Moxa Swift User Manual for Computers With MIL 3.x

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www.moxa.com/products



Swift for Computer with Moxa Industrial Linux 3 User Manual

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Overview of Swift

Swift is a Windows-based provisioning tool designed explicitly for Moxa Arm-based computers. Its primary goal is to streamline the setup and deployment process, allowing users to efficiently create and distribute a golden image across multiple computers simultaneously. Swift's functionalities are divided into two main categories: device configuration and system management.

Device Configuration: This section allows users to tailor network settings, I/O interface configurations, security parameters, and protocol setups to meet specific operational requirements.

System Management: Swift facilitates the creation and restoration of system snapshots and backups, which can be utilized to generate a golden image for batch deployment, enhancing consistency and reliability across devices.

Swift is available for download from the Moxa website and is compatible with Windows 10 or newer operating systems.



Eligible Moxa Arm-based Models

Swift leverages Moxa proprietary utilities such as Moxa Connection Manger (MCM), Moxa Computer Interface Manager (MCIM) and Moxa System Manager (MSM) in Moxa Industrial Linux 3.1 or above. Therefore, please make sure the Moxa Arm-based computer connected to Swift have Moxa Industrial Linux (MIL) 3.1 or above installed. If you have an existing UC-8200 Series with MIL 3.0, only upgrade features will be available in Swift. Once you upgrade your MIL 3.0 to the latest version, you can enjoy the Swift's full feature set.

Computer Series	Model Name	MIL Version Required
	UC-8210-T-LX-S	
	UC-8220-T-LX	
UC-8200 Series	UC-8220-T-LX-US-S	MIL 3.1 and above
	UC-8220-T-LX-EU-S	
	UC-8220-T-LX-AP-S	
UC-1200A Series	UC-1222A	MIL 3.1 and above
	UC-2222A-T	
LIC 22004 Series	UC-2222A-T-US	MIL 3.1 and above
UC-2200A Series	UC-2222A-T-EU	
	UC-2222A-T-AP	
	UC-3420A-T-LTE	
	UC-3424A-T-LTE	MIL 3.1 and above
UC-3400A Series	UC-3430A-T-LTE-WiFi	MIL 3.1 and above
	UC-3434A-T-LTE-WiFi	
	UC-4410A-T	
	UC-4414A-I-T	
	UC-4430A-T	MIL 3.1 and above
UC-4400A Series	UC-4434A-I-T	
	UC-4450A-T-5G	1
	UC-4454A-I-T-5G	7

Installing Swift

Prerequisites

- 1. PC with Windows 10 or above OS
 - ➢ Windows 10 version 1809 or later
- 2. PC with one of the a supported browser installed
 - Chrome (latest version)
 - Firefox (latest version)
 - Edge (last 2 major versions)
 - Safari (last 2 major versions)
 - Firefox ESR (Extended Support Release)
- 3. Make sure Link-local IPv6 address on the PC is enabled.

To enable the Link-local IPv6 address, do the following:

a. In the Windows Search box, enter **view network connections** and click **Open**.

All Apps Documents Web	More 🔻		ନ୍ଦି	
Best match				
View network connections Control panel				
Settings		View network connections		
View your PC name	>	Control panel		
O View RAM info	>			_
\bigcirc View your Update history	>	📑 Open		
① View processor info	>			
View your product ID	>			
O View pen and touch info	>			
View your network properties	>			
Search the web				
✓ view - See web results	>			
Apps (2)				
,∕⊂ view		o 🛱 🤤 🚍 💼 🤦	0	

b. Select the network adapter that will be used to discover Moxa devices, right-click the network adapter, and select **Properties**.



c. Select the Internet Protocol Version 6 (TCP/IPv6) option.

etworking			
Connect using:			
Realtek RTL81	39C+ Fast Ethernet NIC	2	
		Conf	igure
This connection uses t	the following items:	2	
🗆 📃 Microsoft Net	ocol Version 4 (TCP/IP) work Adapter Multiplex OP Protocol Driver		1
 ✓ Internet Proto ✓ Link-Layer To 	ppology Discovery Resp ppology Discovery Resp ppology Discovery Map	oonder	er v
 Internet Proto Link-Layer To Link-Layer To 	col Version 6 (TCP/IP opology Discovery Res	ponder per I/O Driv	

4. Click **OK** to apply the changes.

Installation Procedure

To install the Swift Application on a Windows PC, do the following:

1. Download and run the Swift installation file.



2. Click Next.

3. Review the End User License Agreement (EULA). If you agree to the terms, select the **I accept the agreement** option and then click **Next** to proceed.

