

SKY-8134DU

10/31th, 2023



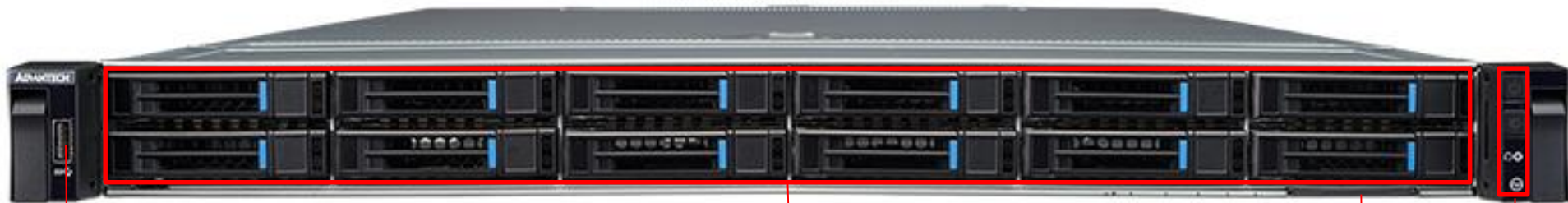
History

Version	Date	Handled by	Note
V01	2023/10/31	Alan.Ku	Update Content

Agenda

- Server Front Side
- Server Rear Side
- DIMMs Population
- Access the device via console
- WebUI Access
- OS installation

Server Front Side [1/6] – Overview



USB 3.2

12 x NVMe/SATA3 2.5' trays

Service Tag

- POWER BUTTON : Blue color, indicate the system power state.
- ID BUTTON : Blue color, allow users to identify the system.
- RESET BUTTON : Hard reset the system.
- STATUS LED : Red color, indicate system events asserted.

Server Front Side [2/6]-Storage Swap

- ❑ Step #1 Press the button



- ❑ Step #2 Tray handle will be released



- ❑ Step #3 Grab the tray handle and pull it evenly towards you



Server Front Side [2/6]-Storage Swap

- ❑ Step #4 Install the drive with four screws contained in the disk screw kit



- ❑ Step #4 Insert the tray into the disk bay until the drive engages with the connector on the HDD backplane. Then, click the handle back to the tray.

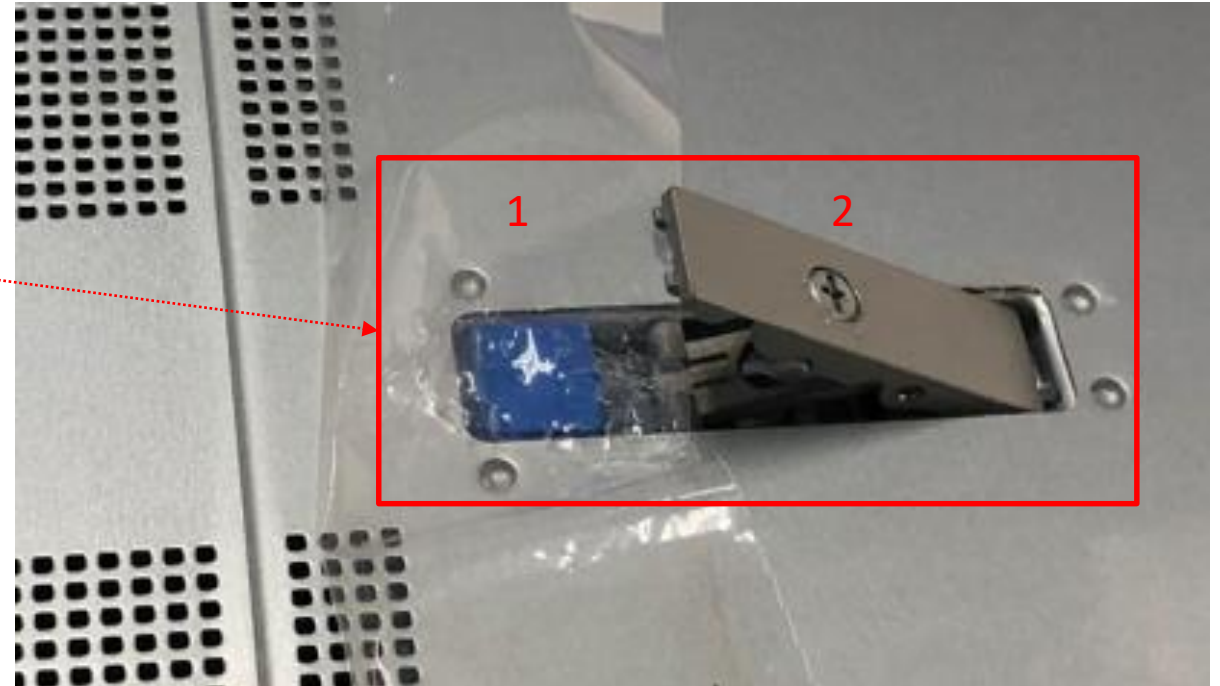
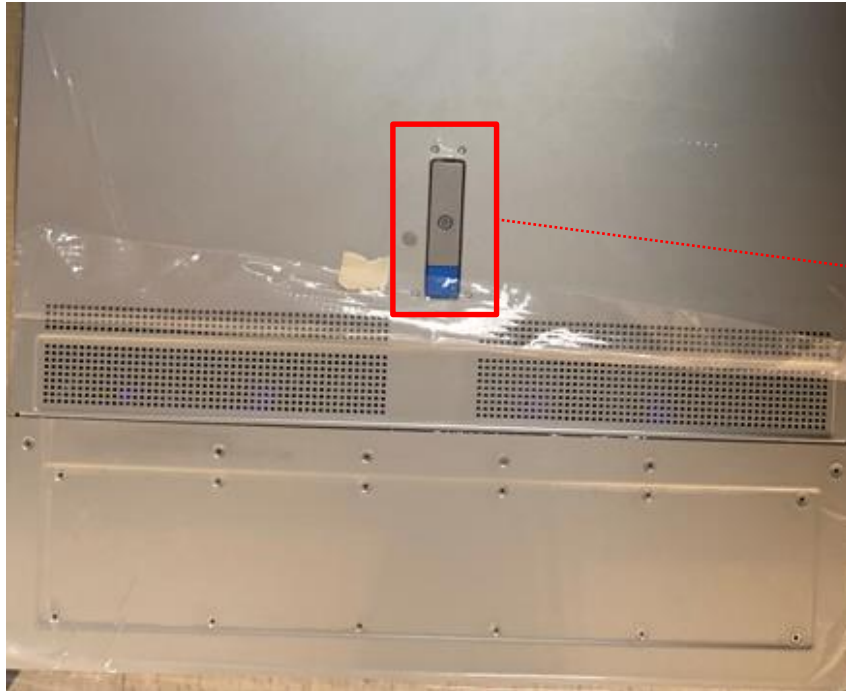
Server Front Side [3/6]- Remove PCIe Cage

- ❑ Step #1 Loose the screws on both side



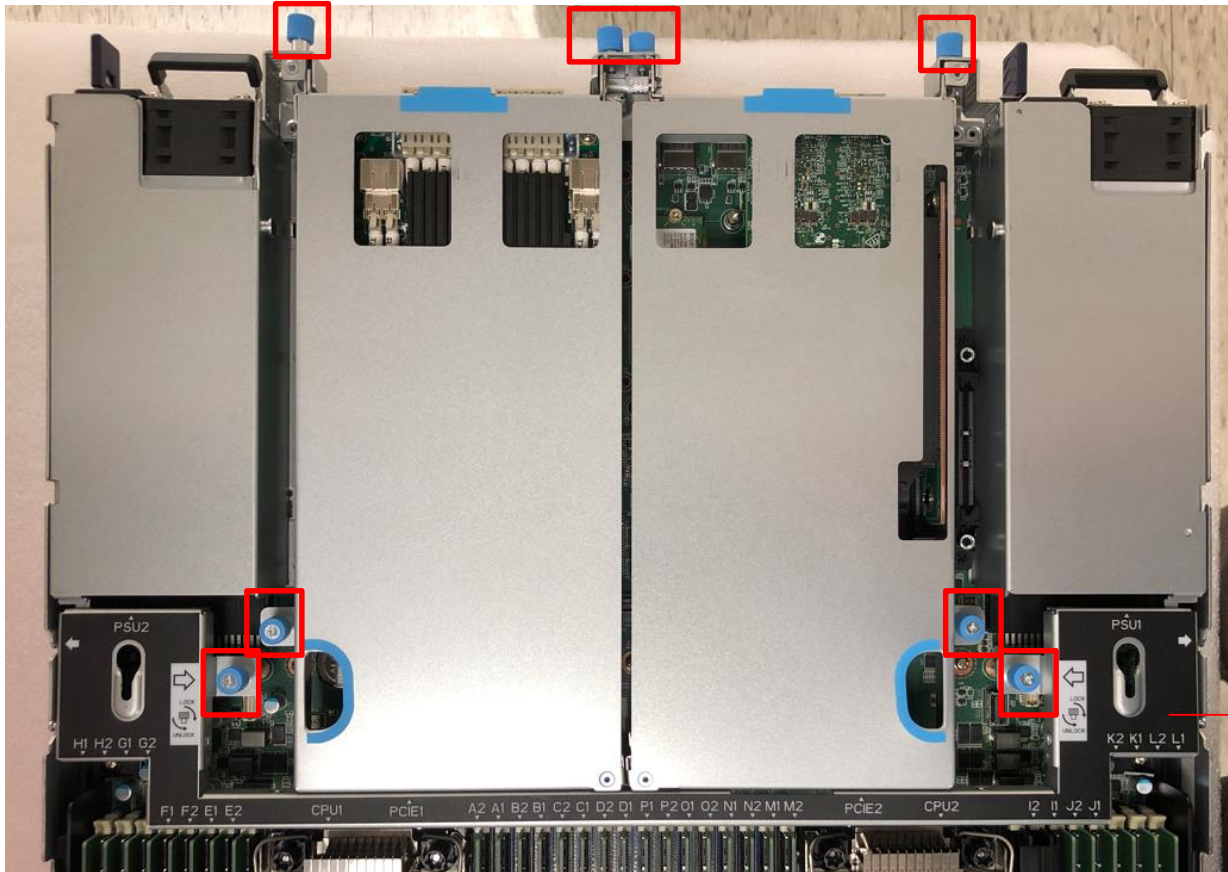
Server Front Side [3/6]- Remove PCIe Cage

- ❑ Step #2 Unlock the locker and push down blue button, slightly pull up the locker handler and open top cover.



