

# Configure NFS Share to Use as Storage for CMS Recorder

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## Introduction

This document describes how to configure and set a Network File System (NFS) share folder to be used as Cisco Meeting Server (CMS) recorder storage.

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## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Recorder service configured on CMS
- Windows server

### Components Used

The information on this document is based on these software and hardware versions:

- CMS version 2.3
- Windows server 2012 R2

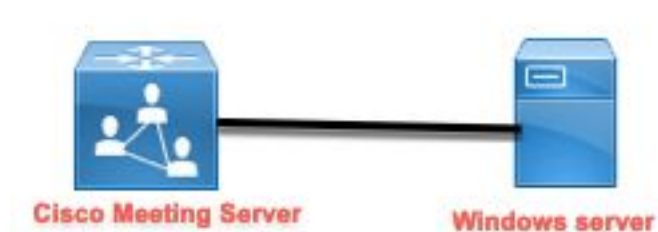
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is

live, ensure that you understand the potential impact of any command.

## Configure

### Network Diagram

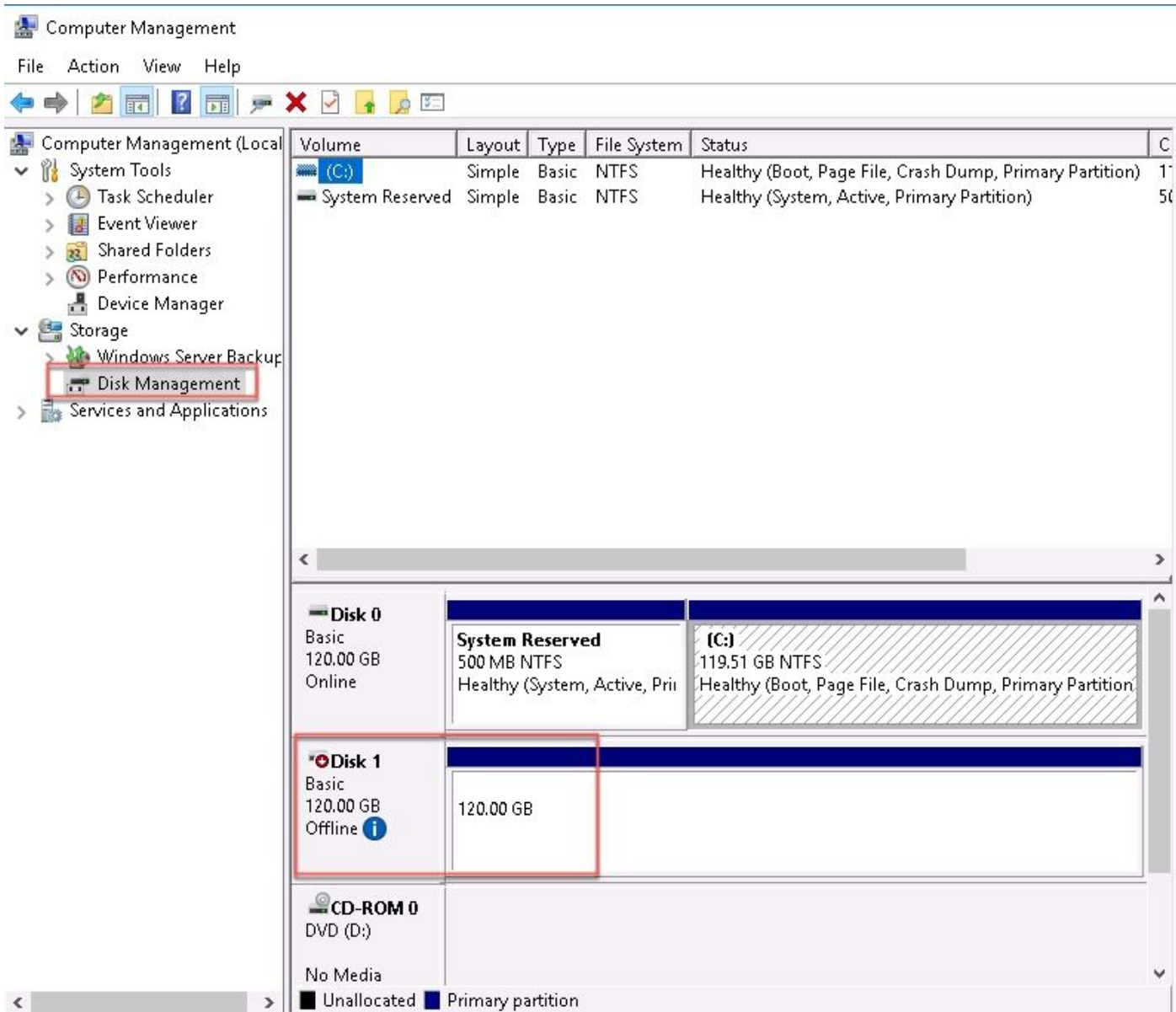
The image provides an example of a network diagram;



### Configurations

#### Step 1. Add a second hard disk to the server.

1. Based on the hardware type used, add a second hard drive to the Windows server, for example a second hard drive of 120 GB.
2. Open the Windows server interface and navigate to **Server Manager > Tools > Computer Management**.
3. In the **Computer Management** select the option **Disk Management** in the left panel.
4. The right panel shows the available volumes in the Windows server.
5. The new volume shows a red arrow, it means the volume is off-line, as shown in the image:



6. Right click on the new disk and select Online.

7. After the disk is online, the red arrow disappears and the disk is now ready to be formatted as a new volume.

## Step 2. Format the disk as new volume.

1. Right click in the blank side and select **New simple volume**.

2. Follow the wizard, most of the settings can be left as default.

3. Specify the volume size, select the size in case not all the size is used for the volume, default is the maximum size in this case 120GB, as shown in the image:

### Specify Volume Size

Choose a volume size that is between the maximum and minimum sizes.

Maximum disk space in MB:	122877
Minimum disk space in MB:	8
Simple volume size in MB:	<input type="text" value="122877"/>

4. Assign the drive letter, select the letter for the device, in this case **E**, as shown in the image:

**Assign Drive Letter or Path**

For easier access, you can assign a drive letter or drive path to your partition.

Assign the following drive letter: E ▾

Mount in the following empty NTFS folder:  Browse...

Do not assign a drive letter or drive path

< Back Next > Cancel

5. Change the name of the volume by something friendly, as shown in the image:

**Format Partition**

To store data on this partition, you must format it first.

Choose whether you want to format this volume, and if so, what settings you want to use.

