



# Installing Proxmox VE on Lenovo ThinkSystem Servers Planning / Implementation

# Overview

Proxmox Virtual Environment (VE) is a comprehensive, open-source server platform for enterprise virtualization, built to address the performance and scalability demands of modern IT environments. When deployed on Lenovo ThinkSystem infrastructure, it delivers tight integration of the KVM hypervisor for running Windows and Linux virtual machines (VMs), alongside Linux OS Containers (LXC) for lightweight container-based workloads. It also includes built-in software-defined storage via Ceph and virtualized networking capabilities consolidated within a single management framework.

The integrated, web-based user interface provides centralized control, allowing administrators to manage compute resources, configure high availability (HA) resources, and perform backup and disaster recovery operations with ease.

Lenovo ThinkSystem servers enhance Proxmox VE deployments through Lenovo XClarity Controller (XCC), which delivers integrated out-of-band hardware-level management features such as remote power control, remote control & administration, advanced monitoring & alerting, and OS watchdog functionality. This enables a complete, end-to-end solution from bare-metal to full virtualization management.

# Use Cases for Proxmox on Lenovo ThinkSystem

Proxmox VE is well-suited to a variety of enterprise and institutional IT environments. When deployed on Lenovo ThinkSystem infrastructure, it offers a powerful combination of reliability, performance, scalability, and cost-efficiency.

#### Small and Medium-Sized Enterprises (SMEs)

Organizations seeking a high-value virtualization solution with minimal licensing overhead will benefit from Proxmox VE's integrated hypervisor, storage management, container support, and backup capabilities, all delivered through an intuitive management interface.

#### **Educational Institutions and Research Labs**

Ideal for teaching, development, and testing environments, Proxmox VE provides a flexible platform for rapid deployment of virtual machines and containers. Its open-source model supports cost-sensitive institutions requiring advanced functionality without proprietary constraints.

#### Enterprises with a focus on Open-Source

Enterprises with in-house Linux expertise or a preference for open-source ecosystems will find Proxmox VE aligns well with their IT strategy.

# Hardware used for this installation guide

The Lenovo <u>ThinkSystem SR630 V3</u> server was used for this installation guide and is one of many Lenovo ThinkSystem servers tested for use with Proxmox VE. For the current complete list of Lenovo servers tested with Proxmox, refer to the <u>Lenovopress OS Interoperability Guide</u> (OSIG).

The Lenovo ThinkSystem SR630 V3 is an ideal 2-socket 1U rack server for small businesses up to large enterprises that need industry-leading reliability, management, and security, with maximum performance and flexibility for future growth. The SR630 V3 is designed to handle a wide range of workloads, such as databases, virtualization and cloud computing, virtual desktop infrastructure (VDI), infrastructure security, systems management, enterprise applications, collaboration/email, streaming media, web, and HPC. The server also offers onboard NVMe PCIe ports that allow direct connections for up to 16x NVMe SSDs, for high performance internal storage.



Figure 1. ThinkSystem SR630 V3 Server

The following server hardware configuration was used:

- Server: SR630 V3 Machine type 7D73
- **Processor:** Two 5th Generation Intel® Xeon® 6526Y 16C Scalable Processors
- Memory: 256GB RAM (8 x 32GB DIMMs p/n# 4X77A88051)
- Boot Adapter: M2. SATA/x4 NVMe adapter (p/n# 4Y37A79663, No HW RAID)
- Boot Drives: Two M.2 960GB SSD boot drives (p/n# 4XB7A82288)
- Storage: Six 3.2TB U.2 NVMe drives (p/n# 4XB7A93128)
- Networking: OCP Intel E810-DA4 4 port 10/25GbE NIC (p/n# 4XC7A80269)

Firmware versions:

- UEFI Version: 3.50 ESE132C
- BMC Version: 6.20 ESX344O
- LXPM Version: 4.11 EAL112D

Software version:

• Proxmox VE version 8.4-1

#### Storage considerations

- Do not use ZFS on top of a hardware RAID controllers which have their own cache management. ZFS needs to communicate directly with the disks.
- For the M.2 boot drives, if HW RAID is desired, it is recommended to use the ThinkSystem M.2 NVMe 2-Bay RAID Adapter or the ThinkSystem M.2 RAID B540i-2i SATA/NVMe Adapter along with a pair of M.2 SATA or NVMe drives.
- Non-boot drives may also be configured with HW RAID controllers such as the 940-8i/16i/32i series and others.
- Generally, Proxmox has a robust SW RAID subsystem with ZFS, therefore HW RAID is optional

# **Prerequisites and System Requirements**

Before deploying Proxmox Virtual Environment (VE) on Lenovo ThinkSystem infrastructure, ensure the following hardware, firmware, and software requirements are met for optimal performance and compatibility.

#### Hardware Requirements

The following Lenovo ThinkSystem configurations are recommended:

- Server Platform: Lenovo ThinkSystem V3 or higher servers such as the SR630 V3 and SR650 V3
- Processor: Intel Xeon Scalable (3rd Gen or newer) or AMD EPYC processors with virtualization support (VT-x/AMD-V)
- Memory: Minimum 8 GB RAM (16 GB or more recommended, 32GB if using ZFS))
- Storage: One or more SATA, SAS, or NVMe drives; RAID optional
- Network Interface: At least 1x 1GbE NIC (2 or more 10GbE recommended)

#### **Firmware and Management**

- Lenovo XClarity Controller (XCC): With Platinum/Premier license key for remote control and virtual media capabilities.
- Update to the latest firmware from Lenovo support (XCC, UEFI, LXPM)

#### **UEFI Setup**

• The following settings can be accessed through LXPM by pressing F1 during the initial system boot (UEFI POST Setup)

- ThinkSystem SR630 V3

   MTM: 7D73CT01WW
   SN: J10525W5
   🏶 🌣 🛛 🖺 Provisioning Manager 금 System Summary UEFI Setup 💣 RAID Setup System Settings / Security / Secure Boot Configuration System Information OS Installation Secure Boot Status System Settings Disabled Secure Boot Mode User Mode 🟦 Firmware Update Date and Time Disabled ~ ≣ UEFI Setup Secure Boot Setting Start Options Secure Boot Policy ~ 🕒 Cloning Factory Policy Boot Manager View Secure Boot Keys Diagnostics BMC Settings Secure Boot Custom Policy 🗑 Effortless Reset System Event Logs User Security Save Settings 🔡 User Guide Discard Settings Server Documentation Context Help Default Settings Secure Boot feature is Active if Secure Boot is Enabled, Platform Key(PK) is enrolled and the System is in User mode. The mode change requires platform reset 🔡 Tech Support
- UEFI Setup: Recommended boot mode; disable Secure Boot during installation •

