

# Funding Update: A Comprehensive record of the configuration of an HP Proliant Gen8 Server with iLO 4

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**Abstract.** This document is a comprehensive record of the configuration of an HP Proliant Gen8 Server with iLO 4.

## 1 Reference: RESET UPDATE HP Proliant Gen8 Servers with iLO 4

### 1.1 Developer environment

This portion provides a set-by-set walk-through of configuring our VMWare data center:

#### 1. After assembling the **ProLiant ML310e Gen8 v2**

##### 1.2 Specs

Intel Xeon E3–1270v3 16 GB RAM 8TB SSD @ 2.5" SATA III 6GB/s

#### 2. Run the latest HP SPP (Service Pack for Proliant) and update the server's BIOS and all firmware (iLo, Smart Array, NICs etc.) to the latest.

##### 1.3 Test environment

ESXi 6.0 U1b Offline Bundle

##### 1.4 Update Firmware/BIOS

#### 1. After assembling the **ProLiant ML310e Gen8 v2**

##### 1.5 Specs

Intel Xeon E3–1270v3

16 GB RAM

8TB SSD @ 2.5" SATA III 6GB/s

Server Serial Number:

*MX234301UG*

System ROM:

*J0404/04/2019*

iLO Firmware Version: 2.82 Feb 06 2023

iLo Hostname:

*ILOMX234301UG.*

iPv4 Address:

192.168.0.105

## **2 Results**

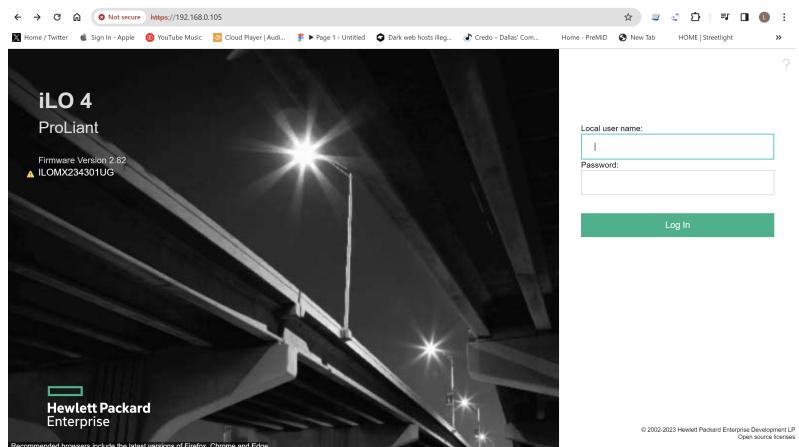


Figure 1:

1. Once iLo4 is whipped, log into the login prompt by entering the admin

### 3 Add a User Administrator

2. Navigate to User Domain and create a user with all permissions

The screenshot shows the iLO 4 User Administration interface. On the left, a navigation menu includes Power Management, Network, Remote Support, Administration (selected), Firmware, Licensing, and User Administration (selected). The main area is divided into two sections: Local Users and Directory Groups.

**Local Users:** A table with columns for Login Name and User Name. One row is shown: Login Name "Administrator" and User Name "Administrator". Action buttons include New, Edit, and Delete.

**Directory Groups:** A table with columns for Group and SID. Two groups are listed: Administrators (SID S-1-5-11) and Authenticated Users. Action buttons include New, Edit, and Delete.

At the bottom right, status indicators show POWER: ON and UID: ON.

Figure 2:

The screenshot shows the iLO 4 Virtual Media interface. The left sidebar has sections for Information, ILO Federation (selected), Remote Console, and Virtual Media (selected). The main area shows two connection sections: Connect Virtual Floppy and Connect CD/DVD-ROM.

**Connect Virtual Floppy:** Fields include Media Inserted (None), Scripted Media (None), URL (http://192.168.0.105/), and Boot on Next Reset (unchecked). Buttons: Change Port, Eject Media, Force Eject Media, Insert Media.

**Connect CD/DVD-ROM:** Fields include Media Inserted (None), Scripted Media (None), URL (http://192.168.0.105/), and Boot on Next Reset (unchecked). Buttons: Eject Media, Force Eject Media, Insert Media.

A note at the bottom states: "Note: Scripted media supports only 1.44 MB floppy images (.img) and CD/DVD images (.iso)." A Server Reset button is also present.

Figure 3:

## 4 Change Host Name

3. Navigate to iLO Hostname → Settings → change to → iLO-Luka-310-Melchior

The screenshot shows the iLO Dedicated Network Port - Network Summary page. The left sidebar has 'Network' expanded, with 'iLO Dedicated Network Port' selected. The main content area displays a message: 'ILO is not configured to use this NIC.'

Figure 4:

The screenshot shows the iLO Dedicated Network Port - Network General Settings page. The 'iLO Hostname Settings' section shows the ILO Subsystem Name (Hostname) set to 'ILOMX234301UG'. The 'NIC Settings' section includes options for using the ILO Dedicated Network Port (checkbox) and selecting 'Automatic'.

Figure 5:

The screenshot shows the Access Settings page under the iLO Federation section. It lists various services and their settings, such as Secure Shell (SSH) Enabled, Telnet Enabled, and IPMI/COM over LAN Enabled.

