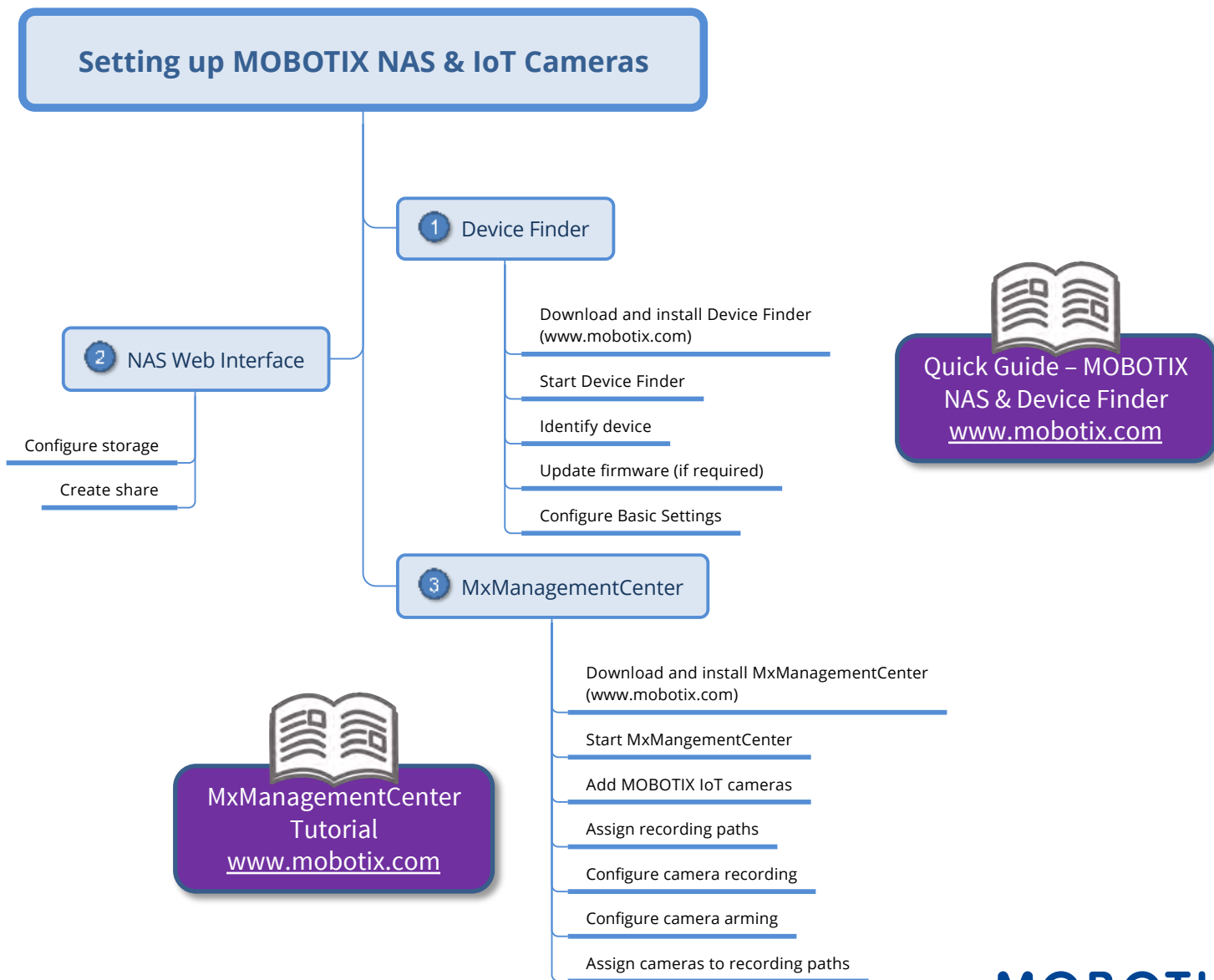


Quick Guide – MOBOTIX NAS & IoT Cameras

Setting up MOBOTIX NAS/MxManagementCenter Using IoT Cameras





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:

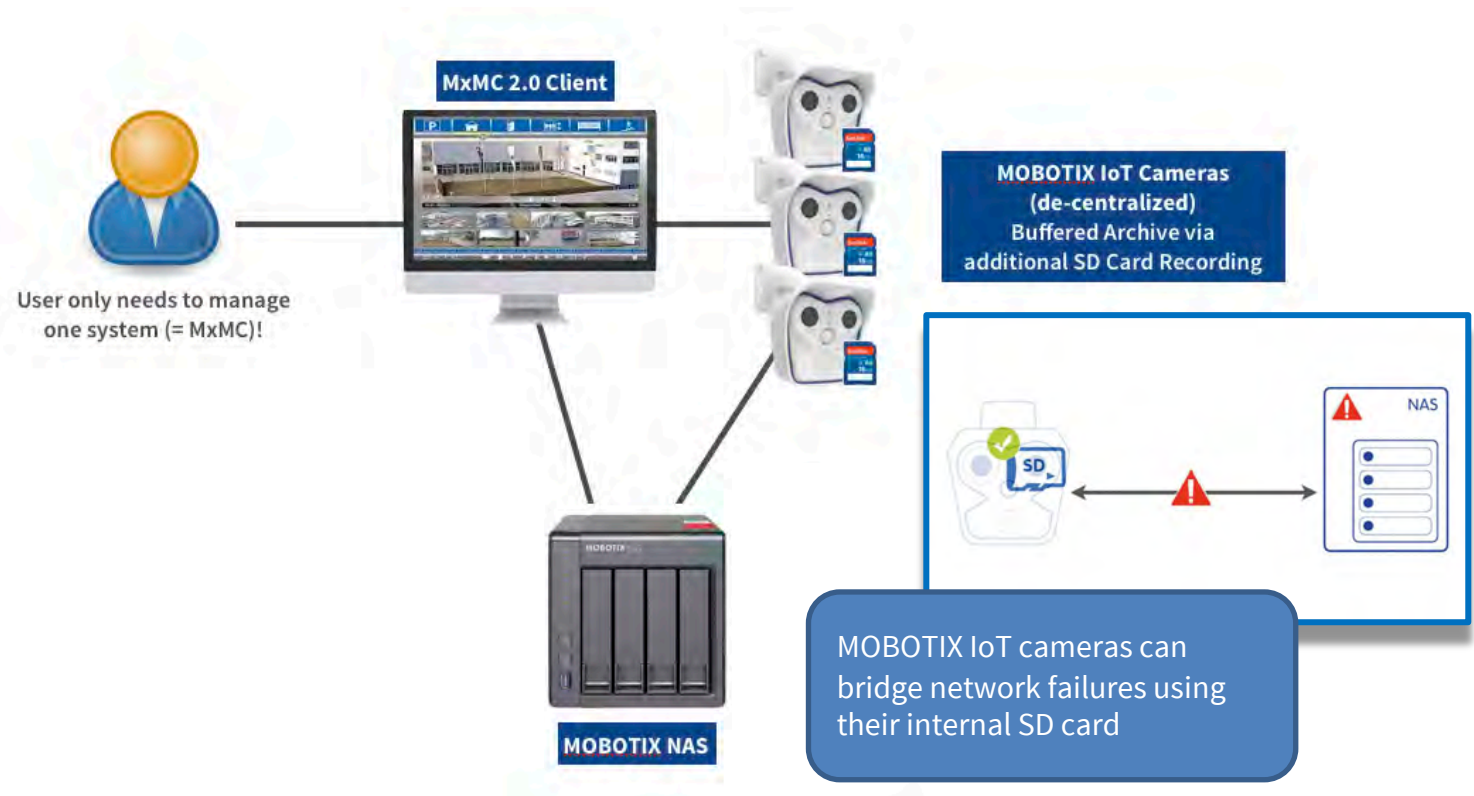
- Support > Download Center > Documentation > Brochures & Guides > Tutorials

Password Security!