Figure 2. Secure Boot

Provisioning Manager	ThinkSystem SR630 V3 MTM: 7D73CTO1WW SN: J10525W	5		🖶 🗢 🗭 🏛					
🚗 System Summary	UEFI Setup	🛕 Reboot is required for the new							
🚅 RAID Setup	System Information	System Settings / Operating	✔ System Settings / Operating Modes						
OS Installation	System Settings	Choose Operating Mode	Maximum Performance	~ R					
🏦 Firmware Update	Date and Time	Memory Speed	Maximum Performance	~					
📰 UEFI Setup	Start Options	CPU P-state Control	None	~					
💾 Cloning	Boot Manager	C1 Enhanced Mode	Disabled	~					
Diagnostics	BMC Settings	UPI Link Frequency	Maximum Performance	~					
Effortless Reset	System Event Logs	UPI Link Disable	Enabled All Links	~					
	User Security	Turbo Mode	Enabled	~					
		Energy Efficient Turbo	Disabled	~					
		C-States	Disabled	~					
	Save Settings	Power/Performance Bias	Platform Controlled	~					
	Exit UEFI Setup	Platform Controlled Type	Maximum Performance	~					
<u> </u>		Page Policy	Closed	~					
		MONITOR/MWAIT	Disabled	~					
문문 User Guide	Discard Settings	UPI Power Management							
문 Server Documentation	Defects Cattlered	Context Help							
문문 Tech Support	Derault Settings	<ol> <li>Select the operating mode be highly dependent on hardwa will automatically change low changed individually. Switch</li> </ol>	ased on your preference. Power savings and p re and software running on the system. The s v-level settings per the mode selected and wil to "Custom" to set low level settings individu	erformance are also elected operating mode not allow them to be ally. "Efficiency – Favor					

UEFI Setup: Set Operating Mode to Maximum Performance •

Figure 3. UEFI Operating Mode

• UEFI Setup: Ensure Virtualization (VT-x/AMD-V) is enabled. (Default setting)

() Power	🔊 Media 🚺	Recording	Keyboard	• Mouse	S	reen Mode						
Provisioni	ing Mana	iger	ThinkSystem SI MTM: 7D73CTO1	<b>R630 V3</b> WW SN: J105	525W5			۲	\$	Ø	<b>1</b> 1	L
금 System	n Summary	,	UEFI Setup									
📑 RAID S	etup		System Informa	ition		System Settings / Devices and L	/O Ports					
OS Inst	allation		System Settings			Onboard SATA 1 Mode	AHCI			~		I
🛕 Firmwa	are Update		Date and Time			Onboard SATA 2 Mode	AHCI			~		
🗎 UEFI Se	etup		Start Options			Onboard SATA 3 Mode	AHCI			~		
[ Cloning	3		Boot Manager			Active Video	Onboard Device			~		
Diagno	stics		BMC Settings			PCI 64-Bit Resource Allocation	Auto			~		
Effortle	ess Reset		System Event Lo	ogs		MM Config Base	Auto			~		
			User Security			Intel® VT for Directed I/O (VT-d)	Enabled			~		R
						DMA Control Opt-In Flag	Disabled			~		
						SRIOV	Enabled			~		
			Save	Settings		Block SID	Enabled			~		
			Exit U	EFI Setup		Root Port Completion Timeout	260ms to 900ms			~		
<u> </u>						Fnable / Disable Onboard Device	(c)					
₩. N						Enable / Disable Adapter Option F	ROM Support					
🔡 User G	uide		Discar	d Settings		Set Option ROM Execution Order						
🔡 Server	Documenta	ation	Defaul	It Settings	-	Context Help						
🔡 Tech Su	upport					Enable/Disable Intel® Virtualizat assignment to VMM through DM total CPU thread counts over 25:	ion Technology for Directed I/O (VT-d) IAR ACPI Tables. Note, this feature is n 5 on system.	by repo ot allow	rting t ed to b	he I/O d e disabl	levice led if	
Figure 4	LICEL		otting									

Figure 4. UEFI VT-d setting

#### **Software Requirements**

- Installation Media: Latest Proxmox VE ISO image
- Bootable USB Utility: Use Rufus or dd
   Or mount the ISO via XCC
- Web Browser Support: Chrome, Firefox, or Edge

#### **Networking and Access**

- Static IP address: For Proxmox VE management
- Hostname, DNS and gateway information
- Optional internet access for updates
- XClarity Controller (XCC): Static IP for remote access, provisioning and troubleshooting

# **Prepare installation Media**

#### **Option 1: Bootable USB**

- 1. Download Proxmox ISO.
- 2. Create bootable USB media using Rufus in Windows.

Rufus 4.7.2231		-		×
Drive Properties				
Device		G →		
Multiple Partitions (D:) (E:) [	[16 GB]			
Boot selection				
proxmox-ve_8.4-1.iso		$\sim$	SELECT	-
Partition scheme		Target system		
GPT		UEFI (non CSM)		
<ul> <li>Show advanced drive pro</li> </ul>	operties			
ormat Options				
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Volume label 16 GB FAT32 (Default) Show advanced format of Status	options Writing im	Cluster size 8192 bytes (Default) age: 25.6% START	CANCEI	-

