

Quick Guide – MOBOTIX NAS & IoT Cameras

Setting up MOBOTIX NAS/MxManagementCenter
Using **IoT** Cameras



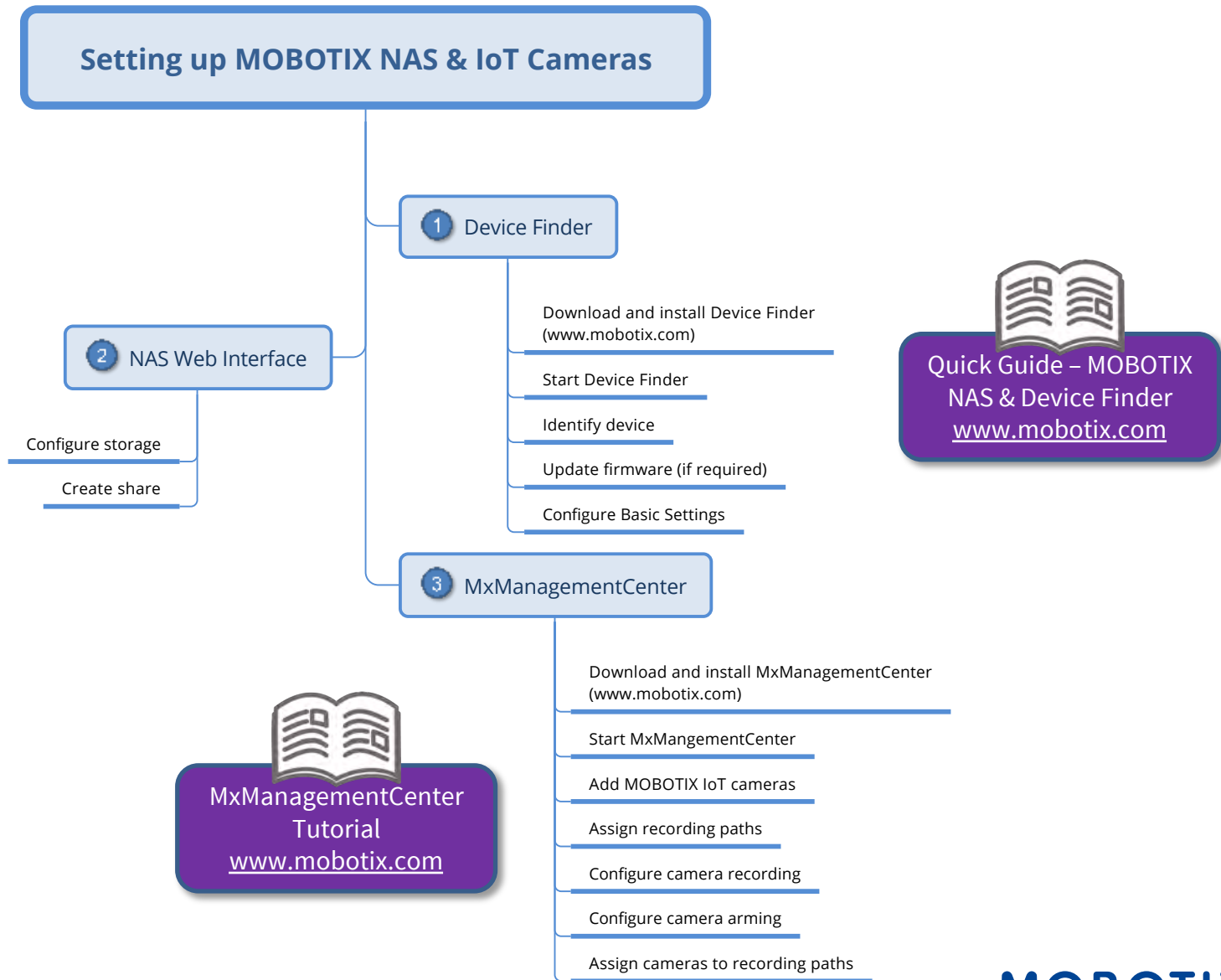
MOBOTIX NAS
2-Bay/8 Channels



MOBOTIX NAS
4-Bay/16 Channels



MOBOTIX NAS
8-Bay/32 Channels



This document is valid for the following MOBOTIX NAS models

Product Name	Item Number	Product Label
MOBOTIX NAS 2-Bay/8 Channels	Mx-S-NAS2a-8	251-G
MOBOTIX NAS 4-Bay/16 Channels	Mx-S-NAS4A-16	451-G
MOBOTIX NAS 8-Bay/32 Channels	Mx-S-NAS8A-32	873U-G

Minimum requirements for software versions

- MOBOTIX NAS: Mx-NAS2-4A-4.3.4.0807, Mx-NAS8A-4.3.4.0807, ContainerStation 1.8.3.207, MOBOTIX NAS QVRProServer 1.2.1.0 (see MOBOTIX NAS Quick Install)
- MOBOTIX IoT Cameras: 5.2.x (Mx6), 4.7.x (Mx3)
- MxManagementCenter: 2. 2+

IMPORTANT: We recommend updating all system components to the latest software releases. Please download the latest releases of MxMC, MOBOTIX NAS, and MOBOTIX IoT cameras from the MOBOTIX website www.mobotix.com:

- Support > Download Center > Software Downloads

Video Tutorials are available from the MOBOTIX website www.mobotix.com:

- Support > Download Center > Documentation > Video Tutorials

The **MOBOTIX NAS HDD Compatibility List** is available from the MOBOTIX website www.mobotix.com:

- Support > Download Center > Documentation > White Lists

A Note on Licensing

- MxManagementCenter can show MOBOTIX IoT and MOVE cameras “as is”, i.e., without any further licensing. For bandwidth-optimized usage and professional applications, it is highly recommended to use **MxPEG**.
- Using the **Advanced Configuration** feature of MxManagementCenter requires a license. This is recommended for quick and easy setup of a video surveillance system.

For more information on licensing models, please read the **MxMC 2.0 Tutorial** from the MOBOTIX website www.mobotix.com:

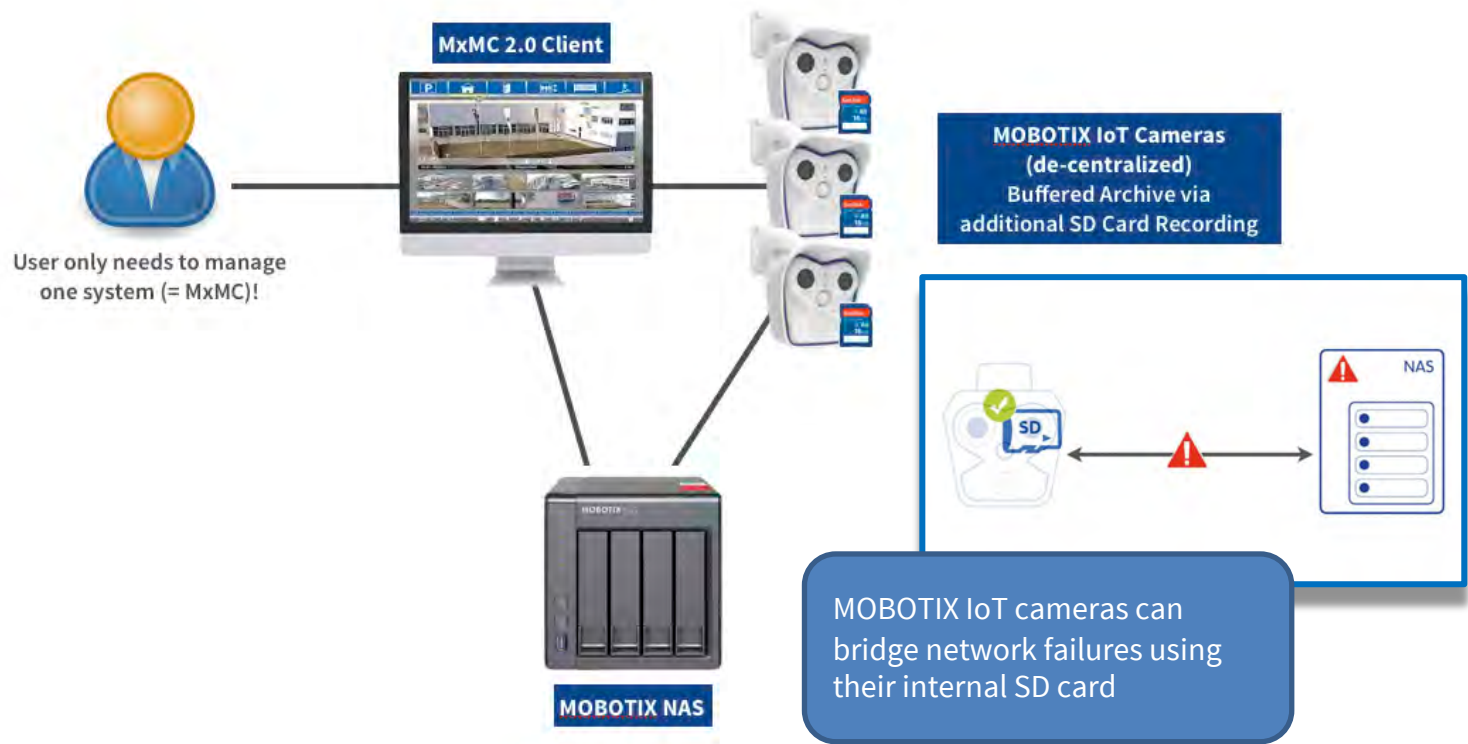
- Support > Download Center > Documentation > Brochures & Guides > Tutorials

Password Security!