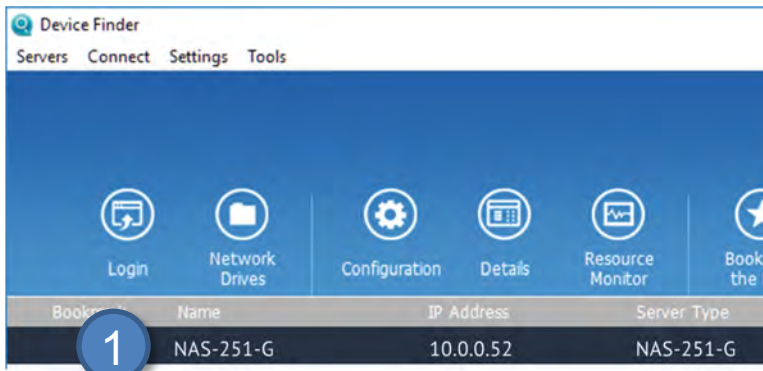
- **NEVER use the default access privileges!** Always make sure that you have changed the default passwords to strong passwords (numbers, lower/upper case letters, special characters)!
- The **default user** of the MOBOTIX NAS is “**admin**” and the **password** is “**admin**”.
- The **default user**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

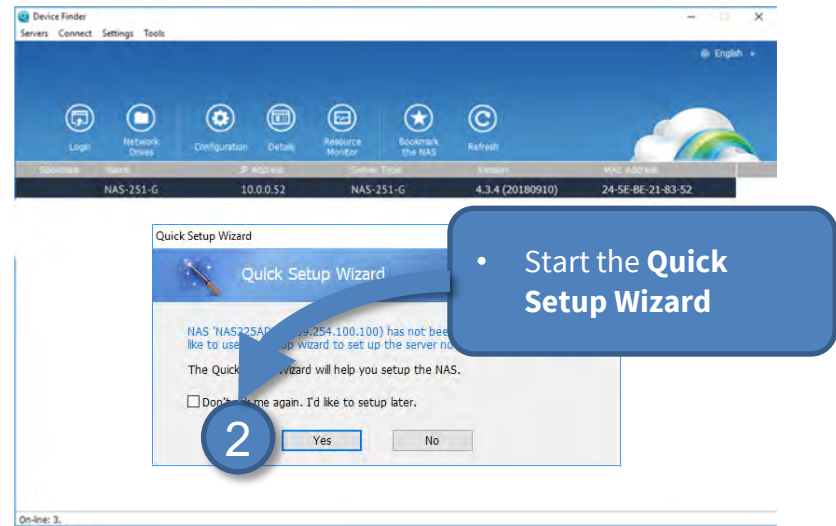


Step 1: Setup MOBOTIX NAS (1)



Bookmarks	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



Quick Setup Wizard

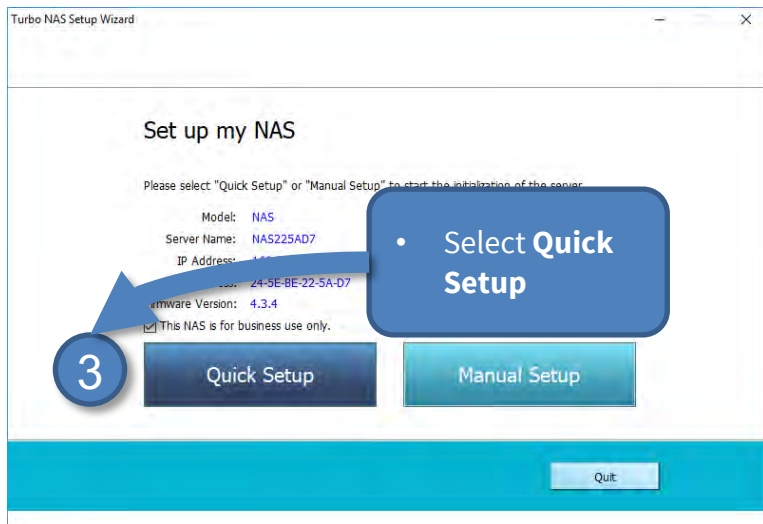
NAS 'NAS251-G' (10.0.0.52) has not been set up. Would you like to use the Quick Setup Wizard to set up the server now?

The Quick Setup Wizard will help you setup the NAS.

Don't ask me again. I'd like to setup later.

Yes No

- Start the **Quick Setup Wizard**



Set up my NAS

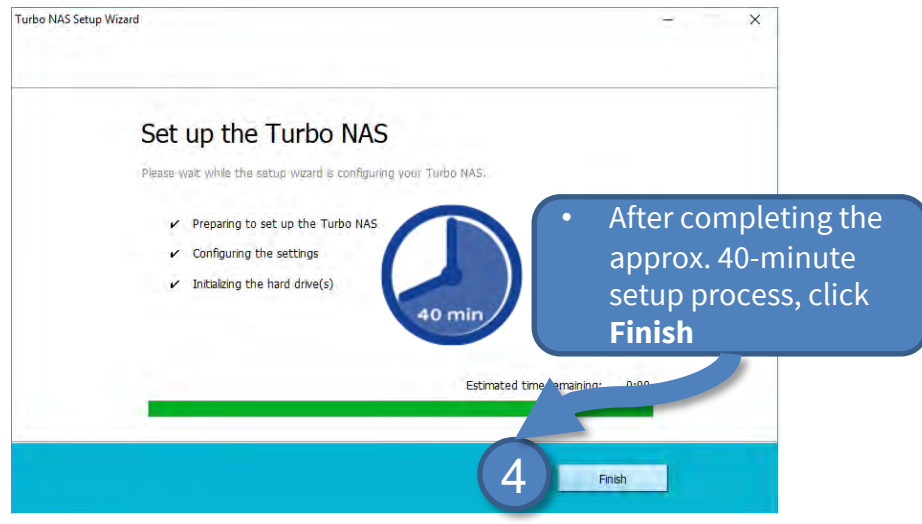
Please select "Quick Setup" or "Manual Setup" to start the initialization of the server.

Model: NAS
Server Name: NAS225AD7
IP Address: 10.0.0.52
Firmware Version: 4.3.4
 This NAS is for business use only.

Quick Setup Manual Setup

Quit

- Select **Quick Setup**



Set up the Turbo NAS

Please wait while the setup wizard is configuring your Turbo NAS.

- ✓ Preparing to set up the Turbo NAS
- ✓ Configuring the settings
- ✓ Initializing the hard drive(s)

40 min

Estimated time remaining: 00:00

Finish

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

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

The screenshot shows the Finder Pro 2.6.0 application window. At the top, there are navigation icons for Login, Network Drives, Configuration, Details, and Bookmark the device. Below this is a table listing NAS devices. The first device is '2BAyNas' with IP address '10.100.100.100', Type 'NAS-251+-G', and Version '4.3.4.0807mx'. The IP and Version fields are highlighted with red boxes. A blue callout box points to the IP address with the text 'NAS IP Address (remember!)'. Another blue callout box points to the Version field with the text 'Only if a new release is available!'. Below the table, the 'Tools' menu is open, showing options: Sleep, Restart Server, Shut down Server, Remote Wake Up (Wake on LAN), and Update Firmware. The 'Update Firmware' option is highlighted with a red box. A blue arrow points from the 'Update Firmware' option back to the 'Only if a new release is available!' callout. In the bottom left corner, there is a purple callout box with an icon of an open book and the text 'Quick Guide – MOBOTIX NAS & Device Finder'.

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	

Finder Pro 2.6.0

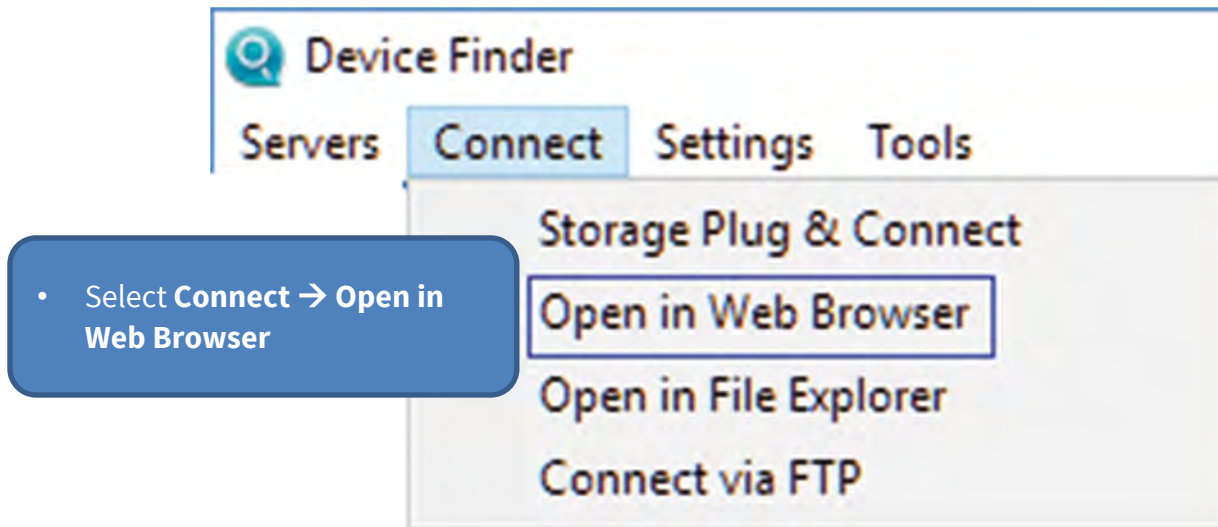
Finder PRO

Login Network Drives Configuration Details Bookmark the device

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



Control Panel File Station **Storage & Snapshots** App Center Help Center Container Station

QVR Pro

Quick Guide – MOBOTIX NAS & Device Finder www.mobotix.com

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**.