**Note:** Note: It's normal for Windows to not be able to access the USB drive letter after it completes.

3. Boot from USB via F12: One Time Boot Device



Figure 6. ThinkSystem UEFI Boot screen

Installing Proxmox VE on Lenovo ThinkSystem Servers

#### 4. Select the USB Boot device

Legacy Mode       []         UEFI:       General Flash Disk 8.07 0/14/0         UEFI:       OnBoard (0/17/0) MTFDDAV960T6A-18C16A         03KH151D7003306LEN SATA PORT 6         UEFI:       Disk 8.07 0/14/0         UEFI:       Disk 8.07 0/14/0         UEFI:       Disk 8.07 0/14/0         UEFI:       Disk 8.07 0/14/0         UEFI:       Disk 9.07 0/14/0         UEFI:       Disk 9.07 0/14/0         UEFI:       Disk 9.07 0/14/0         UEFI:       SLOT 6 (17/0/0) PKE 1PV4         UEFI:       SLOT 6 (17/0/1) PKE 1PV4         UEFI:       SLOT 6 (17/0/1) PKE 1PV4         UEFI:       SLOT 6 (17/0/2) PKE 1PV4         Intel(R) Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0         UEFI:       SLOT 6 (17/0/2) PKE 1PV4         UEFI:       SLOT 6 (17/0/2) PKE 1PV4         UEFI:       SLOT 6 (17/0/2) PKE 1PV4         Intel(R) Ethernet Network <th></th> <th>Boot Devices (</th> <th>Manager</th> <th></th>		Boot Devices (	Manager	
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Hodgler Eb10-XXV-4 for ODF 3.0         UEFI: SLOT 6 (17/0/0) PKE IPV4 Intel(R) Ethernet Network         Adagter EB10-XXV-4 for ODP 3.0         UEFI: SLOT 6 (17/0/1) PKE IPV6 Intel(R) Ethernet Network         Adagter EB10-XXV-4 for ODP 3.0         UEFI: SLOT 6 (17/0/1) PKE IPV6 Intel(R) Ethernet Network         Adagter EB10-XXV-4 for ODP 3.0         UEFI: SLOT 6 (17/0/2) PKE IPV6 Intel(R) Ethernet Network         Adagter EB10-XXV-4 for ODP 3.0         UEFI: SLOT 6 (17/0/2) PKE IPV6 Intel(R) Ethernet Network         Adagter EB10-XXV-4 for ODP 3.0         UEFI: SLOT 6 (17/0/2) PKE IPV4 Intel(R) Ethernet Network         Adapter EB10-XXV-4 for ODP 3.0         UEFI: SLOT 6 (17/0/2) PKE IPV4 Intel(R) Ethernet Network         Adapter EB10-XXV-4 for ODP 3.0         UFFI: SLOT 6 (17/0/2) PKE IPV4 Intel(R) Ethernet Network         Adapter EB10-XXV-4 for ODP 3.0         VFI:         Adapter EB10-XXV-4 for ODP 3.0         V         *	UEFI: SLUI 6 (17/070) PXE IPV6	Intel(R) Ethernet	Network	
Adapter EBI0-XXV-4 for OCP 3.0         UEFI:       SLOT 6 (17/0/1) PXE IPV4         Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0         UEFI:       SLOT 6 (17/0/1) PXE IPV4         Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0         UEFI:       SLOT 6 (17/0/2) PXE IPV4         Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0         UEFI:       SLOT 6 (17/0/2) PXE IPV4         Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0         UEFI:       SLOT 6 (17/0/2) PXE IPV4         Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0       Intel(R)         UEFI:       SLOT 6 (17/0/2) PXE IPV4         Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0       Intel(R)         #Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0       Intel(R)         #Intel(R)       Ethernet Network         Intel(R)       Ethernet Network         Adapter EBI0-XXV-4 for OCP 3.0       Intel(R)         #Intel(R)       Ethernet Network         Intel(R)       Ethernet Network         Intel(R)       Et	Huapter E810-XXV-4 TUP UCF 3.0	Totol(D) Ethoppot	Network	
MuBFLE EDIO-XXV-4 for DCP 3.0         UEFI: SLOT 6 (17/0/1) PXE IPV6 Intel(R) Ethernet Network         Adapter EBIO-XXV-4 for DCP 3.0         UEFI: SLOT 6 (17/0/2) PXE IPV4 Intel(R) Ethernet Network         Adapter EBIO-XXV-4 for OCP 3.0         UEFI: SLOT 6 (17/0/2) PXE IPV4 Intel(R) Ethernet Network         Adapter EBIO-XXV-4 for OCP 3.0         UEFI: SLOT 6 (17/0/2) PXE IPV4 Intel(R) Ethernet Network         Adapter EBIO-XXV-4 for OCP 3.0         VEFI: SLOT 6 (17/0/2) PXE IPV4 Intel(R) Ethernet Network         Adapter EBIO-XXV-4 for OCP 3.0         V         11=Move Highlight <enter>=Select Entry</enter>	Adapter E810-VVV-4 for DCR 3.0	Inter(K) Ethernet	Network	
Adapter EB10-XXV-4 for OCP 3.0 UEF1: SLOT 6 (17/0/1) PXE IPV4 Intel(R) Ethernet Network Adapter EB10-XXV-4 for OCP 3.0 UEF1: SLOT 6 (17/0/2) PXE IPV6 Intel(R) Ethernet Network Adapter EB10-XXV-4 for OCP 3.0 UEF1: SLOT 6 (17/0/2) PXE IPV4 Intel(R) Ethernet Network Adapter EB10-XXV-4 for OCP 3.0 11=Move Highlight <pre></pre>	ILEET: SLOT 6 (17/0/1) PXE TPv6	Intel(R) Ethernet	Network	
UEFI: SLOT 6 (17/0/1) PXE IPv4 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 UEFI: SLOT 6 (17/0/2) PXE IPv6 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 UEFI: SLOT 6 (17/0/2) PXE IPv4 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 T1=Move Highlight <enter>=Select Entry <esc>=Exit Setup Utility</esc></enter>	Adanter E810-XXV-4 for DCP 3.0	Inter(it) Ethernet	Network	
Adapter E810-XXV-4 for OCP 3.0 UEFI: SLOT 6 (17/0/2) PXE IPv6 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 UEFI: SLOT 6 (17/0/2) PXE IPv4 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 T1=Move Highlight <enter>=Select Entry ESC&gt;=Exit Setup Utility</enter>	IFFT: SLOT 6 (17/0/1) PXF TPv4	Intel(R) Ethernet	Network	
UEFI: SLOT 6 (17/0/2) PXE IPv6 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 UEFI: SLOT 6 (17/0/2) PXE IPv4 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 T I=Move Highlight <enter>=Select Entry <esc>=Exit Setup Utility</esc></enter>	Adapter E810–XXV–4 for OCP 3.0			
Adapter EB10-XXX-4 for OCP 3.0 UEFI: SLOT 6 (17/0/2) PXE IPV4 Intel(R) Ethernet Network Adapter EB10-XXX-4 for OCP 3.0 T4=Move Highlight <enter>=Select Entry <esc>=Exit Setup Utility</esc></enter>	UEFI: SLOT 6 (17/0/2) PXE IPv6	Intel(R) Ethernet	Network	
UEFI: SLOT 6 (17/0/2) PXE IPV4 Intel(R) Ethernet Network Adapter E810-XXV-4 for OCP 3.0 Il=Move Highlight <enter>=Select Entry <esc>=Exit Setup Utility</esc></enter>	Adapter E810–XXV–4 for OCP 3.0			
Adapter E810-XXV-4 for DCP 3.0	UEFI: SLOT 6 (17/0/2) PXE IPv4	Intel(R) Ethernet	Network	
Ti=Hove Highlight ≪Enter>=Select Entry ≪ESC>=Exit Setup Utility	Adapter E810–XXV–4 for OCP 3.0			
ti≕Move Highlight <enter>=Select Entry <esc>=Exit Setup Utility</esc></enter>				•
t∔=Move Highlight <enter>=Select Entry <esc>=Exit Setup Utility</esc></enter>				
tl=Move Highlight <enter>=Select Entry <esc>=Exit Setup Utility</esc></enter>				
	†↓=Move Highlight		Entry	<esc>=Exit Setup Utility</esc>

