

EVIDEN

Quick Start Guide

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Hardware

April 2025

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Table of Contents

Preface	3
Intended Readers	3
Introduction	4
Chapter 1.	Discovering the server 5
1.1.1	USB key (part of the delivery) 5
1.1.2	Support Online (SOL) resources for BullSequana SA (Eviden support website)..... 5
1.2	Server identification 6
1.2.1	Asset Tag XAN serial number 6
1.2.2	LAN interface (M)..... 7
1.2.3	Board Serial Number (BMC password) 7
Chapter 2.	Starting the server..... 8
2.1	Server BMC setup 8
2.1.1	BIOS Access – Static IP configuration 8
2.1.2	Powering the system..... 9
2.2	Connect and setup the BMC 10
2.2.1	How to access BIOS menu from the BMC 11
2.3	Check HW inventory and components status 12
2.3.1	Hardware Inventory from the BMC GUI. 12
2.3.2	Hardware Inventory from BIOS menu..... 12
Chapter 3.	Deploying the system 17
3.1	Preparing OS deployment 17
3.1.1	Server Power on 17
3.1.2	Operating System installation options 17
3.2	Microsoft Windows Server 2022 preload 19
Chapter 4.	Platform management tools..... 20

Preface

In this guide you will find the first steps to perform before you can use your new BullSequana SA server.

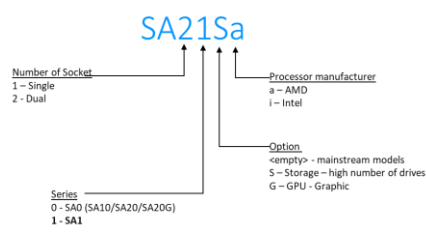
See The Bull support web site for the most up-to-date product information, documentation, , firmware updates, software fixes and service offers:
[BullSequana SA servers — Bull On-line Support Portal](#)

Intended Readers

This guide is intended for customer technical expert or EVIDEN Maintenance team.

Introduction

The BullSequana SA1 range comprises 7 models optimized for SAS, SATA and NVMe storage, categorized into 2 families based on the CPU manufacturer (AMD or Intel).



	AMD				Intel		
Model	SA11a	SA21a	SA21Sa	SA21Ga	SA11i	SA21i	SA21Si
Serial number	XAN-GE5A-xxxxx	XAN-GE8A-xxxxx	XAN-GE7A-xxxxx	XAN-GE6A-xxxxx	XAN-GE5I-xxxxx	XAN-GE8I-xxxxx	XAN-GE7I-xxxxx
							

Chapter 1. Discovering the server

Your system has been factory-built and tested arriving with a BIOS and firmware ready to go.

1.1.1 USB key (part of the delivery)

A USB key is delivered with documentation, firmware and BIOS version.

1.1.2 Support Online (SOL) resources for BullSequana SA (Eviden support website)

Product documentation and downloads are available from Eviden website:

<https://support.bull.com/ols/product/platforms/bullion/bullsequana-sa-servers/>

More contents are available to the customer with support contract (login access is requested on this webserver).




If you don't have an account, you can sign up at : https://support.bull.com/ols/join_form

1.2 Server identification

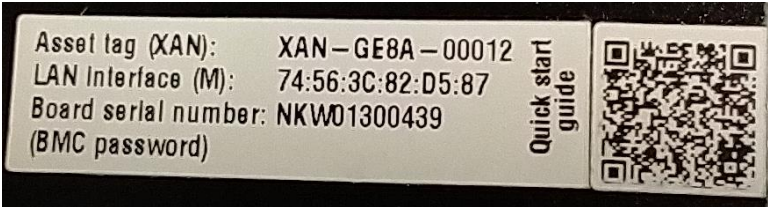
We have grouped on the label holder all the necessary information that you must keep

- Asset tag (XAN)
- LAN Interface (BMC)
- Board Serial Number (BMC password)
- QR code to access this document.

You will also find a QR code to directly access this document.

Models	Label Holder
SA11a, SA11i, SA21Ga	
SA21Sa, SA21Si	
SA21a, SA21i	

Example of label:



1.2.1 Asset Tag XAN serial number

The XAN serial number is a unique number that identifies your server at Eviden, located on top of the server chassis. or on the front label holder.



You will be asked for this number each time you query support Eviden.

1.2.2 LAN interface (M)

The BMC MAC address is written on the label holder. The M Management port can also be found directly on the network card, or on the G-SC module (SA21i, SA21SI) but this requires opening the server.

1.2.3 Board Serial Number (BMC password)

This number is the motherboard serial number. It's used as the default password to log in to the BMC.

It can be found on the label holder or on the right-side chassis.