- **NEVER use the default access privileges!** Always make sure that you have changed the default passwords to strong passwords (numbers, lower/upper case letters, special characters)!
- The **default user** of the MOBOTIX NAS is “**admin**” and the **password** is “**admin**”.
- The **default user** of the MOBOTIX Cameras is “**admin**” and the **password** is “**meinsm**”.
- **NEVER use the default access privileges!** Always make sure that you have changed the default passwords to strong passwords (numbers, lower/upper case letters, special characters)!

The objective of this document is to set up a MOBOTIX NAS as a **storage device** for **MOBOTIX IoT cameras**. In this scenario, the cameras will be using the NAS as **network share**.

The **MOBOTIX NAS QVRProServer** recording software is not required for recording MOBOTIX IoT cameras on the NAS. For most efficient configuration of camera settings, use the **Advanced Configuration** feature of MxManagementCenter.



Step 1: Setup MOBOTIX NAS (1)

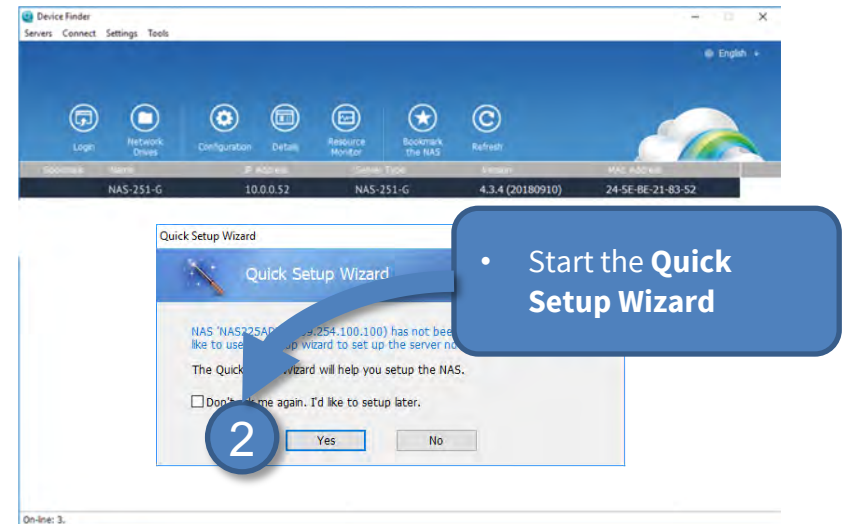
6



The screenshot shows the 'Device Finder' application window. At the top, there are tabs for 'Servers', 'Connect', 'Settings', and 'Tools'. Below these are icons for 'Login', 'Network Drives', 'Configuration', 'Details', 'Resource Monitor', and 'Bookmark the NAS'. A table lists discovered devices with columns for 'Name', 'IP Address', and 'Server Type'. One device, 'NAS-251-G' with IP '10.0.0.52', is highlighted. A blue callout box with a '1' points to this device.

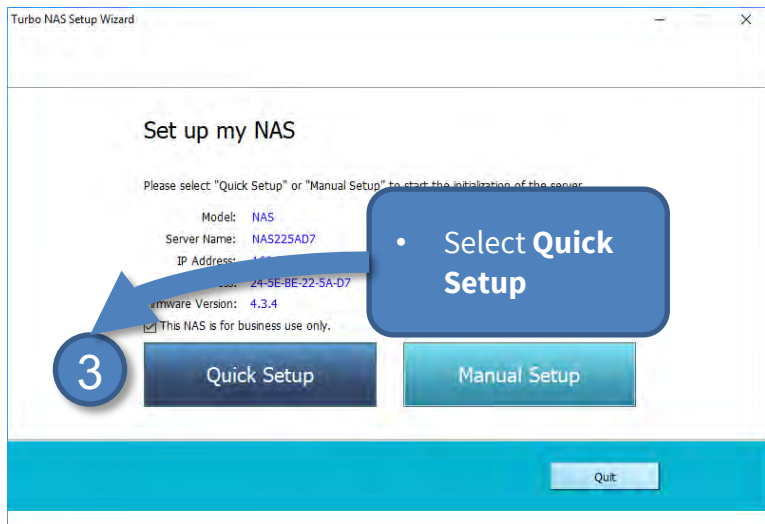
Name	IP Address	Server Type
NAS-251-G	10.0.0.52	NAS-251-G

- Start **Device Finder**, to detect the MOBOTIX NAS
- Doubleclick the device



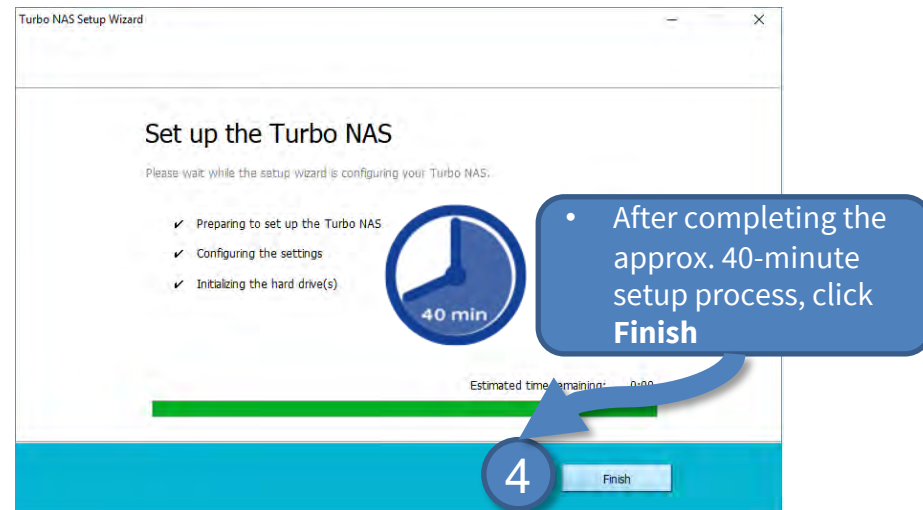
The screenshot shows the 'Quick Setup Wizard' dialog box. It contains text explaining that the wizard will help set up the NAS. There are 'Yes' and 'No' buttons. A blue callout box with a '2' points to the 'Yes' button.

- Start the **Quick Setup Wizard**



The screenshot shows the 'Turbo NAS Setup Wizard' window, specifically the 'Set up my NAS' screen. It displays fields for 'Model', 'Server Name', 'IP Address', and 'Software Version'. Below these fields are two buttons: 'Quick Setup' and 'Manual Setup'. A blue callout box with a '3' points to the 'Quick Setup' button.

- Select **Quick Setup**



The screenshot shows the 'Turbo NAS Setup Wizard' window, specifically the 'Set up the Turbo NAS' screen. It displays a progress bar and a clock icon indicating an estimated time of 40 minutes. A blue callout box with a '4' points to the 'Finish' button at the bottom right.

- After completing the approx. 40-minute setup process, click **Finish**

Step 4: Setup MOBOTIX NAS (2) update firmware if required

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Finder Pro 2.6.0

Finder PRO

Login Network Drives Configuration Details Bookmark the device

Bookmark	Name	IP Address	Type	Server Type	Version	MAC Address	Status
	2BAyNas	10.100.100.100		NAS-251+-G	4.3.4.0807mx	24-5E-BE-22-5A-D7	

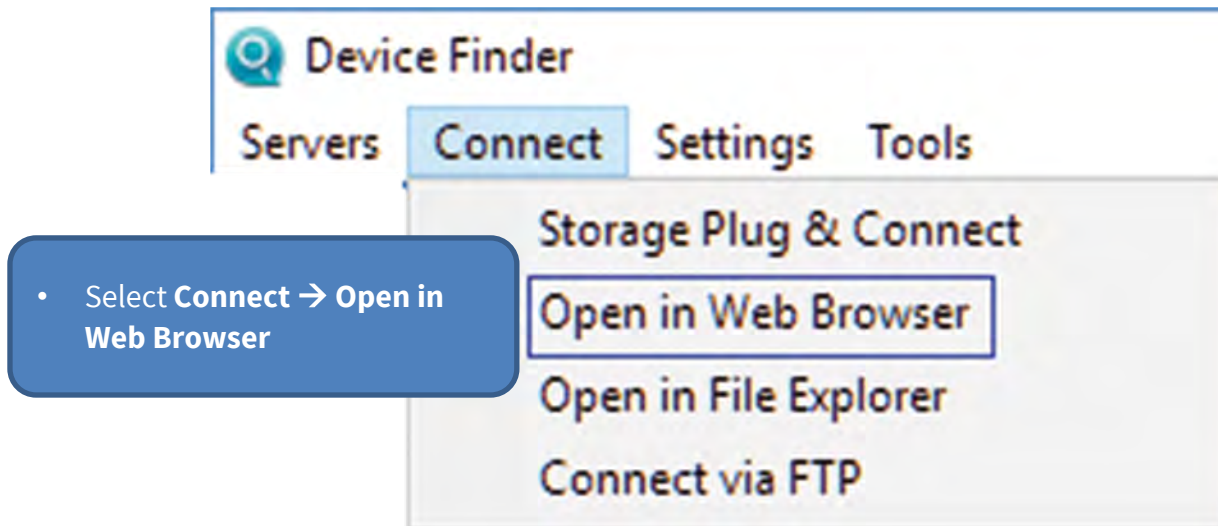
NAS IP Address (remember!)

Only if a new release is available!

