

Metalogix® StoragePoint 6.3

## Reference 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.

Metalogix® StoragePoint

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# Planning the Metalogix StoragePoint Implementation

**i** | **NOTE:** Support for SharePoint 2013 will end from release of Metalogix StoragePoint 7.0.

## Preparation

Metalogix StoragePoint is installed as a SharePoint solution on a single SharePoint web front-end (WFE), making for simple installation and deployment to the SharePoint farm. This section will outline the necessary software and security prerequisites needed to install Metalogix StoragePoint.

Before configuring Metalogix StoragePoint there are few things to consider and understand. This section will touch on each of these and provide some guidance and best practices.

## Minimum Server Software Requirements

### SharePoint (pick one)

<a href="#">SharePoint Server Subscription Edition</a>	
Operating System	Windows Server 2019 Standard or Datacenter Windows Server 2022 Standard or Datacenter
SharePoint Server	SharePoint Server Subscription Edition
Other Server Software	SQL Server 2019 Enterprise Edition with Cumulative Update (CU5) or later

<a href="#">SharePoint Server 2019</a>	
Operating System	Windows Server 2016 Standard or Datacenter Windows Server 2019 Standard or Datacenter
SharePoint Server	SharePoint Server 2019

Other Server Software	Microsoft SQL Server 2016 Enterprise Editions, Microsoft SQL Server 2017 Enterprise Editions for Windows
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### [SharePoint Server 2016](#)

Operating System	Windows Server 2012 R2 or Windows Server 2016
SharePoint Server	SharePoint Server 2016
Other Server Software	SQL Server 2014 SP1, 64 bit Enterprise Edition, SQL Server 2016 RTM Enterprise Edition or SQL Server 2017

### [SharePoint Server 2013](#) and SharePoint Foundation 2013

Operating System	Windows 2012 Server
SharePoint Server	SharePoint Server 2013 or SharePoint Foundation 2013
Other Server Software	SQL Server 2012 Enterprise Edition, or SQL Server 2014 Enterprise Edition

## Server Hardware Requirements

Metalogix StoragePoint does not have any hardware requirements beyond what is prescribed by Microsoft SharePoint. For reference, those can be reviewed here:

Subscription Edition - <https://learn.microsoft.com/en-us/sharepoint/install/system-requirements-for-sharepoint-subscription-edition>

2019 - <https://docs.microsoft.com/en-us/sharepoint/install/hardware-and-software-requirements-2019>

2016 - [https://technet.microsoft.com/en-us/library/cc262485\(v=office.16\).aspx](https://technet.microsoft.com/en-us/library/cc262485(v=office.16).aspx)

2013 - <https://docs.microsoft.com/en-us/sharepoint/install/hardware-software-requirements-2013>

## Security Requirements

The User Account used to perform the install must be a SharePoint Farm Administrator.

Also review [FileShare and Content Database Rights](#) when a profile is created.

## Screen Resolution Requirements

Metalogix StoragePoint requires a minimum screen resolution of 1024 x 768 for optimizing the user interface on the StoragePoint pages that are linked from the main menu on Application Administration in Central Administration.

## Internet Browser Requirements

Microsoft Edge is the recommended browser for use with StoragePoint interface. Other browsers may work, but are not verified as supported for all functions.

## .NET Framework Requirements

StoragePoint for SharePoint 2013, 2016, 2019, and Subscription Edition requires .NET Framework 4.8.

## Temporary Storage Requirements

The amount of temporary storage needed to support the timer jobs depends on the number of threads being used for the timer job. It is recommended that 10GB per thread, for each timer job running concurrently, be available on the server running the timer job. Most timer jobs can use a Controller/Worker configuration to spread this over multiple servers. The temporary storage location can be configured on General Settings or during installation to use something other than the default (AppData/Local/Temp).

## SharePoint 2019/SharePoint SE Modern UI considerations

SharePoint 2019 and SharePoint Server Subscription Edition (SharePoint SE) have an updated look and feel for the user interface. StoragePoint links will work on this new user interface, but some additional configuration is necessary. Please see [Modern UI for SharePoint 2019/SharePoint SE](#) for additional information.

## Metalogix StoragePoint Database Sizing

Metalogix StoragePoint database is used to track RBS provider activities in a SharePoint farm. This means that Metalogix StoragePoint database will grow at a rate proportional to the number of documents added to the content databases. The Unused BLOB Cleanup timer job (found on the Profile Timer job page) is critical for keeping StoragePoint database size to a minimum.

Sizing the Metalogix StoragePoint database can be based on the following estimations:

- Synchronous profiles: average increase on the StoragePoint database size is approximately 16 MB per 1 GB in the RBS store.
- Asynchronous profiles: average increase on the StoragePoint database size is approximately 26 MB per 1 GB in the RBS store.



**NOTE:** The estimation was tested and carried out under the following conditions:

- StoragePoint database on SQL 2019 instance (cumulative update 20), operating in compatibility mode with SQL Server 2019 (150)
- Autogrow/MaxSize: 64 MB/Unlimited
- FileSystem adapter: no encryption and no compression used
- Used files: .txt, .zip, .pdf, Office (.docx, .xlsx, .pptx)

Additionally, Microsoft has restrictions on content database sizing that must be [followed](#).

---

# Backup/Restore and Disaster Recovery

## Storage Profile Granularity

It is recommended that the granularity of the storage profiles created be aligned with the granularity of the content database(s). This one recommendation greatly simplifies the backup & restore and disaster recovery processes by partitioning the externalized BLOBs into discreet stores that can be easily backed up along with their associated content database(s) SQL backups.

To this end, each profile has the option of creating a backup endpoint. On the storage profile page, there will be a dropdown to select a backup endpoint, which can be configured on the Storage and Backup Endpoints page. Be sure the location for the backup endpoint can accommodate the storage needs.

For example, if the SharePoint implementation uses one content database per web application and all site collections under that web application share the same content database, a Web Application-scoped profile in Metalogix StoragePoint to map all of the content BLOBs to one external file store location could be created. Or if different site collections use different content databases, individual Content Database -scoped profiles for each site collection could be created with the profiles using distinct external file store locations.

## StoragePoint Backup Sequence

The backup functionality in StoragePoint allows the backup of BLOB stores. They are stored on the backup endpoint associated with the profile. The steps for configuring these endpoints and timer jobs are found within the steps for [Creating a Storage Endpoint](#) and [Creating a Storage Profile](#).

## BLOB Store and SQL Backup Sequence

Always backup the BLOB store after backing up the related content database(s). This ensures that there will never be an orphaned list item (missing BLOB). In the worst case, there may be some orphaned BLOBs, which are harmless and easily purged from the BLOB store.

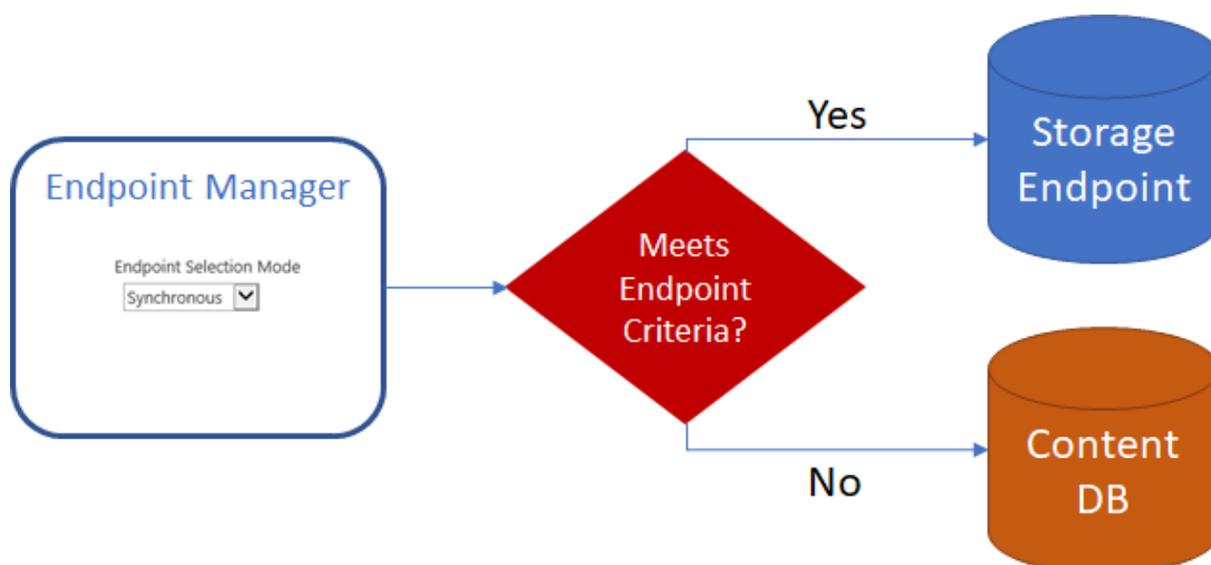
# Synchronous versus Asynchronous

It's important to understand what additional features are enabled if profiles are configured to use asynchronous operations.

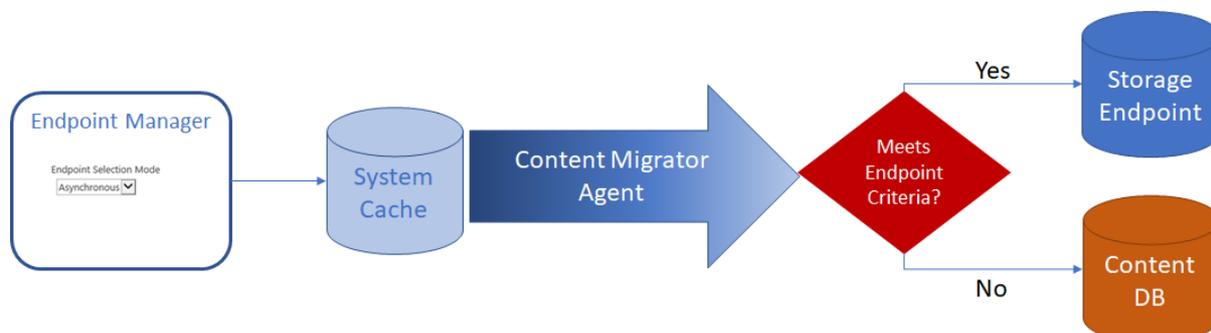
If the Endpoint Selection Mode is set to Synchronous the configured endpoint(s) will be evaluated and one will be selected at the time the content is uploaded to SharePoint and before control is returned to the user.

If it is set to Asynchronous the content BLOB will be written to the system cache and control returned to the user. The BLOB Migration Agent will be responsible for evaluating the configured endpoints asynchronously.

Endpoint Selection Mode = Synchronous



Endpoint Selection Mode = Asynchronous



# Features affected by Endpoint Selection Mode Settings

The following table lists what features are available based on the settings for the Endpoint Selection Mode.

Feature	Sync	Async
Promote SharePoint Folder Name to BLOB Store	No	Yes
Promote SharePoint Filename and/or file extension to BLOB Store	No	Yes
Use File Size filter on Profile Endpoint	No	Yes
Use File Type filter on Profile Endpoint	No	Yes
Use Hierarchal Scope filter on Profile Endpoint	No	Yes
Use Metadata filtering on Profile Endpoint	No	Yes
Archive Only externalization	No	Yes

Switching a profile from Asynchronous to Synchronous will disable these filters on future uploaded content.

New Profile Endpoint screen if Endpoint Selection Mode is Synchronous:

New Profile Endpoint screen if Endpoint Selection Mode is Asynchronous:

New Profile Endpoint
✕

## New Profile Endpoint

**Storage Endpoint**  
Select the Storage Endpoint and the Endpoint Start Folder. The **StartFolder** is a top level folder on the endpoint to write this profile's content to.

**Endpoint**  
 ▼ Edit New

**Endpoint Start Folder**

**Asynchronous Endpoint Options**

Use SharePoint Folder in BLOB Store

Use SharePoint Filename in BLOB Store

Use SharePoint File Extension in BLOB Store

**Storage Rule**  
Define the rule that will determine whether or not content is externalized.

For File Type filtering, **Is (Include)** will only externalize the file types selected while **Is Not (Exclude)** will externalize all file types except those selected.

For Hierarchical Scope filtering, **Include** will only externalize the selected scopes while **Exclude** will externalize all scopes except those selected.

For Metadata filtering, only items matching the filter rules will be externalized.

**Online?**  
 ▼

**Additional Filters (check all that apply)**

File size is  ▼  KB

File type

Is (Include)     Is Not (Exclude)

*A comma separated list of file extensions. (i.e. DOC,DOCX,XLS)*

Hierarchical Scope (i.e. List)

Include     Exclude

Scope

▫

Metadata Rules

Rule

▫

Synchronous profiles will also not prevent the externalization of customized, (unghosted) files. Only Asynchronous operations allow for the logic to evaluate the file and return it to the content database rather than the StoragePoint Endpoint.

---

# Setting up Metalogix StoragePoint

Metalogix StoragePoint is entirely managed within SharePoint Central Administration on the Application Management page.



Metalogix StoragePoint

[License management](#) | [System cache](#) | [General settings](#) | [Default values](#) | [File share librarian](#) | [Storage and backup endpoints](#) | [Storage profiles](#) | [Job status](#) | [Dashboard](#) | [Help](#)

## Configuration Outline

The general high-level steps to follow when setting up Metalogix StoragePoint to run within the SharePoint farm are as follows:

1. Configure Metalogix StoragePoint Logging. (OPTIONAL)
  - a. This step will establish how verbose Metalogix StoragePoint logs information and errors.
  - b. Go to the [Configuring Metalogix StoragePoint Logging](#) section of this document for detailed instructions on performing this step.
2. Configure the Metalogix StoragePoint System Cache (OPTIONAL)
  - a. This step will establish the temporary location for BLOBs during Asynchronous operations. This is a required step for leveraging a cloud-based storage platform or taking advantage of any of the additional capabilities associated with asynchronous operations.
  - b. Go to the [System Cache](#) section of this document for detailed instructions on performing this step.
3. Configure the Default Values, General Settings and Farm Wide Timer Jobs. (OPTIONAL)
  - a. This step will establish default values for newly-created endpoints and storage profiles. If defaults are not configured then newly-created endpoints and storage profiles will be blank. This step will allow the administrator to monitor the health and activity of the storage endpoints, as long as capacity thresholds are established when endpoints are created. It will also set up the frequency of migration jobs for archiving and asynchronous externalization.
  - b. Go to the [Default Values](#) and [General Settings](#) sections of this document for details on what settings are configured on these pages.
4. Configure the [Storage Endpoints](#). (REQUIRED)
  - a. This step will create the storage location(s) (endpoints) where content will be externalized to. One or more endpoints can be defined per storage profile. Endpoints can be configured from the Storage and Backup Endpoints link in Metalogix StoragePoint's Central Administration section or from within the Storage Profile user interface.
  - b. Please refer to the individual Administration and Installation Guide for the designated endpoint storage provider.
5. Create one or more Storage Profiles. (REQUIRED)
  - a. This step will create the storage profile(s) that will dictate how BLOBs are externalized. Profiles can be scoped by web application or content database.

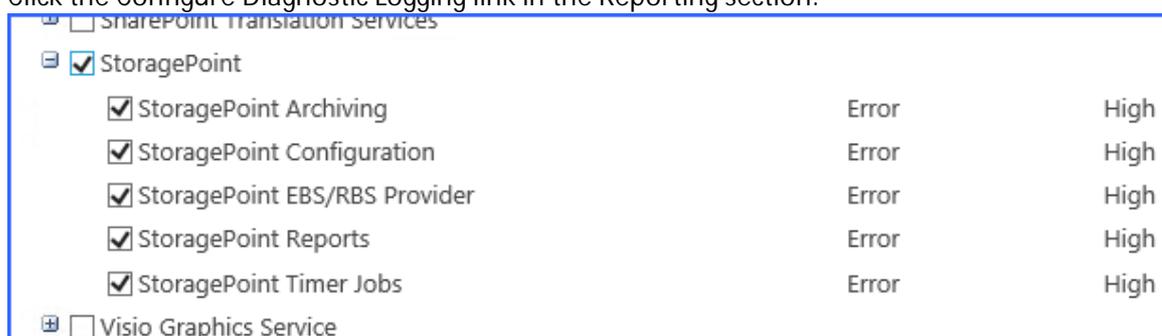
- b. Go to the [Managing Storage Profiles](#) section of this document for detailed instructions on performing this step.
6. Configure Archiving Settings for each storage profile. (OPTIONAL)
  - a. This step will enable less accessed content to be moved to less expensive tiers of storage.
  - b. Go to the [Archiving](#) section of this document for detailed instructions on configuring these settings.
7. Configure the Unused BLOB Cleanup job for the Storage Profile.
  - a. This step will setup the timer job that removes orphaned (deleted) BLOBs from the file store. It is automatically set up to run on Saturdays at 2 am for new profiles.
  - b. This job can take considerable time to run and this should be taken into account when scheduling it. Please see the [Unused BLOB Cleanup Job Considerations](#) section of this document for more information.
  - c. Go to the [Configure Storage Profile Timer Jobs](#) section of this document for detailed instructions on scheduling this job.
8. Run an Externalize job for each configured Storage Profile. (OPTIONAL)
  - a. This step assumes that there is an existing content database and there is content ready to be externalized.
  - b. Go to the [Configure Storage Profile Timer Jobs](#) section of this document for detailed instructions on performing this step.

Once these steps are complete, the BLOBs within the SharePoint farm will start externalizing to the configured locations (endpoints).

## Configuring Metalogix StoragePoint Logging

Metalogix StoragePoint leverages SharePoint's Unified Logging Service (ULS) for event and trace logging. The ULS can be configured by navigating to the Diagnostic Logging page within SharePoint Central Administration.

1. Open SharePoint Central Administration.
2. Navigate to the Monitoring page.
3. Click the Configure Diagnostic Logging link in the Reporting section.



4. Check one or more of the Metalogix StoragePoint categories.
5. Select the minimum event level to report for the event log and trace log.
  - a. For normal operation, we would recommend Error for event log and High for trace log.
  - b. These can obviously be throttled down to improve performance or throttled up to improve the ability to diagnose a problem.

**i** | NOTE: Please see [Collecting SharePoint Log Files](#) under General Settings for a useful tool that gathers and zips log files when they are needed to address system issues.

---

## Default Values

### Configure Farm-wide Storage Endpoint and Storage Profile Defaults

In lieu of re-entering common settings into new storage profiles, farm-wide default values can be created. These values will be pre-populated in newly-created profiles and endpoints.

1. Click the Default Values link on the Application Management page in SharePoint Central Administration.



Metalogix StoragePoint

[License management](#) | [System cache](#) | [General settings](#) | [Default values](#) | [File share librarian](#) |  
[Storage and backup endpoints](#) | [Storage profiles](#) | [Job status](#) | [Dashboard](#) | [Help](#)

2. The Default Values page is displayed.

**Default Notification Contacts**  
Provide a list of administrators or other personnel that should receive notifications from StoragePoint regardless of type. You can specify job or condition -specific contacts where appropriate.

---

**Default Endpoint Storage Settings**  
Provide default storage settings for newly created endpoints in this section. The values provided in this section will be used as the default settings for newly-created endpoints.

---

**Unused BLOB Handling**  
Provide unused BLOB handling settings in this section.  
  
The **Retain Unused BLOBs for** setting will be used as the default BLOB Retention Policy settings for newly-created profiles.

**Send StoragePoint Notifications to:**

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

**Generate warning notification if:**

10 or more successive errors are encountered

there is less than 10  MB  % of free space

**Automatically take endpoint offline if:**

25 or more successive errors are encountered

there is less than 1  MB  % of free space

**Send Warning and Offline Notifications to:**

Default Notification Contacts

**Additional Contacts**

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

**Adapter**  
(no default)

Adapter Settings  Show Connection String

**Is WORM Device**

**Compress Content in BLOB Store**  
   
*Content is compressed using the GZip/Deflate method.*

**Encryption Method for Content in BLOB Store**

**Retain Unused BLOBs For**  
 Days

3. Change the value for properties that should be defaulted. Descriptions for each property are provided in the chart below.

Setting	Value/Options
Default Notification Contacts	Enter the email addresses of administrators or any other personnel that should be notified of Metalogix StoragePoint events such as Timer Jobs. The email addresses should be separated by semi-colons.
Default Endpoint Storage Settings	These settings will be the defaults when creating new storage endpoints, but can be edited.

<p>Generate warning notification if:</p> <p><input type="checkbox"/> 10 or more successive errors are encountered</p> <p><input type="checkbox"/> there is less than 10 <input checked="" type="radio"/> MB <input type="radio"/> % of free space</p>	<p>A warning email can be sent if a Storage Endpoint encounters errors or is nearing capacity. The default is no warnings.</p>
<p>Automatically take endpoint offline if:</p> <p><input type="checkbox"/> 25 or more successive errors are encountered</p> <p><input type="checkbox"/> there is less than 1 <input checked="" type="radio"/> MB <input type="radio"/> % of free space</p>	<p>An online Storage Endpoint can be automatically taken offline if it encounters errors or is nearing capacity. The default is to never take the endpoint offline.</p>
<p>Send Warning and Offline Notifications to:</p> <p><input type="checkbox"/> Default Notification Contacts</p> <p>Additional Contacts</p> <div style="border: 1px solid gray; height: 40px; width: 100%;"></div> <p><i>Provide a semi-colon delimited list of e-mail addresses.</i></p>	<p>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 this same page.</p>
<p>Adapter</p> <p>(no default) <input type="button" value="v"/> <input type="button" value="?"/></p> <p>Adapter Settings <input type="checkbox"/> Show Connection String</p>	<p>Select the default adapter type. The FileSystem adapter is installed with the core product by default.</p> <p>If a default adapter is selected, default connection string information can also be entered. Complete the adapter-specific connection fields, per the Administration Guide for the adapter.</p>
<p>Adapter</p> <p>FileSystem <input type="button" value="v"/> <input type="button" value="?"/></p> <p>Adapter Settings <input checked="" type="checkbox"/> Show Connection String</p> <p>Connection</p> <div style="border: 1px solid gray; padding: 5px;"> <p>PATH=;AUDITDELETE=False;BUFFERSIZE=8192;SHR EDONDELETE=False;USEMETA=False;</p> </div> <p><i>Provide adapter-specific connection attributes. Please refer to the adapter documentation for connection string details.</i></p>	<p>Click the Show Connection string to edit the connection string directly.</p> <p>The FileSystem adapter is installed as part of the core installation.</p> <p>For the FileSystem adapter, the format is:</p> <p>path=blob store location</p> <p>Where blob store location is drive:\folder or \\server\share or \\domain\share</p>
<p>Please see the File System Adapter Guide for File System Adapter Connection String Options.</p>	

