Lab - Investigate BIOS or UEFI Settings

Introduction

In this lab, you will boot the computer, explore the firmware setup utility program, and change the boot order sequence.

Recommended Equipment

- Computer with or without operating system
- Motherboard manual

Instructions

Part 1: Enter BIOS or UEFI.

Step 1: Power on the computer.

a. Plug the power supply cable into an AC wall outlet.

b. If there is a power switch on the power supply, set the switch to “1” or “on”.

c. Turn on the computer with the power button on the front panel.

Note: If the computer beeps more than once, or if the power does not come on, notify your instructor.

Step 2: Enter the firmware setup program.

During POST, press the firmware setup key or key combination. The firmware setup utility program screen will appear.

Questions:

What is the key or combination of keys used to enter the firmware setup utility program?

- F11

Who manufactures the BIOS or UEFI system for your computer?

- Micro-Star International (MSI)

What is the BIOS or UEFI version?

- 7A68vA7

Part 2: Explore the Settings.

Step 1: List the main menu options.

Question:

List the main menu options and describe what is monitored in each menu?

- CPU Menu - Shows the current temperature and speed the CPU is running on
- Memory - Shows which slots are being used, how much RAM they have, and how fast they are running.
- Storage - Shows available storage devices, their storage capacity, and what SATA port they occupy.
- Fan Info - Shows how fast the fans in the pc are running and their settings.

Find the security settings.

Navigate through each screen to find the security settings.

Question:

What security settings and features are available?

- The security settings that are available are Administrator password, Trusted Computing, and Chassis intrution.

Step 2: Find the CPU settings.

Navigate through each screen to find the CPU settings.

Questions:

What is the CPU speed?

- The speed of my CPU is 3.2 Ghz

What other information is listed for the CPU?

- The temperature the CPU is currently running
- The manufacturer of the CPU

Step 3: Find the RAM settings.

Navigate through each screen to find the RAM settings.

Questions:

What is the RAM speed?

- The speed of my RAM is 2133MHz

What other information is listed for the RAM?

- That it has 8 GB of RAM each
- The brand that manufactured the RAM stick
- What XMP Profile my BIOS is currently running

Step 4: Find the hard drive settings.

Navigate through each screen to find the hard drive settings.

Questions:

What information is listed for the hard drive?

- It has 1024.2GB
- It is installed on SATA Port 5

Step 5: Find the boot order sequence.

Navigate through each screen to find the boot order sequence.

Questions:

What is the first boot device in the boot order sequence?

- UEFI Hard Disk: Windows Boot Manager (Ramsta SSD S800 1TB)

How many additional devices can be assigned in the boot order sequence?

- 12 more devices can be assigned in the boot order.

Step 6: Set the device boot order settings.

a. Ensure that the first boot order device is the optical drive.

b. Ensure that the second boot order device is the hard disk drive.

Questions:

Why would you change the first boot device to the optical drive?

Type your answers here.

What happens when the computer boots and the optical drive does not contain bootable media?

Type your answers here.

Step 7: Find the power management setup or ACPI screen.

Navigate through each screen to find the power management setup screen, or ACPI screen.

Question:

What power management settings are available?

- Power LED in which I can change if its blinking or dual color.

Step 8: Find the PnP settings.

Navigate through each screen to find the PnP settings.

Question:

What PnP settings are available?

- There is no PnP settings available.

Step 9: Find the splash screen settings.

Navigate through each screen to find the splash screen settings.

Question:

What splash screen settings are available?

- There is no splash screen setting available

Step 10: Save and exit the setup utility program.

Save the new BIOS/UEFI settings and exit the setup utility program. The computer should restart automatically.

Note: An error message stating that an OS cannot be found (or a similar error) will appear on the screen after the computer boots. An operating system must now be installed to prevent this error. It is safe to turn off the computer at this time.

This lab is complete. Please have the instructor verify your work.