Quest® ArchiveManager for Files 8.9

Media Store Guide

If you have any questions regarding your potential use of this material, contact:

Quest Software Inc.
Attn: LEGAL Dept.
4 Polaris Way
Aliso Viejo, CA 92656

Refer to our Web site (https://www.quest.com) for regional and international office information.

Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at https://www.quest.com/legal.

Trademarks

Quest, the Quest logo, and Metalogix are trademarks and registered trademarks of Quest Software Inc. and its affiliates. For a complete list of Quest marks, visit https://www.quest.com/legal/trademark-information.aspx. All other trademarks and registered trademarks are property of their respective owners.

Legend

CAUTION:: A caution icon indicates potential damage to hardware or loss of data if instructions are not followed.

IMPORTANT, NOTE, TIP, MOBILE OR VIDEO: An information icon indicates supporting information.

Quest® ArchiveManager for Files Media Store Guide
Updated March 2024
Version 8.9

Contents

1

Introduction

This guide describes the configuration for a large set of supported media stores that are categorized into two sections:

- On-Premise Media Stores
- Cloud Media Stores

You can configure these media stores using the Confguration tool provided to you with your Archive Manager for Exchange or Archive Manager for Files installation package. For more information about managing media stores see the *HSM Guide*.

2

On-Premise Media Stores

This chapter describes the on-premise media stores supported by Hierarchical Storage Management (HSM).

In this chapter:

Jukebox, Hard Disk or Network Share

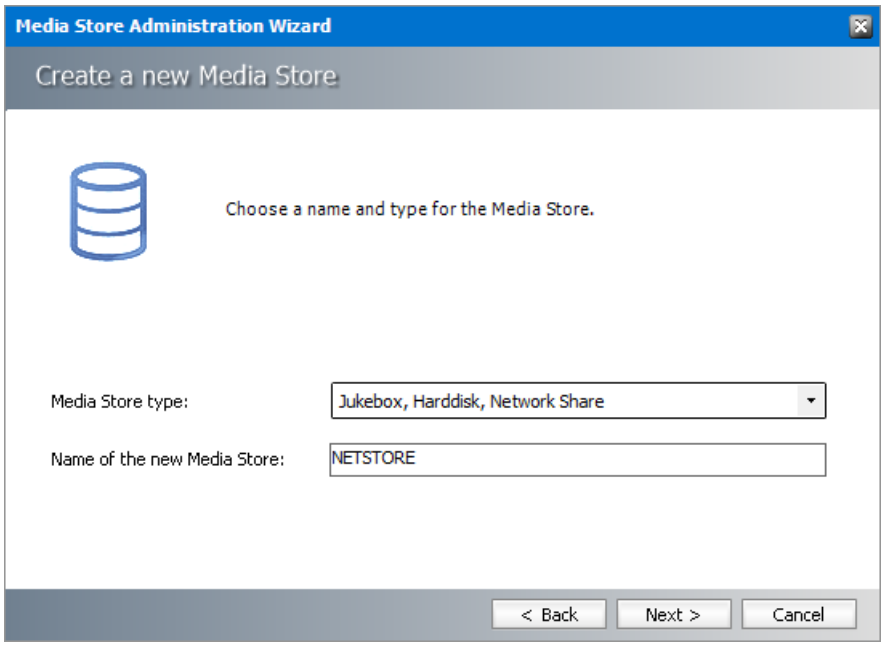
Jukebox file management software provides a Windows file system type access to the media store. This lets applications and users directly access the jukebox without having to use some exotic programming. The jukebox software can make the entire jukebox appear as a single drive letter. Each disc in the jukebox appears as a folder. From the Windows interface, you can then assign drive letters to groups of folders. The jukebox software can also create groups of discs within the jukebox management system and assign drive letters to each group. HSM supports the following jukebox media stores: **Amass**, **Pegasus** and **PoINT Jukebox Manager**.

The Hard Disk or Network Share options are used for media stores that have a fixed size. If you have a hard disk or network share that uses RAID or other virtualized stores that are not size constrained, then is a Simple Path media store configuration is recommended.

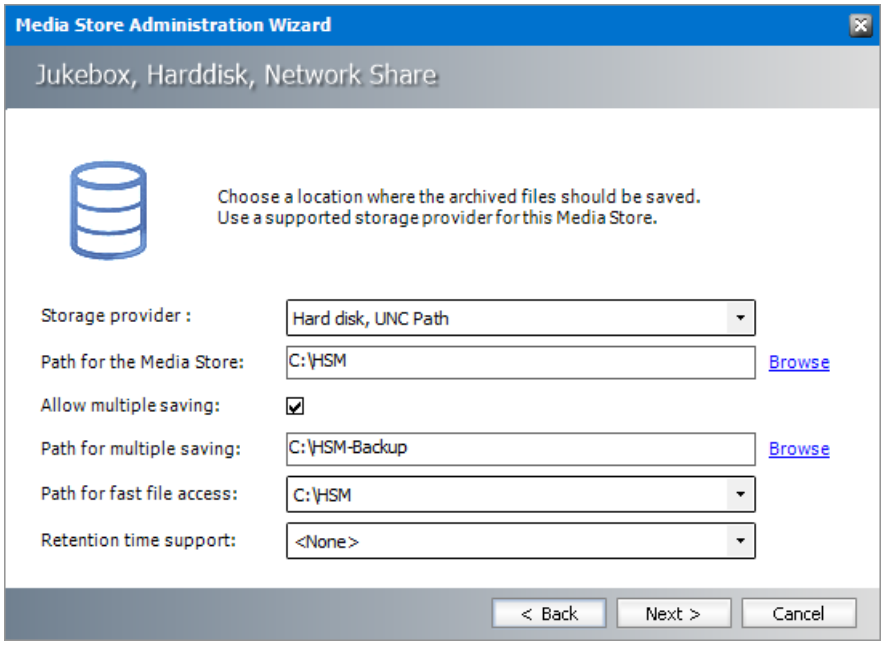
NOTE: Amass is a jukebox management software for UNIX and requires an additional set of properties which are described in the instructions below.

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.



5. Click **Next**. The location information window opens.



Enter the information as described below:

a. **Storage Provider** - select a jukebox option like **Amass**, **Pegasus** and **PoINT Jukebox Manager** or select **Hard disk, UNC Path**.

b. **Path for the media store** - browse and create the folder if it does not exist (eg. **C:\HSM**). You could specify a UNC path to a shared folder as well.

c. **Allow multiple saving** - select this check box if you want to archive the file in an alternate location. For example **C:\HSM-Backup**.

d. **Path for multiple saving** - alternate media store location. Browse and create the folder if it does not exist (eg. **C:\HSM**). You could specify a UNC path to a shared folder as well. This field is available if **Allow multiple saving** selected.

e. **Path for fast file access** - choose between the **Path for the media store** and **Path for multiple saving** that are listed in the drop-down. Typically, if the first path is a slow media store like Pegasus Jukebox, and the second path is a large SAN like a local RAID or Harddisk, then you should use SAN because it is much faster. This field is available if **Allow multiple saving** selected.

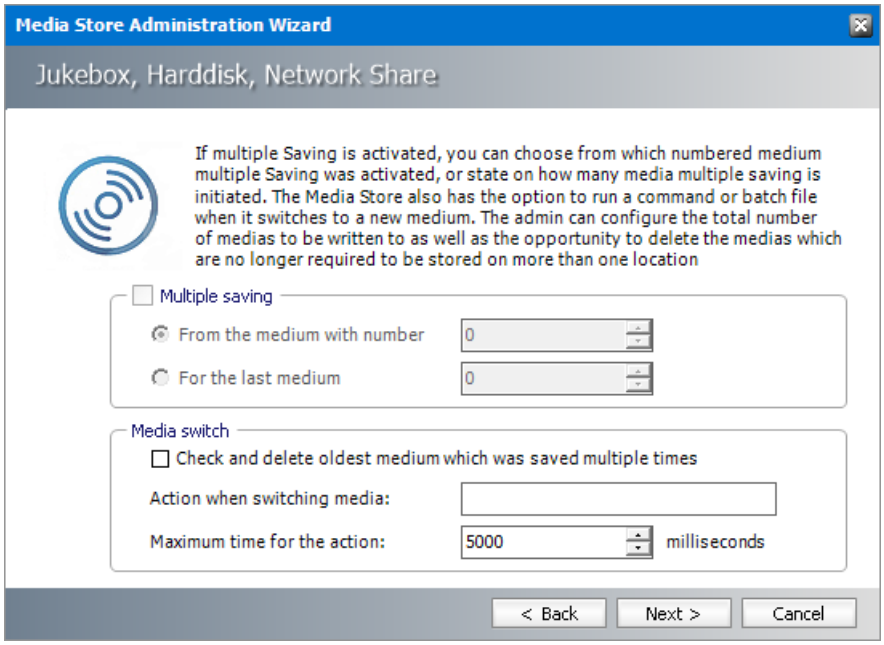
> **NOTE:** If archiving to any one path fails, file store operation will result in an error.

f. **Retention time support** - from the drop-down box, select one of two predefined retention time support options or select **<None>** to ignore retention time support:

- **NetApp SnapLock** - if you are using NetApp and want to use SnapLock for compliance with law regulations about archiving of electronic documents. (e.g. HIPAA, OFRS, COSO etc.)
- **EMC Celerra** - if you use EMC Celerra.

> **NOTE: Retention time support** is not available if you select the Jukebox file management options like Amass, Pegasus or PoINT.

6. Click **Next**. The *Multiple saving and media switch* window opens if you selected **Allow multiple saving** in the previous step.



7. Enter the information as described below:

   - **Multiple Saving** - select this check box to setup specific media that will support multiple saving.

     a. **From the medium with number** - choose this option to specify the medium identifier of the first medium that should start multiple saving.

     b. **For the last medium** - choose this option to specify the medium identifier of the last medium that should allow multiple saving.

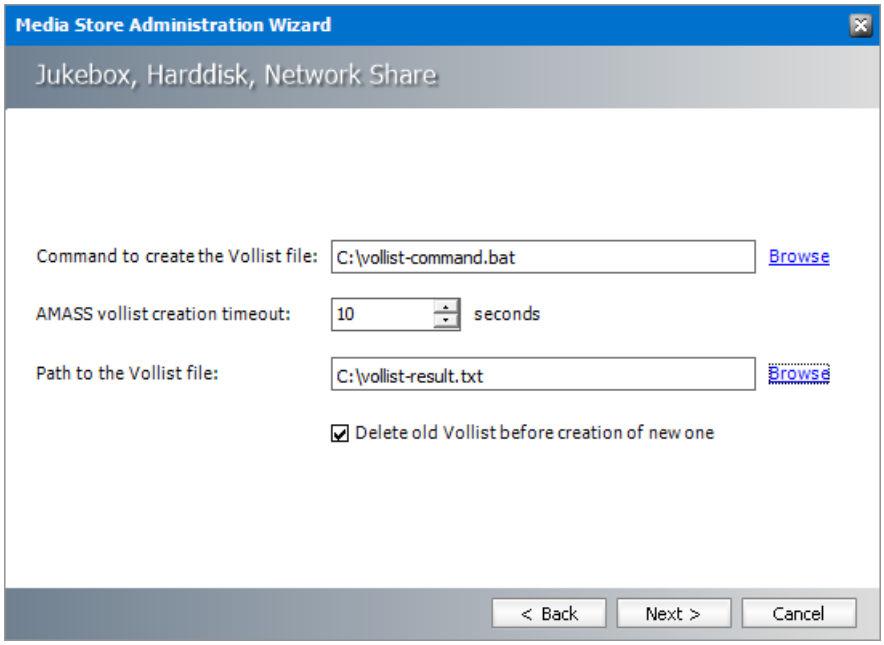
   - **Media Switch**

     a. **Check and delete oldest medium which was saved multiple times** - select this check box to allow the system to check for files which are no longer required to be stored on more than one location and deletes the duplicate copies.

     b. **Action when switching media** - enter a command or a batch file that will be run when switching between media.

     c. **Maximum time for the action** - specify a maximum timeout value in milliseconds for the **Action when switching media** command.

8. If you selected **Amass** as the storage provider, click **Next** to open the Amass properties window. Otherwise continue with the next step.



Enter the information as described below:

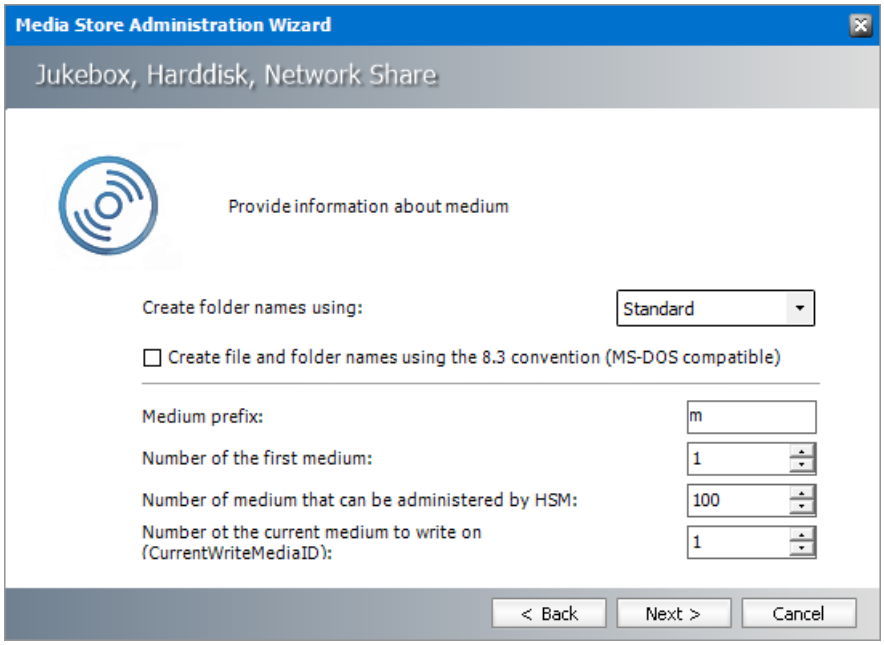
a. **Command to create the Vollist file** - To get the size of each medium *Amass* provides a command-line-program called **vollist**. The user must create a command file (EXE, CMD or BAT) which runs these commands on the UNIX environment and creates a file with the result of this command that the store can read. Normally customers do this via RSH commands. Enter the location of the command file or click **Browse** to locate the file.

b. **AMASS vollist creation timeout** - set a time limit in seconds for the vollist command to complete.

c. **Path to the Vollist file** - enter the path to the batch file or click **Browse** to locate the file.

d. **Delete old vollist before creation of new one** - select this check box to remove old command files when a new new command file is generated.

9. Click **Next**. The *Media naming convention* window opens.



Enter the information as described below:

a. **Create folder names using** - select the format of HSM folders names from the drop down from the following options: Standard, Only LowerCase or Only Uppercase.

b. **Create file and folder-names using 8.3 convention** - select this check box to truncate long file names to 8 characters with an extension of 3 characters only if the media storage system does not support long file names.

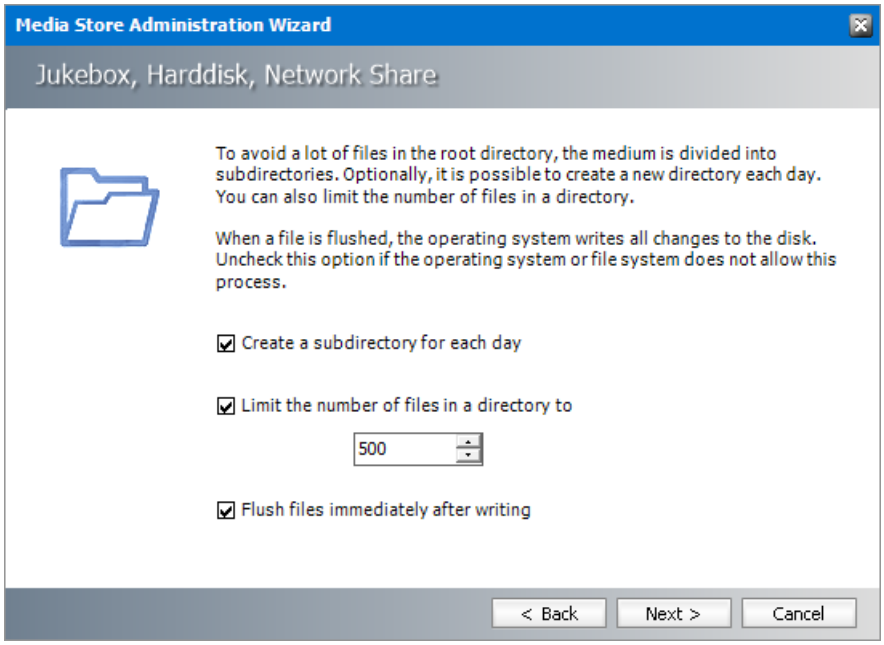
c. **Medium prefix** - Enter a maximum of 2 alphanumerical characters. Each file will be prefixed with these characters along with the respective media number. For example, if you select **LS**, the name of one of the media would be LS000001.

d. **Number of the first medium** - specify a number that will be assigned to the first medium.

e. **Number of medium that can be administered by HSM** - specify the number of media to be administered by Archive Manager. For instance, if there are 20 media in a Jukebox, then enter 20.

f. **Number of current media to write on** (CurrentWriteMediaID) - specify the number of the medium that will be used as the first one for archiving.

10. Click **Next**. The *Directory management* window opens.



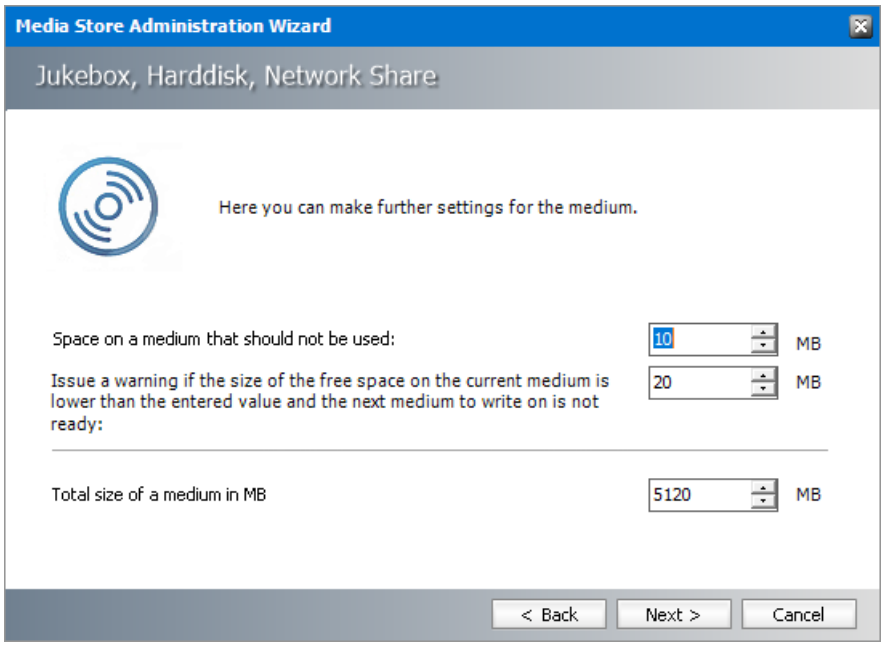
Enter the information as described below:

a. **Create a sub directory for each day** - select this check-box to create a directory for each day (recommended). Sub-directories are created with the path 000001, 000002, and so on. This is necessary for performance reasons because the more files a directory contains the longer it takes to search for a file.

b. **Limit the number of files in directory to** - select this check box to limit the number of files per directory to control directory growth.

c. **Flush files immediately after writing** - select this check box to delete files from the cache. Normally all file systems support flushing of files. Deactivate the option only if the file system does not allow flushing.

11. Click **Next**. The *Media space management* window opens.



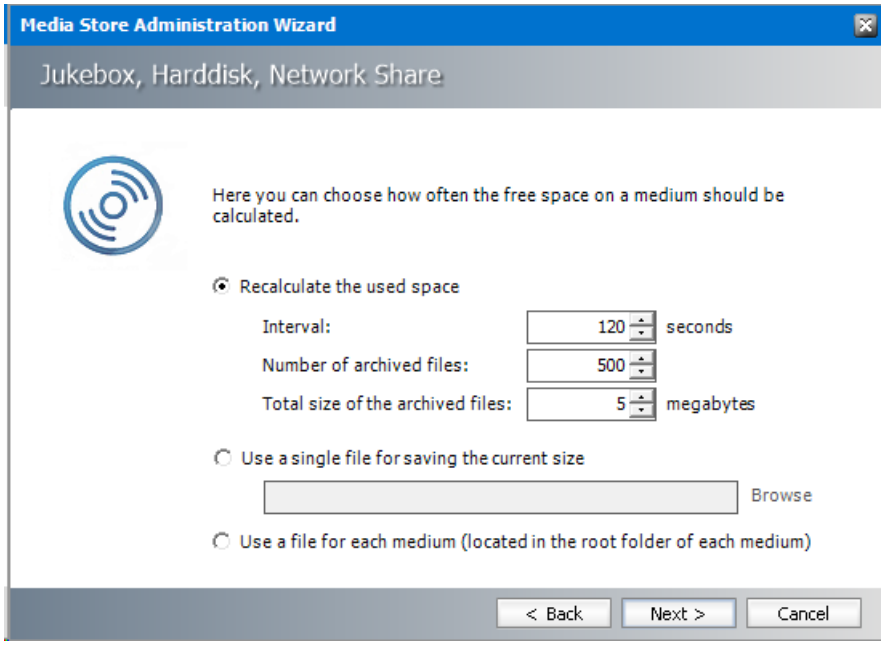
Enter the information as described below:

a. **Space on a media that should not be used** - Set a storage space that should not to be used on a medium. This value is defined in MB.

b. **Issue a warning** - Set a low space warning limit. The default is 20 MB. As soon as free storage space is lower than the value specified, a warning message is generated. When this value is reached, the availability of a new medium is verified. This value should comply with the approximate average daily amount of MB to archive, so that a new medium can be checked in a timely manner.

c. **Total size of media in MB** - Enter the total size of a medium.

12. Click **Next**. The *Free space calculator* window opens.



13. Enter the information as described below:

- **Recalculate the used space** - HSM needs to know when to start a new medium, as there is maximum medium size that was set. Choose this option to recalculate the used space periodically, and specify the parameters that will be used to perform the check.

  a. **Interval** - Recalculates the free space on the medium in the time span specified in seconds.