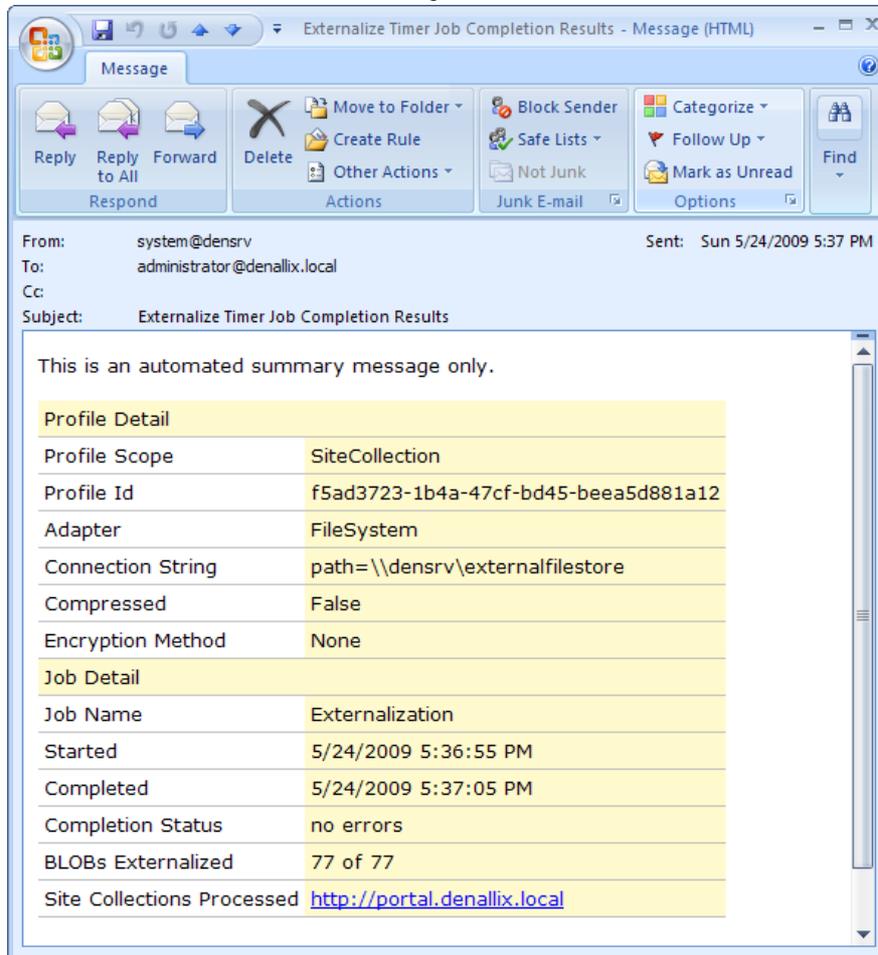
<p>Folder Content in BLOB Store</p> <p><input type="button" value="No"/> ▼</p> <p>Folder Scheme</p> <p><input type="text" value="YYYY/MM/DD/HH/MM"/> ▼</p> <p>For Asynchronous Endpoints, see <a href="#">Creating a New Storage Profile</a> for using SharePoint foldering in the BLOB store.</p> <p><b>i</b>   <b>NOTE:</b> If asynchronous externalization is used with SharePoint folder options selected, this scheme will not be used.</p>	<p>No – Externalized content BLOBs are not placed in folders (Default).</p> <p>Yes – Externalized content BLOBs are placed in folders.</p> <p>If Folder Content in BLOB Store is Yes then a date/time folder scheme from the dropdown can be selected.</p> <p>YYYY/MM/DD/HH/MM is the default.</p>
<p>Is WORM Device</p> <p><input type="button" value="No"/> ▼</p>	<p>If the default endpoint is on a WORM (Write Once, Read Many) device, Unused BLOB Cleanup will ignore this endpoint.</p>
<p>Compress Content in BLOB Store</p> <p><input type="button" value="No"/> ▼</p> <p><i>Content is compressed using the GZip/Deflate method.</i></p> <p>Encryption Method for Content in BLOB Store</p> <p><input type="text" value="None"/> ▼</p>	<p>No – Externalized content BLOBs are not compressed (default).</p> <p>Yes – Externalized content BLOBs are compressed.</p> <p>None – Encryption will not be applied to externalized BLOBs (default).</p> <p>AES (128 bit) – 128 bit AES encryption will be applied to externalized BLOBs.</p> <p>AES (256 bit) – 256 bit AES encryption will be applied to externalized BLOBs.</p>
<p>Unused BLOB Handling</p> <p>Retain Unused BLOBs For</p> <p><input type="text" value="30"/> Days</p> <p><b>i</b>   <b>NOTE:</b> The default value is 30 days. This value synchronizes well with many backup/restore cycles but may need adjustment. See the section <a href="#">Unused BLOB Cleanup Job Considerations</a> for more information.</p>	<p>This setting indicates how long the Unused BLOB Cleanup Job should retain BLOBs whose parent list items or documents have been removed from SharePoint (i.e. purged from recycle bin, deleted, etc.). If the value is 0 then the orphaned BLOBs will be removed during the next run of the Unused BLOB Cleanup Job. If a value of greater than 0 is specified, then the BLOB will be deleted that many days after being orphaned. For example, specifying 30 will cause orphaned</p>

BLOB files to be removed at least 30 days after being orphaned.

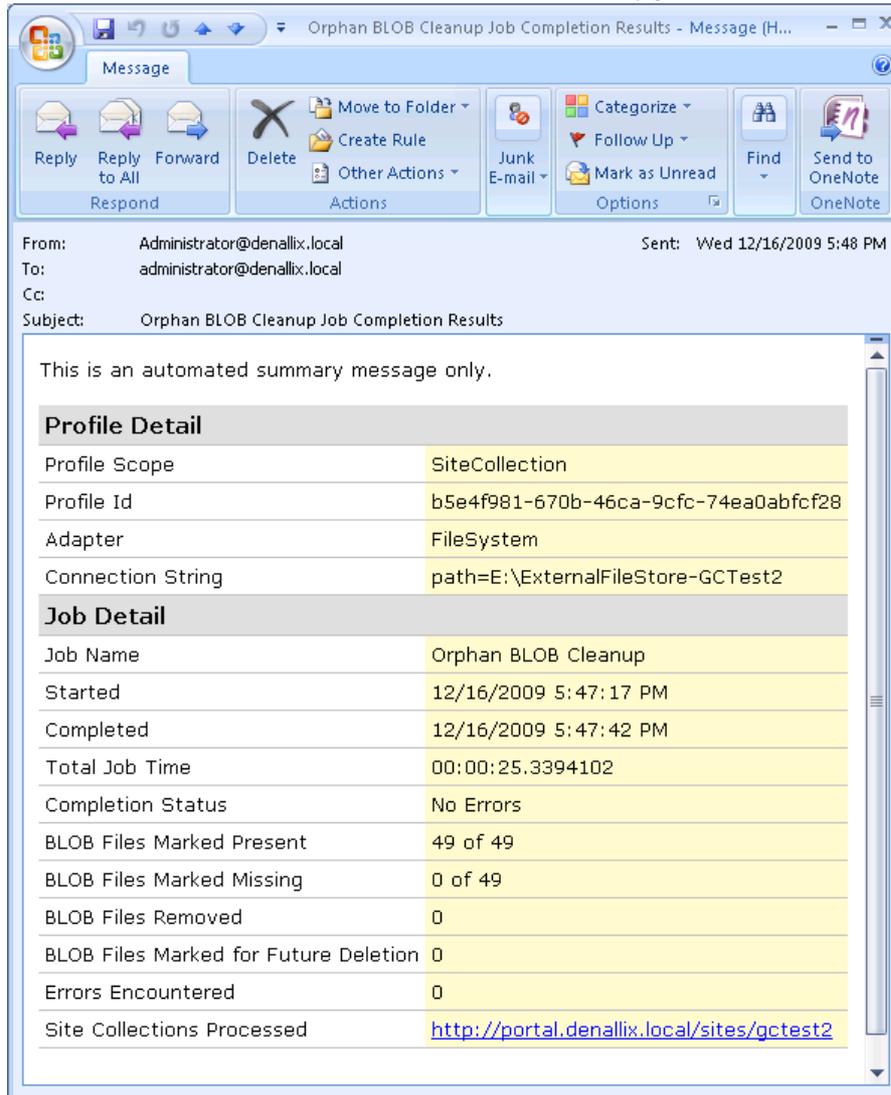
4. Click Save at the bottom of the page to save the default settings. Newly created storage profiles or endpoints will inherit these values.

# Notification Email

If the Unused BLOB Cleanup, Externalization, Migration or Recall jobs are configured to send a completion notification email to one or more recipients, the email will provide summary information similar to the following:



And one similar to this for the Unused BLOB Cleanup job:



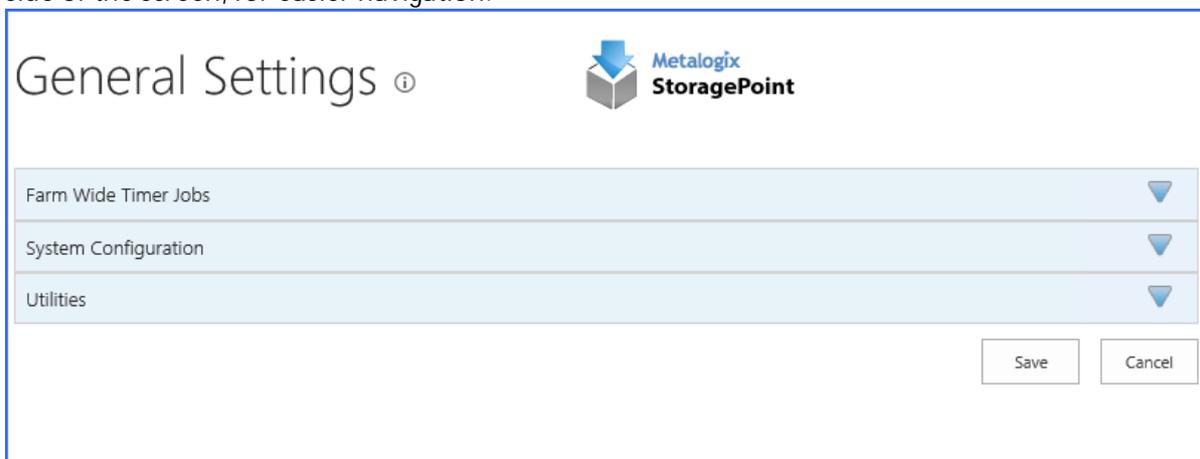
## General Settings

The General Settings page allows for the configuration of the farm-wide timer jobs as well as other System Configuration settings.

Click the General Settings link on the Application Management page in SharePoint Central Administration.



The sections on this page can be collapsed or expanded as needed, using the arrows on the right side of the screen, for easier navigation.



### Farm Wide Timer Jobs

### Controller and Worker Configuration

Some Farm Wide Timer Jobs as well as Storage Profile Specific Timer Jobs allow the workload to be balanced among the servers in the farm, versus Standalone (default) on one server. How many and which servers will assist in processing the selected timer job, as well as which server will be the Controller of completing the jobs can be configured for each job.

- The Farm Wide Timer Job that has this feature is Content Migrator. This is found under General Settings.
- The Storage Profile Specific Timer Jobs that have this are BLOB Externalization, BLOB Recall, BLOB Backup and BLOB Migration. These are found under the Jobs link for each storage profile, except BLOB Backup, which is on the storage profile page under backup settings.

1. Click the In Job Role dropdown to select Controller. (Note the server selected in the on Server field.)

**Advanced Job Settings** *(Hide)*

with  Processing Threads  
*If blank, will default to one thread per processor.*

in Job Role Standalone  
Controller

*Standalone is the default and will process all work in a single Job.  
 Controller will coordinate work across one or more worker WFE's.*

2. Click the Change link to select which other servers will be the workers. Use the Select All link (if applicable) to select all the available servers. Click OK to save changes.

Worker Selection ✕

Worker Selection

Selected Workers

Select the set of SharePoint Servers to participate in the running job.

<input checked="" type="checkbox"/>		S2-SP16-APP1
<input type="checkbox"/>		S2-SP16-WFE1

C:\Users\RGliddon\Quest\StoragePoint-DOCS\Main\images\Quest...

3. Confirm the selection is reflected on the General Settings or Timer Job page.

**Advanced Job Settings** *(Hide)*

with  Processing Threads

*If blank, will default to one thread per processor.*

in Job Role

Controller

*Standalone is the default and will process all work in a single Job.  
Controller will coordinate work across one or more worker WFE's.*

with Worker(s) *(Change)*

S2-SP16-APP1

## Content Migrator

The Content Migrator job moves BLOBs for various circumstances, including:

- Those that were externalized asynchronously to their final endpoint. See [Creating a New Storage Profile](#) for information on asynchronous endpoint operations.
- Those that are queued up for migration as a result of an archiving rule condition being met. See the [Archiving](#) section for information on setting up archiving rules.
- Those that were marked as a record where Records Management is configured. See [Records Management](#) for configuring rules.

- [Large File uploads](#), if the timer job is configured to process them.

**Content Migrator**

Provide StoragePoint Content Migrator timer job settings in this section. This timer job will migrate archived content or content written to an asynchronous endpoint to the configured destination endpoint.

Setting the start and end times to 12AM will cause the job to run continually at the specified interval.

The interval can be any value between 1 and 59 minutes. It is recommended that you run this job as frequently as possible.

**Include Large Files**

Yes

**Schedule this process to run:**

Every  Minute(s)

between

and

on Server

**Advanced Job Settings** (Hide)

with  Processing Threads  
*If blank, will default to four threads per processor.*

in Job Role

*Standalone is the default and will process all work in a single job. Controller will coordinate work across one or more worker WFE's.*

Send Failure Notice to:

Default notification contacts

Additional Contacts

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

1. Select whether Large File Uploads will be processed using the system cache in the Include Large Files dropdown. If No is selected, the large file upload will use a system folder to 'stage' the upload.
2. Enter a number between 1 and 59 to represent the frequency, in minutes, for this job to run in the Every field.
3. Enter the timeframe using the between and and fields in which this process should take place. Leaving the time at 12 AM in both fields will cause the process to run continuously at the interval specified.
4. (Optional) In the on Server field, select a WFE for this process to run.
5. (Optional) Click the *Show* link to see the advanced job settings.
6. (Optional) Enter the Number of Processing Threads to use during job execution. It will default to one thread per processor core if no value is supplied.
7. (Optional) Configure job roles. See [Controller and Worker Configuration](#) for more information.
8. (Optional) Under the Send Failure Notice To: header:
  - a. Check the Default Notification Contacts box to have an email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
9. Click Save at the bottom of the page to save the settings or click Process Queued Content Now to begin migrating BLOBs at the specified interval.

# Self-healing Content Migrator Job

One of the tools used to keep storage requirements to a minimum is the Self-healing Content Migrator job. What this means is that the Content Migrator timer job has logic to analyze whether migrate tasks are being completed. If it is detected that the system cache has items that are not being properly processed, an [Unused BLOB Cleanup](#) timer job and a [BLOB Health Analyzer](#) timer job will automatically be scheduled to run at 2:00 am. These jobs will automatically be scheduled to run once a week. The Content Migrator job will rank the profiles in terms of most unprocessed items, and schedule up to three profiles per night for the timer jobs. Eventually, all profiles could be processed if needed.

## Endpoint Capacity Monitor

The Endpoint Capacity Monitor is a job that analyzes configured endpoints for available free space. It will ignore endpoints that use adapters that do not support free space querying. The capacity thresholds that were defined for notification and for taking the endpoint off line will be used. If a threshold is reached, the capacity monitor will make a note of it and tag that endpoint to send out an alert or be taken offline the next time someone attempts to externalize content to that endpoint.

Endpoint Capacity Monitor

Provide StoragePoint Endpoint Capacity Monitor timer job settings in this section. This timer job will monitor and report on the free space of configured endpoints.

Setting the start and end times to 12AM will cause the job to run continually at the specified interval.

The interval can be any value between 1 and 59 minutes. It is recommended that you run this job as frequently as possible.

Bring Offline Endpoints Back Online

No

Selecting Yes will bring endpoints back online that were taken offline because they went over the free space threshold that was set in the endpoint section of StoragePoint.

Schedule this process to run:

Every 59 Minute(s)

between 12 AM 00

and 12 AM 00

on Server SP2013WFE1

[Advanced Job Settings \(Hide\)](#)

Send Failure Notice to:

Default notification contacts

Additional Contacts

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

Process Capacity Monitoring Now

1. For the Bring Offline Endpoints Back Online field, selecting *Yes* will enable the endpoint to automatically return to an Online status if action is taken to correct the capacity issues or errors. *No* means that the administrator will have to manually bring the endpoint back online. See [Managing Storage and Backup Endpoints](#) for more information.
2. Enter a number between 1 and 59 to represent the frequency, in minutes, for this job to run in the Every field.
3. Enter the timeframe using the between and and fields in which this process should take place. Leaving the time at 12AM in both fields will cause the process to run continuously at the interval specified.
4. (Optional) In the on Server field, select a WFE for this process to run.
5. (Optional) Click the *Show* link to see the advanced job settings.

6. (Optional) Under the Send Failure Notice To: header:
  - a. Check the Default Notification Contacts box to have an email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
7. Click Save at the bottom of the page to save the settings or click Process Capacity Monitoring Now to analyze the endpoints immediately.

## Breadcrumb Recovery Optimizer

The Breadcrumb Recovery Optimizer job is used to collapse the breadcrumb links after a content database is recovered from a disaster. This will ensure that the BLOB reference in the database points to the actual BLOB and not a link to a BLOB. While content will still be retrievable if this step is not taken, the end user will incur some overhead when the BLOB reference in the recovered content database points to a breadcrumb link. After a recovery has been performed on a system where the Use Breadcrumbs option is set to Yes, it is very important that the Breadcrumb Recovery Optimizer be run *before* the next scheduled Unused Blob Cleanup. This job does not need to be run at all if the Use Breadcrumbs option is set to No on the General Settings page.

**Breadcrumb Recovery Optimizer**

This timer job will re-organize breadcrumbs for optimal navigation after a recovery event. It will move each BLOB to the endpoint currently referenced by the content database, eliminating the need for breadcrumb navigation. You only need to run this job after you have restored a content database from a back-up.

Restored Content Database [Change](#)

(none)

[Advanced Job Settings \(Hide\)](#)

Send Completion Notice to:

Default notification contacts

Additional Contacts

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

1. Click the Change link to select the Content Database.
2. On the Select Content Database window, change the web application if necessary and click the name of the content database. Click *OK*.
3. (Optional) Click the Show link to see the advanced job settings.
4. (Optional) Under the Send Completion Notice To: header:
  - a. Check the Default Notification Contacts box to have an email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
5. Click Optimize Breadcrumbs Now to begin collapsing breadcrumbs immediately.

## License Notification Settings

If the SharePoint farm is not connected to the internet and license activation is done offline, the admin may want to receive notifications about upcoming license activation requirements. Licenses must be reactivated every 180 days. Online farms are updated through the License Verification

Timer job, but offline farms will need to be run manually.

<p>License Notification Settings</p> <p>Additional license settings for offline reactivation.</p>	<p>Send warning notification for offline reactivation</p> <p><input checked="" type="checkbox"/> 60 days before offline reactivation period expiration.</p> <p>Send Notification to</p> <p><input checked="" type="checkbox"/> Use Notification Defaults</p> <p>Additional Contacts</p> <input type="text"/> <p><small>Provide a semi-colon delimited list of e-mail addresses.</small></p>
---	---

Check the box to get the notifications. A default of 10 days will be entered, but this can be changed to a number of days that meets company specifications.

Check Use Notification Defaults to send emails to the default notification email added in [Default Settings](#).

Uncheck Use Notification Defaults and enter a semi-colon separated list of email addresses that should receive the notification.

## System Configuration

This section contains settings related to the system as a whole including the Metalogix StoragePoint database failover server and compression throttling settings.

### Failover Server

<p>Failover Database Server</p> <input type="text"/>	<p>This setting allows a fail-over server specified for the Metalogix StoragePoint database. The Metalogix StoragePoint database must be mirrored to this server using SQL Server mirroring.</p>
--	--

### Temp Folder Settings

<p>Temp Folder Location</p> <input type="text" value="\\SP2013B\Endpoints\Temp File Location"/>	<p>The temp file location can be changed to a shared location that will temporarily contain StoragePoint files. Click Reset to Default to use the system temp folder and 16 MB.</p>
<p>BLOB size threshold to switch from caching in memory to disk.</p> <input type="text"/> MB	
<input type="button" value="Reset To Default"/>	

# StoragePoint Proxy Settings

<input checked="" type="checkbox"/> Enable StoragePoint Proxy Settings	<p>This is a LicenseServer Proxy (call LicenseServer directly or through Proxy). It can also be edited during an upgrade, or using PowerShell.</p>
Server	
<input type="text"/>	
Port	
<input type="text" value="0"/>	
Username	
<input type="text"/>	
Password	
<input type="text"/>	

# Maximum Compression Size

<p>Maximum Compression File Size (bytes)</p> <input type="text" value="-1"/>	<p>This setting specifies a maximum file size to compress if compression is turned on for an endpoint. Files above the limit will not be compressed.</p>
<p><b>i</b> NOTE: Changing this setting requires an IISRESET and restart of the SharePoint Timer Service to take effect.</p>	<p>Default value is -1 which means files of all sizes are compressed (if compression is turned on for the endpoint).</p>
<p><b>i</b> NOTE: The Maximum Compression size setting only affects asynchronous profiles (Endpoint Selection Mode = Asynchronous). Synchronous profiles will ignore this setting and compress all size types within the scope of the profile (if compression is enabled).</p>	

# Compression Level

<p>Compression Level</p> <input type="text" value="9"/>	<p>This setting specifies the compression level to use if an endpoint has compression turned on. Nine is the default and most aggressive compression but uses the most CPU resources. Zero does no compression.</p>
---	---



**NOTE:** Changing this setting requires an IISRESET and restart of the SharePoint Timer Service to take effect.

## History Purge Settings

Basically, any historical data older than the indicated interval will be purged from the StoragePoint database when the StoragePoint History Cleaner timer job is run, unless a location is specified for retaining that purged information in report form. The History Cleaner timer job, by default, is run weekly on Sundays at 2am.

Enter the number of days between 1 and 365 (default) to keep historical audit data such as deleted blobs and StoragePoint configuration changes retained in the StoragePoint database, and therefore accessible for reporting.

Enter a location to store purged data reports, if they might be needed at a later time.

<b>History Purge Settings</b> Enter a number of days you wish to retain the historical audit data and set the UNC path for storing purged reports.	<b>Interval</b> <input type="text" value="30"/> days
	<b>Purged Reports Location</b> <input type="text" value="\\SP2013A-WFE1\Endpoints\purged reports"/>

## Storage Administration

<b>Show Storage Operations to</b> <input type="text" value="Farm and Site Collection Admin"/>	<b>Farm and Site Collection Admin –</b> Options such as Metalogix StoragePoint Dashboard, Library Storage and Metalogix StoragePoint Details will be available to users who have Farm Admin or Site Collection Admin access. <b>Farm Admin –</b> Only users with Farm Admin access will see the StoragePoint links. (default)
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## Large File Support

Metalogix StoragePoint has a feature on General Settings that allows a custom upload interface to circumvent SharePoint upload limitations, *if the Document Library is in the scope of an active StoragePoint profile*. By dragging the file to the custom upload page the document is moved to the endpoint, and a link is placed in the document library to access that file. The link is an aspx file and will have a content type of 'StoragePoint Document Link'. A user with the ability to edit document properties should not change this content type. The aspx file will not be subject to metadata

requirements normally placed on a document content type; there can be list data fields, but changing the content type to get those fields is not supported.

Open or download requests can only be performed by clicking on the name of the document. The option to 'download a copy' is not supported. Office Web Applications are not supported. Previous versions can only be accessed from the Large File Details Download link.

The endpoint associated with large file uploads can use any of the supported storage adapters; it does not need to be a file system endpoint. So, there could be a size filter on the endpoint, to send large file uploads to the least expensive storage tier.

The file does not need to be large to use this interface, but files smaller than the upload limit for the web application (usually 50MB) will not generate a link, but will be externalized to the endpoint like a regular upload. For more information on how the Large File Uploads will operate, see [Large File Upload](#).

Large File Support	Large files may be linked into a SharePoint Document Library. Please see User Experience for more information.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/>	

Please enable Large File Support if StoragePoint plans include a [Librarian Configuration](#) for a profile, and there are files larger than the web application upload threshold. Otherwise these larger files will be skipped during cataloging.

## Use Breadcrumbs

Use Breadcrumbs	Yes –During BLOB Migration, Metalogix StoragePoint will leave behind a small BLNK (BLOB Link) file that points to the new BLOB location. (default) No – Metalogix StoragePoint will leave a full copy of the BLOB behind. This BLOB file will be removed by the Unused BLOB Cleanup Job once its BLOB Retention period has expired.
<input type="checkbox"/> Yes <input checked="" type="checkbox"/>	

## MinRole Topology

Allows StoragePoint timer jobs to process on servers that by default of SharePoint configuration, do not run timer service instances.

Checking the box shows the servers in the farm. Select the servers where StoragePoint timer services will be allowed to run. This will support [Controller/Worker configurations](#).