- Do not format this volume
- Format this volume with the following settings:

File system:

Allocation unit size:

Volume label:

Perform a quick format

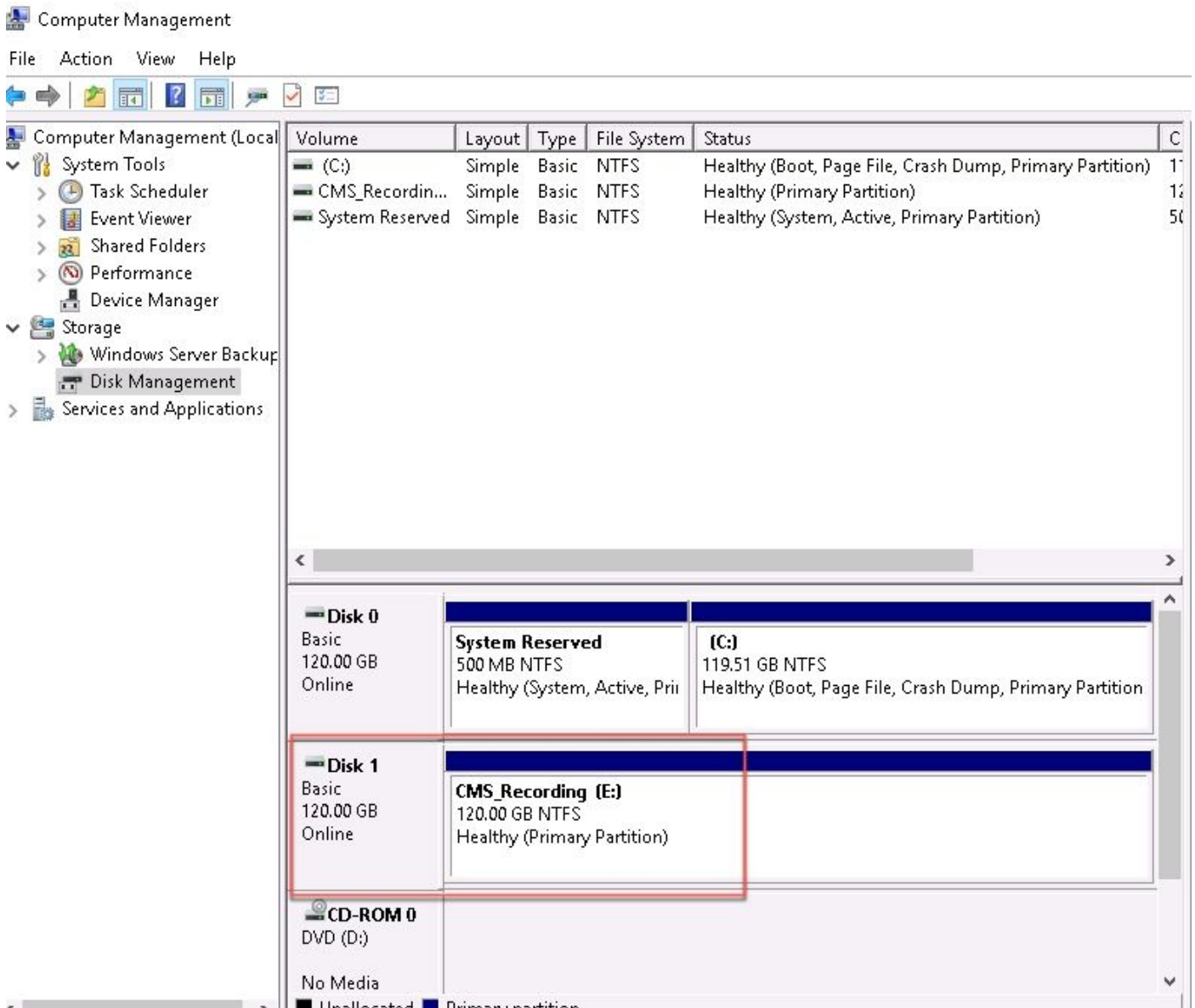
Enable file and folder compression

< Back

Next >

Cancel

6. Once the Wizard finishes, the new volume is ready to be used, as shown in the image:



### Step 3. Install NFS Role in Windows server.

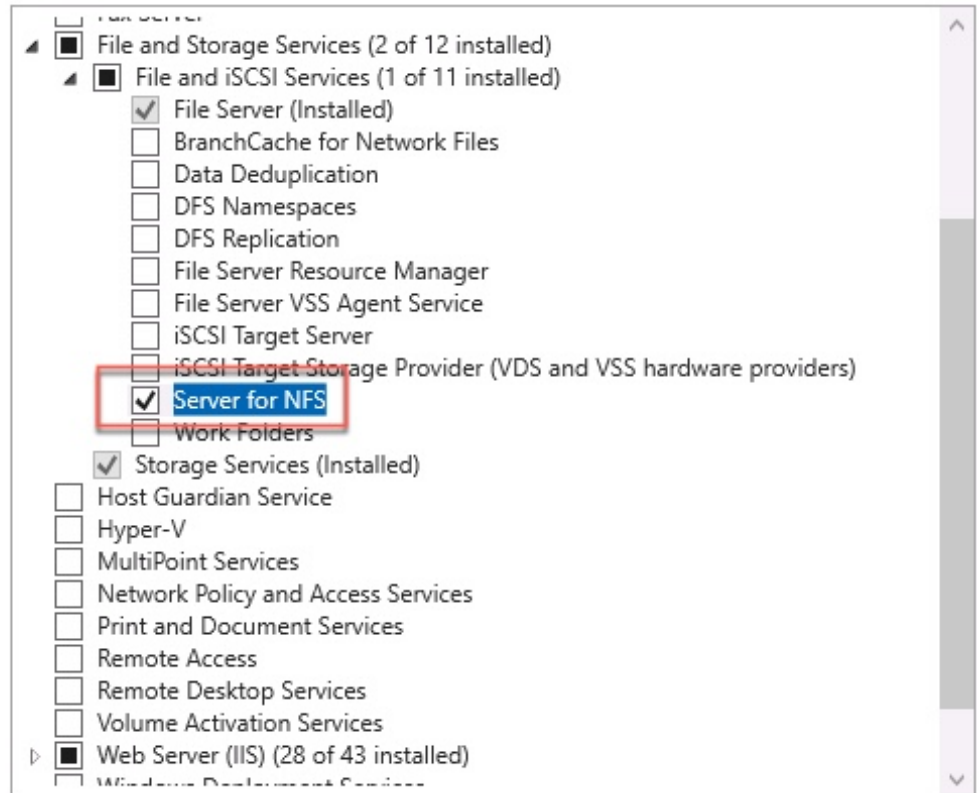
1. Open the **Server Manager** on Windows server interface.
2. Navigate to **Manage > Add Roles and Features**.
3. In the **Select Server roles** page, expand the **File and Storage Services** tree.
4. In case they are not installed, check the boxes **File Server**, **Server for NFS** and **Storage Services**, as shown in the image:

## Select server roles

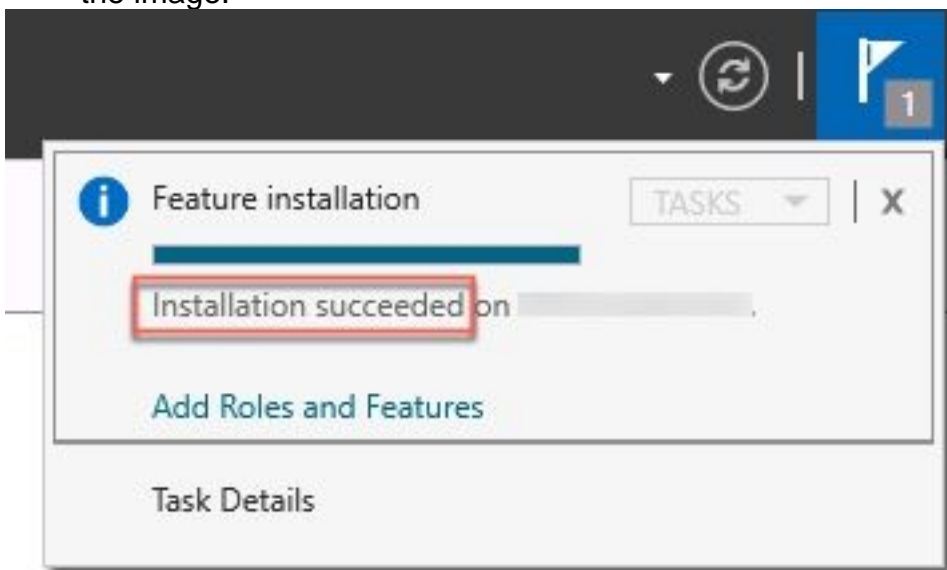
- Before You Begin
- Installation Type
- Server Selection
- Server Roles**
- Features
- Confirmation
- Results

Select one or more roles to install on the selected server.

### Roles



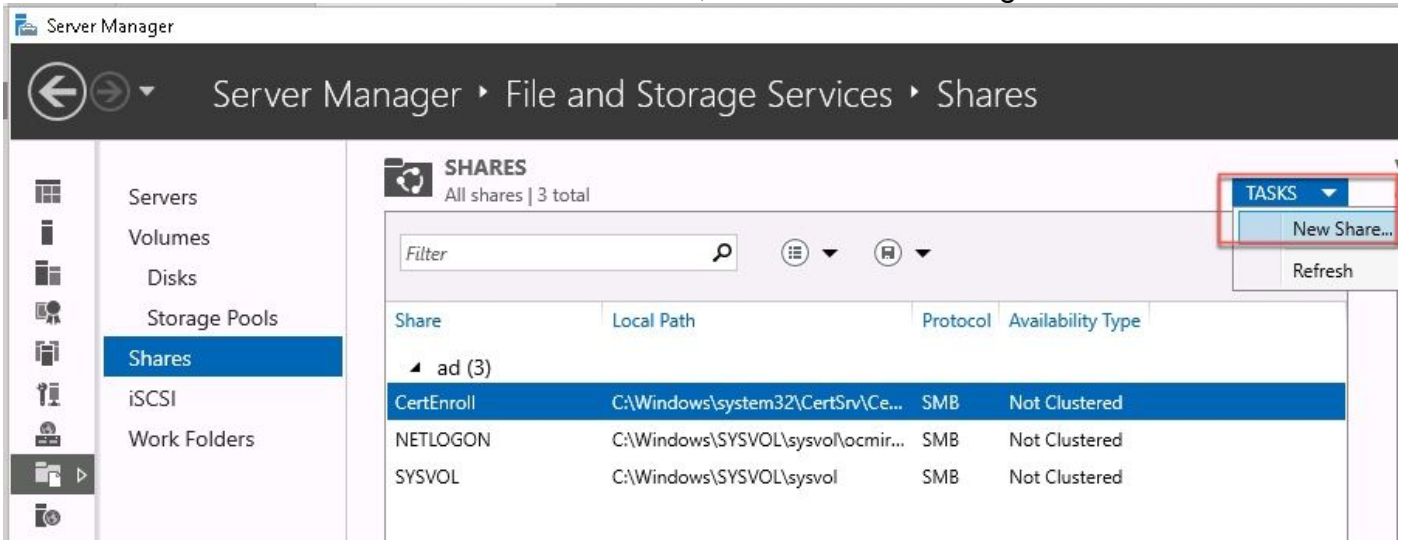
- Continue and finish the installation.
- Once the wizard finishes, select the flag in the right top of the **Server Manager**.
- Ensure no more activities are required, you must see **Installation succeeded**, as shown in the image:



**Step 4. Convert the new volume into NFS system.**



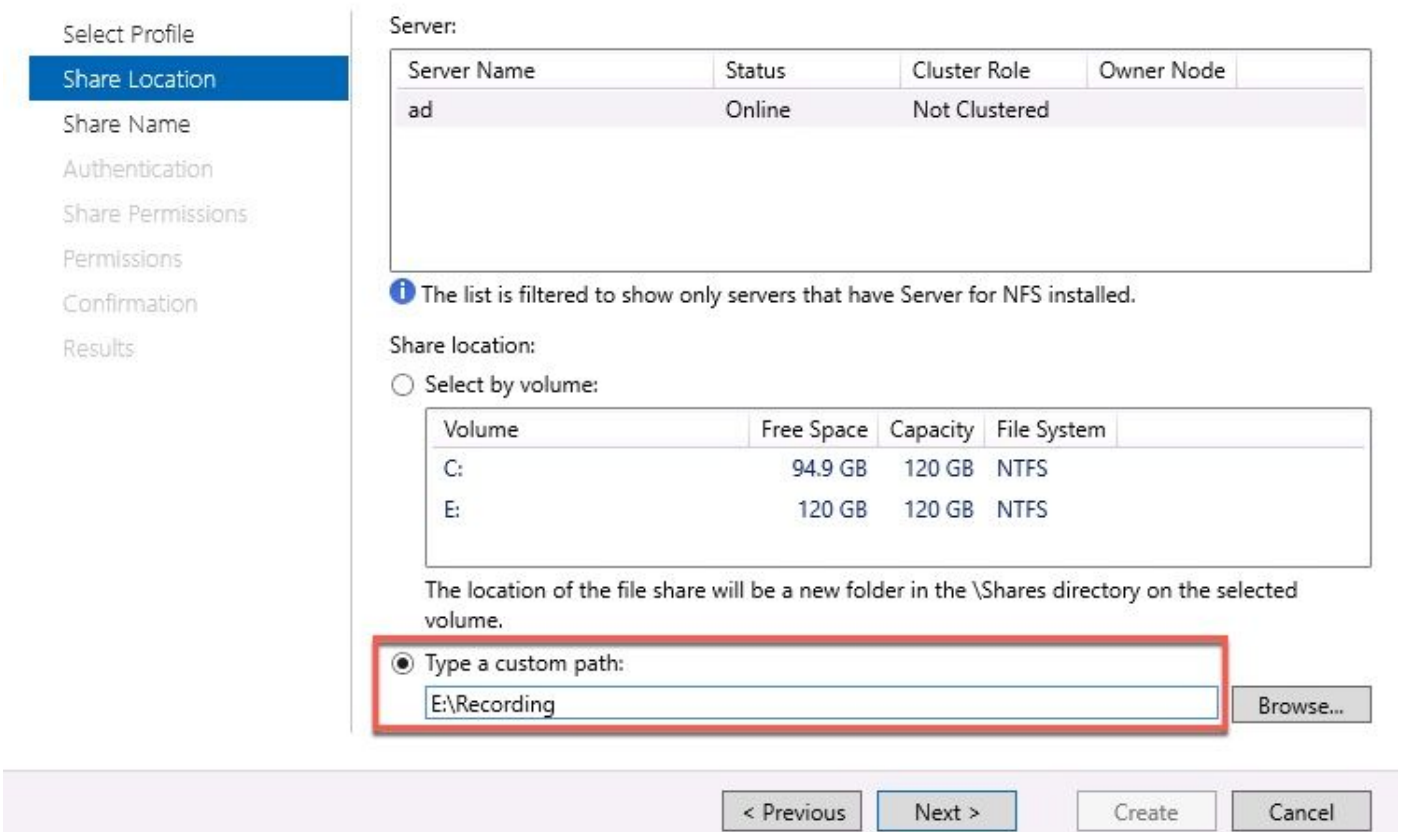
1. Open the **Server Manager** and select **File and Storage Services**.
2. Select **Shares** and then **Task > New Share**, as shown in the image:



3. Select **NFS Share - Quick**.
4. Select **Next**.
5. Select **Type a custom path**.
6. Type the path to store the recordings, as shown in the image:



## Select the server and path for this share



7. Select **Next**.
8. Enter the information in the **Share name** field. This name is used to configure the recorder in CMS.

## Specify share name

Select Profile

Share Location

Share Name

Authentication

Share Permissions

Permissions

Confirmation

Results

Share name: Recording

Local path to share:

E:\Recording

Remote path to share:

ad:/Recording

9. Ensure none of the Kerberos checkboxes is selected.
10. Select **Ok** when the system warns you the directory is created.
11. Check the next boxes, as shown in the image:

- No server authentication
- Enable unmapped user access
- Allow unmapped user Unix access

Specify the authentication methods that you want to use for this NFS share.

### Kerberos v5 authentication

- Kerberos v5 authentication(Krb5)
- Kerberos v5 authentication and integrity(Krb5i)
- Kerberos v5 authentication and privacy(Krb5p)

### No server authentication

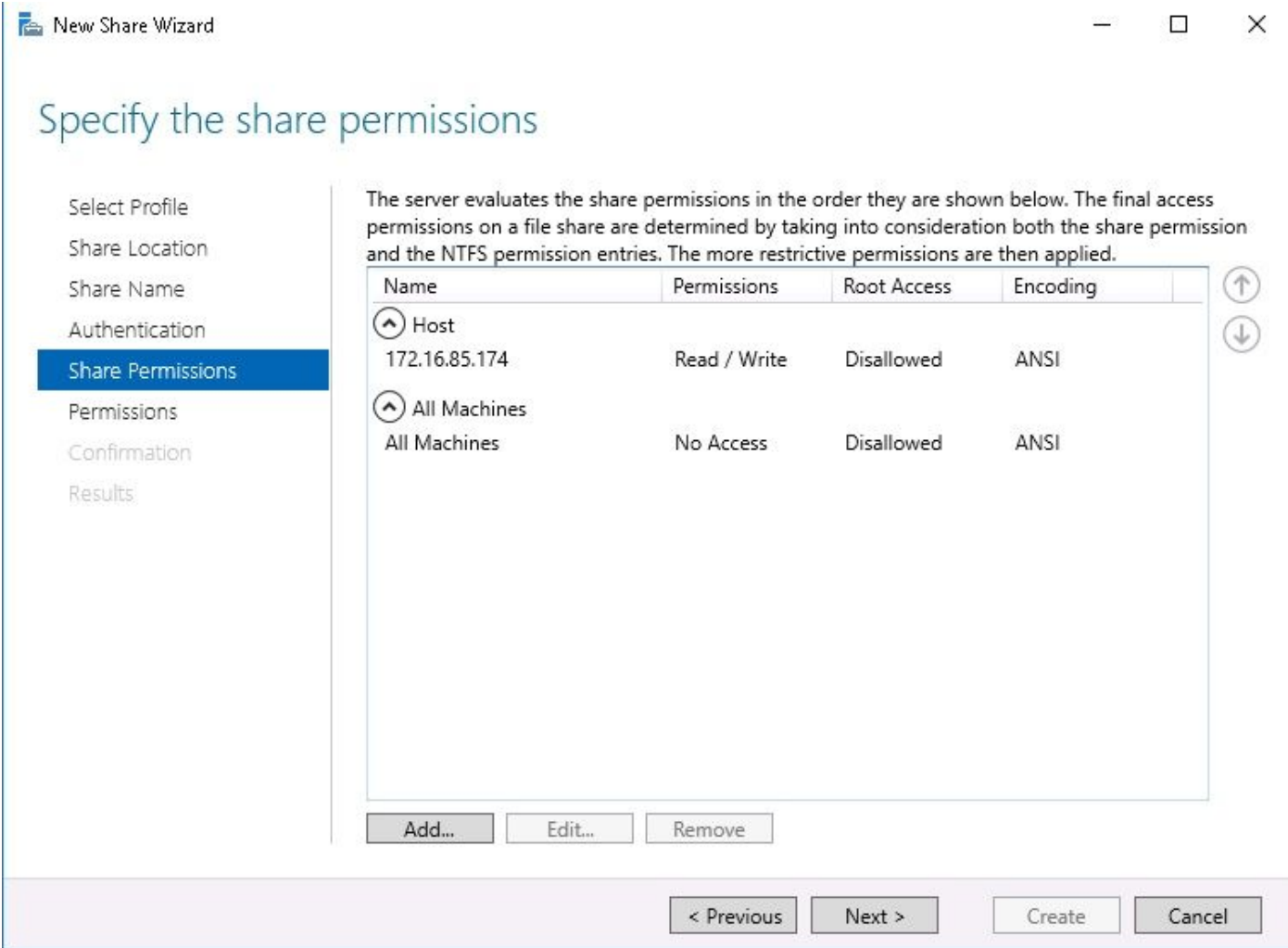
- No server authentication (AUTH\_SYS)
  - Enable unmapped user access
    - Allow unmapped user access by UID/GID
    - Allow anonymous access