11:20
Wed., Jan 2

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

The screenshot shows the 'Storage & Snapshots' management interface. On the left is a navigation sidebar with categories: Overview, Storage, Snapshot Backup, and iSCSI. The main area displays a table of storage resources. A 'Create' button with a 'New' indicator is highlighted with a red box. A dropdown menu is open from this button, with 'New Volume' also highlighted by a red box. A blue arrow points from a callout box to the 'New Volume' option.

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

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

The screenshot shows the 'Volume Creation Wizard' interface. At the top, there are four tabs: 'Select Type', 'Select Disk(s)', 'Configure', and 'Summary'. The 'Configure' tab is active. Under the 'Create Volume' section, there are three radio button options: 'Static volume', 'Thick volume' (which is selected), and 'Thin volume'. Below these are three columns of options for 'Space Allocation' and 'Snapshots'. The 'Location' dropdown menu is set to 'Storage Pool 1' and is highlighted with a red box. A blue arrow points from a callout box to this dropdown. The callout box contains the following instructions:

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

Below the configuration options, there is a diagram illustrating the relationship between a 'Thick Volume', a 'Storage Pool', and 'RAID'. The 'Thick Volume' is shown as a blue bar above a grey bar representing the 'Storage Pool'. Below the 'Storage Pool' is a green dashed line representing 'RAID'. A blue arrow points from the 'Storage Pool 1' dropdown to the 'Storage Pool' bar in the diagram.

At the bottom of the wizard, there are 'Cancel' and 'Next' buttons.

Step 1 – Configure Volume (4)

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

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:

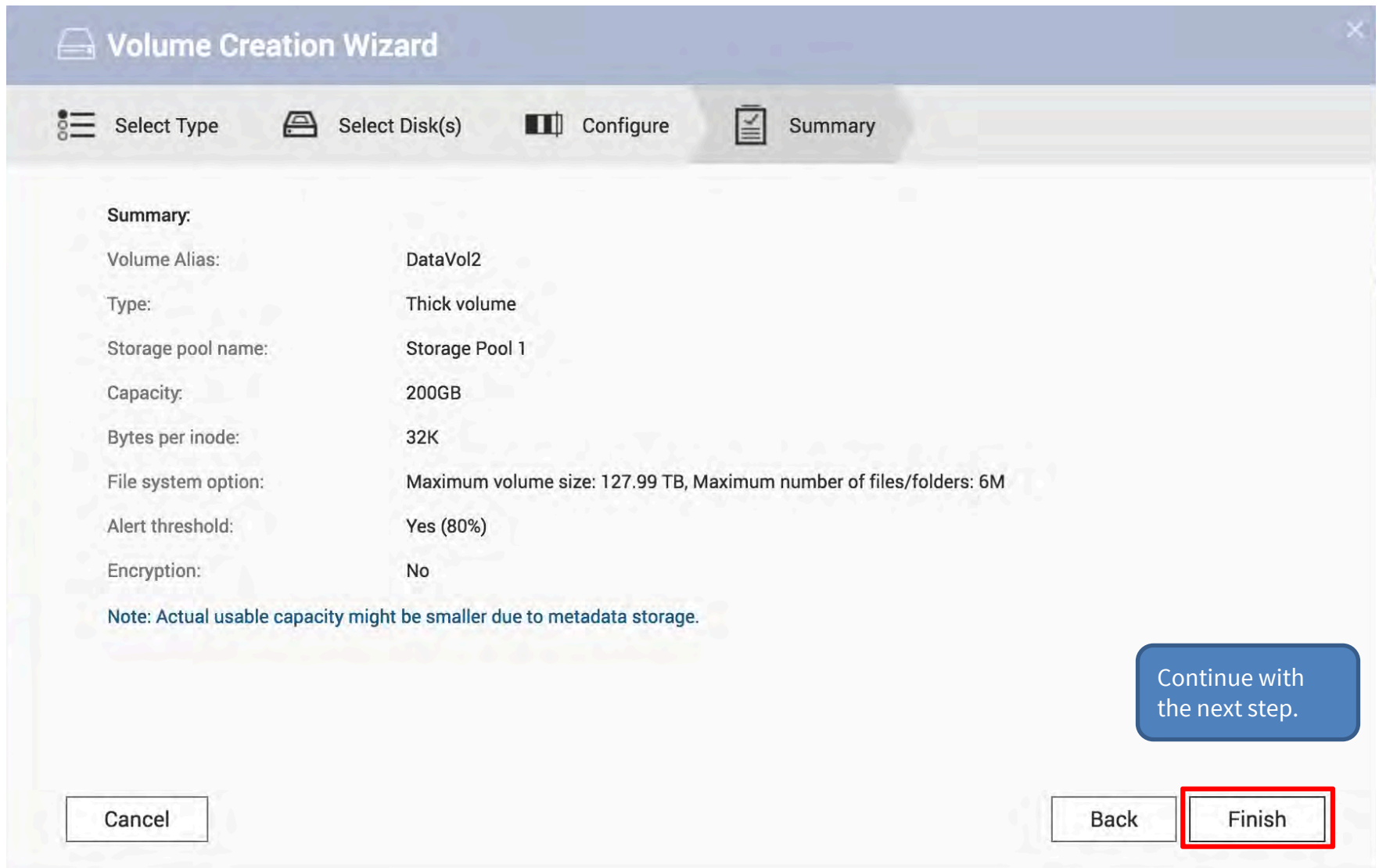
Bytes per inode:	4K	8K	16K	32K	64K
Maximum volume size:	15.99 TB	31.99 TB	63.99 TB	127.99 TB	250 TB
Maximum number of files/folders:	52M	26M	13M	6M	3M

Advanced Settings ▼

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.

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



The screenshot shows the 'Volume Creation Wizard' interface. At the top, there is a title bar with a close button (X) and a navigation bar with four steps: 'Select Type', 'Select Disk(s)', 'Configure', and 'Summary'. The 'Summary' step is currently active. Below the navigation bar, the 'Summary' section displays the following configuration details:

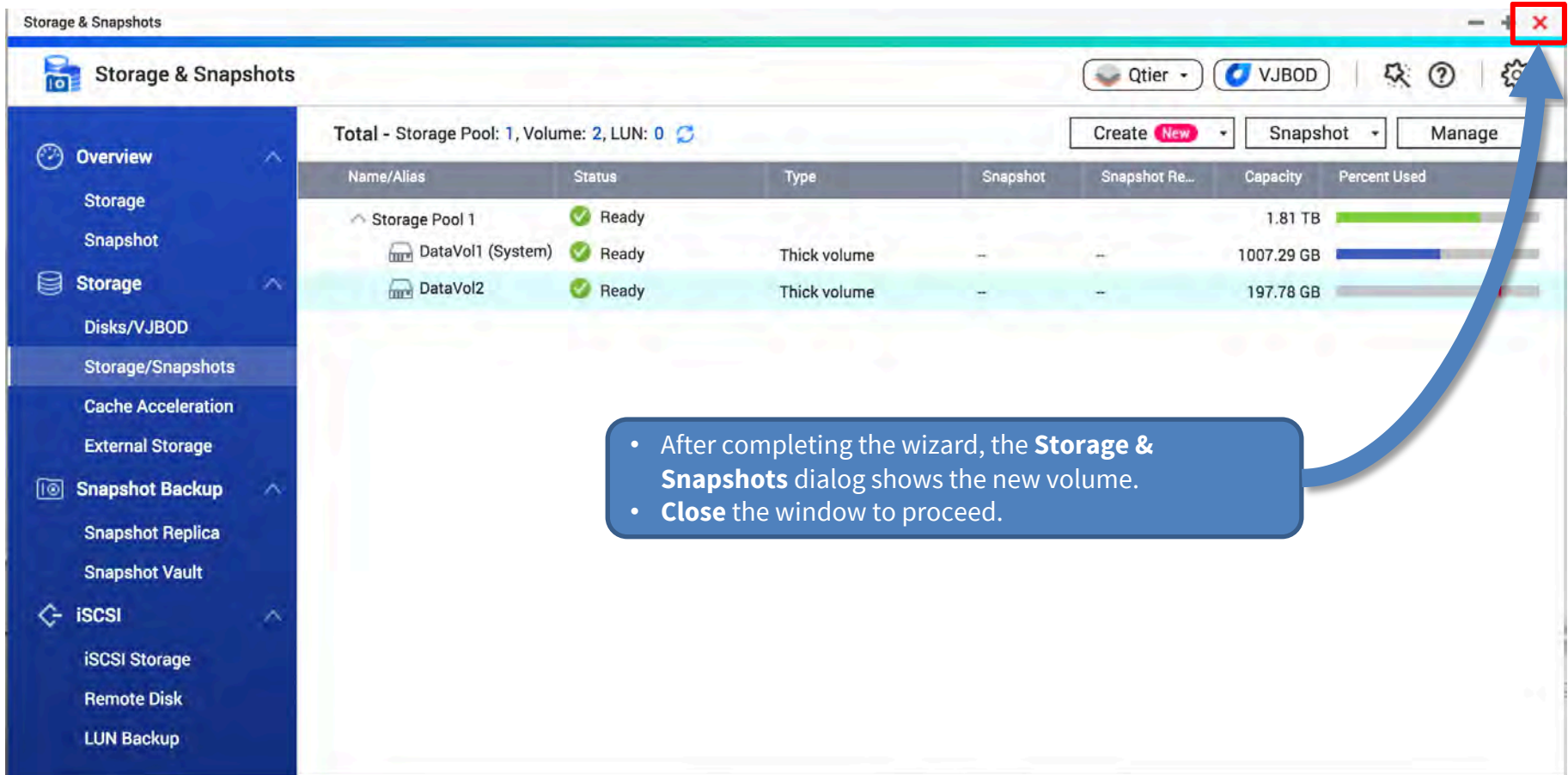
Summary:	
Volume Alias:	DataVol2
Type:	Thick volume
Storage pool name:	Storage Pool 1
Capacity:	200GB
Bytes per inode:	32K
File system option:	Maximum volume size: 127.99 TB, Maximum number of files/folders: 6M
Alert threshold:	Yes (80%)
Encryption:	No

Below the table, a note states: 'Note: Actual usable capacity might be smaller due to metadata storage.'

At the bottom of the wizard, there are three buttons: 'Cancel', 'Back', and 'Finish'. The 'Finish' button is highlighted with a red rectangular border.

The screenshot displays the 'Storage & Snapshots' management console. A central dialog box titled 'Volume DataVol2 is Being Created' is overlaid on the interface. The dialog contains the following text: '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.' Below the text is a checkbox labeled 'Do not show this message again' which is currently unchecked. A 'Close' button is located in the bottom right corner of the dialog and is highlighted with a red rectangular border. In the background, a table lists storage resources: 'Storage Pool 1' (Ready, 1.81 TB), 'DataVol1 (System)' (Ready, 1007.29 GB), and 'DataVol2' (highlighted in green). A blue callout box in the bottom right of the screenshot contains the text '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	Thin volume			1007.29 GB	
DataVol2						



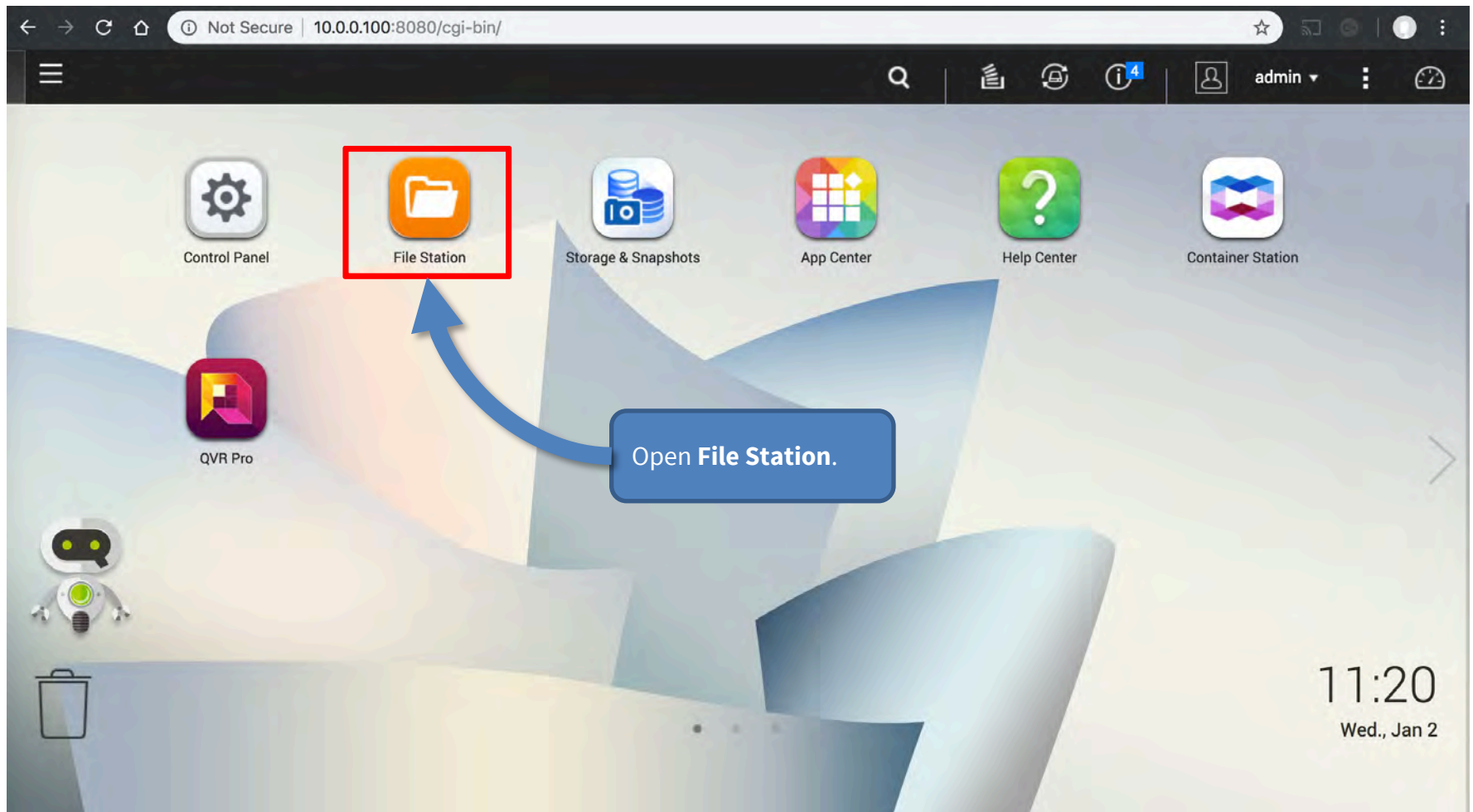
The screenshot displays the 'Storage & Snapshots' management console. The interface includes a left-hand navigation menu with categories like Overview, Storage, Snapshot Backup, and iSCSI. The main area shows a summary of storage resources and a table of volumes.

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	

A red box highlights the close button (X) in the top right corner of the window. A blue arrow points from a text box to this button.

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



The screenshot displays the FileStation 5 web interface. On the left sidebar, the 'DataVol2' folder is selected, and its settings menu is open. A blue arrow points from the 'DataVol2' folder in the sidebar to the 'Create a Shared Folder' option in the settings menu. A blue callout box contains the following instructions:

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

The main content area shows a file list with the following columns: Name, Modified Date, Type, and Size. The list contains the following items:

Name	Modified Date	Type	Size
Public			
@Recycle	2018/12/28 10:21:50	Folder	
Snapshot	2018/12/28 10:21:50	Folder	

At the bottom of the interface, the page information shows 'Page 1 / 1' and 'Display item: 1-2, Total: 2 | Show 50 Item(s)'.