MinRole Topology	<input checked="" type="checkbox"/> Allow changes on MinRole Topology
Provide the ability to allow timer job processing on servers with SP Timer Service instance deployed. This service instance is initially not allowed to process timer jobs on WFE servers. Change will be applied by running 'StoragePoint Farm Wide Maintenance Job' (runs by default every hour).	Server(s) which could be allowed for timer job processing:
NOTE: If change on MinRole Topology is allowed and at least one server has been selected, 'ServerRoleCompliance' health rule instance will be disabled.	<input type="checkbox"/> s2-sp16-sql16
	<input type="checkbox"/> S2-SP16-WFE1

After clicking Save on General Settings, it may be necessary to wait for or manually run the Farm Wide Maintenance Timer job, which will be found in SharePoint Timer Job Definitions. By default, Farm Wide Maintenance runs every hour.

## Track Audit Changes

StoragePoint can write all the events to the Windows Application logs by enabling this setting. The default is unchecked.

<p>Track Audit Changes</p> <p>Enable logging of all StoragePoint profile, endpoint, and job operations to the Windows Application Log. See the user guide for all event IDs and description of each action.</p>	<input checked="" type="checkbox"/> Enable Tracking Windows Event Logs
---	--

The table below contains all the Windows Event Id and message for the windows event log.

Action	Event Id	Message
INSERT ENDPOINT	1001	the EndPoint: [EndPoint Name] was inserted at [DateTime] by [SharePoint User]
UPDATE ENDPOINT EVENT	1002	the EndPoint :[EndPoint Name] was updated at [DateTime] by [SharePoint User]
DELETE ENDPOINT EVENT	1003	the EndPoint: [EndPoint Name] was deleted at [DateTime] by [SharePoint User]
INSERT PROFILEENDPOINT EVENT(Add EndPoint to the Profile)	2004	the ProfileEndPoint : [EndPoint Name] was inserted to the Profile:[Profile Name] at time [DateTime] by: [SharePoint User]
UPDATE PROFILEENDPOINT EVENT (update EndPoint to belong a Profile)	2006	the ProfileEndPoint :[EndPoint Name] was updated in the Profile:[Profile Name] at time : [DateTime] by: [SharePoint User]
DELETE PROFILEENDPOINT EVENT (delete EndPoint to belong Profile)	2005	the ProfileEndPoint :[EndPoint Name] was deleted to the Profile:[Profile Name] at time : [DateTime] by: [SharePoint User]
INSERT PROFILE EVENT	2001	the Profile :[Profile Name] was inserted at [DateTime] by [SharePoint User]
UPDATE PROFILE EVENT	2002	the Profile :[Profile Name] was updated at [DateTime] by [SharePoint User]
DELETE PROFILE EVENT	2003	the Profile :[Profile Name] was deleted at [DateTime] by [SharePoint User]
JOB RUN EVENT(ContentMigrator)	3006	the Job : ContentMigrator has been run by [SharePoint User] at time : [DateTime]
JOB RUN EVENT(Capacity)	3009	the Job :Capacity has been run by [SharePoint User] at time : [DateTime]
JOB RUN EVENT(LogFilesCollector)	3015	the Job :LogFilesCollector has been run by [SharePoint User] at time : [DateTime]
JOB RUN EVENT(BreadcrumbOptimization)	3010	the Job :BreadcrumbOptimization has been run by [SharePoint User] at time : [DateTime]
JOB RUN EVENT(SystemAuditReport)	3031	the Job :SystemAuditReport has been run by [SharePoint User] at time : [DateTime]

JOB RUN EVENT(SystemHealthReport)	3023	the Job :SystemHealthReport has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT(OrphanBLOB)	3012	the Job :OrphanBLOB has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT(BlobRefScan)	3014	the Job :BlobRefScan has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT(Externalize)	3001	the Job :Externalize has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT(Migrate)	3003	the Job :Migrate has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT(Aging)	3005	the Job :Aging has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT(BackupSync)	3016	the Job :BackupSync has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT (Recall)	3002	the Job :Recall has been run by [SharePoint User] at [DateTime]
JOB RUN EVENT(PerServerMaintenance)	3024	the Job :PerServerMaintenance has been run by [SharePoint User] at [DateTime]

[Profile Name] = "Profile Name inserted, updated or deleted in the StoragePoint DB"

[EndPoint Name] = "EndPoint Name inserted, updated or deleted in the StoragePoint DB"

[DateTime] = "Date Time that the action was performed"

[SharePoint User] = "SharePoint user who performed the action"

All the Events have level=Information and task Category = None.

## Linked Server

When linked servers have security setting to utilize the current security context, SQL users with the same credentials must be present in both SQL instances. If this hasn't been configured correctly, this setting allows the farm admin to enter those credentials to be able to complete SQL connections with a correct user ID and password.

**Linked Server**

Allows to specify advanced options for Linked Server configuration. Use this option only when default linked server configuration is not working as expected.

Enable advanced options for Linked Server configuration

Remote Server Name

Remote Login

Password

# Utilities

This section covers utilities that impact the entire SharePoint farm, including reports. For individual profile timer jobs, including Blob Health Analyzer, see [Storage Profile Timer Jobs](#).

## Configuration Import/Export Tool

The Configuration Import and Export tool creates a copy of the StoragePoint configuration settings (xml file) for use in another environment or for backup to the existing environment. Please see [Appendix A: Import/Export Tool](#) for more information on using this tool.

Configuration Import/Export Tool

Tool imports/exports StoragePoint configuration from/to a file. Configuration file contains information about StoragePoint settings, profiles, endpoints, librarians, archive rules and timer job settings.

To start, click on the following link: [Import/Export](#)

## Collecting SharePoint Log Files

This timer job creates a zip file of log files that can be used to help troubleshoot issues on the SharePoint farm. There will also be a text file included in the zip file to identify the farm's properties such as SharePoint and StoragePoint versions.

Collecting SharePoint Log Files

This timer job will copy SharePoint log files from each server in the farm, to a central location specified in the Log File Destination Path. Ensure this path is in a UNC format.

The Number of Log files to be copied works in three ways:  
If a start date is selected, but no end date is selected, the copy will include the number of files immediately after the start date.  
If no start date is selected, and an end date is selected, the copy will include the number of files immediately preceding the end date.  
If no dates are selected, the copy will include the most recent files.

Use the date fields to filter which log files are copied. If a start and end date are selected, the Number field is ignored.

Click button "Collect Log Files Now" to schedule Log File Collector timer job to collect log files from all wfe servers. After the timer job is done, button "Download Collected Log Files" will be enabled, and you can click it to download zipped log files.

Log File Destination Path:

Number of Log Files to be Copied:

Log Files Created Between

And

Run this job on server:

1. In the Log File Destination Path field, enter the UNC path of a shared drive to which the logs will be copied and zipped.
  - a. If it is known *specifically which files need to be copied*, enter that number in the Number of Log Files to be Copied field, and enter a Start Date in the first date field.
  - b. If there is a *general idea of when an error occurred*, enter a start date and time, and an end date and time and all files will be copied.
  - c. for the *most recent log files*, enter that number in the Number of Log Files to be Copied field, and leave the date fields blank.
2. Click Collect Log Files Now. A timer job will begin.
3. Click Refresh Page to update the information on the status of the timer job. The button will not be available once the timer job is complete.
4. Once the timer job is finished, click Download Collected Log Files to save the zip file to another destination, or retrieve then from the UNC path. The zip file will have date and time information in the file name, ie, StoragePointLogFiles-yyyyymmdd-hhmmss.zip.

# Collecting StoragePoint Job Report Files

This timer job creates a zip file of job report files that can be saved, in order to free up space on the StoragePoint Content Database. The zip file will have a date and time naming pattern, ie StoragePointReportFiles-20161102-175747.zip

Collecting StoragePoint Job Report Files

This timer job will get StoragePoint job reports from the database, to a central location specified in the Report File Destination Path. Ensure this path is in a UNC format.

The Number of Reports to be Downloaded works in three ways:  
If a start date is selected, but no end date is selected, the copy will include the number of reports immediately after the start date.  
If no start date is selected, and an end date is selected, the copy will include the number of reports immediately preceding the end date.  
If no dates are selected, the copy will include the most recent reports. In this case only one latest System Health report and one latest System Audit report will be collected.

Use the date fields to filter which Reports are copied. If a start and end date are selected, the Number field is ignored.

Click button "Collect Report Files Now" to schedule Report File Collector timer job to collect report files from database. After the timer job is done, button "Download Collected Report Files" will be enabled, and you can click it to download.

To automatically collect report when StoragePoint History Cleaner job is run, check the Automatically Collect Jobs Report option. This will export the reports to Purged Reports Location which can be edited in History Purge Settings in System Configuration section.

Report File Destination Path:

Number of Reports to be Downloaded:

Report Files Created Between

And

Run this job on server:

Automatically Collect Jobs Report

1. In the Report File Destination Path field, enter the UNC path of a shared drive to which the reports will be copied and zipped.
  - a. If it is known *specifically which files need to be copied*, enter that number in the Number of Log Files to be Copied field, and enter a Start Date in the first date field.
  - b. If there is a *general idea of when the report was generated*, enter a start date and time, and an end date and time and all files will be copied.
  - c. for the *most recent report files*, enter that number in the Number of Log Files to be Copied field, and leave the date fields blank.
2. If a start and end date are used, the Number of Reports field is ignored.
3. Click Collect Report Files Now. A timer job will begin.
4. Click Refresh Page to update the information on the status of the timer job. The button will not be available once the timer job is complete.
5. Once the timer job is finished, click Download Collected Report Files to save the zip file to another destination, or retrieve then from the UNC path. The zip file will have date and time information in the file name, ie, StoragePointLogFiles-yyyyymmdd-hhmmss.zip.

- To automatically collect the job report files each time the History Cleaner timer job is run, check the Automatically Collect Jobs Report checkbox.
- The Job Report files that are subject to collection are the System Audit Report, the System Health Report and BLOB Health Analysis Report.
- The maximum number of Reports to be Downloaded is 100. The minimum is 2.
- If no date is specified, and the System Audit Report and/or the System Health Report exist, the most recent will be included.

## Dashboard Editor

The Dashboard Editor setting enables threshold limits to be implemented in order to provide quicker response and more precise data on the dashboard. Click the Dashboard Editor link. See [Dashboard Editor](#) in this manual for more information.

Dashboard Editor

Dashboard Editor allow You to edit settings for dashboard boards such as visibility of signals controls or behaviour of controls.

To start, click on the following link: [Dashboard Editor](#)

# System Health Report

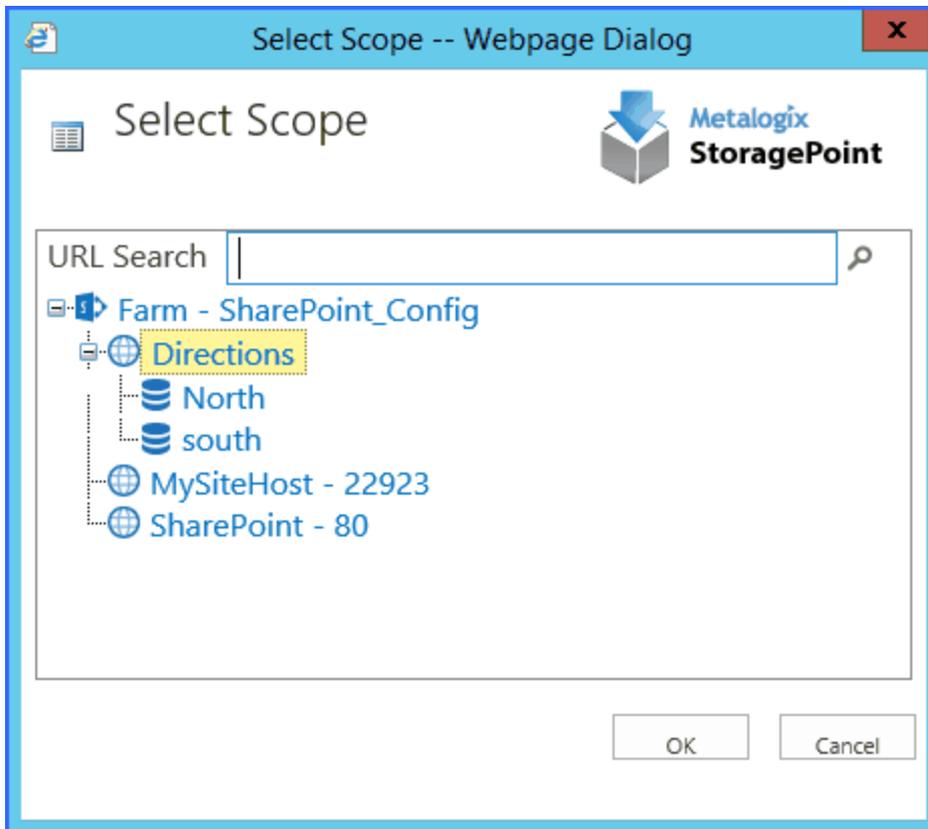
This timer job creates a CSV file with information on the externalized BLOBs within the scope of StoragePoint configurations. Click the [Export System Health Report to CSV](#) link and go to the [Job Status](#) page.

<p><b>System Health Report</b></p> <p>Create a spreadsheet to gain more insight into all externalized BLOBs like endpoint location, BLOB ID, file name, SharePoint path, and other important attributes as well as details on all BLOBs marked for deletion.</p>	<p>To start, click on the following link: <a href="#">Export System Health Report to CSV</a></p> <p><b>Job Filter</b> <i>(Show)</i></p>
--	---

The Job Filter allows the report to be customized to suit reporting needs.

Click Show.

In the Select Scope window, select the SharePoint Web Application, Content Database, Site Collection or Site to be included in the report. Or use the URL search to locate a site within the farm.



The selection will be reflected on the General Setting Page. Use the [Change](#) link to modify the scope and the [Clear](#) link to remove a scope.

<p><b>System Health Report</b></p> <p>Create a spreadsheet to gain more insight into all externalized BLOBs like endpoint location, BLOB ID, file name, SharePoint path, and other important attributes as well as details on all BLOBs marked for deletion.</p>	<p>To start, click on the following link: <a href="#">Export System Health Report to CSV</a></p> <p><b>Job Filter</b> <i>(Hide)</i></p> <p>for the following scope: Web Application = Directions <a href="#">Change</a> <a href="#">Clear</a></p>
--	---

Click Save at the bottom of the page to save the General Settings.

On the Job Status page, click Summary for the System Health job and download the CSV file that has been generated. Clicking View Report will open the data in a browser window.

The screenshot shows a browser window titled "Timer Job Summary". The window contains a header with a list icon, the title "Timer Job Summary", and the "StoragePoint by Quest" logo. Below the header is a table with the following data:

Job Detail	
Job Name	StoragePoint System Health Report
Server	SP2016DWFE1
Started	1/20/2017 7:42:47 AM
Completed	1/20/2017 7:42:48 AM
Total Job Time	00:00:00
Summary File	<a href="#">View Report (Download CSV)</a>

At the bottom right of the window is a "Close" button.

The System Health Report csv file contains the following information about BLOBs:

Document ID, Folder Path, File Name, BLOB ID, Dir Leaf Name, Document URL, Endpoint Name, Externalization Type, Size (bytes), Encrypted, WORM Device

The System Health Report csv file contains the following information about BLOBs marked for deletion:

BLOB Id, Document Id, Profile Id, Size (bytes), Encrypted, WORM Device, Endpoint Name, Endpoint Path, Endpoint Adapter, Backed Up

# System Audit Report

This timer job creates a CSV file with information on the changes made within the StoragePoint configuration and to BLOBs within the scope of StoragePoint profiles.

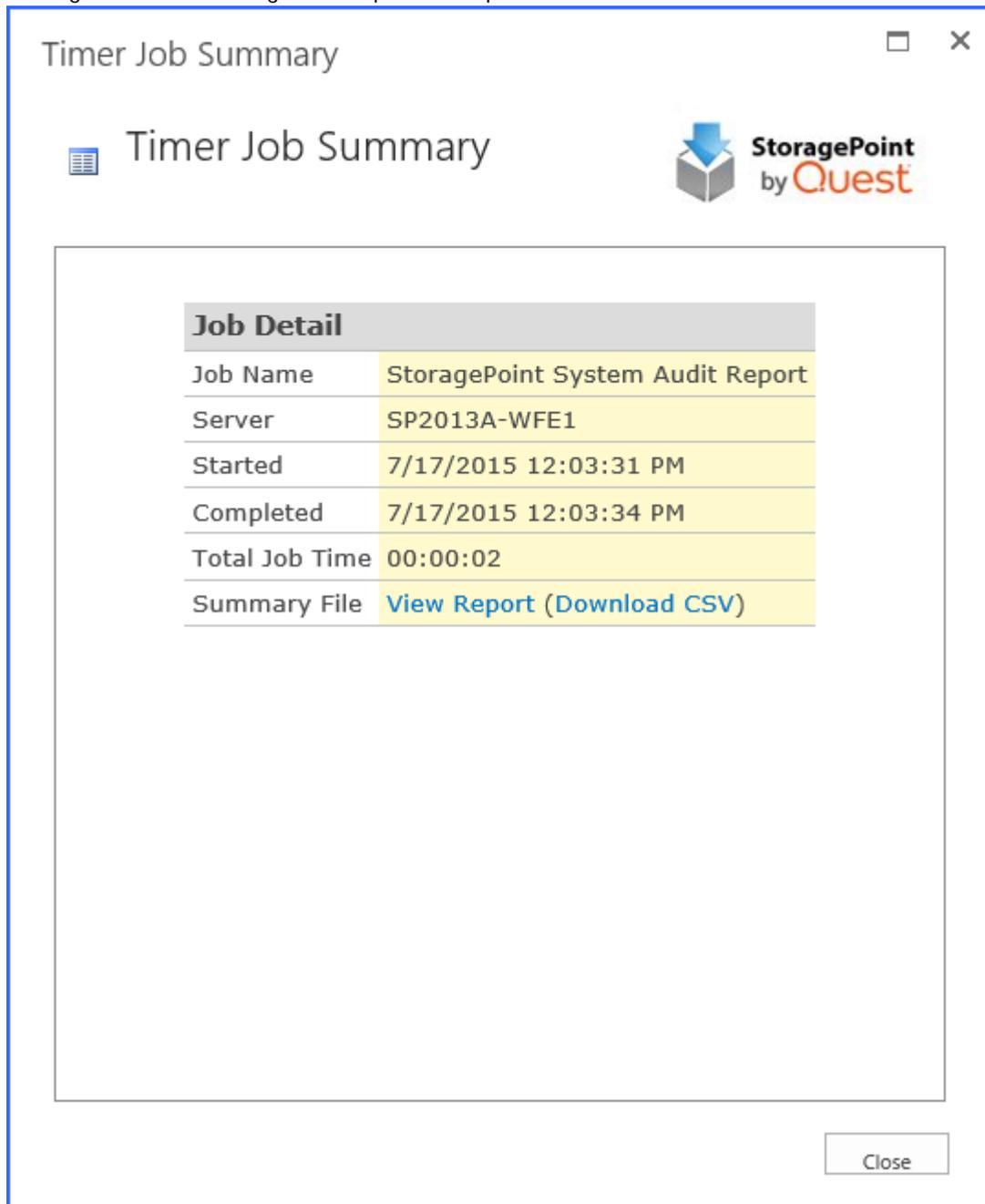
Click Show to see the Job Filter. By default, all options are selected. Uncheck the boxes for information that is not needed.

Click the Export Audit Report to CSV link and go to the [Job Status](#) page.

<p>System Audit Report</p> <p>Create a spreadsheet to gain more insight into changes made to profiles, endpoints, and jobs. Report serves as an audit trail for all actions taken within StoragePoint.</p>	<p>To start, click on the following link: <a href="#">Export Audit Report to CSV</a></p> <p><b>Job Filter</b> <i>(Hide)</i></p> <p>for <input checked="" type="checkbox"/> Profiles , <input checked="" type="checkbox"/> Endpoints , <input checked="" type="checkbox"/> Migrations</p>
--	--

Click Save at the bottom of the page to save the General Settings.

On the Job Status page, click Summary for the System Audit job, and download the CSV file that has been generated. Clicking View Report will open the data in a browser window.



The screenshot shows a browser window titled "Timer Job Summary" with the StoragePoint by Quest logo. It contains a table with the following data:

Job Detail	
Job Name	StoragePoint System Audit Report
Server	SP2013A-WFE1
Started	7/17/2015 12:03:31 PM
Completed	7/17/2015 12:03:34 PM
Total Job Time	00:00:02
Summary File	<a href="#">View Report (Download CSV)</a>

A "Close" button is located at the bottom right of the window.

The System Audit Report csv file contains the following information about Endpoints:

Endpoint Name, Encryption Level, Endpoint Creation Date, Endpoint Created By, Endpoint Created From

The System Audit Report csv file contains the following details about Profile Endpoints:

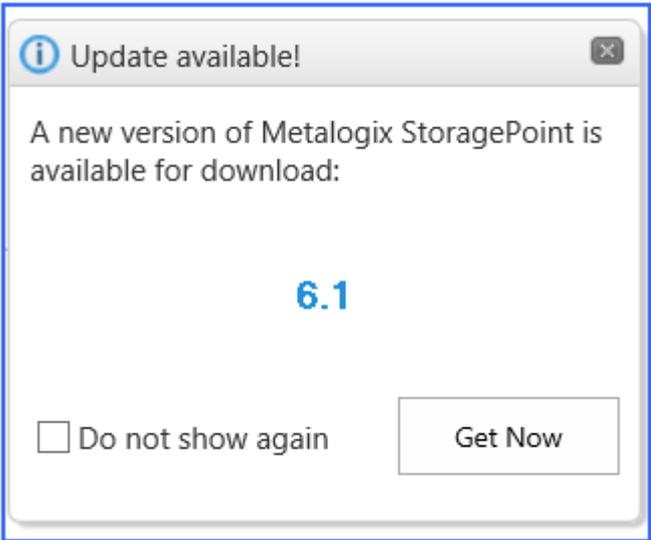
Profile Name, Endpoint Name, Date Endpoint added to Profile, Endpoint Added to Profile By

The System Audit Report csv file contains the following details about Timer Jobs:

Name, date/time, user ID, Category, Details

# New Version Notification

If a newer version of StoragePoint is available, there will be a notification displayed on this page. Click the Get Now link to go to the download page. This notification will also display on Storage Profiles, Storage Endpoints, and Dashboard. The latest available version is updated when the License Verification timer job is run. This timer job is found in Timer Job Definitions.

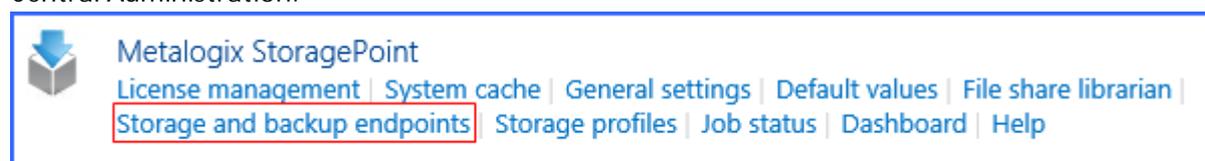


# Managing Storage and Backup Endpoints

Storage and Backup Endpoints represent the external locations for storing the BLOBs. The endpoint page is also where compression and encryption settings are stored. Each Storage Profile links to one or more storage endpoint(s). Profiles can only link to one Backup Endpoint.

**CAUTION:** Do not use the same endpoint for more than one farm, i.e. development, staging, and production. This is not a supported configuration.

Click the Storage and backup endpoints link on the Application Management page in SharePoint Central Administration.



## Preparing the External BLOB Store(s)

There are only a few things here to consider:

## BLOB Store Security and Metalogix StoragePoint Required Privileges

All application pool accounts and SharePoint services that touch content need access to two things:

1. StoragePoint DB (in roles db\_reader, db\_writer)
2. Blob Store (file-share permission create\read\write\delete)

By default the StoragePoint installer adds appropriate StoragePoint Database rights to all Application Pool identities that exist at that time.

