



HANDBOOK FOR THE MOBYL DATA CENTER 8



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HANDBOOK FOR THE **MOBYL DATA CENTER 8**

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Introduction

The Mobyl Data Center 8 comes equipped with 8 BioDigitalPC[®]/MobylPC[™] server docking stations, an integrated Cisco RV325 router, and an integrated Adaptec 6405E RAID Controller card connected to 2 x 2TB SSDs, with an option for 2 x 4TB SSDs.

The MDC-8 can be scaled from 1 to 8 servers simply by plugging more BioDigitalPC[®]/MobylPC[™] server cards into available slots. You can accommodate ever changing field requirements in minimal physical storage space. Adding a node to the MDC-8 is as simple as plugging in another credit card sized BioDigitalPC[®]/MobylPC[™] server card and configuring it to your network parameters.

The MDC-8 allows for hot swapping the BioDigitalPC[®]/MobylPC[™] server cards. When completely scaled out, the MDC-8 allows for 8 BioDigitalPC[®]/MobylPC[™] server cards containing a total of 8 to 32 CPU cores, up to 64 CPU threads, 32 to 256GB DDR4 RAM, up to 8TB of onboard ultra-fast NVMe SSD storage, and comes with 4TB (2 x 2TB) of expanded SSD storage in a RAID configuration, with an option for 8TB (2 x 4TB).

Operation



To begin using the MDC-8 you must insert the BioDigitalPC®/MobyIPC™ server card(s).

To do this, you must move the card holder out of the way.

Pull the card holder straight out and rotate 90°.



Power On/Off



Plug in the supplied AC to DC power supply into the 12-36 VDC power connector.



Push the PWR button to turn the MDC-8 on.



To power down the MDC-8, press the PWR button for 3 seconds.

Input/Output



Keyboard

Plug the keyboard into an available USB port for the corresponding card slot.

Video

Plug the monitor's Mini DisplayPort connector into the Mini DisplayPort for the corresponding card slot.

Mouse

Plug the mouse into an available USB port for the corresponding card slot.

Reset Button

Access the recessed RESET button with a paperclip or toothpick. Briefly depress recessed RESET button to perform a reset.

Input/Output



The red PWR LED indicates power and is applied to the MDC-8 card slots.

The green PC LED indicates a card is inserted in the MDC-8 card slot.

The green network LED indicates network activity for the MDC-8 card slot.



Located on the front of the MDC-8 you will find a 1Gb WAN port and 1Gb DMZ/WAN port. These allow for a dual WAN scenario. You may also configure the DMZ/WAN port as a DMZ for public facing services. The MDC-8 also contains 6 internal LAN ports. These LAN ports can be routed to the front panel connectors if requested or needed,

Network

To connect to your network

1. Find the ports on the front of the MDC-8
2. Plug in an Ethernet cable to the WAN port

3G/4G Modem Connection

Located on the left hand side of the MDC-8 is a USB 2.0 connection for the router. This USB connection allows for 3G/4G modems for a backup internet connection.

Additional Storage

The MDC-8 comes with up to 8TB of expanded storage. This storage is optional and can be added or removed.

ALL EXPANDED STORAGE IS CONNECTED THROUGH A BIODIGITALPC /MOBYLPC CARD CONNECTED TO SLOT 8.

Removing & Inserting Additional Storage

Removing Hard Drive

1. Find the MDC-8 hard drive bays on the front of the unit to either side of the PWR button.
2. Unscrew the hard drive bays thumb screw.
3. Push on the hard drive lever.
4. Pull the hard drive lever straight out.

Inserting Hard Drive

1. Push the hard drive squarely into the hard drive slot.
2. Push the hard drive lever back down.
3. Close the hard drive bay door.
4. Screw in thumb screw.

You also have the option to add additional storage through the network.

Additional storage is also available through the USB 3.0 connectors. The connectors are located in a vertical column between the server card slots.



MDC-8 SSD Mounting Bracket Installation

Materials

- SSD mounting bracket
- Screws (provided with the bracket or SSD)
- Screw driver (usually Phillips)
- Your SSD

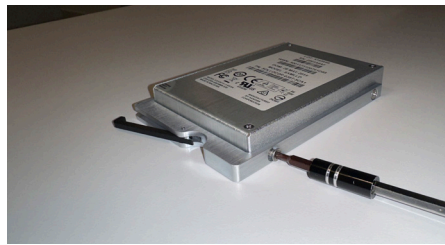
Instructions

1. **Turn off the computer:** Power down your PC and unplug it from the power source. Ground yourself to avoid static discharge.
2. **Open the front SSD panel:** Loosen the thumb screw then pull down the hinged door.
3. **Locate the 2.5" drive bay:** SSDs are typically 2.5", so you'll be mounting it into a 2.5" bay using the bracket. Find an empty 2.5" bay in your case.