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- 4. Specify the folder where you would like to install Swift, and then click **Next** to continue
- 5. Choose the Start Menu folder where you would like to create the Swift shortcut, then click **Next** to continue.
- Allow necessary ports and install SSL certificates to enable Swift to communicate with Moxa Arm-based computers, then click **Next** to continue.

🜲 Setup - Swift	_		×
Select Additional Tasks Which additional tasks should be performed?			00
Select the additional tasks you would like Setup to perform while installing Swift, then click N	lext.		
Additional shortcuts:			
Add firewall rule (UDP port 40404,5353) for Swift searching			
Add SSL Certificate			
<u>B</u> ack <u>N</u> ext		Ca	ncel

7. After the installation process is complete, click Finish

Connecting Moxa Computer with Swift

Prerequisites

- 1. It is strongly recommended to connect Swift to the Moxa ARM-based computer using the Ethernet port named LAN1
 - Swift discovers the Moxa computer via IPv6. Since the LAN2 port on Moxa ARM-based computers with Moxa Industrial Linux (MIL) 3.1.x does not support IPv6 by default, it is recommended to connect via LAN1 to avoid confusion caused by different MIL versions
 - Below is the factory default IPv6 availability status for different series of Moxa ARM-based computers with various MIL versions

Computer Series	Pre-installed MIL Version	LAN1 IPv6	LAN2 IPv6
	MIL 3.0.x	Available	Available
UC-8200	MIL 3.1.x	Available	Not Available
	MIL 3.3.x or above	Available	Available
UC-1222A/2222A	MIL 3.1.x	Available	Not Available
UC-1222A/2222A	MIL 3.3.x or above	Available	Available
UC-3400A	MIL 3.3.x or above	Available	Available
UC-4400A	MIL 3.2.x or above	Available	Available

2. Prepare a switch that supports IPv6. The number of Ethernet ports on the switch should depend on how many Moxa ARM-based computers you plan to provision simultaneously

Setting Up Provisioning Environments

1. Connect the Windows PC with Swift installed and all Moxa ARM-based computers (using LAN1 port) to the switch.



2. You are now ready to discover Moxa ARM-based computers using Swift.

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WARNING

Do not connect more than one Ethernet port from a single Moxa ARM-based computer to the switch. Swift is designed to handle connections through a single Ethernet port only.

Constraints

- 1. Only Moxa computer models that are supported and eligible for Swift should be connected to the same network as the Windows PC with Swift installed. Ethernet port from a single Moxa ARM-based computer to the Swift network. Swift is designed to handle connections through a single Ethernet port only.
- 2. A batch of Moxa ARM-based computers to be provisioned by Swift should share the same model name, root username, and password.

Discover Moxa Computers

Scan the Connected Computers

1. Swift does not automatically perform scanning upon launch. The user must manually trigger the scanning via the "**Start Scanning**" button.

	¢ →	C S localhost:5007/device/list								©¤ (२ 🕁 💷 🌀	,
	≡	MOXA										
I	ai.	All Devices										
									Q, Search	Adjust colum	ns 🛛 🙀 Start scann	ing
		Serial Number	Model Name	IPv4 Address	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	MIL Ver.	MIL Security Type	
		No data to display										
		Discover Devices Scan for devices in your network Tap the scan button to initiate device di detected, you can easily manage and int Tap the import button if you like to man	teract with them.		ces are						Ú	



WARNING

Do not connect more than one Ethernet port from a single Moxa ARM-based computer to the switch. Swift is designed to handle connections through a single Ethernet port only.

