

Metalogix® StoragePoint 6.1.1

## Hitachi HCP or HCAP Adapter Guide



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#### 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.

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# HCAP Adapter Configuration

This section will provide you details on how to configure a storage endpoint's connection string to utilize the Hitachi Adapter. Please refer to the StoragePoint Reference Guide for information on managing Storage Endpoints.

StoragePoint supports HCAP 5.x, HCP 6.x, HCP 7.x and HCP 8.x versions of the platform.

On the Application Management page, click *Storage and Backup Endpoints*.

Click *Create New Endpoint* or click the name of an existing storage endpoint that you want to edit.

Select HCP or HCAP for legacy adapters. Click the *Show* link next to the Advanced Adapter Settings to see the additional fields.

**Adapter Settings**  Show Connection String

Hitachi Platform

HCP  
 HCAP (legacy)

Host

Use SSL

User

Password

**Advanced Adapter Settings** *(hide)*

Root


Strict SSL

Timeout (in seconds)

Verify Hash

Retry

Retention

Delete Allowed  
 Permanent  
 Indefinite  
 Date Format:  
 

Duration/Interval:

HCP-Specific

Hold  Index  Shred

**Adapter Settings**  Show Connection String

Hitachi Platform

HCP

HCAP (legacy)

Host

Use SSL

**Advanced Adapter Settings (Hide)**

Root

Strict SSL

Timeout (in seconds)

UID

Verify Hash

Retry


Retention

Delete Allowed

Permanent

Indefinite

Date Format:



Duration/Interval:

## HCP/HCAP Adapter Connection String Parameters

| Setting Value/Options   |
|---|
| <p>Name</p> <p>Enter the unique name of the Storage or Backup Endpoint.</p> |

## Setting Value/Options

### Type

Type

Primary  Backup

*Primary*– this endpoint will be available for externalization when creating storage profiles.

*Backup*– this endpoint will be in the Backup Services dropdown on the profile page.

The selection is locked down when saving.

See Backup Services Settings in the Reference Guide for more information on how Backup Endpoints are used.

### Status

Status

Online

*Online*– Storage Endpoint should be available to associate to a Storage Profile and accept BLOBs. (default)

*Offline (Read Only)*– A storage endpoint can be configured, but not made available for externalizing content. The BLOBs already on the endpoint are still read only.

HcapRest

Select the adapter for the endpoint that is being created.

Host

Fully qualified domain name that represents the HCP tenant namespace, or if HCAP (legacy) system is used, fully qualified domain name or IP address that represents legacy HCAP system.

Use SSL

No

(*yes/no*) – Determines whether or not the adapter negotiates an SSL connection for all data (and metadata) transfers. Default = No.

User

Password

User login and password used to access the HCP system. Not applicable for HCAP (legacy) system.

Setting  
Value/Options

This needs to be a local tenant to the HCP system and cannot be a domain account.

**Advanced Adapter Settings** *(hide)*

Root

Folder path to use when storing the SharePoint content under this profile. Facilitates the current best practice of dividing up the HCP/HCAP name-space by application. Please remember that HCP/HCAP paths and folder names are case sensitive.

Strict SSL

 ▼

(*Yes/No*) If *UseSSL* is *Yes*, the *StrictSSL* flag controls whether or not the use of "self-issued" or otherwise suspicious certificates on the HCP/HCAP system will be tolerated. Note that the default certificate out of the box with HCP/HCAP is self-issued and will not work unless this flag is set to No (default).

Timeout (in seconds)

Number of seconds to wait for a response to any request before considering it an excessively long wait and raising an error condition. Default = 120.

UID

Identifies the "owner" of all content uploaded with this adapter. See HCAP documentation for details on UID, GID and permissions semantics. By default permission checking is disabled on HCAP (legacy) systems. Not applicable to HCP.

Verify Hash

 ▼

(*Yes/No*) If set to *Yes*, adds content integrity checking by comparing a locally computed hash for the file bits against the hash returned from HCP/HCAP during upload operations. Default = No.



Retry

Specifies the number of attempts to retry the network connection to HCP/HCAP before returning a failure result in case of network disruption or connectivity issues. Default = 3.



## Setting Value/Options


### Retention

- Delete Allowed
- Permanent
- Indefinite
- Date Format:  
 
- Duration/Interval:   


If supplied, the HCP/HCAP adapter will calculate and supply a retention policy when saving content.

Possible settings:

- Delete Allowed - No special permissions are required to delete content on this endpoint.
- Permanent - This maps to -1 or "Infinite retention, cannot be deleted" in HCP/HCAP.
- Indefinite - This maps to -2 or "Initial Unspecified" in HCP/HCAP. Content cannot be deleted, but retention can be changed at a later time.
- Date Format - This sets a date for the retention policy. Click the calendar icon to select a date, or type it like this example (mm/dd/yyyy): 08/31/2009
- Duration/Interval - Type a number in the first box, and select an interval from the dropdown. The interval may be days (D), months (M) or years (Y). Example: 5D would equal 5 Days


 **NOTE:** You can NEVER shorten the retention period once it has been established, unless it was initially set to Indefinite.