Figure 7. ThinkSystem UEFI Boot Devices Manager

#### **Option 2: XCC Boot via Virtual Media**

Log into the XCC via web browser at the configured IP. If a static IP has not been defined, the XCC will
use a DHCP assigned address. If no DHCP server is present, the default XCC IP will be 192.168.70.100
and the login defaults will be USERID/PASSW0RD



Figure 8. XClarity Controller login interface

#### 2. Launch Remote Console.

XClarity Controller 2 <	U ! ThinkSyst	tem SR630 V3 System Name:		Service Log		:59 PM	
A Home	Remote Console I	Remote Console Settings	×				0
Events		Select the access mode:					
E Inventory		Single User Mode					
utilization		O Multi User Mode (Max 6 users)					
2 Remote Console	_	Advanced Settings					
🚖 Firmware Update	Remote Console .	Allow others to request to disconnect my remote session			Disabled	1	0
🖯 Storage 🗸 🗸	Mount Local Medi	No response time interval: 1 hour $\lor$					
🗂 Server Configuration ~		Record latest 3 boot videos					
	ISO or IMG t as virtual me	Record latest 3 crash videos		ich the Remote C	onsole window to mo	unt local file	15
BMC Configuration ~		OS failure screen capture with HW error					
III Neighbor Group 🗸	Total 0 virtual mec	Launch Remote Console Cancel	_				

Figure 9. XClarity Controller Remote Control launch

- 3. In the remote console click 'Media'.
- 4. Click 'Activate' to enable the remote media mount.
- 5. Select Browse to select the downloaded Proxmox ISO image.

ount Media file from the Client	t Browser: 0 mounted	+
unt an ISO or IMG image file from the te: The client session must remain ac	e client browser to the host as a DVD or USB drive. This function is accessed in the Remote Control window under the Media Menu, the as long as the mounted media is in use.	
ISO Image V	Browse No file selected.	亩
Mount all local media	-	Deactivate
ount Media File from Network:	: 0 mounted	+
ount Media File from Network: unt an ISO or IMO image file from a t ie: The mounted media will be unnou	: O mounted If e server to the host as a DVD or USB drive. unted when client session is closed.	+
Dunt Media File from Network: unt an ISO or IMG image file from a t ie: The mounted media will be unmot CIFS V Input U	: 0 mounted If e server to the host as a DVD or USB drive. unted when client session is closed. JRL IRL Read-only	+
ount Media File from Network: unt an ISO or IMO image file from a 1 ite: The mounted media will be unnow CIFS V Input U User N	S mounted      He server to the host as a DVD or USB drive: unted when client session is closed.      IRL     Password:     Password:	+

Figure 10. Mount Virtual Media

#### 6. Click 'Mount all local media'

Mount Virtual Media

unt Media file from the	Client Browse	: 1 mounted				
ant an ISO or IMG image file e: The client session must re	from the client bro nain active as lon	wser to the host as a DVD or USB g as the mounted media is in use.	drive. This function is	accessed in the Remote Co	ontrol window under the Media Menu	
[ISO Image]	oproximax-ve_	8.4-1.iso				Unmount
						Deactivate
unt Media File from Net	work: 0 mount	ed				+
ant an ISO or IMG image file e: The mounted media will be	from a file server to unmounted when	o the host as a DVD or USB drive. client session is closed.			29	
CIFS V	Input URL				Read-only	亩
	User Name:		Password:			

Figure 11. Mounted virtual media

7. Return to the Remote Control session and Power on the server

![](_page_8_Picture_5.jpeg)

Figure 12. Remote Control Power menu

8. Wait for the prompt at the bottom right of the screen and press F12 for 'One Time Boot Device'

![](_page_8_Picture_8.jpeg)

Figure 13. UEFI POST Screen

9. Select the 'XCC Virtual Media' to boot from the virtual CD/DVD.

📀 Media	Recording	🖼 Keyboard	• Mouse	Screen Mod	•	
				Post Davisor	Manadon	
				JUUT DEVICES	nailagei	
Lega	cy Mode					<b>±</b>
Linu	× Boot Manag	er				
Linu	x Boot Manag	er				
UEFI	: XCC Virt	ual Media 0399 (0/17/0) MTEDI	9 0/14/0 DAV960TBA-	-180166		
03KH	151D7B08306L	EN SATA PORT 6	5	1001011		
UEFI	: OnBoard	(0/17/0) MTFDE	DAV960TGA-	-1BC16A		
03KH	151D7B08306L	EN SATA PORT	7 Ruć Totel	(P) Ethennet	Network	
Adap	ter E810-XXV	-4 for OCP 3.0	)		NECTOR	
UEFI	: SLOT 6 (	17/0/0) PXE IF	Pv4 Intel	L(R) Ethernet	Network	
Adap	ter E810-XXV	-4 for OCP 3.0	) Not Tetal			
Adap	ter E810-XXV	-4 for OCP 3.0	o nte:	L(R) Ethernet	Network	
UEFI	: SLOT 6 (	17/0/1) PXE IF	Pv4 Intel	L(R) Ethernet	Network	
Adap	ter E810-XXV	-4 for OCP 3.0	) )			
UEF I Adan	ter E810-XXV	17/0/2) PXE IN -4 for OCP 3.(	°V6 Inte. N	L(R) Ethernet	Network	
marage						
t1=	Move Highlig		<	Enter>=Select	Entry	<pre><fsc>=Exit Setup Utility</fsc></pre>