- 2. All Moxa branded devices with IPv6 will appear in the scan results
 - The unsupported devices are only filtered out after the device is unlocked by entering the admin username and password. Therefore, to avoid confusion and enhance user experience, it is strongly recommended not to connect any unsupported Moxa devices (e.g., Moxa NPort, MGate) to the same network as the Windows PC with Swift installed.

MO	XX											
All De	evices											
									Q, Search	🔟 Adjust c	olumns 🛛 🙀 Start	scanni
		Serial Number	Model Name	IPv4 Address	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	MIL Ver.	MIL Security Type	
>		ê -	-	-	fe80::290:e8ff:fe00:186b	-	-	-	-	-	-	ć
>		ê -	-	**	fe80::290:e8ff:fe00:1871		-					(
>		ê -	-		fe80::290:e8ff:fe8c:b7f9			**		-		(
									Items per page: 10	1 - 3 of 3		

Unlock the Connected Computers



ATTENTION

- 1. All Moxa computers to be unlocked should have the same root username and password
- A lightweight Swift agent (/lib/system/system/moxa-swift-agent.service) will be automatically installed on Moxa computers for Swift to manage the devices. Consequently, the initial unlocking of the device may take between 20 to 50 seconds. The Swift agent uses the mDNS discovery protocol and SSH for communication between Swift and Moxa computers.
- 1. Check all the Moxa computers you would like to unlock.
- 2. After selecting the "Unlock" button, you will be prompted to enter the root username and password.
- For Moxa computers fresh from the factory, entering the default username and password ("moxa/moxa") will prompt you to set a new password. For security purposes, this new password should be at least 8 characters long.



4. GUI of the Unlocked State.

l Dev	ices	1									
Config	juration m	anagement 👻 Syst	em management 👻							X 3 items	selecte
		Serial Number	Model Name	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	MIL Ver.	MIL Security Type	
>		IMOXA0920042	UC-4434A-I-T	fe80::290:e8ff:fe00:1833	moxa-imoxa0920042	G Connected	LAN2	1.0	3.2.0		
>		IMOXA0920070	UC-4434A-I-T	fe80::290:e8ff:fe00:186b	moxa-imoxa0920070	⊘ Connected	LAN2	1.0	3.2.0		
>		IMOXA0920073	UC-4434A-I-T	fe80::290:e8ff:fe00:1871	moxa-imoxa0920073	G Connected	LAN2	1.0	3.2.0		
		•						Items per page: 10	1 – 3 of 3		1
		Enter a con	ifiguration pag	e specific				A	pply opera	tions to t	nis

Configure Moxa Computer

Batch Device Operations:

Select multiple Moxa Computers of the same model and use the **Configuration Management** or **System Management** dropdown menu at the top to execute batch operations.

л0)	(,)		perations to mu ers simultaned								
ll Dev	rices	1									
Config	guration ma	anagement 👻 Syst	em management 👻							X 3 items	selecte
	~	Serial Number	Model Name	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	MIL Ver.	MIL Security Type	
>		IMOXA0920042	UC-4434A-I-T	fe80::290:e8ff:fe00:1833	moxa-imoxa0920042	⊘ Connected	LAN2	1.0	3.2.0	-	:
>		IMOXA0920070	UC-4434A-I-T	fe80::290:e8ff:fe00:186b	moxa-imoxa0920070	⊘ Connected	LAN2	1.0	3.2.0		:
>		IMOXA0920073	UC-4434A-I-T	fe80::290:e8ff:fe00:1871	moxa-imoxa0920073	⊘ Connected	LAN2	1.0	3.2.0		:
								Items per page: 10	1 - 3 of 3		

Single Device Operations:

Click on the Serial Number hyperlink on main page to navigate to the configuration page of an individual device.



General Configuration

Configuration	Description		
Update Hostname	Modify the system's hostname to reflect changes or standardize naming conventions		
Change Root User Password	Update the password for the root user account to enhance security.		