Chapter 2. Starting the server

2.1 Server BMC setup

By default, network is configured in DHCP.mode.

Two cases for IP configurations:

1. your network is providing DHCP service: contact your network administrator.
See &LAN interface (M) on the label holder for the BMC MAC address.
2. you are using a static IP configuration in this case; you must configure this IP address in the BIOS as specified in the following section (2.1.1.1).

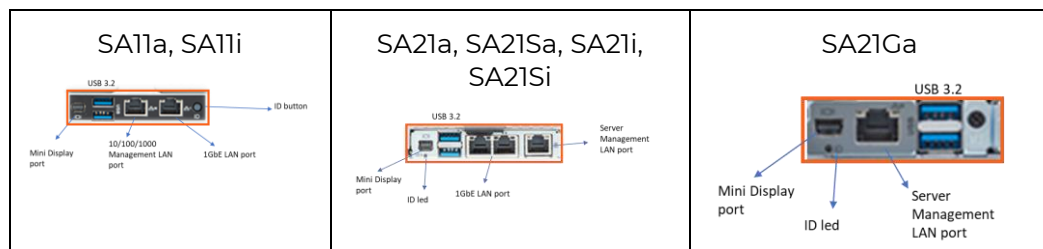
2.1.1 BIOS Access – Static IP configuration

If you use DHCP go to [2.1.1.2 Start the server.](#)


2.1.1.1 Connect monitor & keyboard.

Before starting the server, you need to connect a display via the Mini Display port (Mini display port to VGA adapter is included) and a keyboard.

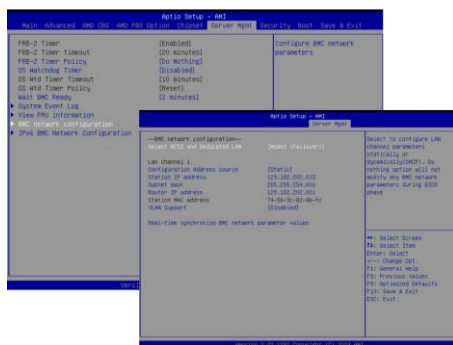
The connectors are located on the back of the server.



Start the server.



EVIDEN



Server Mgmt

BMC network configuration

Then enter Your IP address, Subnet, Router,...
then select Save & Exit

Powering the system

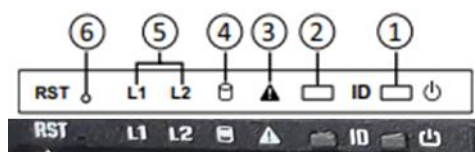
The server is started by pressing power button on the front panel.

Front Panel

SA11a, SA21Sa, SA21Ga, SA11i,
SA21Si



SA21a, SA21i



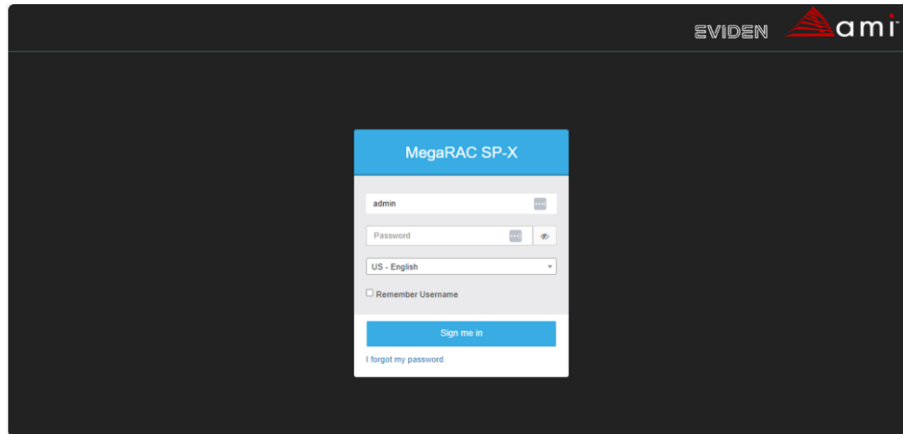
In the User Guide located on the USB stick ("documentation" directory), you will find in the section "Front Panel LEDs and Button" the meaning of the different LEDs.