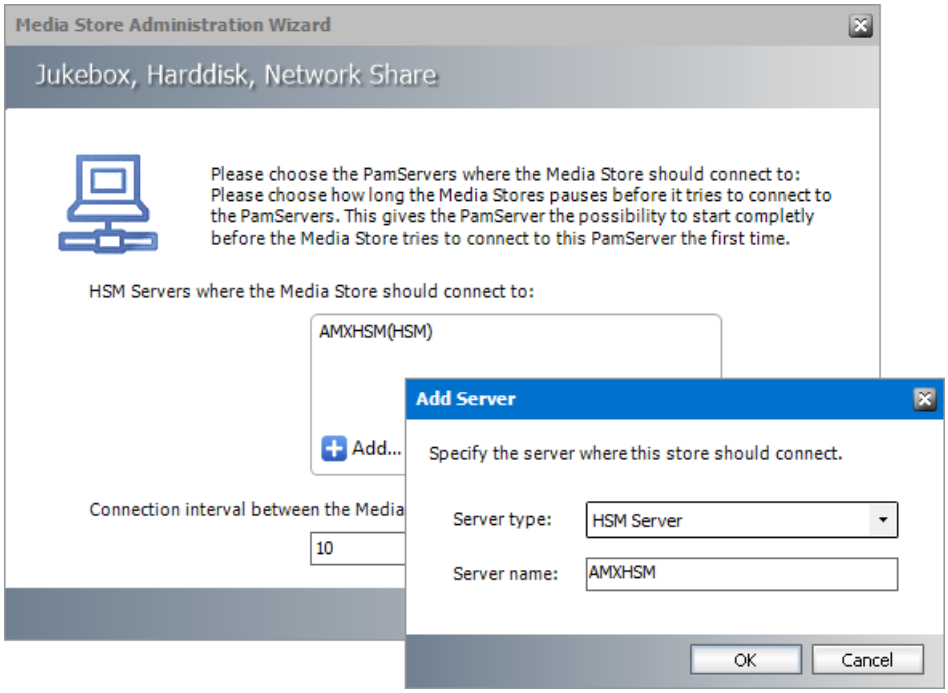
  b. **Number of archived files** - Recalculates the free space on a medium depending on the number of files that have been archived since the most recent calculation.

  c. **Total size of the archived files** -Recalculates the free space on a medium depending on the archived volume in MB since the most recent calculation.

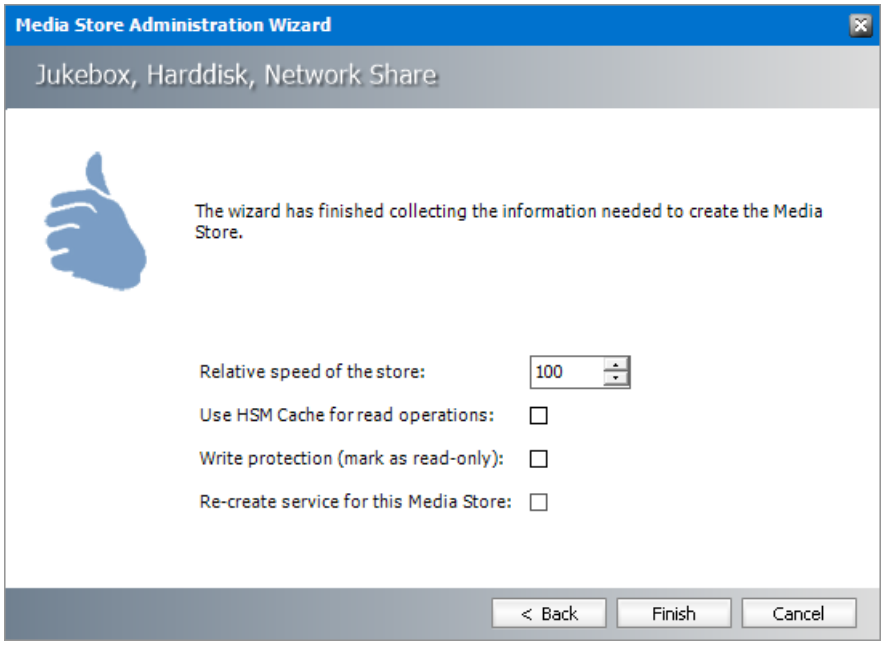
- **Use a single file for saving the current size** - chose this option if the user does not want to allow HSM to recalculate the used space periodically because it could be a time-consuming operation. Specify a file where the value of the used space on a medium will be saved. Since the size of the file being archived is known, the size of the used space is updated each time a file is stored or removed from the medium.

- **Use a file for each medium** - Choose this option to use a single file for saving the current size of all storage media. The file is located in the root folder.

14. Click **Next**. The *HSM server connection information* window opens. Every media store must provide this information so the HSM server can connect to it. For more information about various media stores see the *Archive Manager for Exchange - Media Store Administration Guide*.



15. Click **Add**. The *Add Server* window opens. Enter the following information:
    a. **Server type** - select **HSM Server**
    b. **Server name** - name of the server where HSM is installed (eg. **AMXHSM**)
16. Click **OK** to close the window and add the HSM Server to the list.
17. Click **Next**. The final configuration window appears.



Enter the information as described below:

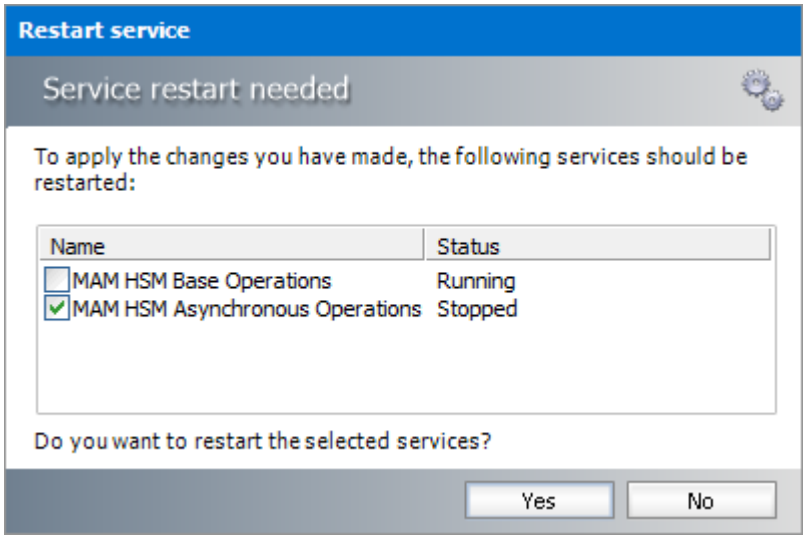
a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

18. Click **Finish**. The *Service Restart* window opens.



Select one or more check boxes where the **Status** indicates **Stopped**. Click **Yes** to restart the service so that the HSM service is aware of the media store configuration.

19. Verify that the media store appears in the *Stores* section.

20. Create a **Schema** for this media store.

TIP: Whenever a Jukebox type is store created, a service called `PMSStoreSv<NameOfTheStore>` is created as well. The service startup type is set to **Manual**. We recommend that you change the startup type to **Automatic** from Start > Settings > Control panel > Administrative tools > Services.

Simple Path

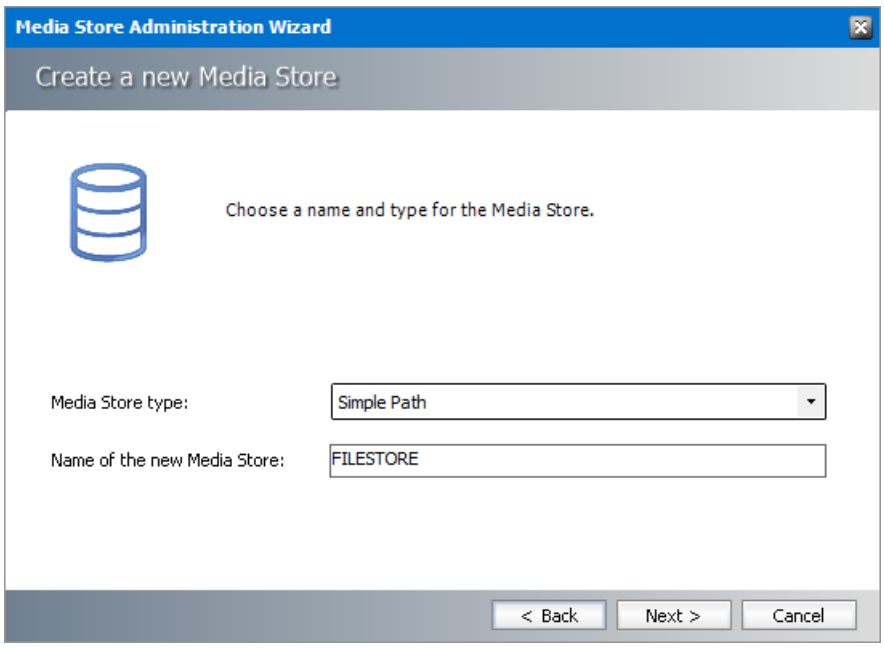
If you have a hard disk or RAID system that does not need directories with a specific size, then choose the Simple Path media store. This is also the default media store that is configured when you install Hierarchical Storage Manager (HSM). This kind of store is faster and outperforms all other stores under the same circumstances (same hardware, same path).

Advantages:

- It does not do size checking.
- It writes files on any UNC path (e.g. Harddisk or Network-Share)
- Files are stored in subdirectories because there are no *medias* with a specific size in the format `<RootPath>\<Year>\<Month>\<Day>\<Hour>\<counter>\Filename.txt` e.g. \ \Fileserver\HSM\2021\04\26\18\000\ 4_000000f4.tif

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

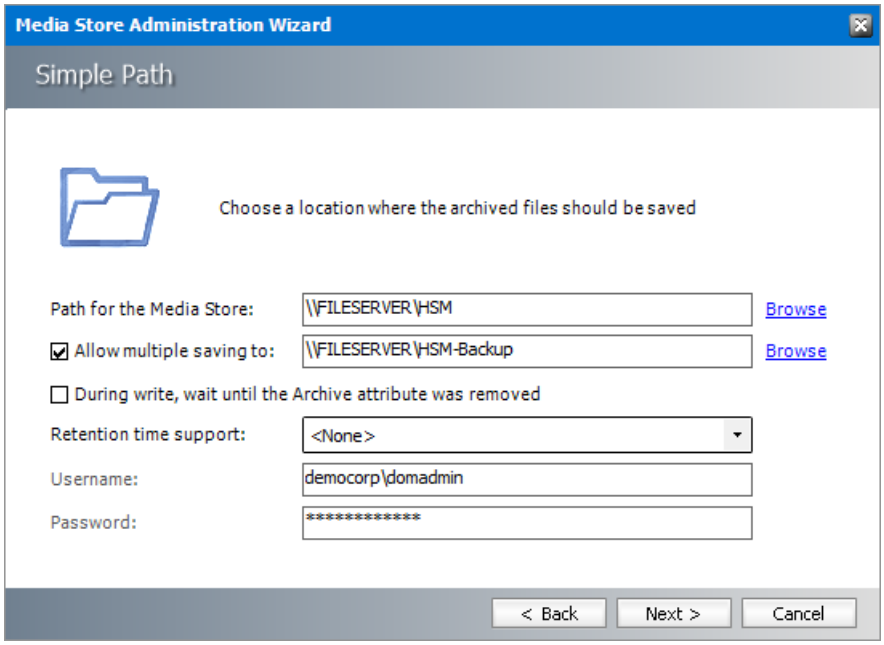


Enter the information as described below:

a. **Media Store Type** - select **Simple Path** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the Simple Path opens.



Enter the information as described below:

a. **Path for the Media Store** - local or network share path to the media store.

b. **Allow multiple saving to** - select this check box if you want to archive the file in an alternate location.

c. **During write, wait until the Archive attribute was removed** - Secret key configured in Simple Path instance.

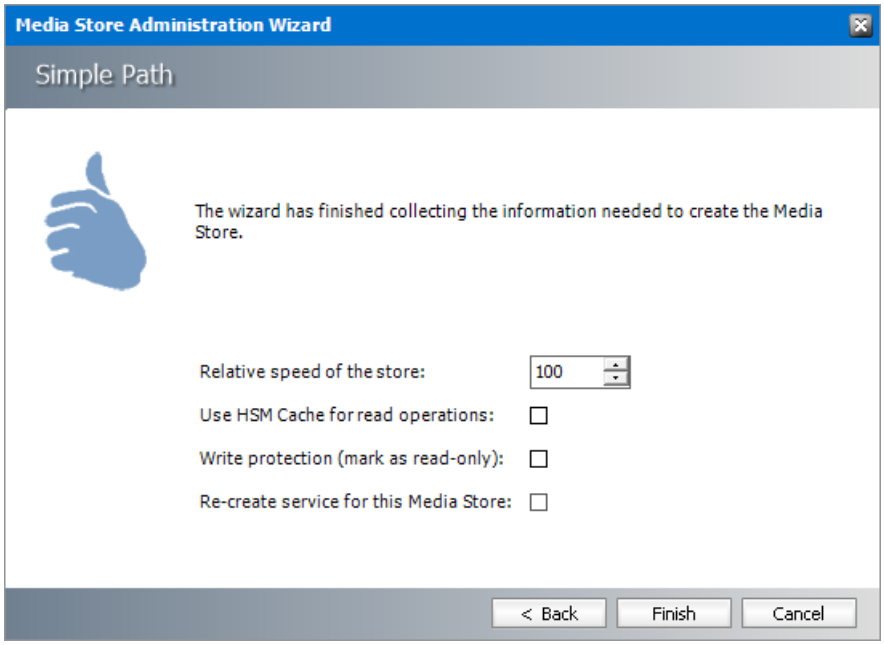
d. **Retention time support** - from the drop-down box, select one of two predefined retention time support options or select **<None>** to ignore retention time support:

- **NetApp SnapLock** - if you are using NetApp and want to use SnapLock for compliance with law regulations about archiving of electronic documents. (e.g. HIPAA, OFRS, COSO etc.)
- **EMC Celerra** - if you use EMC Celerra.

e. **Username** - Enter the `domain\username` to access the network share. Activated only if a network share is specified. If you need to access a share you have to allow the computer account (Local System) to access a share or run PamHsmTSv with a special user.

f. **Password** - Enter the password to access the network share. Activated only if a network share is specified.

6. Click **Next**.



Enter the information as described below:

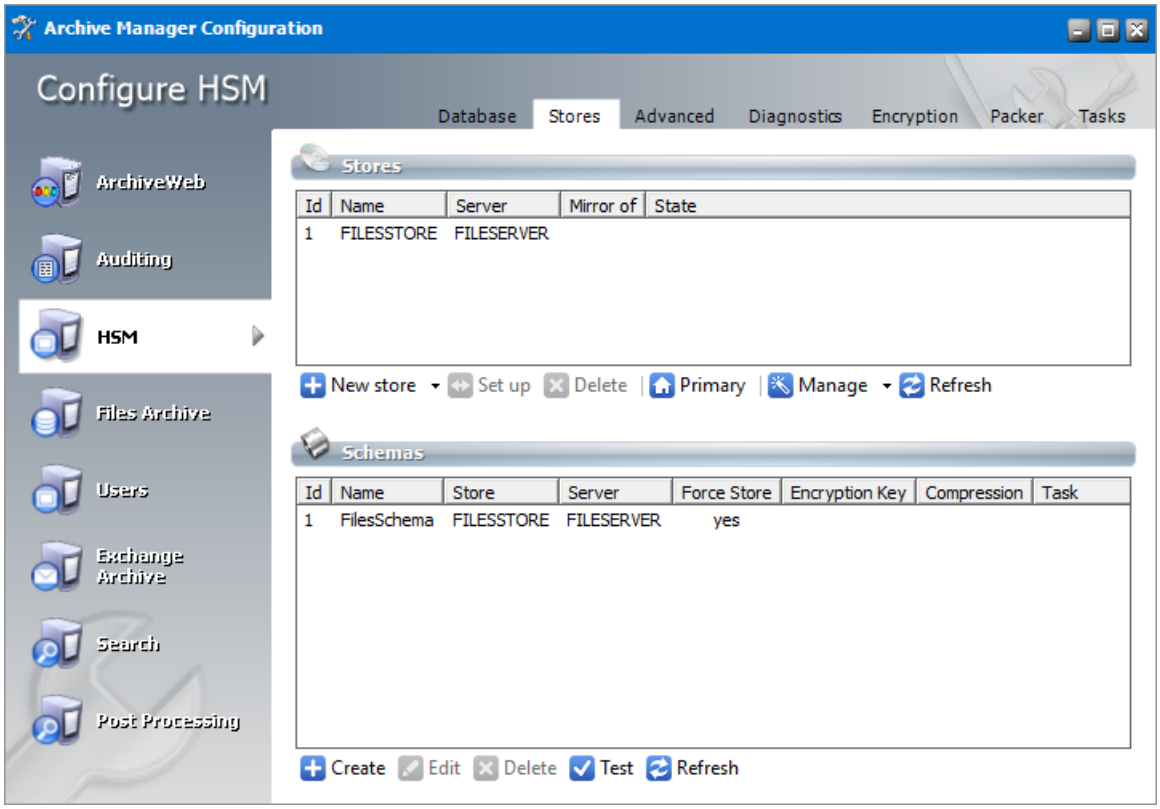
a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

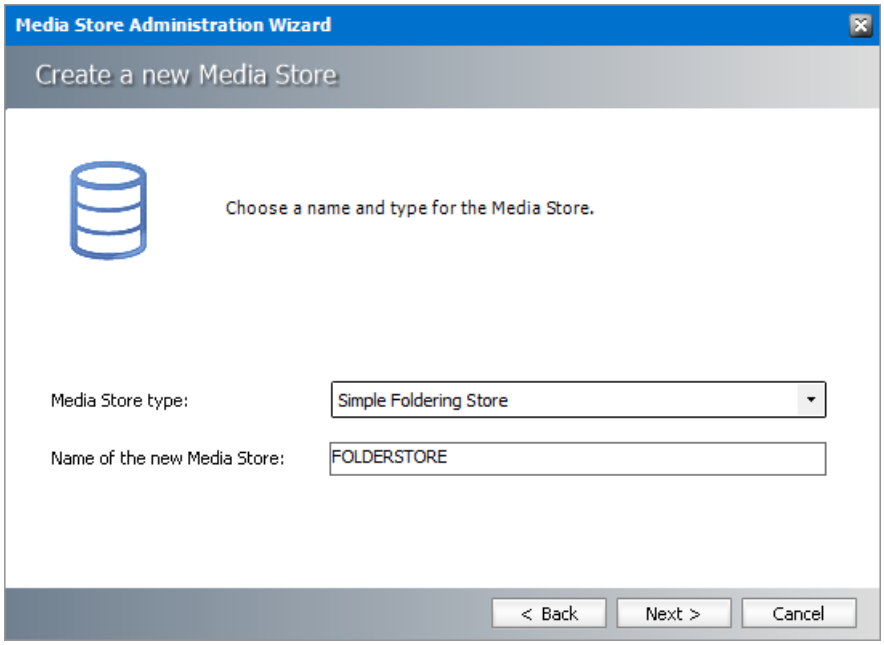


Simple Foldering Store

This is a basic store similar to Windows Explorer where sub-folders are created under the specified path.

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

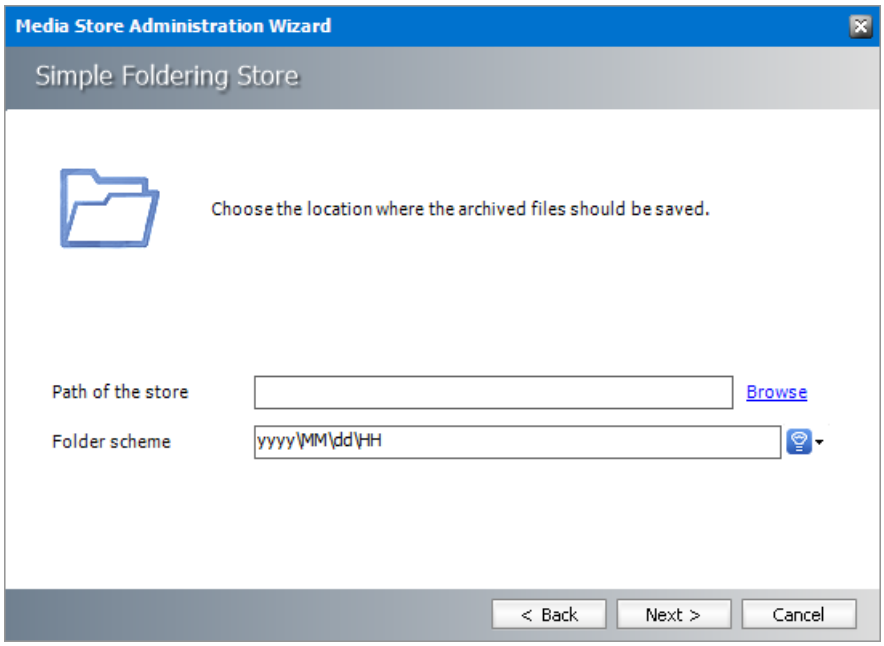


Enter the information as described below:

a. **Media Store Type** - select **Simple Foldering Store** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the Simple Foldering Store opens.