Network Configuration

Configuration	Description
	Configure individual network parameters to establish stable connections across Ethernet, WiFi, and Cellular interfaces.
Connection Eailover Priority	Set prioritization rules for network failover to ensure seamless connectivity

*The above configuration is done via Moxa Connection Manager (MCM) in MIL

Computer Interface Configuration

Configuration	Description			
Configure the serial port	onfigure the serial port's operation mode and baud rate			
Configure DI Event Script	Set up scripts to execute based on digital input state changes, enabling automated responses to specific triggers.			
Configure the push-button's behavior	 Enable/Disable button Configure button to default behavior 			

*The above configuration is done via Moxa Connection Manager (MCM) in MIL

Security Configuration

Configuration	Description
Set Invalid Login Attempts	Configure the maximum number of unsuccessful login attempts before the
Threshold	system locks the account
Configure Auto Session	Establish a time threshold for the automatic termination of inactive user
Termination for Inactivity	sessions

Protocol Configuration

Configuration Description				
Enable/Disable mDNS	Enabling mDNS (Multicast DNS) enhances device discovery, accelerating the process and enabling Swift to display the device's model name during discovery prior to unlocking the device with a username and password.			
Configure SNMP Protocol	Set up the SNMP protocol to manage and monitor network devices effectively.			

Custom Script Configuration

For configurations not supported by the Swift GUI, use the "**Install from Self-defined Script**" function to apply your custom settings.

Install from Script/Package	
Install from package and script Install from script Install from Debian package	
Package to Install	
Browse package to install	
Script to Install	
Browse script to install	
	Cancel Deploy

Configuration	Description
Install from package and	Upload both a package file and a corresponding Bash script that specifies
script	the operations to be performed on the package file.
Install from script	Upload a Bash script that specifies the Linux operations to be executed on
instan nom script	the Moxa computer.
Install from Debian package	Upload a Debian package for installation on the Moxa computer.



WARNING

Please note that only **Bash scripts** are supported for custom configurations. It is strongly recommended to implement error code returns within your scripts. This enables Swift to accurately report the error status if the script does not complete successfully.

Snapshot & Backup Management

Snapshot Actions	Description
Create Snapshot	A snapshot captures the current state and data of the Moxa computer,
Create Shapshot	serving as a restoration point.
Revert to Snapshot	This allows you to revert the system to that specific state if needed.
Delete Snapshot	Delete the snapshot on the selected computer(s)
Backup Actions	Description
	A backup saves the Linux kernel and root filesystem (rootfs) on your Moxa
Create Backup	Arm-based computer. This backup can be exported and used to restore any
	Moxa computer of the same model running Moxa Industrial Linux (MIL) 3.1
	or above
Delete Backup	Delete the backup stored in the internal storage of the selected computer(s).
	This feature enables you to download a backup from a Moxa computer to the
Download from Backup	Windows PC with Swift installed. You can then use this backup file as a
	golden image to simultaneously restore multiple Moxa computers of the
	same model.
Install from Backup File	Deploy the system by restoring from a selected backup file.

*The above configuration is done via Moxa System Manager (MSM) in MIL

Install from System Image

Install the **.img** file downloaded from Moxa official product website. This operation is done via **mx-bootloader-mgmt image_auto_install** command in MIL

Reboot/Reset

Actions Description		
Reset to Factory Default Revert the system to its original factory image.		
Reboot	Reboot the system	

4. Step-by-Step Provisioning Guide

In this chapter, we will demonstrate how to use Swift to provision a golden image on a Moxa Arm-based computer (UC-4454A-T-5G) and then batch deploy that golden image to multiple UC-4454A-T-5G simultaneously.

1. Setup up environments:

Follow the steps outlined in the section Getting Started and Setting Up Provisioning Environments.



 Scan and unlock the Moxa Arm-based computer (e.g., UC-4454A-T-5G with IPv6 fe80::290:e8ff:fe00:1866) that you want to use to create a golden image.

II Devices										
II Devices										
							Q Search	Adjust colur	nns 💢 Start s	cannin
	Serial Number	Model Name	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	MIL Ver.	MIL Security Type	
> _	IMOXA0920068	UC-4454A-T-5G	fe80::290:e8ff:fe00:1866	moxa-imoxa0920068	⊘ Connected	LAN1	1.0	3.2.0		:
> _	a -	UC-4454A-T-5G	fe80::290:e8ff:fe00:18c0	-	-		-	÷.	-	ć
> _	a	UC-4454A-T-5G	fe80::290:e8ff:fe00:18d6	-	-	-	-		-	ć
							Items per page: 10	1 - 3 of 3		

3. Enter the device configuration page to configure the network, I/O interface, security, and protocol of the selected computer.