2.2 Connect and setup the BMC

For the first BMC login, open a browser and go to: https://IP_Address_of_the_server then open a session using default user “admin”

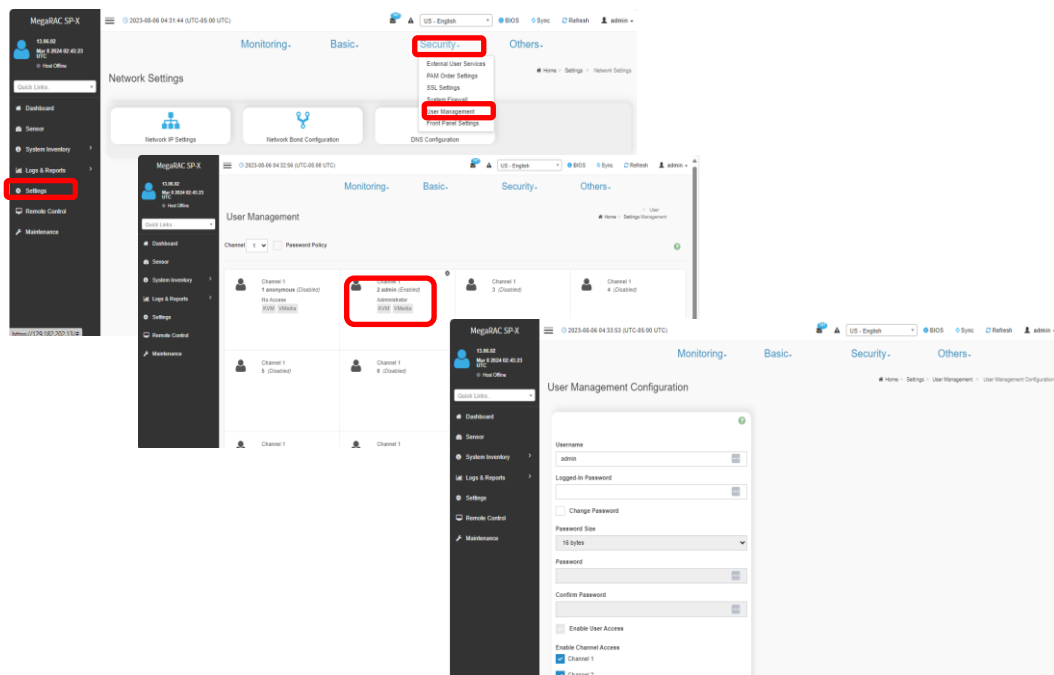
The password is located on the label holder (cf [Board Serial Number](#))

For example



Then change the default password,

Go to menu “Settings”, “User Management”, select “admin” account, change, and save the new “admin” user password.



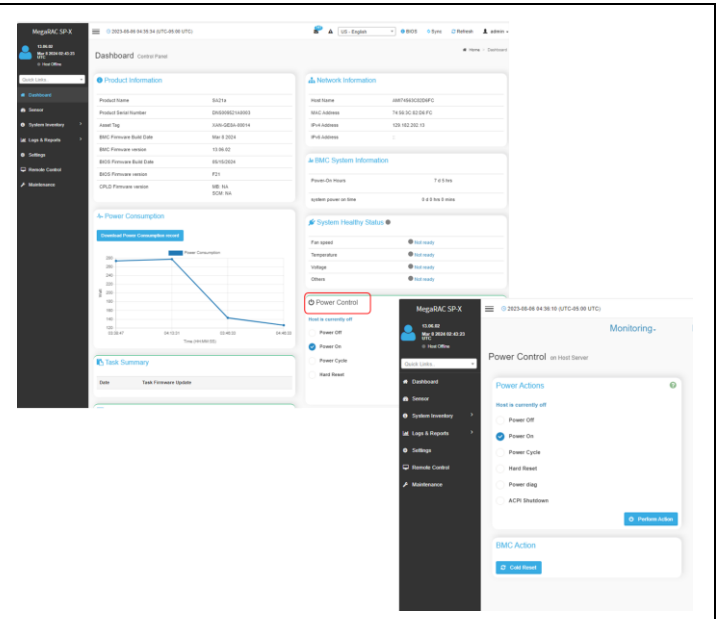
2.2.1

How to access BIOS menu from the BMC

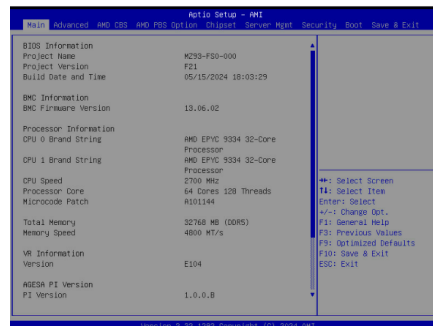
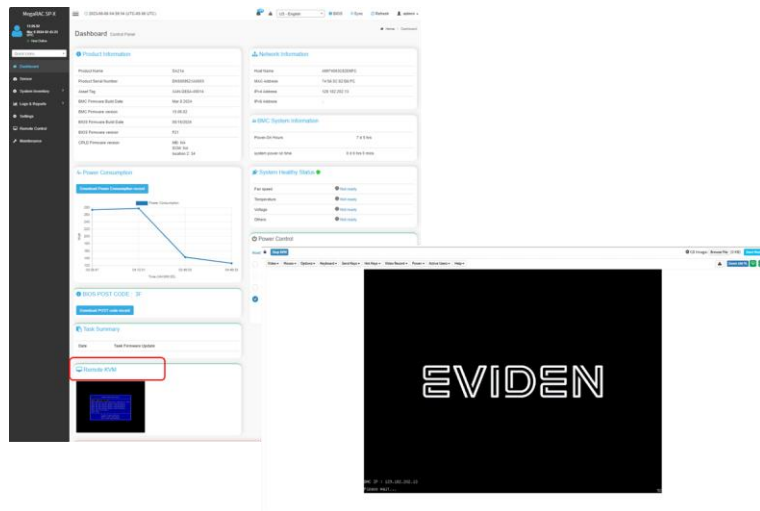
To access the BIOS, you must restart your server. Follow these steps:

1. Navigate to the BMC dashboard.
2. Select the "Power Control" menu.
3. In the subsequent screen, choose "Power Cycle."
4. Click on "Perform Action."

This will restart your server



While the server is rebooting, navigate to the BMC dashboard and select the "Remote KVM" menu. Then, launch the "H5Viewer" to open a remote window on your server. When you see the screen, press the key to enter the BIOS



2.3 Check HW inventory and components status

In most cases, servers are configured with boot drives in RAID1, although this may vary depending on your order specifications.

Other drives connected to the MegaRAID adapter are configured in JBOD (Just a Bunch Of Disks) mode. Administrator shall finalize MegaRAID configuration on-site.

2.3.1 Hardware Inventory from the BMC GUI.

Connect to the BMC using the username "admin" and verify the presence of the PCI RAID card by following these steps: System Inventory => PCI Inventory = Add In Card

The screenshot shows the MegaRAC SP-X BMC GUI. The left sidebar contains navigation links: Dashboard, Sensor, System Inventory (selected), CPU Inventory, DIMM Inventory, PCI Inventory, HDD Inventory, NIC Inventory, GPU Inventory, FRU Information, PSU Information, Logs & Reports, Settings, Remote Control, and Maintenance. The main content area is titled 'PCI Inventory' and includes a 'Download SMBIOS file' button. It contains two tables:

Type	Name	Manufacturer	Vendor ID	Device ID	Link Width	Link Speed
Ethernet controller	I350 Gigabit Network Connection	Intel Corporation	0x8086	0x1521	x1	Gen2
Ethernet controller	I350 Gigabit Network Connection	Intel Corporation	0x8086	0x1521	x1	Gen2
PCI bridge	AST1150 PCI-to-PCI Bridge	ASPEED Technology, Inc.	0x1A03	0x1150	x1	Gen1
VGA compatible controller	ASPEED Graphics Family	ASPEED Technology, Inc.	0x1A03	0x2000	x1	Gen1

Type	Slot Number	Name	Manufacturer	Vendor ID	Device ID	Link Width	Link Speed
RAID bus controller	SLOT3 0000:01:00:0	MegaRAID 12G SAS/PCIe Secure SAS3Bor	Broadcom / LSI	0x1000	0x10E6	x8	Gen4

Drives behind the MegaRaid PCI card are not directly visible here. Use the BIOS Setup (see next section).

2.3.2 Hardware Inventory from BIOS menu.

During the server Power On, select to enter in the BIOS menu see how to access BIOS menu from the BMC.

At the home page you have main information on your server

The screenshot shows the Aptio Setup - AMI BIOS menu. The top bar includes navigation options: Main, Advanced, AMD CBS, AMD PBS Option, Chipset, Server Mgmt, Security, Boot, Save & Exit. The main display area shows the following information:

- BIOS Information: Project Name K293-F50-000, Project Version F21, Build Date and Time 05/15/2024 18:03:29
- BMC Information: BMC Firmware Version 13.06.02
- Processor Information: CPU 0 Brand String AMD EPYC 9334 32-Core Processor, CPU 1 Brand String AMD EPYC 9334 32-Core Processor, CPU Speed 2700 MHz, Processor Core 64 Cores 128 Threads, Microcode Patch A101144
- Total Memory 32768 MB (DDR5), Memory Speed 4800 MT/s
- VR Information: Version E104
- AGESA PI Version 1.0.0.8

On the right side, a legend explains the navigation keys:

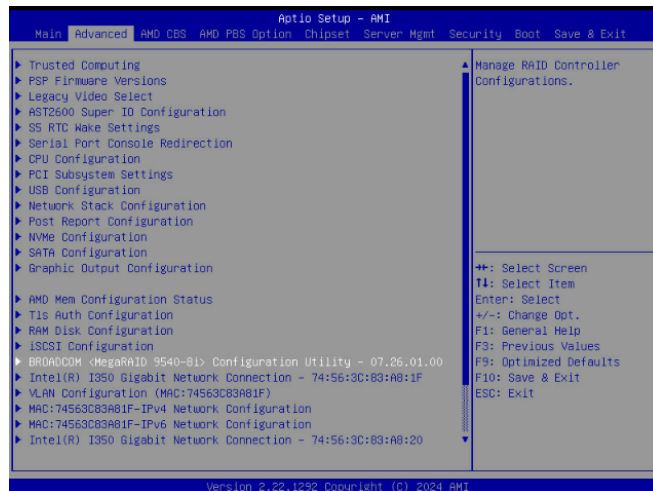
- F2: Select Screen
- F10: Select Item
- Enter: Select
- +/-: Change Opt.
- F1: General Help
- F3: Previous Values
- F9: Optimized Defaults
- F10: Save & Exit
- ESC: Exit

At the bottom, it says 'Version 2.22.1232 Copyright (C) 2024 AMI'.

2.3.2.1

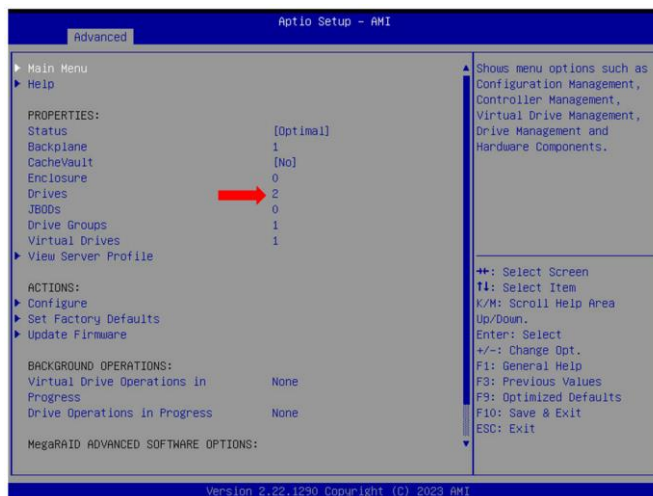
RAID components

Navigate to Advanced => BROADCOM MegaRAID model > Configuration Utility

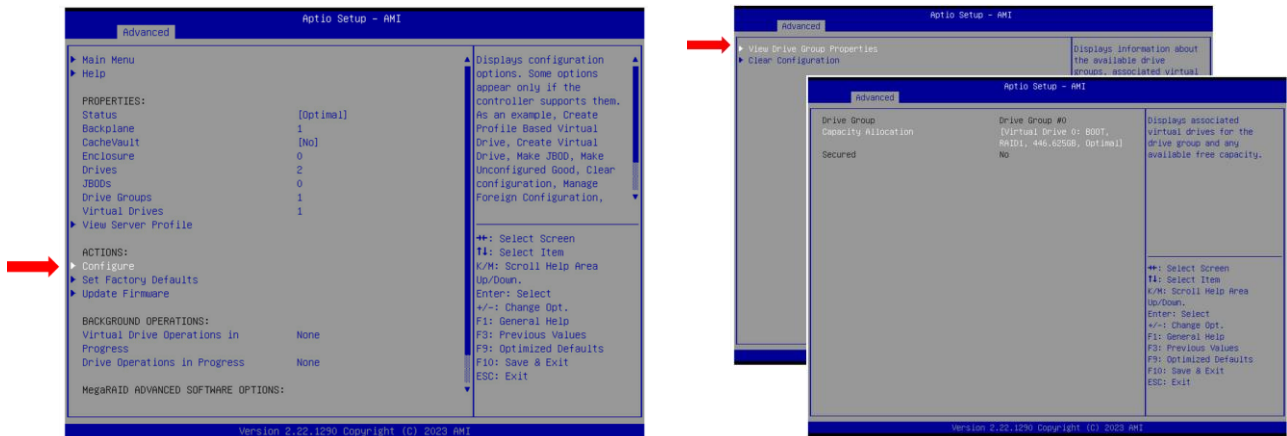


Look in PROPERTIES and verify that:

- **Drives** to see the available disks behind the PCI card
- **Drive Groups** to see the number of configured Raid Group
- **Virtual Drives** to see the number of volumes configured and available.



In ACTIONS, you're able to verify the RAID types, Status and capacity:



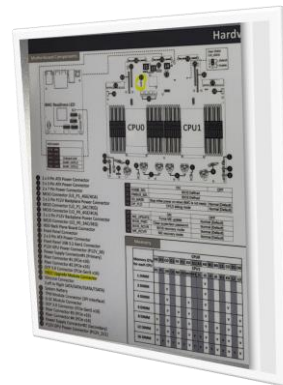
2.3.2.2 VROC components

As an option, you can connect a VROC key. Two types of VROC key

- Standard VROC key for RAID0/1/10
- Premium VROC key for RAID0/1/5/10

The key must be installed as indicated in the diagram below, which is located on the server's cover.