4. Attach the SSD to the bracket:

- Position the SSD inside the bracket so the screw holes on the sides of the SSD align with the holes in the bracket.
- Use the provided screws to secure the SSD to the bracket.



5. Mount the bracket into the case:

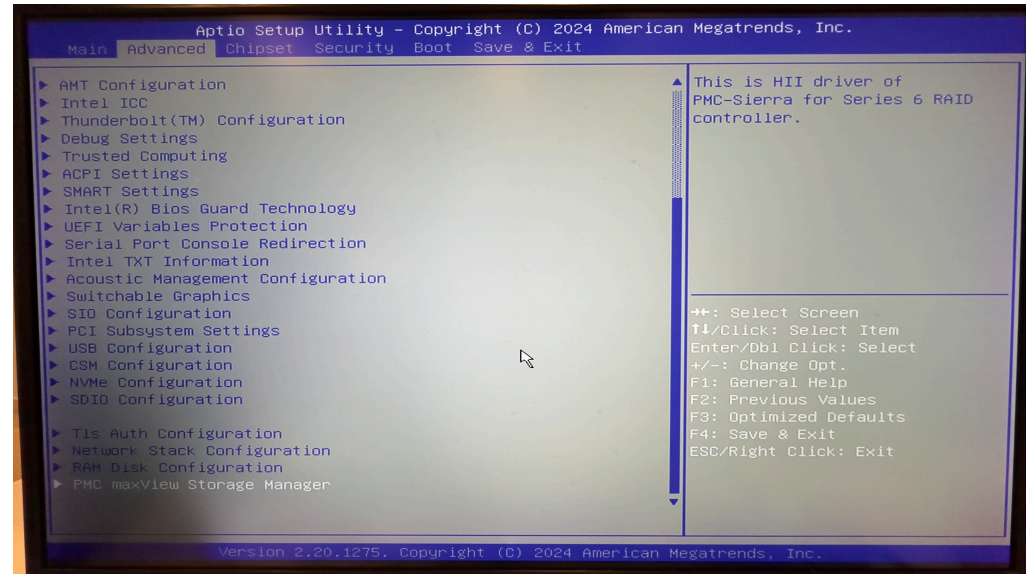
- Place the bracket (with the SSD attached) into the 2.5" drive bay. Align the bracket into the bay



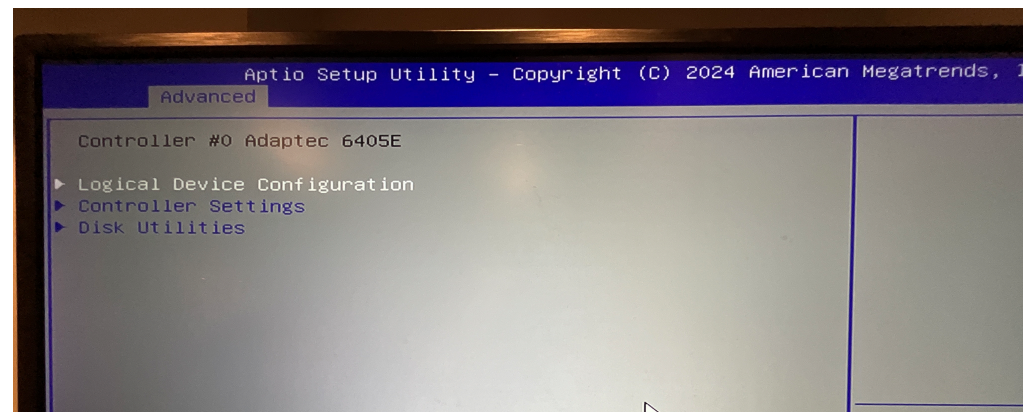
Configuring RAID on MDC-8

PC12X

- Go into BIOS, look for the "**Advanced Tab**"
- Scroll to the bottom of the "Advanced Tab", look for "**PMC maxView Storage Manager**" and press Enter