Server Front Side [3/6]- Remove PCIe Cage

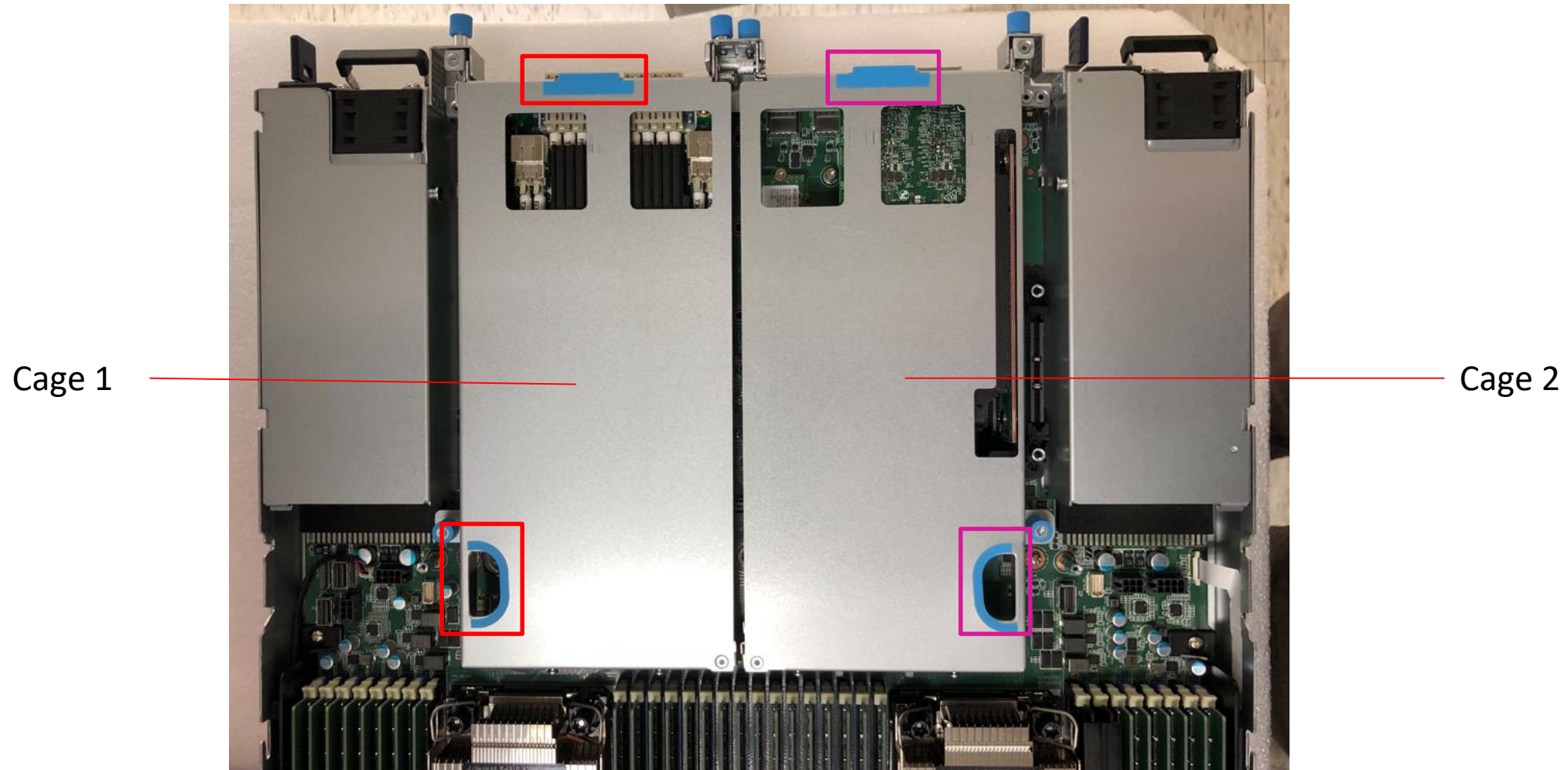
- Step #3 Loose screws on following positions and remove the cage fixer.



Cage fixer

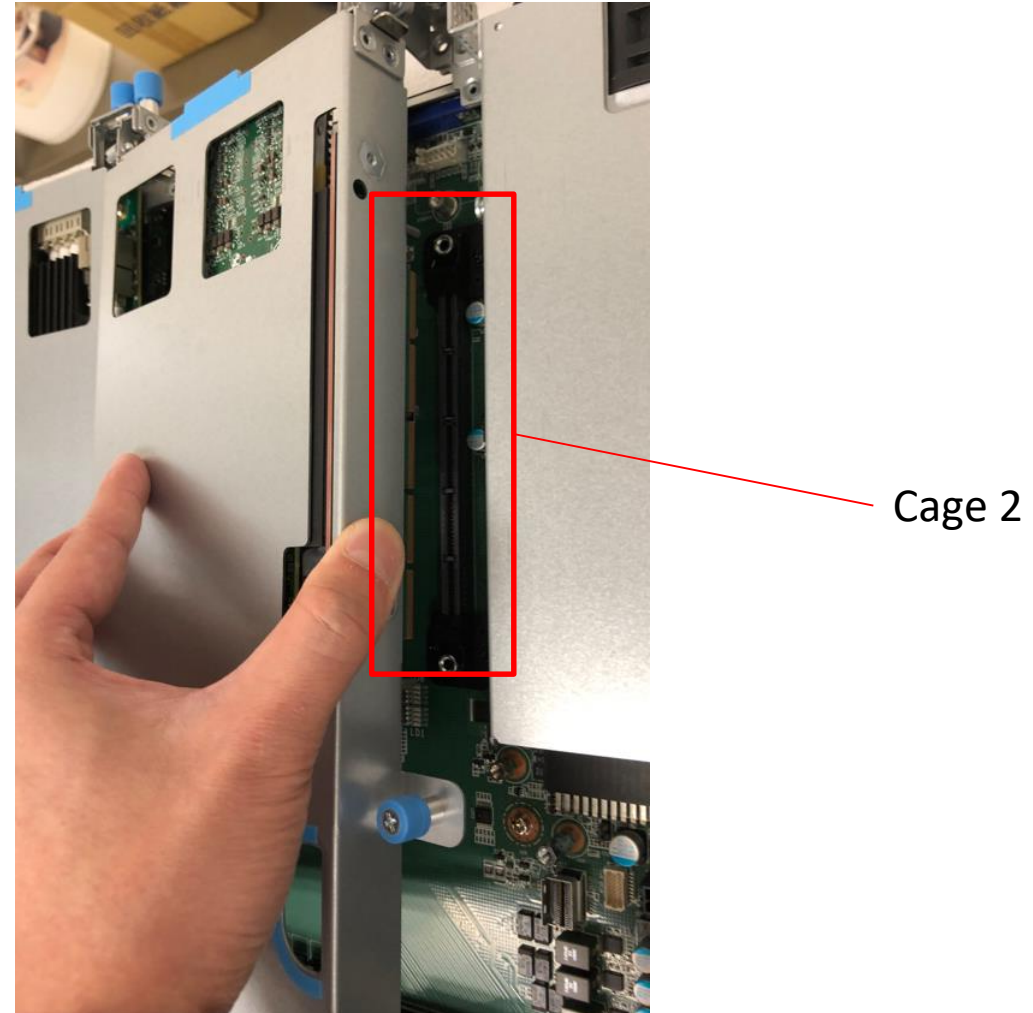
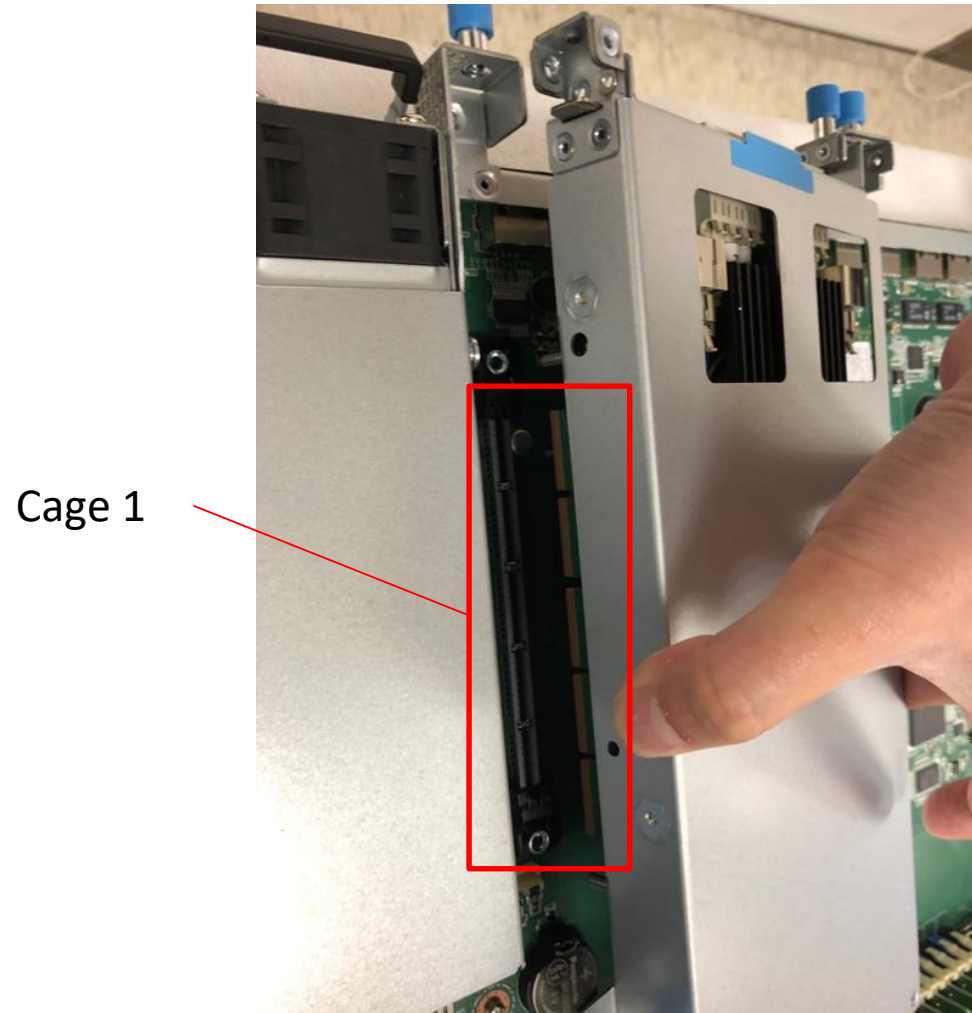
Server Front Side [3/6]- Remove PCIe Cage