12. Select **Next**.
13. In the **Share permissions** page, select **Add**.

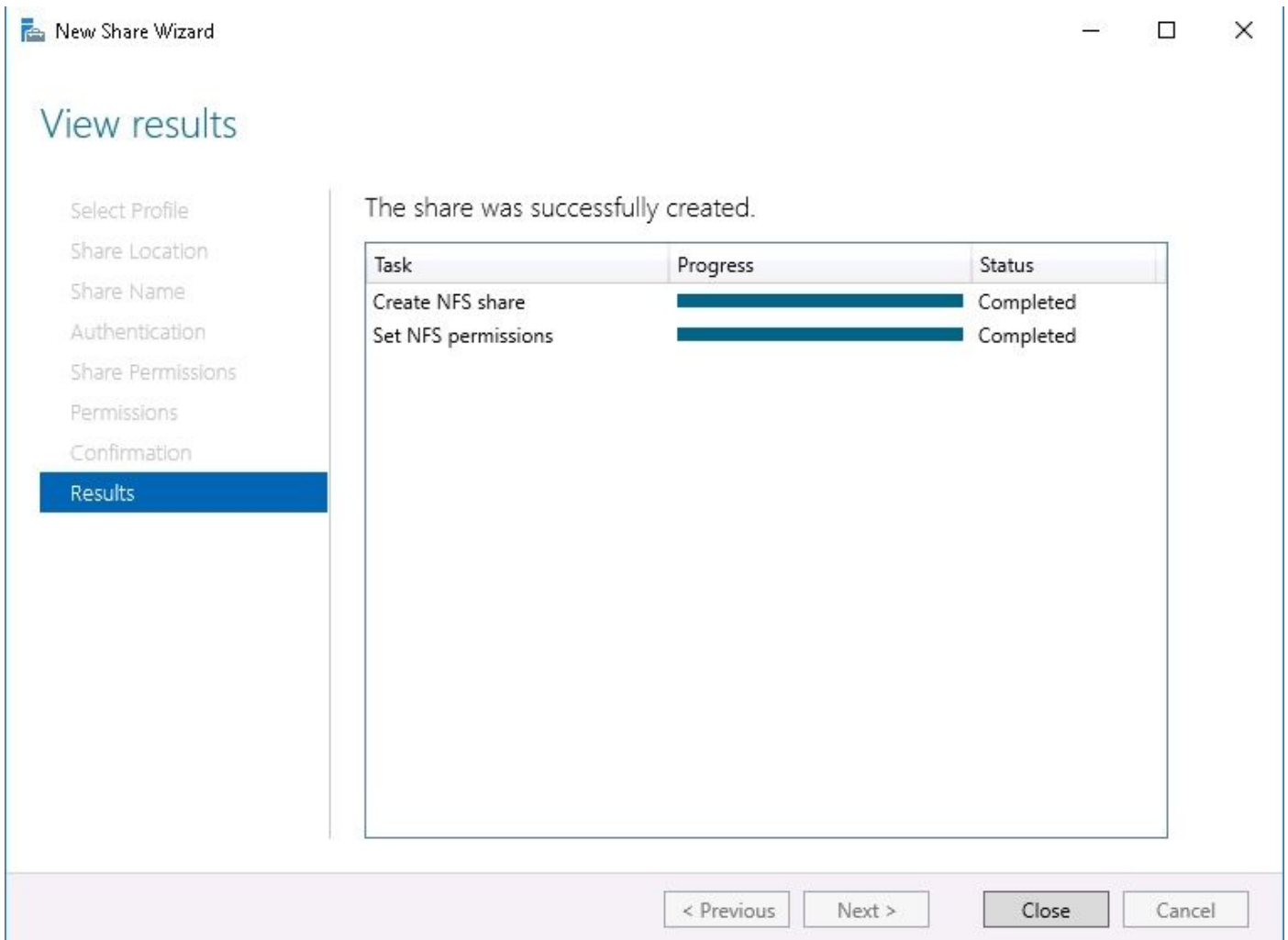
**Note:** The default permission is **Read-Only for all machines**. The recorder must have

**Read-Write** access, so you can change the default for **All Machines**, or add specific rules for the recorder. The best practice would be to disable access to **All Machines** by **Add a Host**, this is the recorder IP address.

- 14. On **Language encoding**, select **ANSI**.
- 15. On **Share Permissions**, select **Read/Write**.
- 16. Select **Add**.
- 17. Select **All Machines**.
- 18. On **Language encoding**, select **ANSI**.
- 19. On **Share Permissions**, select **No access**.
- 20. Select **Add**.