Reminder: The same access rights are necessary for any SharePoint services which are configured with a specific identity like Office Web Applications or the Excel Calculations Service.

**NOTE:** When testing access to an Endpoint (fileshare) 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.

Example:

Consider the case where a new web-application is created in Central Administration to hold Sites for the HR department.

Creating the new web-application may optionally also create a new IIS application-pool using a new Identity.

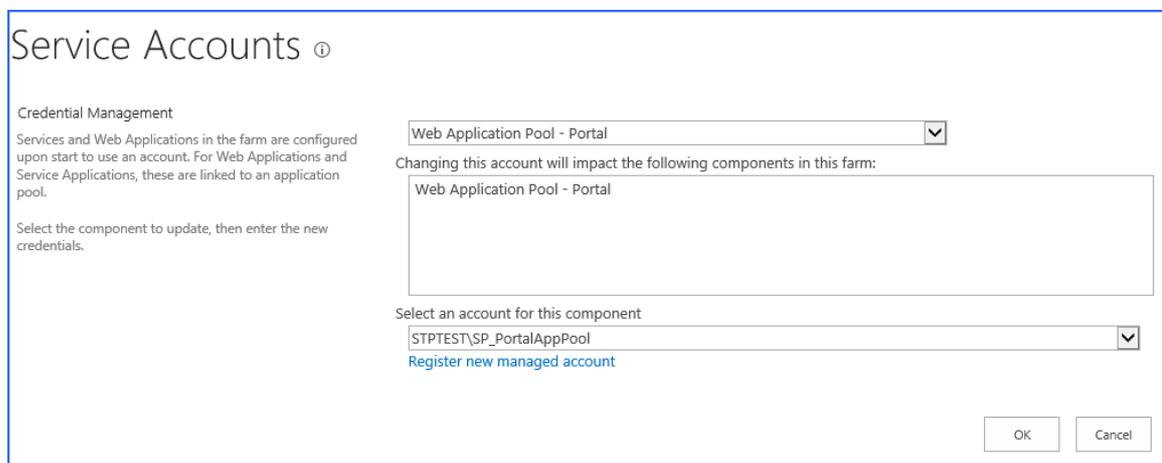
For example, let's call this new identity "HR-SPAppPool."

The HR-SPAppPool account will need db\_reader and db\_writer in the StoragePoint database.

HR-SPAppPool will also need create\read\write\delete permission on the system cache location (if configured) and any endpoint file shares.

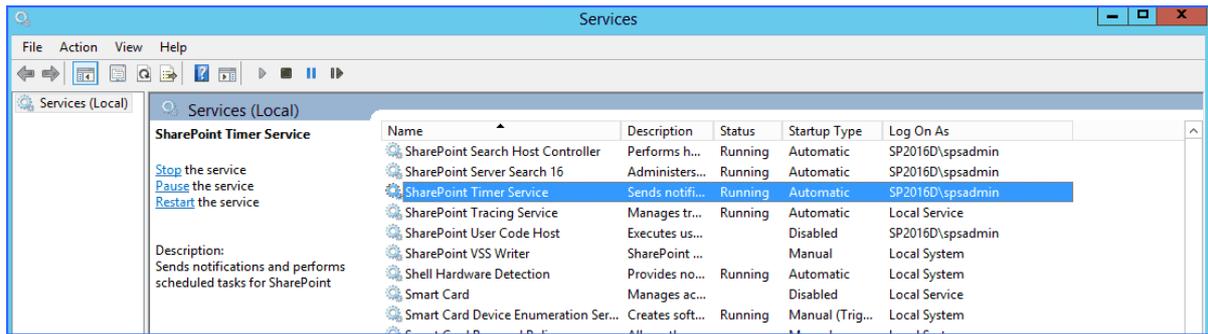
Ensure that the service accounts associated with the Windows SharePoint Services Web Application(s) and Windows SharePoint Services Timer service have the following access permissions: Read, Write, Modify, Delete (files and folders), and Create (files and folders). This assumes the FileSystem adapter is being used. Adapters that use REST-based interfaces typically pass a security token in the header of any request packets, so the service accounts associated with the SharePoint Web Applications or Timer service are not relevant.

1. Select Web application pool.
2. Select Windows SharePoint Services Web Application from the Web Service dropdown.
3. Select an application pool from the Application pool dropdown.
  - a. Note the service account associated with each application pool, as they can be different.
4. The configured service account will be displayed in the Predefined dropdown or the Configurable> User name box.
5. Click OK.



1. Select a Web Application Pool from the dropdown.
2. The configured service account will be displayed in the Select an account for this component box.
  - a. Note the service account associated with each application pool, as they can be different.
3. Click OK.

Determine the service account associated with the SharePoint Timer Service service by opening the Services manager under Administrative Tools on one of the WFE(s). Scroll down to the SharePoint Timer Service service entry and note the service account in the Log On As column.



## Use UNC Paths to Refer to BLOB Store Locations

Since a request to upload a new document or retrieve an existing document can be handled by any of the web frontends in the farm, it is a best practice to use a UNC for the Path parameter on the FileSystem adapter. Using a physical location (i.e. E:\blobstore) will produce unpredictable results, as it cannot be assured that the WFE that wrote the BLOB is the same WFE that will retrieve the BLOB, so the BLOB store must be a shared storage location that is uniformly accessible by all WFEs.

**NOTE:** Be sure the path plus file name plus any optional folder information doesn't exceed 260 characters. Consider an abbreviated UNC path to reduce characters.

## Endpoints with Clean Up Operations

Some storage solutions have their own configuration properties, and the StoragePoint adapters are used to connect to these solutions. If the solution has a job for cleaning up content after a certain retention period, it is imperative to match this retention period with SharePoint retention policies.

For example, if the retention policy on the storage device is 4 years, but SharePoint is configured to keep content for 5 years, the BLOB will be cleaned off the endpoint, but the link in SharePoint will remain. Users will get a 404 error trying to retrieve this content.

This applies to all endpoints, keeping in mind batch files, archive policies, software retirement, etc. Performing regular backups and system health checks can help alleviate these errors.

# Filtering Storage and Backup Endpoints

Once created, filter the current view of the available storage endpoints by Status, Adapter type, or Name, by clicking the appropriate filter on the left.

**Filter Results**

Status

**(All)**

Offline (1)

Online (5)

Adapter

**(All)**

AmazonS3 (1)

FileSystem (5)

Endpoint Name

**(All)**

A-C (3)

D-F (1)

M-O (2)

**Choose a Storage Endpoint to edit.**

Endpoint Name	Type	Status	Adapter	Free Space (MB)
Amazon Archive	Primary	Online	AmazonS3	N/A
Backup Endpoint A	Backup	Online	FileSystem	18,553 (18.1%)
Base Endpoint	Primary	Offline	FileSystem	18,554 (18.1%)
endpoint A	Primary	Online	FileSystem	18,553 (18.1%)
My Sites Endpoint	Primary	Online	FileSystem	18,553 (18.1%)
MySites Backup Endpoint	Backup	Online	FileSystem	18,553 (18.1%)

▢ [Create New Endpoint](#)

# Monitoring Storage and Backup Endpoints

The Type column shows whether the endpoint is a Primary (standard) or Backup endpoint. Backup endpoints will only be available in the Backup Service Settings on the storage profile screen.

The Status column shows whether the endpoint is active, or Online. To clear an endpoint in an **Online\*** (red) status, upload new content to the endpoint after correcting any errors.

The Adapter column shows which type of adapter is being used for the storage endpoint.

The Free Space column will indicate how much of the capacity for that endpoint is currently available. The Free Space will display Green if the Free Space is >= 25%, Yellow if it is < 25% and >= 10%, and Red if it is < 10%.

# System Cache

The System Cache enables the creation of asynchronous operations in the storage profile. It can also be used as a backup endpoint if the primary endpoint fails.

The System Cache can be accessed from the main Metalogix StoragePoint menu or from the storage profile page.

**Storage Endpoints**

The **Endpoint Selection Mode** option determines if Endpoint selection is made immediately (Synchronous) or if it happens after the SharePoint list item has been created (Asynchronous). Making this operation asynchronous allows you to select additional filters on the Profile Endpoint configuration dialog. You cannot set this option to **Asynchronous** if the System Cache has not been configured.

Select the endpoint(s) that this profile will write its content

**Externalize content BLOBs**

Yes

**Endpoint Selection Mode**

Synchronous  [Configure System Cache](#)

You cannot configure Endpoint selection to be an asynchronous operation without first configuring the System Cache.

**Storage Endpoints**

New System Cache Endpoint
✕

☰
New System Cache Endpoint

**EndPoint Information**  
Provide basic information about the EndPoint in this section.

The Name identifies the endpoint on the StoragePoint configuration pages. Type can be Primary for general use endpoints and Backup for endpoints used only for Backup and Restore. Status can be Online to allow reads and writes to the endpoint or Offline to allow only reads of content (i.e. no new content allowed).

**Storage Settings**  
Please provide storage device settings in this section.

**Encryption and Compression**  
Provide encryption and/or compression settings in this section.

**Monitoring and Notification**  
Specify free space, error monitoring and notification options in this section.

**Name**

**Status**

**Adapter**

Adapter Settings  Show Connection String

**Path**

**Advanced Adapter Settings** *(Show)*

**Folder Content in BLOB Store**

**Folder Scheme**

**Compress Content in BLOB Store**  
  
*Content is compressed using the GZip/Deflate method.*

**Encryption Method for Content in BLOB Store**

**Generate warning notification if:**

10 or more successive errors are encountered

there is less than 10% of free space

**Send Offline Notifications to:**  
 Use Notification Defaults

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

The system cache is configured like most storage endpoints, except that the name cannot be edited. Use the chart below as a guide to complete the system cache settings.

Setting Value/Options
-----------------------

### Endpoint Name

#### Name

SYSTEM CACHE

Read-only field for the name of the storage endpoint.

### 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.

#### Adapter

FileSystem

Select the adapter for the endpoint that is being created.

#### Adapter Settings

Show Connection String

#### Path

enter an external file path

Enter an adapter-specific connection string in this box.

The fields for the Adapter Settings will change depending on the adapter type selected. Please see the specific Adapter Administration Guide for configuring the adapter type selected.

#### Folder Content in BLOB Store

No

No – Externalized content BLOBs are not placed in folders.

Yes – Externalized content BLOBs are placed in folders (default).

#### Folder Scheme

YYYY/MM/DD/HH/MM

Test Storage Settings

If Folder Content in BLOB Store is Yes, select a date/time folder scheme from the dropdown. YYYY/MM/DD/HH/MM is the default.

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

**Compress Content in BLOB Store**  
   
*Content is compressed using the GZip/Deflate method.*  
 No – Externalized content BLOBs are not compressed (default).  
 Yes – Externalized content BLOBs are compressed.

---

**Encryption Method for Content in BLOB Store**  
   
 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.

---

**Generate warning notification if:**  
  or more successive errors are encountered  
 there is less than   MB  % of free space

A warning email can be sent if a Storage Endpoint encounters errors or is nearing capacity.

---

**Send Warning Notifications to:**  
 Use Notification Defaults

**Additional Contacts**

*Provide a semi-colon delimited list of e-mail addresses.*  
 Default email addresses for system error notifications can be entered. Check the box to include the list of Default Notification Contacts specified on the General Settings page.

## Creating a New Storage or Backup Endpoint

1. Click the Create New Endpoint link.
2. Complete the fields as appropriate.
3. For assistance on configuring each type of adapter, select the adapter from the dropdown and click the help symbol. This document will show the complete steps for configuring an endpoint.

**Adapter**

# Compression and Encryption Resource Usage

Metalogix StoragePoint offers the options of compressing and/or encrypting external BLOB files on a given endpoint. The compression option can provide better storage utilization by shrinking files and the encryption option can provide for better security of blob data both during transmission and at rest. However, since both options are implemented in software and not hardware, there is a resource cost associated with using them.

Both software compression and encryption utilize CPU resources. The amount of CPU used for compression varies depending on the size of the files and whether they are already compressed or not (i.e. PDF, DOCX, XLSX, etc.). Larger files and files that are already mostly compressed can utilize substantial CPU resources during compression processing. The amount of CPU used for encryption can increase depending on the size of the file (larger file sizes use more CPU resources).

Here are some general guidelines to consider when deciding whether to use compression and/or encryption on an endpoint:

- If the server or VM environment of the WFE is underpowered - i.e. too few processors/cores allocated, older/slower CPUs, etc. - then consider not using the compression and encryption options. We recommend no fewer than 2 actual cores be dedicated to each WFE if these options are used. Four or more actual cores is preferable.
- If the environment is a VM, ensure that actual CPUs and cores are being dedicated to the VM. A virtual CPU allocated to a VM does not usually map one-to-one to a physical core or CPU. So if a VM host contains 1 CPU with 4 cores and there are 8 VMs running on it, there is not a one-to-one mapping of cores to vCPUs.
- Compression is not effective on files that are already compressed. Note that most PDF files, Office 2007/2010 files and media files (JPEG, MPEG, etc.) may already be internally compressed. If the bulk of files being externalized are these types of files, use of compression should be avoided as it will just waste CPU resources and yield little to no compression.
- Large files (greater than 20 to 30 MB) may take large amounts of CPU to compress. If compression must be enabled, consider tuning the compression setting on the General Settings page. A maximum compression size can be specified that will stop compression for files above a certain size threshold. Also, the overall compression level can be modified to ramp down the amount of compression that will be achieved but also save CPU resources.
- Compression/encryption cannot be changed once the endpoint is saved. To change these settings, the content will need to be migrated or recalled, the endpoint deleted, and then recreated with or without the change to the compression/encryption settings.

## Editing an Existing Storage or Backup Endpoint

While certain aspects of an active storage endpoint can be modified, one should take care when performing this operation as content can become irretrievable.

**i** **NOTE:** Compression and encryption settings on an active storage endpoint cannot be changed. These fields will be disabled. To change these settings, run the Recall or Migration job to move content back into the content database or to another endpoint (decompressing and decrypting it along the way), create a new endpoint with new settings, and then run the

Externalize or Migrate job to move the content out of the content database. So plan accordingly.

1. Open the endpoint by clicking its name on the Storage and Backup Endpoints page.
2. Make the necessary changes. See the chart in the specific adapter guide for clarification on fields.
3. If changes are made to the Adapter or Connection property in the Storage Settings section there will be a warning about the possibility of content becoming **irretrievable**.

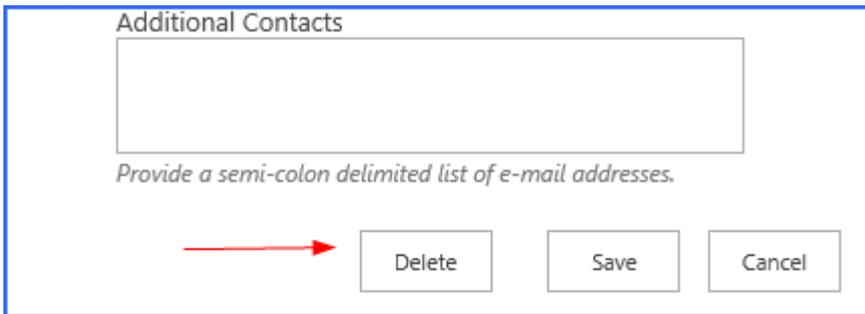
**Warning:** You are about to change the connection string on an existing storage endpoint. This may cause existing data stored on this endpoint to become inaccessible.

4. Click Save to apply the changes.

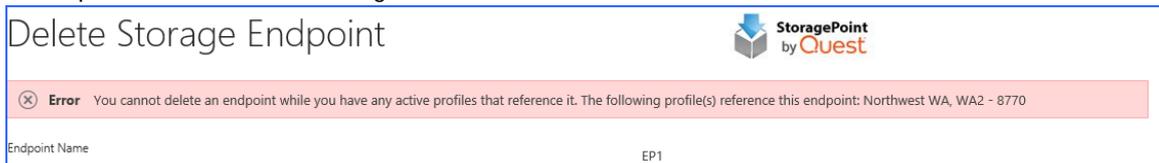
## Delete or Retire an Existing Storage or Backup Endpoint

While safeguards are in place to prevent externalized content from becoming irretrievable, deleting a storage endpoint is still an operation that should be carefully planned and completed.

1. Open the endpoint by clicking its name on the Storage and Backup Endpoints page.
2. Click Delete.



Storage endpoints that are associated with a Storage Profile cannot be deleted, and if attempted will return a message like this:



3. If there are other endpoints that can be used for that profile, the endpoint can be retired.
  - NOTE:** Backup endpoints cannot be retired and a successor endpoint is not an option. Disable the Backup Sync settings on a profile to cease backing up BLOBs, or select a different backup endpoint for the profile.

Select a Successor Endpoint from the dropdown, and click Retire. Selecting a successor endpoint won't be visible if there are not any profiles using the endpoint.

**Delete Storage Endpoint**

Endpoint Name: RM1

**Delete or Retire Endpoint?**

If Retire is selected, the storage endpoint will be deactivated and a Bulk Migrate job will be scheduled to run immediately to move content from this endpoint to the selected successor endpoint. After the Bulk Migrate job has successfully completed, the storage endpoint will be validated for any references. If references exist for this endpoint in the farm, a Bulk Migrate job will try to move this content to successor endpoint. If no references exist, this storage endpoint will be deleted.

Deleting an endpoint is only available if no profiles are using it. If you choose Delete, the storage endpoint will be deleted.

**Successor Endpoint**

Select... Edit New

**Job Properties**

Number of Processing Threads:

*If blank, will default to one thread per processor.*

Send Completion Notice to:

Default notification contacts

Additional Contacts:

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

**Affected Profiles**

Profiles having reference to endpoint

#	Name
1	cdb baseball

Buttons: Delete, Retire, Cancel

A bulk migration job will be performed automatically to move BLOBs from the retired endpoint to the selected successor endpoint, for each profile affected. The endpoint will be in a retiring state while this is going on.

4. If the endpoint can be deleted, it will be, and the Storage and Backup Endpoints page will load. Deleting an endpoint makes all content on that endpoint read only.

## Troubleshooting

### Problem: Problems with Excel Services or other SSP service with Metalogix StoragePoint installed

1. When using the FileSystem adapter, make sure that the account under which the SSP Application Pool process is running has been granted access to the BlobStore.
2. Make sure that the account under which the SSP Application Pool process is running has been granted access to the Metalogix StoragePoint database. They will need both DataReader and DataWriter permissions.

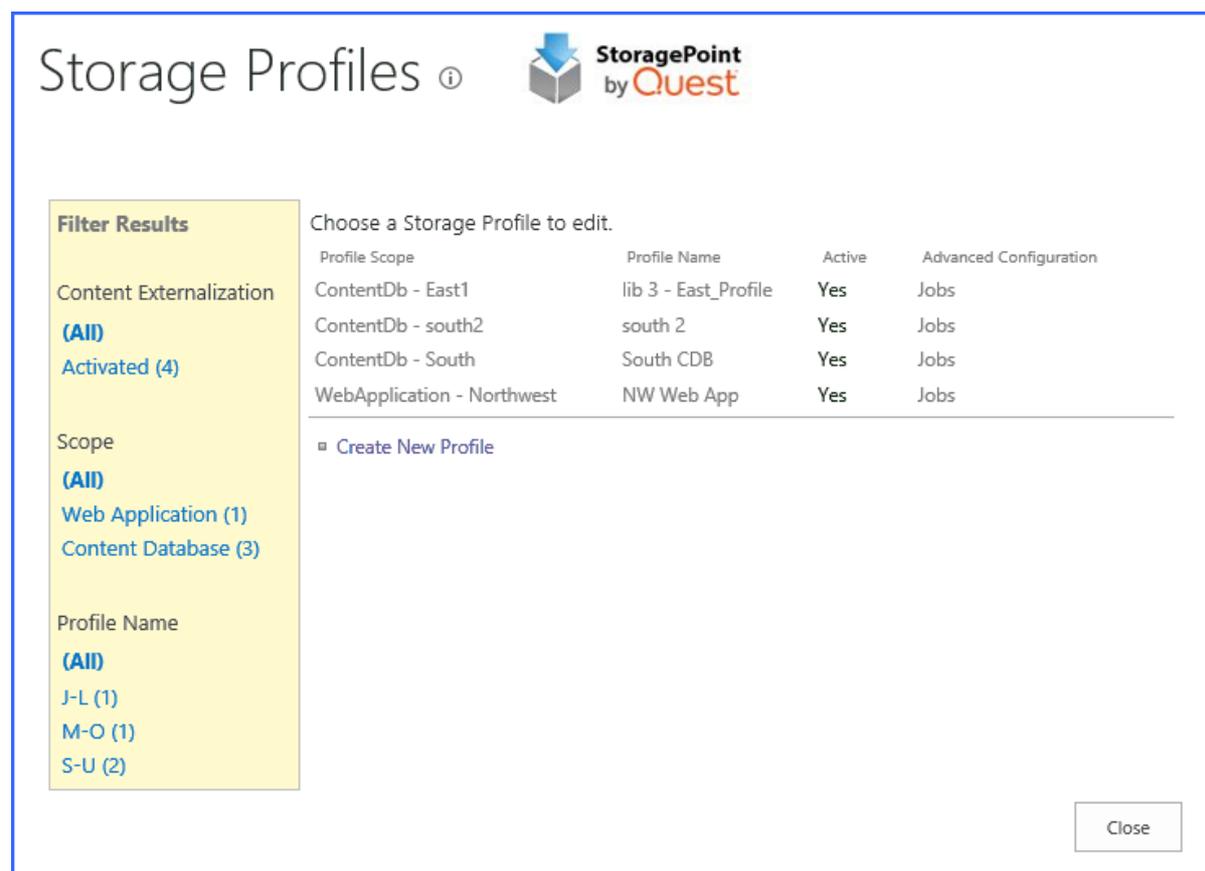
# Managing Storage Profiles

Storage Profiles dictate when and how content BLOBs will be externalized. They scope of a profile can be a web application or a content. Storage Profiles can point to one or multiple endpoints. Storage profiles can be created manually, or as the result of a creating a File Share Librarian configuration. See [File Share Librarian](#) for more information.

Click the Storage Profiles link on the Application Management page in SharePoint Central Administration.



Metalogix StoragePoint  
[License management](#) | [System cache](#) | [General settings](#) | [Default values](#) | [File share librarian](#) |  
[Storage and backup endpoints](#) | **Storage profiles** | [Job status](#) | [Dashboard](#) | [Help](#)



## Storage Profiles ?

Choose a Storage Profile to edit.

Profile Scope	Profile Name	Active	Advanced Configuration
ContentDb - East1	lib 3 - East_Profile	Yes	Jobs
ContentDb - south2	south 2	Yes	Jobs
ContentDb - South	South CDB	Yes	Jobs
WebApplication - Northwest	NW Web App	Yes	Jobs

Create New Profile

Close

**Filter Results**

Content Externalization  
**(All)**  
 Activated (4)

Scope  
**(All)**  
 Web Application (1)  
 Content Database (3)

Profile Name  
**(All)**  
 J-L (1)  
 M-O (1)  
 S-U (2)

## FILTERING THE STORAGE PROFILES

The pane on the left of the screen shows filtering options to narrow down the list of Storage Profiles. To view deactivated storage profiles, click the All option under Content Externalization before using the Scope or Profile Name filters.

# Creating a New Storage Profile

1. Click the Create New Profile link. The Profile page opens.
2. Enter a unique Name for the Storage Profile.
3. In the Profile Scope section of the page, select a scope of the storage profile – Web Application or Content Database

The screenshot shows a form with two main sections. The 'Profile Name' section has a text input field labeled 'Name'. The 'Profile Scope' section has a heading 'Profile Scope' and a sub-heading 'Choose Content Database and then select a Content Database to create, update, or delete a Content Database-specific storage profile.' Below this, there are two radio button options: 'Web Application' (unselected) and 'Content Database' (selected). The 'Content Database' option has a 'Change' link next to it. There is also a 'No Selection' option below each radio button.