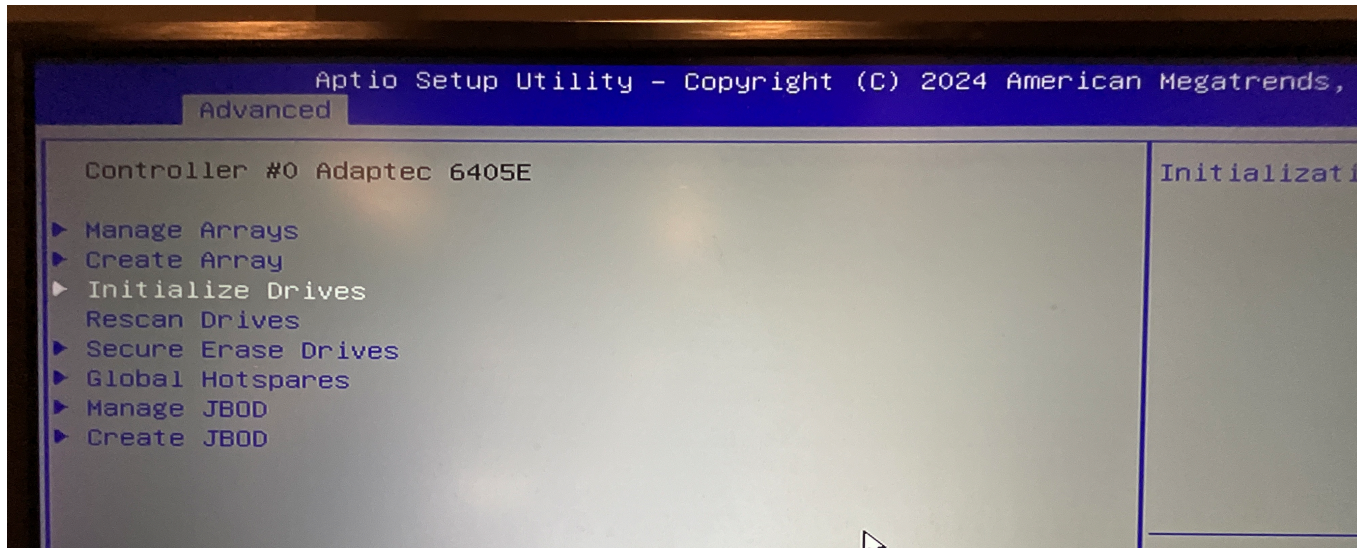


- Select "**Scan for Controllers**"
- Select "**Controller #0 Adaptec 6405E**"
- Brings you to a menu of 3 options
 - Logical Devices Configuration
 - Controllers Settings
 - Disk Utilities
- Begin Array, JBOD configuration by selecting "**Logical Device Configuration**"



Initialize Drives: Select Desired Drives on Screen and change Disabled to Enabled, finalize by selecting **SUBMIT**

Warning Initialization will erase data



Select desired configuration *** Always initialize first before array or JBOD setup***

Create Array

- Select desired Drive(S): change drive(s) from **Disabled** to **Enabled**. To finalize, select "**PROCEED**" ***image 1**
- After selecting "**PROCEED**" it'll bring you to [Array Type]: **SIMPLE_VOL**, **RAID 0**, **RAID 1**. Select desired Array then select "**PROCEED**" ***image 2**
- Select desired settings, select **SUBMIT** ***image 3**

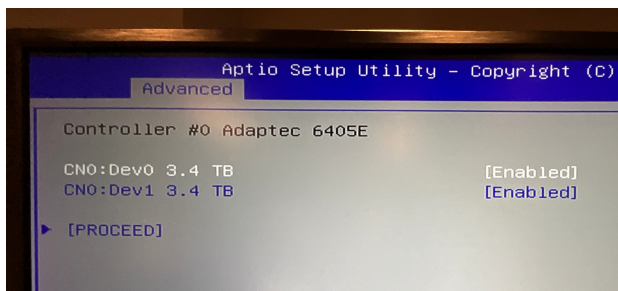


image 1

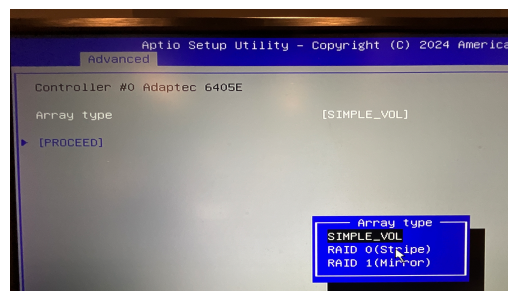


image 2

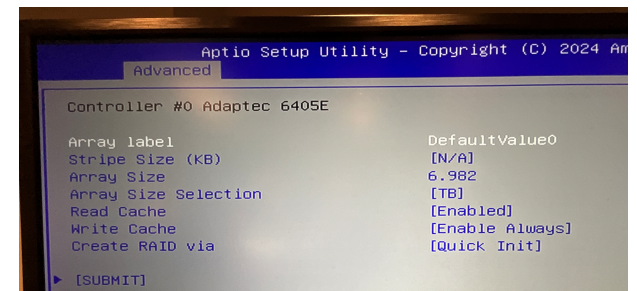


image 3

Create JBOD

- Select desired Drive(s): change drive(s) from **Disabled** to **Enabled**. To finalize, select **SUBMIT**