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

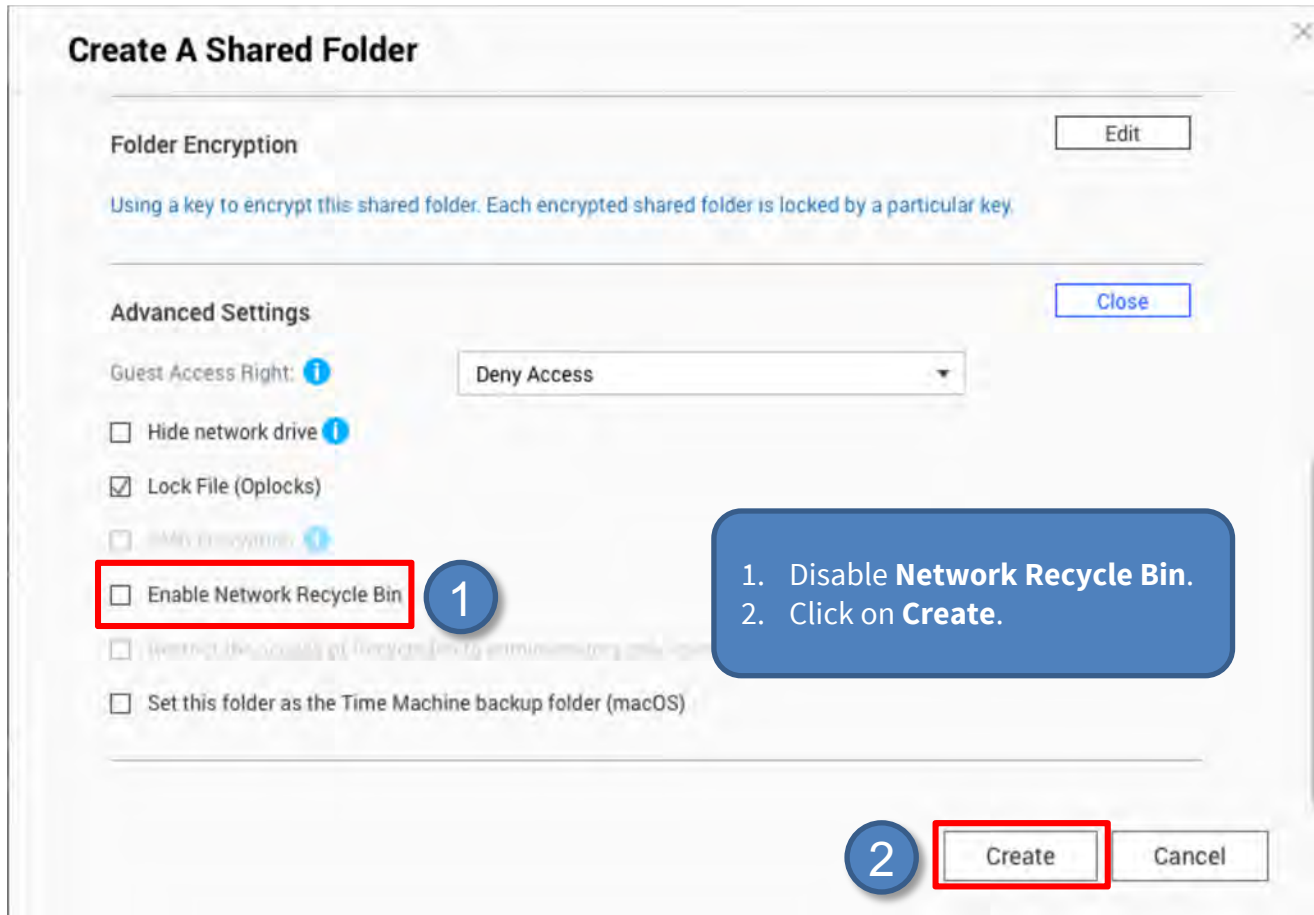
1. Enter the **Folder Name**.
2. Configure access privileges if required.

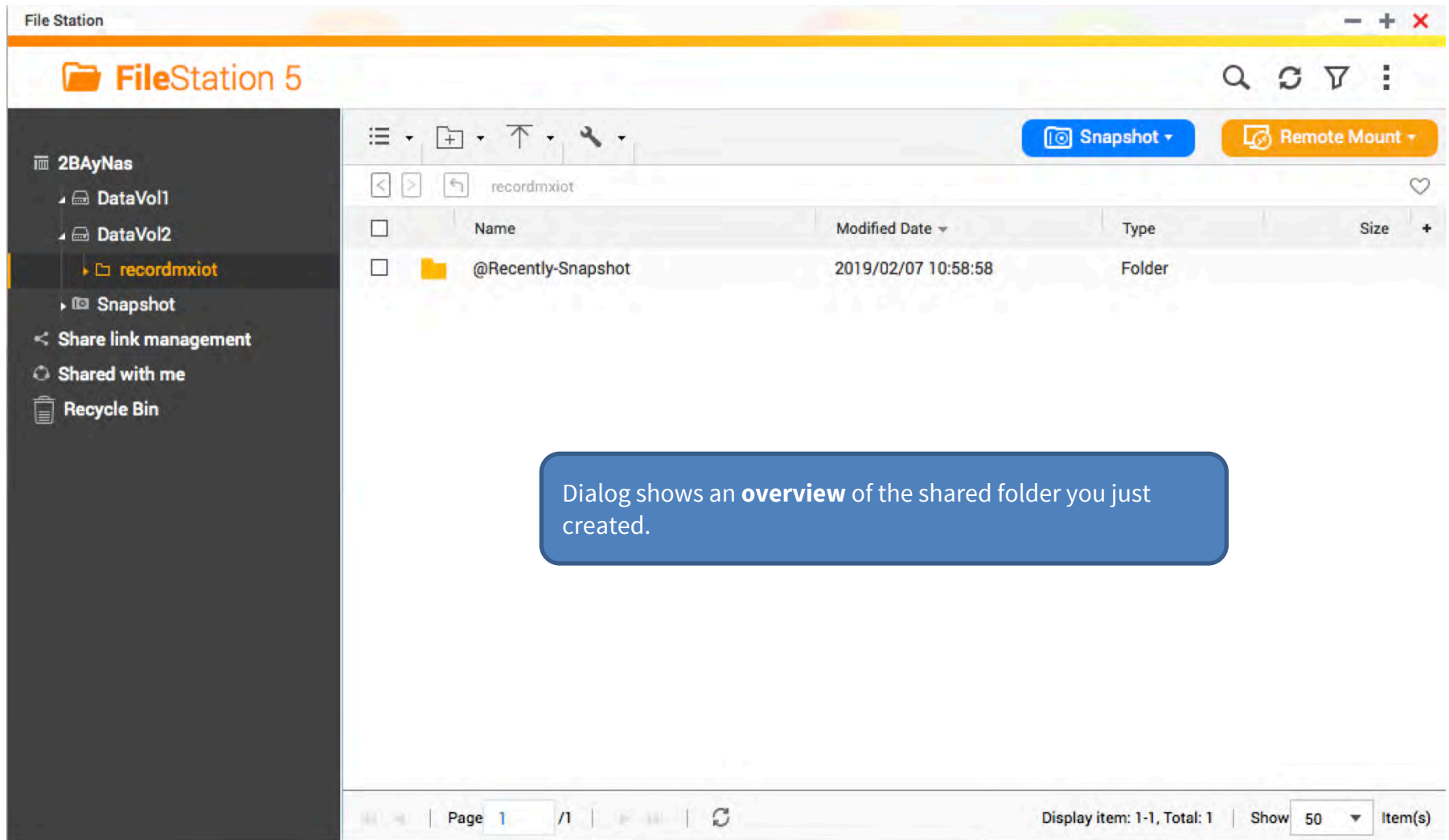
The screenshot shows a web interface titled "Create A Shared Folder" with a close button in the top right. Below the title is the section "Configure access privileges for users" with a "Close" button. A table lists user access privileges:

User name	Preview	RO	RW	Deny
admin	Read/Write	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

A blue callout box with a "1" in a circle points to the "RW" checkbox, which is checked. The callout text reads: "1. Enable **Read/Write (RW)** rights for the camera user (default: "admin"). 2. Scroll down." A blue arrow with a "2" in a circle points to the vertical scrollbar on the right side of the table.

At the bottom of the dialog, there are "Create" and "Cancel" buttons. The status bar at the bottom shows "Page: 1 / 1" and "Display item: 1-1, Total: 1".