4. Click the Change link next to the scope selection.
5. If Web Application was selected, a web application selection dialog will open.

The dialog box is titled 'Select Web Application -- Webpage Dialog'. It contains a table with two columns: 'Name' and 'URL'. The table has three rows of data:

Name	URL
MySite Host	http://llmysites16.stptest.local/
Portal Home	http://llportal16.stptest.local/
SharePoint Central Administration v4	https://stp-ll-sp16-00:2016/

At the bottom right of the dialog is a 'Cancel' button.

6. Click the name of the web application for the scope of the profile. Go to Step 8.
7. If Content Database was selected, a content database selection dialog will open. Change the Web Application to populate the list of content databases names. Click the name of the content database for the scope of the profile and click OK.

The dialog box is titled 'Select Content Database'. It has a heading 'Select Content Database' and a text input field. To the right of the input field is a dropdown menu labeled 'Web Application:' with the value 'http://llportal16.stptest.local/'. Below the input field is a label 'Content Database Name' and a text input field containing the value 'SP2016\_Content\_Portal'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

8. In the Storage Endpoints section of the page, decide whether or not to externalize content BLOBs and how.

**CAUTION:** Do not use the same endpoint for more than one farm, i.e. development, staging, and production. This is not a supported configuration.

**Storage Endpoints**

The **Endpoint Selection Mode** option determines if Endpoint selection is made immediately (Synchronous) or if it happens after the SharePoint list item has been created (Asynchronous). Making this operation asynchronous allows you to select additional filters on the Profile Endpoint configuration dialog. You cannot set this option to **Asynchronous** if the System Cache has not been configured.

Select the endpoint(s) that this profile will write its content to in this section.

**Externalize content BLOBs**  
Yes ▼

**Endpoint Selection Mode**  
Synchronous ▼

**Storage Endpoints**

#	Endpoint	Online?	Filter
<a href="#">Add Endpoint</a>			

<p>Externalize content BLOBs</p> <p>Yes ▼</p> <ul style="list-style-type: none"> <li>• The Archive Only option only works if Asynchronous is selected in the Endpoint Selection Mode field.</li> <li>• Switching the profile between these options will require an isreset and timer service stop and start.</li> </ul>	<p>No – content from lists (attachments) and libraries will not be externalized.</p> <p>Yes – content from lists (attachments) and libraries will be externalized. (default)</p> <p>Archive Only – Archiving can be configured for the scope of the profile, but nothing will be externalized until archiving conditions are met.</p>
<p>Endpoint Selection Mode</p> <p>Synchronous ▼</p> <p>Endpoint Selection Mode</p> <p>Synchronous ▼ <a href="#">Configure System Cache</a></p> <p>You cannot configure Endpoint selection to be an asynchronous operation without first configuring the System Cache.</p> <p><b>i</b>   <b>NOTE:</b> The Configure System Cache link will be visible only if the systems cache hasn't been configured. See <a href="#">System Cache</a> for details on configuring.</p>	<p>Synchronous – the configured endpoints are evaluated as content is uploaded into SharePoint (default).</p> <p>Asynchronous – the configured endpoints are evaluated by the Content Migrator job after control is returned to the end user. BLOBs are immediately written to the System Cache.</p> <p>See <a href="#">Synchronous versus Asynchronous</a> for more explanation on the differences.</p>

9. Click Add Endpoint to select an existing configured endpoint or configure rules for the different endpoints to which to send BLOBs. From the New Profile Endpoint page:
  - a. Use the dropdown to select an existing storage endpoint OR
  - b. Click Edit to change the configuration of an existing storage endpoint (see [Editing an Existing Storage or Backup Endpoint](#)) OR
  - c. Click New to create a new storage endpoint for this storage profile (see [Creating a New Storage or Backup Endpoint](#)).

The chart below shows how to configure a storage rule for the storage endpoint of the storage profile. Because there can be more than one storage endpoint per storage profile, keep in mind how the BLOBs will be filtered. For example, a profile could be created where all content less than 500KB is written to Windows Azure BLOB Storage and all content greater than or equal to 500KB is written to an on premise (i.e. NAS or SAN) BLOB store. It's also important to note that Metalogix StoragePoint will only write to the first online endpoint where the Storage Rule evaluates to TRUE.

**i** **NOTE:** If the profile has a content database scope and is using RBS, there will have to be at least one unfiltered endpoint. The only exception to this is if the filter is a file size greater than or equal to (>=) rule. This is not a requirement of EBS because Metalogix StoragePoint can refuse to externalize the BLOB which will cause SharePoint to store it in the content database. RBS does not provide the option to refuse externalization of the BLOB.

Endpoint	Select an endpoint, or click the New link to create a storage endpoint. Follow the steps in the <a href="#">Creating a New Storage or Backup Endpoint</a> .
Endpoint Start Folder	Change the starting folder of content externalized to this storage endpoint, from this storage profile. This folder would come before the storage endpoint foldering settings that were configured when the storage endpoint was created.
Online?	Yes – This endpoint is available for content to be externalized, for this profile. (default) No – This endpoint is NOT available for content to be externalized, for this profile.
<p>This option is available only for <i>asynchronous</i> profiles in SharePoint 2013 and newer.</p> <p><input type="checkbox"/> File size is <input type="text" value="&gt;="/> <input type="text" value="0"/> KB</p> <p><b>i</b> <b>NOTE:</b> If the profile is scoped to a content database <i>and</i> is using RBS <i>and</i> is using synchronous endpoint selection, only the &gt;= size filter option is available. Otherwise content database scoped profiles using RBS and synchronous endpoint selection must have at least one unfiltered endpoint (or use asynchronous endpoint selection).</p>	<p>The File size filter, if checked, will use the entered value in KB and the operator (&gt;= or &lt;=) to determine if the endpoint should be used to externalize the content BLOB.</p> <p>For example,</p> <p><input checked="" type="checkbox"/> File size is <input type="text" value="&gt;="/> <input type="text" value="100"/> KB</p> <p>would indicate that only files greater than or equal to 100KB in size should be externalized to this endpoint.</p>

# Asynchronous Endpoint Options

Endpoint Type  
Asynchronous

Asynchronous Endpoint Options

- Use SharePoint Folder in BLOB Store
- Use SharePoint Filename in BLOB Store
- Use SharePoint File Extension in BLOB Store

**i** **NOTE:** In some cases Metalogix StoragePoint will not be able to use the SharePoint folder and/or filename in the blob store. This can happen if the folder and filename path is longer than the blobstore filesystem can accommodate (in most cases the path must be under 260 characters).

In these cases, Metalogix StoragePoint will try to shorten the folder and/or filename in order to make it fit. If this fails, Metalogix StoragePoint will write the BLOB file without using the SharePoint filename and folder.

These options are only available if Endpoint Selection Mode set to Asynchronous.

These options promote the SharePoint Folder, Filename and/or File Extension information to the BLOB store when content is externalized.

**i** **NOTE:** If Use SharePoint Folder in BLOB Store is checked it will override the foldering option set on the endpoint definition.

## Externalization Filters

The File Size filter option is available only for *asynchronous* profiles.

File size is >=  KB

The File type filter can only be used if the Endpoint Selection Mode was set to Asynchronous on the Storage Profile page. This setting specifies the types of files that should be (included) or should not be (excluded) externalized to this endpoint.

Check the box and select the operator – Is (Include) or Is Not (Exclude). Then enter a comma separated list of file extensions to indicate the file types to include/exclude from externalization. For example,

File type

Is (Include)  Is Not (Exclude)

*A comma separated list of file extensions. (i.e. DOC,DOCX,XLS)*

would indicate that files with an extension of DOC, DOCX, or XLS should be externalized to this endpoint.

The Hierarchical Scope filter can only be used if the Endpoint Selection Mode was set to Asynchronous on the Storage Profile page. This setting specifies the sites, lists, and content types that should be (included) or should not be (excluded) externalized to this endpoint. Click Add Scope and select from the tree view what should or should not be included in the externalization. Nested scopes are not supported.

And  Hierarchical Scope (i.e. List)  
 Include  Exclude  
 Scope

The Metadata Rules filter can only be used if the Endpoint Selection Mode was set to Asynchronous on the Storage Profile page. This setting can be used to limit what is externalized based on content metadata. Click Add Metadata Rule and define the condition for the rule.

And  Metadata Rules  
 Rule  
 Content Type = 'Item'

If more than one type of filter is being used, (File Size, File Type, Hierarchical, or Metadata) then there will be an additional toggle added next to each of the filters, to designate the filter as required (AND) or optional (OR). Click the word to toggle from AND to OR.

Additional Filters (ch

 File size is >=  
  File type  
 Is (Include  
  
*A comma separa*  
  Hierarchica  
 Include  
 Scope

#	Endpoint	Online?	Filter	
1	EP1 (FileSystem)	Yes	Total File Size And FileType Or Scope And Metadata	<input type="button" value="X"/>

IF File Size is one of the filters, and only one of the other three are selected, the condition is AND.

Certain endpoints may show an optional checkbox for IMP retention policy promotion.

Retention Promotion from IMP

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.

 Enable Retention Promotion from IMP

1. Click OK to complete the Endpoint configuration for this profile.
  2. Click the Add Endpoint link and repeat the steps above to add another endpoint.
- After all endpoints have been added, use the arrows to set the priority of the storage endpoints. BLOBs will be written to the first storage endpoint that meets the criteria for that BLOB (availability, file size, file type, hierarchical scope, etc.).

**Storage Endpoints**

The **Endpoint Selection Mode** option determines if Endpoint selection is made immediately (Synchronous) or if it happens after the SharePoint list item has been created (Asynchronous). Making this operation asynchronous allows you to select additional filters on the Profile Endpoint configuration dialog. You cannot set this option to **Asynchronous** if the System Cache has not been configured.

Select the endpoint(s) that this profile will write its content to in this section.

**Externalize content BLOBs**  
 Yes  No

**Endpoint Selection Mode**  
 Synchronous  Asynchronous

**Storage Endpoints**

#	Endpoint	Online?	Filter	
1	2013 EP A (FileSystem)	Yes	None	↓ X
2	Amazon (AmazonS3)	Yes	None	↑ X

Continue editing the Storage Profile fields.

## Last Access Date

**Enable Last Access Date Retention**

No  Yes

*Selecting Yes will add a "Last Access Date" property to Aging rules in the archive section of the profile. Use if you want to archive based on users viewing the document instead of modifying the document. Last Access Date is changed when a document is opened.*

Choose Yes to have StoragePoint record the most recent date that a document is accessed (uploaded, read or edited.) No is the default setting.

This setting must be enabled to use Last Accessed as an Archiving condition. When Yes is selected on an existing profile and the profile is saved, a timer job will populate the field for existing files using the create date. New files will use the upload date until they are accessed.

## Unused BLOB Retention Policy

**Retain Unused Blobs For**

Days

This setting indicates how long the Unused BLOB Cleanup Job should retain BLOBs whose parent list items or documents have been removed from SharePoint (i.e. purged from recyclebin, deleted, etc.).

**i** **NOTE:** The default value is 30 days. This value synchronizes well with many backup/restore cycles but may need adjustment. See the section [Unused BLOB Cleanup Job Considerations](#) for more information.

For example, specifying 30 will cause orphaned BLOB files to be removed at least 30 days after being orphaned. The value must be between 1 and 365.

# New Profiles – Automatic scheduling of BLOB Health Analyzer and Unused BLOB Cleanup

When creating a new profile, two timer jobs will be displayed with default settings configured, to run weekly. These two timer jobs are critical to keeping SharePoint and StoragePoint functioning smoothly. Additionally, if these two jobs are run at regular intervals, if there are errors, it will not be as burdensome to isolate the cause. These jobs can be edited at any time; during profile creation or after the profile is saved. For more information, see [BLOB Health Analyzer](#) or [Unused BLOB Cleanup](#) for more information.

## Content Backup Settings

A feature of StoragePoint is the added security of being able to back up the endpoints. The settings must be configured and the timer job must be run for the backup to take place. On the backup endpoint there will be a starting folder with the GUID of the Profile. Within that folder will be more folder structure, depending on whether foldering was enabled on the backup endpoint or not. BLOBs will use their GUID rather than any SharePoint naming conventions, even if those were used in externalization.

**i** | **NOTE:** If backup settings are enabled, and the backup has not been run, Unused BLOB Cleanup will not delete the unused BLOBs from the primary endpoint that meet the retention settings of the backup service.

**i** | **NOTE:** If a new profile is being created, Save the profile before running any backup jobs.

Click the arrow to expand the Backup Settings on the Storage Profile screen.



## BLOB Backup Settings

### BLOB Backup Endpoint

None  [Edit New](#)

### Retain BLOB Backup for

180  Days

Select a backup endpoint from the dropdown. Only endpoints designated as backup will be visible in this dropdown. Selecting None (default) will not backup the primary endpoint.

The Edit and New links can be used to create new endpoints for the backup.

Enter a number of days in the Retain Backup For field to specify how long the BLOBS should remain on the backup endpoint.

### Schedule this service to run:

Never

Every  Minute(s)

Daily

Weekly on

between     and

on Server

**Advanced Job Settings** [\(Show\)](#)

The backup service is a timer job that duplicates the BLOBS on the primary endpoint, to a backup endpoint.

## BLOB Backup Settings

### BLOB Backup Endpoint

None  [Edit New](#)

### Retain BLOB Backup for

180 Days

Select a backup endpoint from the dropdown. Only endpoints designated as backup will be visible in this dropdown. Selecting None (default) will not backup the primary endpoint.

The Edit and New links can be used to create new endpoints for the backup.

Enter a number of days in the Retain Backup For field to specify how long the BLOBS should remain on the backup endpoint.

1. Select the *Never*, *Every*, *Daily*, or *Weekly* option.
  - a. For *Every*, enter the interval in minutes for the timer job to run.
  - b. For *Weekly*, select the day of the week from the supplied dropdown.
  - c. For *Daily* or *Weekly*, select the start window time from the *between* dropdowns and the end window time from the *and* dropdowns.
2. On the on Server dropdown list, select the WFE server on which to run the job.
3. Click the *Show* link next to the Advanced Job Settings to view notification settings.
4. Enter the *Number of Processing Threads* to use during job execution. It will default to one thread per processor core if no value is supplied.
5. Configure job roles. See [Controller and Worker Configuration](#) for more information
6. Under the Send Completion Notice: header, select whether the email notification should go out *Always*, or *Only when errors occur*.
7. In the *To* section:
  - a. Check the Default Notifications Contacts box to have a completion email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi- colon delimited list of other email addresses that should receive the notification.
8. Click Save to save the configured job schedule. If Run BLOB Backup Now is pushed, there will be a message to save the profile first.

Advanced Job Settings (Show)

Run Backup Now

Please save this new profile first before trying to run this service.

Delete Copy Save Cancel

## Master Key Encryption

If the scope of the profile covers a content database and uses RBS, Master Key will be required for SQL server. The master key is used for building secure RBS SQL infrastructure (provides necessary certifications for secure RBS communication in content database and for adding digital signatures for RBS components). If a password is not provided during profile creation, a temporary default password will be used. For this reason, using the interface to create the

password in StoragePoint allows the admin to set their own password. If the password is forgotten, please contact Quest Support for procedures on altering the password.

**i** **NOTE:** The Master Key is used for protecting certificates or encrypted columns in a table - this is not encrypting externalized data. An administrator may need to enter the Master Key if the database is added to availability groups in SQL.

Enter a password, and click Create Key.

## Create Master Key Encryption



**Success** Master Key with encryption by password was successfully created.

Some Content Databases used by this Profile need to use Master Key Encryption.

To protect credentials, certificates and connection information that is stored in the database, type a password below and click Create Key. If nothing is entered, a default key will be used. This RBS-required key will be needed if this database is added to availability groups.

Master Key Encryption Password:

Enter an Encryption Password

Encryption password will be used for following Content Database(s):  
WSS\_Content\_151cd4729d7340cabf64f10ce6b4201f

Click Close. Note the name of the content database that is covered by this encryption key.

## Create Master Key Encryption



Some Content Databases used by this Profile need to use Master Key Encryption.

To protect credentials, certificates and connection information that is stored in the database, type a password below and click Create Key. If nothing is entered, a default key will be used. This RBS-required key will be needed if this database is added to availability groups.

Master Key Encryption Password:

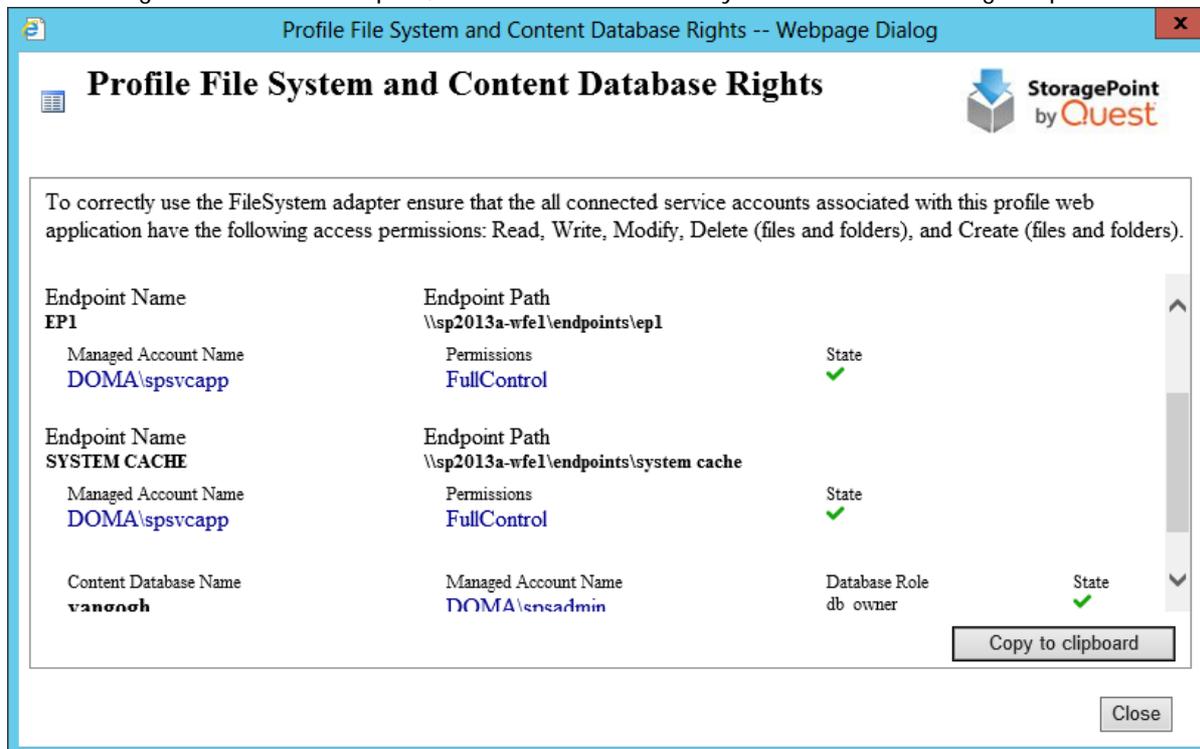
Complete

The page will be locked until the operation is complete. This operation can take several minutes.

If this page appears when saving an existing profile, note whether the profile has a librarian configuration. If so, the master key encryption is completed on the *firstsave* of the profile, rather than when the librarian configuration is saved.

# Verify File Share and Content Database Permissions (OPTIONAL)

When using the File Share adapter, an additional check may be seen when saving the profile:



This screen displays when editing an existing profile if:

- the Externalize Content BLOBs setting is Yes;
- there is at least one FileSystem endpoint;
- and the Web Application in the scope of the profile has at least one connected SharePoint (IIS Web) Service Application account that cannot access one of the FileSystem endpoints.
- The Web Application is connected (through proxy) to at least one service application, i.e. User Profile Service.

This screen displays when creating a NEW profile or copying a profile if:

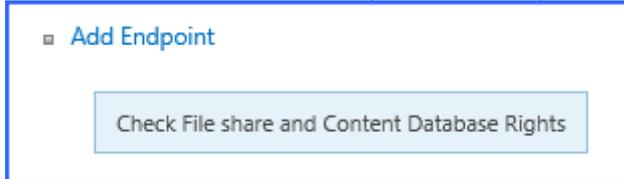
- there is at least one FileSystem endpoint;
- The Web Application is connected (through proxy) to at least one service application, i.e. User Profile Service;
- All service accounts associated with profile web application do not have file system access permissions (Read, Write, Modify, Delete, DeleteSubdirectoriesAndFiles, CreateDirectories, CreateFiles) on all FileSystem endpoints AND "db\_owner" role on all content databases associated with the profile.

**i** | **NOTE:** If the role "db\_owner" for the web application pool is missing, it will result in the following error: "The URL <> is invalid. It may refer to a nonexistent file or folder, or

refer to valid file or folder that is not in the current web". If the role "db\_owner" is missing, the user assigned the role cannot retrieve all of the required metadata from Microsoft RBS API.

When a new Content Database Profile is created, the associated web application pool account registered on SQL server will get two additional Database Role memberships: Public and SPDataAccess.

This check can be run manually by clicking the Check File share and Content Database Rights button beneath the list of endpoints on the profile.



Correct any permission issues before externalizing data. Use the Copy to Clipboard button to note which accounts need permission.

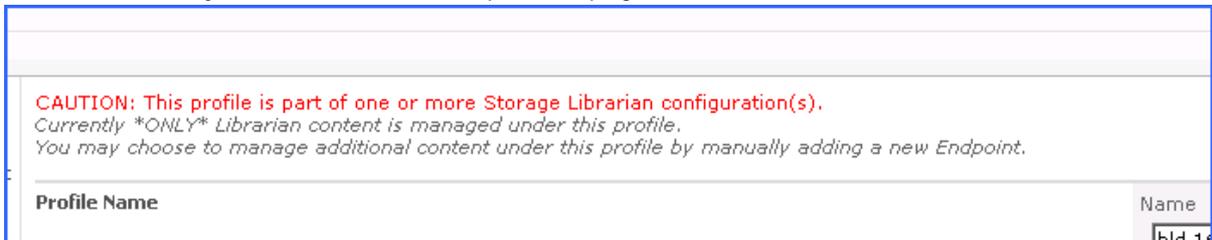
The Storage Profiles page will be displayed with the newly-created storage profile showing up in the list.

## Editing an Existing Storage Profile

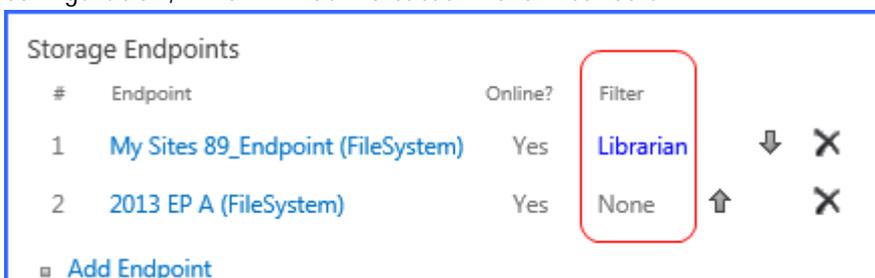
Once a profile is saved, archiving, records and holds management can be added to the profile. Endpoint filters can also be modified for asynchronous operations.

Click the name of the storage profile to edit.

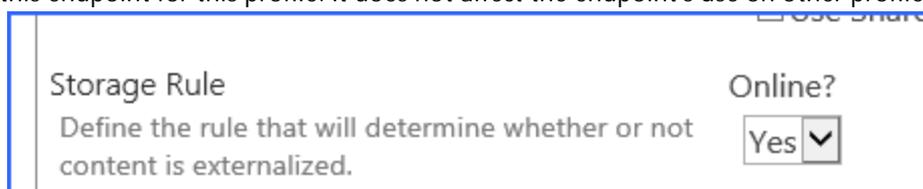
Make note of any notifications at the top of the page:



Do not change the Endpoint Selection mode on the profile that have a File Share Librarian configuration, which will be indicated in the Filter column.