Figure 14 ThinkSystem UEFI Boot Devices Manager

# **Proxmox VE Installation**

1. Select 'Install Proxmox VE (Graphical)'

![](_page_9_Picture_5.jpeg)

![](_page_9_Picture_6.jpeg)

Install Proxmox VE (Graphical) Install Proxmox VE (Terminal UI) Install Proxmox VE (Terminal UI, Serial Console) Advanced Options

enter: select, arrow keys: navigate, e: edit entry, esc: back

2. Accept the End User License Agreement (EULA)

![](_page_10_Picture_1.jpeg)

3. Select your Target installation media and click Options to configure your ZFS RAID

![](_page_10_Picture_3.jpeg)

4. At this time, although there are additional drives, we will only setup the 2 boot drives and form a RAID1 mirror through ZFS for the Proxmox installation.

XPROX	
Proxe	Filesystem zfs (RAID1)
The Proxmox Installer aut partitions your hard disk. It in	Disk Setup Advanced Options
packages and makes the syst the hard disk. All existing par will be lost.	Harddisk 0 /dev/sda (894.25GiB, MTFDDAV960TGA-1B)  Harddisk 1 /dev/sdb (894.25GiB, MTFDDAV960TGA-1B)
installation.	Harddisk 2 do not use  Harddisk 3 do not use
	Harddisk 4 do not use  Harddisk 5 do not use
	Harddisk 6 do not use
	Deselect All
Abort	OK Previous Next

5. Under Advanced options, the defaults are acceptable unless you have a constrained RAM server. As shown below, the ZFS ARC cache is 16GB. If you have 32GB or lower RAM, consider reducing the cache to 4096 MB or 8192 MB to allow more memory for running your Proxmox server.

XPROX	MO		arddis	k options	Proxi	mox ■■	VE Installer
Proxn The Proxmox Installer aut partitions your hard disk. It in packages and makes the syst the hard disk. All existing par will be lost. Press the Next button to cont installation.	Note: ZFS is not details see the c compress checksum conjes	ilesysten compatil document iisk Setup 12 on on	n zf	is (RAID) th hardw Advanc + •	1) ed Options	The second secon	target ed for the d data will n ures your
	ARC max size	16384 894.0	-	· + '	мів GB		h the b browser.
Abort						ок	Previous Next

6. Click OK to return to the installation screen and click Next to continue.

![](_page_12_Picture_1.jpeg)

7. Set your location, Time Zone and Keyboard Layout settings.

× PROXMO	Proxmox VE Installer
Location and Ti	ime Zone selection
The Proxmox Installer automatically makes location-based optimizations, like choosing the nearest mirror to download files from. Also make sure to select the correct time zone and keyboard layout. Press the Next button to continue the installation.	<ul> <li>Country: The selected country is used to choose nearby mirror servers. This will speed up downloads and make updates more reliable.</li> <li>Time Zone: Automatically adjust daylight saving time.</li> <li>Keyboard Layout: Choose your keyboard layout.</li> </ul>
Country	Canada
Time zone	America/Toronto 👻
Keyboard Layout	U.S. English
Abort	Previous Next

8. Set your administrative password and contact email.

	Proxmox VE Installer
<b>Proxmox Virtual Environment</b> is a full featured, highly secure GNU/Linux system, based on Debian. In this step, please provide the <i>root</i> password.	<ul> <li>Password: Please use a strong password. It must be at least 8 characters long, and contain a combination of letters, numbers, and symbols.</li> <li>Email: Enter a valid email address. Your Proxmox VE server will send important alert notifications to this email account (such as backup failures, high availability events, etc.).</li> <li>Press the Next button to continue the installation.</li> </ul>
Password	•••••
Confirm	••••••
Email	proxmox@lenovo.com
Abort	Previous Next

9. Select your primary network interface and set your hostname and IP information.

XPROXMO	Proxmox VE Installer
Management	Network Configuration
Please verify the displayed network configuration. You will need a valid netwo configuration to access the management interface after installing. After you have finished, press the Next b You will be shown a list of the options tha chose during the previous steps.	<ul> <li>IP address (CIDR): Set the main IP address and netmask for your server in CIDR notation.</li> <li>Gateway: IP address of your gateway or firewall.</li> <li>DNS Server: IP address of your DNS server.</li> </ul>
Management Interface	● ens6f0np0 - 6c:fe:54:58:03:68 (ice) 🔻
Hostname (FQDN)	pve-sr630.torontolab2.local
IP Address (CIDR)	192.168.241.219 / 24
Gateway	192.168.241.1
DNS Server	192.168.254.2
Abort	Previous Next

10. At the Summary screen, review your settings and proceed with the install.

×Р	RO)	MOX	Proxmox VE Installer
Please begin t	<b>confirm</b> the dis to partition your d	played information. Once you pre rive(s) and extract the required fi	iss the <b>Instali</b> button, the installer will les.
Optio	1	Value	
Filesyst	em:	zfs (BAID1)	
Disk(s)		/dev/sda L/dev/sdb	
Countr	v:	Canada	
Timezo	ne:	America/Toronto	
Keyma	D:	en-us	
Email:		proxmox@lenovo.com	
Manag	ement Interface:	ens6f0np0	
Hostna	me:	pve-sr630	
IP CIDE	R:	192.168.241.219/24	
Gatewa	ay:	192.168.241.1	
DNS:		192.168.254.2	
		Automatically reboot after succe	ssful installation
Abort			Previous Install