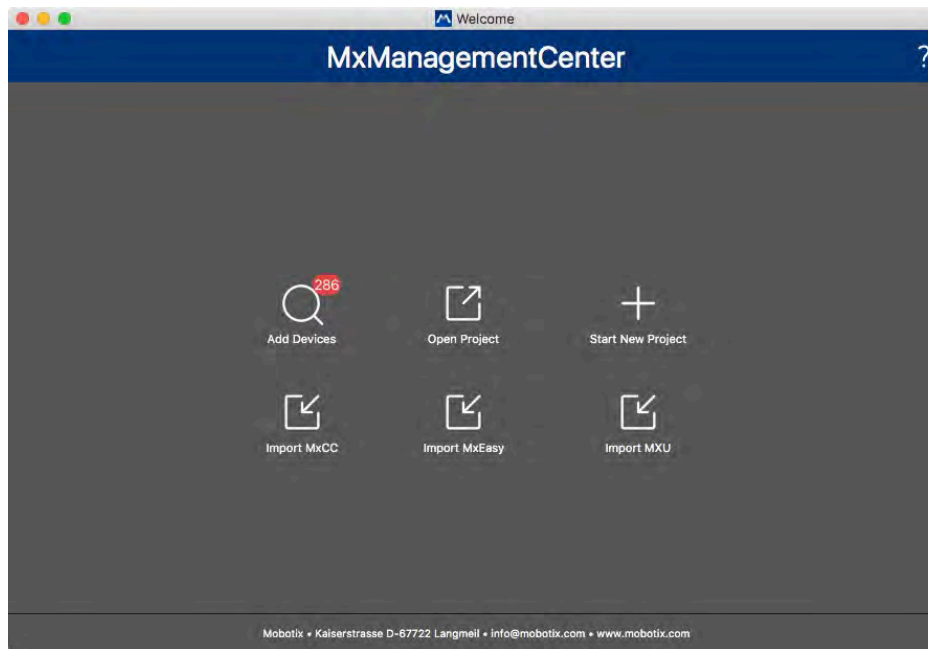


The screenshot displays the FileStation 5 web interface. On the left, a navigation sidebar shows the hierarchy: 2BAyNas > DataVol1 > DataVol2 > recordmxiot. The main area shows a file browser for the 'recordmxiot' folder. At the top right of the main area are buttons for 'Snapshot' and 'Remote Mount'. Below these is a table listing the contents of the folder:

<input type="checkbox"/>	Name	Modified Date	Type	Size
<input type="checkbox"/>	@Recently-Snapshot	2019/02/07 10:58:58	Folder	

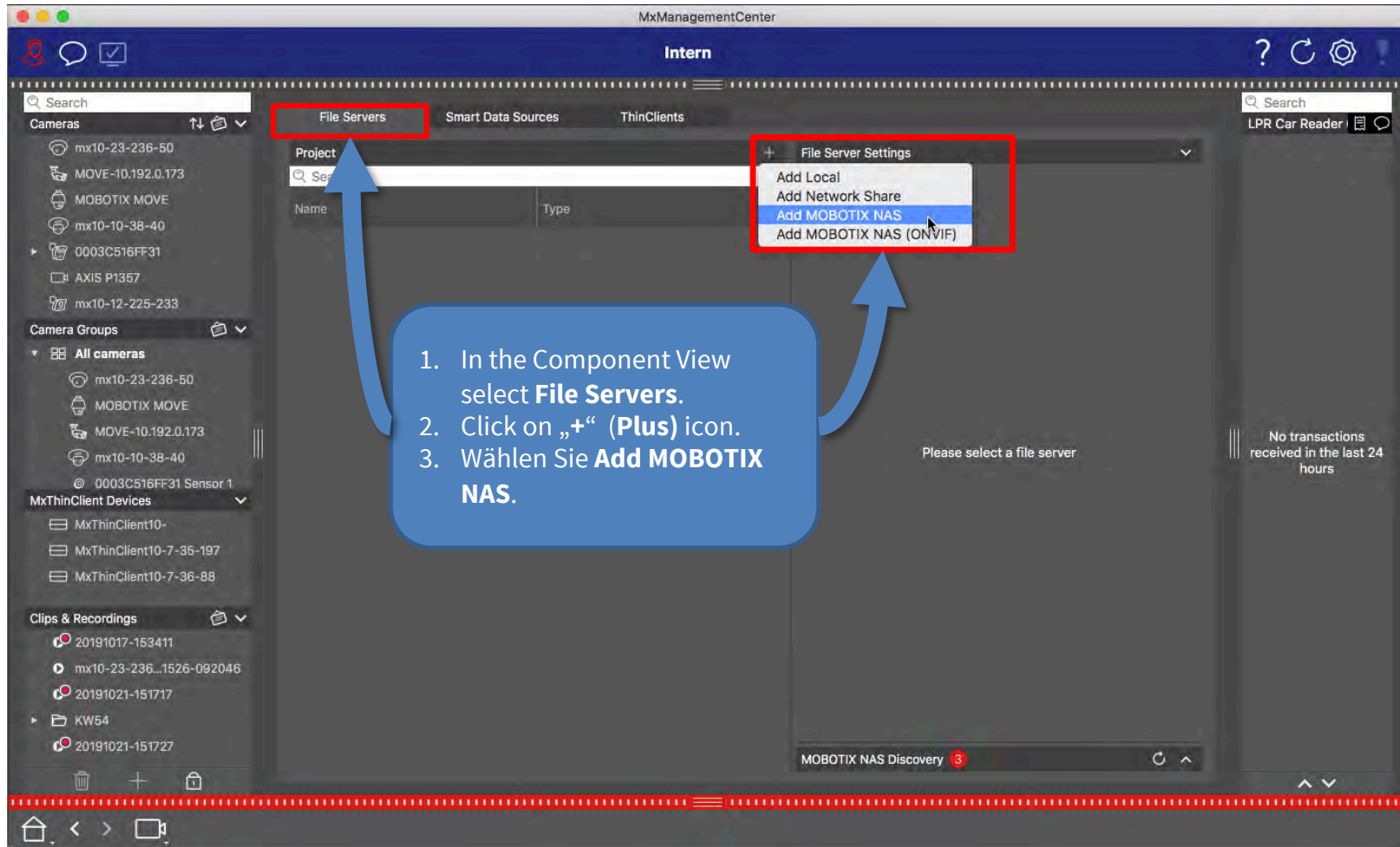
At the bottom of the interface, there is a pagination bar showing 'Page 1 / 1' and a 'Display item: 1-1, Total: 1' indicator. A blue callout box is overlaid on the interface with the text: 'Dialog shows an **overview** of the shared folder you just created.'

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.

1. Right-click to open the menu.
2. Click on **Components**.



The screenshot displays the MxManagementCenter interface. The 'File Servers' tab is selected and highlighted with a red box. A blue arrow points from a text box to this tab. A plus icon is also highlighted with a red box, and another blue arrow points from the text box to it. A dropdown menu is open, showing options: 'Add Local', 'Add Network Share', 'Add MOBOTIX NAS' (highlighted in blue), and 'Add MOBOTIX NAS (ONVIF)'. A third blue arrow points from the text box to the 'Add MOBOTIX NAS' option. The interface includes a left sidebar with 'Cameras', 'Camera Groups', 'MxThinClient Devices', and 'Clips & Recordings'. The main area shows a table for 'Project' with columns for 'Name' and 'Type'. The bottom status bar indicates 'MOBOTIX NAS Discovery' with a red notification icon.