- Step #4 Use both hand to pull up the cage at same time, once a cage.



Server Front Side [4/6]- Install PCIe Cage

- ❑ Step #5 Align PCIe golden finger to connector, be carefully to push down then.



Server Front Side [5/6]- Insert PCIe card

- ❑ Step #1 Loose the screw and remove PCIe dummy

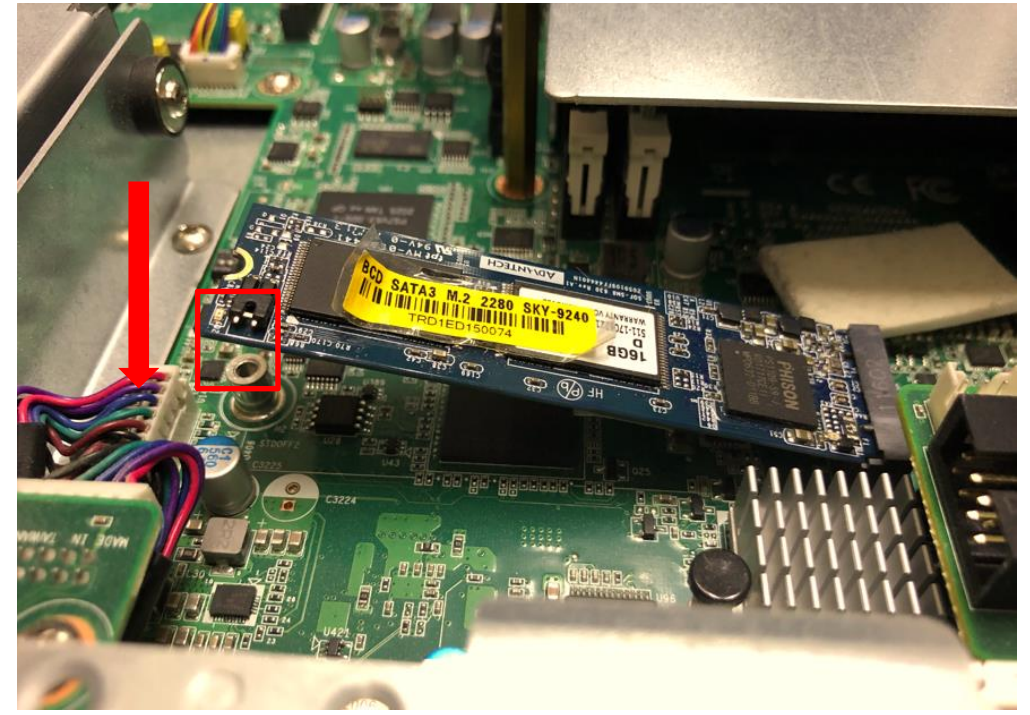
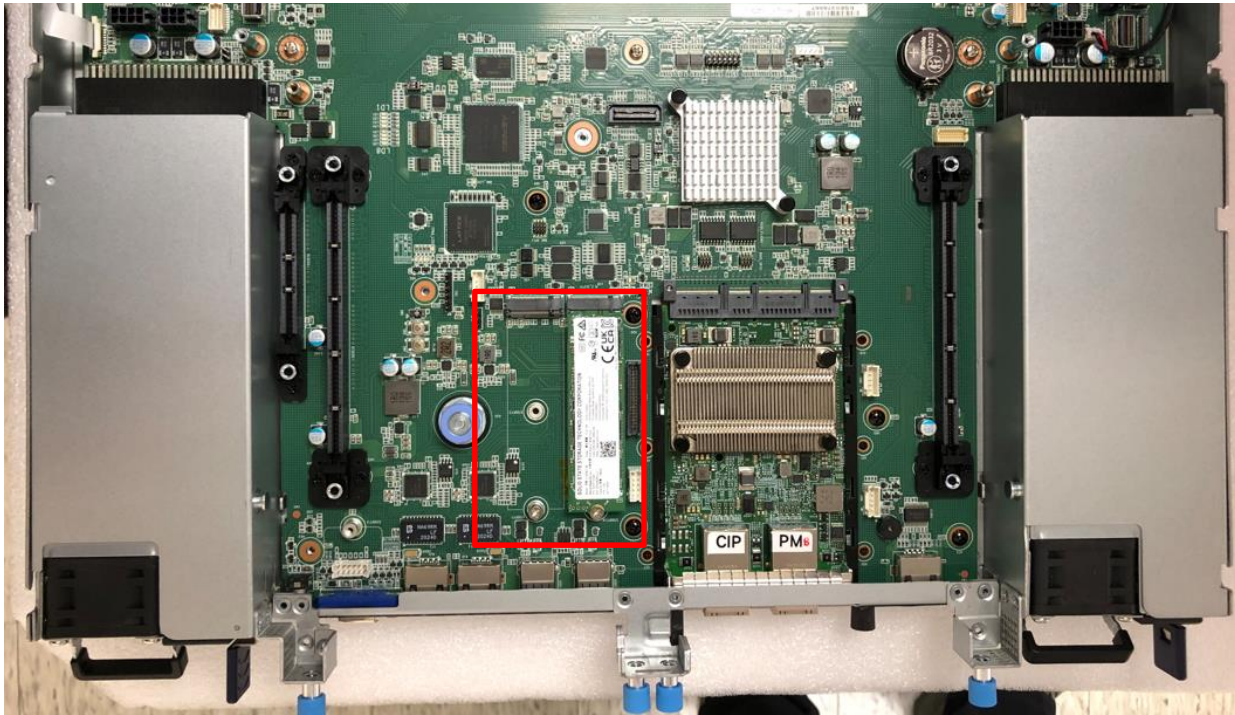


- ❑ Step #2 Insert PCIe card and tight up the screw



Server Front Side [6/6]-Storage M.2

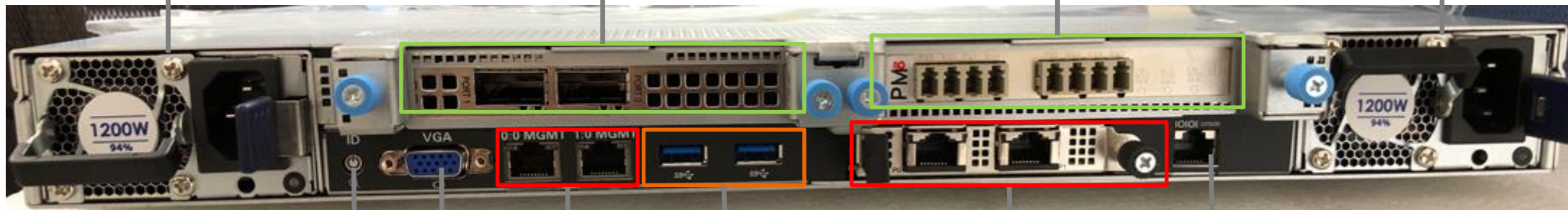
- ❑ Insert 2280 M.2 storage, push down and screw it up