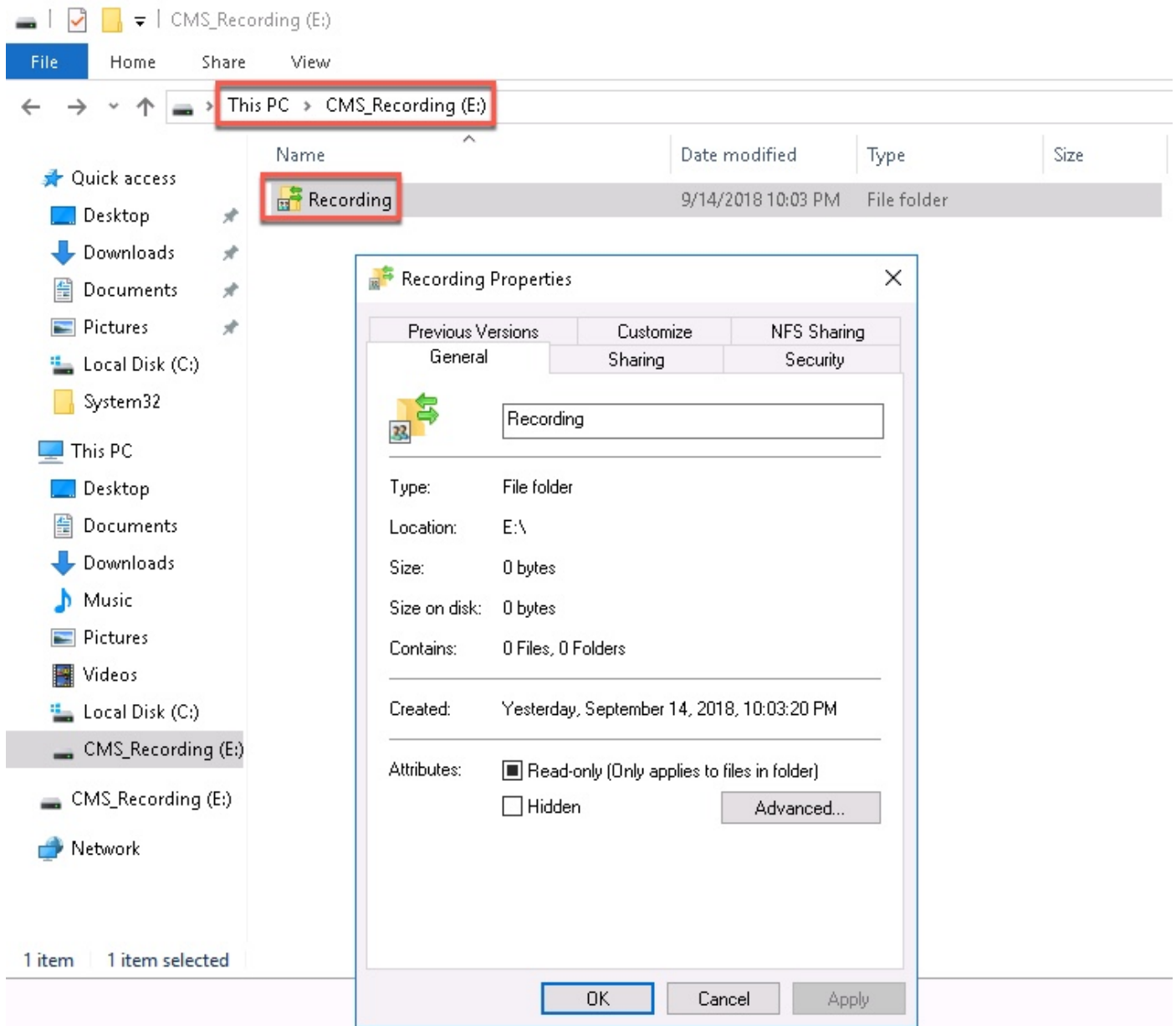


- 21. Select **Next**.
- 22. In the next page select **Next**.
- 23. Ensure the information is correct and select **Create**.
- 24. Once the configuration finishes, select **Close**.

