

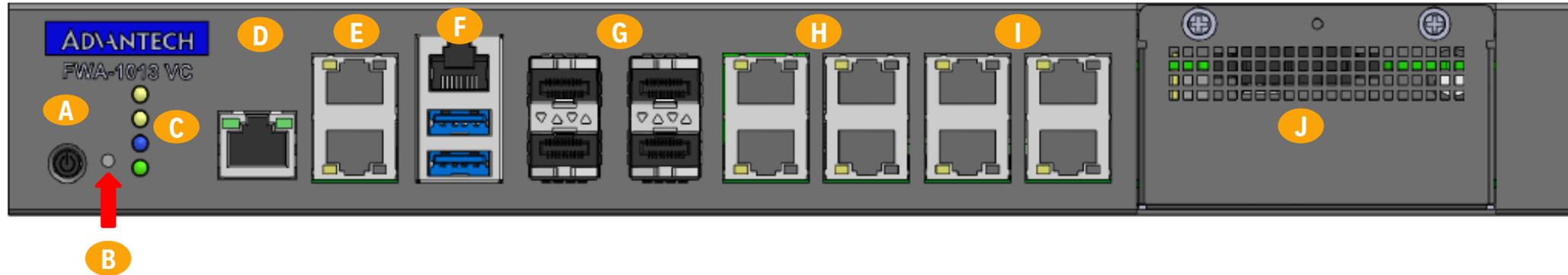
History

Version	Date	Handled by	Note
Draft	2023/01/19	Sam168.Chang	Draft
1.0		Sam168.Chang	DIMM population
1.5		Sam168.Chang	BIOS update
2.0		Sam168.Chang	Revised

Agenda

- System Overview
- CPU location
- DIMM slot ID & Population
- Access the server via Monitor with VGA port
- Access the server via Console port
- Access the server via WebUI Access

FWA-1013 Front IO (include ID information)

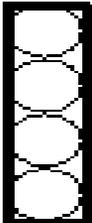


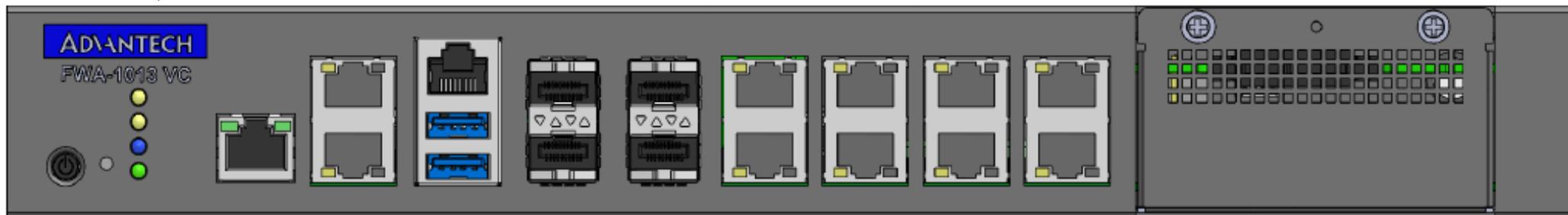
A	Power button	F	RJ45 console+ 2x USB ports
B	SW defined button (SW_DEF_BTN)	G	4x 10G SFP+ ports -E822-C SFP becpX(0,1,2,3)
C	System & Status LEDs (SW_DEF_LED/Alert_LED/ID_LED)	H	4x 1GE RJ45 ports w/ Advanced LAN bypass -E822-C 1GbE becpX(4,5,6,7)
D	GE RJ45 port for IPMI	I	4x 1GE RJ45 ports -I350 igb b05pX(0,1,2,3)
E	2x 1GE RJ45 ports for MGMT (i210-AT) - i225 b0Xp0(b01p0/b02p0)	J	Advantech NMC Slot

FWA-1013 LED definition

- For more details about SW Define Button and SW Define LED, please refer to “Advantech Linux Platform Software Guide for FWA-1013”

Design Note:

Amber	Green		Software define LED
Amber			Alert LED
Blue			ID LED
Green			Power LED