To temporarily prevent externalization to an endpoint, switch the Online selection to No. This only affects this endpoint for this profile. It does not affect the endpoint's use on other profiles.



Make the necessary changes, including [endpoint filters](#), noting that the profile's scope and name cannot be changed, nor can endpoints that are associated with a File Share Librarian configuration be removed.

When complete, click Save to apply the changes.

The Storage Profiles page will display.

It is recommended that an IISRESET and a SharePoint Timer Job reset be performed on each web front end if changes were made to the storage profile.

## Archiving

Archiving can be setup to move BLOBs to different storage tiers, as content is aged or when changes in metadata are detected. The rules can be configured on different scopes of content, but there can only be one rule per scope. The most granular rule is the only rule that will ever get evaluated.

The levels of granularity are as follows, from the least to the most granular:

1. Web Application
2. Content Database
3. Site
4. Site Content Type
5. List
6. List Content Type

So, for example, if the metadata change rule is more granular than the aging rule, then the aging rule will never get evaluated for an item within the scope of the metadata change rule.

1. Aging rule on site
2. Metadata change rule on list
3. Aging rule will never be evaluated for an item within the list in 2.

If large file support is enabled, only the aspx file is moved to the archive endpoint. Profiles with [File Share Librarian Configurations](#) should not add Archiving to the profile. The archiving option won't be available for new profiles.

To configure archiving, open the profile and click the arrow of the Archiving bar.

Enable Archiving	Yes – Archiving will be enabled for this scope. No – Archiving will NOT be enabled for this scope. (default)
Archiving Rules	Click New Rule to open the New Archiving Rule window. See <a href="#">Configuring Archiving Rules</a> for more

Enable Archiving	Yes – Archiving will be enabled for this scope. No – Archiving will NOT be enabled for this scope. (default)
	information.
Archive Aging	The Archiving Aging section is used to schedule when the Archive Aging job will run, and to run it immediately if necessary.

StoragePoint Archiving Configuration ▲

**General Settings**  
Provide StoragePoint Archiving general settings in this section.

**Enable Archiving**  
No ▼

**Archiving Rules**

Scope	Rule Type
□	

# Configuring Archiving Rules

Only one rule can be created per scope. The archiving scope cannot be broader than the profile scope.

1. Expand the Archiving Configuration section on the profile. Click New Rule.
2. Click the Change link to select the scope (i.e. site collection, site, list, or content type).

New Archiving Rule ✕

 **New Archiving Rule** 

**Archiving Rule**  
Before you can define an archiving rule you must first select the scope for the rule. Click the **Change** link next to **Selected Rule Scope** to load the scope selection dialog.

With the scope selected you can then select the type of rule you want to define. You can choose from **Aging**, **Metadata Change**, and **Retained Versions** rule types. You will be prompted for additional information based on your selection and will then be able to define conditions for the rule.

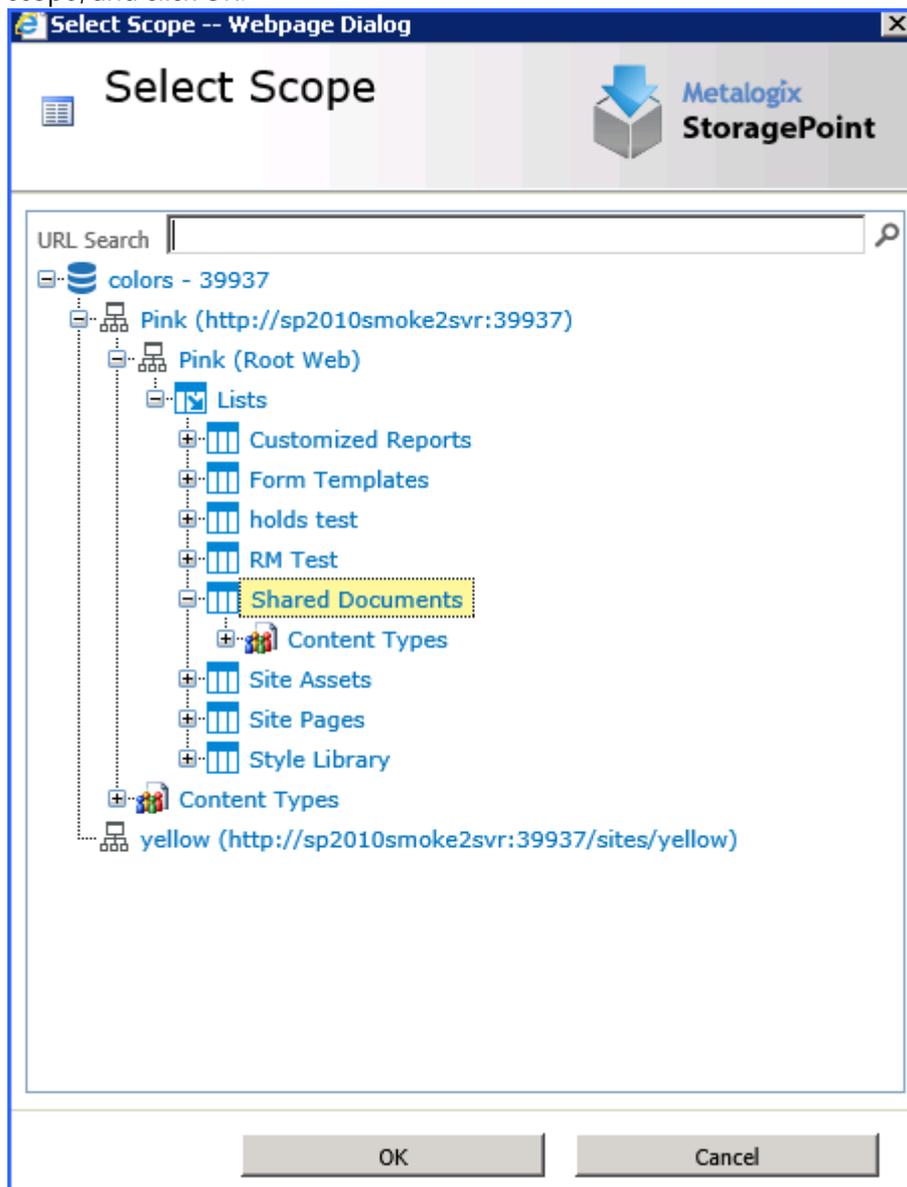
**Selected Rule Scope** [Change](#)  
(None)

**Rule Definition**  
Select the type of Archiving Rule you want to define.

None  
 Aging Rule  
 Metadata Change Rule

**Rule Description**  
N/A

3. Enter part or all of the URL to search for a scope or drill down in the hierarchy to select the scope, and click OK.



4. Note the selection in the Selected Rule Scope section.

**New Archiving Rule**

StoragePoint by Quest

**Archiving Rule**  
Before you can define an archiving rule you must first select the scope for the rule. Click the **Change** link next to **Selected Rule Scope** to load the scope selection dialog.

With the scope selected you can then select the type of rule you want to define. You can choose from **Aging**, **Metadata Change**, and **Retained Versions** rule types. You will be prompted for additional information based on your selection and will then be able to define conditions for the rule.

**Selected Rule Scope** [Change](#)

Web Application = SharePoint - 80  
Content Database = WSS\_Content  
Site = http://s6-sp19-wfe1/sites/Blue  
Web = http://s6-sp19-wfe1/sites/Blue

**Rule Definition**  
Select the type of Archiving Rule you want to define.

None  
 Aging Rule  
 Metadata Change Rule

Rule Description  
N/A

OK Cancel

5. Select the type of Rule Definition:
- None – No changes will be saved.
  - Aging Rule – This rule looks for content that has aged beyond the defined time period(s) and triggers the content to be moved to different storage endpoint(s). See [Aging Rules](#) below.
  - Metadata Change Rule – This rule captures changes in an item's metadata and triggers the content to be moved to different storage endpoint(s). See [Metadata Change Rules](#) below.

The scope of a rule cannot be edited once it is saved. To change the scope, delete the rule and recreate the rule with the corrected scope and rule definitions.

# Aging Rule Conditions

1. From the New Archiving Rule page, click the Aging Rule option.
2. Select the Date Property (i.e. Created, Modified, or some user defined data/time property) to be used to calculate the age of the content.
3. Click the New Condition link.

## New Aging Rule Condition



Aging Definition

Select a Date Property

Created

Enter a Duration and Select an Interval

+ 1 Day(s)

Or

Metadata Criteria (optional)

Select a Property

Name

Select an Operator and Enter/Select a Value

=

OK Cancel

4. On the New Aging Rule Condition page, select as Date Property (Created or Modified) that this rule will be based on.

**i** **NOTE:** Last Access Date only works if it has been enabled on the profile. See [Creating a New Storage Profile](#) for more details. However, the archiving condition can be configured and *then* enable the Last Access Date on the Profile.

5. Enter the time period (duration and interval) that needs to elapse before the content is moved.
6. Select AND/OR for the condition by clicking on the button. AND will include both the Aging Definition and Metadata Criteria, while OR will include either the Aging Definition or Metadata Criteria in the condition.
7. (Optional) Select a Property in the Metadata Criteria section, and specify a value. This condition creates a compound archiving rule.
  - a. If selecting AND as the condition, both conditions need to be true.
  - b. If selecting OR as the condition, one condition needs to be true.
8. Select the archive endpoint from the dropdown or click New or Edit as needed. See [Creating a New Storage Endpoint](#) for steps.
9. Click OK. (Click Cancel to return to the New Archiving Rule page without saving changes.) The New Archiving Rule page is displayed.
10. Click New Condition to add additional rules or click OK to return to the Archiving Configuration page once all of the rules are configured.
11. Click Save on the Archiving Configuration page once all rules are created.



**NOTE:** Make sure to configure the [Archive Aging](#) timer job if Aging Rule Conditions are created. A notice is displayed.

StoragePoint Archiving Configuration

**Info:** It is recommended to schedule Archive Aging job in Profile Jobs page to run periodically. To schedule the Archive Aging Timer job on recurring basis, go to the Jobs page of the profile and schedule the 'Archive Aging'.

## Metadata Change Rule Conditions

1. From the New Archiving Rule page, click the Metadata Change Rule option.
2. Click the New Condition link.

New Metadata Change Rule Condition

New Metadata Change Rule Condition

Definition

Select a Property

Content Type

Select an Operator and Enter/Select a Value

= Administrative Task

Operation

Select the Destination Endpoint

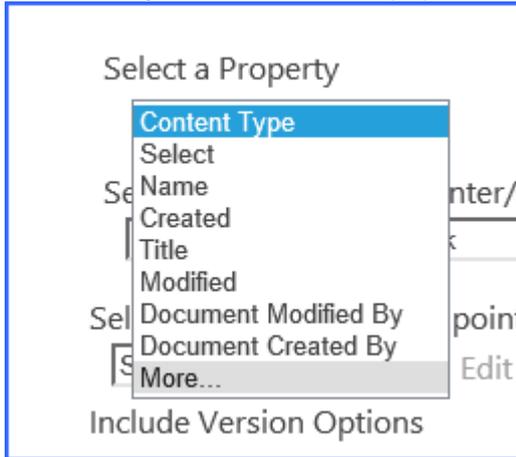
Select..

Edit New

OK Cancel

3. From the Select a Property dropdown, choose system or user-defined property. The selections in this dropdown list will change based on the scope selection made on the Archiving Rule dialog.
  - o If the scope is broader than a list or library, there will be a More... option in the Property field. Click this option to populate custom fields, and then select the field. If the scope is a

list or library, custom fields will populate automatically.



4. The Select an Operator and Enter/Select a Value fields will update accordingly. Select an Operator from the 1<sup>st</sup> dropdown and Enter/Select a value in the provided input control.

Text, User	=, <>, Begins, Contains	<input type="text"/>
Multi-Line Text	=, <>, Begins, Contains	<input type="text"/>
Number, Currency	=, <>, <, <=, >, >=	<input type="text"/>
Date Time	=, <>, <, <=, >, >=	<input type="text"/>
Yes/No	=, <>	<input checked="" type="checkbox"/>
Choice, Lookup	=, <>, Begins, Contains	<input type="text" value="New"/>
Multi-Choice, Multi-Lookup	=, <>, <, <=, >, >=	<input type="checkbox"/> Match to PO <input type="checkbox"/> Required GL Coding <input type="checkbox"/> Requires Controller Approval <input type="checkbox"/> Requires CFO Approval

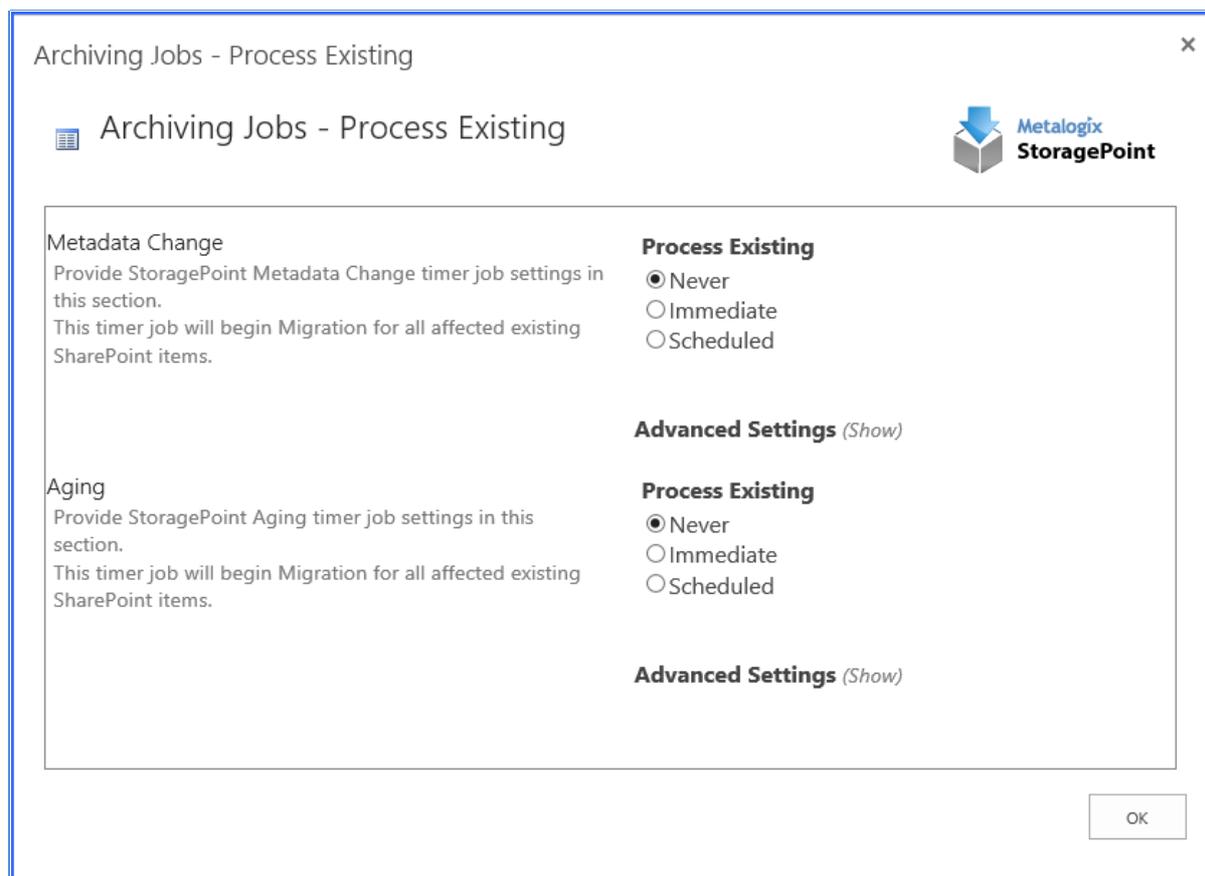
5. Select the archive endpoint from the dropdown or click New or Edit as needed. See [Creating a New Storage Endpoint](#) for steps.
6. Click OK. (Click Cancel to return to the New Archiving Rule page without saving changes.)
7. The New Archiving Rule page is displayed.
8. Click New Condition to add additional rules or click OK to return to the Archiving Configuration page once all of the rules are configured.
9. Click Save on the Archiving Configuration page once all rules are created.

# Archiving Existing Content

When Save is clicked on the Profile page after archiving rules have been created or modified, a Process Existing dialog box displays to begin the migration of existing content, according to the rules that were created. Process existing content for each type of archiving rule individually, or all types of archiving rules.

1. For each type of archiving rule, select the preference for processing existing content.

Never	Existing content BLOBs will remain where they are and never be migrated. (default)
Immediate	Existing content BLOBs will be archived right away, per the rules created.
Scheduled	Specify a specific Date and Time to run the archiving process for existing content BLOBs.



2. Click the *Show* link to see the advanced job settings.
3. (Optional) Under the Send Completion Notice To: header:
  - a. Choose Always or Only when errors occur.
  - b. Check the Default Notifications Contacts box to have an email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.

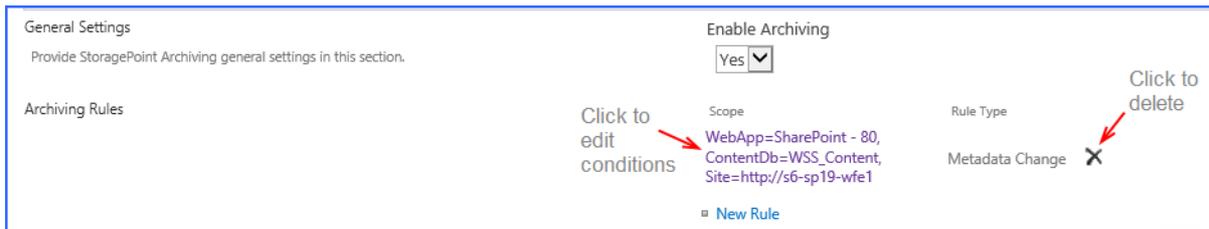
- c. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
4. (Optional) On the on Server dropdown list, select the WFE server to run the job on.
5. (Optional) Enter the Number of Processing Threads to use during job execution. It will default to one thread per processor core if no value is supplied.
6. Click *OK*.

# Deleting Archiving Rules

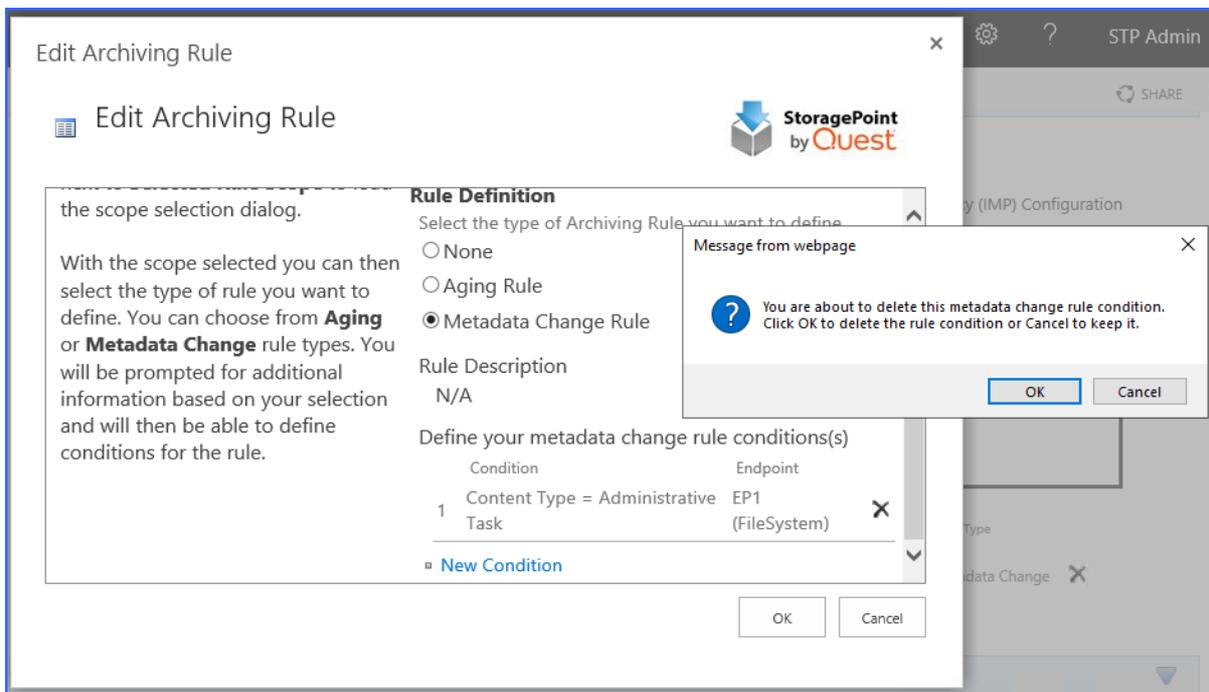
Archive rules can be edited or deleted by the farm administrator. To access an archive rule, go to the Storage Profiles page and open the profile.

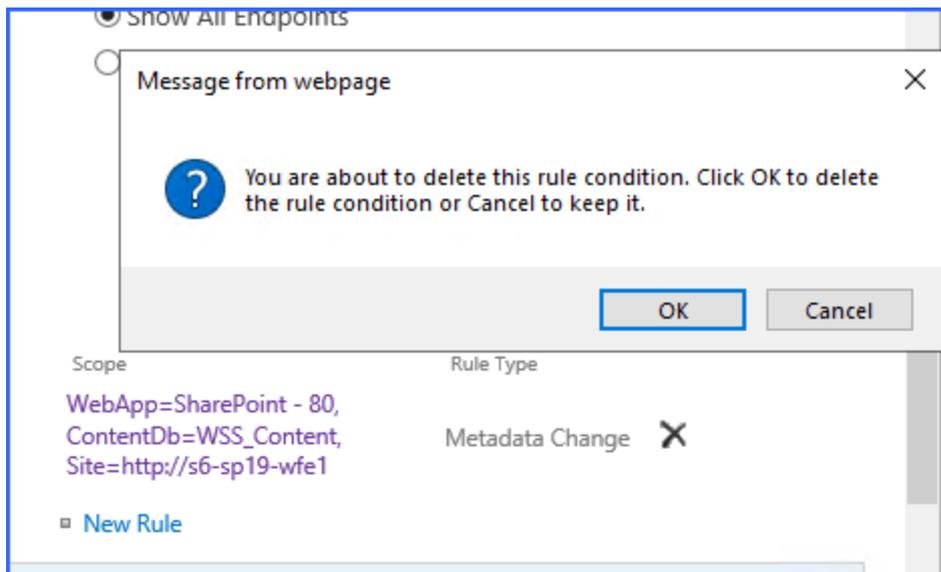
Navigate to the StoragePoint Archiving Configuration section and expand it.

- Click the rule to edit conditions of the rule.
- Or click the X to delete the rule.



Confirm the deletion. Click Ok to delete the condition or rule.