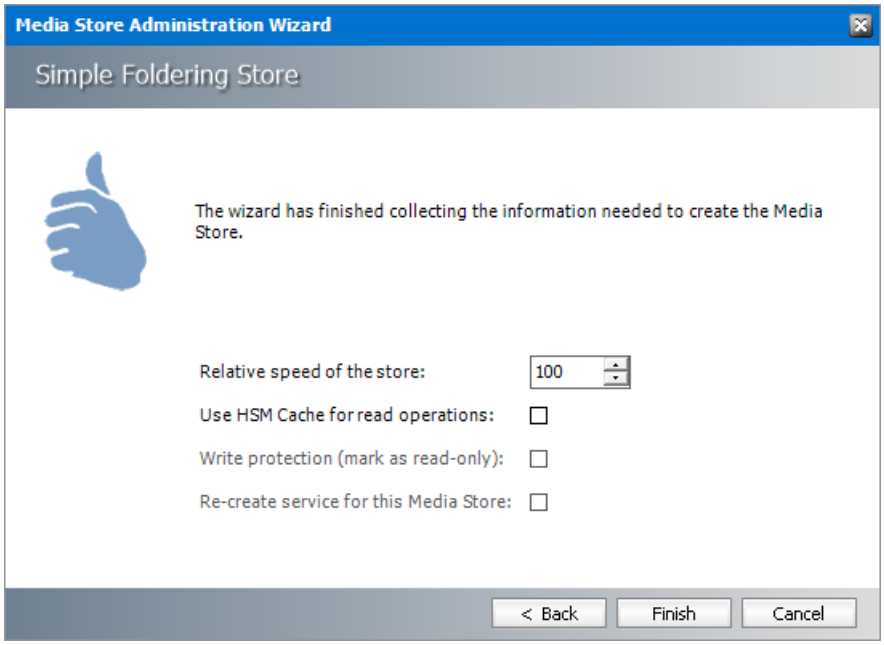


Enter the information as described below:

a. **Path to the store** - Click **Browse** to locate the local root folder.

b. **Filename prefix** - a unique prefix that you can create for each item stored in the folders. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

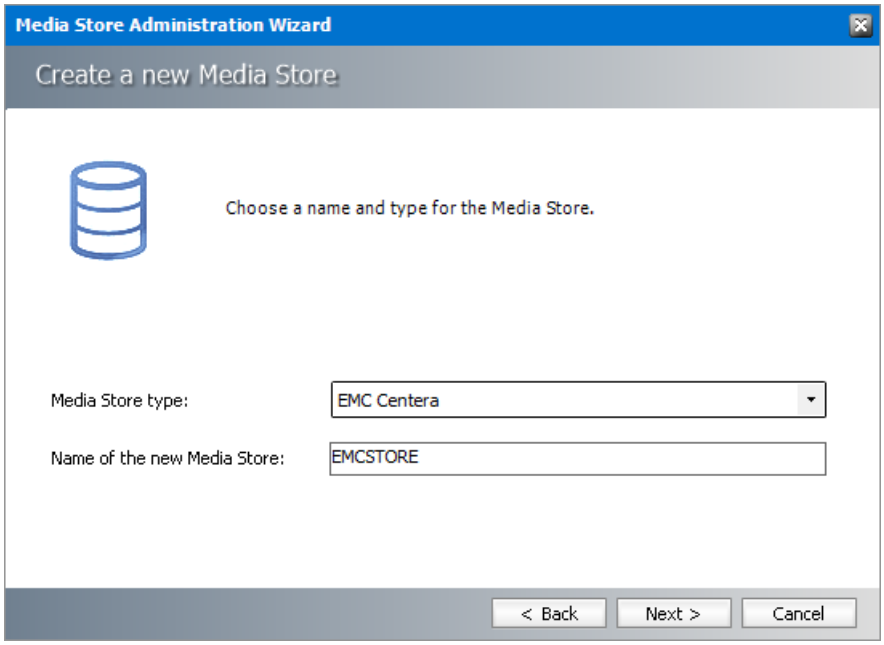
d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

EMC Centera

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

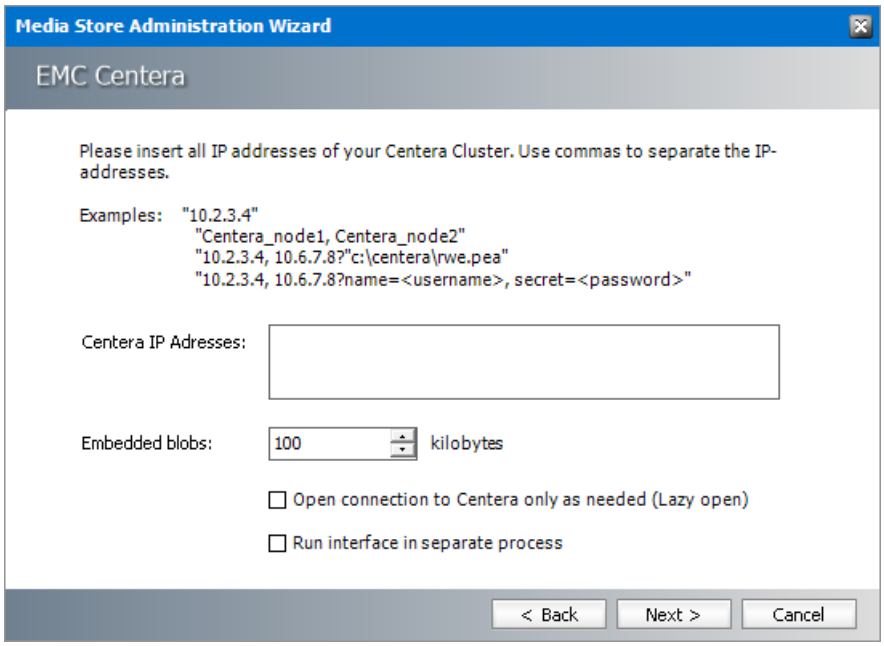


Enter the information as described below:

a. **Media Store Type** - select **EMC Centera** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for EMC Centera opens.



Enter the information as described below:

a. **Centera IP Addresses** - Insert all IP addresses of your Centera Cluster. Use commas to separate IP addresses.

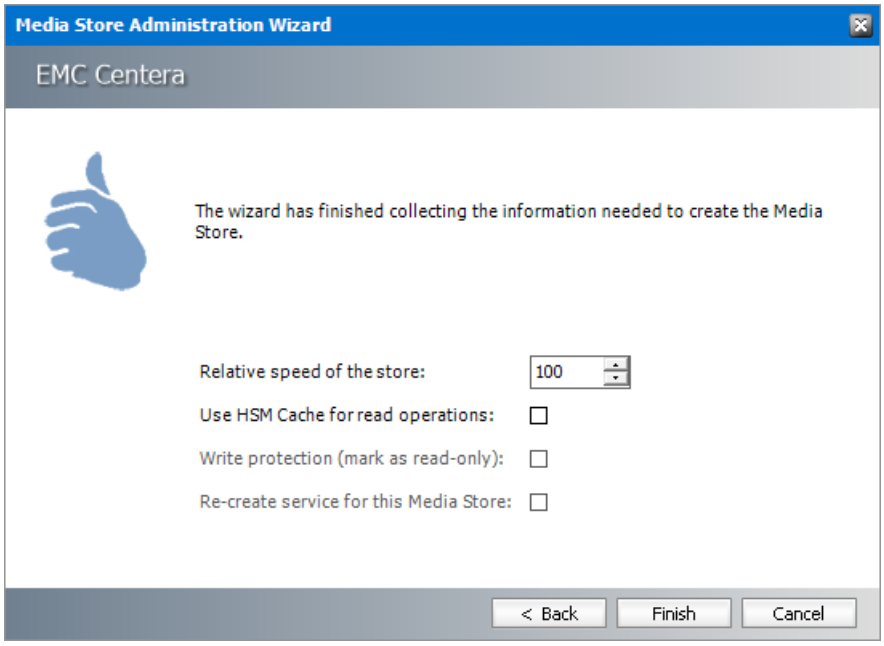
b. **Embedded blobs** - When a file is stored two files are created internally - one XML file which contains the meta-data and a second file for the data itself. This means that each file that is stored, increments the file-count on Centera by two. If you store lots of small files,

Centera can run out of a *file-count* before it runs out of disk space. With these settings multiple files upto the specified size are collated and embedded in the meta-data file and the data is saved as a base 64 encoded data.

c. **Open connection to Centera as needed (Lazy open)** - Select this check box to open the Centera connection at the very last moment possible. This is done by the Centera SDK itself and is a setting recommended by EMC.

d. **Run interface in separate process** - Select this check box to let the Centera instance run in its own process. That way, two different connections to Centera won't affect each other. If a connection is broken, it can be restarted without the need to restart HSM.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.

8. Restart HSM services.

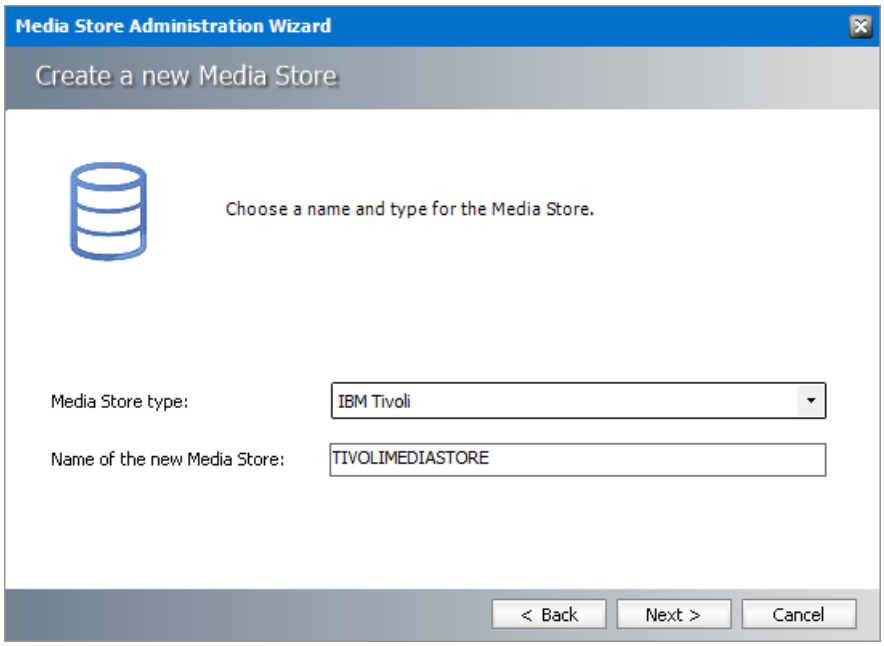
9. Verify that the media store appears in the *Stores* section.

10. Create a **Schema** for this media store.

IBM-Tivoli

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

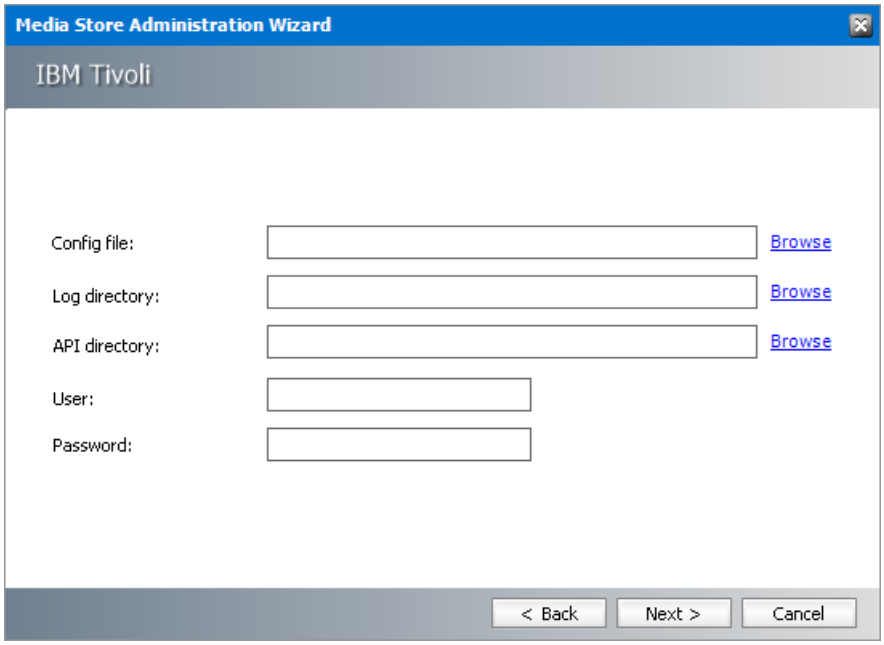


Enter the information as described below:

a. **Media Store Type** - select **IBM Tivoli** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for IBM Tivoli opens.



Enter the information as described below:

a. **Config file** - Click **Browse** to locate the configuration file (extension OPT) for the IBM Tivoli storage manager (TSM).

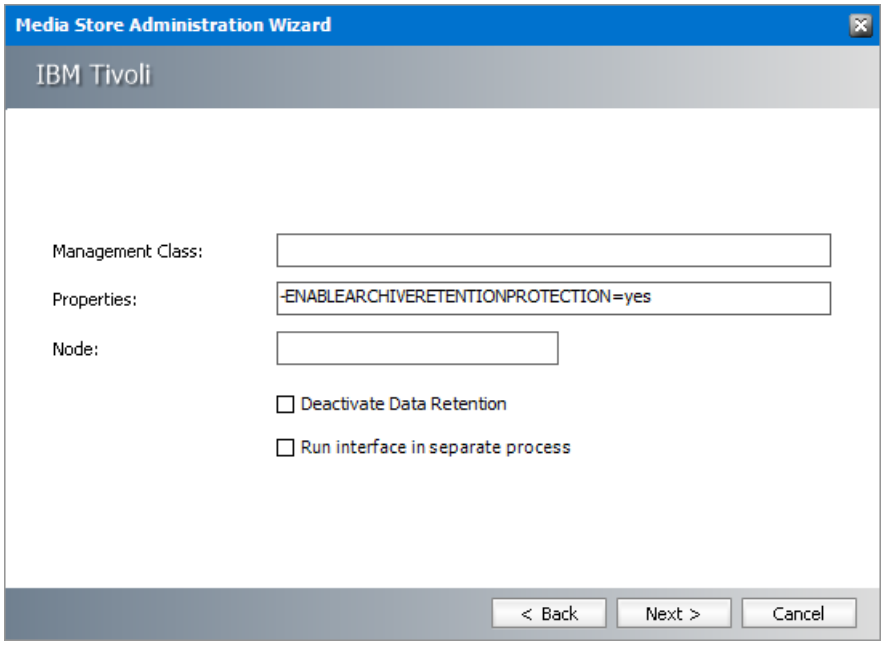
b. **Log directory** - Click **Browse** to locate the log directory where HSM will log TSM activity.

c. **API directory** - Click **Browse** to locate the folder where the TSM API (32-bit) is installed.

d. **User** - Username to access the TSM instance.

e. **Password** - Password to access the TSM instance.

6. Click **Next**.



Enter the information as described below:

a. **Management class** - Specify the management class that determines how the TSM server manages the backup versions of the objects being backed up.

b. **Properties** - Enter the properties supported by TSM. The only setting which is mandatory for HSM is the `-ENABLEARCHIVERETENTION` property if data retention is used. If HSM uses more Tivoli Storage Managers, each storage configuration must also contain the -TCPSERVERADDRESS property to specify TSM sever address (e.g. `-TCPSERVERADDRESS=TSM1`)

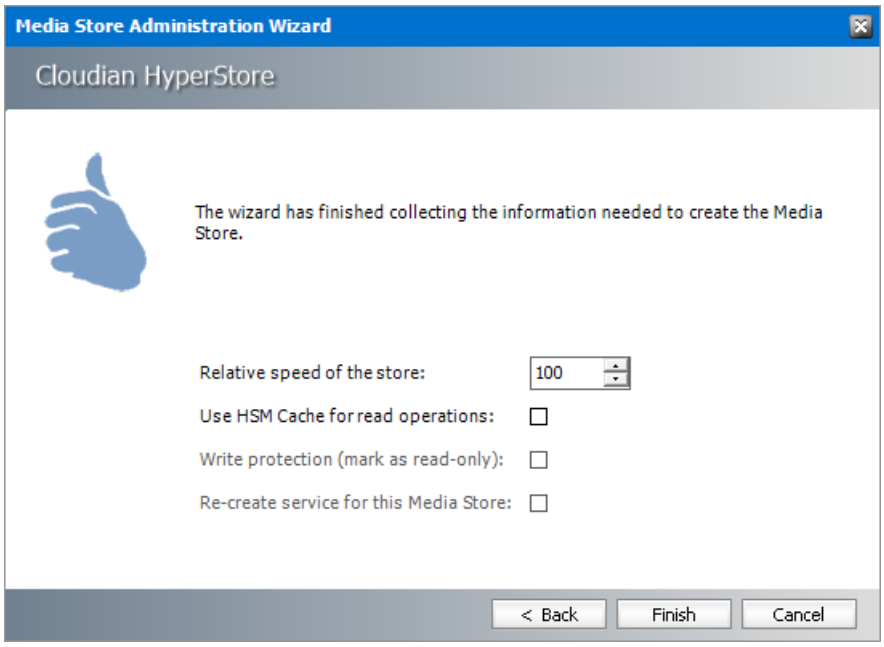
c. **Node** - Specify the container where the data will be stored.

d. **Deactivate Data Retention** - Do not select this check box if your TSM system requires data-retention (e.g. DR550). Select this check box if:

- you do not have a license or if you just store media on a tape and you do not need the protection.
- your TSM instance does not support Data Retention.

e. **Run interface in separate process** - Select this check box to let the TSM instance run in its own process. That way, two different connections to TSM won't affect each other. If a connection is broken, it can be restarted without the need to restart HSM.

7. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

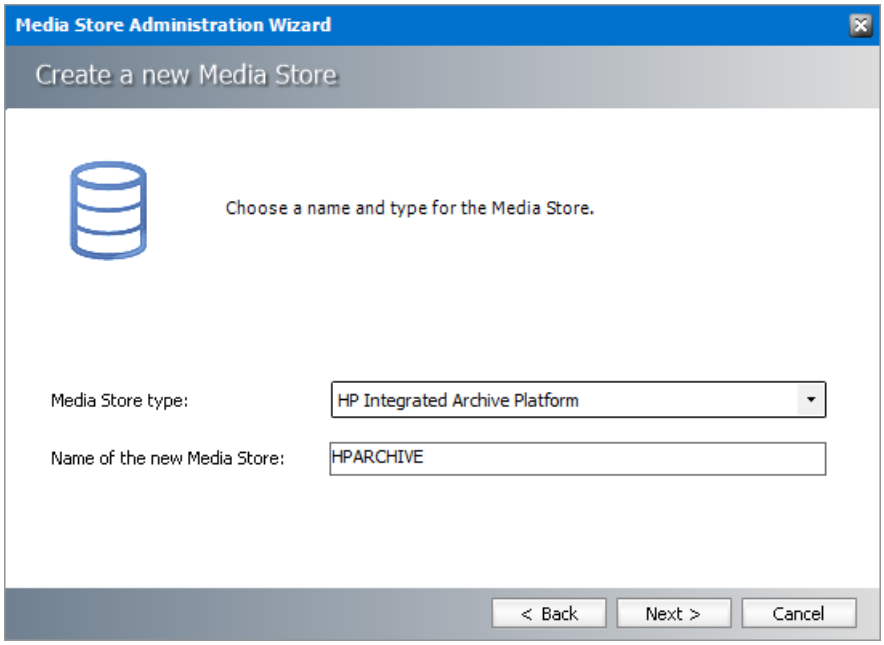
8. Click **Finish**.

9. Restart HSM services.
10. Verify that the media store appears in the *Stores* section.
11. Create a **Schema** for this media store.

HP Integrated Archive Platform

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

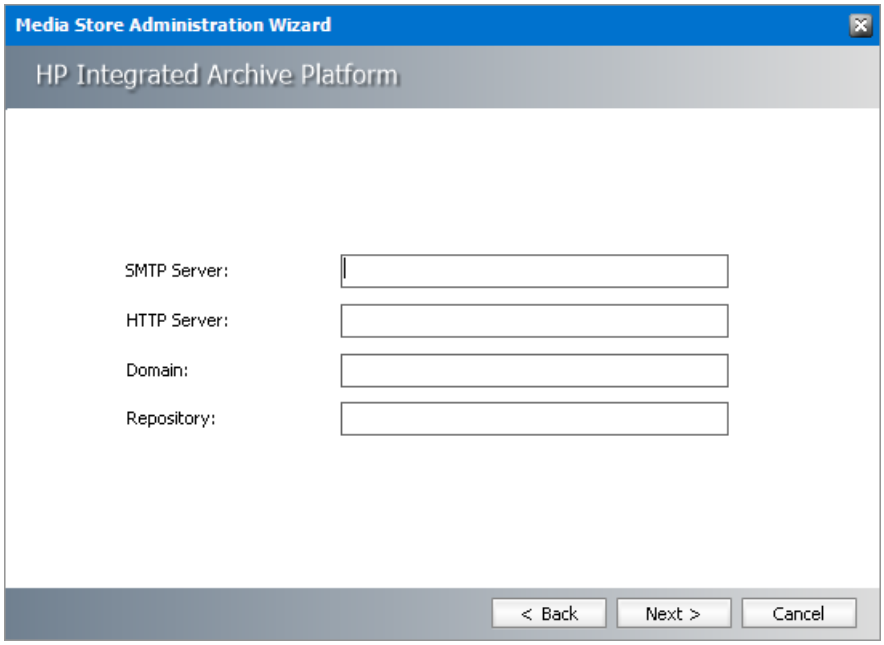


Enter the information as described below:

a. **Media Store Type** - select **HP Integrated Archive Platform** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the HP Integrated Archive Platform opens.