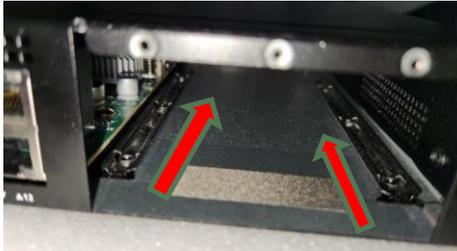


FWA-1013 Rear IO



A	Ground screw	F	VGA Reserved (by SKU Option)
B	Single or Dual 12V DC input jack (by BOM Option)	G	Reserved for Wi-Fi Antenna (by SKU Option)
C	Single or Dual 12V DC input jack (by BOM Option)	H	FAN1
D	PoE 12V DC input (by BOM Option)	I	FAN2
E	Reserved for Wi-Fi Antenna (by SKU Option)		

NMC Insert



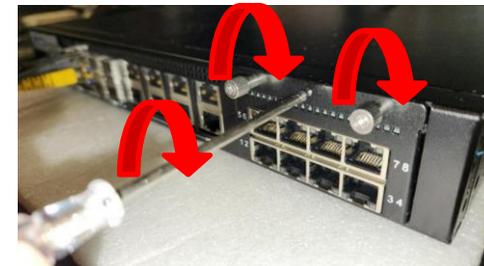
Remove the
NMC cover



Insert
the NMC board



The NMC board
aligned with the left and right sides
at the bottom of the slot



Lock screw

3 selections to access platform

There are 3 ways to access platform for OS image installation

- VGA port for OS in TXT & GUI mode
- Console port for OS in TXT only
- BMC Web for OS in TXT & GUI mode

Following pages will introduce page by page.

Power on the device

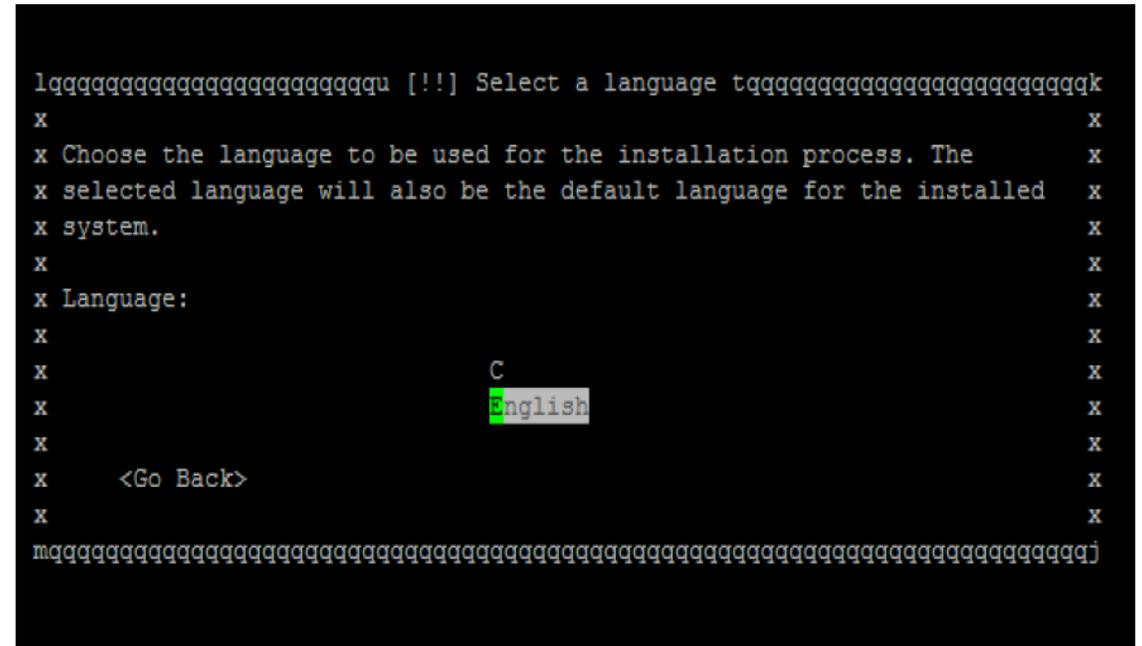
- Prerequisite:
 - ✓ Get AC 100-240V @ 50-60Hz, full range
- Device will boot:
 - ✓ Correct behavior: you can hear FAN rotating in maximum speed for a while then down and also the Power LEDs should light up

Access the server via Monitor with VGA port

- ❑ Step#1 – Access the device
 - Connect D-Sub 9 via VGA cable to Monitor and 2 USB ports for keyboard and USB stick
 - OS installation without GUI and TXT mode only, please check with the OS vendor for details.