Finder Pro Servers Connect Settings Tools Help Window Search

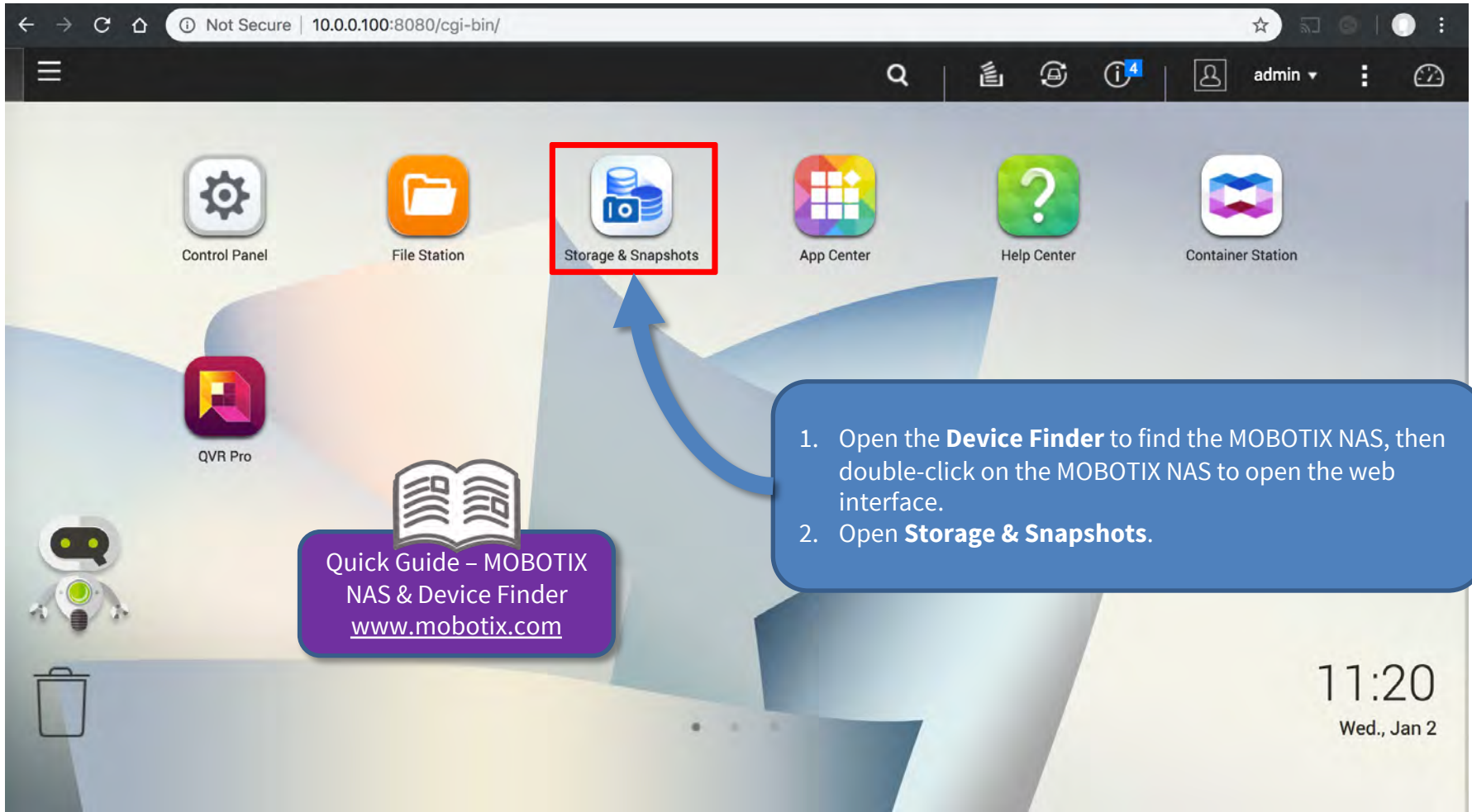
- Sleep
- Restart Server
- Shut down Server
- Remote Wake Up (Wake on LAN)
- Update Firmware

Quick Guide – MOBOTIX NAS & Device Finder



Step 1: Configure Volume (1)

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The screenshot shows the MOBOTIX web interface in a browser window. The address bar displays "10.0.0.100:8080/cgi-bin/". The interface features a top navigation bar with a search icon, a list icon, a refresh icon, a notification icon with a blue badge showing "4", a user profile icon labeled "admin", and a clock icon. Below the navigation bar, there is a row of six icons: "Control Panel" (gear), "File Station" (folder), "Storage & Snapshots" (database icon, highlighted with a red box), "App Center" (grid), "Help Center" (question mark), and "Container Station" (cube). A blue arrow points from a callout box to the "Storage & Snapshots" icon. In the bottom left corner, there is a "QVR Pro" icon and a "Quick Guide" icon. A purple callout box contains the text "Quick Guide – MOBOTIX NAS & Device Finder" and the URL "www.mobotix.com". A blue callout box contains the following instructions:

1. Open the **Device Finder** to find the MOBOTIX NAS, then double-click on the MOBOTIX NAS to open the web interface.
2. Open **Storage & Snapshots**.

The bottom right corner of the interface shows the time "11:20" and the date "Wed., Jan 2".

Step 1: Configure Volume (2)

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IMPORTANT: Reserve extra **Recording Space** if you'd like to add MOBOTIX-MOVE cameras later on!

The screenshot displays the 'Storage & Snapshots' management interface. On the left is a navigation sidebar with options: Overview, Storage, Snapshot, Disks/VJBOD, Storage/Snapshots (selected), Cache Acceleration, External Storage, Snapshot Backup, and iSCSI. The main panel shows 'Total - Storage Pool: 1, Volume: 1, LUN: 0'. Below this is a table with columns: Name/Alias, Status, Type, and Snapshot. The table lists 'Storage Pool 1' (Ready) and 'DataVol1 (System)' (Ready). A blue arrow points from a callout box to the 'Create' button in the top right. The 'Create' button has a dropdown menu open, showing options: 'New Storage Pool', 'New Volume' (highlighted with a red box), 'New iSCSI LUN', and 'Create Virtual JBOD'. The 'Create' button and its dropdown are also highlighted with a red box.

Name/Alias	Status	Type	Snapshot
Storage Pool 1	Ready		
DataVol1 (System)	Ready	Thick volume	

1. Click on **Create**.
2. Click on **New Volume**.

 **Volume Creation Wizard**

 Select Type

 Select Disk(s)

 Configure

 Summary

Create Volume

 Space Allocation

 Snapshots

☐ Static volume

☐ Thick volume

☐ Thin volume

Single fixed

Multiple preallocated

Multiple on-demand

Unsupported

Supported

Supported

Location:

Storage Pool 1



 Free Size: 744.42 GB

Thick volumes are created from preallocated storage pool space. They offer features such as snapshots, and can be expanded easily. Thick volumes are recommended for general use.

Thick Volume



Cancel

- Select **Storage Pool 1** as **Location**.
- Click on **Next** to proceed.

Next

Step 1 – Configure Volume (4)

Volume Creation Wizard

Select TypeSelect Disk(s)ConfigureSummary

Configure:

Volume Alias:

Volume capacity: (Maximum: 744.42 GB)

Storage pool capacity:

Allocated: 1.28 TB Subscription: 0 MB Free: 544.42 GB

Note: Storage features such as expansion, thin allocation and snapshots can be affected by low storage pool space. You should try to leave some space free and perform expansion later when needed.

File system option: i

Bytes per inode:	☐	☐	☐	☒	☐
4K					
8K					
16K					
32K					
64K					
Maximum volume size:	15.99 TB	31.99 TB	63.99 TB	127.99 TB	250 TB
Maximum number of files/folders:	52M	26M	13M	6M	3M

Advanced Settings ▼



Quick Guide – MOBOTIX NAS & MOVE/ONVIF Cameras
www.mobotix.com

2

BackNext

IMPORTANT: Reserve extra **Recording Space** if you'd like to add MOBOTIX-MOVE cameras later on!

1. Fill in the fields as required.
2. Click on **Next** to proceed.

Note: To calculate the space requirements, use the Storage Calculator on www.mobotix.com.

 **Volume Creation Wizard** 

 Select Type  Select Disk(s)  Configure  **Summary**

Summary:

Volume Alias:	DataVol2
Type:	Thick volume
Storage pool name:	Storage Pool 1
Capacity:	200GB
Bytes per inode:	32K
File system option:	Maximum volume size: 127.99 TB, Maximum number of files/folders: 6M
Alert threshold:	Yes (80%)
Encryption:	No

Note: Actual usable capacity might be smaller due to metadata storage.

Continue with the next step.