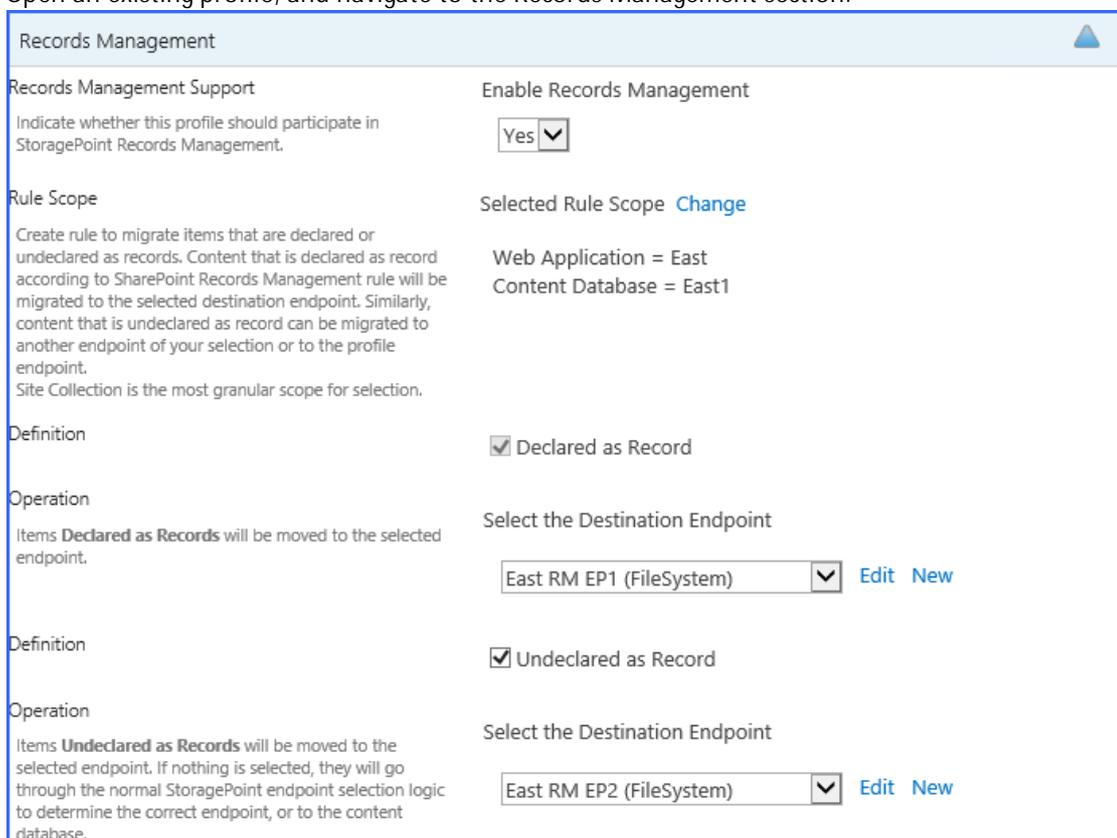




## Records Management

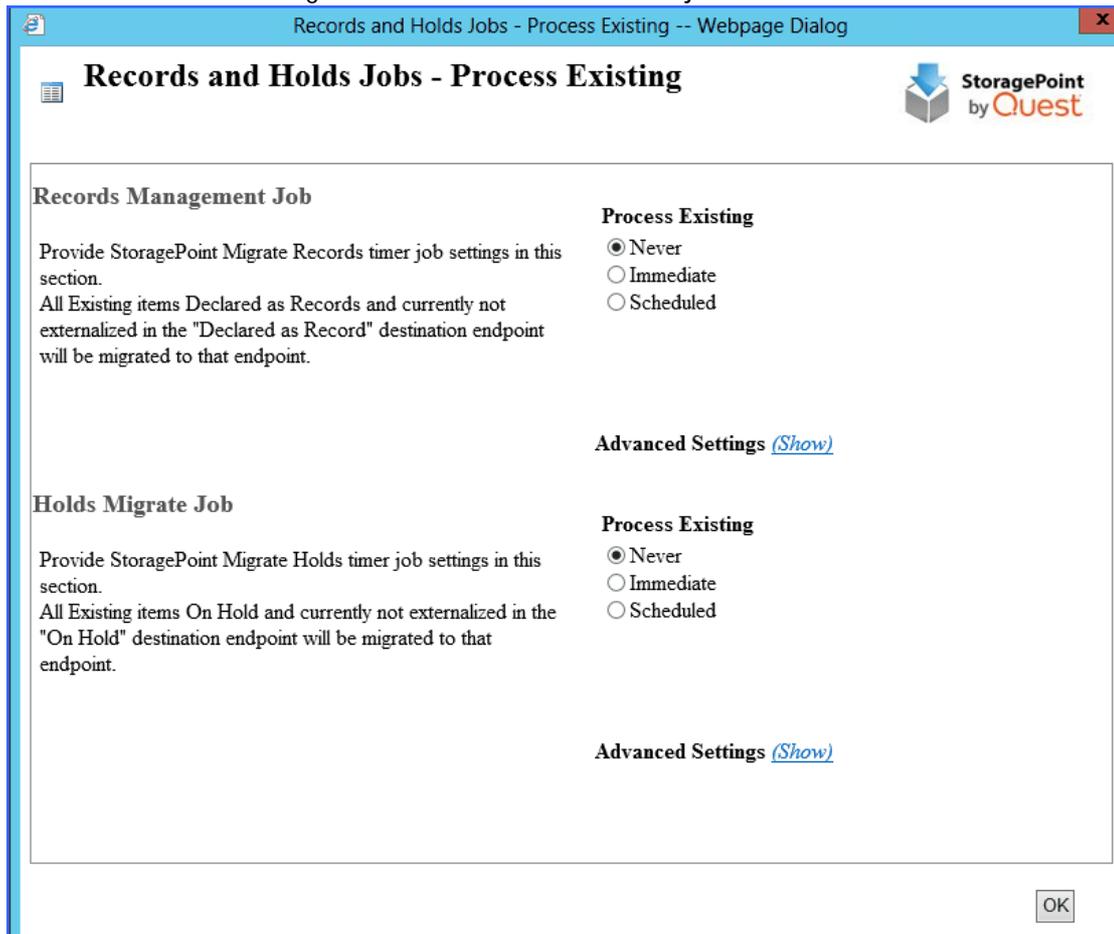
Records Management is a feature that identifies BLOBs to be migrated to a specified endpoint when the item is declared or undeclared as a Record. BLOBs are migrated when the Content Queue Migrator job is run. Because SharePoint creates a new BLOB when an item is declared a record, the records management features can only be used on asynchronous profiles.

1. Open an existing profile, and navigate to the Records Management section.



2. Select Yes from the Enable Records Management dropdown.

3. Define the scope for the rule by clicking the Change link. Use the URL search field to find a location down to the Site Level, or select the location from the hierarchy displayed in the window.
4. Check the Declared as Record checkbox, and select the endpoint from the dropdown, or create a new endpoint using the New link. An endpoint has to be selected if the feature is enabled and the checkbox is checked.
5. (Optional) Check the Undeclared as Record checkbox, and select the endpoint from the dropdown, or create a new endpoint using the New link.
6. (Optional) To migrate the BLOBs of content that are already declared a record, select Immediate in the Process Existing window, or schedule the job by clicking the Scheduled radio button and defining a date and time for the timer job.



**i** **NOTE:** Save the Records Management configuration before running the Process Existing Records timer job.

- The Records Management feature is not supported with Synchronous profiles.
- The Process Existing Records option only moves records to the Declared as Record Endpoint; it will not move items that have been undeclared to the Undeclared as Record Endpoint.
- If nothing is configured for Undeclared as a Record, then the BLOB will go through standard externalization rules and go to either an endpoint on the profile or to the content database.
- Once an item is undeclared a record, it will immediately move to the selected endpoint. If an archiving rule is defined for this scope, the item will be migrated to the endpoint based on the archiving rule. Once a document is undeclared a record, it does not get special treatment and is treated like any other item in SharePoint.
- Items that are declared as a record are not subject to StoragePoint archiving rules.

- Items that are declared (or undeclared, if an endpoint is configured) a record, are not subject to externalization filter rules (size, type, hierarchy, etc.).
- Once an item has been declared a record, any subsequent versions or updates will also go to the Declared as Record endpoint.

## Hold Management

Hold Management is a feature that identifies BLOBs to be migrated to a specified endpoint when an item is put in a hold. BLOBs are migrated when the Content Queue Migrator job is run. Because SharePoint creates a new BLOB when an item is put in a hold, the records management features can only be used on asynchronous profiles.

1. Open an existing profile, and navigate to the Holds Management section.

**Holds Management**

<p><b>Holds Management Support</b></p> <p>Indicate whether this profile should participate in StoragePoint Holds Management.</p>	<p><b>Enable Holds Management</b></p> <p><input type="button" value="Yes"/> ▼</p>
<p><b>Rule Scope</b></p> <p>Create rule to migrate items that are on hold or removed from hold. Content that is on hold according to SharePoint Holds Management rule will be migrated to the selected destination endpoint. Similarly, content that is removed from hold can be migrated to another endpoint of your selection or to the profile endpoint. Site Collection is the most granular scope for selection.</p>	<p><b>Selected Rule Scope</b> <a href="#">Change</a></p> <p>Web Application = East Content Database = East1</p>
<p><b>Definition</b></p>	<p><input checked="" type="checkbox"/> On Hold</p>
<p><b>Operation</b></p> <p>Items <b>On Hold</b> will be moved to the selected endpoint.</p>	<p><b>Select the Destination Endpoint</b></p> <p><input type="text" value="East Holds EP1 (FileSystem)"/> ▼ <a href="#">Edit</a> <a href="#">New</a></p>
<p><b>Definition</b></p>	<p><input checked="" type="checkbox"/> Removed From Hold</p>
<p><b>Operation</b></p> <p>Items <b>Removed From Hold</b> will be moved to the selected endpoint. If nothing is selected, they will go through the normal StoragePoint endpoint selection logic to determine the correct endpoint, or to the content database.</p>	<p><b>Select the Destination Endpoint</b></p> <p><input type="text" value="East Holds EP2 (FileSystem)"/> ▼ <a href="#">Edit</a> <a href="#">New</a></p>

2. Select Yes from the Enable Holds Management dropdown.
3. Define the scope for the rule by clicking the Change link. Use the URL search field to find a location down to the Site Level, or select the location from the hierarchy displayed in the window.
4. Check the On Hold checkbox, and select the endpoint from the dropdown, or create a new endpoint using the New link. An endpoint has to be selected if the feature is enabled and the checkbox is checked.
5. (Optional) Check the Removed from Hold checkbox, and select the endpoint from the dropdown, or create a new endpoint using the New link.
6. (Optional) To migrate the BLOBs of content that are already in hold, select Immediate in the Process Existing window, or schedule the job by clicking the Scheduled radio button and

defining a date and time for the timer job.

**Records Management Job**

Provide StoragePoint Migrate Records timer job settings in this section.  
All Existing items Declared as Records and currently not externalized in the "Declared as Record" destination endpoint will be migrated to that endpoint.

**Process Existing**

Never  
 Immediate  
 Scheduled

**Advanced Settings** ([Show](#))

**Holds Migrate Job**

Provide StoragePoint Migrate Holds timer job settings in this section.  
All Existing items On Hold and currently not externalized in the "On Hold" destination endpoint will be migrated to that endpoint.

**Process Existing**

Never  
 Immediate  
 Scheduled

**Advanced Settings** ([Show](#))

OK

**i** **NOTE:** Save the On Holds configuration before running the Process Existing Records timer job.

- The Holds Management feature is not supported with Synchronous profiles.
- The Process Existing Records option only moves items in hold to the On Hold Endpoint; it will not move items that have been taken out of hold to the Removed from Hold Endpoint.
- If nothing is configured for On Hold, then the BLOB will go through standard externalization rules and go to either an endpoint on the profile or to the content database.
- Once an item is taken out of hold, it will immediately move to the selected endpoint. If an archiving rule is defined for this scope, the item will be migrated to the endpoint based on the archiving rule. Once a document is removed from hold, it does not get special treatment and is treated like any other item in SharePoint.
- Items that are in hold are not subject to StoragePoint archiving rules.
- Items that are moved into or out of hold are not subject to externalization filter rules (size, type, hierarchy, etc.).
- Once an item has been placed in hold, any subsequent versions or updates will also go to the On Hold endpoint.

# Archive, Record and Hold Priority

Content may meet all or some conditions that would move it from its original endpoint to a second endpoint. When the content is analyzed by the Content Queue Migration job, the priority of which endpoint to select will be as follows:

1. Holds
2. Records
3. Archiving
  - Holds will always take precedence.
  - Putting an item in Hold will move the BLOB from a Records or Archiving endpoint when Content Queue Migrator is run.
  - Marking an item as a Record will move a BLOB from an Archiving endpoint, but will not move it from a Hold endpoint.
  - An item marked as a Record, or in Hold, will not be migrated to an Archiving endpoint even if it meets archiving conditions.

For example, if a file is uploaded and migrated to the main profile endpoint, then meets archiving conditions, it will go to the archiving endpoint. If the item is then declared as a record, it will move to the records management endpoint when Content Queue Migrator is run. If the item is then put in Hold, it will be moved to the holds management endpoint.

Conversely, if a file is uploaded and moved to the main profile endpoint, but then put in hold, it will move to the holds management endpoint. If the file meets archiving conditions or is declared a record, it will not be moved to the archiving or records management endpoints, respectively.

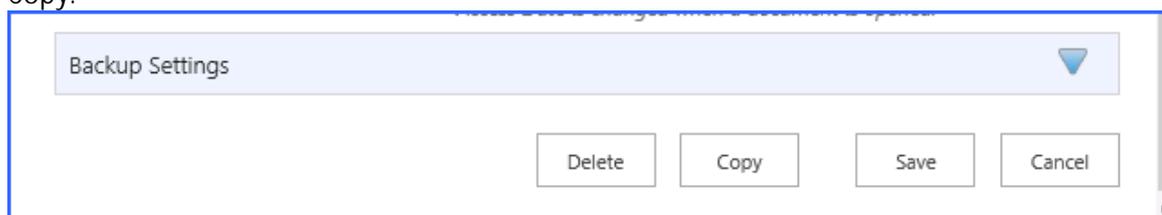
## Copying a Profile

A quick way to create profiles is to use the copy feature. This takes a 'snapshot' of a profile, and except for the scope, copies all the configuration information into a new profile. This can save time in

- selecting endpoints,
- configuring timer jobs,
- setting up archiving, backup, and records management,
- and other configuration steps.

It is more comprehensive than relying on the Default Settings, and will likely be more customized to reflect settings already widely used for other parts of the SharePoint farm.

1. At the bottom of the profile page is a Copy button to copy the setup of an existing profile. Click Copy.



2. A summary will be displayed of the profile configuration. Click Copy to make a copy of this configuration.

**Copy Storage Profile** ⓘ

**Base Information**

Retention	1
Endpoint Selection Mode	Async
Single Instancing	False
Last Access Date Retention	False

**Endpoints Information**

Endpoints	#	Endpoint	Online?	Filter
	1	EP2 (FileSystem)	Yes	

**Backup Information**

Backup Endpoint	BU EP1
Retain Backup For	1

**Jobs Information**

Jobs Count	4		
Jobs	#	Job Name	Schedule
	1	StoragePoint BLOB Health Analyzer	weekly between 6/13/2014 12:00 AM and 6/13/2014 3:00 AM
	2	StoragePoint Unused Blob Cleanup	weekly between 6/13/2014 12:00 AM and 6/13/2014 3:00 AM
	3	StoragePoint BLOB Health Analyzer	weekly between 6/13/2014 12:00 AM and 6/13/2014 3:00 AM
	4	StoragePoint Unused Blob Cleanup	weekly between 6/13/2014 12:00 AM and 6/13/2014 3:00 AM

**Archiving Information**

Enabled	False
Allow IMP Configuration	False
Endpoints to Show in IMP Configuration	None

**Records Management Information**

Copy Cancel

3. A new profile screen opens, and the Name indicates that it is a copy. Update the name, select the scope of this new profile, which has been cleared, and make any other changes to the profile before saving.

**Name**

Northwest CDB --> COPY

Web Application [Change](#)

No Selection

Content Database [Change](#)

No Selection

Items to make special note of:

- The Start folder of the endpoint, especially if this reflects the profile's name.
- Any filters for asynchronous profiles. Make sure they still apply to the content of the new scope. Metadata and hierarchical filters are not copied.
- Librarian endpoints are not copied.
- Anything that used a hierarchical scope (filtering, archiving) needs to be corrected.
- A profile reboot may be needed after saving to enable the links on the SharePoint content within the scope of the new profile. To do this, open the profile, disable externalization, save the profile, open and enable externalization on the profile, and save.

## Delete an Existing Storage Profile

While safeguards are in place to prevent externalized content from becoming irretrievable, deleting a storage profiles is still an operation that should be carefully planned and completed.

**i** | **NOTE:** Deleting the profile will automatically schedule a Bulk Recall and an Unused BLOB Cleanup job for the profile.

**i** | **NOTE:** Deleting a profile with a librarian configuration is not possible. A warning will be displayed to delete the Librarian configuration first. Perform a Bulk Recall job for the profile, BEFORE deleting the librarian configuration. This will prevent errors when the bulk recall is performed at the time of profile deletion.

## Delete Versus Disable

If there was a File Share Librarian configuration that was associated with the profile, the content on that endpoint is also pulled into the content database by the bulk recall job when the profile is deleted. In this case, just change the Externalize Content BLOBS to No, instead of deleting the profile. This will leave the librarian file share intact.

**It is strongly recommended that an Unused BLOB Cleanup Timer Job be run so that there is no confusion as to why there may be some BLOBs remaining after the Recall Job is performed. Once the Storage Profile is gone, there is no access to the Unused BLOB Cleanup Timer Job.**

1. Click the name of the storage profile to open it.
2. Click Delete at the bottom of the page.
3. A deletion confirmation page is displayed.
4. Select the server on which to run the delete job.
5. Check the Default Notification Contacts checkbox, or enter other email addresses that should receive the completion notice.

6. Click Delete to continue with the deletion process or Cancel to return to the previous page.

**Warning** A storage profile cannot be deleted while there is externalized content associated with it, as the externalized content would become irretrievable within SharePoint.

Profile Name: WSSContent

Delete Profile?  
If you choose Delete Profile the storage profile will be deactivated (new content will not be externalized) and a BLOB Recall job will be scheduled to run immediately. After the Recall job has successfully completed the storage profile will be deleted.

**Job Properties**

Number of Processing Threads  
  
*If blank, will default to one thread per processor.*

Server  
 ▼

Send Completion Notice to:  
 Default notification contacts

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

A Recall job will be scheduled for the storage profile. Upon successful completion of that job the storage profile will be deleted. Until then, the storage profile will be in a “deleting” state and will not be editable. Additional timer jobs will also be unavailable for running or scheduling.

## Retiring Storage Profiles

If there is a broader scoped profile available at the time of selecting Delete on the profile page, the only option will be to retire the profile, and select a successor profile. For example, if the profile being deleted covers a content database, but there is still an existing web application profile that

covers that content database, the option to retire will be displayed but Delete will be greyed out.

## Delete Storage Profile



**Warning** A storage profile cannot be deleted while there is externalized content associated with it, as the externalized content would become irretrievable within SharePoint.

Profile Name: south 2 CDB

Delete or Retire Profile?

If you choose Delete Profile the storage profile will be deactivated (new content will not be externalized) and a BLOB Recall job will be scheduled to run immediately. After the Recall job has successfully completed the storage profile will be deleted.

If you choose Retire Profile the storage profile will be deactivated (new content will not be externalized) and a BLOB Recall job will be scheduled to run immediately. After the Recall job has successfully completed the storage profile will be deleted and all its content will be moved to Successor profile using BLOB Externalization job. After the BLOB Externalization job has successfully completed Backup BLOBs will be retired using BackupSync job if you select 'Retire BLOBs Backup' option otherwise Backup BLOBs will be cleared.

**Job Properties**

Number of Processing Threads:   
*If blank, will default to one thread per processor.*

Server:

Send Completion Notice to:

Default notification contacts

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

Successor Profile: **South Web App**

Profile BLOBs Backups: Indicate whether BLOBs backups belong to this Profile should also be retired.

Retire BLOBs Backups

Successor Backup EndPoint:  [New](#)

If Retire is selected, the content will still be recalled, but a subsequent bulk externalization job will externalize the recalled content to the endpoint on the broader scoped profile. The Bulk Externalization job will need to be run manually if there are any errors in the Bulk Recall job. An Unused BLOB Cleanup Job will also be run for the retiring profile.

Backed up BLOBs can be moved to the Backup Endpoint of the successor profile, if the 'Retire BLOBs Backups' is checked, and there is a backup endpoint on the successor profile. (A backup endpoint can be selected for the successor profile at the time of profile retirement, using the dropdown.) They will be backed up by the successor profile's backup synchronization job, after they are externalized. Otherwise, backed up BLOBs from the retired profile will be cleared.

As with all bulk recall jobs, archived content will also be recalled. Archiving may need to be reconfigured for the successor profile, and it may be necessary to perform a Process Existing operation to re-archive content, if desired.

# Storage Profile Timer Jobs

Storage Profile timer jobs process content based on the scope of the profile, rather than the entire SharePoint farm. They are the Unused BLOB Cleanup, BLOB Health Analyzer, BLOB Externalization, BLOB Recall, BLOB Migration, and Archive Aging jobs. This section will cover the purpose and configuration options for each. To review the summaries of each of these jobs, see [Metalogix StoragePoint Timer Job Monitoring](#).

1. Click the Storage Profiles link on the Application Management page in SharePoint Central Administration.
2. Click the Jobs link in the Advanced Configuration column of the desired Storage Profile.
3. The Job Configuration page is displayed.

These timer jobs are profile-specific. To see the farm-wide timer jobs and reports, including System Health Report, go to [General Settings](#).

## Unused BLOB Cleanup Job Considerations

### What is an unused BLOB and what is the Unused BLOB Cleanup Job?

BLOB files on the external file store may become orphaned in a number of ways including being purged from the SharePoint Recycle Bin. SharePoint also generates a substantial number of orphaned BLOBs in the course of its normal operations. For example, when a document is checked out, modified and checked back in, SharePoint may write out an entirely new copy of the BLOB file and abandon the old one.

The Unused BLOB Cleanup Job removes these orphaned BLOBs from the external file store. It is important to schedule and run this job on a regular basis to reclaim space on the external file store and stop the file store from growing too large with unused BLOB files. However, there are several considerations to take into account when scheduling this job.

### Unused BLOB Retention Settings

The Unused BLOB Retention is a setting on each profile that specifies how many days after being orphaned that a BLOB file should be retained. So instead of deleting the BLOB immediately after being orphaned, the Unused BLOB Cleanup Job will retain the BLOB for a specified number of days.

This setting is important for synchronizing the BLOB store around the backup/restore cycle. The Unused BLOB setting allows for restoring older backups of the content database without restoring backups of the file store. Backups of the content database as old as the retention setting can be safely restored without also restoring the file store. This setting is particularly important if the backup cycles of the content database and file store are not synchronized.

The Unused BLOB retention setting also allows for item level restore using other Metalogix products. In this case, the BLOB retention must be set to the maximum number of days in the past

that deleted items can be restored. So, for example, if the retention is set to 180 days, then any SharePoint documents or list items deleted in the last 180 days could be safely restored.

In certain situations, sites may be deleted, but kept in an indefinite hold in a secondary recycle bin. SharePoint still marks this site as deleted, and therefore, the Unused BLOB Cleanup job may mark the BLOBs of that site for deletion, if the profile retention policy has been met. So even though the site is still within the restore window for the recycle bin, the BLOBs may not be. It is important to correlate these timeframes when configuring profiles and recycle bin retention policies. For more information, please contact Quest Support.

## Job Execution Frequency

The Unused BLOB Cleanup Job should be run on a regular basis to keep the file store from becoming cluttered with orphaned BLOB files. When creating a new profile, it will default to weekly. However, how frequently it should run depends on several factors:

- How active is the SharePoint site? If the site has users performing lots of check-in/checkout activity or deletion of files, then the file store could see large numbers of orphaned BLOB files start to accumulate.
- How large are typical files in use on the site? If very large files are being manipulated or uploaded to the site, then the BLOB store could see a sizeable amount of space devoted to orphans. However, if the files are small, then this may not be a major concern.
- How big is the content database? If the content database has large numbers of documents, then the Unused BLOB Cleanup job may take several hours to run. This means that the job must be carefully scheduled around backup/restore and other maintenance windows.
- How many content databases are there in the farm? If there are a large number of content databases in the farm, then each will need its own Unused BLOB Cleanup Job scheduled. These need to be carefully scheduled to avoid overloading the WFE servers or database servers.
- How much "slack" space does the BLOB store have? If the BLOB store has plenty of room to expand (and then shrink once the cleanup job runs), then running the Unused BLOB Cleanup Job less frequently may be a viable option. However, if space is tight, then the job may need to be scheduled to run more often.