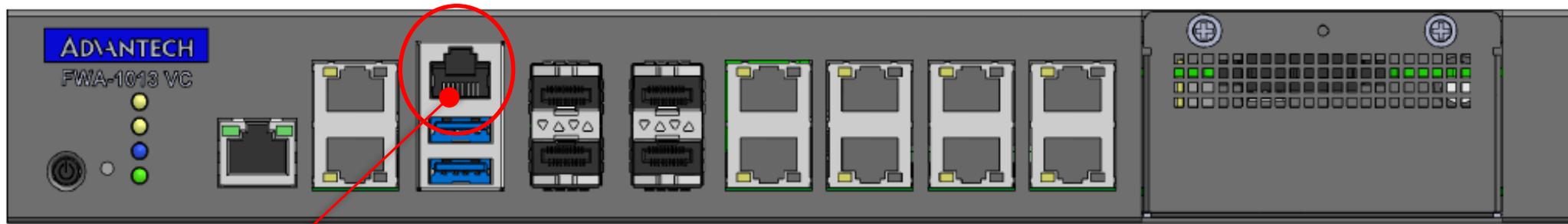


Picture depicted the connector of VGA D-Sub 9. VGA output in Front Panel.

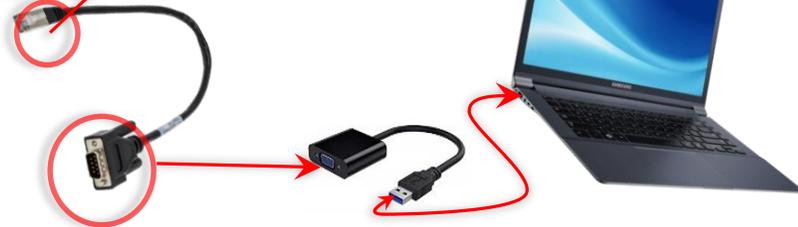


Picture depicted the GUI for Ubuntu installation on Monitor

Access the server via Console port [1/3]