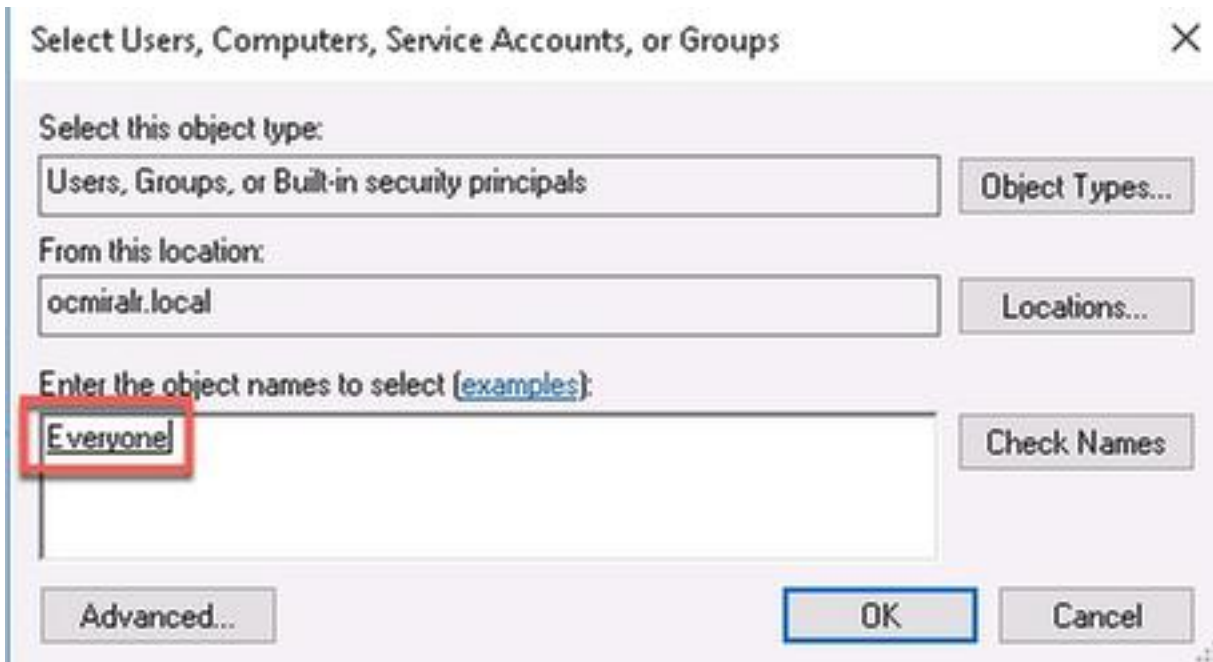


### Step 5. Configure the security settings on NFS folder.

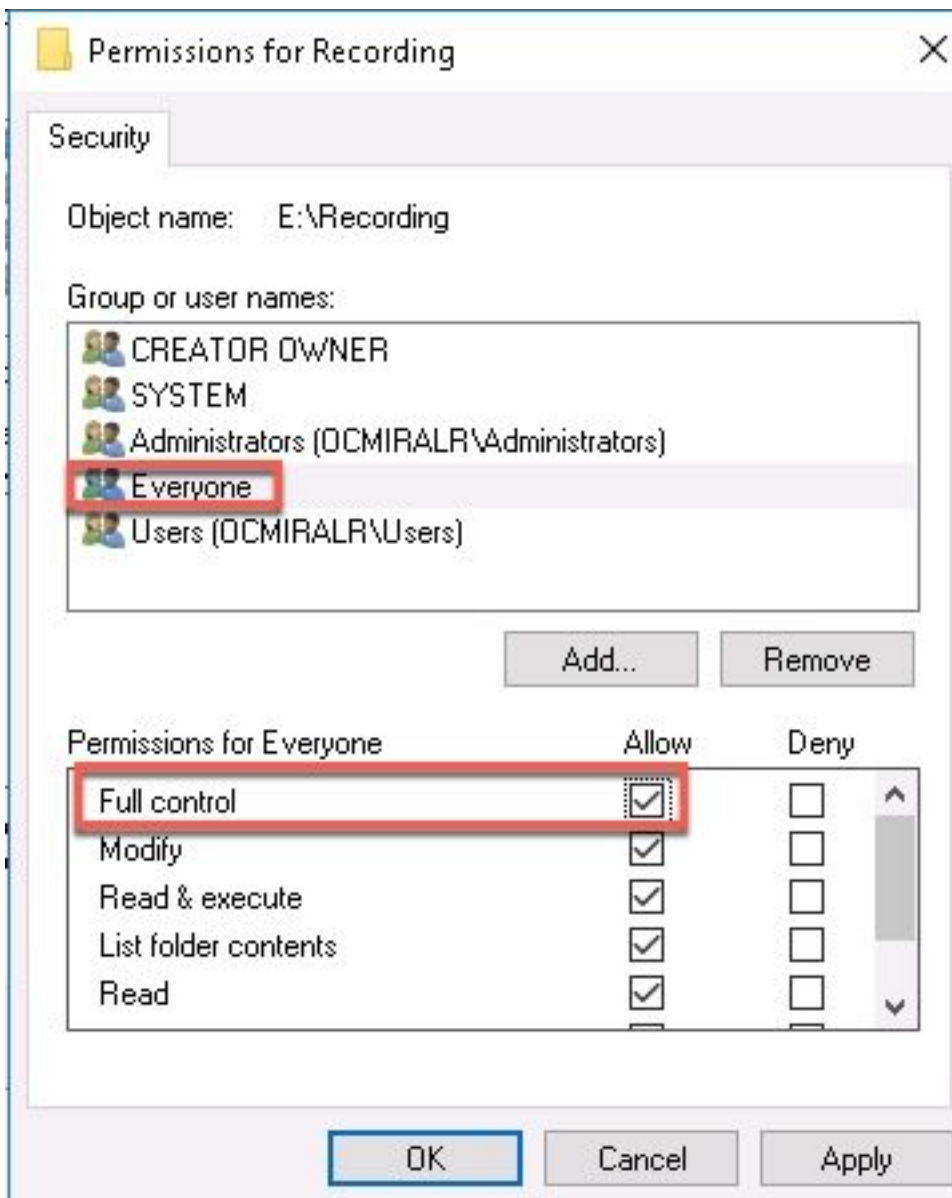
1. On Windows server, navigate to the folder location, **PC > Disk E > Recording**.
2. Right click on the folder and select **Properties**, as shown in the image:



3. Select the **Security** tab.
4. Select **Edit**.
5. Select **Add**.
6. Type the word **Everyone** and select **Check Names**, as shown in the image:



7. Select **Ok**.
8. Select the **Permissions** tab.
9. Ensure the **Allow** permission is checked in **Full Control** for the **Everyone** group, as shown in the image:



10. Select Ok.

11. Select Ok in order to close the Properties tab.

## Verify

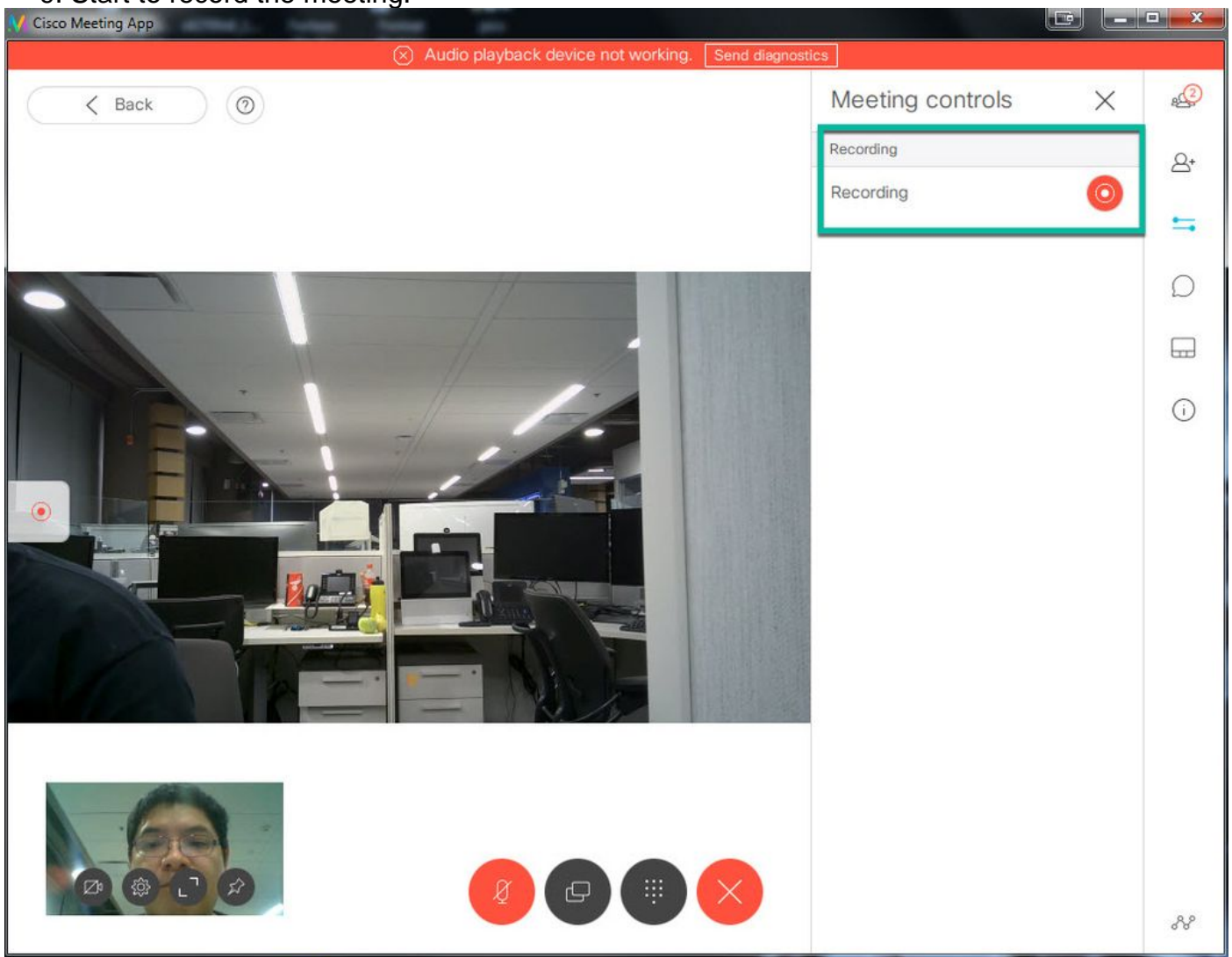
Use this section to confirm that your configuration works properly.