Server Rear Side [1/2] – Overview

2 x PSU

2 x PCIe 5.0 x16 HH/FL module slots



VGA

2x 1GbE ports

OCP3.0 module slot

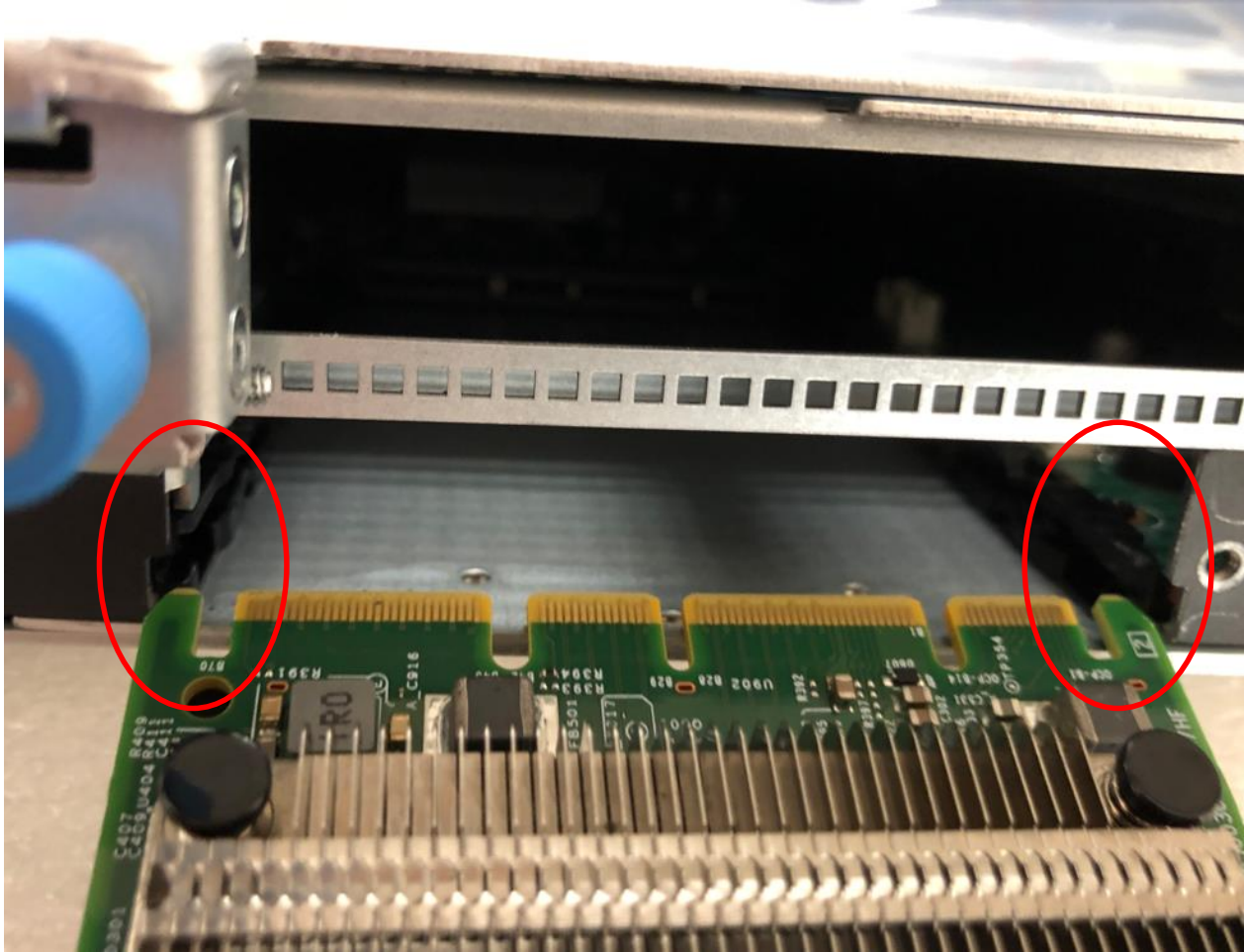
ID button

2 x USB2.0 / 3.0 ports

Console port

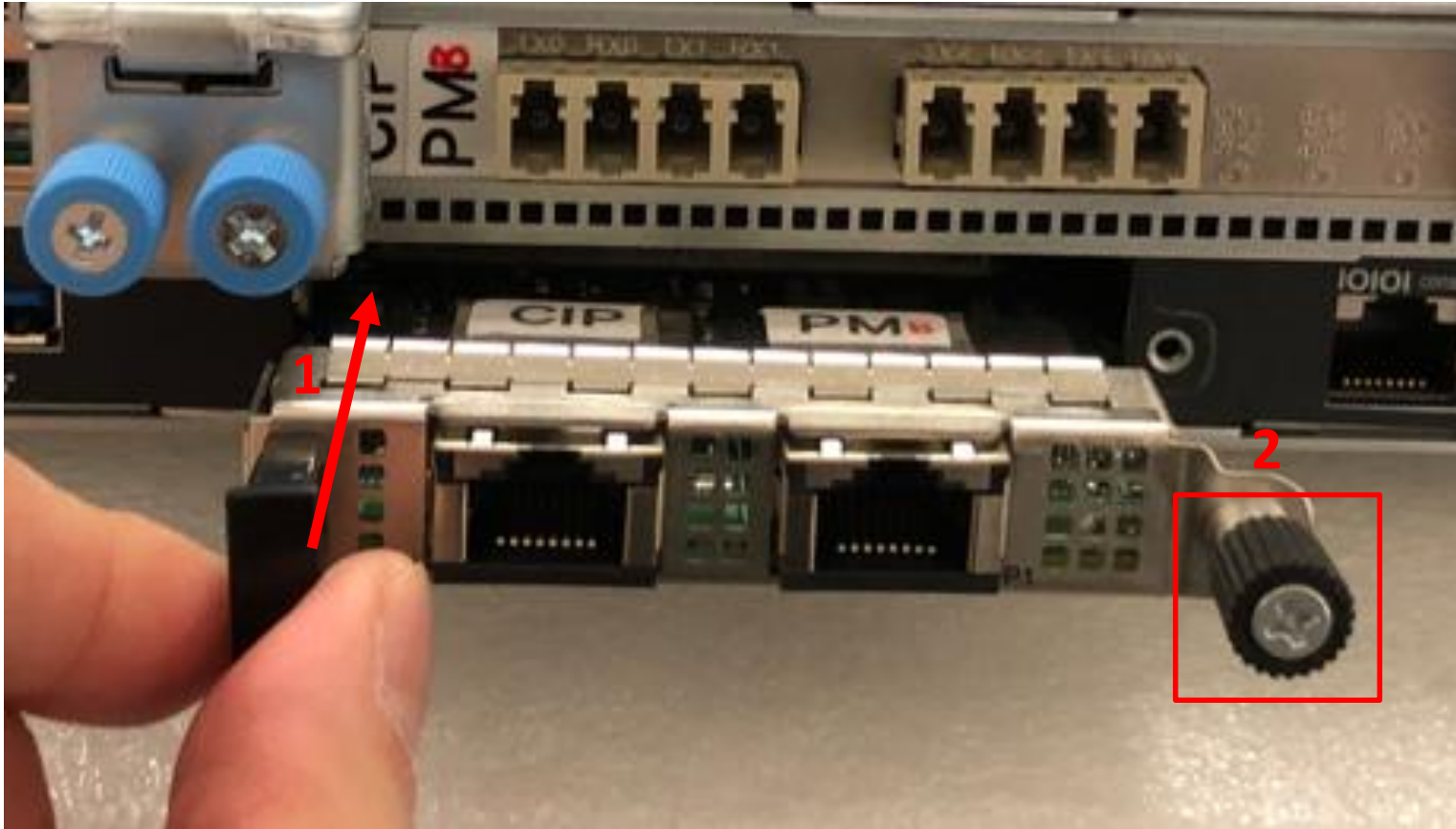
Server Rear Side [2/2] – OCP3.0 Installation

- ❑ Step#1 – Align the module PCB board to slideways.



