2.4 Lab: Set up an A/V Workstation

Candidate: Deepa Ponnusamy ()
Time Spent: 40:41

Score: 100%

Task Summary

Required Actions

✔ Select and install a dual monitor capable video card

✔ Install three hard drives

✔ Connect the original monitor to the new video card

✔ Connect a second monitor

✔ Set the SATA Operation mode in the BIOS to RAID on

✔ Create a RAID5 array with three disks

Explanation

Complete this lab as follows:

1. Select and install the video card.
   a. Above the computer, select the change view icon, then select **Motherboard** to switch to the motherboard view of the computer.
   b. Under Inventory, expand **GPUs/Expansion Cards**.
   c. Drag the **Video Adapter, DVI-I, HDMI, Crossfire, PCIe** to the PCIe slot on the computer.
   d. Select the **power supply**.
   e. From the Selected Item pane, drag the **Connector, Power Supply, 6-pin PCIe** power connector into the video card power slot.
   f. Select **GPUs/Expansion Cards** to return to the main Inventory list.

2. Install three hard drives (the minimum needed) for the RAID5 array.
   a. Under Inventory, expand **Storage**.
   b. Drag all three **hard drives** to a free 3.5" drive bay.
   c. Under Inventory, expand **Cables**.
   d. Select a **Cable, SATA**, and from the *Selected Item* pane:

      ▪ Drag an unconnected **SATA connector** to a hard drive.
      ▪ Drag the other unconnected **SATA connector** to an open SATA port on the motherboard.

   e. Repeat these steps to connect cables to the other two hard drives.
   f. Select the *partial Connections* icon by the computer, then select the **power supply**.
   g. From the Selected Item pane, drag an unconnected **SATA power connector** to a hard drive.

       h. Repeat the process for the remaining drives.
       i. Select **Cables** under Inventory to return to the main list.

3. Connect the original monitor to the new video card.
    a. Above the computer, select the change view icon, then select **Back**.
    b. On the computer, drag the **DVI connector** from the built-in video connector to the new video card in the computer.

4. Connect a second monitor.
    a. Under Inventory, expand **Peripherals**.
    b. Drag the **Monitor** to the left of the desktop.
    c. Above the left monitor, select the change view icon, then select **Back**.
    d. Under Inventory, expand **Cables**.
    e. Select the **HDMI to HDMI Cable**.
    f. From the Selected Item pane:

- Drag an **HDMI Connector** to the new video card in the computer.
- Drag the unconnected **HDMI Connector** to the HDMI port on the left monitor.

    g. Under Inventory, select the **AC Power Cable**.
    h. From the Selected Item pane:

- Connect the **Female AC Power Connector** to the left monitor.
- Connect the **Male AC Power Connector** to a wall outlet.

    i. Above the left monitor, select the change view icon, then select **Front**.
    j. Select the **Power button** to power on the left monitor.

5. Power on the computer and enable RAID in the BIOS settings.
    a. Above the computer, select the Change View icon, then select **Front**.
    b. Select the **power** button to turn on the computer.
    c. As the computer boots, press **F2** (or **Delete**) to enter the BIOS setup program.
    d. From the left menu, expand **System Configuration**.
    e. Select **SATA Operation**.
    f. From the right pane, select **RAID On**.
    g. Select **Apply**.

6. Exit BIOS and configure the RAID array.
    a. Select **Exit** to restart the system.
    b. After the system boots and the BIOS loads, the RAID controller will load.
    c. When the RAID message screen displays, press **Ctrl + I** (i).
    d. With *Create RAID Volume* highlighted, press **Enter**.
    e. On the *Name* field, press **Enter**.
    f. On the RAID Level field, use the **up and down arrow keys** to select **RAID5 (Parity)**.
    g. Press **Enter**.
    h. With *Select Disks* highlighted, press **Enter**.
    i. Use the **up and down arrow keys** to traverse the list and the **spacebar** to select a drive.
    j. Select all three drives with the *model number WD800JD* and press **Enter**.
    k. Press the **Tab** key.
    l. Verify that the *Strip size* is **128 KB**. If needed, use the up and down arrows to set the value.
   m. Press **Enter**.
    n. Press **Enter** to accept the default capacity.
    o. With *Create Volume* highlighted, press **Enter**.
    p. Press **Y** to continue creating the volume.
    q. Press the escape key (**Esc**).
    r. Press **Y** to exit.