Enter the information as described below:

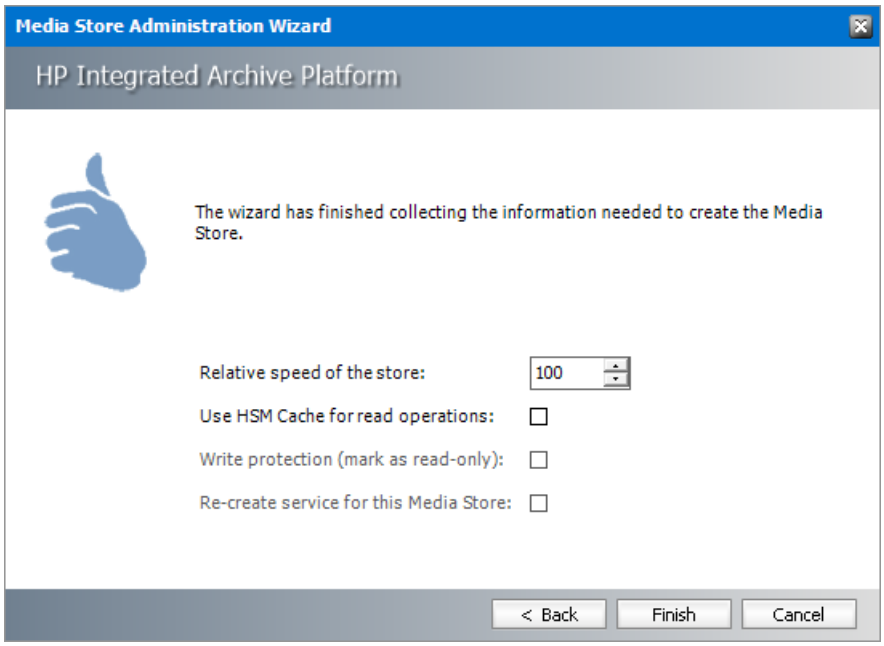
a. **SMTP Server** - SMTP server name.

b. **HTTP Server** - HTTP server name.

c. **Domain** - Domain name of the HP Integrated Archive Platform server.

d. **Repository** - Container configured in HP Integrated Archive Platform instance where the files will be stored.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

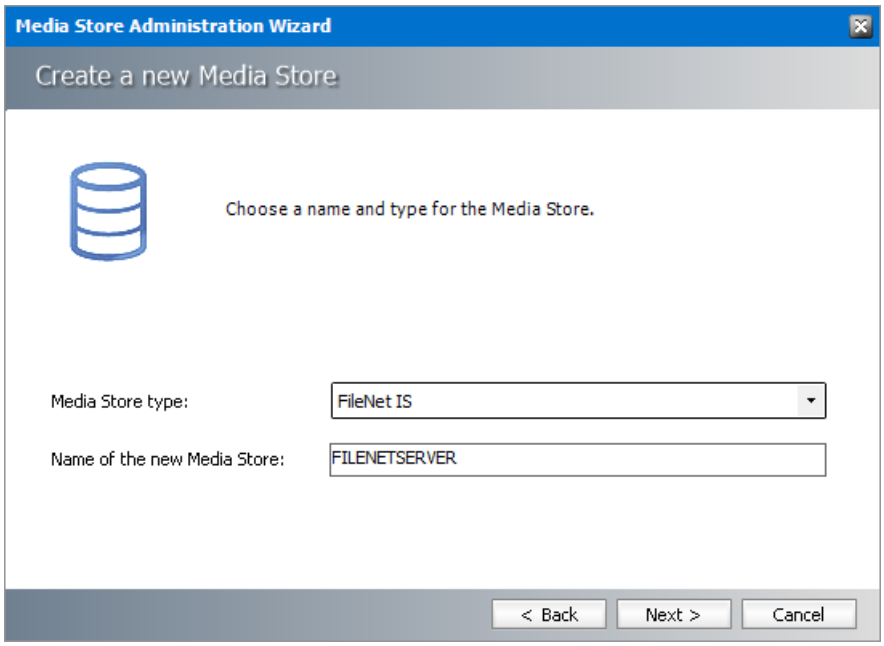
d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

FileNet IS

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

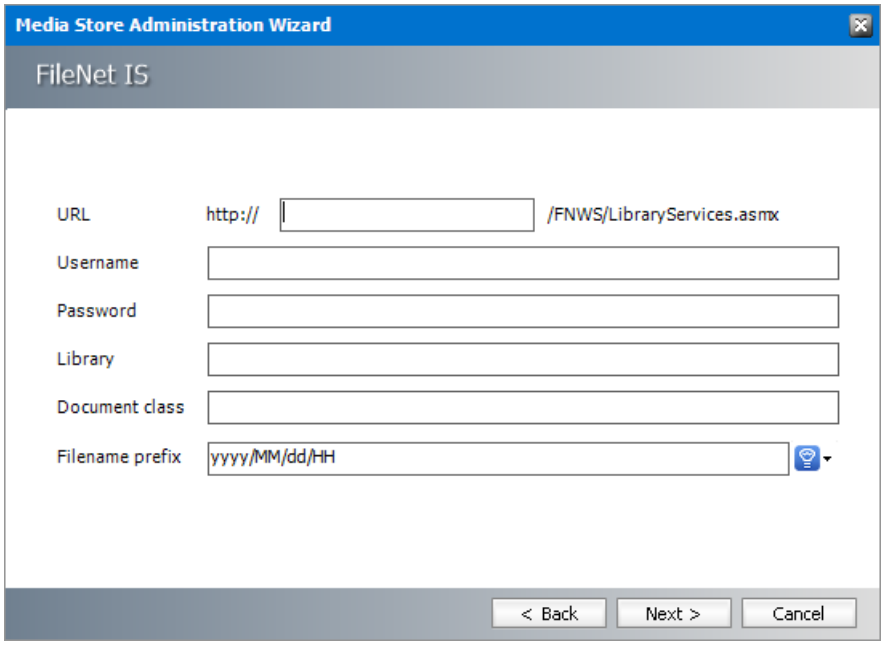


Enter the information as described below:

a. **Media Store Type** - select **FileNet IS** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the FileNet IS opens.



Enter the information as described below:

a. **URL** - FQDN or IP address of the FileNet IS server.

b. **Username** - Username to access the FileNet IS instance.

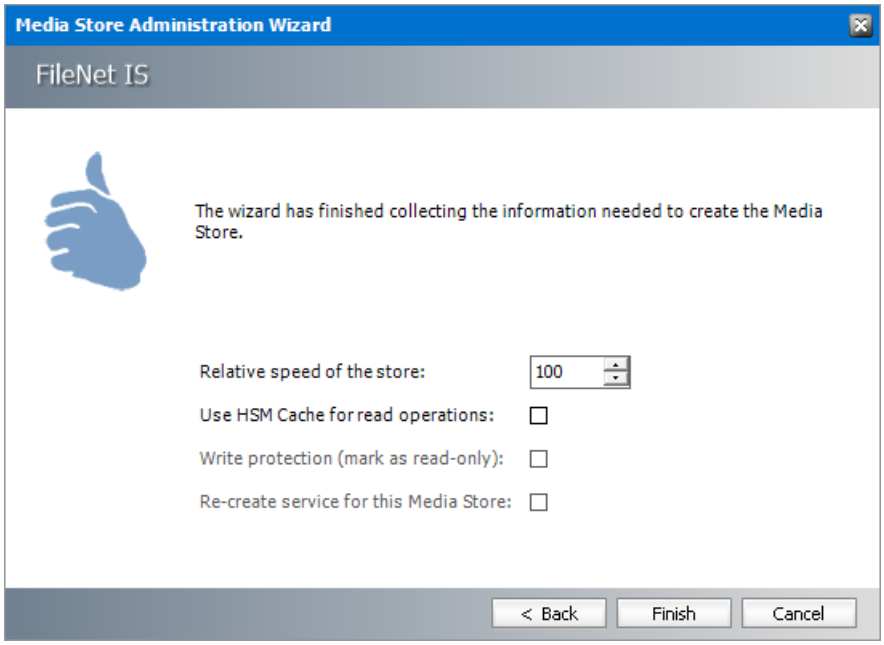
c. **Password** - Password to access the FileNet IS instance.

d. **Library** - Storage library device name.

e. **Document class** - Document class for connecting to the FileNet store.

f. **Filename prefix** - A unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

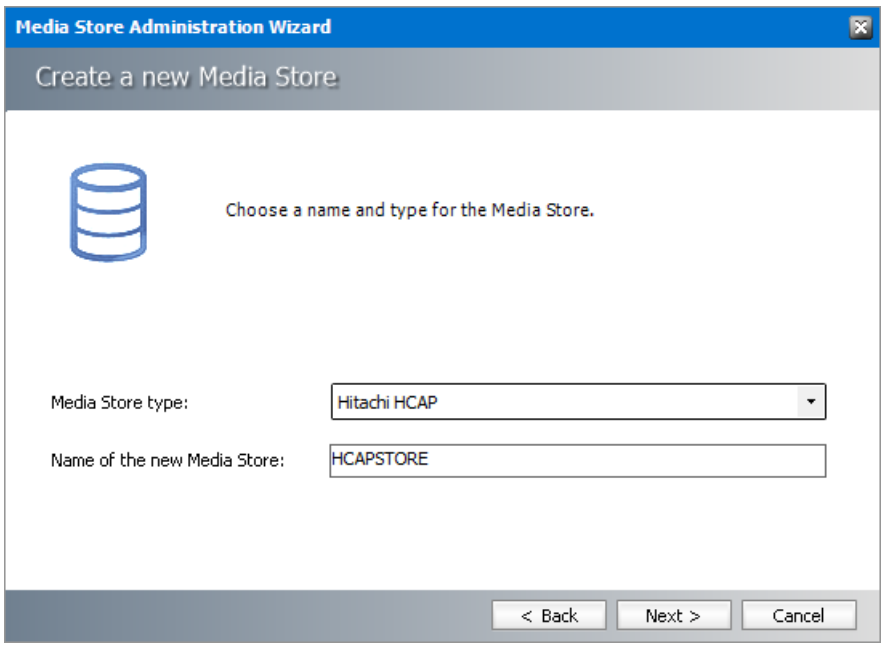
d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

Hitachi HCP and HCAP

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.



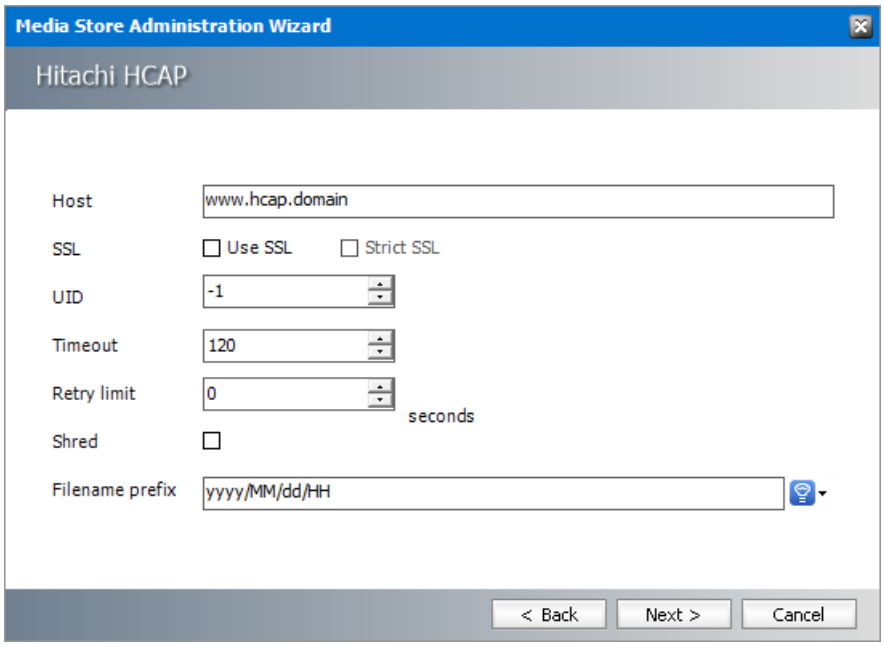
Enter the information as described below:

a. **Media Store Type** - select **Hitachi HCAP** or **Hitachi HCP** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the Hitachi HCAP or Hitachi HCP opens.

For Hitachi HCAP



Enter the information as described below:

a. **Host** - FQDN or IP address of the Hitachi HCAP server.

b. **SSL** - Select this check box to use an SSL certificate.

c. **Strict SSL** - Select this check box to verify the SSL certificate if SSL is checked.

d. **UID** - Enter the user identifier numerical value. For example, File System User ID (-1), Superuser ID (0)

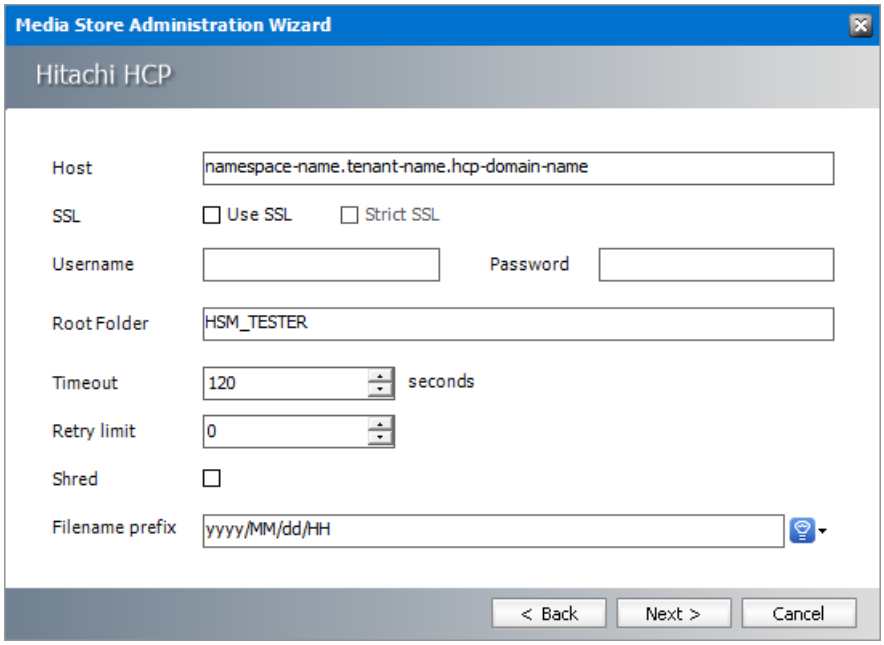
e. **Timeout** - Set the server connection timeout (in seconds).

f. **Retry limit** - Specify how many times the store should try to save a file.

g. **Shred** - Select this check box to allow secure file deletion. The file will be deleted and all existing references in storage will be overwritten.

h. **Filename prefix** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

For Hitachi HCP



Enter the information as described below:

a. **Host** - enter a specific host name in the format `namespace-name.tenant-name.hcp-domain-name` where `tenant` is the highest node of the storage folder structure. There can be one or more tenants defined. Each tenant can be defined in enterprise or compliance retention-mode. In enterprise mode, privileged operations are allowed. In compliance mode, they are not allowed. For example, when tenant name = company name, there can be another tenant defined in compliance mode. Each tenant can have one or more namespaces defined to indicate departments like sales, development, or other categories.

b. **SSL** - Select this check box to use an SSL certificate.

c. **Strict SSL** - Select this check box to verify the SSL certificate if SSL is checked.

d. **Username** - Username to access the Hitachi HCP server.

e. **Password** - Password to access the Hitachi HCP server.

f. **Root Folder** - the top most folder in the folder hierarchy. You can change the default root folder HSM_TESTER.

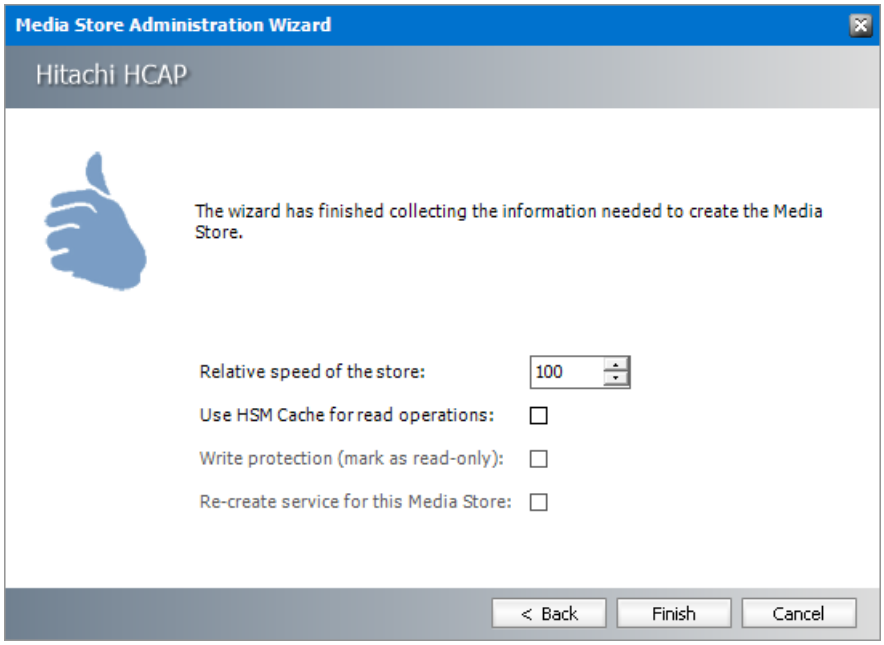
g. **Timeout** - Set the server connection timeout (in seconds).

h. **Retry limit** - Specify how many times the store should try to save a file.

i. **Shred** - Select this check box to allow secure file deletion. The file will be deleted and all existing references in storage will be overwritten.

j. **Filename prefix** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

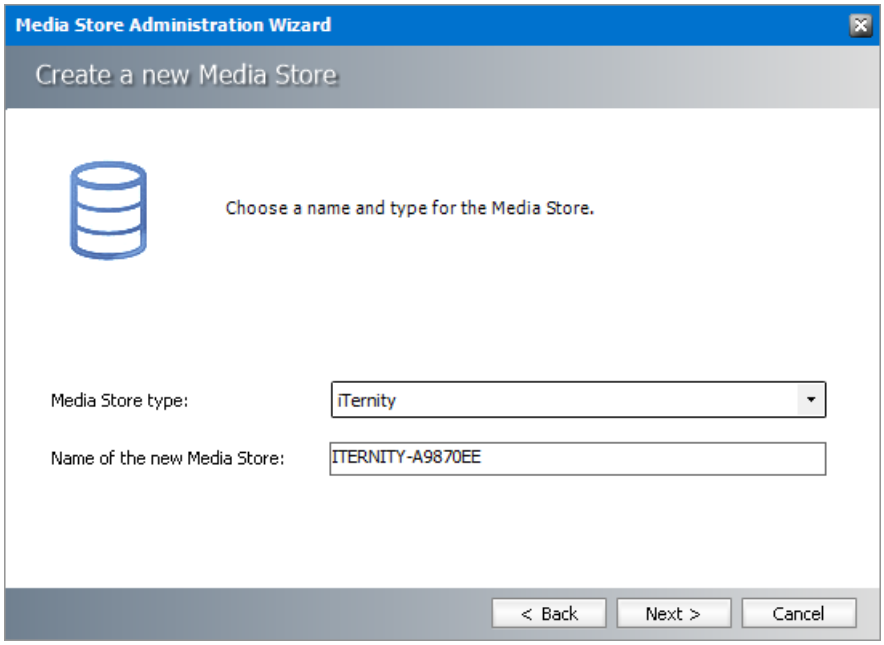
7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

iTernity

NOTE: Requires Web Services Enhancements (WSE) 3.0 for Microsoft .NET (Runtime files only) to be installed on the Archive server.

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.



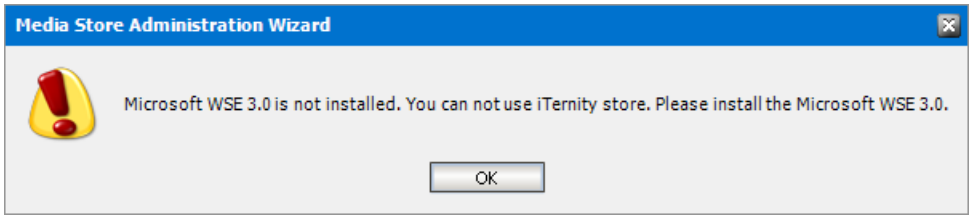
Enter the information as described below:

a. **Media Store Type** - select **iTernity** from the drop down list.

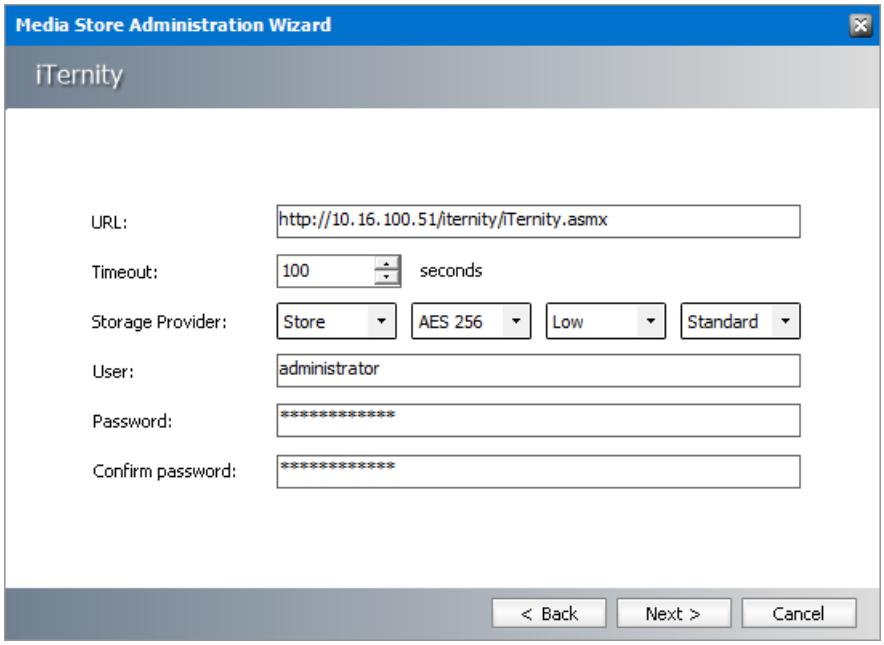
b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**.

   If Microsoft WSE 3.0 runtime files are not present an error message appears.



   Otherwise, the *Media Store Administration Wizard* step for iTernity opens.



Enter the information as described below:

a. **URL** - URL of the iTernity server.