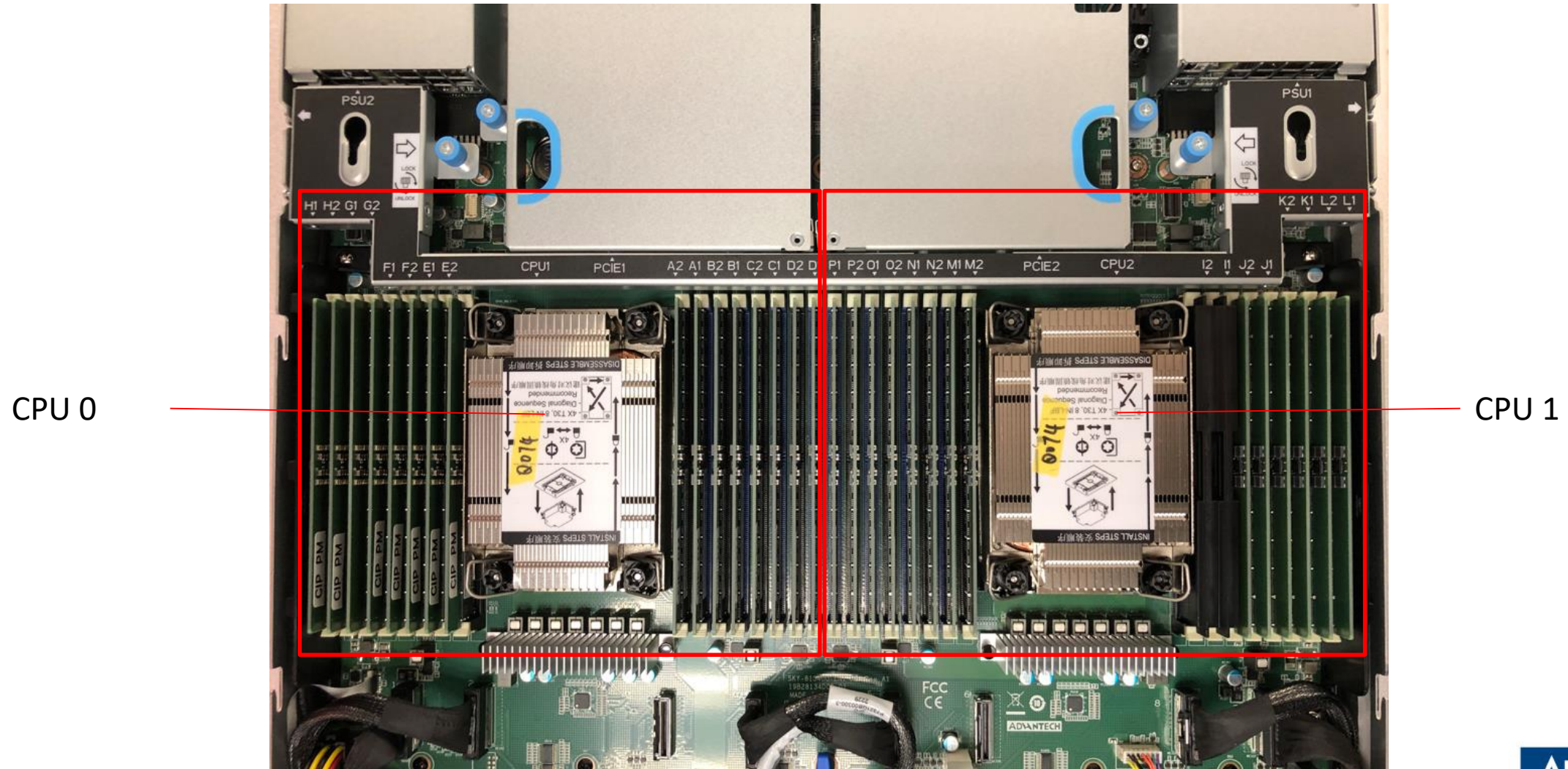
Server Rear Side [2/2] – OCP3.0 Installation

- Step#2 – Push the OCP module to the end and tight up the screw.



DIMMs Population [1/4]- Notes

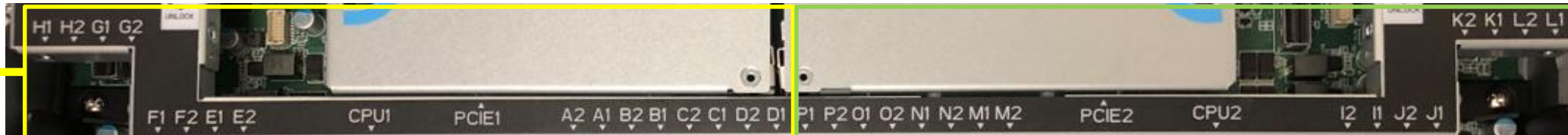
DIMMs A1~H2 are for CPU 0, I1 ~ P2 are for CPU 1.



DIMMs Population [1/4]- Notes

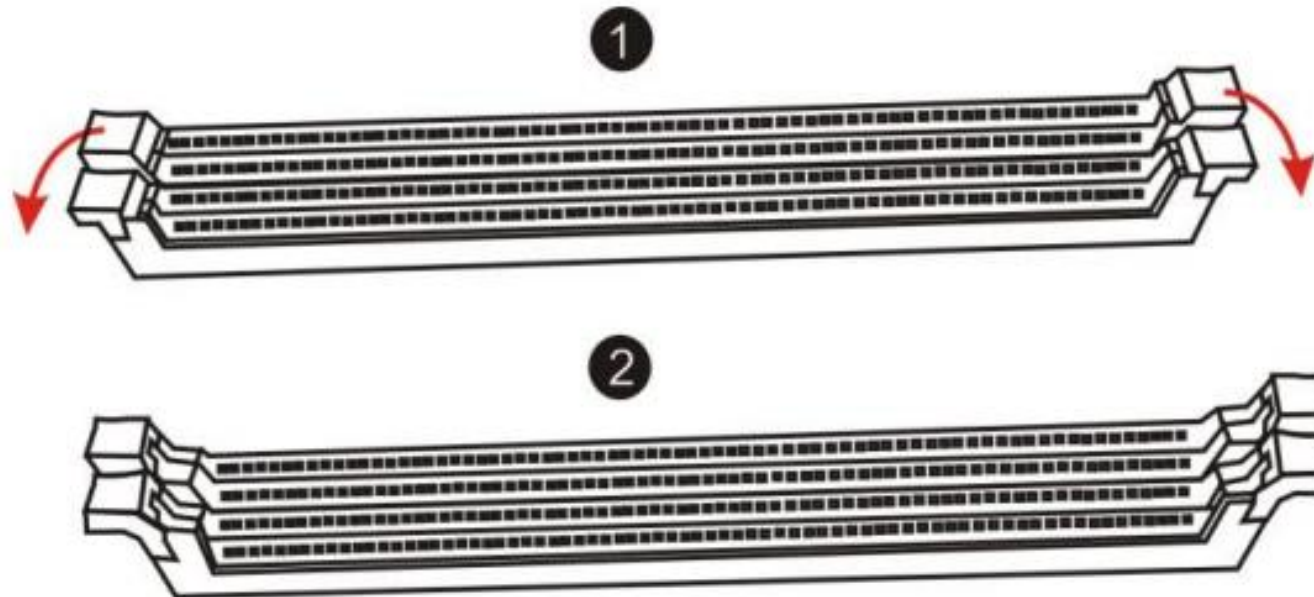
Refer table below to populate DIMMs.

IMC#	iMC3				iMC2					iMC0				iMC1			
	Chan 1 (7/H)		Chan 0 (6/G)		Chan 1 (5/F)		Chan 0 (4/E)			Chan 0 (0/A)		Chan 1 (1/B)		Chan 0 (2/C)		Chan 1 (3/D)	
	H1	H2	G1	G2	F1	F2	E1	E2		A2	A1	B2	B1	C2	C1	D2	D1
DDR5	P1 Slot0	P2 Slot1	O1 Slot0	O2 Slot1	N1 Slot0	N2 Slot1	M1 Slot0	M2 Slot1		I2 Slot1	I1 Slot0	J2 Slot1	J1 Slot0	K2 Slot1	K1 Slot0	L2 Slot1	L1 Slot0
1+0							DDR5			DDR5							
2+0			DDR5				DDR5			DDR5							
4+0			DDR5				DDR5			DDR5				DDR5			
6+0	DDR5		DDR5				DDR5			DDR5				DDR5			
	DDR5		DDR5				DDR5			DDR5		DDR5		DDR5			DDR5
	DDR5		DDR5				DDR5			DDR5		DDR5		DDR5			DDR5
8+0	DDR5		DDR5				DDR5			DDR5		DDR5		DDR5			DDR5
12+0	DDR5		DDR5	DDR5			DDR5	DDR5		DDR5	DDR5		DDR5	DDR5			DDR5
	DDR5	DDR5	DDR5				DDR5	DDR5		DDR5	DDR5		DDR5	DDR5		DDR5	DDR5
16+0	DDR5	DDR5	DDR5	DDR5			DDR5	DDR5		DDR5	DDR5		DDR5	DDR5		DDR5	DDR5



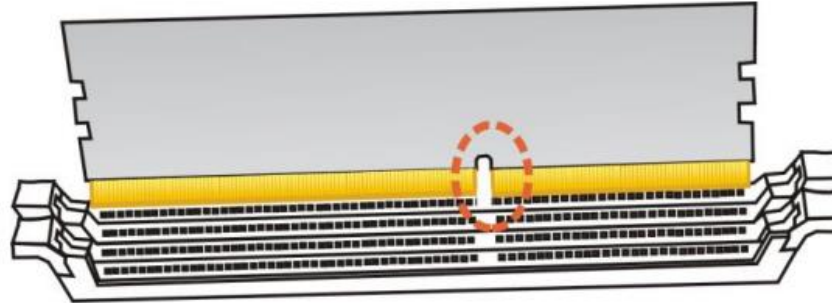
DIMMs Population [2/4]- Opening DIMM latches

□ Step#1 – Open the latches on the left and right sides of the DIMMs by turning it outwards as indicated by the arrows below:

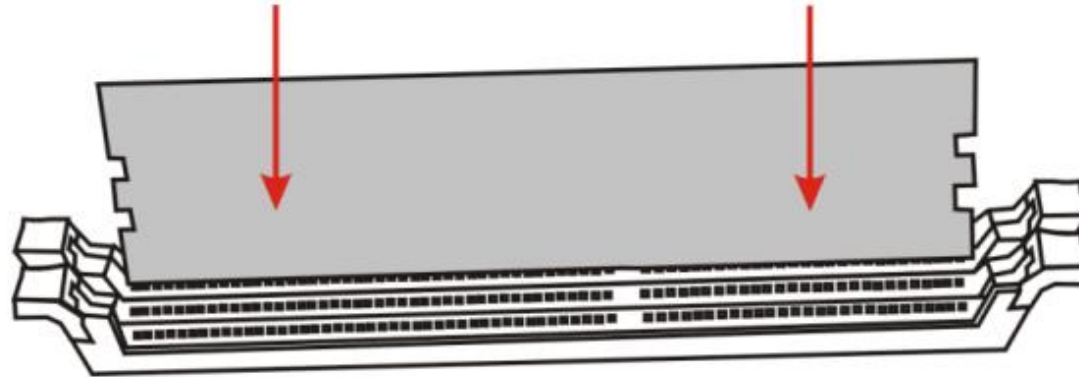


DIMMs Population [3/4]- DIMM Key Alignment

- Step#2 – Select DIMM orientation so that the keys in the DIMM module and socket match