Cancel

Back

Finish

Step 1 – Configure Volume (6)

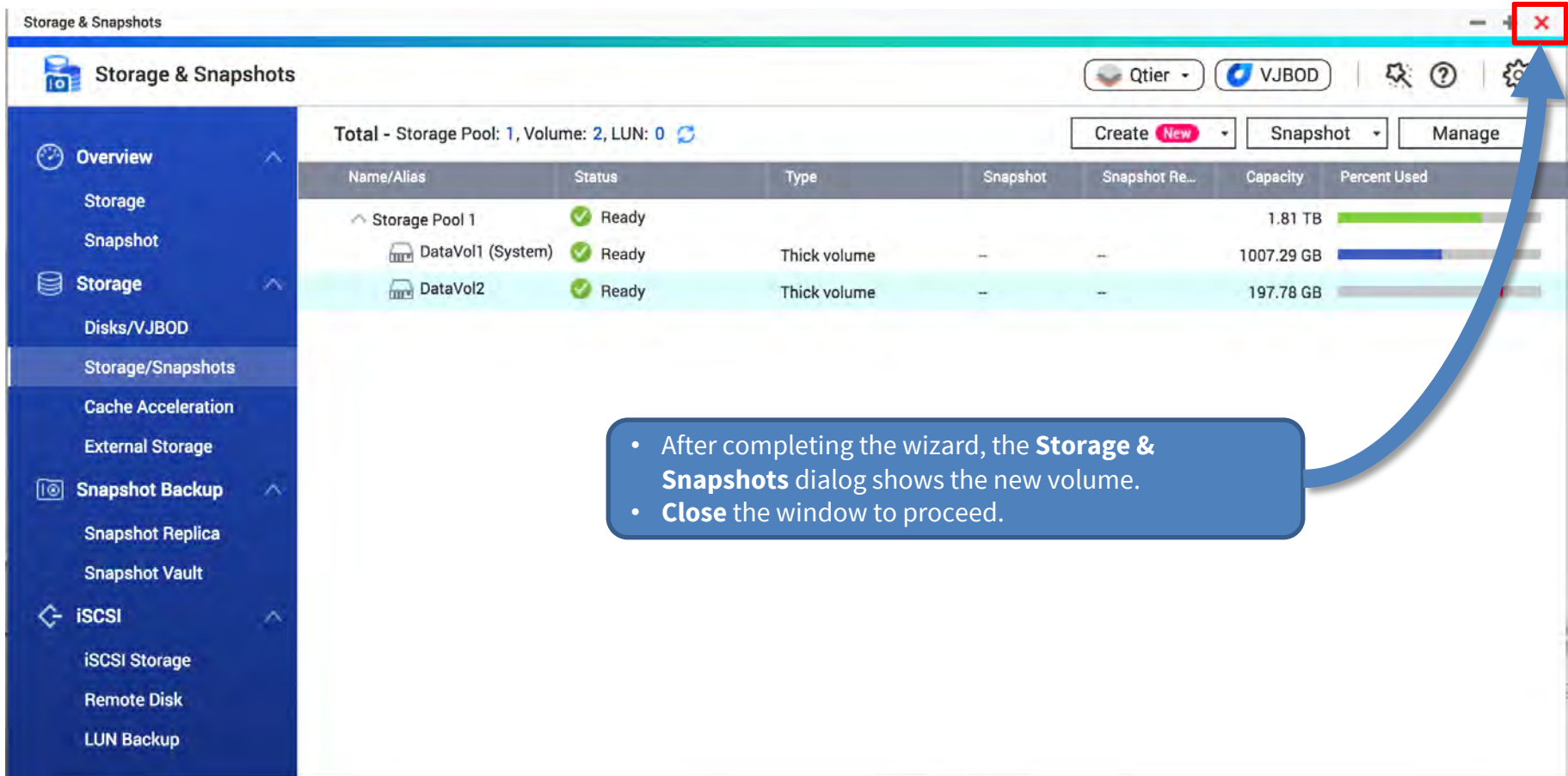
14

The screenshot displays the 'Storage & Snapshots' management console. On the left, a sidebar lists navigation options: Overview, Storage, Snapshot, Disks/VJBOD, Storage/Snapshots, Cache Acceleration, External Storage, Snapshot Backup, Snapshot Replica, Snapshot Vault, iSCSI, iSCSI Storage, Remote Disk, and LUN Backup. The main panel shows a summary of storage resources: 'Total - Storage Pool: 1, Volume: 2, LUN: 0'. Below this is a table with columns: Name/Alias, Status, Type, Snapshot, Snapshot Re..., Capacity, and Percent Used. The table lists 'Storage Pool 1' (Ready, 1.81 TB) and two volumes: 'DataVol1 (System)' (Ready, 1007.29 GB) and 'DataVol2' (being created). A modal dialog titled 'Volume DataVol2 is Being Created' is centered on the screen. It contains an information icon, the title, and instructions: 'When the volume is ready, you can start to store data by creating a shared folder in [File Station](#). Set up a snapshot schedule and configure snapshot guaranteed space to protect data on this volume.' There is a checkbox for 'Do not show this message again' and a 'Close' button highlighted with a red rectangle. A blue callout box at the bottom right of the dialog area says 'Continue with the next step.'

Name/Alias	Status	Type	Snapshot	Snapshot Re...	Capacity	Percent Used
Storage Pool 1	Ready				1.81 TB	
DataVol1 (System)	Ready	Thick volume			1007.29 GB	
DataVol2	Being Created					

Step 1 – Configure Volume (Completed)

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Storage & Snapshots

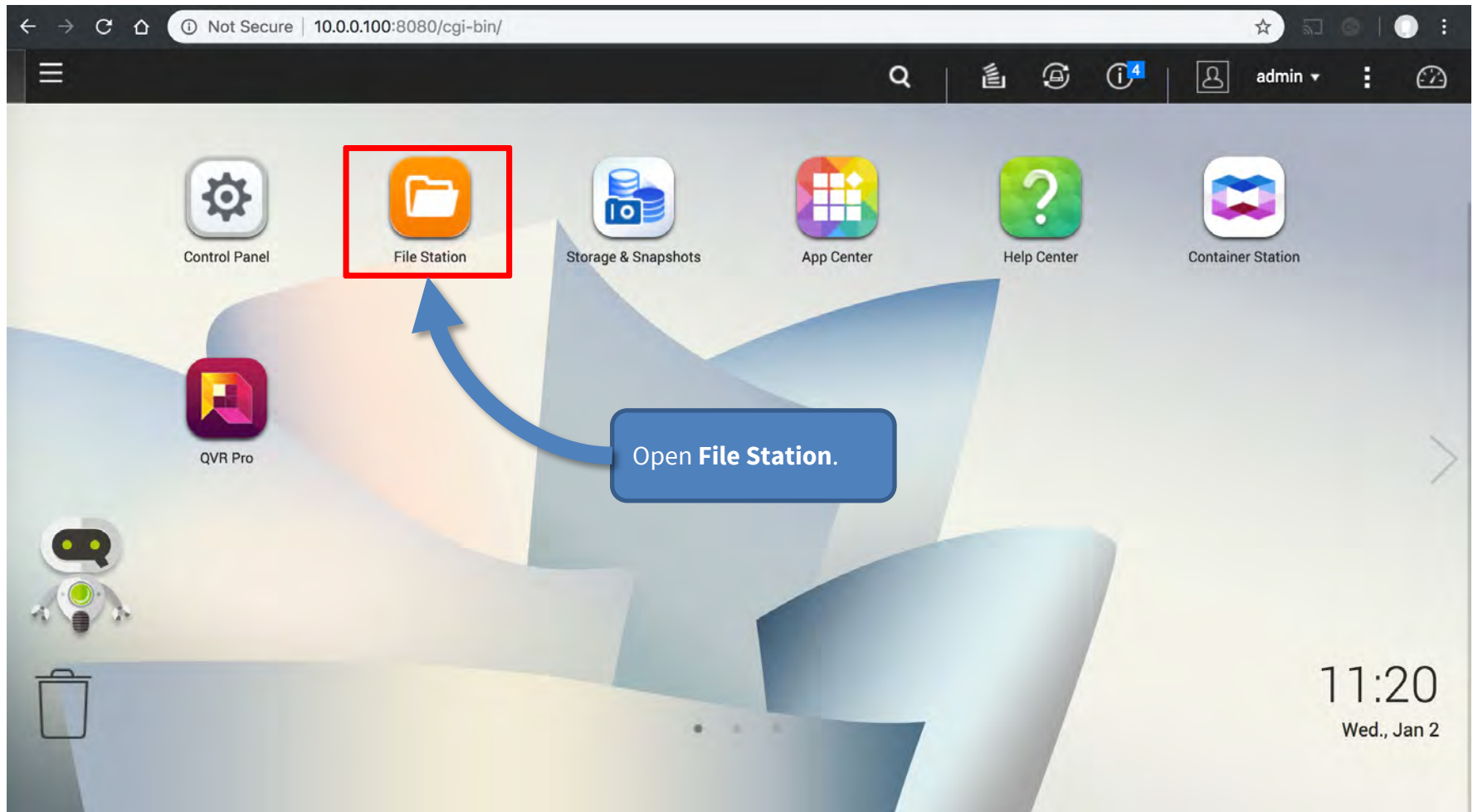
Qtier VJBOD

Create **New** Snapshot Manage

Total - Storage Pool: 1, Volume: 2, LUN: 0

Name/Alias	Status	Type	Snapshot	Snapshot Re...	Capacity	Percent Used
Storage Pool 1	Ready				1.81 TB	
DataVol1 (System)	Ready	Thick volume	--	--	1007.29 GB	
DataVol2	Ready	Thick volume	--	--	197.78 GB	

- After completing the wizard, the **Storage & Snapshots** dialog shows the new volume.
- **Close** the window to proceed.



Step 2 – Configure Share (2)

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The screenshot shows the FileStation 5 web interface. On the left sidebar, under 'MxNAS', 'DataVol2' is highlighted with a red box around its settings icon (three vertical dots). A blue arrow points from this icon to a context menu that appears. In this menu, 'Create a Shared Folder' is highlighted with a red rectangle, while 'Snapshot Manager' is also visible. The main area of the interface shows a file list with columns for Name, Modified Date, Type, and Size. The list includes folders like '@Recycle' and 'Snapshot Manager'.