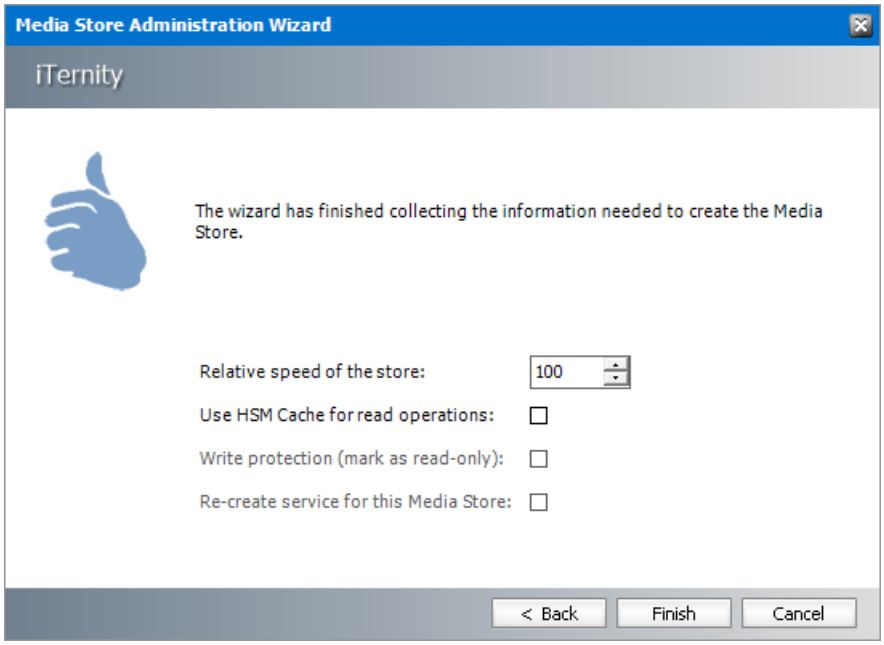
b. **Timeout** - Set the server connection timeout (in seconds).

c. **Storage Provider** - specify the type and encryption (Standard or AES256).

d. **User** - enter the username for access to the iTernity instance

e. **Password** and **Confirm Password** - enter and confirm the password for the iTernity instance

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

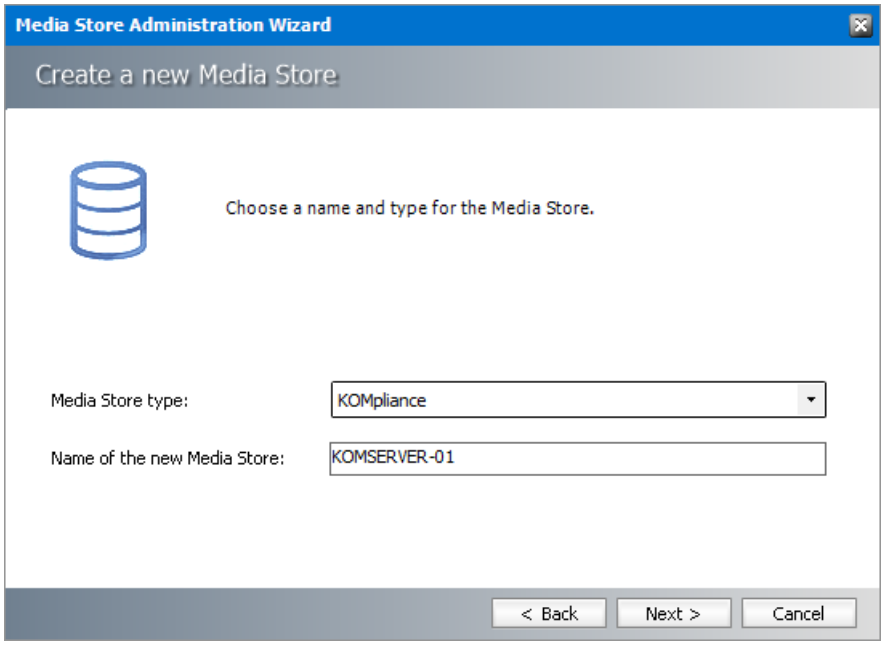
d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

KOM Networks KOMpliance

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

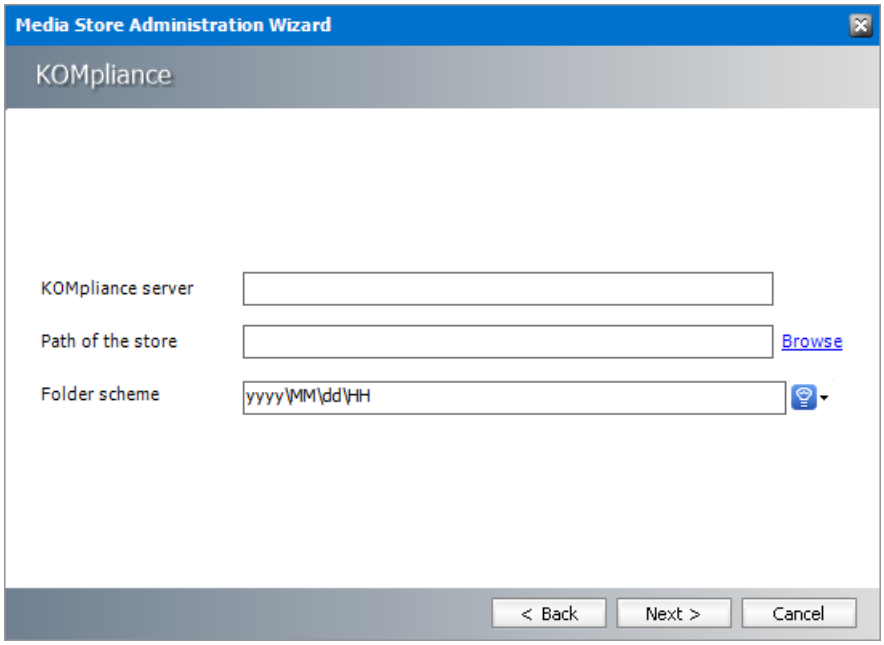


Enter the information as described below:

a. **Media Store Type** - select **KOMpliance** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the KOMpliance opens.



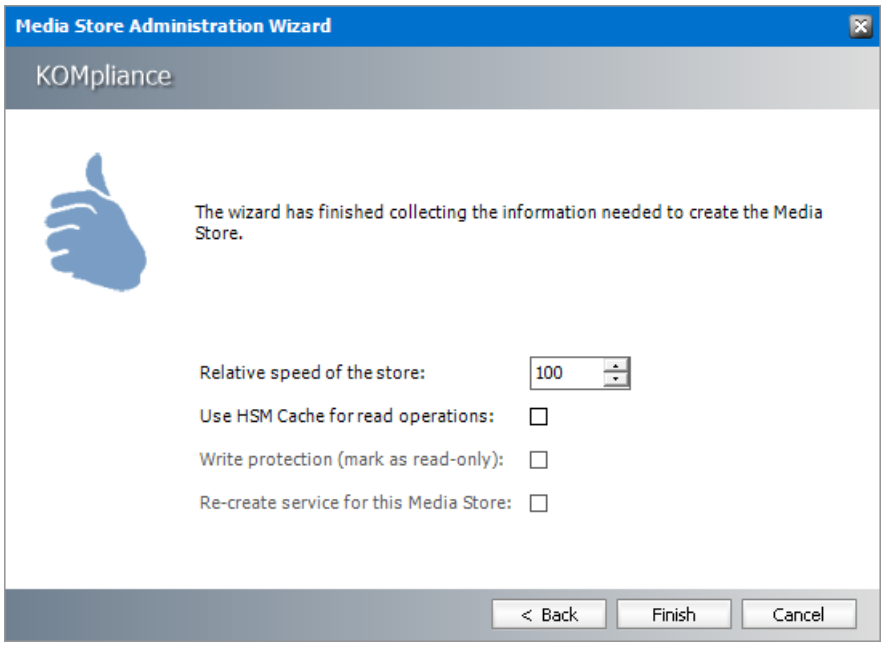
Enter the information as described below:

a. **KOMpliance server** - enter the KOMpliance server name.

b. **Path of the store** - Click **Browse** to locate the store in the KOMpliance server.

c. **Folder scheme** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

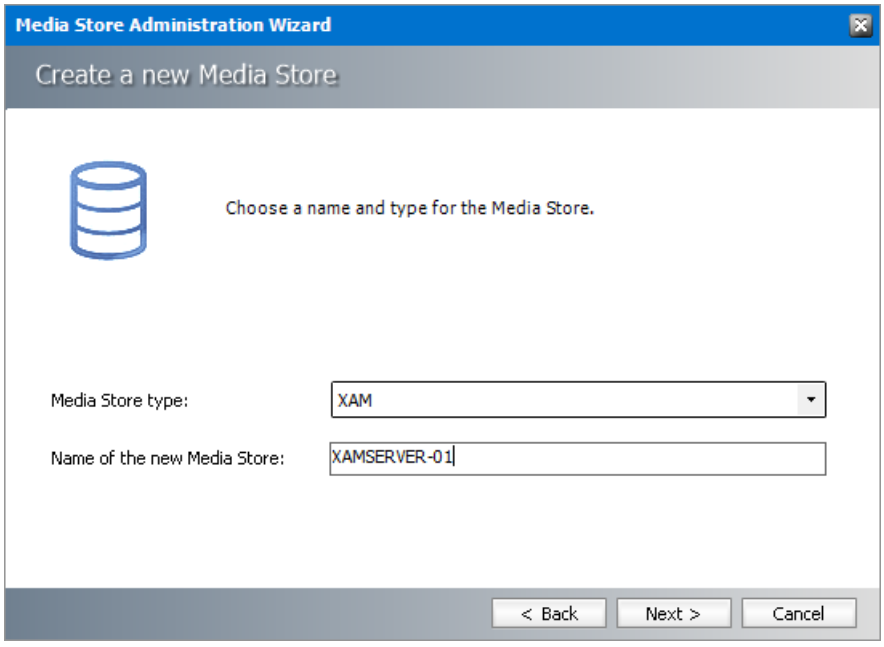
d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

XAM

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

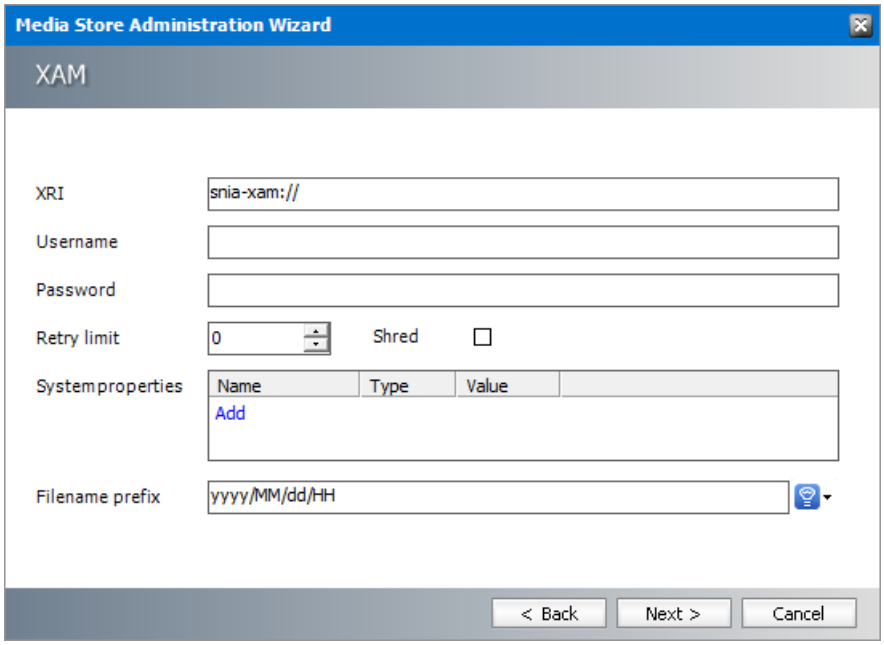


Enter the information as described below:

a. **Media Store Type** - select **XAM** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the XAM opens.



Enter the information as described below:

a. **XRI** - enter the specific path to the XRI store.

b. **Username** - Access key configured in the XAM instance.

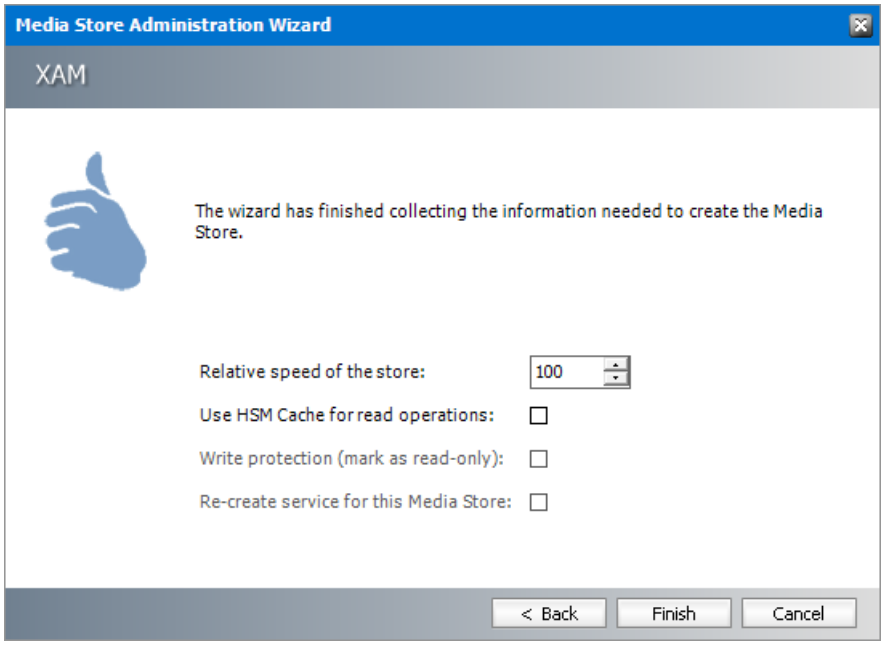
c. **Password** - Password configured in the XAM instance.

d. **Retry limit** - set how many times the store should try to save a file.

e. **System Properties** - click **Add** and enter the system properties for the XAM instance.

f. **Filename prefix** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

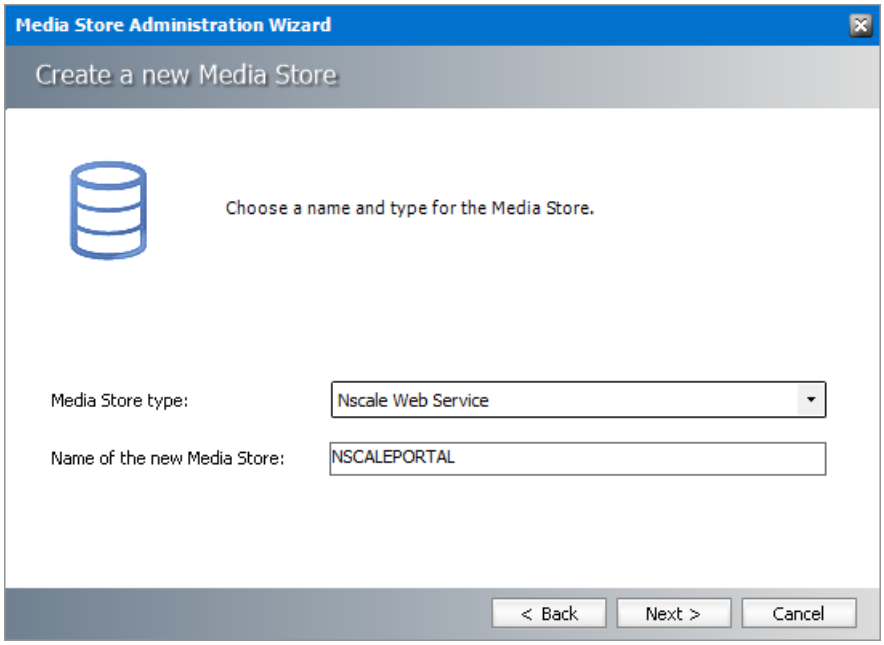
7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

nscale

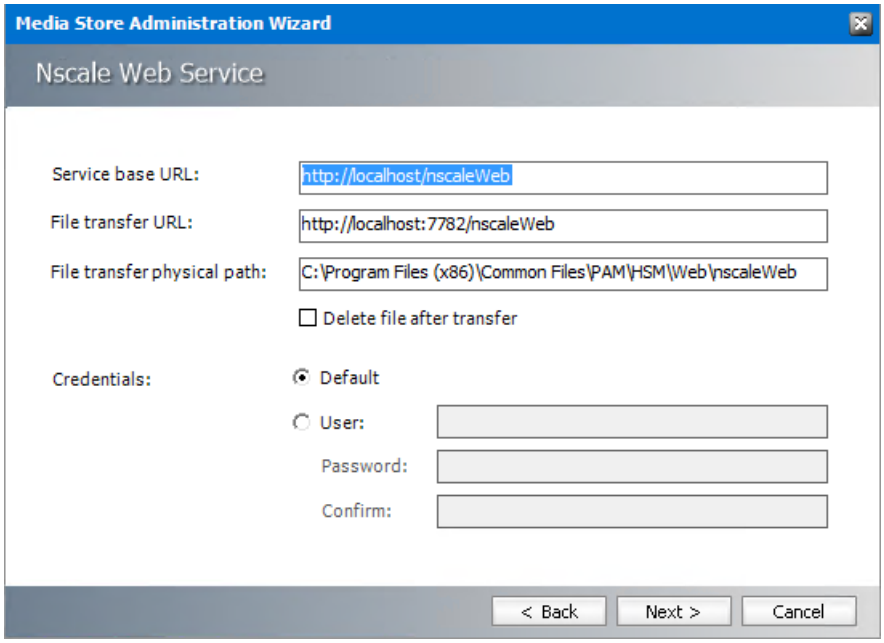
nscale from Ceyoniq Technology is an information platform that offers simple and robust document archiving. You can choose from two different options to integrate with nscale Web services or the nscale windows server.

To create a store:

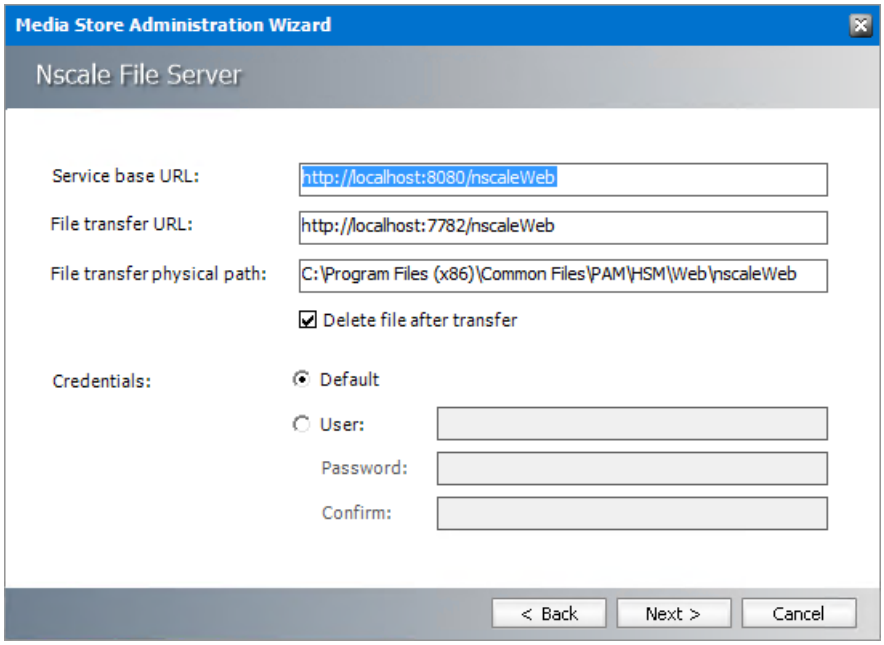
1. Open the Configuration tool from **Start** > **Quest** > **Archive Manager Configuration** or C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.
5. From the Media store drop down select either **Nscale Web Service** or **Nscale File Server**



6. Click **Next**. Depending on your selection of media store type, the property window opens.



or



7. Enter the information as described below:

   a. **Service base URL** - Enter the URL of your NSCALE Server in the format `http://<nscale-webserver>:8080/nscaleweb`

   b. **File transfer URL** - Enter the URL of the HSM server to transfer the document between HSM and nscale server in the format `http://<hsm-server>:7782/nscaleweb`

   c. **File transfer physical path** - Specify the path of the temporary Folder on the HSM Server where the file will keep during the transfer process.

   d. **Delete File after transfer** - If checked, the file will be deleted from the above path once the file is transferred to the nscale server.

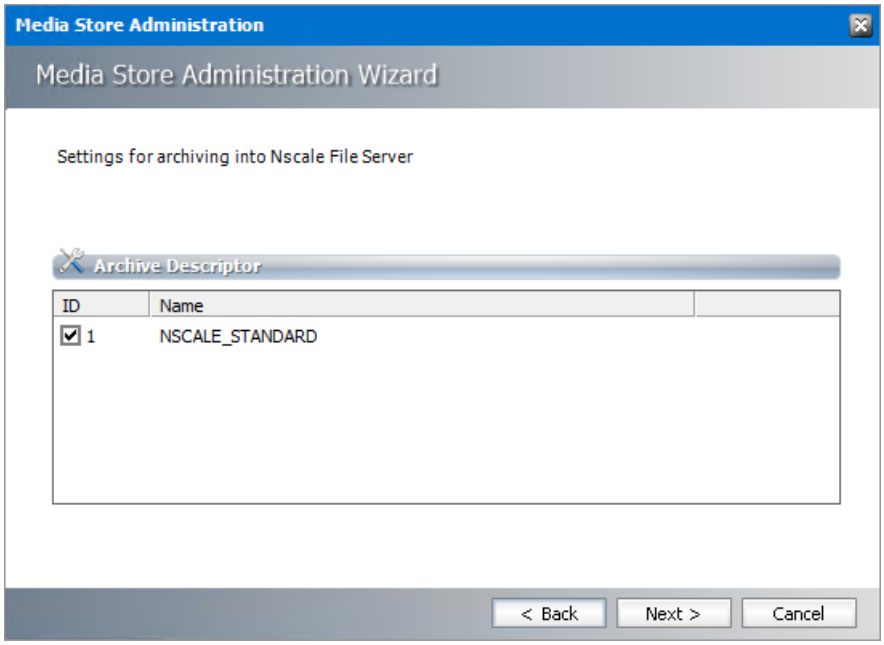
   e. **Credentials**: **Default** - If selected, the web request will be authenticated using the credentials of the currently logged-on user.

   f. **Credentials**: **User** - If selected, the web request will be authenticated using the username entered in the adjacent field.