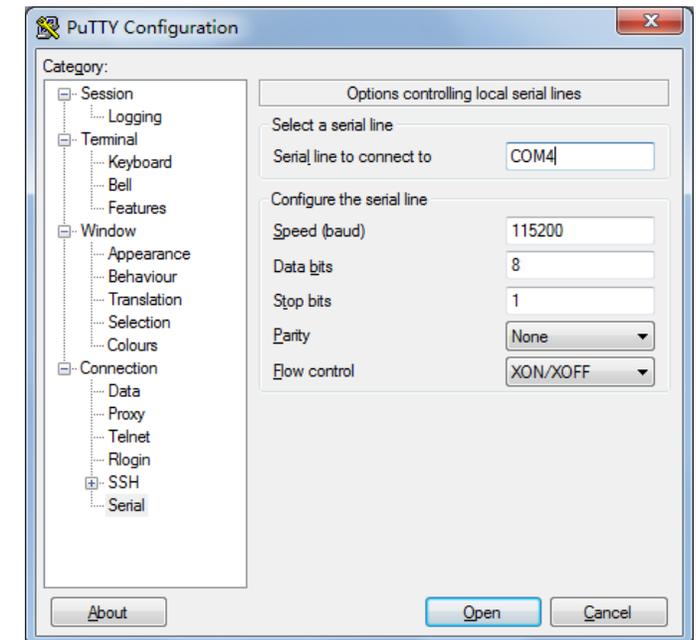


RJ-45

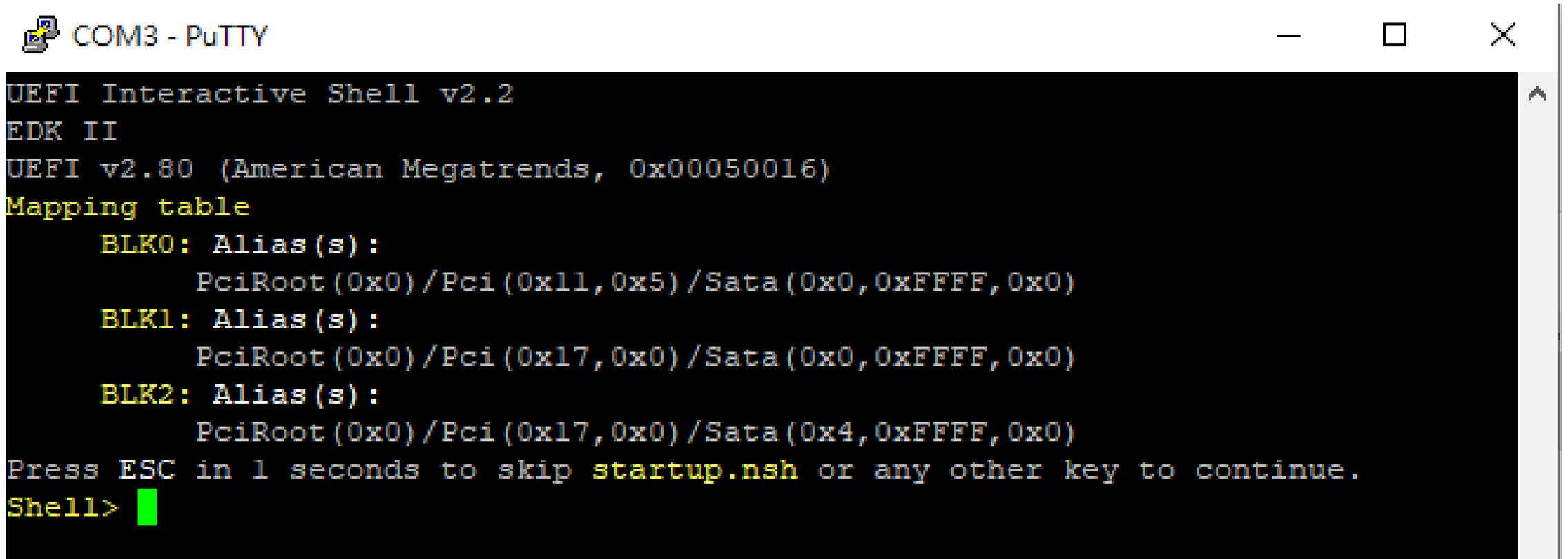


DB9 Connector

- ❑ Step#2 – Access the device
- Connect the PC to the server console
- Use Terminal (like PuTTY) with
 - Baud rate: 115200
 - Data bits : 8
 - Stop bits: 1
- OS installation without GUI and TXT mode only, please check with the OS vendor for details