1. Open the settings for **Data Vol2**.
2. Select **Create a Shared Folder**.

Create A Shared Folder

Please fill out the following fields to create a shared folder

Folder Name: recordmxiot **1**

Comment (optional):

Disk Volume: DataVol2 (Free Size: 197.00 GB)

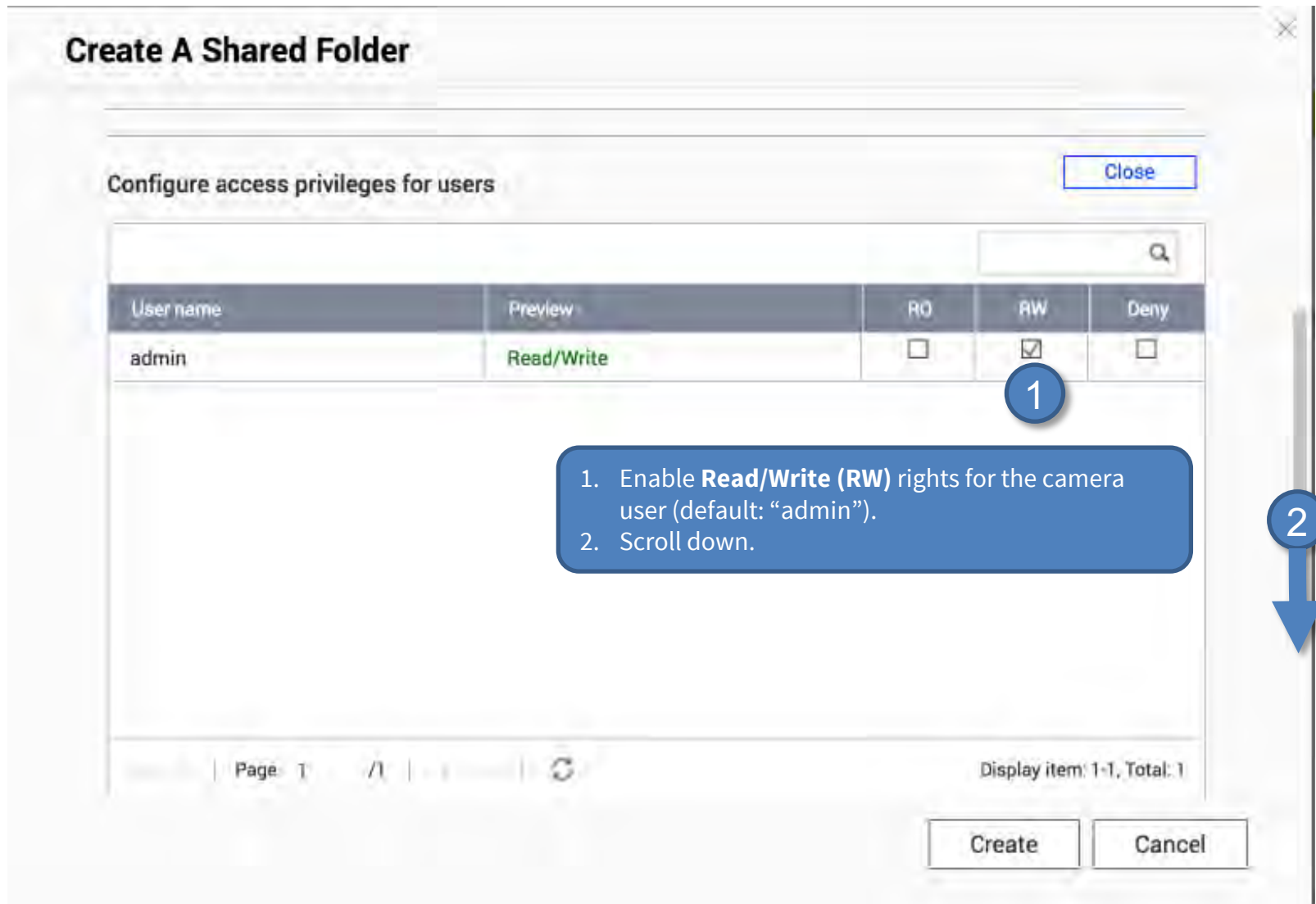
Qtier Auto Tiering: ☐ Enable Auto-Tiering

Path: ☒ Specify path automatically
☐ Enter path manually

Configure access privileges for users **2** Edit

Currently, only the "admin" account has full permissions for this folder.