Mill Devices Model Name IPv6 Address Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number <th></th>	
Serial Number Model Name IPv6 Address Image: Serial Number Model Name IPv6 Address Image: Serial Number UC-4454A-T-56 fe80::290.e8ff.fe00:1866 Image: Serial Number UC-4454A-T-56 fe80::290.e8ff.fe00:1866 Image: Serial Number UC-4454A-T-56 fe80::290.e8ff.fe00:1866 Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number UC-4454A-T-56 fe80::290.e8ff.fe00:1866 Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image: Serial Number Image:	
Model Name IPv6 Address	
ImoxAnog20068 UC-4454A-T-56 fe80::290:e8ff:fe00:1866 ImoxAnog20068 Maximum constraints > image: height constraints image:	
Image: Note of the set of the se	
Description Description Operation	
▶ ▲ UC-4454A-T-56 fe80::290:e8ff;fe00:18d6 Ministrative manual m	Protocol
Mi Venne 12.0 Min Michael State 12.0 Min Michael State 12.0 Min	
fabr	12

- 4. For configurations not covered by Swift or additional package installations, You can use the following methods:
 - SSH to the Moxa Computer: Connect via IPv6 fe80::290:e8ff:fe00:1866 and perform configurations or installations directly in the Linux shell.
 - Use the "Install from Self-Defined Script" Function: Leverage this feature in Swift to apply custom configurations.

ΜΟΧΛ				
← IMOXA0920068				
moxa-imoxa0920068 S Connected				Action 👻
Available space of 10.69 GB			Assign IP	Configuration Management 🔸
Backup: Snapshot: 452MB			Update hostname	System management
General Network	Computer	Interface	Update login password	Reboot
			Configure network	
Device Information	Update hostname	IP Settings	Configure computer interface	Assign IP
Serial Number IMOXA0920068 Model Name UC-4454A-T-SG		Ethernet Connected LAN1 IPv6 Mode auto	Configure security	
Hostname moxa-imoxa0920068 MAC Addres 00-90:E8:00:18:66 Image Version 1.0		IPv6 Address fe80::290:e8ff:fe00 IPv4 Mode dhcp IPv4 Address	Configure protocol	
MIL Version 3.2.0 MIL Secure Type -		Subnet Mask	Install from self-defined script	

5. After completing all configurations, create a snapshot to serve as a restoration point.

ΜΟΧΛ				
All Devices > Detail				
← IMOXA0920068				
moxa-imoxa0920068				Action -
∅ Connected				
Available space of 10.69 GB				Configuration Management +
Backup: Snapshot: 452MB			Create backup	System management
oniporior. Houmo			стеате раскир	System management •
			Restore from backup	Reboot
General Network	Computer Interface			
			Download from backup	
Device Information	Update hostname IP Set	ttings	Delete backup	Assign IP
			Derete Buertap	
Serial Number IMOXA0920068 Model Name UC-4454A-T-56	Ethern IPv6 M	et Connected LAN1 Iode auto	Create snapshot	
Hostname moxa-imoxa0920068	IPv6 A	ddress fe80::290:e8ff:fe00:1866		
MAC Address 00:90:E8:00:18:66 Image Version 1.0	IPv4 M IPv4 A		Revert to snapshot	
MIL Version 3.2.0	Subnet	t Mask	Delete snapshot	
MIL Secure Type -				
			Reset to factory default	
			Install from sustant income	
			Install from system image	
			Install from backup file	

6. Configure Push Button action to revert to snapshot:

Set the push button (labeled as FN or RESET) on the Moxa computer to trigger a restoration to the snapshot. This will revert the system, including all your configurations and software, to the saved state.