*



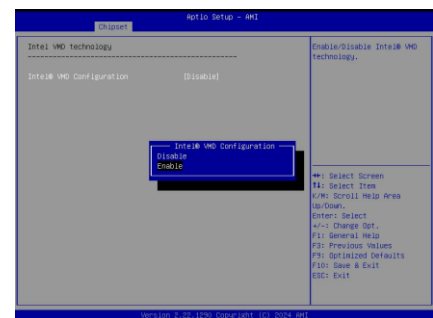
Check that Intel MD configuration is enable :

From the BIOS menu, go to :

Chipset and select IIO Configuration"

Select "Intel VMD technology"

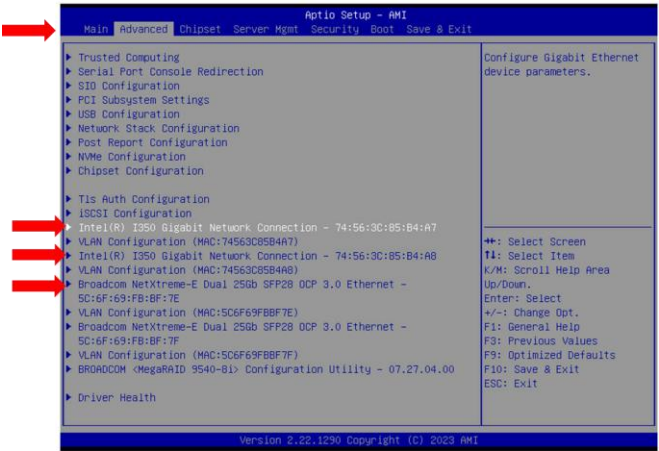
Set "Intel VMD Configuration" to "enable":



More detail is available on Intel web site under Support "Resources for Intel® Virtual RAID on CPU (Intel® VROC)" (<https://www.intel.com/content/www/us/en/support/articles/000024550/memory-and-storage/datacenter-storage-solutions.html>)

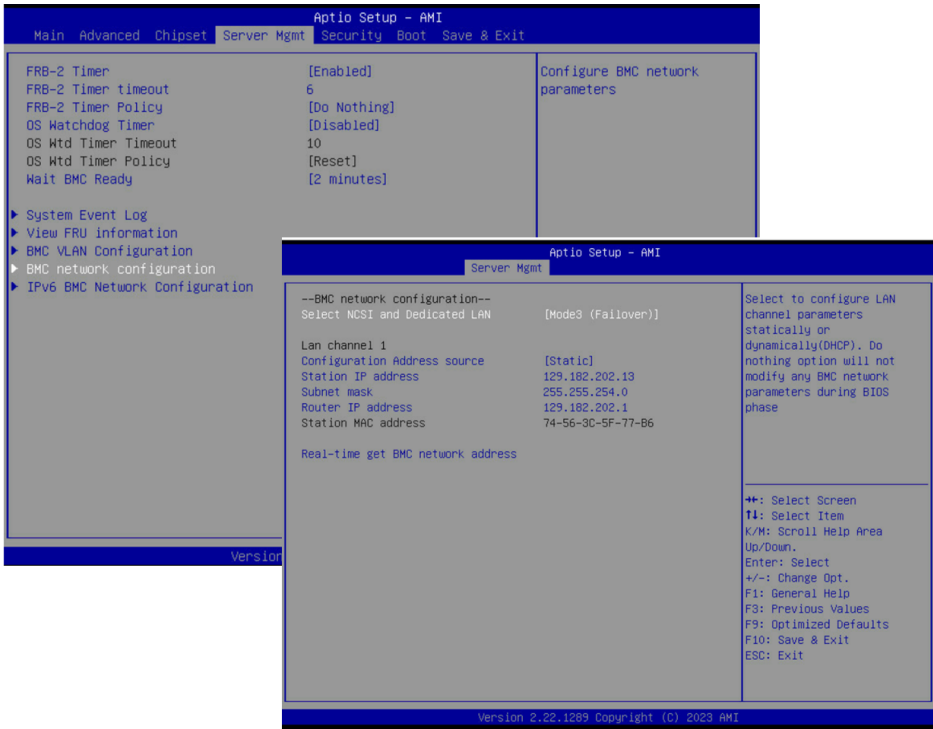
2.3.2.3 Network

From the "Advanced" menu, you can find 4 dedicated submenus for each Network adapter:



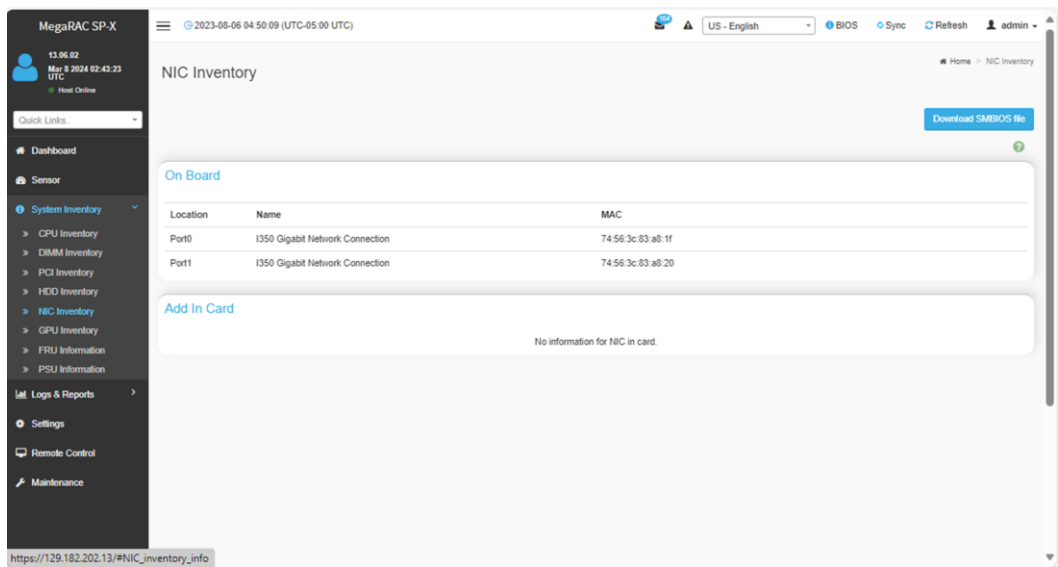
2.3.2.4 BMC network

Navigate to Server Mgmt => BMC network configuration. This interface can be used to specify static IP configuration. **IDEM**



2.3.2.5 On Board ethernet MAC addresses


From the BMC home screen select NIC Inventory tab to view MAC address of the on board/port



3.1 Preparing OS deployment

3.1.1 Server Power on


MegaRAC SP-X



13.06.02
Mon 9 2024 02:42:23 UTC
Host Office

Guest Limits

Dashboard
Sensor
System Inventory
Logs & Reports
Settings
Remote Control
Maintenance


02:05:06 04:36:10 (UTC+05:00 UTC)

Monitoring-


Power Control

an Host Server


Power Actions

Host is currently off

☐ Power Off
☒ Power On
☐ Power Cycle
☐ Hard Reset
☐ Power diag
☐ ACPI Shutdown


Refresh Action

BMC Action


Cold Reset

3.1.2 Operating System installation options

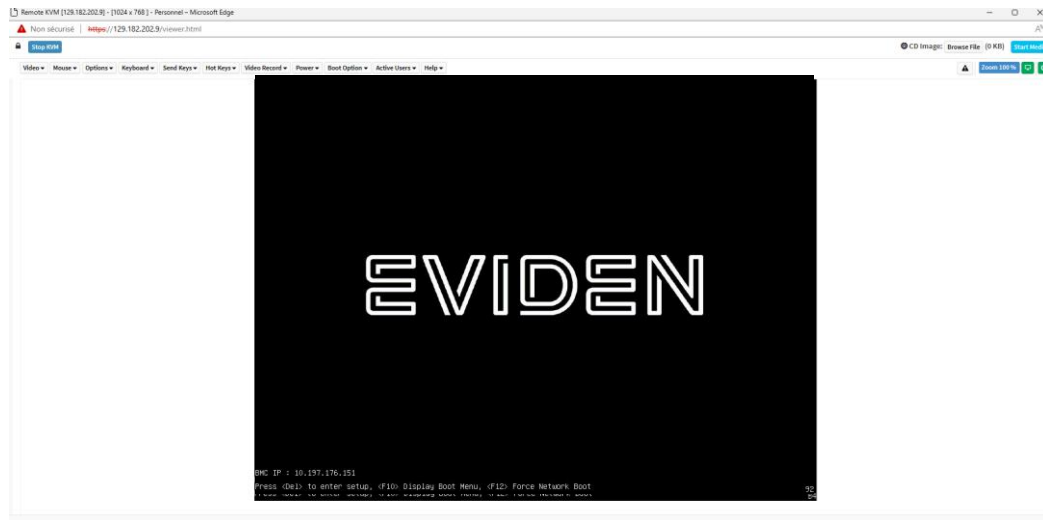
3.1.2.1 By using a Virtual Media

[illegible]