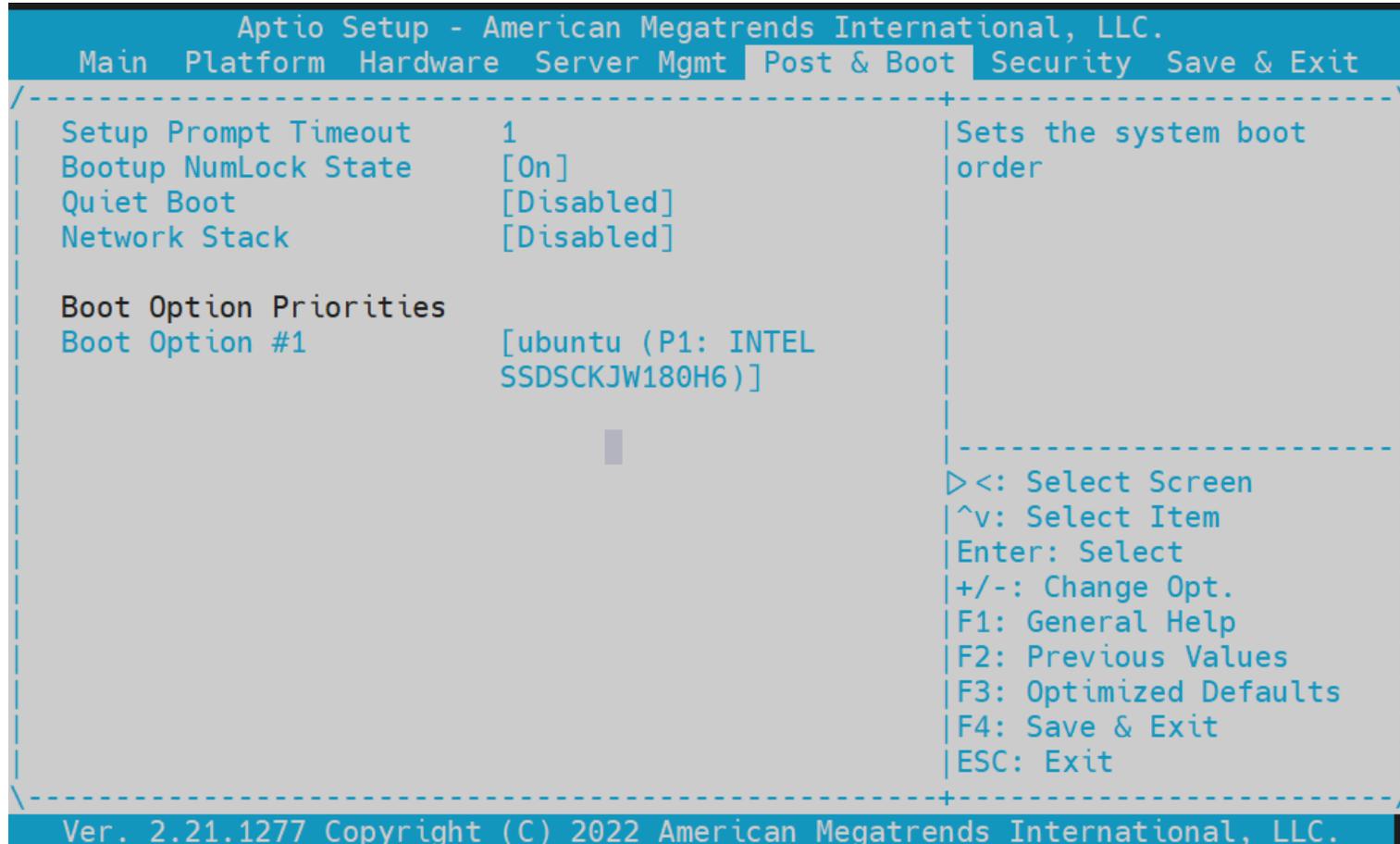
Access the server via Console port [2/3]



```
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 if no OS installed

Access the server via Console port [3/3]

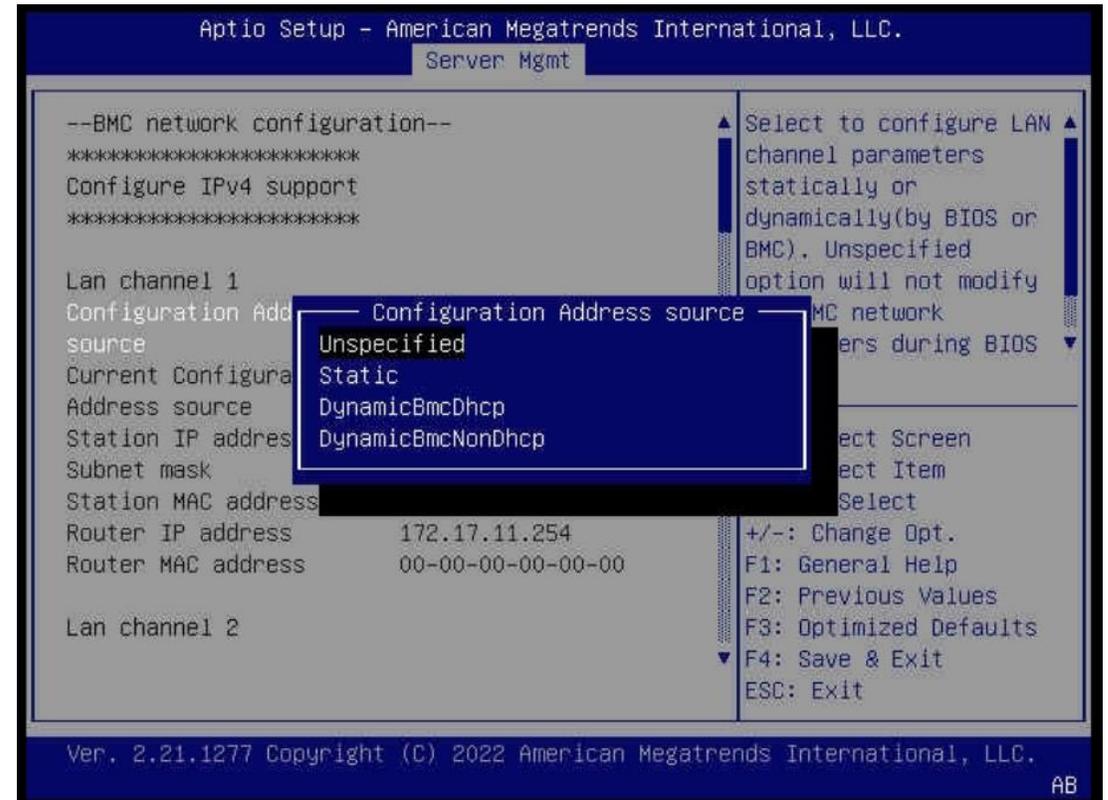
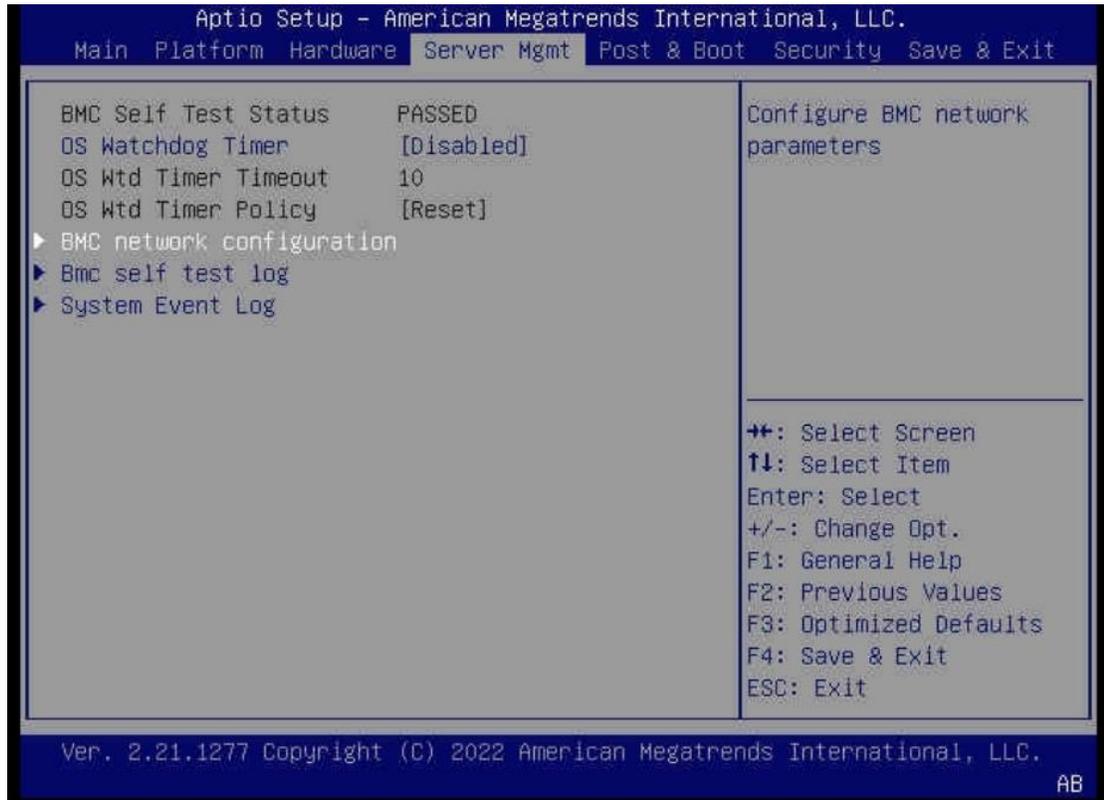


Picture depicted boot option priorities in Post & Boot page from BIOS Menu

Access the server via BMC WebUI Access[1/5]

❑ Step#3 Setup BMC IP Address

Press **DEL** after boot up to enter BIOS, and select "**Server Mgmt**" page, then "**BMC network configuration**".



Access the server via BMC WebUI Access [2/5]

After completing the steps above (BMC Web ip configured via either Bios or iptool), open your favorite browser the enter the webui ip as below: <https://BMCIP>

The default login credentials by default:

- Username: **administrator**
- Password: **advantech**

The screenshot displays the Advantech BMC WebUI interface for a server model FWA-1013. The interface is organized into a sidebar on the left and a main content area on the right. The sidebar includes sections for Health, Configuration, Alerts, Network, Extra