MOXA					
DI3	Ν	None	·••	**	High
D14	Ν	None	¥	**	High
				Items per page: 10	1 - 10 of 10
Long-t Custom Changes Snag Short- Short-	Settings press (1 second) to reboot ress (7-9 seconds) to reset to facto Action	omputerinterfaceManager/button-scripts/custom.script			

7. Now you are ready to create a golden image by using the "Create Backup" function.

ΜΟΧΛ							
← IMOXA0	920068						
moxa-imoxa09 Connected Available space of Backup: Snapshot: 452MB					I	Create backup	Action Configuration Management System management
	General	Network	Computer Ir	nterface		Restore from backup	Reboot
Device Infor	nation		Update hostname	IP Settings		Delete backup	Assign IP
Serial Number Model Name Hostname MAC Address Image Version MIL Version MIL Secure Typ	IMOXA0920068 UC-4454A-T50 moxa-imoxx0920068 00.90 E8:00:18:66 1.0 3.2.0 •			IPv6 Address	LAN1 auto fe80::290:e8ff:fe00:1866 dhcp	Create snapshot Revert to snapshot Delete snapshot	
					-	Reset to factory default Install from system image Install from backup file	

8. Download the backup to the Windows PC with Swift installed. The backup file is in .tar format. For example **2024.08.26-165112-UC-4454A-T-5G-backup.tar**.

						Action
					Configuration Managem	nent)
				Create backup	System management	,
Network	Computer	Interface		Restore from backup	Reboot	
				Download from backup		
	Update hostname	IP Settings		Delete backup		Assign II
		Ethernet Connected LAN1 IPv6 Mode auto		Create snapshot		
		IPv4 Mode dhcp	0:e8ff:fe00:1866	Revert to snapshot		
		Subnet Mask		Delete snapshot		
				Reset to factory default		
				Install from system image		
				Install from backup file		
						Action
	Network		Update hostname Elbernet Connected LAN1 IPP6 Modes auto IPP6 Addes dhcp IPP4 Modes dhcp	Update hostname IP Settings Ethernet Connected LAN1 IPV6 Mode auto IPV6 Addres fe80.:20xe8ff 600:1864 IPV4 Mode dhcp IPV4 Address	Network Computer Interface Restore from backup Update hostname IP Settings Delete backup Ethernet Connected LAN1 Delete backup IPr4 Modes atro Create snapshot IPr4 Modes dhcp Belete snapshot Update hostname Subnet Mask Delete snapshot Install from system image Install from system image	Network Computer Interface Create backup System management Update hostname IP Settings Delete backup Rebot Update hostname IP Settings Delete backup Imagement Update hostname IP Settings Delete backup Imagement Update hostname IP Settings Delete backup Imagement Update hostname Imagement Revert to snapshot Imagement Update hostname Imagement Revert to snapshot Imagement Imagement Imagement Revert to factory default Imagement Imagement Imagement Imagement Revert to snapshot Imagement Imagement Imagement Imagement Reset to factory default Imagement Imagement Imagement Imagement Imagement Imagement Imagement Imagement Imagement

	Download The Backup Version		co	ol.
evice	Are you sure you want to download the backup file of this device?	0		Assigr
erial N	Backup file created time: 2024/08/27	C.		
todel N	Backup size: 1202MB			
ostnar IAC Ad			Cancel C Download	
nage V	m 3.2.0			

9. Unlock all the other UC-4454A-T-5G you would like to provision with the golden image (2024.08.26-165112-UC-4454A-T-5G-backup.tar).

Configuration management • System management • X										
	\checkmark	Serial Number	Model Name	IPv4 Address	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	
>		IMOXA0920068	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:1866	moxa-imoxa0920068	⊘ Connected	LAN1	1.0	
>	~	IMOXA1000009	UC-4454A-T-5G		fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	⊘ Connected	LAN1	1.0	
>		IMOXA1000020	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	G Connected	LAN1	1.0	
>	\checkmark	IMOXA1000009	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	⊘ Connected	LAN1	1.0	
>	~	IMOXA1000020	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	⊘ Connected	LAN1	1.0	
>	✓	IMOXA1000009	UC-4454A-T-5G		fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	G Connected	LAN1	1.0	
>		IMOXA1000020	UC-4454A-T-5G		fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	⊘ Connected	LAN1	1.0	

10. Select all the other UC-4454A-T-5G and choose "Install from Backup file" from the "System Management" drop-down menu.