Service	Setting	Value
Secure Shell (SSH) Access	Enabled	Enabled
Secure Shell (SSH) Port	22	22
Akiole Console Port	17900	17900
Web Server Non-SSL Port	80	80
Web Server SSL Port	443	443
Virtual Media Port	17988	17988
SNMP Access	Enabled	Enabled
SNMP Trap Port	162	162
IPMI/COM over LAN Access	Disabled	Disabled
IPMI/COM over LAN Port	623	623

Figure 6:

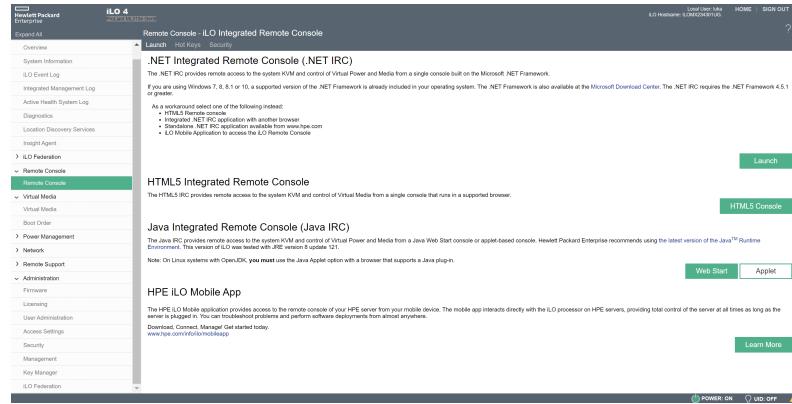


Figure 7:

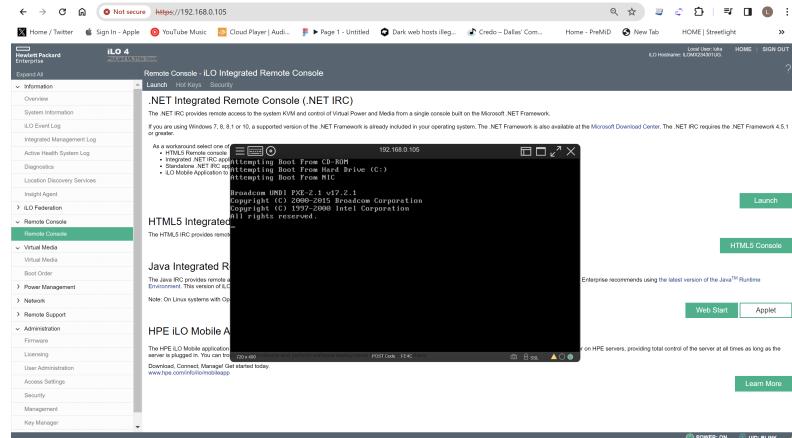


Figure 8:

## 5 Remote connect via Java integrated Remote console (Java IRC)

4. Install Jar onto a Runtime environment.

## 6 Update iLO 4

5. Navigate to Firmware → First organize all Firmware to folder 310
6. Download and deploy the latest HP SPP (Service Pack for Proliant)
7. Create bootable media with iLO
8. Navigate to Licensing

### 6.1 HPE iLO Licensing <sup>®</sup>

- iLO Standard vs. Advanced Licenses
  - Standard Features
  - Support covered in hardware warranty
  - Advance Features
  - 1 and 3-year support
  - Active Support Agreement
  - Purchasing Options
- 1. Single-Server license → 1 – 10 Servers. Separate keys for every single license.  
One license key for electronic license
- 2. Flexible quantity license → 3-99 Servers, one key for all licenses
- 3. Volume licensing or Tracking license.  
→ More than 100 servers over 3 years. No registration. One master key

### 6.2 License Activation

- iLO provides other utilities like virtual media (CD, floppy), virtual power, and a remote console.
- It is highly encouraged by HPE that we register our server license (while configuring pre-owned servers). We will recover software updates and access to HPESupport center, and product updates
- P03093\_001\_SPP-Gen81.4

### 6.3 Set Boot controller

- Reconfigure iLo 4
- Old config

**iLo 0.0.0151**

- Navigate to iLo Hostname Settings → Change to

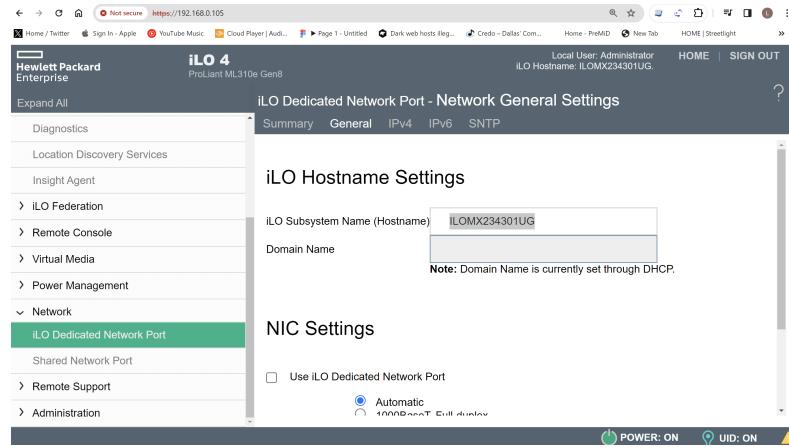


Figure 9:

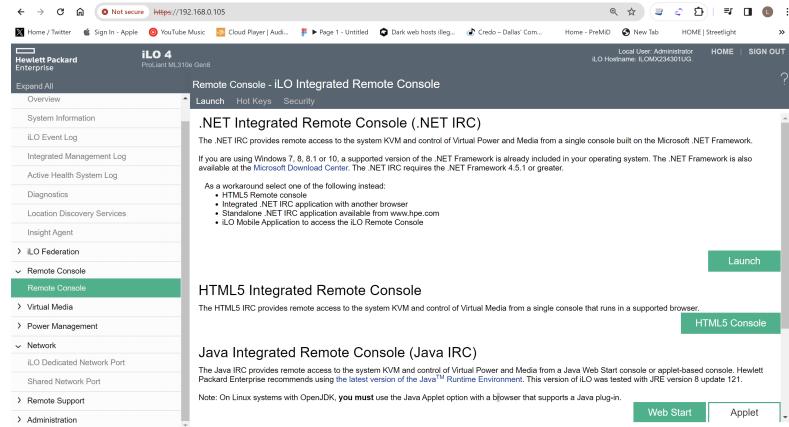


Figure 10:

#### 6.4 Navigate to Remote console. We will remote connect.

- P03093\_001\_SPP-Gen81.4

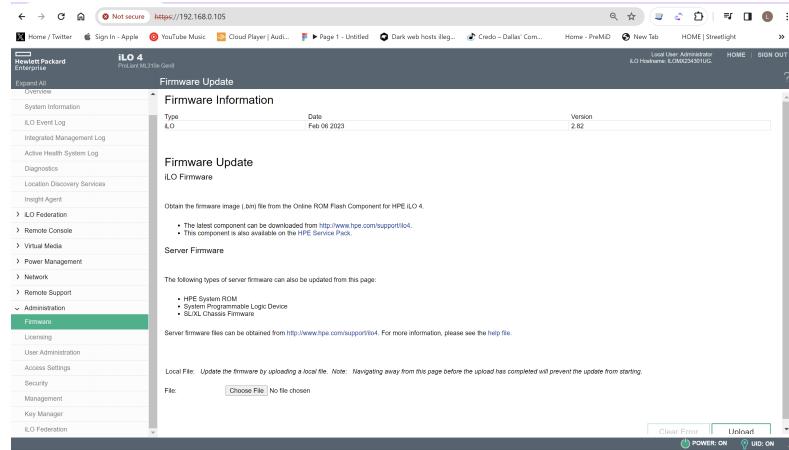


Figure 11:

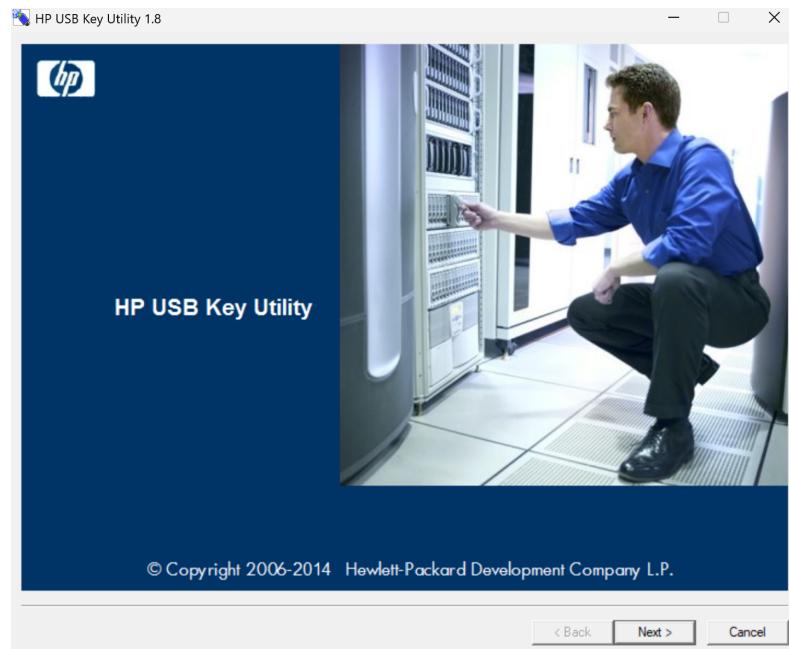


Figure 12:

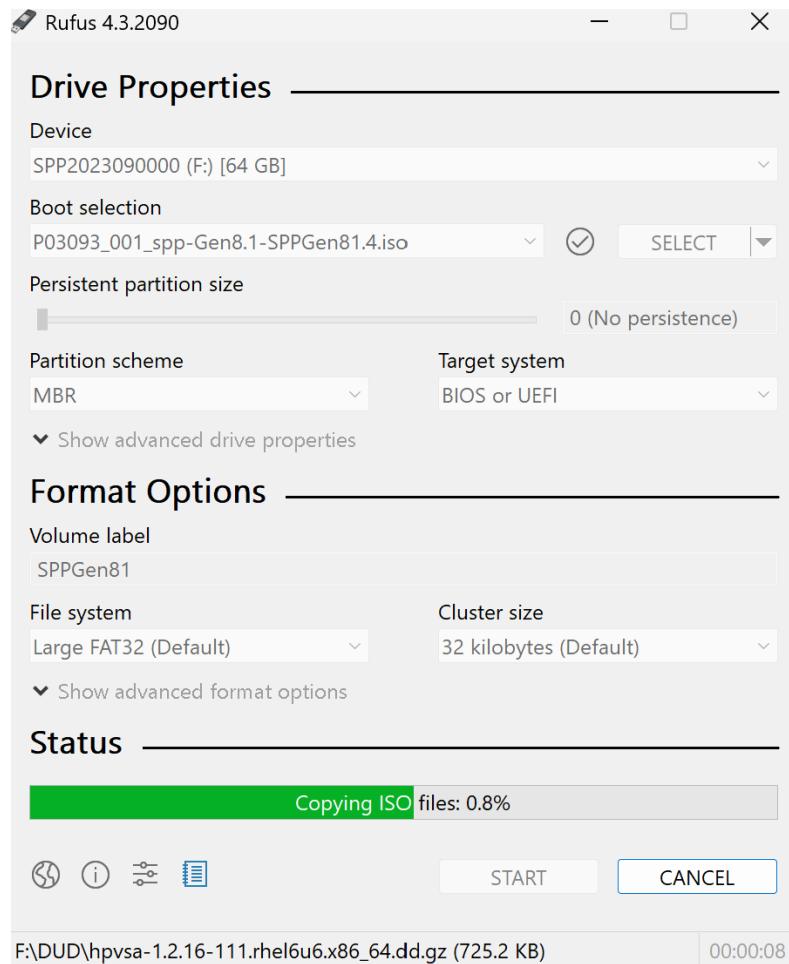


Figure 13:

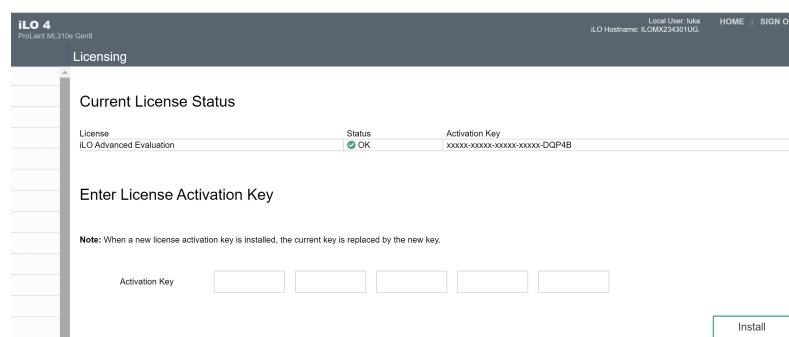


Figure 14:

## Status

System Health	<span style="color: yellow;">⚠️</span> Degraded
iLO Health	<span style="color: green;">✓</span> OK
Server Power	<span style="color: green;">●</span> ON
UID Indicator	<span style="color: green;">💡</span> UID OFF
TPM Status	Not Present
SD-Card Status	Not Present
iLO Date/Time	Sat Jan 13 10:56:55 2024

## Connection to HPE

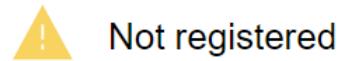


Figure 15:

The screenshot shows the iLO Integrated Remotes Console interface. At the top, there's a navigation bar with links like Home / Twitter, Sign In, YouTube Music, Cloud Player, Page 1 - Untitled, Dark web hosts (leg...), Credo - DataCom..., New Tab, HOME, Streetlight, and SIGN OUT. Below the navigation is a user info section with 'Logout' and 'iLO Hostname: L0N6K3H00G'. The main content area has tabs for 'Remote Console - iLO Integrated Remote Console' (selected), 'HTML5 Integrated Remote Console', and 'Java Integrated Remote Console (Java IRC)'. The 'Remote Console' tab displays a list of connection methods: .NET Integrated Remote Console (.NET IRC), HTML5 Integrated Remote Console (HTML5 IRC), and Java Integrated Remote Console (Java IRC). Each method has a brief description and a 'Launch' button. The 'HTML5 Console' section also includes 'Web Start' and 'Applet' buttons. On the left, there's a sidebar with sections like Information, iLO Federation, and Administration.

Figure 16:

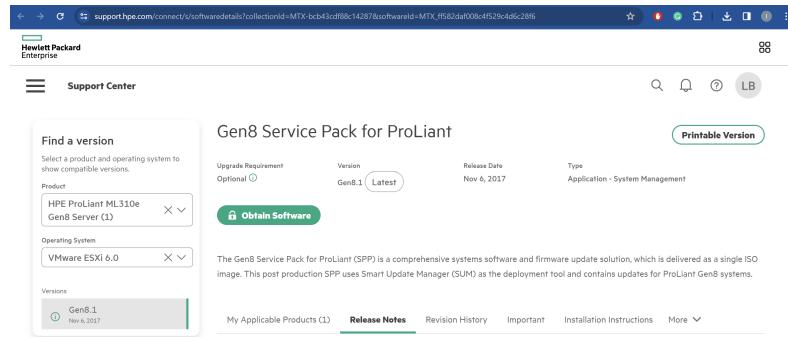


Figure 17:

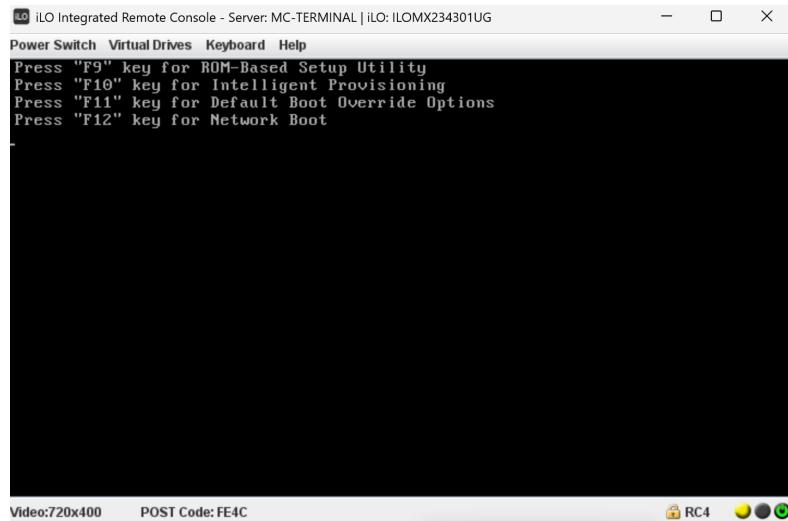


Figure 18:

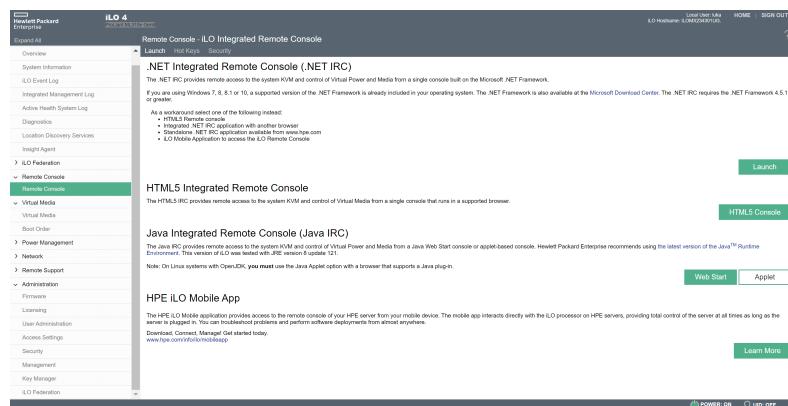


Figure 19:

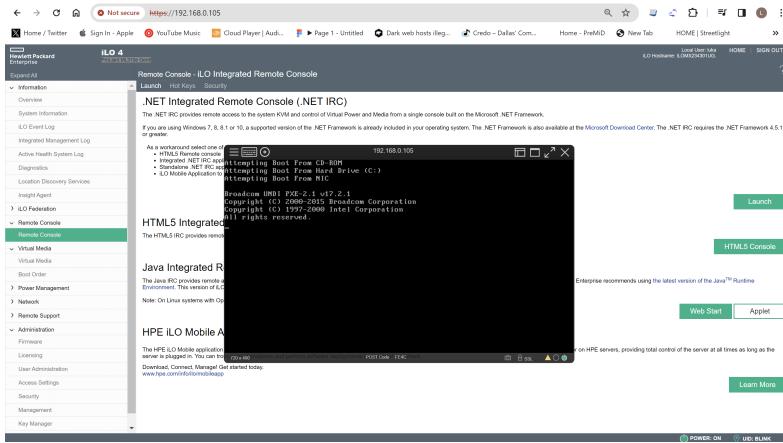


Figure 20:

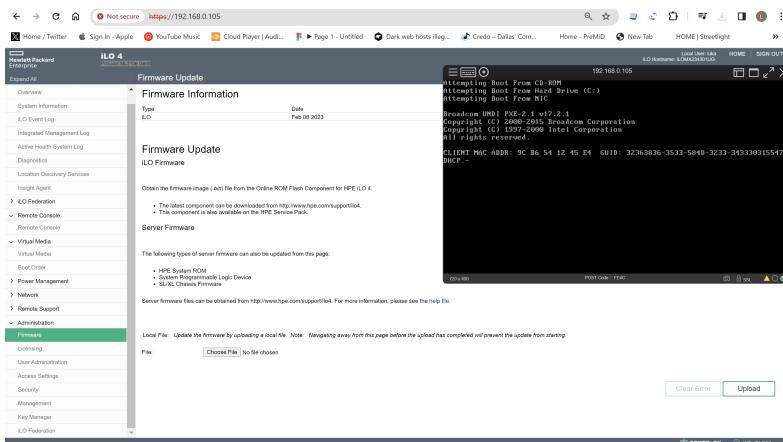


Figure 21:

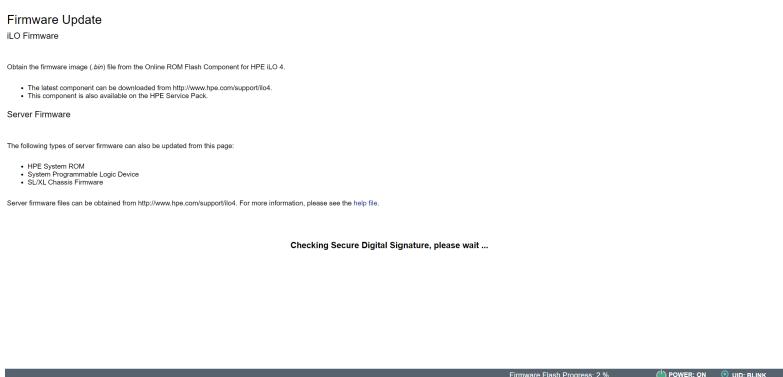


Figure 22:

**iLO Overview**

**Information**

- Server Name: MC-TERMINAL
- Product Name: ProLiant ML310e Gen8
- UUID: 32363898-3533-584D-3233-343330315547
- Server Serial Number: M0234301UG
- Product ID: 68800000
- System ROM: 04040202019
- System ROM Date: 04/04/2019
- Backup System ROM: 0411092019
- Integrated Remote Console: HTML5, .NET, Java Web Start
- License Type: iLO Advanced Evaluation
- iLO Firmware Version: 2.82 Feb 09 2023
- IPV4 Address: 192.168.0.105
- iLO Hostname: ILOMK234301UG

**Status**

- System Health: ! Degraded
- iLO Health: OK
- Server Power: ON
- UID Indicator: ! UID OFF
- TPM Status: Not Present
- SD-Card Status: Not Present
- iLO Date/Time: Mon Jan 15 04:01:29 2024

**Connection to HPE**

- ! Not registered

**Active Sessions**

User	IP Address	Source
Local User: luka	192.168.0.103	HTTPS

Figure 23:

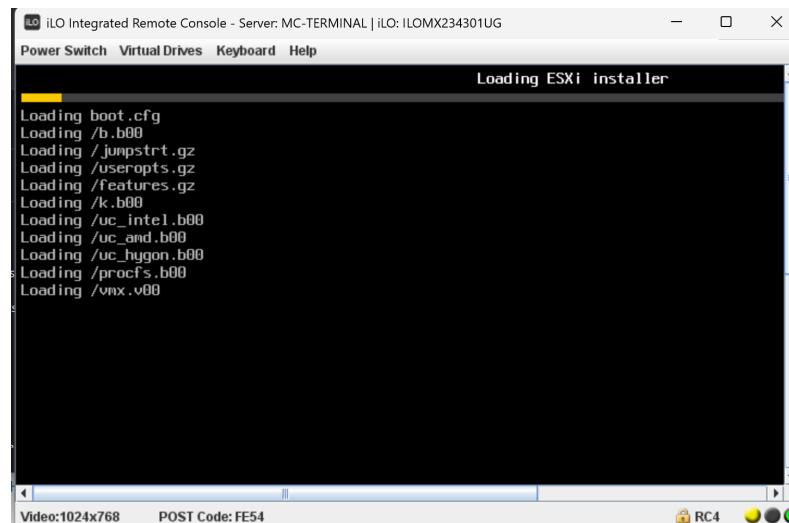


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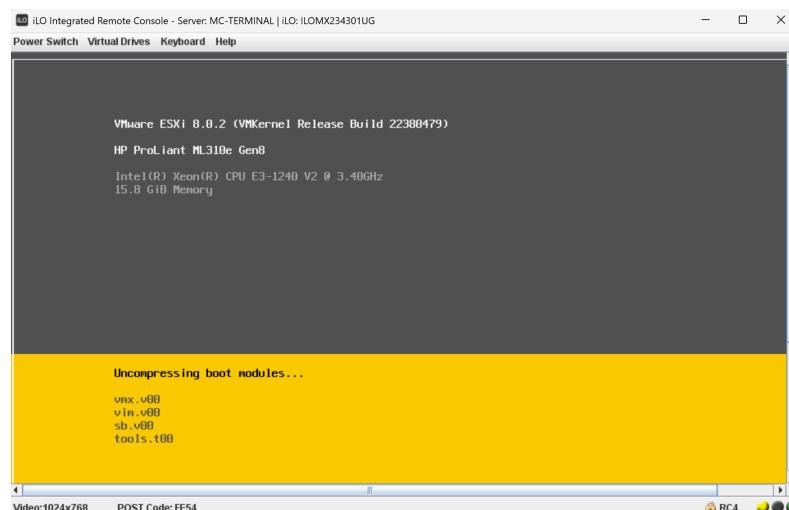