### HCP-Specific

- Hold   Index  Shred

If Hold is set to true (checked) you can place an object on hold. An object that is on hold cannot be deleted, even by a privileged delete operation. Holding objects is particularly useful when the objects are needed for legal discovery.

### HCP-Specific

- Hold  Index   Shred

If Index is set to true (checked), the metadata query engine indexes custom metadata. Having index set to true will speed-up metadata search experience.

## Setting Value/Options

### HCP-Specific

Hold     Index     Shred

If Shred is set to true (checked) all objects will be shredded when deleted.

Shredding, also called secure deletion, is the process of deleting an object and overwriting the places where its copies were stored in such a way that none of its data or metadata, including custom metadata, can be reconstructed.



If the endpoint is on a WORM (Write Once, Read Many) device, Unused BLOB Cleanup will ignore this endpoint.

### Folder Content in BLOB Store

Yes ▾

### Folder Scheme

YYYY/MM/DD/HH/MM ▾

*No*– Externalized content BLOBs are not placed in folders (default).

*Yes*– Externalized content BLOBs are placed in folders.

If *Folder Content in BLOB Store* is *Yes* then you can select a date/time folder scheme from the dropdown.

YYYY/MM/DD/HH/MM is the default.

Test Storage Settings

The Test Storage Settings button can be used at this point, or after completing the endpoint configuration, to verify that the endpoint is accessible.

### Compress Content in BLOB Store

No ▾

*Content is compressed using the GZip/Deflate method.*

*No*– Externalized content BLOBs are not compressed (default).

*Yes*– Externalized content BLOBs are compressed.

## Setting Value/Options

Encryption Method for Content in BLOB Store

None

*None*– Encryption will not be applied to externalized BLOBs (default).

*AES (128 bit)*– 128 bit AES encryption will be applied to externalized BLOBs.

*AES (256 bit)*– 256 bit AES encryption will be applied to externalized BLOBs.

Encryption Key Passphrase

Generate Key

*Enter a passphrase to be used to generate a key or leave blank to generate a random key. The pass phrase entered is **not** saved with the Endpoint.*

Enter a passphrase to use when generating the encryption key. Using a passphrase will help you re-create the encryption key if necessary. You can generate a random key by leaving the box blank and clicking the *Generate Key* button. The encryption key passphrase will be hidden.

Generate warning notification if:

- 10 or more successive errors are encountered
- there is less than 10  MB  % of free space

A warning email can be sent if it encounters errors.

Automatically take endpoint offline if:

- 25 or more successive errors are encountered
- there is less than 1  MB  % of free space

An online storage endpoint can be automatically taken offline if it encounters errors. If a storage endpoint is taken offline automatically, BLOBs that were intended to be written to that endpoint will go to the content database.

Send Offline Notifications to:

- Use Notification Defaults

Additional Contacts

admin@company.com

*Provide a semi-colon delimited list of e-mail addresses.*

Default email addresses for system error and offline notification can be entered. Check the box to include the list of Default Notification Contacts specified on the General Settings page.

# Example Storage Endpoint using HCP or HCAP Adapter

The screenshot shows the 'Storage Settings' section with the instruction 'Provide general storage settings in this section'. On the right, the 'Adapter' dropdown is set to 'HcapRest'. Below it, the 'Adapter Settings' section has a 'Show Connection String' checkbox that is currently unchecked. The 'Host' field contains the IP address '191.168.1.51'. At the bottom of the adapter settings, there is a link for 'Advanced Adapter Settings (Show)'.

Click the *Show Connection String* checkbox to edit the connection string. Otherwise, fill in the connection fields shown for the adapter selected. Notice that the connection string parameters are name/value pairs separated by semi-colons.

This screenshot shows the 'Storage Settings' interface with the 'Show Connection String' checkbox checked. The 'Connection' text area contains the following string: `HOST=191.168.1.51;ROOT=;USESSL=False;STRICTSSL=False;TIMEOUT=120;UID=;VERIFYHASH=False;RETRY=3;RETENTION=;`. Below the text area, a note reads: 'Provide adapter-specific connection attributes. Please refer to the adapter documentation for connection string details.'

**i** | **NOTE:** Adapter parameters are not case-sensitive.

**i** | **NOTE:** You should always use a passphrase when generating encryption keys. The passphrase gives you a means of re-creating keys should they become unrecoverable or corrupt. It is very important to remember or record the passphrase outside of Metalogix StoragePoint. Otherwise, encrypted content could become irretrievable in the event of a database failure.