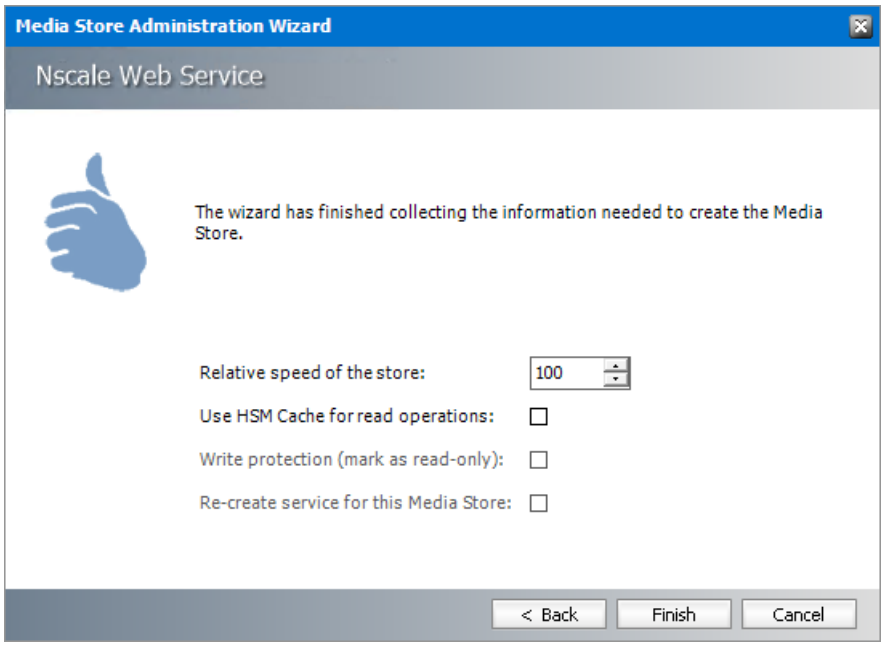
      i. **Password** - password of the user.

      ii. **Confirm** - re-enter the password to confirm.

8. Click **Next**. The Settings window opens (for Nscale File server).



9. Select the default **ID** check box.
10. Click **Next**. The *HSM settings* window for this media store opens.



a. **Relative speed of the store** - relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - If checked HSM will copy files into the cache when reading from this store.

a. **Write protection (mark as read only)** - not supported for this store type.

b. **Re-create service for this Media Store** - not supported for this store type.

11. Click **Finish** to complete the nscale integration.

3

Cloud Media Stores

Media storage systems have been steadily moving away from local storage to remote, server-based storage and processing. This chapter provides integration information with a host of cloud storage solutions. Most of the cloud stores use a flat file system with no directory structure that you see in Windows folders. However, some of them allow a hierarchical file names to imitate a folder structure. For example `2021/11/23/somefilename.txt`

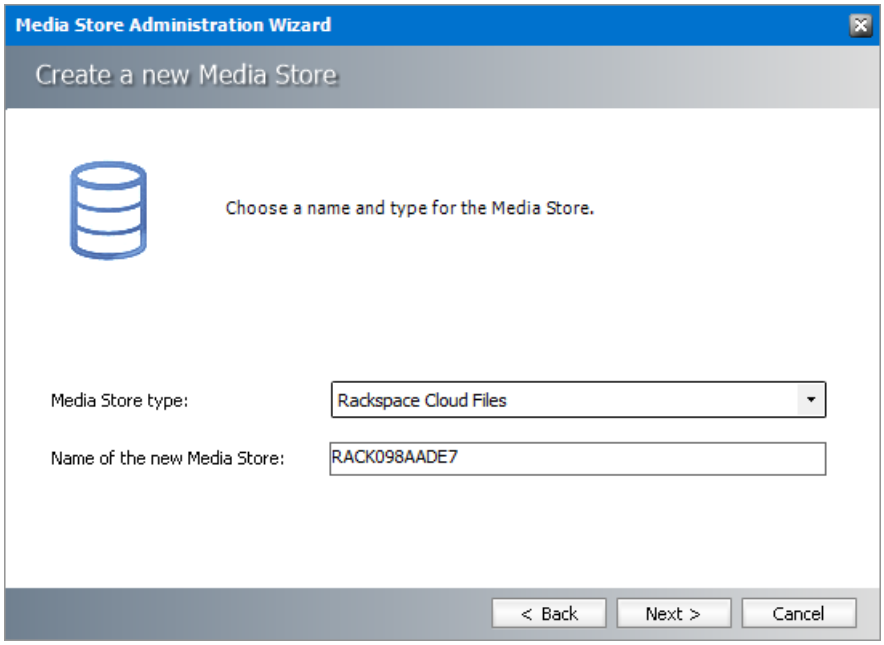
Wherever possible, hierarchical file names are configurable and the naming convention is based on the current date and time that allows granularity to milliseconds. For example you can use the prefix `yyyy\MM\dd\HH\mm\ss\fff` to name the files, or any arbitrary sub-string can be added to the format string.

In this chapter:

Rackspace Cloud Files

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

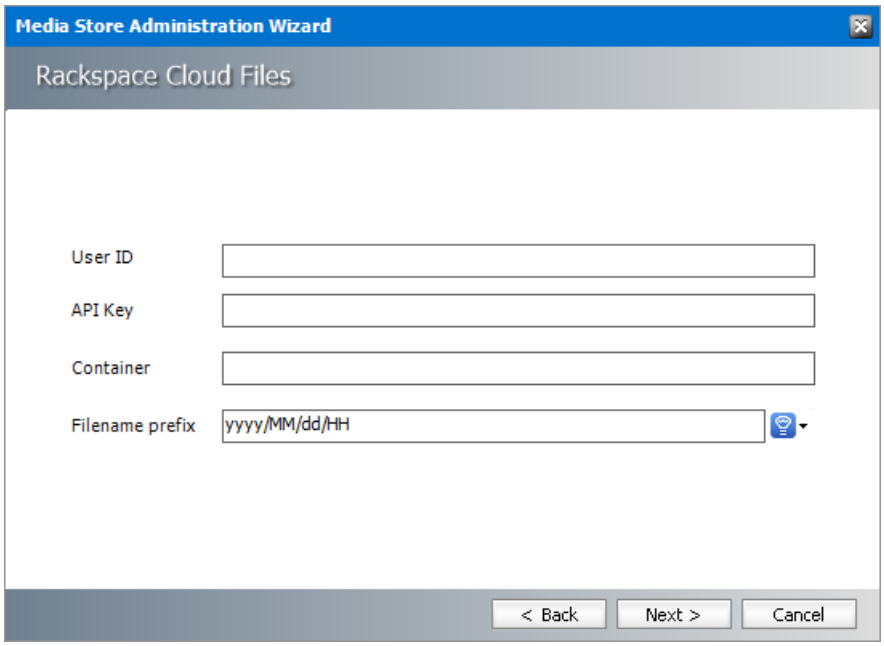


Enter the information as described below:

a. **Media Store Type** - select **Rackspace Cloud Files** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the Rackspace Cloud Files opens.



Enter the information as described below:

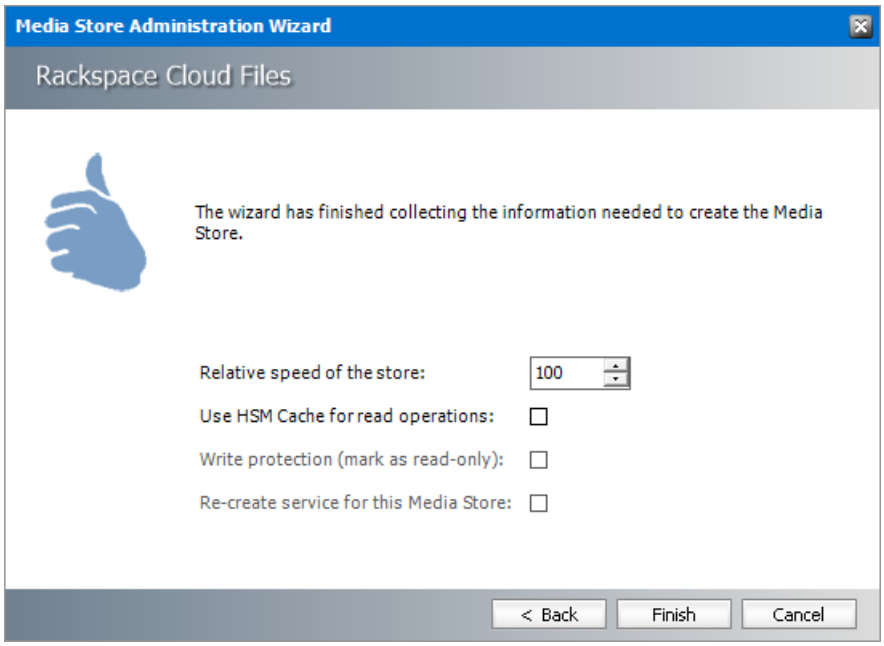
a. **User ID** - username for access to the Rackspace Cloud Files server.

b. **API key** - Access key to the API library configured in the Rackspace Cloud Files instance.

c. **Container** - Logical entity similar to file folders which store objects that consist of data and its descriptive metadata that is configured in Rackspace Cloud Files instance.

d. **Filename prefix** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

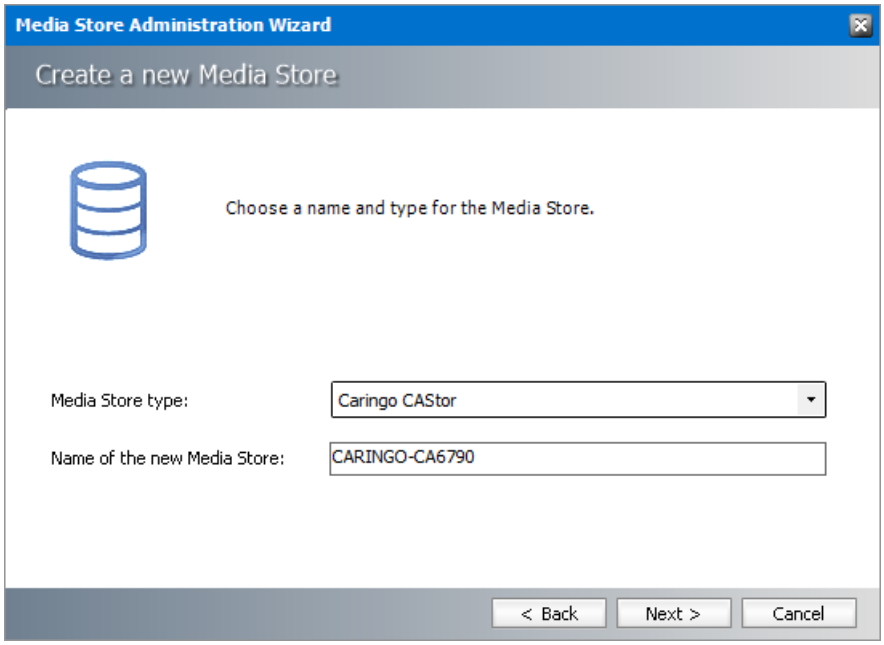
d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

Caringo CAStor

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

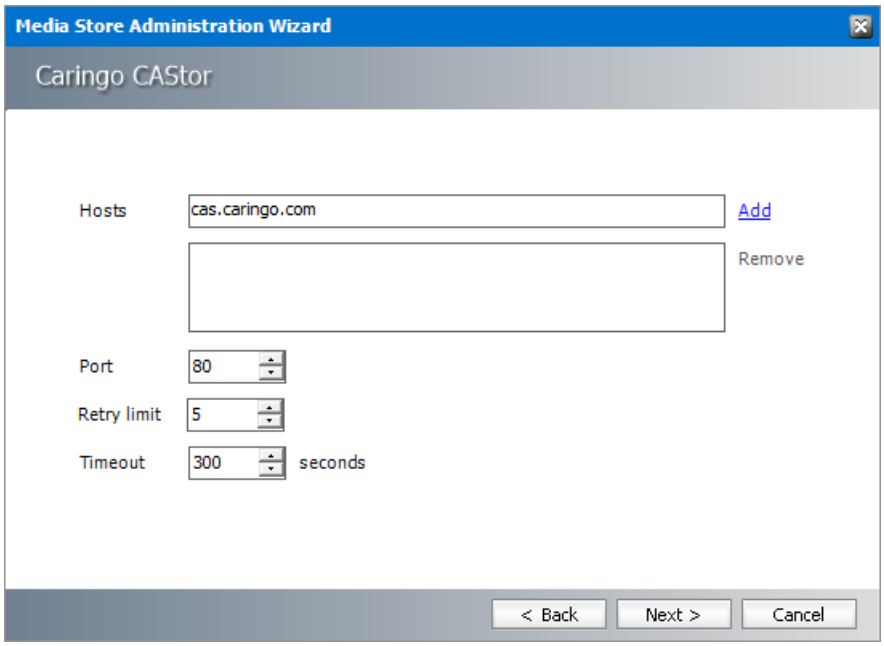


Enter the information as described below:

a. **Media Store Type** - select **Caringo CAStor** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for Caringo CAStor opens.



Enter the information as described below:

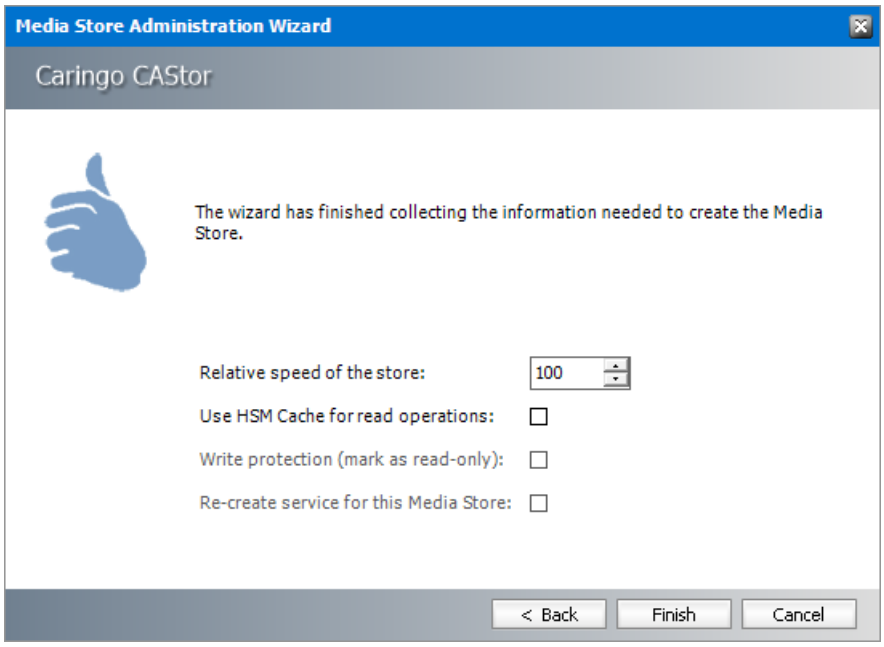
a. **Hosts** -enter your specific host name and click **Add** to add the host name to the hosts list. A host can be also removed from the list by selecting it and clicking **Remove**.

b. **Port** - set the port for communication with the cloud.

c. **Retry limit** - specify how many times the store should try to save a file.

d. **Timeout** - set the server connection timeout (in seconds).

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.

8. Restart HSM services.

9. Verify that the media store appears in the *Stores* section.

10. Create a **Schema** for this media store.

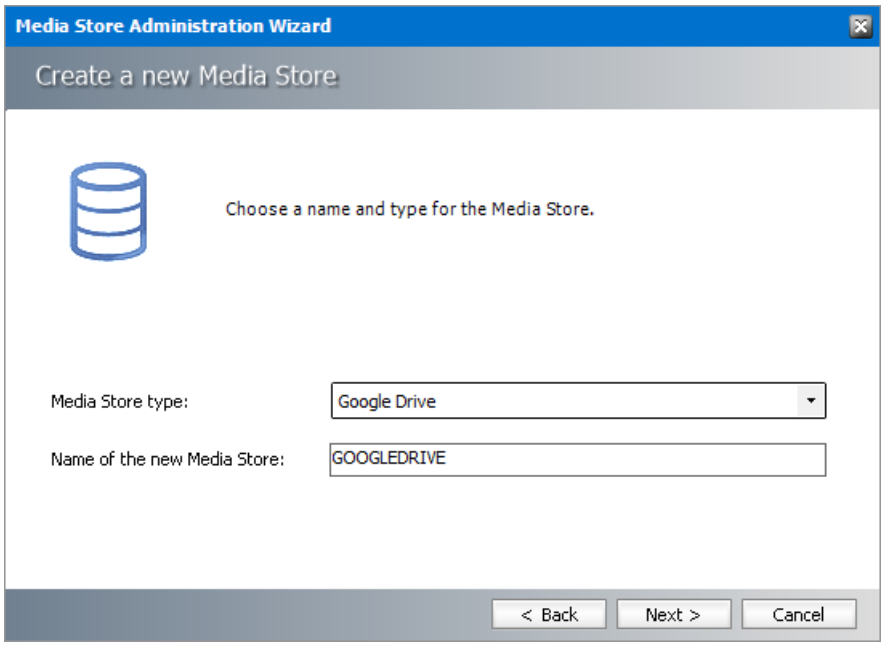
Google Drive

NOTE: To use a Google Drive store, the .NET Framework 4.5 must be installed on the HSM Server. If you install the .NET Framework after installing HSM, you must run the HSM setup once more in the **Repair** mode to be able to access the Google Drive.

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`

2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

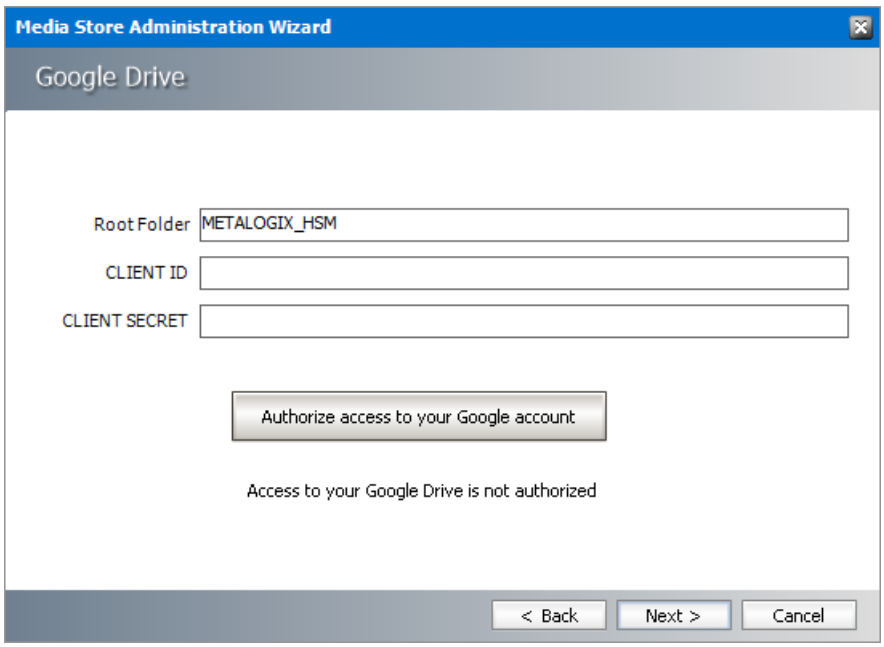


Enter the information as described below:

a. **Media Store Type** - select **Google Drive** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the Google Drive opens.



Enter the information as described below:

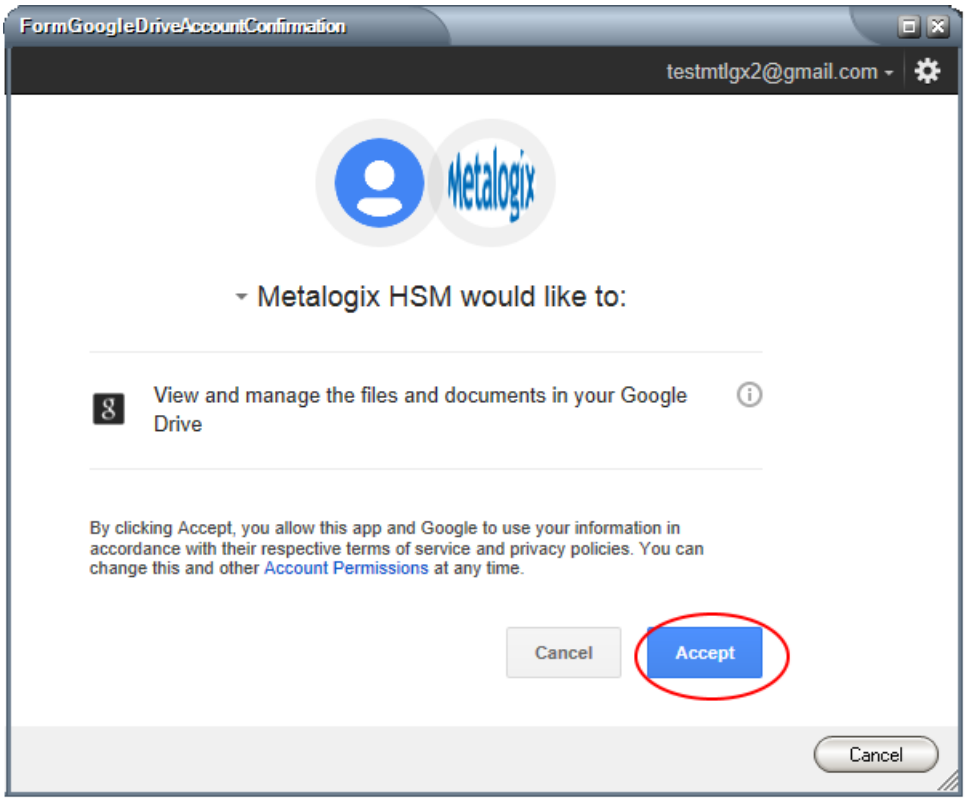
a. **Root Folder** - the default root folder is already entered for you. You can change it if necessary.

b. **Client Id** - Access key configured in Hitachi HCAP instance.

c. **Client Secret** - Secret key configured in Hitachi HCAP instance.

