Cabling is thicker than RG59 Coaxial Cable
- Shared Video Memory can cause system memory to be reported lower than the actual physical memory
- IPV6 Improves the ip header option allowing for more efficient forwarding it also allows some header fields to be dropped or made optional
- Laser Printers that print vertical black lines near the edges should replace the toner cartridge.
- If a user wants to print multipart forms they should use a dot matrix printer.

- After clearing a paper jam and the jam is still indicated on the printer you would physically open and close the top assembly.
- DDS-3 and DVD+r can transport a 11000 MB file
- The memory and CPU are the components required to past a POST.
- SDRAM fetches 4 bits of data per cycle clock and uses 1.8v to operate.
- AMD Opteron processors are not supported in FM1 Sockets
- Ram that uses 128 wires is Dual channel RAM
- If pages come out of a laser printer and they have toner that you can brush off you should replace the fuser assembly.
- If faint images come out of a laser printer you should replace the discharge lamp and the cleaning blade.
- If you don't want a wfi NIC to send probe requests you should disable the connect even if the network is not broadcasting option.
- 10BaseF supports the longest maximum cable length of the following choices. 10BaseF, 100BaseT, 10Base5 and 10Base2
- Memory is not important to verify compatibility for 64 bit architecture.
- A photosensitive drum and a electrostatically charged toner are not included in the toner cartridge
- IBM one long beep and one short beep indicates to check the motherboard.
- If a screen is flickering configure the monitor to use a higher refresh rate.
- First step of replacing a hard drive after you install it into the PC is change the HD config in the computers BIOS.
- Surface acoustic Wave screens are glass panels with a receiving and sending transducer mounted along the side of the panels
- Plasma screens use small cells filled with noble gases and phosphors to create color
- DLP screens use a single chip with a reflective surface composed of thousands of tiny mirrors corresponding to individual pixels
- Passive matrix uses grid and horizontal and vertical wires with an LCD element at each intersection.
- In-plane switching or IPS allows the polarized crystals in a LCD display to move more freely into the desired alignment.
- The Substrate layer of an OLED acts as the structural framework.
- 3G HSPA+ provides a data rate of 84Mbps down and 22 Mbps Up using MIMO Tech
- A Hub is a networking device that allows you to connect multiple nodes in a star config.
- RG-11 is used for long distance drops and underground cables.
- The Buffer of a Fiber optic cable protects the fiber and provides strength but does not affect its optical properties.
- RG-8 cable is the standard used by 10BASE5 "Thicknet" ethernet.
- SMB uses port 445
- SO-DIMM - Small outline Dual in-line Memory module (LAPTOP)
- Micro-DIMM - Micro-Dual in-line memory module (LAPTOP)
- ATM (asynchronous transfer mode) circuits operate at the network interface Layer.
- MBR is a small program that is read into memory and executed after the bios bootup.
- If installing Hyper-V fails you should check the virtualization support settings.
- AM3 processors are compatible in AM3+ ports
- ATX motherboards can support a maximum of seven expansion slots.