- Step#3 – Insert the DIMM from the top using the guide rails on the left and right of the DIMM sockets



DIMMs Population [4/4]- fixing DIMM in the Socket

- Step#4 – Put your thumbs near the right and left end of the DIMM and press down the DIMM evenly until the white latches fully close with a click



Access the device via Console

❑ Step#1 – Power on the device

○ Prerequisite:

✓ Get AC 100-240V @ 50-60Hz, full range

○ Device will boot:

✓ Correct behavior: you can hear FAN rotating in maximum speed for a while then down and also the Power LEDs should light up in orange color



Picture depicted how to plug in the PSU cable



Picture depicted the light color while device booting

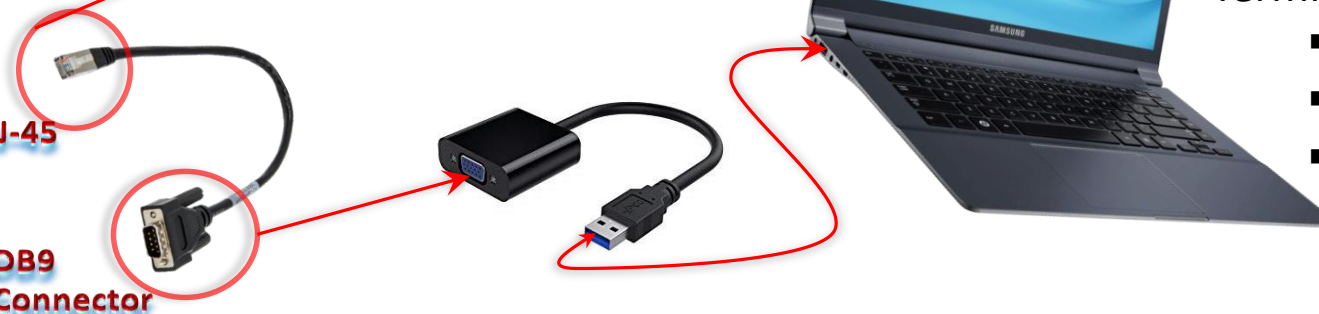
Access the device via Console

- ❑ Step#2 – Access the device
 - Prerequisite:
 - ✓ Console cable and PC + Terminal
 - Connect the PC to the server console

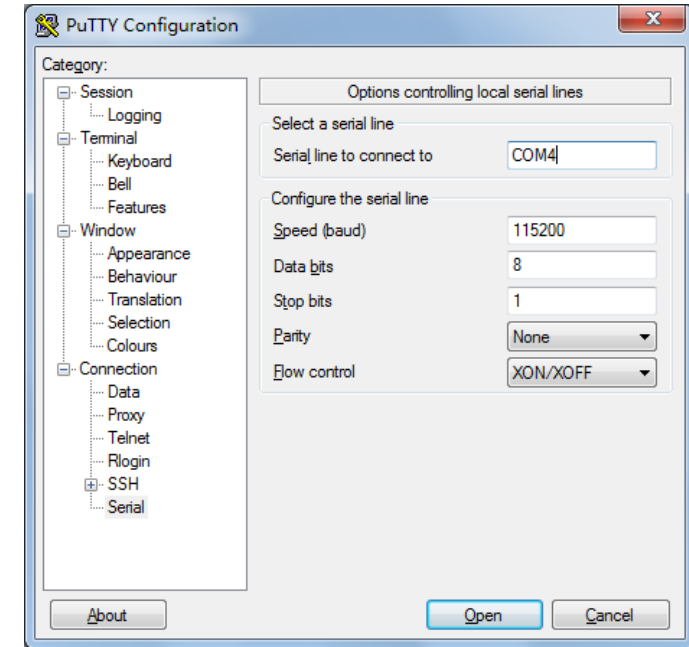


RJ-45

DB9
Connector



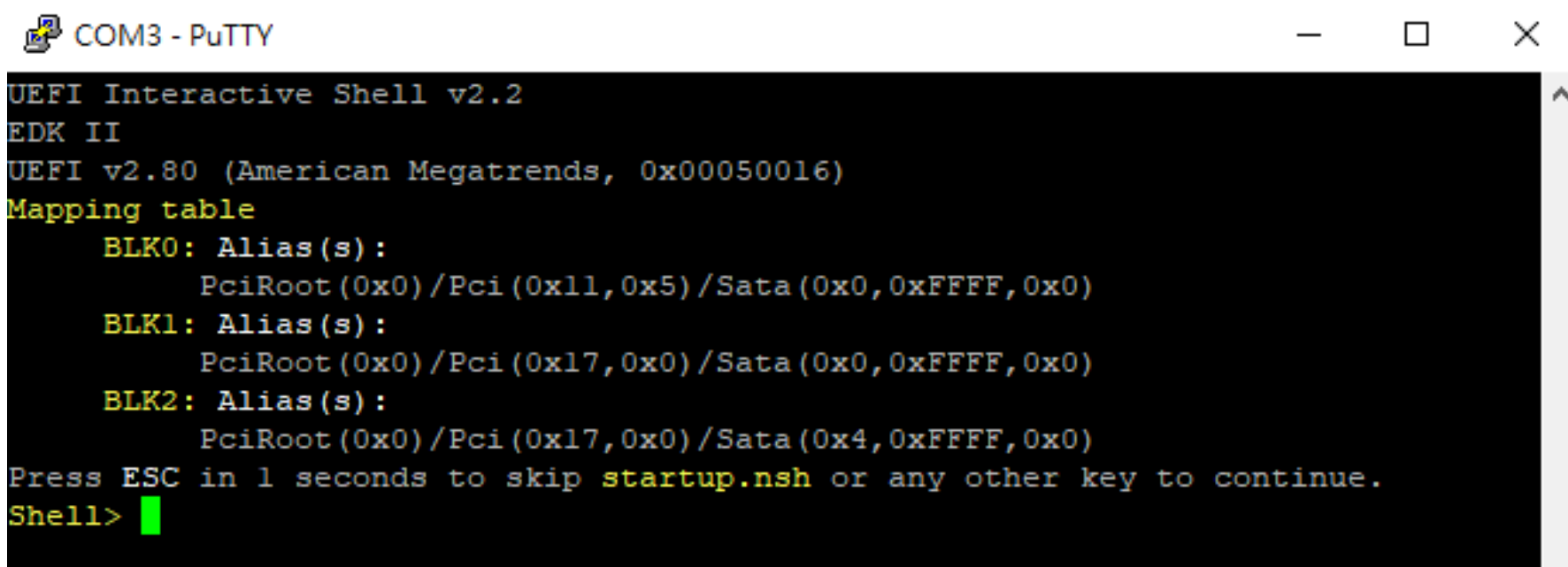
Terminal settings



Terminal Setting:

- Baud rate: 115200
- Data bits : 8
- Stop bits: 1

Access the device via Console

A screenshot of a PuTTY terminal window titled "COM3 - PuTTY". The terminal displays the output of a UEFI Interactive Shell v2.2. The text shown is: "UEFI Interactive Shell v2.2", "EDK II", "UEFI v2.80 (American Megatrends, 0x00050016)", "Mapping table", "BLK0: Alias(s):", "PciRoot(0x0)/Pci(0x11,0x5)/Sata(0x0,0xFFFF,0x0)", "BLK1: Alias(s):", "PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x0,0xFFFF,0x0)", "BLK2: Alias(s):", "PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x4,0xFFFF,0x0)", "Press ESC in 1 seconds to skip startup.nsh or any other key to continue.", and "Shell>". A green cursor is visible after the "Shell>" prompt.

```
COM3 - PuTTY
UEFI Interactive Shell v2.2
EDK II
UEFI v2.80 (American Megatrends, 0x00050016)
Mapping table
  BLK0: Alias(s):
        PciRoot(0x0)/Pci(0x11,0x5)/Sata(0x0,0xFFFF,0x0)
  BLK1: Alias(s):
        PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x0,0xFFFF,0x0)
  BLK2: Alias(s):
        PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x4,0xFFFF,0x0)
Press ESC in 1 seconds to skip startup.nsh or any other key to continue.
Shell>
```