Configurations, Maintenance, BMC Interface Control, RAID Management, Remote Control, System Power Control, Front Panel, iKVM Redirection, and Remote Serial Console. The main content area is titled 'Overview' and is divided into four columns: General Information, Firmware Versions, Software Versions, and Network Information. The General Information column shows BMC Up Time (4 Hours 9 Minutes 38 Seconds), BMC Booted on (January 19, 2023 13:22:45 +08:00), and Hostname (none). The Firmware Versions column lists BL (0.26.00000000), BMC (0.46.00000000), BMCONF (0.20.00000000), FPGA (0.09.00000000), BIOS (0.20.00000000), and NVRAM (5.00.00000000). The Software Versions column lists Advantech Node Explorer (1.25.0 3220), Advantech iKVM (1.11.2 375), Advantech Remote Storage (1.0.10 72), and a 'More ...' link. The Network Information column shows LAN Channel #1 with MAC Address c4:00:ad:ed:8c:16, IPv4 mode DHCP, and IPv4 Address 172.17.10.184. LAN Channel #2 has MAC Address 00:0b:ab:10:13:04, IPv4 mode Static, and IPv4 Address 10.234.147.1. The top navigation bar includes the Advantech logo, server model FWA-1013, and various utility icons like OK, Power Control, BIOS Post, Refresh, English, and Logout.