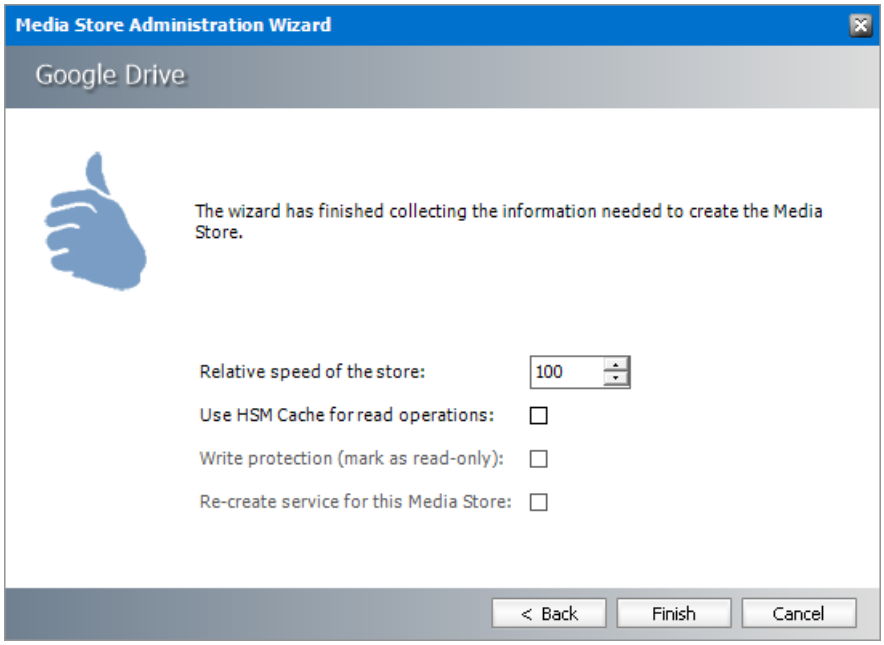
> **NOTE:** To create the Client ID and Client Secret:
>
> 1. Login to the Google Developers console at https://console.developers.google.com/project
> 2. Create a new project.
> 3. Expand **APIs & auth** in the left pane and select **APIs**.
> 4. Activate the following APIs: **Drive API**.
> 5. Select **Credentials** from the left pane.
> 6. Under the *OAuth* section, click **Create new Client ID**.
> 7. Select **Installed application**, then click **Create Client ID**.

6. Click **Authorize access to your Google account**.



7. Click **Accept**. If your credentials were correct, a confirmation message appears.

8. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

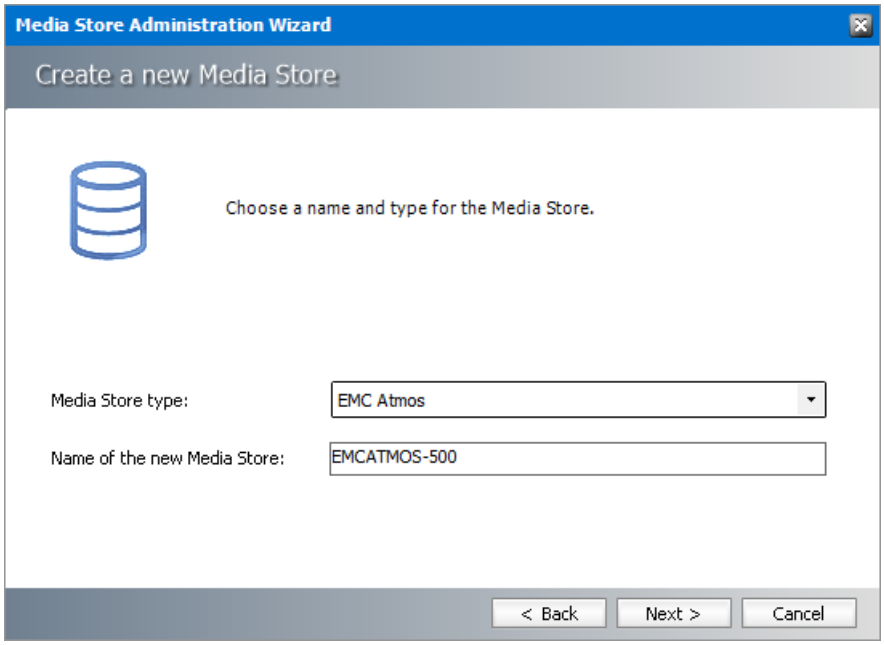
d. **Re-create service for this Media Store** - not supported for this store type.

9. Click **Finish**.
10. Restart HSM services.
11. Verify that the media store appears in the *Stores* section.
12. Create a **Schema** for this media store.

EMC Atmos

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

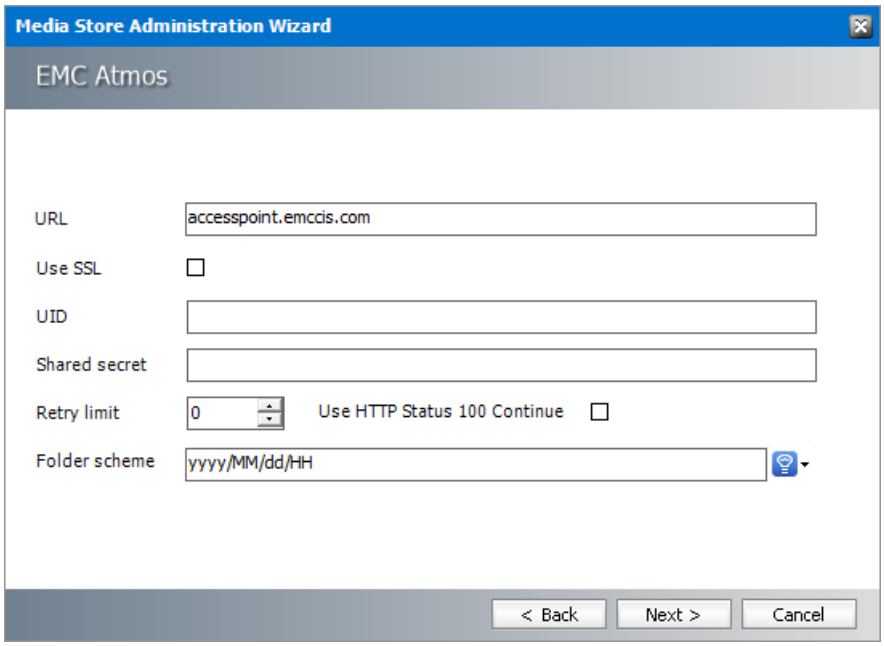


Enter the information as described below:

a. **Media Store Type** - select **EMC Atmos** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the EMC Atmos opens.



Enter the information as described below:

a. **URL** - FQDN or IP address of the EMC Atmos server.

b. **Use SSL** - select this check box to use SSL as the communication protocol.

c. **UID** - username to access the EMC Atmos instance

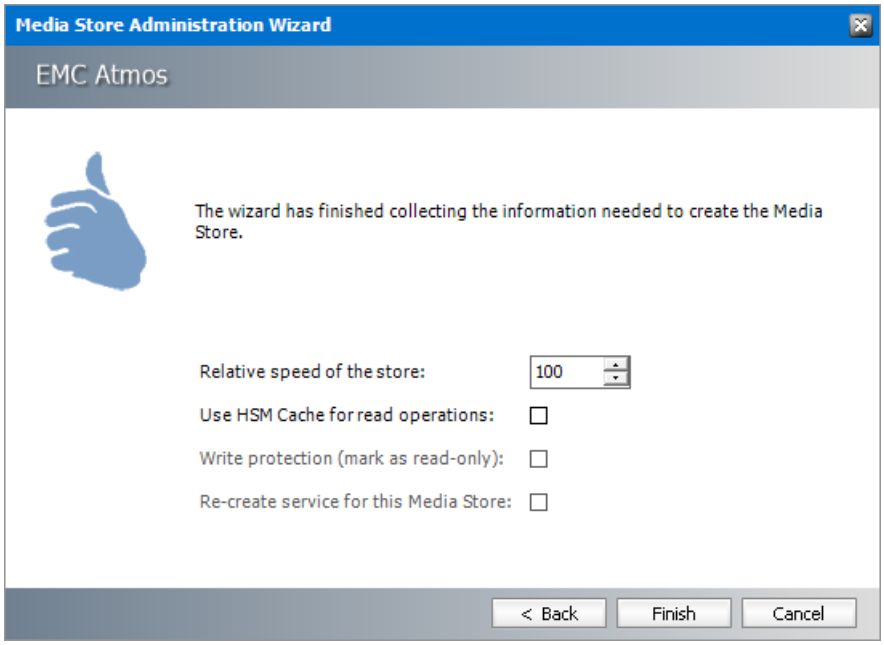
d. **Shared Secret** - Secret key configured in the EMC Atmos instance.

e. **Retry limit** - set how many times the store should attempt to save a file.

f. **Use HTTP Status 100 Continue** - select this check box for request header when creating or updating namespace objects.

g. **Folder scheme** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.

8. Restart HSM services.

9. Verify that the media store appears in the *Stores* section.

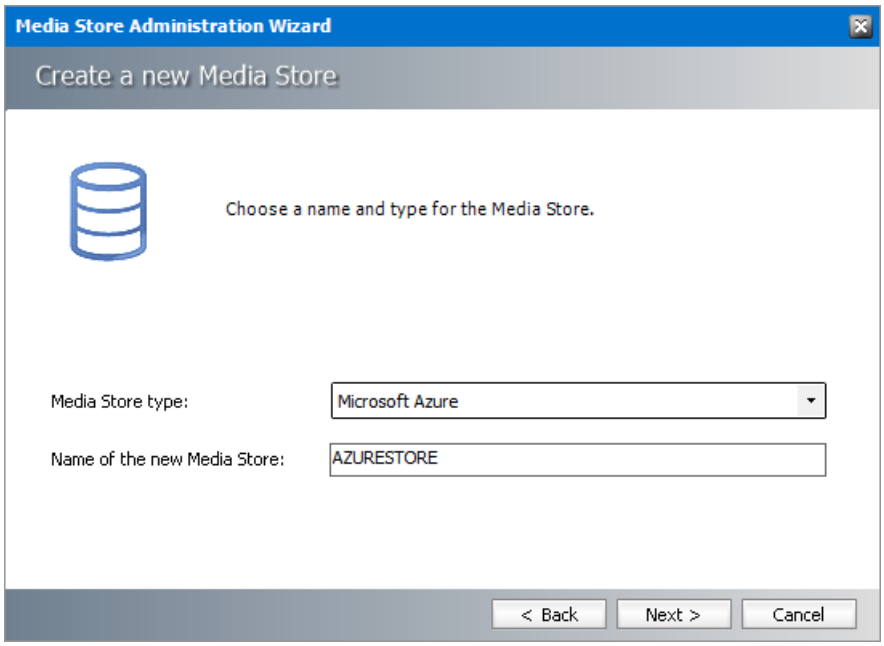
10. Create a **Schema** for this media store.

Microsoft Azure

Azure Blob Storage is the Microsoft object storage solution for the cloud.

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

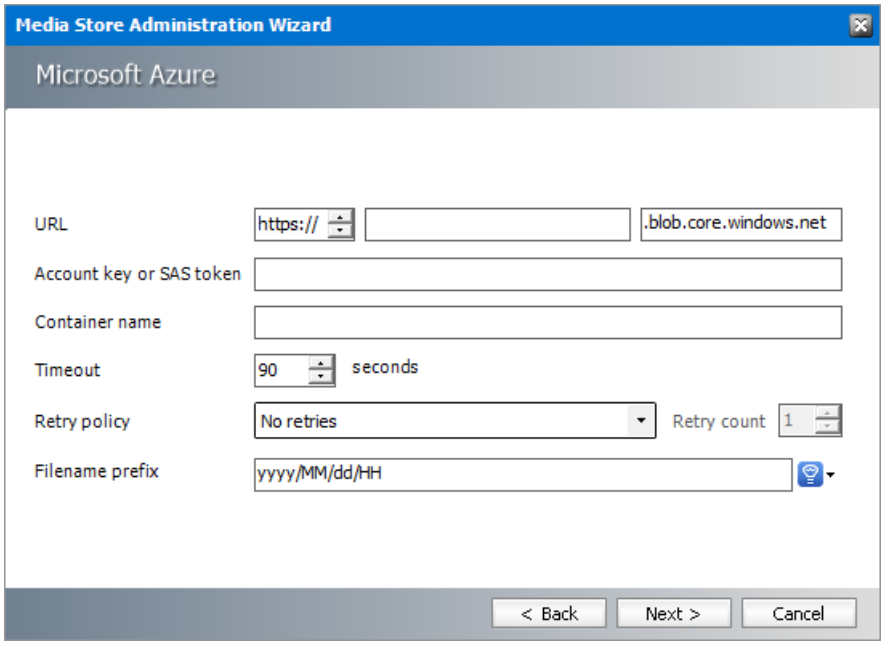


Enter the information as described below:

a. **Media Store Type** - select **Microsoft Azure** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the Microsoft Azure opens.



Enter the information as described below:

a. **URL** - the base address for the objects in your storage account that is the combination of the account name and the Azure Storage blob endpoint forms. You can enter the **account name** in the field and change the protocol between **http** or **https**.

b. **Account key or SAS token** - the account key for your storage account. You can use either of the two keys to access Azure Storage, but in general it's a good practice to use the first key, and reserve the use of the second key for when you are rotating keys. You can also use a shared access signature (SAS) which is a URI that grants restricted access rights to Azure Storage resources. You can provide a shared access URI to clients who should not be trusted with your storage account key but whom you wish to delegate access to certain storage account resources. By distributing a SAS URI to these clients, you grant them access to a resource for a specified period of time.

c. **Container name** - name of the container that you have created to organizes the set of blobs, similar to a directory in a file system.

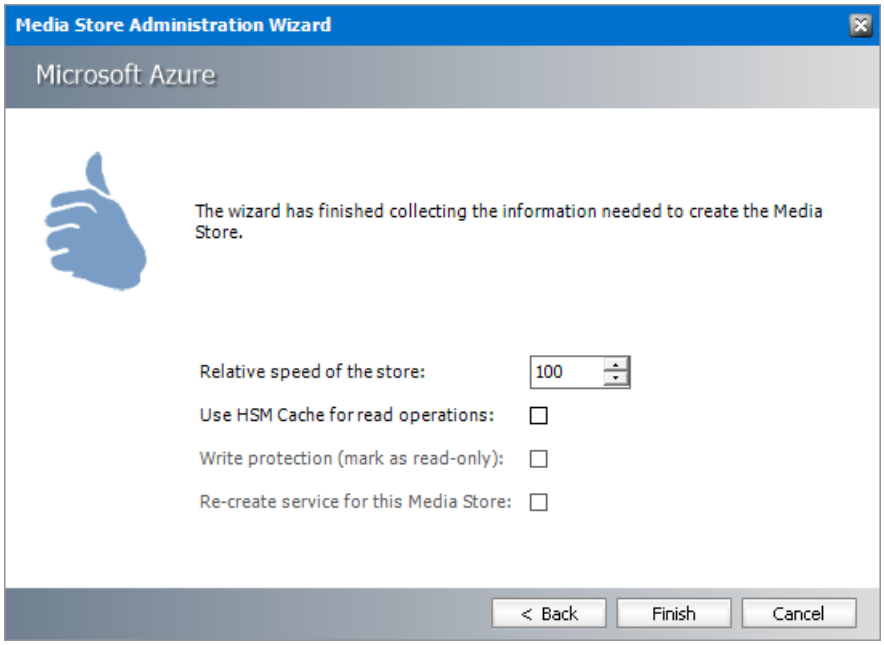
d. **Timeout** - Set the server connection timeout (in seconds).

e. **Retry policy** - choose the behavior from the available options.

f. **Retry count** - set how many times the store should try to save a file.

g. **Filename prefix** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.
8. Restart HSM services.
9. Verify that the media store appears in the *Stores* section.
10. Create a **Schema** for this media store.

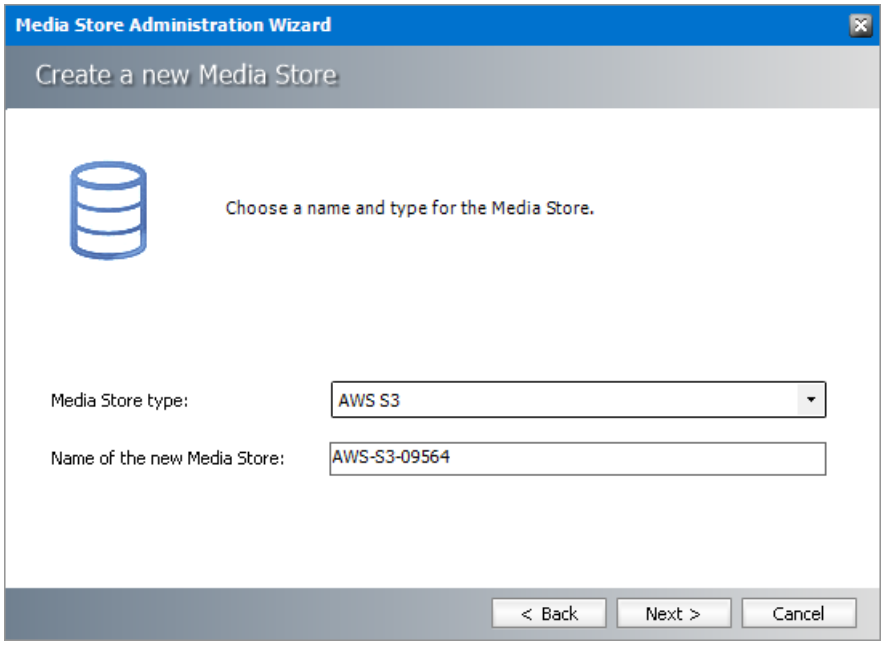
To test you Azure connection data, go to https://www.myazurestorage.com and enter the account name and account key. Under the BLOBs menu you will see your stored files under a container.

AWS S3 or Scality S3

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.

4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.



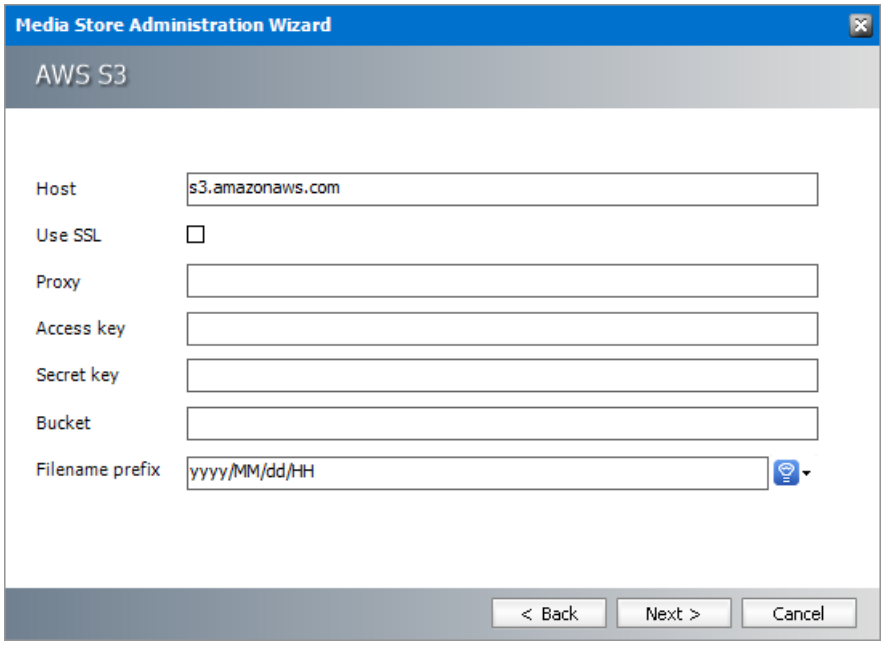
Enter the information as described below:

a. **Media Store Type** - select **AWS S3** or **Scality S3** from the drop down list.

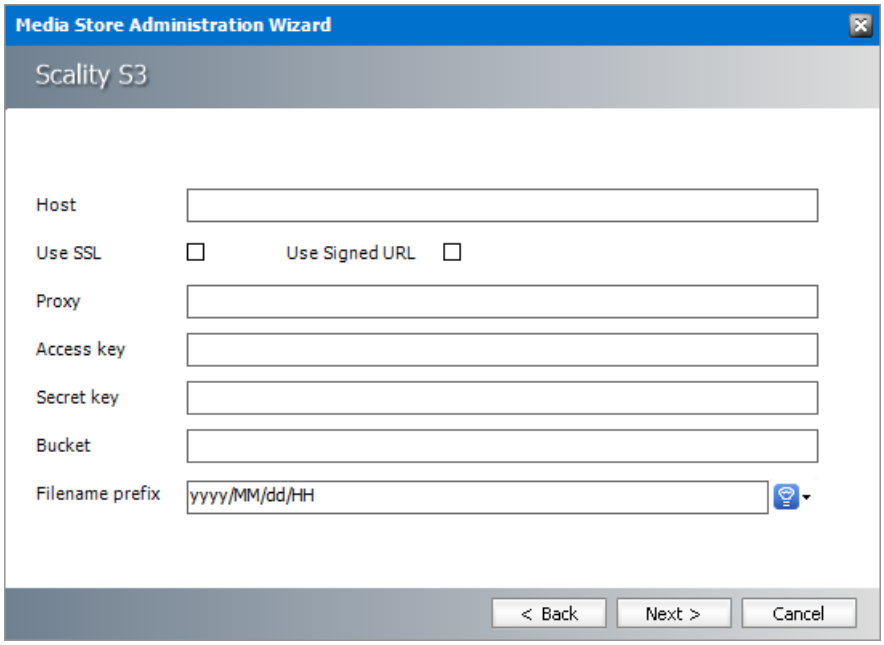
b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the **AWS S3** or **Scality S3** opens.

For AWS S3



For Scality S3



To set up the connection enter your AWS S3 store credentials:

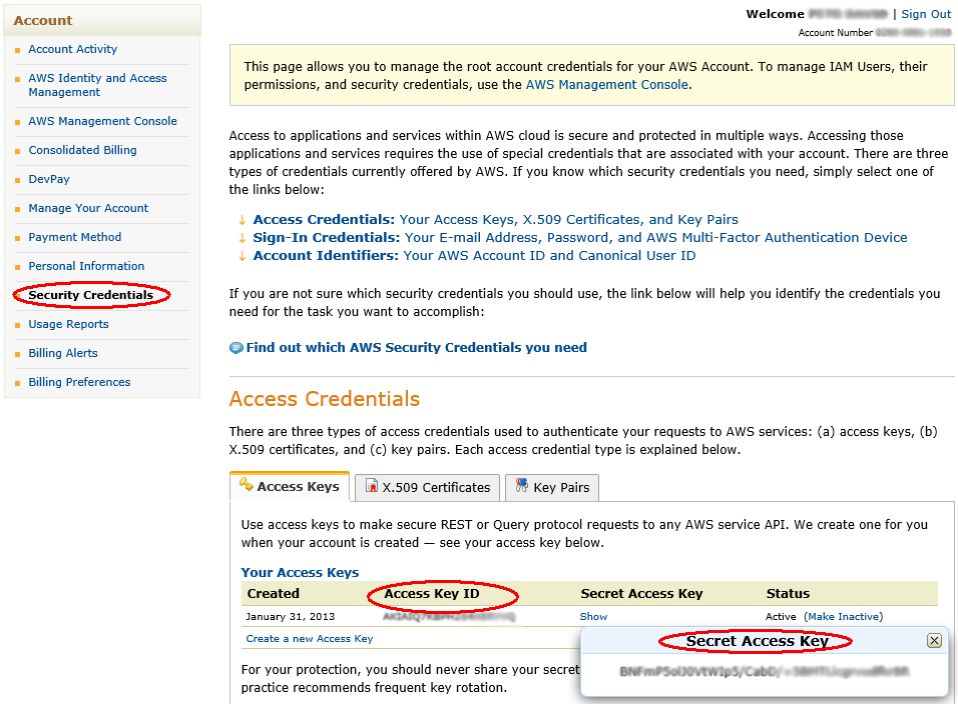
a. **Host** - FQDN of the S3 host server.

b. **Use SSL** - select this check box to use SSL.

c. **Use Signed SSL** - only for Scality S3. Select this box to use a self signed certificate for your local Certificate Authority.

d. **Proxy** - FQDN of the proxy server if there is a proxy server that is used in your organization to access external web servers.