11. Installation commences.

	Proxmox VE Installer
Open Source Virtualization Platform - Enterprise ready - Central Management - Clustering - Online Backup solution - Live Migration - 32 and 64 bit guests For more information, visit www.proxmox.com or the Proxmox VE wike	<ul> <li>Container Virtualization Only 1-3% performance loss using OS virtualization as compared to using a standalone server.</li> <li>Full Virtualization (KVM) Run unmodified virtual servers - Linux or Windows.</li> </ul>
Abort	ate partitions 2%

12. After the installation, take note of the Proxmox management IP and port. The default management port is 8006

	nstaller
Installation successful!	
Proxmox VE is now installed and ready to use.	
Next steps	
Reboot and point your web browser to the selected IP address on port 8006:	
https://192.168.241.219:8006	
Also visit <u>www.proxmox.com</u> for more information.	
Automatic reboot scheduled in 2 seconds.	
Thoda	Reboot

# **Post Installation Tasks**

• From your web browser, enter the IP and port for your new Proxmox VE server: Example: https://<ip>:8006/ and log in with root and your configured password

![](_page_15_Picture_4.jpeg)

• Apply system updates: Use the built-in Proxmox Updates in the Web GUI or via command-line using 'apt update && apt full-upgrade -y'

- Configure additional storage disks
  - 1. Navigate to Disks to view your unconfigured local disks

								_
	3.4.1 Search					B	Documentation Create VM	😭 Create CT 🔒 root@pam 🗸
Server View 🗸 📀	Node 'pve-sr630'					D Reboo	t 😃 Shutdown >_ Shell   ~	🗄 Bulk Actions 🗸 🔞 Help
✓ ■ Datacenter	O Caarab							
∨ 🍢 pve-sr630	C Search	Reloau Show S.M.						
localnetwork (pve-sr630)	Summary	Device	Туре	Usage	Size	GPT	Model	Serial
Cal (pve-sr630)	Notes	🔒 /dev/nvme0n1	nvme	No	3.20 TB	No	KCM51VUG3T20	8950A00AT01G
Ulocal-zfs (pve-sr630)	≻_ Shell	🗛 /dev/nvme1n1	nvme	No	3.20 TB	No	KCM51VUG3T20	8930A007T01G
	© System ►	/dev/nvme2n1	nvme	No	3.20 TB	No	KCM51VUG3T20	8930A00ST01G
	C Undates 💌	🗛 /dev/nvme3n1	nvme	No	3.20 TB	No	KCM51VUG3T20	8950A008T01G
	- · · ·	🔒 /dev/nvme4n1	nvme	No	3.20 TB	No	KCM51VUG3T20	8930A008T01G
	4 Repositories	🗛 /dev/nvme5n1	nvme	No	3.20 TB	No	KCM51VUG3T20	8930A00LT01G
	♥ Firewall	🕂 🖨 /dev/sda	SSD	partitions	960.20 GB	Yes	MTFDDAV960TGA-1BC16A	3FED531A
	🖨 Disks 🛛 🔻	🔒 /dev/sda1	partition	BIOS boot	1.03 MB	Yes		
	LVM	🔒 /dev/sda2	partition	EFI	1.07 GB	Yes		
	□ IVM-Thin	🖻 /dev/sda3	partition	ZFS	959.12 GB	Yes		
		- 🖨 /dev/sdb	SSD	partitions	960.20 GB	Yes	MTFDDAV960TGA-1BC16A	3FED53A9
	Directory	🔒 /dev/sdb1	partition	BIOS boot	1.03 MB	Yes		
	ZFS	🔒 /dev/sdb2	partition		1.07 GB	Yes		
	@ Ceph →	🛱 /dev/sdb3	partition	ZFS	959.12 GB	Yes		
	13 Replication							
	Task History							
	Subscription							
	0							

2. Under Disks / ZFS select 'Create: ZFS'

						E	Documentation	Create CT	🛔 root@pam 🗸
Server View 🗸 🏶									a 🗸 😧 Help
✓ ■ Datacenter ✓ ■ Datacenter		Create: ZFS							
localnetwork (pve-sr630)	Summary								
☐ local (pve-sr630)									
Iccal-zts (pve-sr630)									
	Name:			RAID Level:	Single Disk				
	Add Storage:			Compression:					
				ashift:					
	U Device ↑	Model		Serial		Size	Order		
	/dev/nvme0n1	KCM51VUG3T20		8950A00AT010		3.20 TB			
	/dev/nvme1n1	KCM51VUG3T20		8930A007T010	3	3.20 TB	0		
	/dev/nvme2n1	KCM51VUG3T20		8930A00ST010		3.20 TB			
	/dev/nvme3n1	KCM51VUG3T20		8950A008T010	3	3.20 TB	0		
	/dev/nvme4n1	KCM51VUG3T20		8930A008T010		3.20 TB			
	/dev/nvme5n1	KCM51VUG3T20		8930A00LT010	;	3.20 TB	0		
	Note: ZFS is not compatit	ble with disks backed by a hardv	vare RAID	controller. For deta	ils see <u>the refe</u>	rence documenta	tion.		
	0 Help								

3. Select the drives to form the new ZFS Pool

Crea	ate: ZFS							
Nam	e:	Pool1		RAID Level:	RAIDZ			
Add	Storage:			Compression:	lz4			
				ashift:	12			
	Device $\uparrow$		Model	Serial		Size	Order	
	/dev/nvme0	n1	KCM51VUG3T20	8950A00AT01G		3.20 TB		
	/dev/nvme1	n1	KCM51VUG3T20	8930A007T01G		3.20 TB		
	/dev/nvme2	n1	KCM51VUG3T20	8930A00ST010	;	3.20 TB		
	/dev/nvme3	n1	KCM51VUG3T20	8950A008T01G		3.20 TB		
	/dev/nvme4	n1	KCM51VUG3T20	8930A008T01G		3.20 TB		
	/dev/nvme5	in1	KCM51VUG3T20	8930A00LT01G		3.20 TB		
Note	: ZFS is not o	compatible with disk	s backed by a hardware RAID	controller. For detai	ils see <u>the refe</u> i	rence documenta	i <u>tion</u> .	
0	Help						Cre	eate