Access the server via BMC WebUI Access [3/5]

After completing the steps above (BMC Web ip configured via either Bios or iptool), open your favorite browser the enter the webui ip as below: <https://BMCIP>

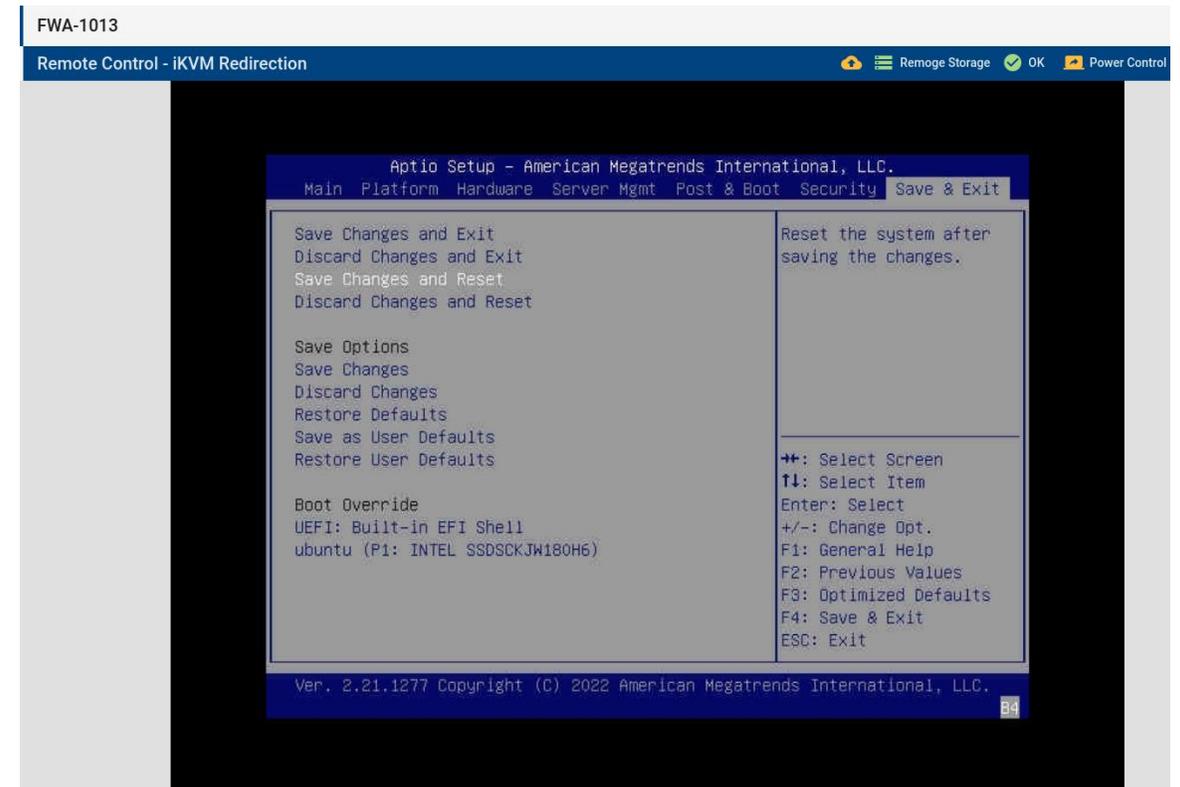
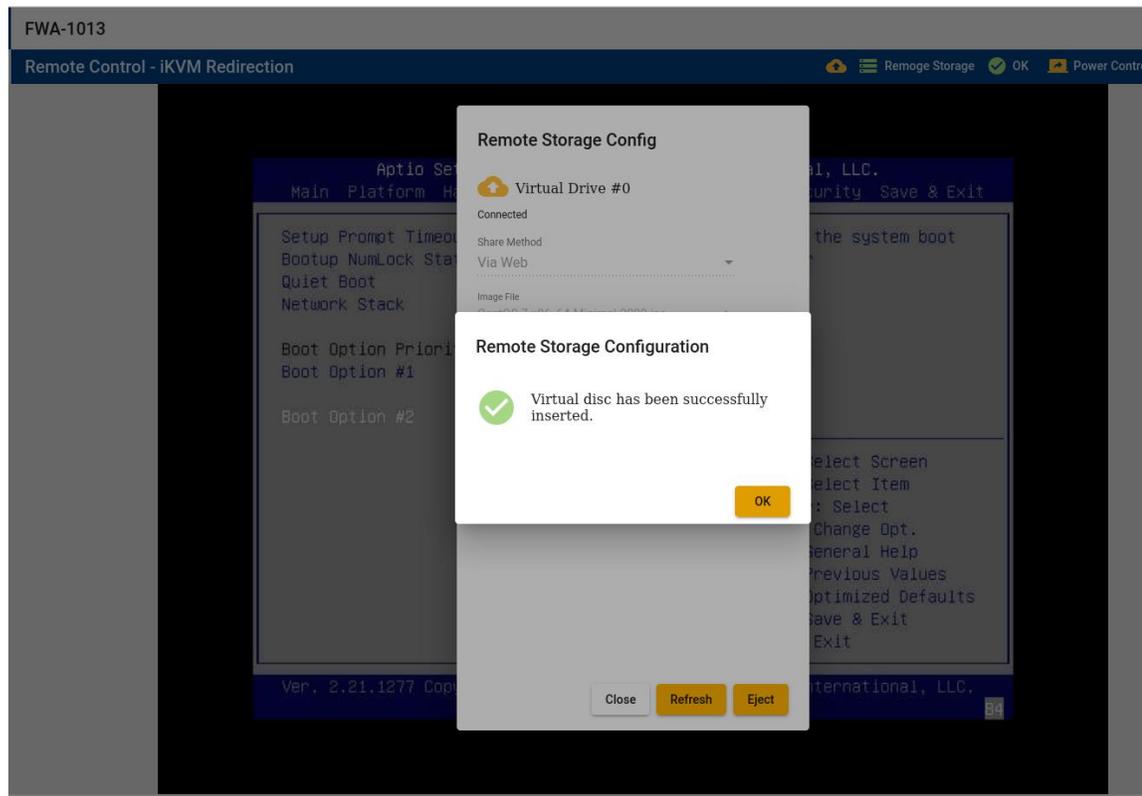
The default login credentials by default:

- Username: **administrator**
- Password: **advantech**

The screenshot displays the Advantech BMC WebUI interface for a server model FWA-1013. The interface is organized into a sidebar on the left and a main content area on the right. The sidebar includes sections for Health, Configuration, Alerts, Network, Extra Configurations, Maintenance, BMC Interface Control, RAID Management, Remote Control, System Power Control, Front Panel, iKVM Redirection, and Remote Serial Console. The main content area is titled 'Overview' and is divided into four columns: General Information, Firmware Versions, Software Versions, and Network Information. The General Information column shows BMC Up Time (4 Hours 9 Minutes 38 Seconds), BMC Booted on (January 19, 