Picture depicted successfully server access via console

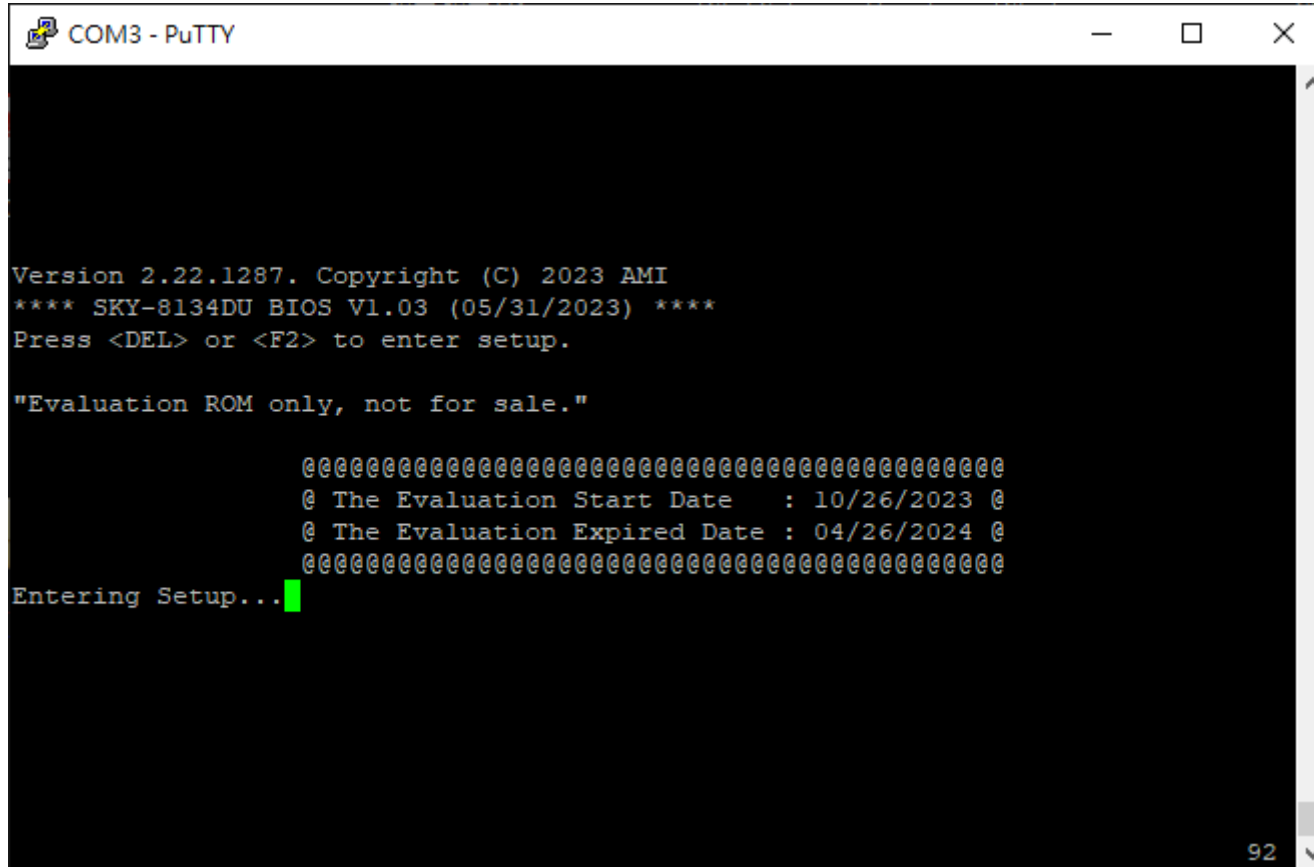
Web UI access

- ❑ In order to access the Web UI, we need to configure the IP address. In this part, we will describe how to set up Web UI IP address via BIOS



WebUI [1/4]- Configure BMC IP from BIOS

- ❑ Step#1- Press [Delete] entering BIOS setup menu



The screenshot shows a PuTTY terminal window titled "COM3 - PuTTY". The terminal displays the following text:

```
Version 2.22.1287. Copyright (C) 2023 AMI
**** SKY-8134DU BIOS V1.03 (05/31/2023) ****
Press <DEL> or <F2> to enter setup.

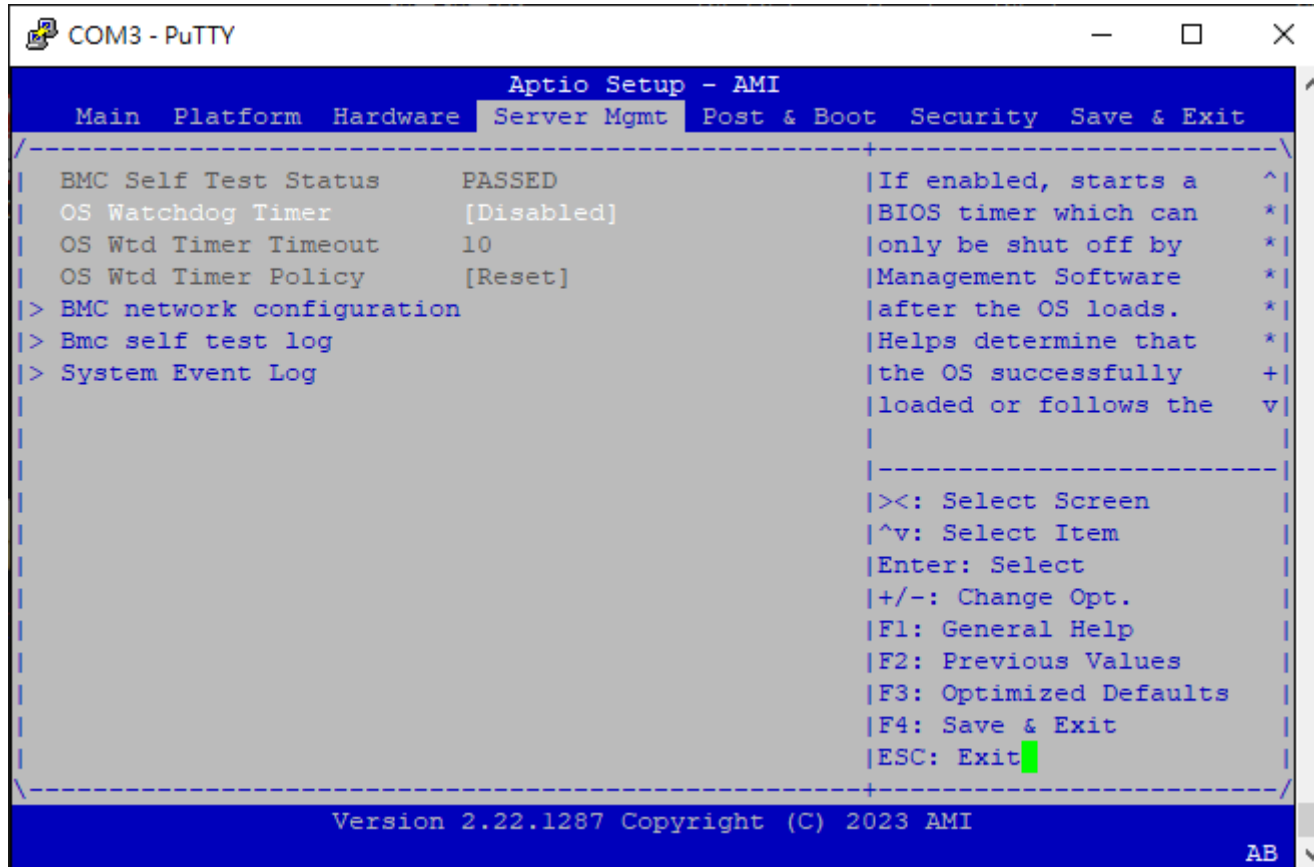
"Evaluation ROM only, not for sale."

                @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
                @ The Evaluation Start Date   : 10/26/2023 @
                @ The Evaluation Expired Date : 04/26/2024 @
                @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Entering Setup...█
```

The terminal also shows a page number "92" at the bottom right corner.

WebUI [2/4]- Configure BMC IP from BIOS

- ❑ Step#2- Select "Server Mgmt" page.