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

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

2. Select **MOBOTIX NAS**.

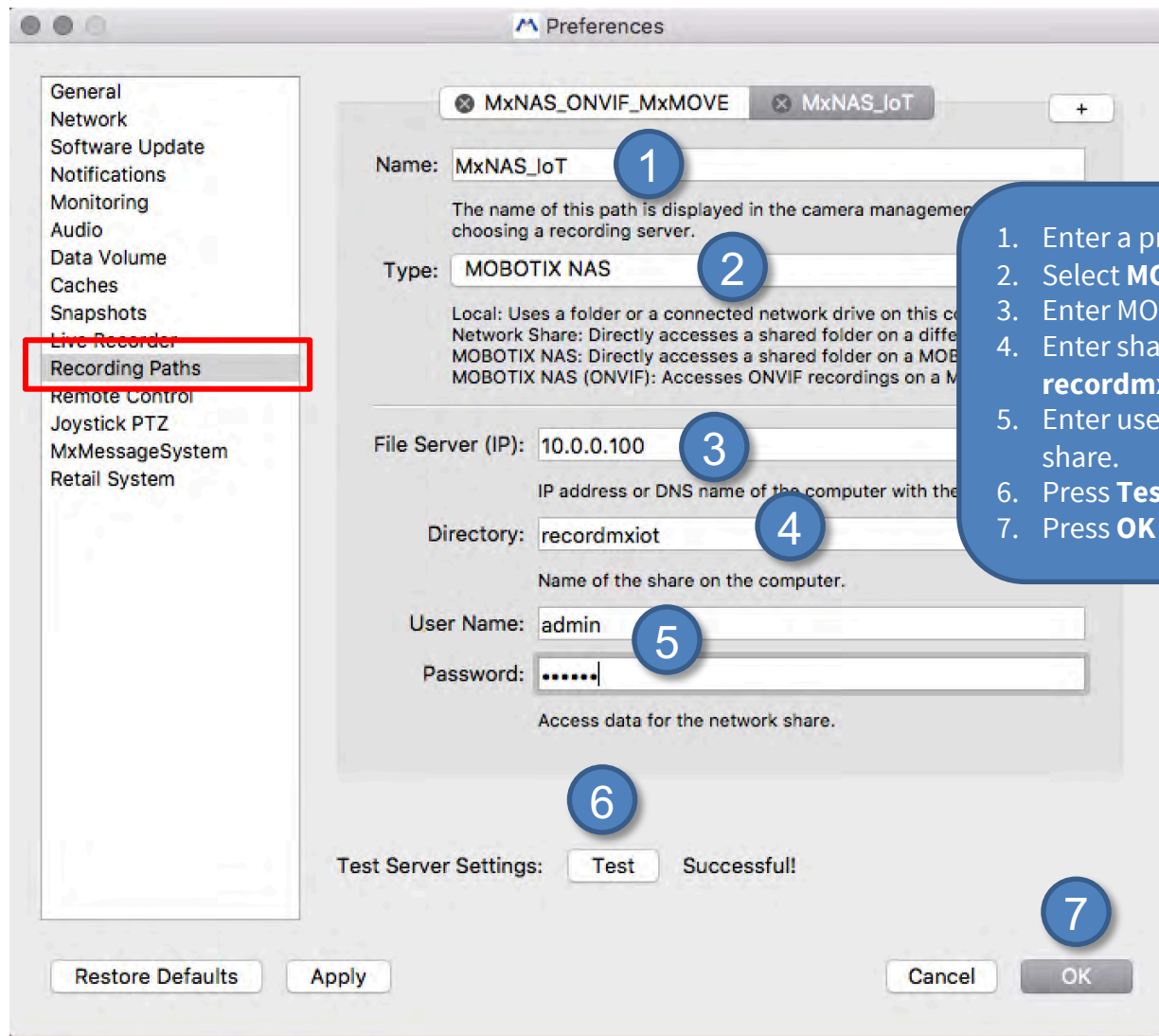
3. Enter MOBOTIX NAS IP address.

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

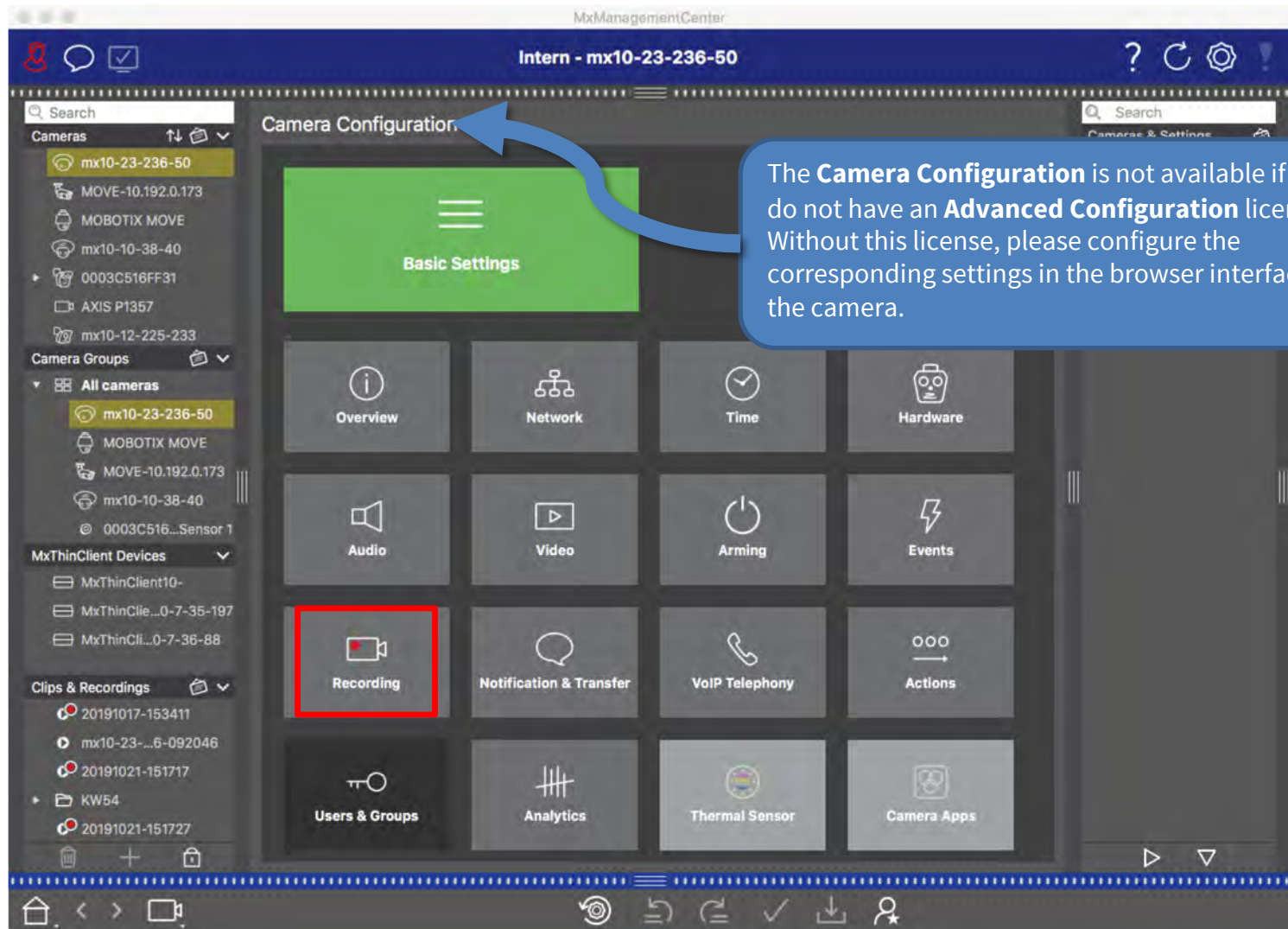
5. Enter user name and password for accessing the share.

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

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







1

2

3

Recording Medium: RAM Buffer

Encryption Key: [input field]

Recording Medium: SD Flash Card

M16Thermal

RAM Buffer

M16

Configuration Bar

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

Configuration Bar

1

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.