Figure 25:

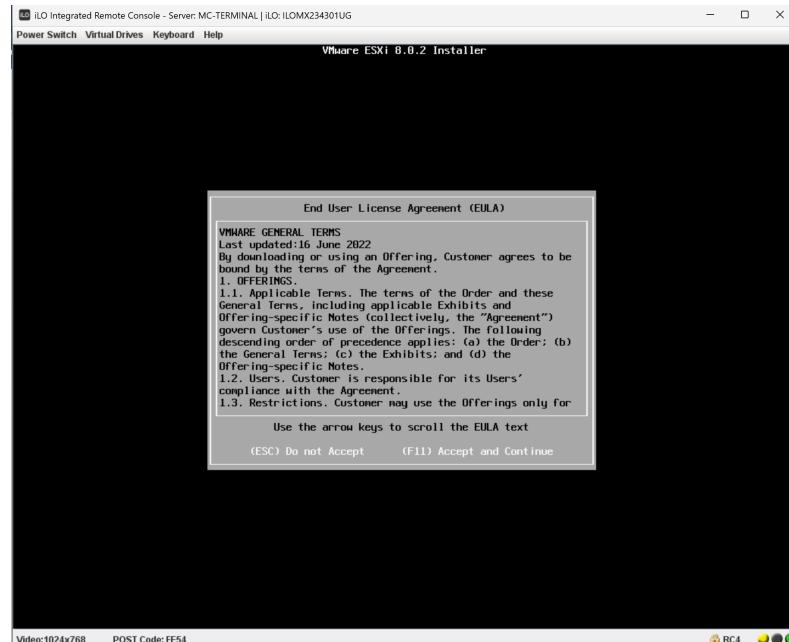


Figure 26:

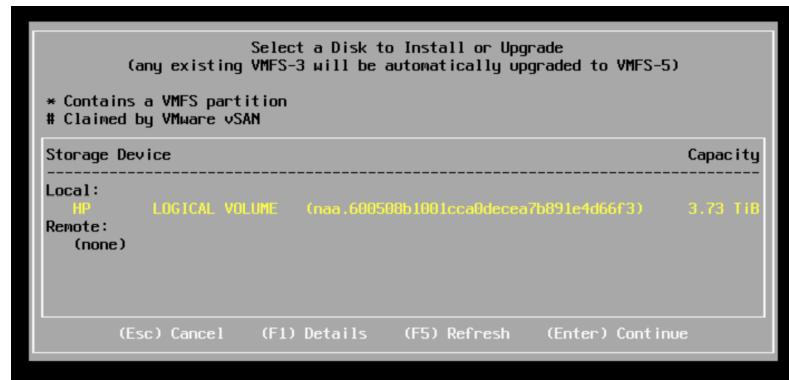


Figure 27:



Figure 28:

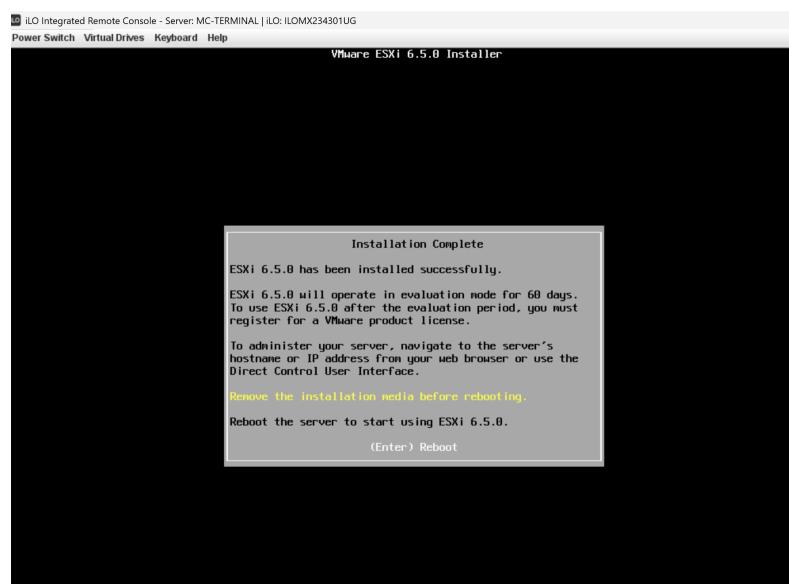


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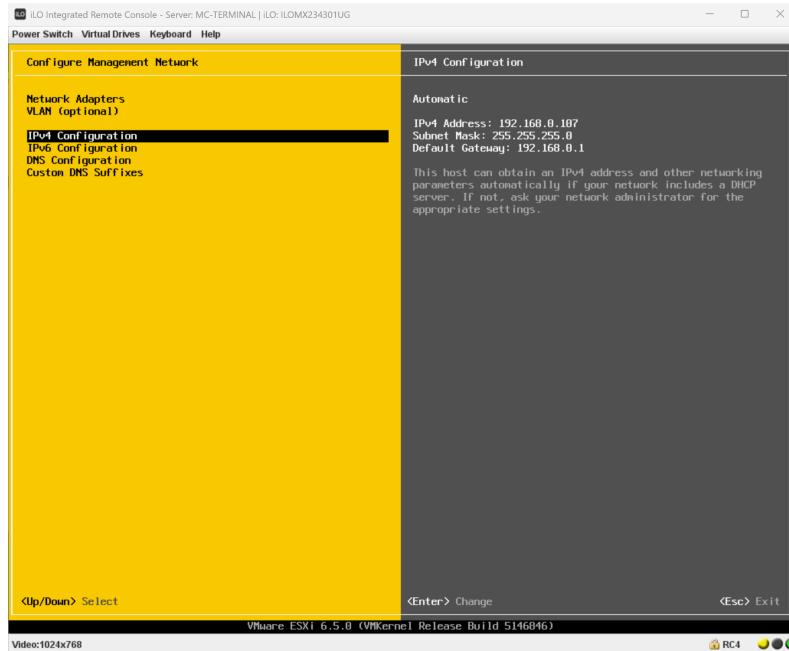