- 4. Assign your pool name, select the RAID level, and compression. Enable the 'Add Storage' checkbox and select 'Create'
- 5. The new pool is ready to be used for VM and Container storage.
- 6. To view the current ZFS pools via CLI use 'zpool status'

root@pve-sr630:-# zpool status pool: Pool1 state: ONLINE config: NAME STATE READ WRITE CKSUM Pool1 ONLINE 0 0 0 raidz1-0 ONLINE 0 0 0 nvme-KCM51VUG3T20_8950A00AT01G ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A00ST01G_1 ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A00ST01G_1 ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A008T01G_1 ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A008T01G_1 ONLINE 0 0 0 errors: No known data errors pool: rpool state: ONLINE config: NAME STATE READ WRITE CKSUM rpool ONLINE 0 0 0 mirror-0 ONLINE 0 0 0 mirror-0 ONLINE 0 0 0 errors: No known data errors pool: rpool ONLINE 0 0 0 mirror-0 ONLINE 0 0 0 errors: No known data errors pool: rpool NUINE 0 0 0 mirror-0 ONLINE 0 0 0 errors: No known data errors pool: rpool ONLINE 0 0 0 mirror-0 ONLINE 0 0 0 errors: No known data errors pool: No kno			0 =							
pool: Pool1 state: ONLINE config:       NAME       STATE       READ       WRITE CKSUM         Pool1       ONLINE       0       0       0         raidz1-0       ONLINE       0       0       0         nvme-KCM51VUG3T20_8950A00AT01G       ONLINE       0       0       0         nvme-KCM51VUG3T20_8950A00AT01G       ONLINE       0       0       0         nvme-KCM51VUG3T20_8950A00ST01G_1       ONLINE       0       0       0         nvme-KCM51VUG3T20_8950A00ST01G_1       ONLINE       0       0       0         nvme-KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0       0         nvme-KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0       0         nvme-KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0       0         errors: No known data errors       0       0       0       0         pool: rpool       STATE       READ       WRITE CKSUM         mirror-0       ONLINE       0       0       0         ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED531A-part3       ONLINE       0       0         errors: No known data errors       0       0       0       0       0 <td>root@pve</td> <td>e-sr630:~# zpool status</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	root@pve	e-sr630:~# zpool status								
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Contig: NAME STATE READ WRITE CKSUM Pool1 ONLINE 0 0 0 raidz1-0 ONLINE 0 0 0 nvme-KCM51VUG3T20_8950A00AT01G ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A005T01G_1 ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A00ST01G_1 ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A00ST01G_1 ONLINE 0 0 0 nvme-KCM51VUG3T20_8930A00LT01G_1 ONLINE 0 0 0 errors: No known data errors pool: rpool state: ONLINE config: NAME STATE READ WRITE CKSUM rpool ONLINE 0 0 0 mirror-0 ONLINE 0 0 0 errors: No known data errors pool: rpool state: ONLINE 0 0 0 mirror-0 ONLINE 0 0 0 errors: No known data errors rpool ONLINE 0 0 0 errors: No known data errors root@pve-sr630:~#	state:	ONLINE								
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NAME       STATE       READ WRITE CKSUM         Pool1       ONLINE       0       0         raidz1-0       ONLINE       0       0         nvme-KCM51VUG3T20_8950A00AT01G       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0         errors: No known data errors       0       0       0         pool:       rpool       ONLINE       0       0         state:       ONLINE       0       0       0         mirror-0       ONLINE       0       0       0         ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED531A-part3       ONLINE       0       0         errors: No known data errors       0       0       0       0       0 <td></td> <td>NAME</td> <td>CTATE</td> <td>DEAD</td> <td></td> <td>CIVELIN</td> <td></td> <td></td> <td></td> <td></td>		NAME	CTATE	DEAD		CIVELIN				
P0011       ONLINE       0       0         raidz1-0       ONLINE       0       0         nvme-KCM51VUG3T20_8950A00AT01G       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00ST01G       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00LT01G_1       ONLINE       0       0         errors: No known data errors       0       0       0         pool: rpool       state: ONLINE       0       0       0         state: ONLINE       0       0       0       0       0         rpool       ONLINE       0       0       0       0       0         mirror-0       ONLINE       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0<			STATE	READ	WKITE	CKSUM				
r31021-0       ONLINE       0       0         nvme-KCM51VUG3T20_8950A00AT01G       ONLINE       0       0         nvme-KCM51VUG3T20_8930A005T01G_1       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00ST01G_0       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00ST01G_0       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00LT01G_1       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00LT01G_1       ONLINE       0       0         nvme-KCM51VUG3T20_8930A00LT01G_1       ONLINE       0       0         errors: No known data errors       0       0       0         pool: rpool       state: ONLINE       0       0       0         state: ONLINE       0       0       0       0       0         mirror-0       ONLINE       0       0       0       0         ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED531A-part3       ONLINE       0       0       0         errors: No known data errors       0       0       0       0       0       0			ONLINE	0	0	0				
nvme=KCM51VUG3120_8390A000T01G       ONLINE       0       0         nvme=KCM51VUG3T20_8930A00ST01G_1       ONLINE       0       0         errors: No known data errors       0       0       0         pool: rpool       state: ONLINE       0       0       0         state: ONLINE       ONLINE       0       0       0         rpool       ONLINE       0       0       0         mirror-0       ONLINE       0       0       0         ata=MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED531A-part3       ONLINE       0       0         errors: No known data errors       0       0       0       0         ortop=       ata=MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED53A9-part3       ONLINE       0       0         errors: No known data errors       root@pve=sr630:~#       0       0       0 <td></td> <td></td> <td>ONLINE</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td></td> <td></td> <td></td>			ONLINE	0	0	0				
nvme-KCMS1VUG3120_8930A007101G       ONLINE       0       0         nvme-KCMS1VUG3120_8930A008T01G_1       ONLINE       0       0         nvme-KCMS1VUG3120_8930A008T01G_1       ONLINE       0       0         nvme-KCMS1VUG3120_8930A008T01G_1       ONLINE       0       0         nvme-KCMS1VUG3120_8930A008T01G_1       ONLINE       0       0         nvme-KCMS1VUG3120_8930A00LT01G_1       ONLINE       0       0         errors: No known data errors       0       0       0         pool: rpool       state: ONLINE       0       0         state: ONLINE       0       0       0         rpool       ONLINE       0       0         mirror-0       ONLINE       0       0         ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED531A-part3       ONLINE       0       0         errors: No known data errors       0       0       0       0       0		nvme-KCM51VUG3120_8950A00A101G	ONLINE	0	0	0				
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nvme-KCMS1VUG3120_8930A008101G		nvme-KCM51VUG3120_8930A005101G_		0	0	0				
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<pre>mirror-0 ONLINE 0 0 0 ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED531A-part3 ONLINE 0 0 0 ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED53A9-part3 ONLINE 0 0 0 errors: No known data errors root@pve-sr630:~#</pre>		rpool				ONLINE	0	0	0	
ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED531A-part3 ONLINE 0 0 0 ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED53A9-part3 ONLINE 0 0 0 errors: No known data errors root@pve-sr630:~#		mirror-0				ONLINE	0	0	0	
ata-MTFDDAV960TGA-1BC16A_03KH151D7B08306LEN_3FED53A9-part3 ONLINE 0 0 0 errors: No known data errors root@pve-sr630:~#		ata-MTFDDAV960TGA-1BC16A 03KH15	1D7B08306LEN	3FED	531A-pa	art3 ONLINE	0	0	0	
 errors: No known data errors root@pve-sr630:~#		ata-MTFDDAV960TGA-1BC16A 03KH15	1D7B08306LEN	3FED	3A9-pa	art3 ONLINE	0	0	0	
errors: No known data errors root@pve-sr630:∼#		—								
root@pve-sr630:~#	errors:	No known data errors								
	root@pv@	e-sr630:~#								