Configuration	n management 👻	System management 👻						× 3 it	ems select
~	Serial Number	Create snapshot Revert to snapshot	IPv4 Address	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	
> Z	IMOXA092006		-	fe80::290:e8ff:fe00:1866	moxa-imoxa0920068	⊘ Connected	LAN1	1.0	
> 🔽	IMOXA100000	Reset to factory default	**	fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	∅ Connected	LAN1	1.0	
> 🔽		Install from system image		fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	⊘ Connected	LAN1	1.0	
> 🔽	IMOXA100000		-	fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	Connected	LAN1	1.0	
	IMOXA100002	Install from backup file		fa90200.a9ff.fa00.1946	maxa imaxa1000020	C Connected	LANI	10	
> 💌	IMOXA100002			fe80::290.e8ff:fe00:18d6	moxa-imoxa1000020	G Connected	LAN1 Items per page: 10 1 - 3	1.0 3 of 3 TC C	
> 🔽	IM0XA100002		-	fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	G Connected			>
nstall F	rom A Bacl	uc-4454A-1-56	-	fe80::290:e8ff.fe00:18d6	moxa-imoxa1000020	Connected			
nstall F	rom A Bacl	UC-4454A-1-56		fe80::290:e8ff;fe00:18d6	moxa-imoxa1000020	Connected			× ;
nstall F	Trom A Bacl	UC-4454A-1-56 vup File compatible only with the same		fe80::290:e8ff;fe00:18d6	moxa-imoxa1000020	Connected			

11. The batch installation process will start. Please wait patiently until the process is complete.

MOX	KV.									
All Dev	/ices									
								Q Search [Adjust columns	😹 Start scanning
		Serial Number	Model Name	IPv4 Address	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	
>		IMOXA0920068	UC-4454A-T-5G		fe80::290:e8ff:fe00:1866	moxa-Imoxa0920068	Processing device reboot	LAN1	1.0	:
>		IMOXA1000009	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	Processing device reboot	LAN1	1.0	:
>		IMOXA1000020	UC-4454A-T-5G		fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	Processing device reboot	LAN1	1.0	0 0

12. The batch installation process will start. Please wait patiently until the process is complete.

MOX	(\)										
All Dev	vices										
								Q Search	Adjust columns	😹 Start so	canning
	\checkmark	Serial Number	Model Name	IPv4 Address	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.		
>		IMOXA0920068	UC-4454A-T-5G		fe80::290:e8ff:fe00:1866	moxa-imoxa0920068	Processing device reboot	LAN1	1.0		:
>		IMOXA1000009	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	Processing device reboot	LAN1	1.0		:
>		IMOXA1000020	UC-4454A-T-5G		fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	Processing device reboot	LAN1	1.0		:

13. If you need to assign unique IPv4 addresses or customize hostnames for each Moxa computer, use the "Assign IP" and "Update Hostname" options from the "Configuration Management" dropdown menu to perform a batch assignment.

M									
All	Devices								
	Configuration management 👻	stem management 👻						×	3 items select
	Assign IP	Model Name	IPv4 Address	IPv6 Address	Host Name	Status	Ethernet Connected	Image Ver.	
Р	Update hostname	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:1866	moxa-imoxa0920068	device backup succeed	LAN1	1.0	
	Install from self-defined script	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:18c0	moxa-imoxa1000009	device backup succeed	LAN1	1.0	
L	> MOXA1000020	UC-4454A-T-5G	-	fe80::290:e8ff:fe00:18d6	moxa-imoxa1000020	device backup succeed	LAN1	1.0	



WARNING

By default, only LAN1 on the Moxa computer is managed by the Moxa Connection Manager (MCIM). If you use the "Assign IP" function and select LAN2, LAN3, etc., those ports will also be managed by MCIM. However, some MIL customers may prefer to use the traditional networking services in Debian to manage Ethernet ports.

14. If you need to assign unique IPv4 addresses or customize hostnames for each Moxa computer, use the "Assign IP" and "Update Hostname" options from the "Configuration Management" dropdown menu to perform a batch assignment.