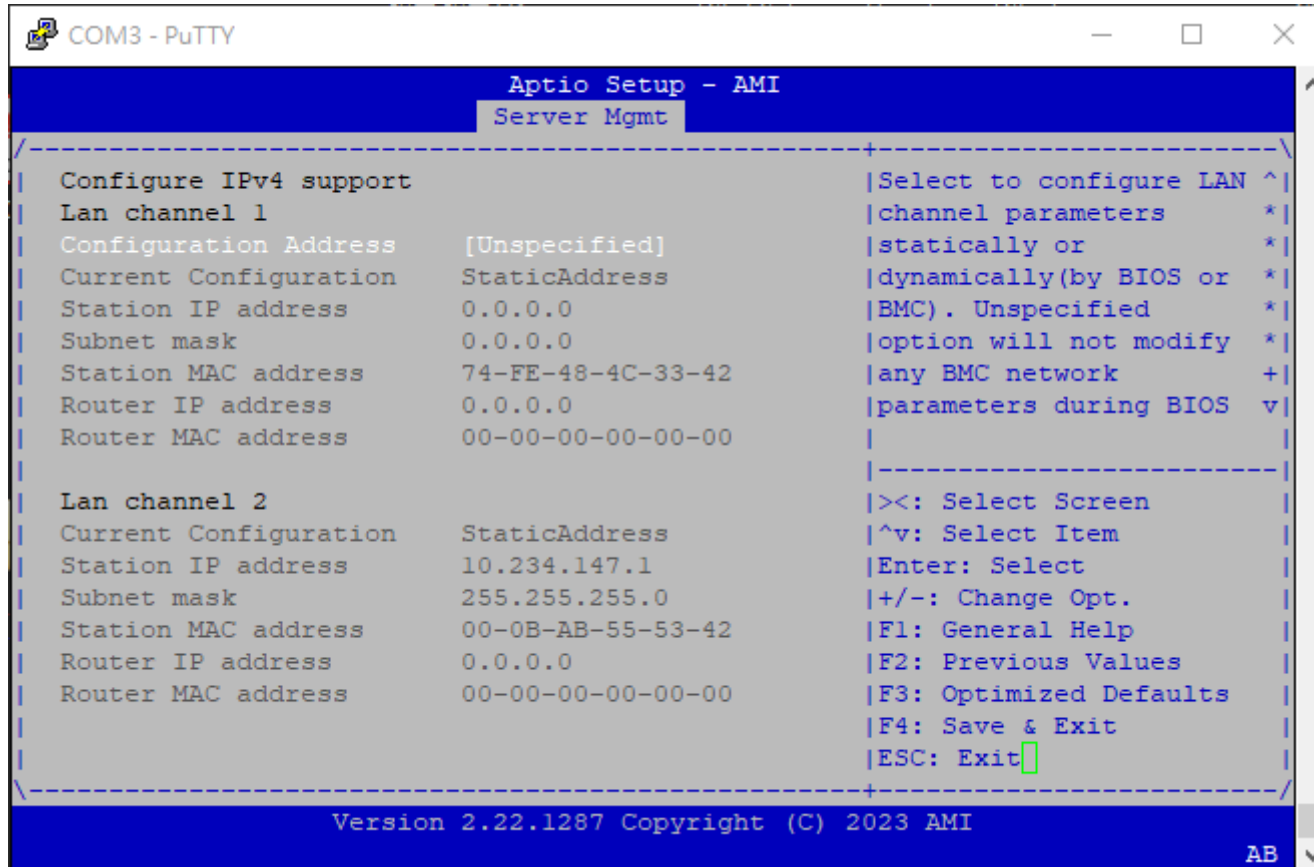


The screenshot shows a PuTTY window titled "COM3 - PuTTY" displaying the Aptio Setup - AMI BIOS interface. The "Server Mgmt" menu is selected, showing options for BMC network configuration, BMC self test log, and System Event Log. The interface includes a navigation menu at the top, a list of settings with descriptions, and a footer with the version number and copyright information.

```
COM3 - PuTTY
Aptio Setup - AMI
Main Platform Hardware Server Mgmt Post & Boot Security Save & Exit
-----
| BMC Self Test Status      PASSED      |If enabled, starts a  ^|
| OS Watchdog Timer        [Disabled] |BIOS timer which can *|
| OS Wtd Timer Timeout     10          |only be shut off by  *|
| OS Wtd Timer Policy      [Reset]       |Management Software  *|
|> BMC network configuration|after the OS loads.  *|
|> Bmc self test log       |Helps determine that *|
|> System Event Log        |the OS successfully  +|
|                           |loaded or follows the v|
|                           |                       |
|                           |-----|
|><: Select Screen        |
|^v: Select Item          |
|Enter: Select            |
|+/-: Change Opt.        |
|F1: General Help        |
|F2: Previous Values     |
|F3: Optimized Defaults  |
|F4: Save & Exit         |
|ESC: Exit               |
|                           |
|-----|
Version 2.22.1287 Copyright (C) 2023 AMI
AB
```

WebUI [3/4]- Configure BMC IP from BIOS

- ❑ Step#3- Choose "BMC network configuration"



WebUI [4/4]- Configure BMC IP from BIOS

❑ Step#4- Set "Configuration Address" -> "Static", and then key in the IP address and subnet mask.

*You could also choose DHCP as well to obtain an IP address from your DHCP server.

```
COM3 - PuTTY
Aptio Setup - AMI
Server Mgmt
-----+-----+-----+
| Configure IPv4 support          ^|Select to configure LAN ^|
| Lan channel 1                  *|channel parameters      *|
| Configuration Address          *|statically or           *|
| source                         *|dynamically (by BIOS or *|
| Current Configuration          *|BMC). Unspecified      *|
| Address source                 *|option will not modify *|
| Station IP address /----- Configuration Address source ---\MC network +|
| Subnet mask                    | Unspecified            | |ers during BIOS v|
| Station MAC address            | Static                 | |
| Router IP address              | DynamicBmcDhcp        | |
| Router MAC address             \-----/
|
| Lan channel 2                  *|Enter: Select          *|
| Current Configuration          *|+/-: Change Opt.      *|
| Address source                 *|F1: General Help      *|
| Station IP address             *|F2: Previous Values   *|
| Subnet mask                    +|F3: Optimized Defaults +|
| Station MAC address            v|F4: Save & Exit       v|
|                                |ESC: Exit              |
|-----+-----+-----+

```

❑ Step#5- "Save and Exit" -> "Save Changes and Reset".

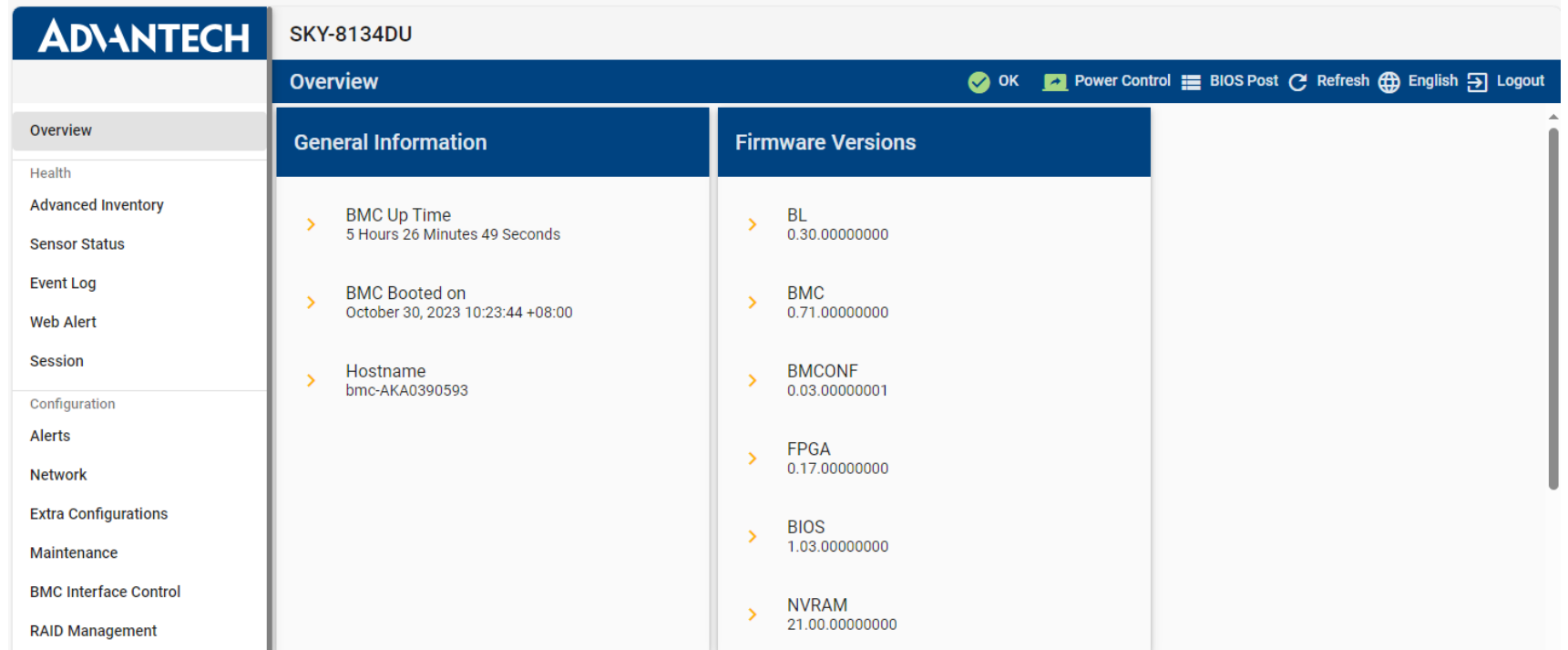
❑ Step#6- Repeat Step#1 ~ Step#3 to check the BMC IP address.

Web UI access from browser

After completing the steps above (Web UI IP configured via either BIOS or IPMI commands), open your favorite browser the enter the Web UI IP as below: <https://BMCIP>

The default login credentials:

- User: administrator
- Password: advantech



The screenshot displays the Advantech Node Explorer Web UI for a device identified as SKY-8134DU. The interface includes a navigation menu on the left with categories like Overview, Health, Advanced Inventory, Sensor Status, Event Log, Web Alert, Session, Configuration, Alerts, Network, Extra Configurations, Maintenance, BMC Interface Control, and RAID Management. The main content area is divided into two columns: General Information and Firmware Versions. The General Information column shows BMC Up Time (5 Hours 26 Minutes 49 Seconds), BMC Booted on (October 30, 2023 10:23:44 +08:00), and Hostname (bmc-AKA0390593). The Firmware Versions column lists various components and their versions: BL (0.30.00000000), BMC (0.71.00000000), BMCONF (0.03.00000001), FPGA (0.17.00000000), BIOS (1.03.00000000), and NVRAM (21.00.00000000). The top right of the interface features a status bar with 'OK', 'Power Control', 'BIOS Post', 'Refresh', 'English', and 'Logout' options.

General Information	Firmware Versions
<ul style="list-style-type: none">> BMC Up Time 5 Hours 26 Minutes 49 Seconds> BMC Booted on October 30, 2023 10:23:44 +08:00> Hostname bmc-AKA0390593	<ul style="list-style-type: none">> BL 0.30.00000000> BMC 0.71.00000000> BMCONF 0.03.00000001> FPGA 0.17.00000000> BIOS 1.03.00000000> NVRAM 21.00.00000000

Node Explorer User Manual

<https://www. advantech.com/support/details/manual?id=1-1MU1KB1>

*Go Together,
We Go Far and Grow Big*