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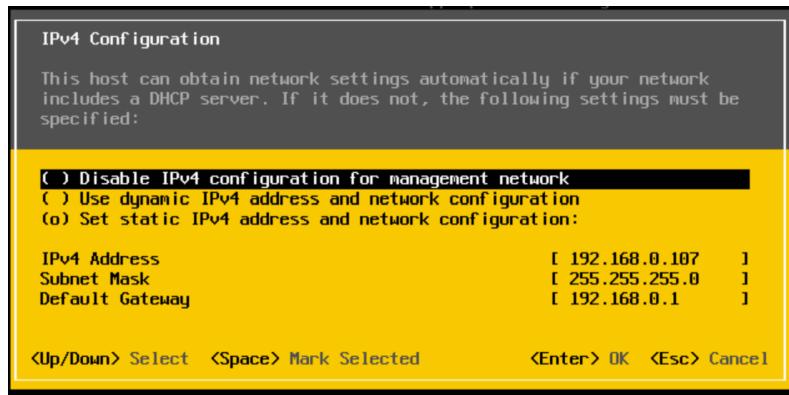


Figure 31:

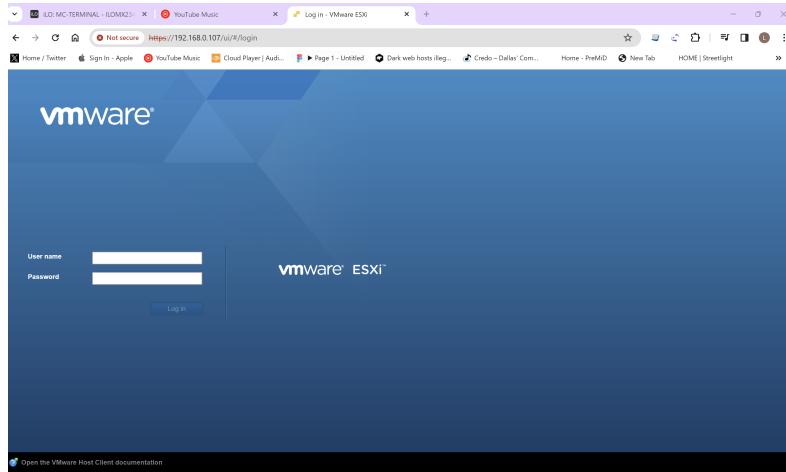


Figure 32:

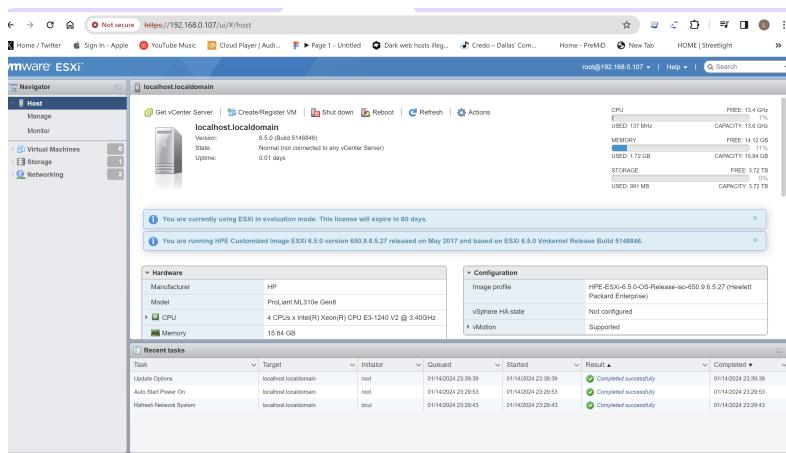


Figure 33:

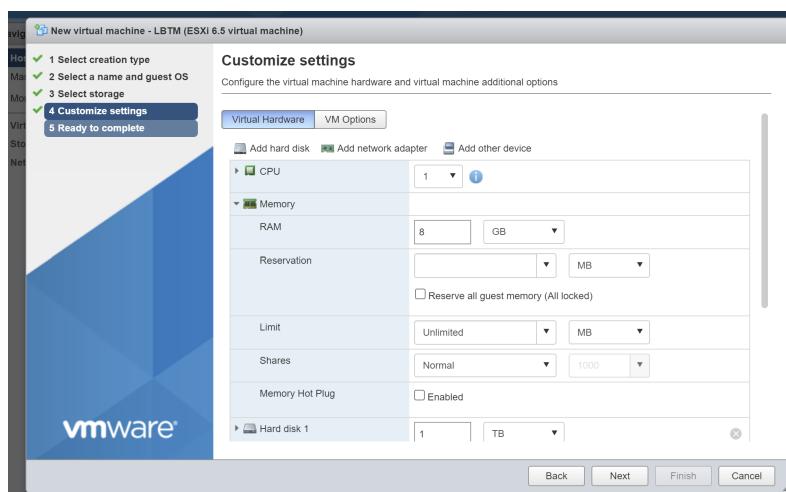


Figure 34:

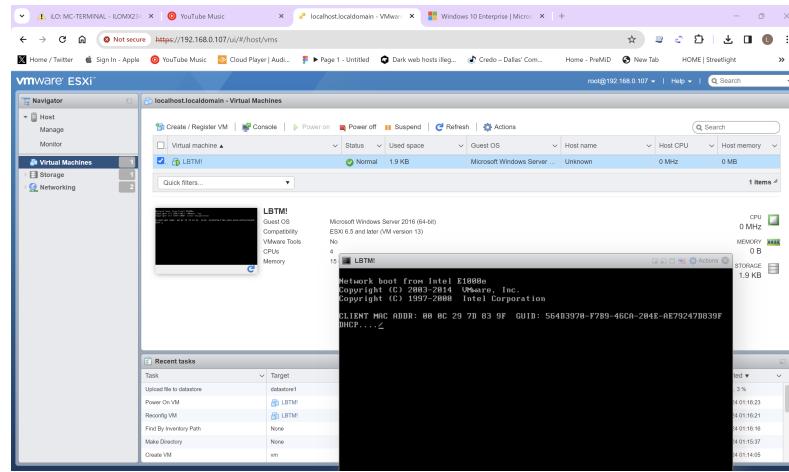


Figure 35:

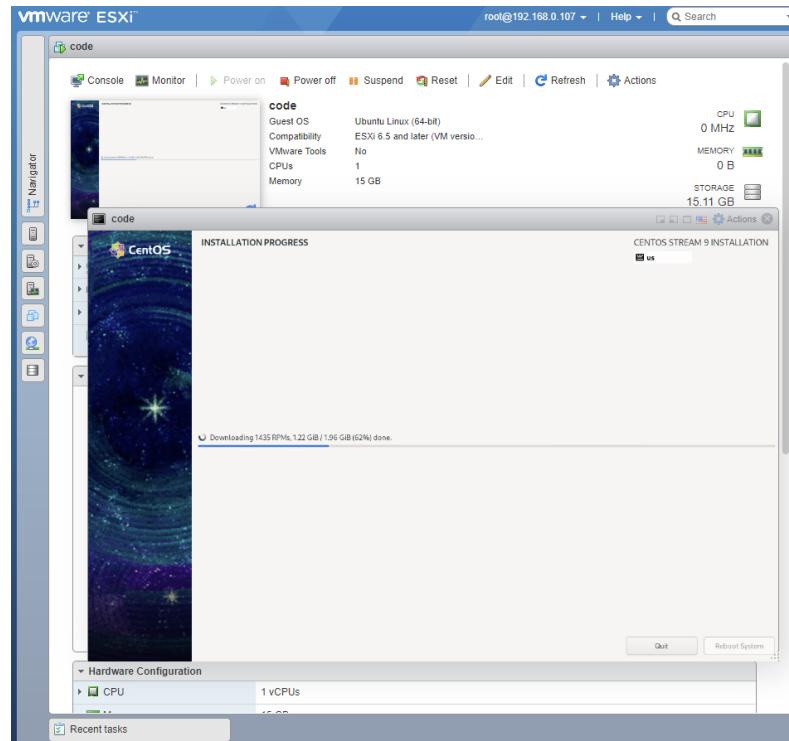


Figure 36:

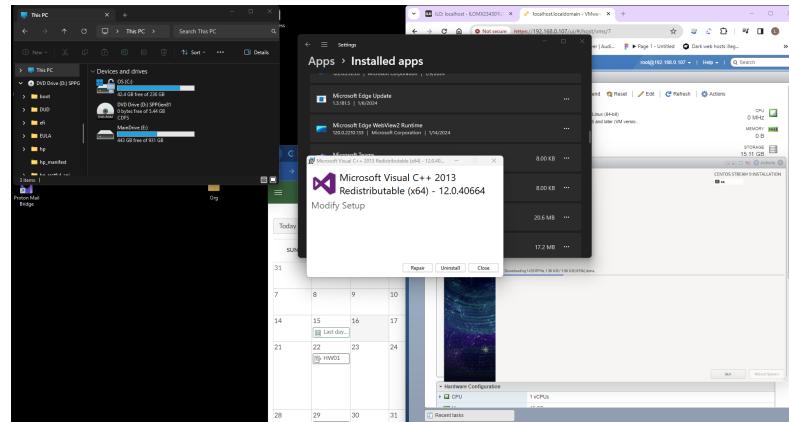


Figure 37:

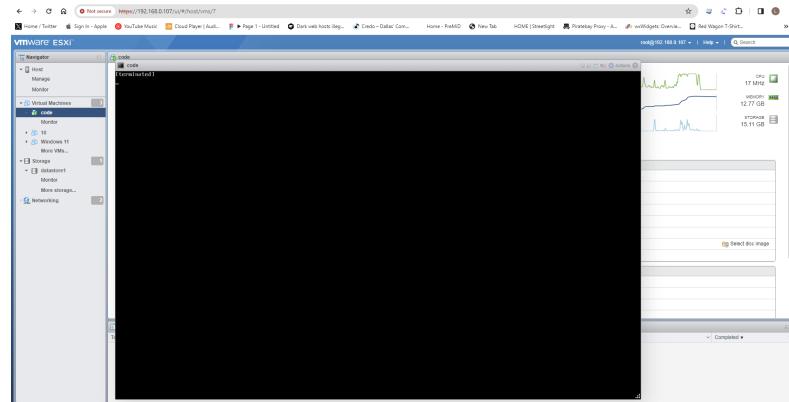


Figure 38:

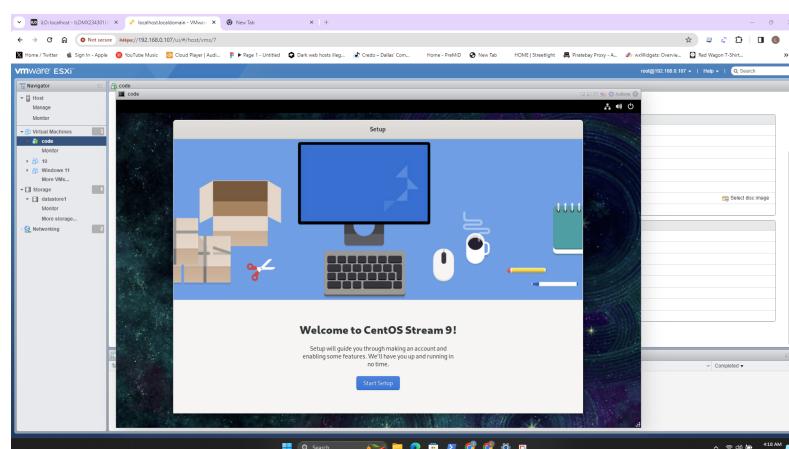


Figure 39:

## **References**