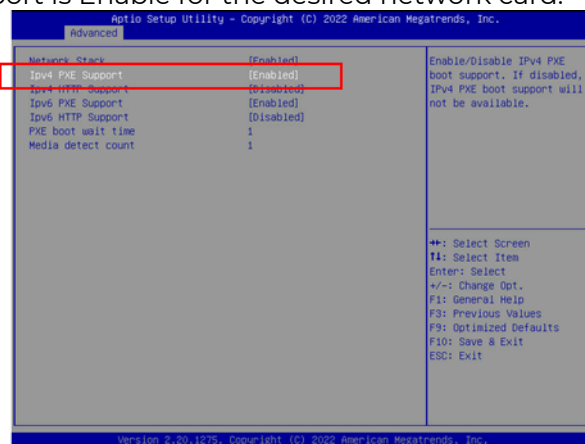
3.1.2.2 By using a Pre-boot eXecution Environment (PXE)

Change the BIOS boot list to enable PXE booting. Then, restart the server and connect to the BMC using the admin account. Navigate to the "Remote KVM" submenu and open a remote window.

You can also restart the server and during the boot session press the < F12 > key to force Network boot.



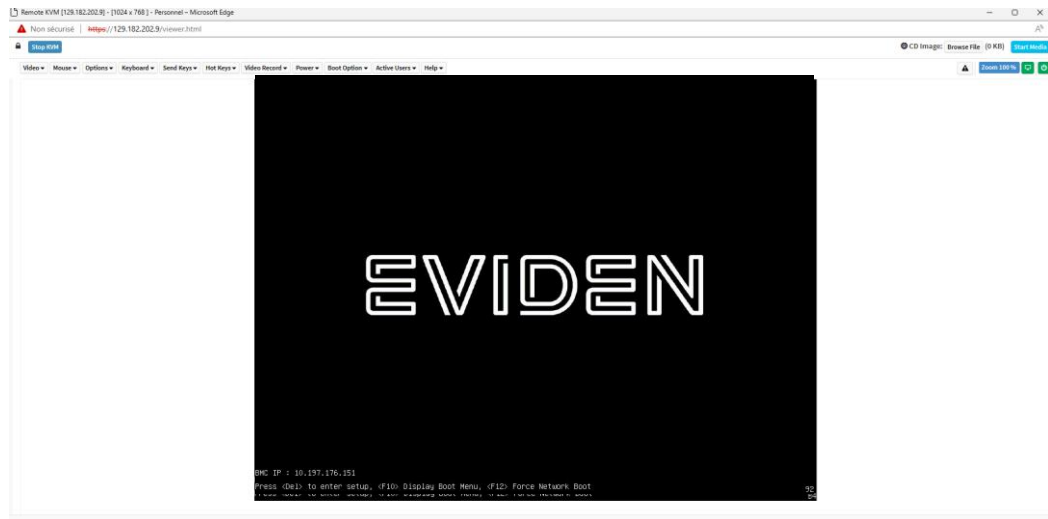
Verify that PXE support is Enable for the desired network card:



3.1.2.3

By using a bootable USB drive

Plug a bootable USB flash drive into any of the USB ports of the server. You may need to adjust the BIOS boot list to enable booting from the USB drive. Afterward, restart the server and connect to the BMC using the admin account. Then, navigate to the "Remote KVM" submenu and open a remote window.



3.2 Microsoft Windows Server 2022 preload

If you ordered Microsoft Windows Server 2022 preloaded, you must activate it.

For more details, please download the document titled '[86A172FT Preloaded Windows User Guide](#)' from SOL.

Chapter 4. Platform management tools

The GSM software suite is an optional and free tool designed for the centralized management of multiple BullSequana SA servers. It can be downloaded from the SOL website. This suite comprises three main components:

1. **GSM Server:** A browser-based GUI software program that provides easy-to-use remote monitoring and management capabilities for multiple BullSequana SA servers. It interfaces with the BMC of each server node.
2. **GSM Agent:** This software program is installed locally on BullSequana SA server node, tasked with retrieving supplementary node information such as CPU, memory, hard disk drive, PCI components, etc., directly from the operating system (OS). Subsequently, this data is available from GSM agent Web UI, and it can be pulled by GSM Server
3. **GSM CLI:** A command-line interface program that facilitates global remote monitoring and management of multiple BullSequana SA servers. It operates via the BMC of each server node.

We recommend downloading from the Broadcom website the web-based application LSI Storage Authority (LSA) that enables you to monitor, maintain, troubleshoot, and configure the Broadcom MegaRAID card.