2023 13:22:45 +08:00), and Hostname (none). The Firmware Versions column lists BL (0.26.00000000), BMC (0.46.00000000), BMCONF (0.20.00000000), FPGA (0.09.00000000), BIOS (0.20.00000000), and NVRAM (5.00.00000000). The Software Versions column lists Advantech Node Explorer (1.25.0 3220), Advantech iKVM (1.11.2 375), Advantech Remote Storage (1.0.10 72), and a 'More ...' link. The Network Information column shows LAN Channel #1 with MAC Address c4:00:ad:ed:8c:16, IPv4 mode DHCP, and IPv4 Address 172.17.10.184. LAN Channel #2 has MAC Address 00:0b:ab:10:13:04, IPv4 mode Static, and IPv4 Address 10.234.147.1. The top navigation bar includes a status indicator (OK), Power Control, BIOS Post, Refresh, Language (English), and Logout options.

Access the server via BMC WebUI Access [4/5]

Remote Control → iKVM Redirection, select the OS image through Remote Storage for installation, Save Changes and Reset from **Save & Exit** page in BIOS Menu



Access the server via BMC WebUI Access [5/5]

Select “UEFI: BMC Virtual CDROM” as Boot Option #1 from **Post & Boot** in BIOS Menu.

The OS installation guide GUI popup after BIOS reset