**i** | **NOTE:** Clicking the Test Storage Settings button on a storage profile using the HCP Adapter could result in an error. The profile test performs several operations, including a delete operation. If you are setting a retention parameter on the connection string then you will receive an error letting you know that the delete failed. This should not be considered a failure of the test.

If you choose to externalize content you should test the storage profile settings by clicking the *Test Storage Settings* button. A message under the button will indicate whether or not the test was successful. If the test fails the message will include the error that was the root cause of the failure.



**NOTE:** When testing access to an endpoint from within Central Administration, the Identity of the Application Pool hosting the Central Administration Site is the one that is being used for the test. If there are different Identities used for other Web Applications in the Farm then those identities will also need access but cannot be tested from within Central Admin itself. See BLOB Store Security and Metalogix StoragePoint Required Privileges in the Metalogix StoragePoint Reference Guide.

## VerifyWrites

This option posts back to StoragePoint to validate that the BLOB was written to the endpoint. It is not part of the connection string by default, but can be added by editing the connection string only; there is no user interface for this option. If verbose logging is enabled, the logs may contain information such as 'Written file verified as present: <filename>.'

VERIFYWRITES=true;

## Retention Promotion from IMP

If retention settings have been configured in the SharePoint site or library, those retention settings will stay with the BLOB when it goes to the endpoint. To enable this, there is a box on the endpoint screen, when adding the endpoint to the profile. If the profile already exists, with the endpoint added, the feature can still be enabled, but will only be applied to BLOBs created after the feature is enabled.

1. Open or create the profile.
2. Add the endpoint to the profile.
3. On the endpoint screen, at the bottom, will be an option to Enable Retention Promotion from IMP. Check this box.

|  |  |
|--|--|
| <b>Retention Promotion from IMP</b><br>This Endpoint is capable promoting retention value from IMP. If you select this option retention will be set according to IMP. This value is applied only when BLOB is created. | <input type="checkbox"/> Enable Retention Promotion from IMP |
|--|--|

## Event Based Retention

EBR is a feature that can be configured for certain storage endpoints. In addition to the default retention that can be configured on the endpoint, certain actions like updating a field can update the content to specify a different retention period. The steps for configuring the adapter to support EBR are outlined below.

The endpoint must be added to the profile for the following steps to work.

1. Expand the Archiving section of the profile.
2. Set the Enable Archiving dropdown to Yes.

3. Click New Rule.
4. Click Change to select the scope of the rule, which can be as wide as the profile scope or as narrow as a list. Click Ok.
5. Select Metadata Change Rule and click New Condition.
6. By selecting the same endpoint that was added to the profile, a new field displays for designating EBR. Check the EBR box, select a field to base the retention on, and enter the number of days to which to update the retention time.

|   |  |
|---|--|
| Event Based Retention<br><a href="#">Specify event-based retention parameters to apply to the content if this condition is met.</a> | <input checked="" type="checkbox"/> Enable Event Based Retention for This Rule<br>Select a Date Property to Base Retention On<br>(From date of metadata change) ▾<br>+ <input type="text"/> Days |
|---|--|

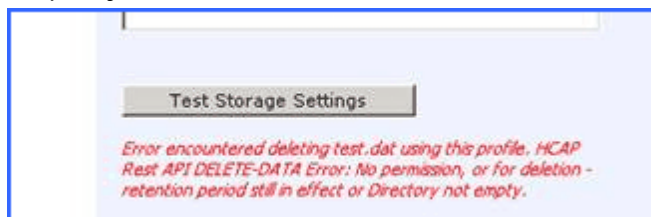
7. Click OK on the Condition window.
8. Click OK on the Rule window.
9. Click Save on the archiving page.
10. (OPTIONAL) Select Immediately or schedule a timer job to run, to process existing content for this archiving rule. Click OK on the Process Existing page.

**i** **NOTE:** Content retention is modified when the field changes, not when it is uploaded. Uploaded content will receive the default retention setting, but modifying the designated EBR field will update the retention setting for that content.

## Appendix: Troubleshooting

### Problem: Receive an error message when testing a storage profile.

When clicking the *Test Storage Settings* button on a storage profile using the HCP or HCAP adapter you receive an error similar to this:



This error is because a RETENTION value was specified on the storage profile's Connection String and StoragePoint cannot delete the externalized test file. This should be considered a successful test.

## Problem: Receiving errors on storage or retrieval of externalized content.

Wherever possible, StoragePoint surfaces error messages returned by HCP/HCAP either directly to the user or within the SharePoint ULS logs. You should refer to your HCP/HCAP documentation for errors logged by the HCP/HCAP Adapter.

## Problem: Newly uploaded content is not being archived as expected.

For event based retention to work, the item has to exist before it can be tagged with retention during the archive process. So if content is uploaded with a change to the metadata that would normally archive the item, it won't be archived. However, any subsequent change to the item will flag it for archiving, and the next successful run of the content queue migrator will archive that content.

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