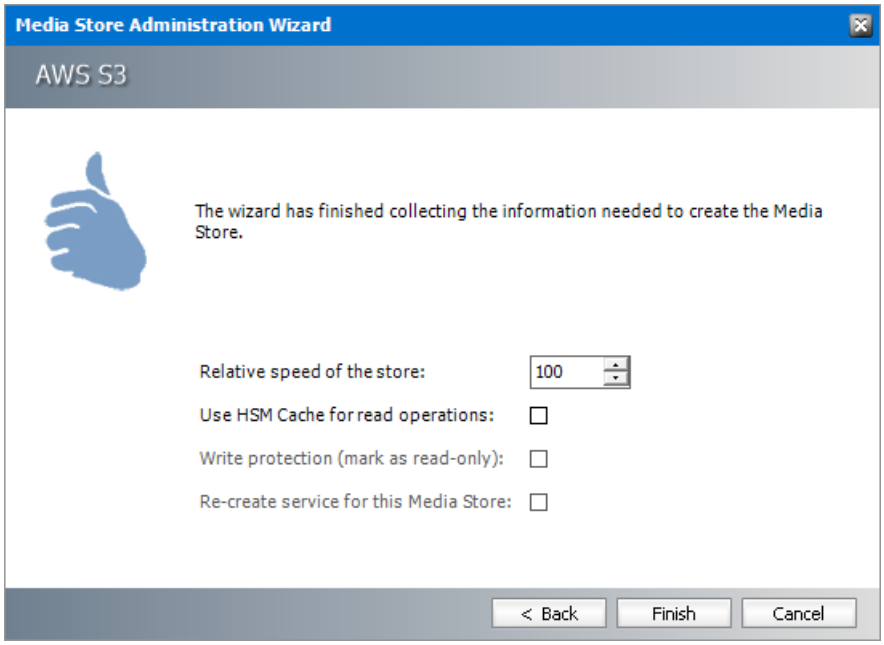
e. **Access Key** and **Secret Key** - unique to a customer. This information can be found on Account Management portal under the Security Credentials as shown below.



f. **Bucket** - needs to be created first and the name should be provided when configuring the media store.

g. **Filename prefix** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.

8. Restart HSM services.

9. Verify that the media store appears in the *Stores* section.

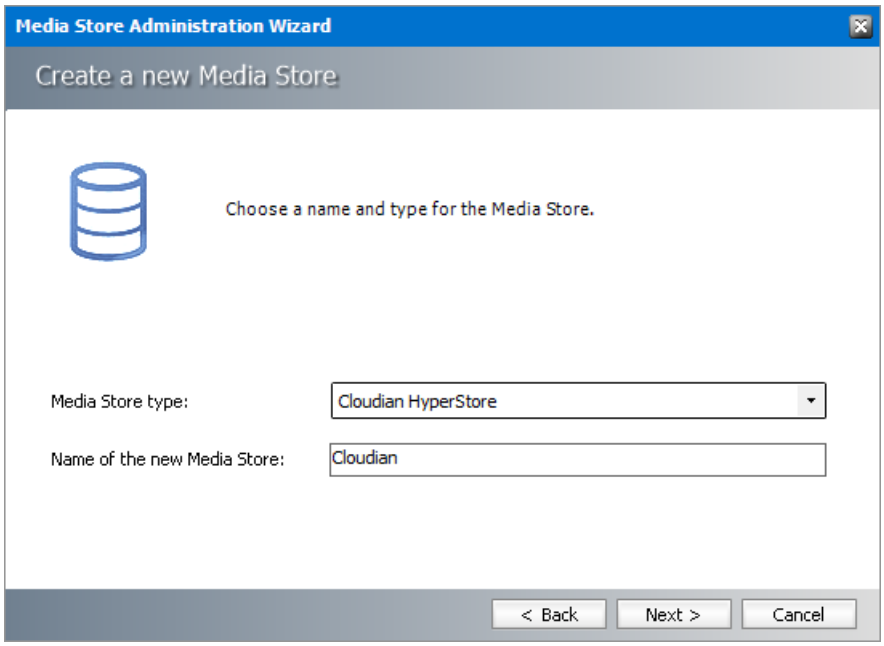
10. Create a **Schema** for this media store.

Cloudian HyperStore

To create a store:

1. Open the *Configuration* tool from **Start** > **Quest** > **Archive Manager Configuration** or `C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe`

2. Select **HSM** from the features panel.
3. Click the **Stores** tab.
4. Click **New Store** from the *Stores* section. The *Create a new Media Store* wizard starts.

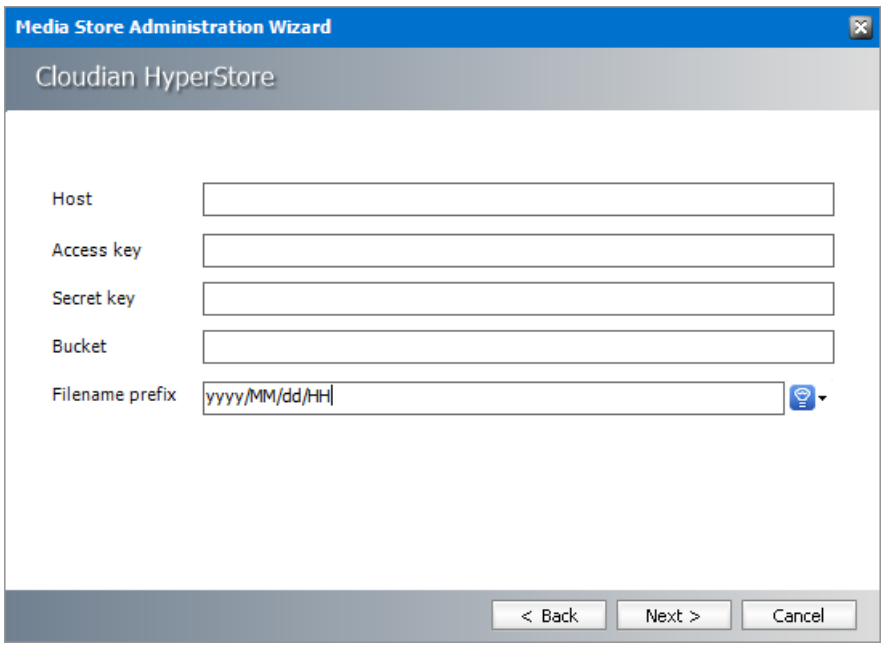


Enter the information as described below:

a. **Media Store Type** - select **Cloudian HyperStore** from the drop down list.

b. **Name of the new Media Store** - enter a unique name for this store.

5. Click **Next**. The *Media Store Administration Wizard* step for the Cloudian HyperStore opens.



Enter the information as described below:

a. **Host** - FQDN or IP address of the Cloudian HyperStore server.

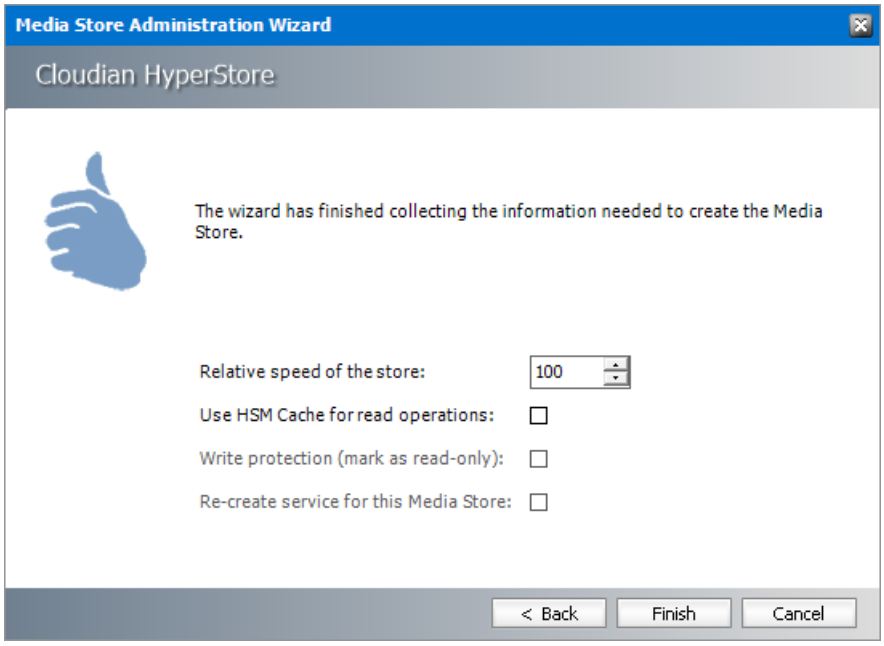
b. **Access key** - Access key configured in Cloudian HyperStore instance.

c. **Secret Key** - Secret key configured in Cloudian HyperStore instance.

d. **Bucket** - Logical entity similar to file folders which store objects that consist of data and its descriptive metadata that is configured in Cloudian HyperStore instance.

e. **Filename prefix** - a unique prefix that you can create for each item stored in the media store. To construct a date type prefix, click and select the date formats. You can specify a custom separator between date formats.

6. Click **Next**.



Enter the information as described below:

a. **Relative speed of the store** - the relative speed of this store compared to other stores.

b. **Use HSM Cache for read operations** - select this check box to allow HSM to use its internal cache to copy files during read operations.

c. **Write protection (mark as read only)** - not supported for this store type.

d. **Re-create service for this Media Store** - not supported for this store type.

7. Click **Finish**.

8. Restart HSM services.

9. Verify that the media store appears in the *Stores* section.

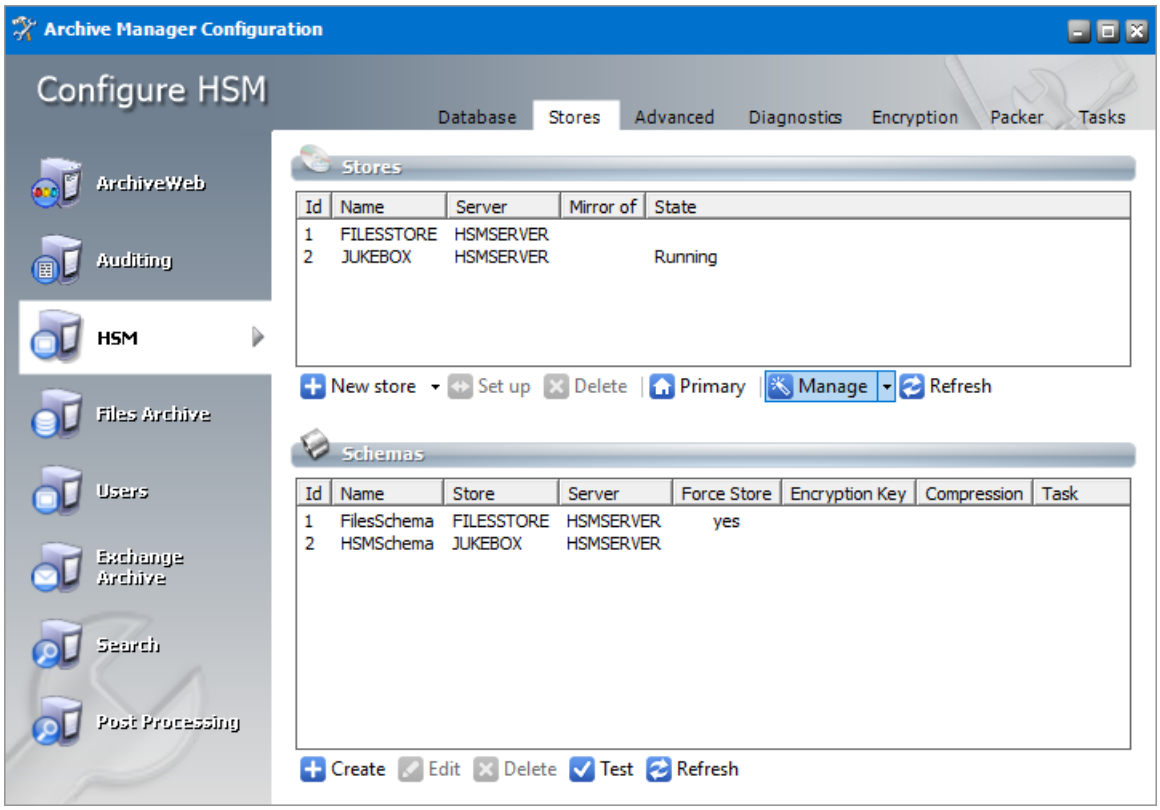
10. Create a **Schema** for this media store.

4

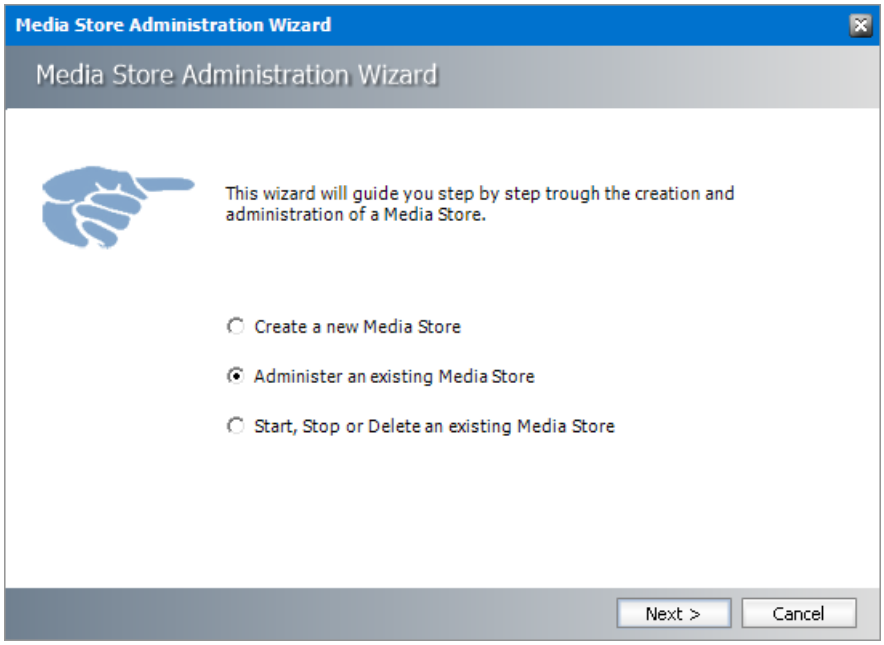
Modifying Media Store Settings

To modify the store settings:

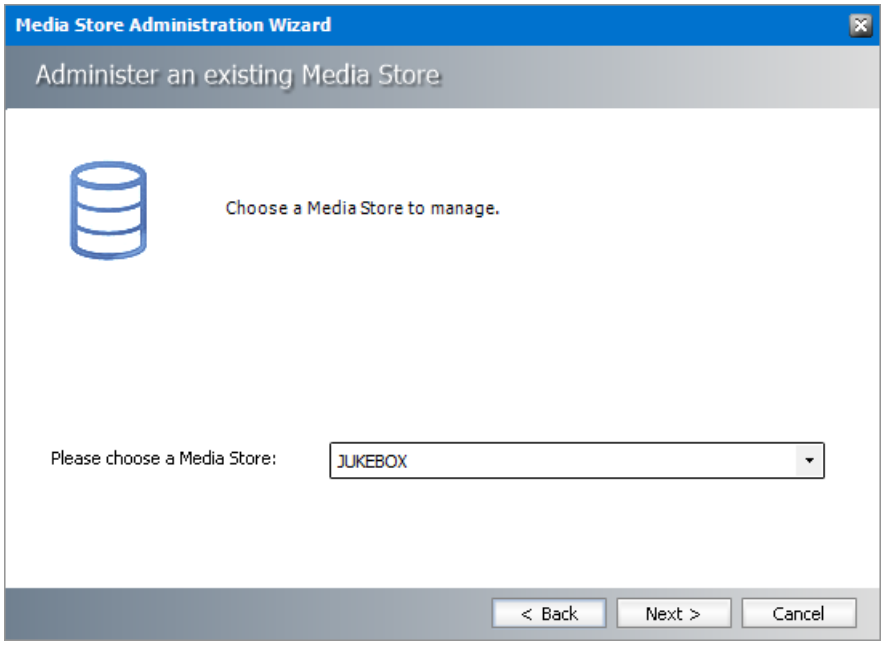
1. Open the Configuration tool from **Start** > **Quest** > **Archive Manager Configuration** or C:\Program Files (x86)\Common Files\PAM\PAMConfig\PAMConfig.exe
2. Select **HSM** from the features panel.
3. Click the **Stores** tab.



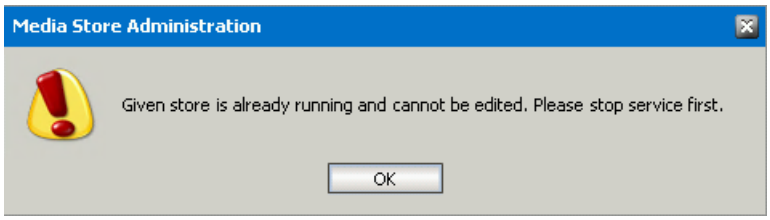
4. Click **Manage**.



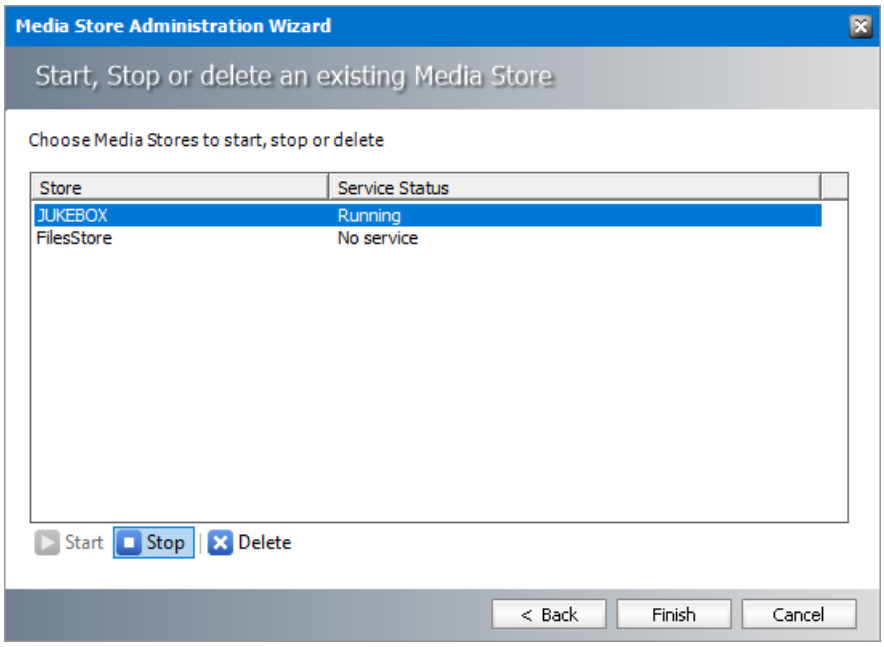
5. Click **Next**. The *Choose a Media Store to manage* window opens. Select the media store from the drop down that you want to manage.



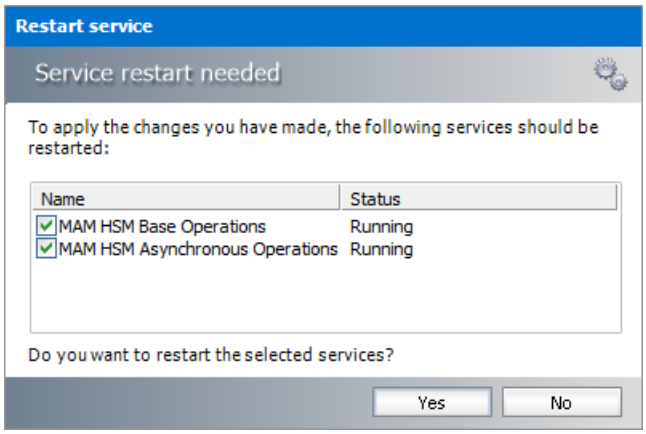
6. Click **Next**. Sometimes a warning message can appear. For example, the service for a media store like *Jukebox, Harddisk, Network Share* must be stopped first. Only then it can be modified. All other kinds of stores run directly in HSM and HSM services must be restarted after the changes have been applied.



7. Click **OK**. Click the **Back** button and select **Start, Stop or Delete an existing Media Store**.
8. Click **Next**. The *Start, Stop or Delete an existing Media Store* window opens.



9. Select the store and click **Stop**. Wait for the service to stop and then click **Finish**.
10. The *Service restart needed* window opens.



11. Click **Yes** to restart the services. Then start over again and modify the settings.
12. If you modify settings for stores that need running services, you must start the service again.

5

About Us

Quest creates software solutions that make the benefits of new technology real in an increasingly complex IT landscape. From database and systems management, to Active Directory and Office 365 management, and cyber security resilience, Quest helps customers solve their next IT challenge now. Around the globe, more than 130,000 companies and 95% of the Fortune 500 count on Quest to deliver proactive management and monitoring for the next enterprise initiative, find the next solution for complex Microsoft challenges and stay ahead of the next threat. Quest Software. Where next meets now. For more information, visit www.quest.com.

Contacting Quest

For sales or other inquiries, visit www.quest.com/contact.

Technical Support Resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.com

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal allows you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product