Create Cancel



Create A Shared Folder

Configure access privileges for users Close

User name	Preview	RO	RW	Deny
admin	Read/Write	☐	☒	☐

1

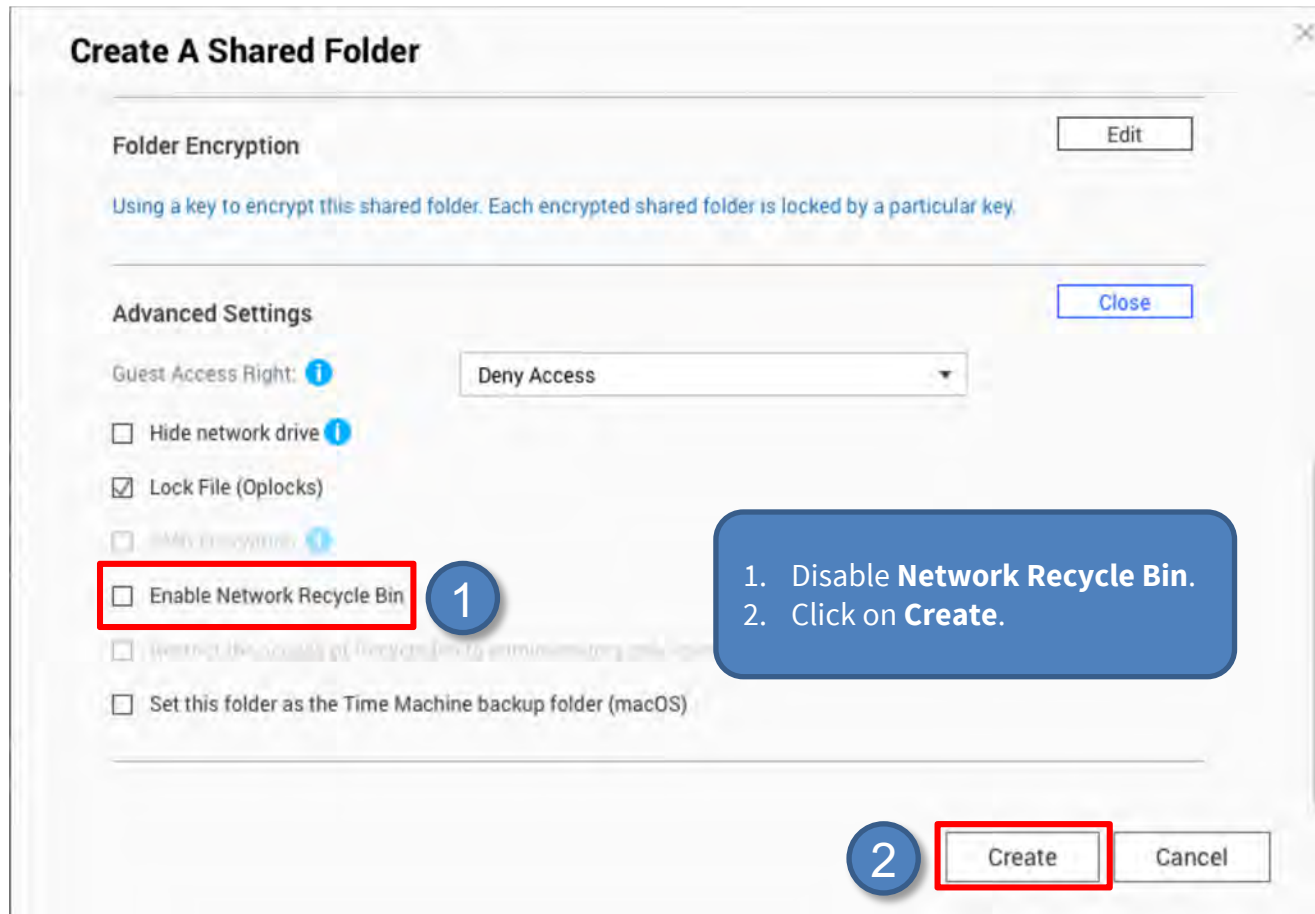
2

1. Enable **Read/Write (RW)** rights for the camera user (default: "admin").
2. Scroll down.

Page: 1 / 1

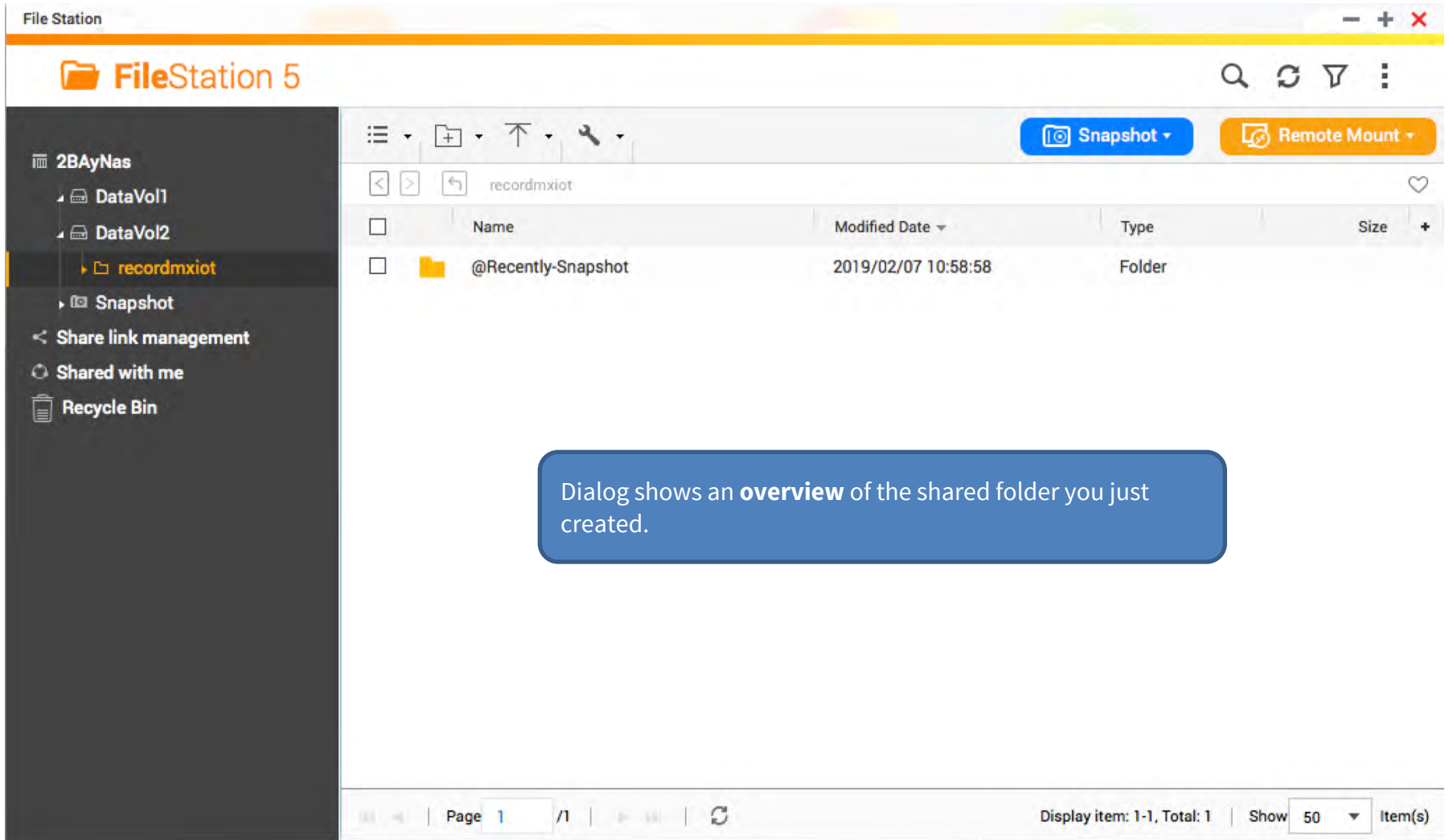
Display item: 1-1, Total: 1

Create Cancel



Step 2 – Configure Share (Completed)

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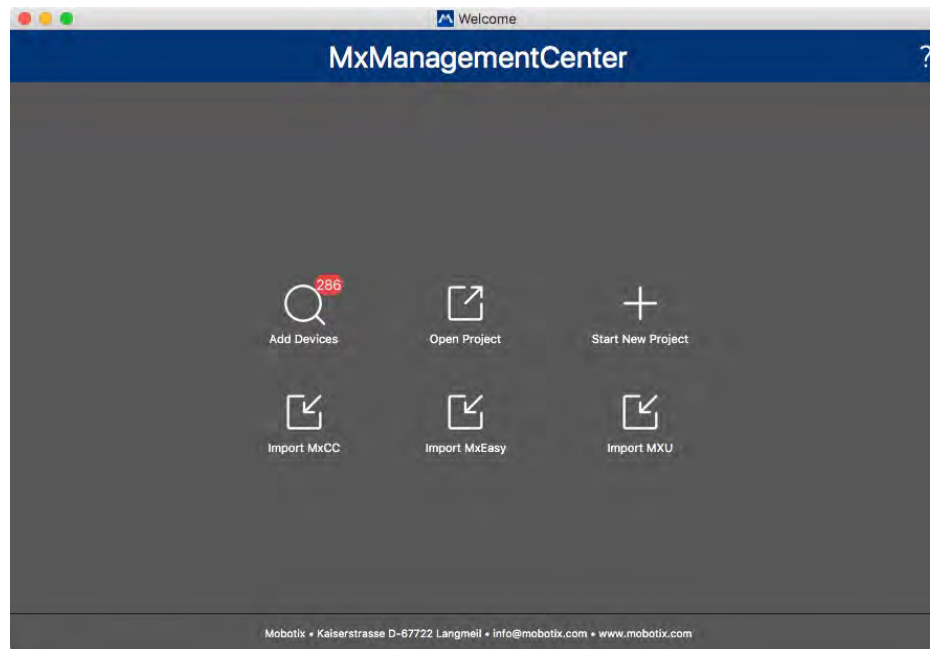
The screenshot displays the FileStation 5 web interface. On the left, a sidebar shows the directory structure under '2BAyNas', including 'DataVol1', 'DataVol2', 'recordmxiot' (highlighted), 'Snapshot', 'Share link management', 'Shared with me', and 'Recycle Bin'. The main area shows the 'recordmxiot' folder with a table of its contents:

☐	Name	Modified Date	Type	Size	+
☐	@Recently-Snapshot	2019/02/07 10:58:58	Folder		

Below the table, a blue callout box contains the text: "Dialog shows an **overview** of the shared folder you just created."

At the bottom, the interface includes pagination controls (Page 1 / 1), a refresh button, and display settings (Display item: 1-1, Total: 1; Show 50 Item(s)).

1. Start **MxManagementCenter**.
2. Start the **Welcome** wizard by clicking on **File > Welcome** in the menu bar.

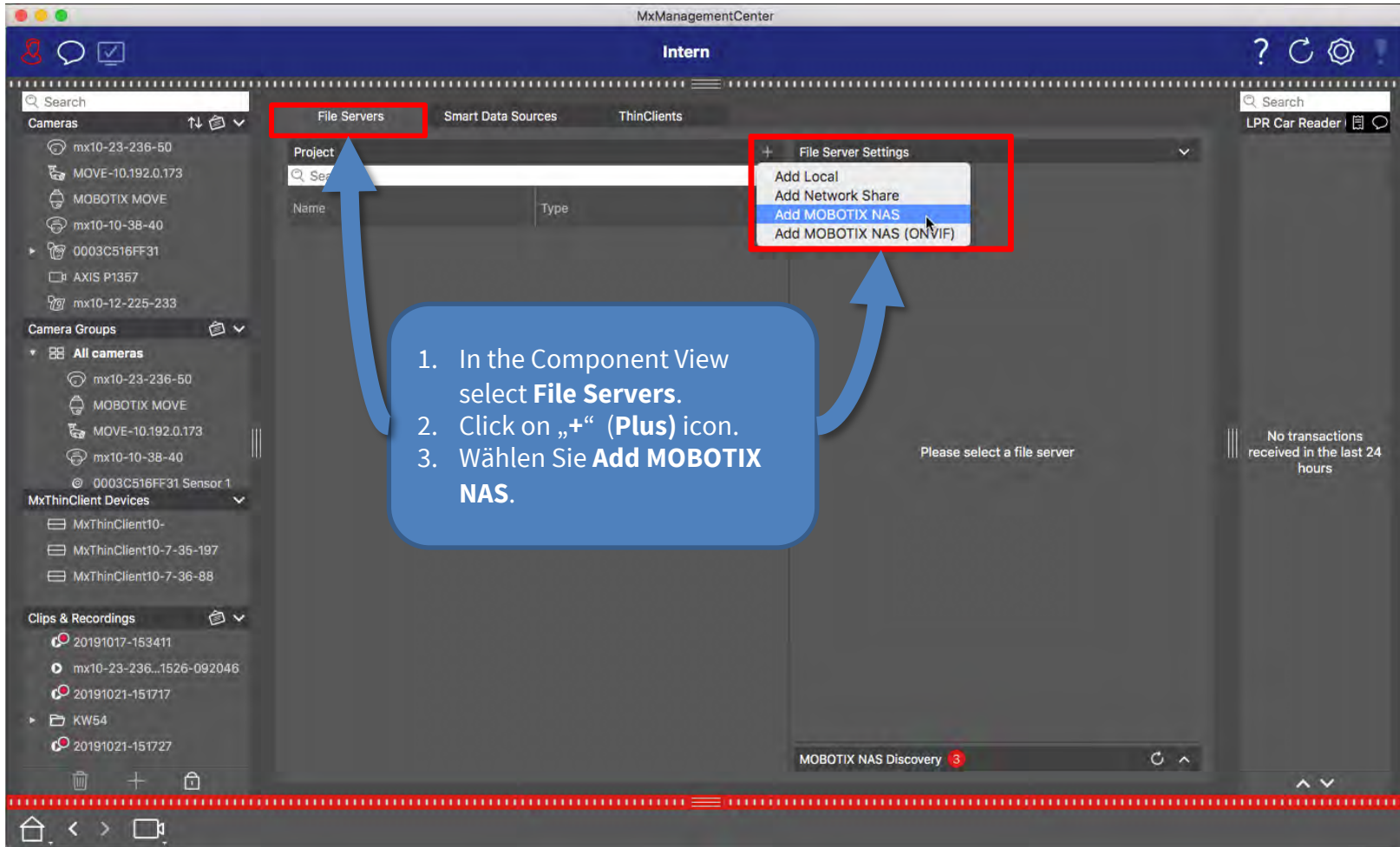


3. Click on **Add Devices**. Then select the desired MOBOTIX IoT cameras to be added to MxMC.
3. Enter the access privileges for each camera.