1. Recorder service must be configured previously.
2. Open the CMS Command Line Interface (CLI).
3. Run the command **recorder nfs <hostname/IP>:<directory>**.
4. Use the values of the NFS server and the name of the directory configured previously.
5. For example: **recorder nfs 10.1.1.1:Recording**.
6. Restart the recorder, run the command **recorder restart**.
7. Run the command **recorder** in order to validate the configuration, as shown in the image:

```
cmsCore1> recorder
Enabled                : true
Interface whitelist    : a:8443
Key file               : recorder.key
Certificate file       : recorder.cer
CA Bundle file        : root.cer
Trust bundle          : callbridge.cer
NFS domain name       :
NFS directory         : Recording
Resolution            : 1080p
```

8. Log in to the CMS with Cisco Meeting App (CMA).

9. Start to record the meeting.



**Note:** For the first 5 seconds after recording is started, the call is not recorded. This is intentional and is to aid lipsync between video and audio in the recording. If you record for less than 5 seconds a small file is saved on the NFS, but it does not play back.

10. Stop the record.

11. Finish the call.

12. Wait a couple of minutes for the file to be created.

13. Open the NFS folder in Windows server.

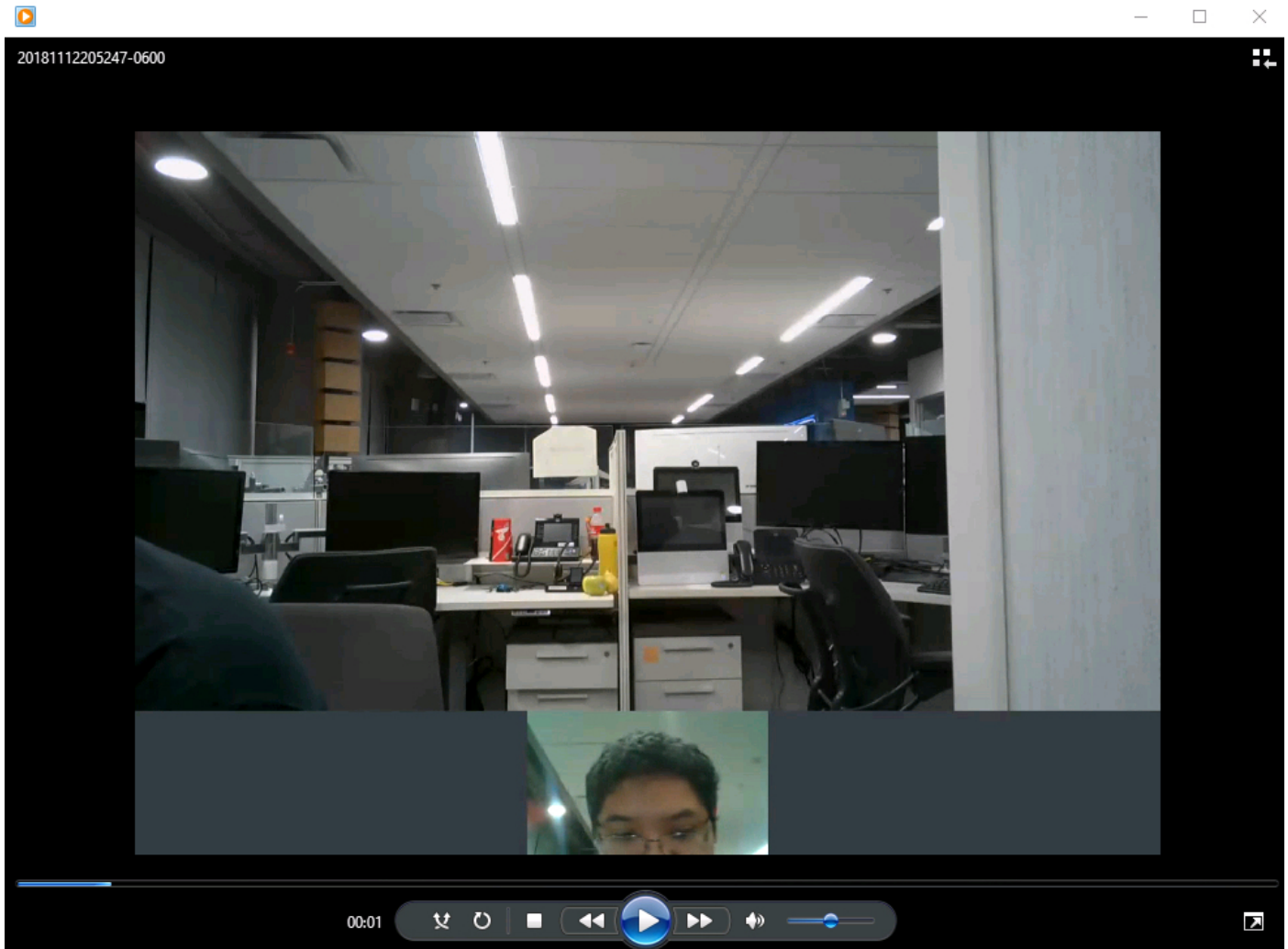


14. Ensure the recorded file is in the recording folder, as shown in the image:



15. Reproduce the video file with the a video reproductor.

16. The video of the conference must be showed, as shown in the image:



## Troubleshoot

There is currently no specific troubleshooting information available for this configuration.