2

3

4

5

6

8

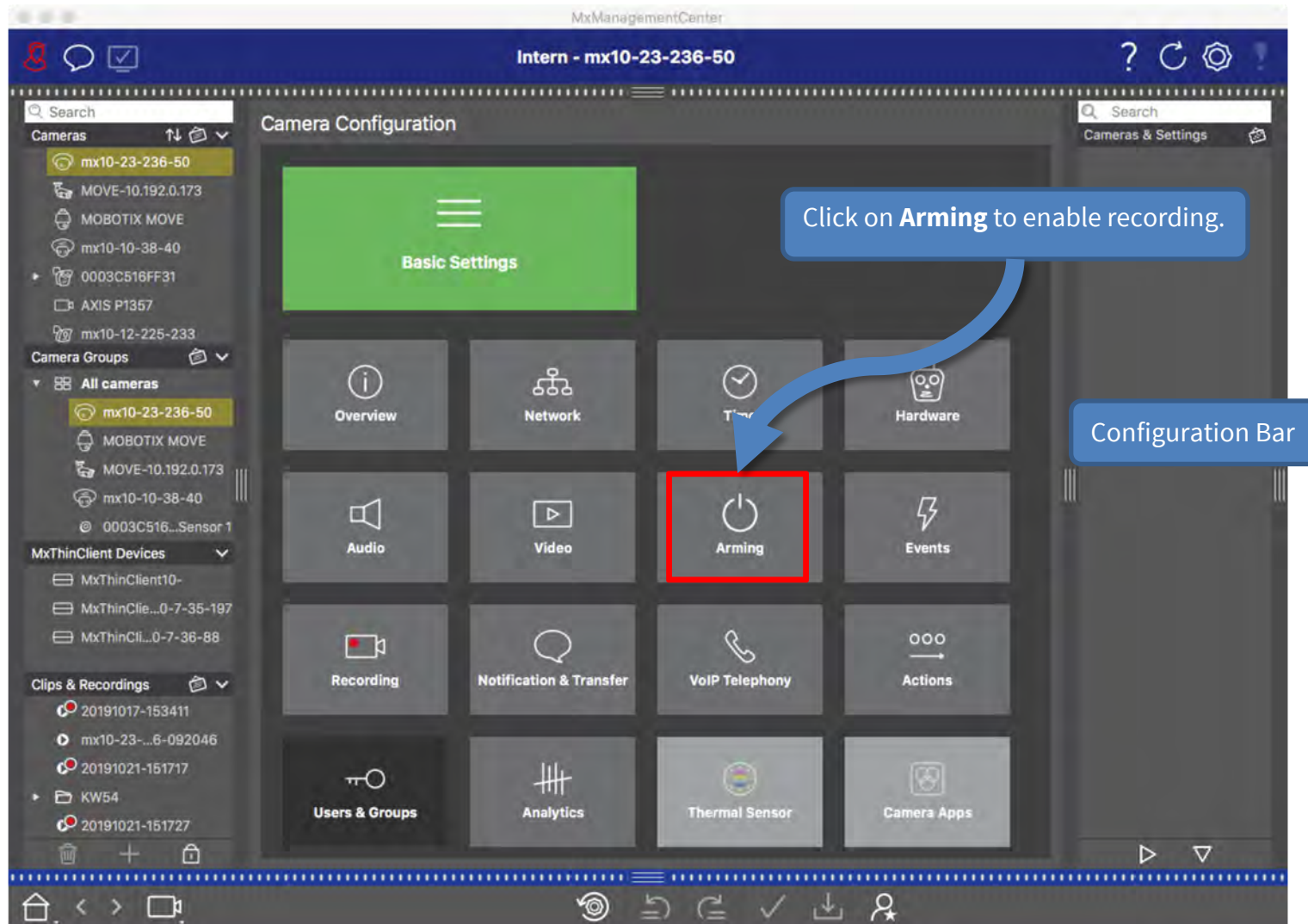
9

Reboot Required

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

Type	Name	URL
M16	M16	10.22.224.129
M16Thermal	M16Thermal	10.22.94.45

Reboot later
Reboot



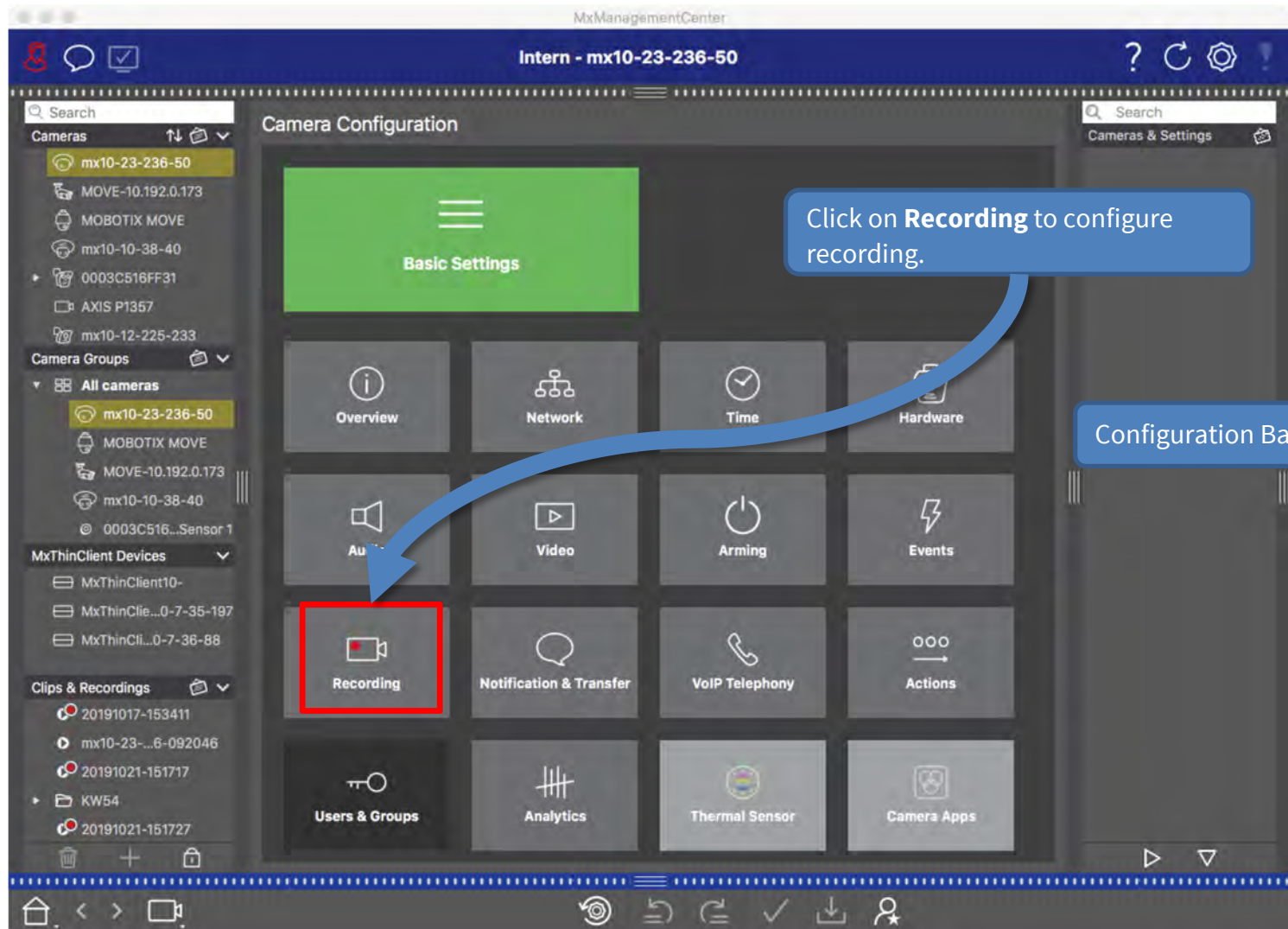
1

2

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



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)

The screenshot displays the Mobotix playback interface. At the top, the title bar reads "Playback - mx10-22-6-117". The left sidebar contains a search bar, a "Cameras" list with "mx10-8-32-83" and "mx10-22-6-117", "Camera Groups" with "All cameras", and "Clips & Recordings". The main area shows a live video feed of a mall interior with a "SKECHERS" banner and a date/time stamp "2017-10-30 FET 11:03:06". 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 navigation bar includes icons for home, back, forward, camera, and other controls, along with a timestamp "13.02.19 12:30:00".

Step 7 – Assign Cameras to Share (2)

36

The screenshot displays the Mobotix web interface. On the left, a sidebar shows a list of cameras: 'MOVE-10.192.4.124', 'M16Thermal', and 'M16'. A search bar is at the top of the sidebar. Below the camera list is a 'Camera Groups' section with 'All cameras' selected. The main area shows the 'Multi-Camera Configuration' dialog. It has fields for 'User Name' (admin) and 'Password' ([MultipleValues]). Under 'Environment', there are checkboxes for 'Background Alarms', 'Remote', and 'SSL' (checked), and a 'Bandwidth' dropdown set to 'HiRes'. Below that are 'Bandwidth Settings' and 'Recording Settings' (highlighted with a red box and a blue callout '3'). The 'Recording Settings' dialog is open, showing 'Recording Path' (MxNAS_IoT, callout '4'), 'Format' (MxFFS), 'MxFFS Key' (Key), and 'Device Directory' (callout '5'). The 'OK' button in the 'Recording Settings' dialog is highlighted with a red box and a blue callout '6'. At the bottom of the interface, a lock icon is highlighted with a red dashed box and a blue callout '7'.

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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