Step 4: Assign Recording Paths in MxManagementCenter (1)

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The screenshot shows the MxManagementCenter interface. The 'File Servers' tab is selected in the top navigation bar. A red box highlights the 'File Servers' tab. Another red box highlights the 'File Server Settings' menu, which is open, showing options: 'Add Local', 'Add Network Share', 'Add MOBOTIX NAS' (highlighted), and 'Add MOBOTIX NAS (ONVIF)'. A blue callout box contains the following steps:

1. In the Component View select **File Servers**.
2. Click on „+“ (Plus) icon.
3. Wählen Sie **Add MOBOTIX NAS**.

The interface also shows a list of cameras on the left, a search bar at the top, and a status bar at the bottom indicating 'MOBOTIX NAS Discovery' with 3 items.

File Servers

Name	Type
MxNAS_IoT	MOBOTIX NAS

File Server Settings

Name: MxNAS_IoT

Type: MOBOTIX NAS

File Server (IP): 10.100.100.100

Directory: recordmxiot

User Name: admin

Password: *****

Test

1. Enter a profile name (e.g., **MxNAS_IoT**).
2. Select **MOBOTIX NAS**.
3. Enter MOBOTIX NAS IP address.
4. Enter share name as defined before (e.g., **recordmxiot**).
5. Enter user name and password for accessing the share.
6. Press **Test** to check the connection.
7. Press **OK** to store the settings.

Step 4 – Assign Recording Paths (3)

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The screenshot shows the 'Preferences' window for MxNAS. On the left, a sidebar lists various settings: General, Network, Software Update, Notifications, Monitoring, Audio, Data Volume, Caches, Snapshots, Live Recorder, **Recording Paths** (highlighted with a red box), Remote Control, Joystick PTZ, MxMessageSystem, and Retail System. The main area is titled 'Recording Paths' and shows two existing paths: 'MxNAS_ONVIF_MxMOVE' and 'MxNAS_IoT'. Below these, there are fields for configuring a new path. The 'Name' field is set to 'MxNAS_IoT'. The 'Type' is set to 'MOBOTIX NAS'. The 'File Server (IP)' is set to '10.0.0.100'. The 'Directory' is set to 'recordmxiot'. The 'User Name' is set to 'admin' and the 'Password' is masked with dots. At the bottom, there is a 'Test Server Settings' section with a 'Test' button and the text 'Successful!'. At the very bottom are buttons for 'Restore Defaults', 'Apply', 'Cancel', and 'OK'.

1. Enter a profile name (e.g., **MxNAS_IoT**).

2. Select **MOBOTIX NAS**.

3. Enter MOBOTIX NAS IP address.

4. Enter share name as defined before (e.g., **recordmxiot**).

5. Enter user name and password for accessing the share.

6. Press **Test** to check the connection.

7. Press **OK** to store the settings.

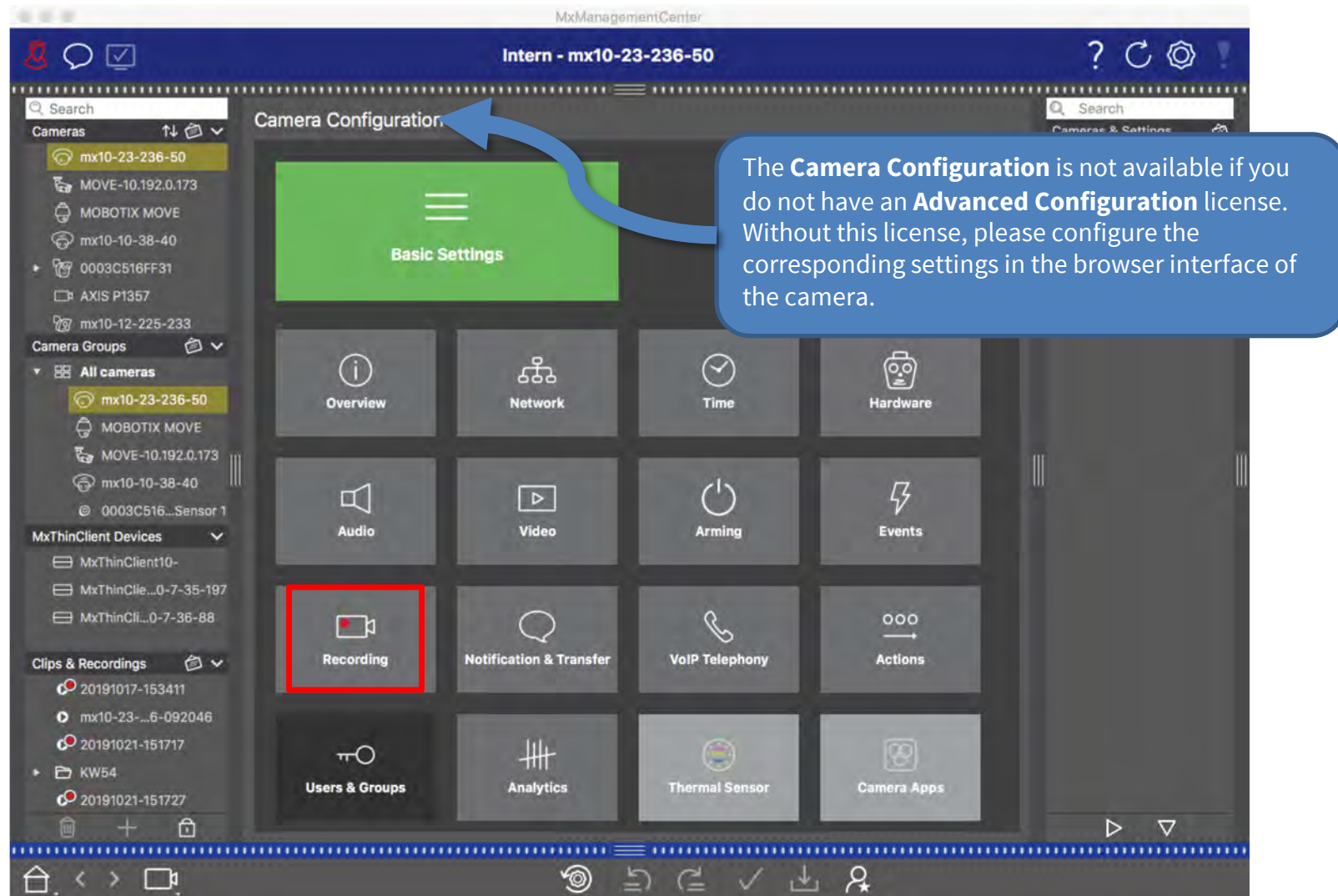
Step 5 – Configure Camera Recording (1)

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Step 5 – Configure Camera Recording (2)

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The screenshot displays the MxManagementCenter interface for camera configuration. The left sidebar lists various cameras and groups, with 'mx10-23-236-50' selected. The main area shows the 'Camera Configuration' page for this camera. A blue arrow points to the 'Basic Settings' section, which is highlighted in green. A blue callout box with white text states: 'The **Camera Configuration** is not available if you do not have an **Advanced Configuration** license. Without this license, please configure the corresponding settings in the browser interface of the camera.' The 'Recording' option is highlighted with a red box. Other options visible include Overview, Network, Time, Hardware, Audio, Video, Arming, Events, Notification & Transfer, VoIP Telephony, Actions, Users & Groups, Analytics, Thermal Sensor, and Camera Apps.

Step 5 – Configure Camera Recording (3)

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Recording

General | **Recording Mode** | **Storage** | Backup Storage | Monitoring

Recording Medium: RAM Buffer

Encryption Key: []

1. Open **Storage** tab.
2. Select **RAM Buffer**.
3. Copy this setting to all desired cameras using Drag&Drop in the configuration bar.

3

Configuration Bar

Search

Cameras & Settings

Recording Medium

SD Flash Card

M16Thermal

RAM Buffer

M16

Step 5 – Configure Camera Recording (4)

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Configuration Bar

Recording

Backup Storage

Backup Medium: SMB/CIFS File Server

URL: 10.0.0.100

Folder: recordmxiot

User name: admin

Password:

NTLM mode: NTLM

Max. Backup Size [GiB]: 90,00

Reboot Required

To apply your changes, the following devices must be rebooted:

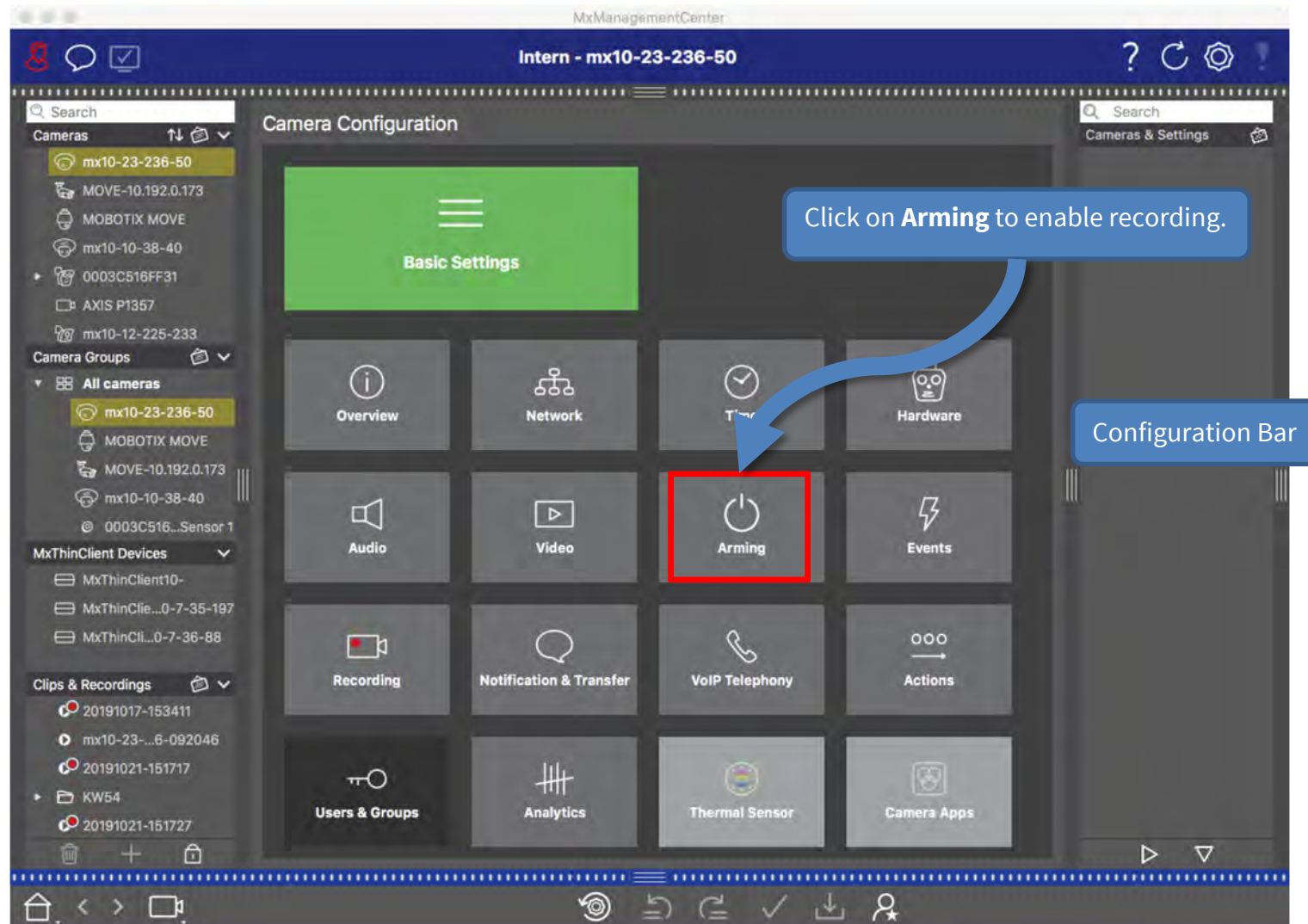
Type	Name	URL
	M16	10.22.224.129
	M16Thermal	10.22.94.45

Reboot later **Reboot**

1. Open **Backup Storage**.
2. Select **SMB/CIFS File Server**.
3. Enter MOBOTIX NAS IP address.
4. Enter the share name of the NAS.
5. Enter user name and password for accessing the share.
6. Set **Max. Backup Size** for the camera.
7. Copy this setting to all desired cameras using Drag&Drop in the configuration bar.
8. Press the **Store** button to store the configuration.
9. **Reboot** the cameras you just modified.

Step 6 – Configure Camera Arming and Recording Mode (1)

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Step 6– Configure Camera Arming and Recording Mode (2)

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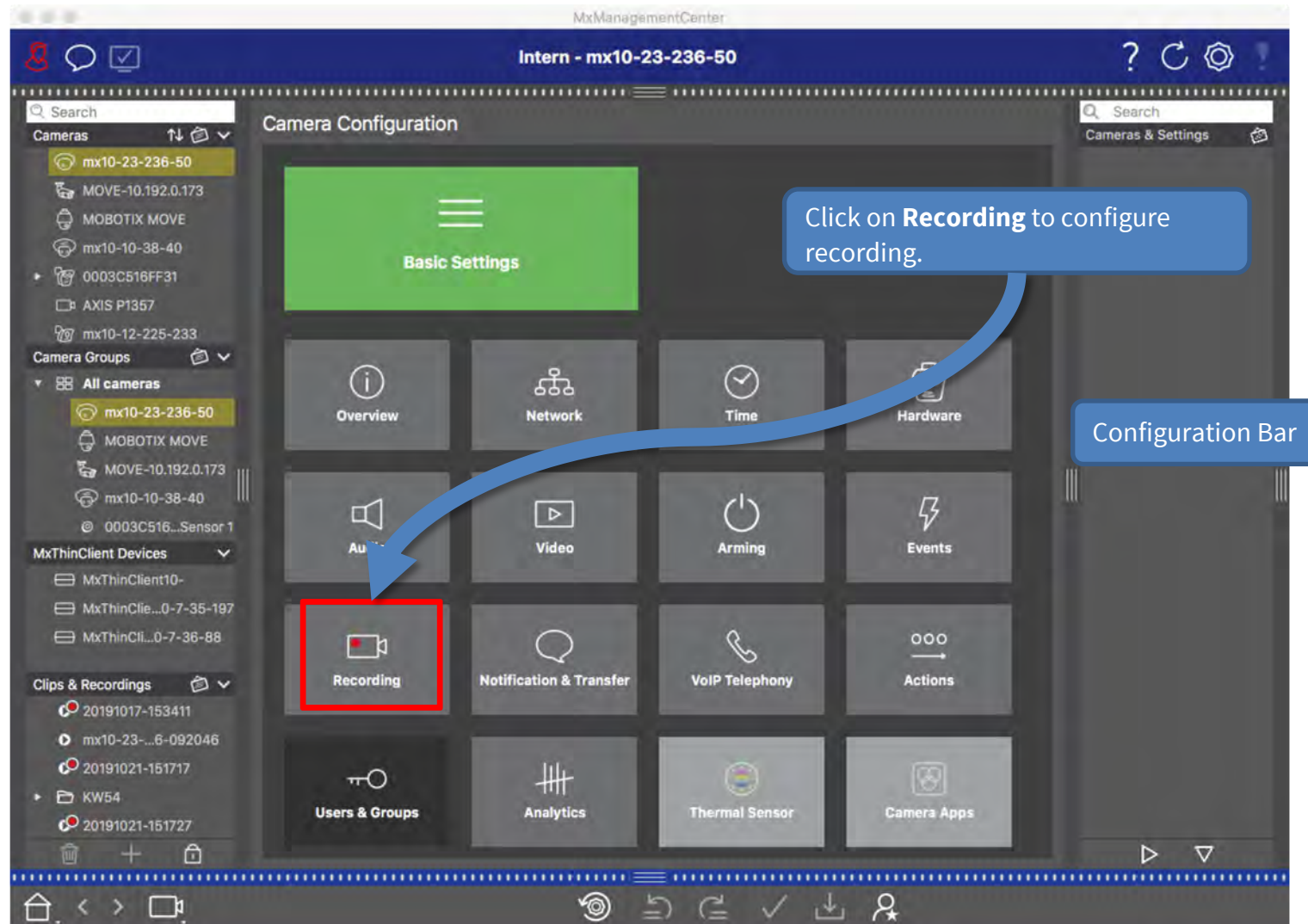
The screenshot shows the Mobotix configuration interface. On the left, there is a sidebar with 'Cameras' and 'Camera Groups' sections. The 'Cameras' section lists 'MOVE-10.192.4.124', 'M16Thermal', and 'M16'. The 'M16' camera is selected. Below the sidebar, there is a 'Clips & Recordings' section. The main area is titled 'Arming' and has two tabs: 'General' and 'Custom Signals'. The 'General' tab is active, showing 'Arming' set to 'Enabled' and 'Time Table Profile' set to '(no timetable)'. A red box highlights the 'Arming' dropdown, and a blue circle with the number 1 is next to it. On the right, there is a 'Configuration Bar' with a search bar and a list of cameras: 'M16' and 'M16Thermal'. A blue circle with the number 2 is next to the 'M16' camera. A blue callout box contains the following instructions:

1. Enable the **Arming** (i.e., main switch for recording).
2. Copy this setting to all desired cameras using Drag&Drop in the configuration bar.

Configuration Bar

Step 6 – Configure Camera Arming and Recording Mode (3)

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Step 6 – Configure Camera Arming and Recording Mode (4)

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1 Open **Recording Mode** tab.

2 Select **Continuous Recording**.

3 Set parameters (additional settings for event recording).

4 Copy these settings to all desired cameras using Drag&Drop in the configuration bar.

5 Press **Store** button at the bottom.

6 Press **Store** in the dialog.

Do you want to permanently store the configuration changes?
You can discard the changes that have been made since the configuration was last stored.

Discard **Cancel** **Store**

Step 7 – Assign Cameras to Share (1)

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The screenshot displays the Mobotix playback interface. The top bar shows the title "Playback - mx10-22-6-117" and navigation icons. The left sidebar contains a search bar, a camera list with "mx10-8-32-83" and "mx10-22-6-117", camera groups, and clips & recordings. The main area shows a multi-camera view of a shopping mall. A blue callout box with a lock icon and the text "Open lock icon to enter edit mode." points to a lock icon in the bottom toolbar. The bottom toolbar includes various playback controls and a timestamp of "13.02.19 12:30:00".

Step 7 – Assign Cameras to Share (2)

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Multi-Camera Configuration

Cameras >

User Name admin

Password [MultipleValues]

Environment Default

Background Alarms ☐

Remote ☐

SSL ☒

Bandwidth HiRes

Bandwidth Settings >

Recording Settings MxNAS_IoT

Alarms ☒

Remove

Recording Settings

Recording Path MxNAS_IoT

Format MxFFS

MxFFS Key Key

Device Directory

OK

1. Select all cameras that will be using the same share.
2. Right-click the cameras to open the configuration dialog.
3. Click on **Recording Settings**.
4. Select the **Recording Path**.
5. Wait until **Device Directory** shows status **OK**.
6. Close the dialogs.
7. Click on the lock icon to close the edit mode.



BeyondHumanVision

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