#### • Setup XCC OS Watchdog

This allows the built-in XCC to monitor the OS state and perform an automatic restart if the Proxmox instance is no longer responding. (Fail state or hang scenarios)

- 1. In the XCC web GUI, navigate to BMC Configuration and Network.
- 2. Enable the Ethernet over USB option, choose 'Configure IPv4 setting for Ethernet over USB', if required change the IPs and network mask (defaults should be used) and click Apply.

Configure IPv4 se	etting for Ethernet over USB	$\sim$
BMC IP address:	169.254.95.118	0
OS IP address:	169.254.95.120	0
Network mask:	255.255.0.0	0
Enable extern	al Ethernet via USB port fo	orwarding.

- 3. Make note of the 'OS IP address'
- 4. In the Proxmox web console, under System / Network, select the new network interface for configuration and select 'Edit'. The NIC name will usually start with enx followed by several other alphanumeric characters. This is your new XCC BMC interface that builds an internal connection between the XCC BMC and Proxmox.

Node 'pve-sr630'				ື	Reboot	Shutdown >_	Shell   v	ulk Actions 🗸 🔞 Help
<b>Q</b> Search	Create ~   Reve	rt Edit Remov	e   Apply C					
Summary	Name ↑	Туре	Active	Autostart	VLAN a	Ports/Slaves	Bond Mode	CIDR
🖵 Notes	ens6f0np0	Network Device	Yes	No	No			
>_ Shell	ens6f1np1	Network Device	No	No	No			
📽 System 📼	ens6f2np2	Network Device	No	No	No			
≓ Network	ens6f3np3	Network Device	No	No	No			
Certificates	enxea8088073ed4	Network Device	No	No	No			
	vmbr0	Linux Bridge	Yes	Yes	No	ens6f0np0		192.168.241.219/24
UNS DIS								

 Add the 'OS IP address' obtained in the XCC Web interface and add it to your XCC BMC NIC in Proxmox. Enable the Autostart checkbox and select OK. Note: the /16 represents the 255.255.0.0 subnet

Edit: Network D	evice			$\otimes \mathbf{C}$
Name:	enxea8088073ed4	Autostart:		
IPv4/CIDR:	169.254.95.120/16	Comment:	XCC Interface	
Gateway (IPv4):				
IPv6/CIDR:				
Gateway (IPv6):				
MTU:	1500			
			Advanced 🗹	OK

- 6. Apply the new Networking configuration
- 7. From your Proxmox host, ensure you can reach your BMC IP address. root@pve-sr630:~# ping 169.254.95.118 PING 169.254.95.118 (169.254.95.118) 56(84) bytes of data. 64 bytes from 169.254.95.118: icmp\_seq=1 ttl=64 time=0.515 ms 64 bytes from 169.254.95.118: icmp\_seq=2 ttl=64 time=0.336 ms 64 bytes from 169.254.95.118: icmp\_seq=3 ttl=64 time=0.426 ms ^c --- 169.254.95.118 ping statistics ---3 packets transmitted, 3 received, 0% packet loss, time 2061ms rtt min/avg/max/mdev = 0.336/0.425/0.515/0.073 ms root@pve-sr630:~#
- To enable the OS Watchdog, return to the XCC Web interface. Under 'Server Configuration' / 'Server Properties' choose how many minutes before the XCC BMC automatically reboots the OS when the OS IP no longer responds and select Apply.

Server Timeouts	
OS Watchdog Time:	10 minutes V
The BMC will check OS.	the OS in specified time intervals. If the OS does not respond within the time interval, the BMC determines the OS is down and will restart the
Loader Watchdog:	None v Ø
The BMC will check BMC will restart the	the time interval between POST completion and when the OS has been fully loaded. If this does not finish within the specified time interval, the system.
i Ethernet Over US BMC IP Address: To enable Watche	38: Enabled Use IPv4 link-local address 199.254.95.119 og settings, please make sure your Etherned Over USB setting is correct. To configure Etherned Over USB settings, go to <u>fisitence</u> in BMC Configuration.
Power Off Delay:	None v Ø
Specify the number of	of minutes for the BMC to wait for OS shut down before powering off the system itself.
Apply	Reset

- Other optional and recommended post-installation tasks
  - Create VMs and Containers
  - Setup Backups
  - o Setup a Cluster
  - Setup Role-Based Access Control
  - Setup Email notifications

## Summary

# About the Author

Paul Santos is a Senior Lenovo Solutions Architect working in the Lenovo Infrastructure Solutions Group (ISG) based in Toronto Canada. He has more than thirty years of experience with Infrastructure solutions in his career at both IBM and Lenovo.

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#### **References:**

Lenovo ThinkSystem SR630 V3: https://lenovopress.lenovo.com/lp1600

Lenovo Operating System Interoperability Guide https://lenovopress.lenovo.com/osig

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