## Unused BLOB Cleanup

This job will remove BLOBs from the BLOB store(s) associated with the storage profile that are no longer referenced in SharePoint. It can be configured to run Daily or Weekly at a certain time. This job is scheduled by default when a profile is created. The job can also be run immediately by clicking Remove Unused BLOBs Now. Please refer to [Unused BLOB Cleanup Job Considerations](#) for more information.

- If Large File Support is enabled, the Unused BLOB Cleanup job scans all content for orphaned BLOBs. This can be disabled by selecting No in the first dropdown.
- If a Site Collection has recently been deleted, SharePoint doesn't delete it until the Gradual Site Delete timer job has been run. The Unused BLOB Cleanup job may return errors until the deleted site collection is removed by SharePoint. It is recommended that the Gradual Site Delete timer job be run manually, after deleting a Site Collection.
- If the filter is used on a Manually Initiated Job (Remove Unused BLOBs Now), it will not be retained for scheduled jobs, unless the timer job is saved.

- Due to SQL limitations, adding a hierarchy scope eliminates the system cache from the scope of the timer job. To remedy this, run the job without a filter.

**Timer Job Scope**

**StoragePoint Unused BLOB Cleanup**

Provide Unused BLOB Cleanup timer job settings in this section. This timer job will remove BLOBs that are no longer in use by SharePoint. The **Unused BLOB Retention Policy** settings on the Storage Profile will dictate whether the BLOBs are removed immediately or retained for a specified number of days.

ContentDb  
WSS\_Content

Include Large Files

Schedule this process to run:

Never  
 Daily  
 Weekly on

between   and

on Server

**Job Filter** (Hide)  
for the following scope:  
Web Application = SharePoint - 80  
Content Database = WSS\_Content  
Site = http://qa-sa-sp16 [Change](#) [Clear](#)  
Web = http://qa-sa-sp16  
List = Documents

Endpoints

**Advanced Job Settings** (Show)

To configure the Unused BLOB Cleanup job:

1. Note the Timer Job Scope (at the top of the page) of the Storage Profile selected.
2. Select Yes or No for Include Large File Scanning. Yes will include the BLOBs and stubs created while using the Large File Upload in the scan for content to be removed. No (default) will ignore them.
3. (Optional) If Yes was selected for Include Large Files, click the Scan Only Large Files to only analyze Large File Uploads within the profile.
4. Select the Never, Daily, or Weekly on option.
5. For Weekly, select the day of the week from the supplied dropdown.
6. For Daily or Weekly, select the start window time from the between dropdowns and the end window time from the and dropdowns.
7. (Optional) On the on Server dropdown list, select the WFE server to run the job on.
8. (Optional) Click the Show link next to Job Filter. Click Change to open the scope selection window. By default the entire scope of the profile is included. Select a scope from within the profile scope to narrow down the amount of data the timer job will have to process. Click Ok.

**Job Filter** (Hide)  
for the following scope:  
Web Application = SharePoint - 80  
Content Database = database3 [Change](#) [Clear](#)  
Site = http://dsp2016sqlandap/sites/test2

Use the Change link to modify a filter and the Clear link to remove a filter.

9. (Optional) On the Job Filter dropdown, select one, multiple, or all (default) endpoints.
10. (Optional) Click the Show link next to the Advanced Job Settings to view notification settings.
11. Under the Send Completion Notice: header, select whether the email notification should go out Always, or Only when errors occur.
12. (Optional) In the *T* section:

- a. Check the Default Notifications Contacts box to have a completion email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
13. Click Save to save the configured job schedule.
14. (Optional) Click Remove Unused BLOBs Now, to begin the timer job immediately.

**i** | **NOTE:** Endpoints on a WORM device will be ignored by the Unused BLOB Cleanup Job.

The Unused BLOB Cleanup Job summary, found on the [Job Status page](#), will provide details on what was removed, marked for future deletion, and what is still in use.

Timer Job Summary	
Site Collections Processed	1
Scope Filter	No
BLOB Files in Use	0
BLOB Files No Longer in Use	0
Unused BLOB Files Marked for Future Deletion	0
Unused BLOB Files on WORM device (cannot be deleted)	0
Unused BLOB Files under Retention or put On Hold (cannot be deleted)	0
Unused BLOB Files Removed	0
Unused Backup BLOB Files Marked for Future Deletion	0
Unused Backup BLOB Files on WORM device (cannot be deleted)	0
Unused Backup BLOB Files under Retention or put On Hold (cannot be deleted)	0
Unused Backup BLOB Files Removed	0
Errors Encountered	0

The Unused Blob Cleanup summary will reset the count after each run as they are not cumulative.



**NOTE:** The counters which will not reset after each run are the "Unused BLOB Files under Retention or put On Hold (cannot be deleted)" and "Unused Backup BLOB Files under Retention or put On Hold (cannot be deleted)" counters. These counters will display a cumulative count of BLOBs that cannot be deleted, but only when the profile retention expires.

BLOB Files in Use	File exists in SharePoint (site or recycle bins)
BLOB Files No Longer in Use	File is out of SP* or BLOB was recalled.
Unused BLOB Files Marked for Future Deletion	The file is out of SP* but the profile retention has not expired yet.
Unused BLOB Files on WORM device (cannot be deleted)	The file is out of SP* but it is located on a WORM device (cannot be deleted).
Unused BLOB Files under Retention or put On Hold (cannot be deleted)	The file is out of SP* and the profile retention has expired, but it cannot be deleted (e.g. it is on a WORM device).
Unused BLOB Files Removed	The file is out of SP* and the profile retention has expired.
Unused Backup BLOB Files Marked for Future Deletion	The file backup is no longer in use but the profile retention has not expired yet.
Unused Backup BLOB Files on WORM device (cannot be deleted)	The file backup is no longer in use but it is located on a WORM device (cannot be deleted).
Unused Backup BLOB Files under Retention or put On Hold (cannot be deleted)	The file backup is no longer in use and the profile retention has expired but it cannot be deleted (e.g. it is on a WORM device).
Unused Backup BLOB Files Removed	The file backup is no longer in use and the profile retention has expired.

out of SP\* = file is removed from folder and any SharePoint recycle bins

# Unused BLOB Cleanup – Analyze & Estimate

To display an estimate of the number of BLOBs no longer in use and therefore ready to be removed:

1. Click Analyze and Estimate.
2. The estimates for all content databases covered by the scope of the profile will be displayed, showing how many BLOBs could be removed by running the timer job.

**Analyze & Estimate**

Unused BLOBs Analysis

Profile Name	Profile Unused BLOB Retention	# of current chunks (# of items)	Size of current BLOB Store (MB)	# of unused chunks (# of items)	Size of Unused BLOBs (MB)
Blue	30 days	49 (8)	2.216	15 (2)	0.751

**Large Files**

# of unused Large File BLOBs (# of Files)	Size of Large File BLOBs (MB)
0 (0)	0.000

**Backup BLOBs**

# of unused backup BLOBs (# of Files)	Size of unused backup BLOBs (MB)
0 (0)	0.000

3. Click Back to return to the Timer Jobs screen.

## BLOB Health Analyzer

The BLOB Health Analyzer tool looks at the BLOBs for the profile to check for inconsistencies such as missing BLOB files, BLOB reference size mismatches, or invalid BLNK files. This timer job may have been configured to run weekly, when the profile was first created.

**StoragePoint BLOB Health Analyzer**

Provide BLOB Health Analyzer timer job settings in this section. This timer job will analyze and optionally try to restore profile content. Analyzer will fix from the following:

- Missing BLOB Files.
- Restore BLOBs if "Restore Missing BLOBs" is checked.
- BLOB references with mismatched size.
- BLNK (link) files with invalid content.
- BLNK files optimized and updated.
- Various system cache metrics.

Include Large Files:  Yes

Schedule this process to run:

Never  
 Daily  
 Weekly on **Saturday**

between **12 AM** and **3 AM**

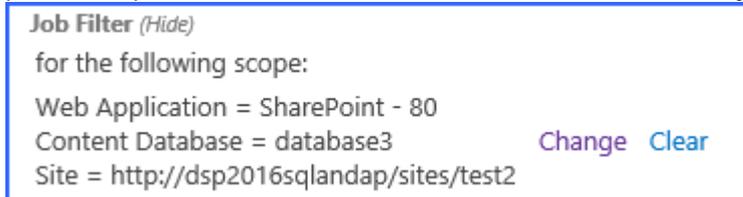
on Server: **STP-SP13-0**

Job Filter: **(All)**

Advanced Job Settings:  Restore Missing BLOBs

1. Note the Timer Job Scope of the Storage Profile selected.
2. Select Yes or No (default) to also scan Large Files. Selecting Yes may impact job performance. No (default) will ignore them.
3. (Optional) If Yes was selected for Include Large Files, click the Scan Only Large Files to only analyze Large File Uploads within the profile.
4. Select the Never, Daily, or Weekly on option.
5. For Weekly, select the day of the week from the supplied dropdown.

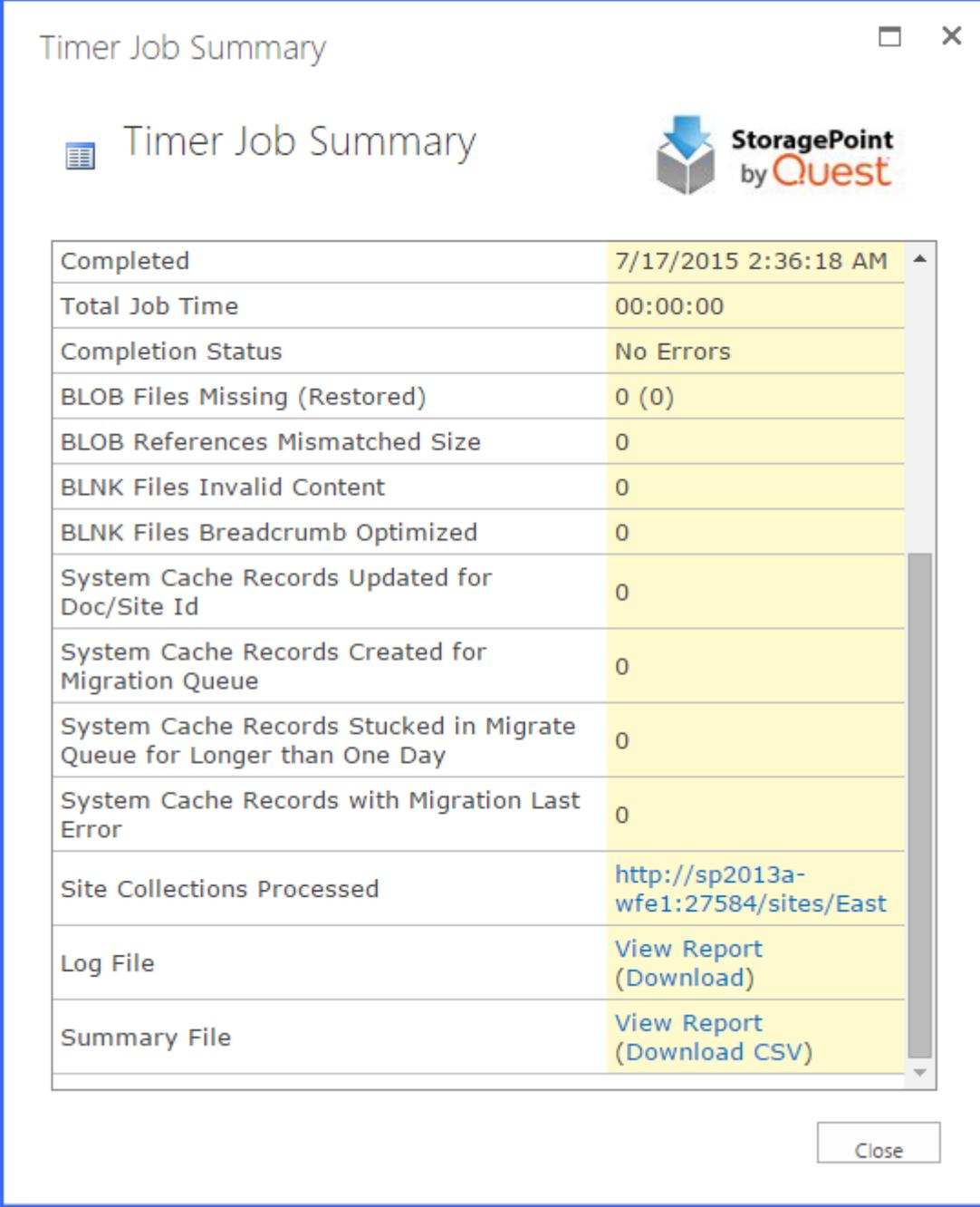
6. For Daily or Weekly, select the start window time from the between dropdowns and the end window time from the and dropdowns.
7. (Optional) On the on Server dropdown list, select the WFE server to run the job on.
8. (Optional) Click the Show link next to Job Filter. Click Change to open the scope selection window. By default the entire scope of the profile is included. Select a scope from within the profile scope to narrow down the amount of data the timer job will have to process. Click Ok.



Use the Change link to modify a filter and the Clear link to remove a filter.

9. (Optional) Click the Show link next to the Advanced Job Settings to view notification settings.
10. Under the Send Completion Notice: header, select whether the email notification should go out Always, or Only when errors occur.
11. (Optional) In the *T* section:
  - a. Check the Default Notifications Contacts box to have a completion email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
12. Check the Restore Missing BLOBs checkbox to restore BLOBs from the backup endpoint, to the current endpoint. Only files that exist in SharePoint that are found to have their BLOBs missing will be restored.
13. Click Save to save the configured job schedule.
14. (Optional) Click Process BLOB Health Analyze Now to begin the job immediately.

The summary of the timer job, found on the [Timer Job Status](#) page, will list any inconsistencies found.



Timer Job Summary

StoragePoint by Quest

Completed	7/17/2015 2:36:18 AM
Total Job Time	00:00:00
Completion Status	No Errors
BLOB Files Missing (Restored)	0 (0)
BLOB References Mismatched Size	0
BLNK Files Invalid Content	0
BLNK Files Breadcrumb Optimized	0
System Cache Records Updated for Doc/Site Id	0
System Cache Records Created for Migration Queue	0
System Cache Records Stucked in Migrate Queue for Longer than One Day	0
System Cache Records with Migration Last Error	0
Site Collections Processed	<a href="http://sp2013a-wfe1:27584/sites/East">http://sp2013a-wfe1:27584/sites/East</a>
Log File	<a href="#">View Report (Download)</a>
Summary File	<a href="#">View Report (Download CSV)</a>

Close

The Log File and Summary File can be viewed in a browser window by clicking View Report.

The Download CSV link will download a text file of the respective report.

The Log File contains information regarding the overall status of the scan.

```
about:blank
Beginning Reference Check on Profile: 3f85d2af-2b6f-4753-8f68-f9c7146ab18a
-----
# Beginning scan of site http://sp2013a-wfe1:27584/sites/East (308929d9-6b23-4a7e-9d17-e58f0d126159). Total Files to Scan: 0
-----
Finished scan.
-----
Finished Reference Check on Profile: 3f85d2af-2b6f-4753-8f68-f9c7146ab18a. Total Files Scanned: 0 (Planned to Scan: 0)
- 0 document(s) had missing BLOB files, 0 of them have been repopulated from backup.
- 0 document(s) had BLOB reference size mismatch.
- 0 document(s) had invalid BLNK file.
```

The Summary File will contain details about BLOBs that have generated inconsistencies.

```
about:blank
URL,EndPoint Name,Relative Path,Created Date,Last Date Modified,Version,Level,Error Type,Site Id,Document Id
```

## Externalize and Recall Job Considerations

### Pre-Execution Recommended Steps

There are a number of things to consider before running an Externalize or Recall job:

1. While it is not required, we strongly recommend that Externalize and Recall operations be performed during operational windows where users and other bulk processes are not using the same system resources and/or accessing the same content.
2. We strongly recommend that Indexes are rebuilt and Statistics are updated on each content database that will participate in a Externalize or Recall job execution.
3. We strongly recommend that there is a recent backup of the content database and in the case of a Recall job, the BLOB store as well.
4. We recommend setting the Recovery mode on the SharePoint Content database to Simple before running any jobs. Please go [here](#) for more information on Recovery Modes. If Recovery Mode is not switched to Simple, please make sure there is enough available disk space to handle the growth of the Content database's associated transaction log.

### Post-Execution Recommended Steps

There are several steps we would strongly recommend running after an Externalize or Recall job is complete:

Post-Externalize Job (performed on each content database individually):

1. DBCC\_SHRINKDATABASE (may have to complete this step multiple times to fully reclaim unused space)
2. Reorganize or Rebuild indexes
3. Update statistics (should be done after the indexes are rebuilt)
4. Backup database

Post-Recall Job (performed on each content database individually):

1. Reorganize or Rebuild indexes

2. Update statistics (should be done after the indexes are rebuilt)
3. Backup database

For more information on general best practices on maintaining SQL for SharePoint please refer to the following [information](#).

## Shrinking a Content Database after Content has been Externalized

This section is only relevant for existing content databases. Once Metalogix StoragePoint is installed and configured, new and updated content will be externalized in real-time.

A database can be shrunk in [SQL Management Studio](#) or [Transact-SQL](#) to reclaim the empty space left over after the content BLOBs have been removed from the database. This operation may have to be performed as many as 3 times. This is primarily due to the large amount of table fragmentation post-Externalize.

## Large File Considerations for Externalizing

There are a number of things to consider when planning the Metalogix StoragePoint implementation to handle large files. Here are a few:

1. We recommend using a 64bit operating system to host the SharePoint web front-ends. While we have seen problems with files over 200mb on 32bit Windows operating systems, we have not encountered any issues on 64bit Windows operating systems.
2. Review Microsoft knowledgebase article number [925083](#) for information on setting up SharePoint and IIS to handle large file operations (upload, check-in, etc.).
3. Use multi-file upload vs. single-file upload.

## BLOB Externalization

This job externalizes content BLOBs from existing SharePoint content databases to the location specified in the associated storage profile. It can be scheduled to run on a certain day and time or it can be run immediately by clicking Externalize Now.

**StoragePoint BLOB Externalization**

Provide StoragePoint BLOB Externalization timer job settings in this section. This timer job will externalize the content BLOBs for existing items in SharePoint.

Schedule this process to run:

on Server

**Advanced Job Settings** *(Show)*

Clear
Analyze & Estimate
Externalize Now

**i** | **NOTE:** This job does not need to be run on a regular basis, as new content is externalized in real-time.

Please see Externalize and Recall Job consideration before performing timer jobs.

To Configure BLOB externalization job:

1. Note the Timer Job Scope (at the top of the page) of the Storage Profile selected.
2. Enter a date in the Schedule this process to run box or click the calendar icon to pick the date from a calendar.
3. Select a time from the supplied time dropdowns.
4. (Optional) On the on Server dropdown list, select the WFE server to run the job on.
5. (Optional) Click the Show link next to the Advanced Job Settings to view notification settings.
6. (Optional) Enter the Number of Processing Threads to use during job execution. It will default to one thread per processor core if no value is supplied.
7. (Optional) Configure job roles. See [Controller and Worker Configuration](#) for more information.
8. Under the Send Completion Notice: header, select whether the email notification should go out Always, or Only when errors occur.
9. (Optional) In the To section:
  - a. Check the Default Notifications Contacts box to have a completion email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
10. (Optional) Click Analyze and Estimate to display an estimate of the space savings that will result from running the externalize job. (See below.)
11. Click Save to save the configured job schedule.
12. (Optional) Click Externalize Now to run the job immediately.

## Externalization – Analyze & Estimate

To display an estimate of the space savings that will result from externalizing the content database:

1. Click Analyze and Estimate.
2. The estimates for all content databases covered by the scope of the profile will be displayed.

Content Database	Current DB Size (MB)	New DB Size (MB)	% Smaller	# of BLOBs to Externalize (# of Files)	Size of BLOB Store (MB)
Non STP Web App 39594	35.430	35.430	0.00 %	0 (0)	0.000
STP content db 39594	81.273	43.044	47.04 %	104 (104)	38.236

3. Click Back to return to the Timer Jobs screen.

# BLOB Recall

This job returns externalized content BLOBs to their associated SharePoint content database. It can be scheduled to run on a certain day and time or it can be run immediately by clicking Recall Now.

**NOTE:** Content does not need to be recalled before deleting a profile. Deleting the profile will automatically schedule a Recall job for the profile.

**CAUTION:** It is strongly recommended that an Unused BLOB Cleanup Timer Job be run so that there is no confusion as to why there may be some BLOBs remaining after the Recall Job is performed.

BLOB Recall does not process Large File content. Please see [Large File Support](#) for more information.

Please see the [Externalize and Recall Job Considerations](#) before performing the timer jobs.

The screenshot shows the 'StoragePoint BLOB Recall' configuration page. On the left, there is a description: 'Provide StoragePoint BLOB Recall timer job settings in this section. This timer job will recall content BLOBs from the remote BLOB store back into the SharePoint content database(s)'. On the right, there are configuration options: 'Schedule this process to run:' with a date and time selector (12 AM, 00); 'on Server' dropdown (s1-sp10-sql08); 'Job Filter (Hide)' for the following scope: (All) with 'Change' and 'Clear' links; 'Endpoints' dropdown (All Endpoints selected); 'File size is' checkbox with a dropdown (>=) and a value field (0) followed by 'KB'; 'Advanced Job Settings (Show)'; and three buttons: 'Clear', 'Analyze & Estimate', and 'Recall Now'.

To configure the BLOB Recall job:

1. Note the Timer Job Scope (at the top of the page) of the Storage Profile selected.
2. Enter a date in the Schedule this process to run box or click the calendar icon to pick the date from a calendar.
3. Select a time from the supplied time dropdowns.
4. (Optional) On the on Server dropdown list, select the WFE server on which to run the job.
5. (Optional) Click the Show link next to Job Filter to specify which profile endpoints should be included in the recall job, and to specify a file size filter for the recall.
6. (Optional) Click the Show link next to Job Filter. Click Change to open the scope selection window. By default the entire scope of the profile is included. Select a scope from within the profile scope to narrow down the amount of data the timer job will have to process. Click Ok.

The screenshot shows the 'Job Filter (Hide)' configuration window. It displays the following information: 'for the following scope: Web Application = SharePoint - 80 Content Database = database3 Site = http://dsp2016sqlandap/sites/test2'. There are 'Change' and 'Clear' links next to the 'Content Database' and 'Site' entries.

Use the Change link to modify a filter and the Clear link to remove a filter. Note that this feature will not be available if Single Instancing is enabled on the profile. Please contact support for assistance if Single Instancing needs to be disabled.

7. (Optional) Click the Show link next to the Advanced Job Settings to view notification settings.
8. (Optional) Enter the Number of Processing Threads to use during job execution. It will default to one thread per processor core if no value is supplied.
9. (Optional) Configure job roles. See [Controller and Worker Configuration](#) for more information.
10. Under the Send Completion Notice: header, select whether the email notification should go out Always, or Only when errors occur.
11. (Optional) In the To section:
  - a. Check the Default Notifications Contacts box to have a completion email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
12. Click Save to save the configured job schedule.
13. (Optional) Click Recall Now to run the job immediately.

## Recall – Analyze & Estimate

To display an estimate of the space needed to recall the content to the content database:

1. Click Analyze and Estimate.
2. The estimates for all content databases covered by the scope of the profile will be displayed.

**Analyze & Estimate** ⓘ

Content Database	Current DB Size (MB)	New DB Size (MB)	% Bigger	# of BLOBs to Recall (# of Files)	Size of BLOB Store (MB)
Non STP Web App 39594	35.430	35.493	0.18 %	3 (12)	0.064
STP content db 39594	81.273	81.610	0.41 %	1 (1)	0.336

Large Files ▼  
 Recycle Bin BLOBs ▼

3. Click Back to return to the Timer Jobs screen.

## BLOB Migration

The BLOB Migration job moves the BLOBs from one or more Source Endpoints associated with the storage profile to a single Destination Endpoint. Even though all storage endpoints are available, only BLOBs associated with the storage profile will be migrated.

**i** **NOTE:** Although it is a profile timer job, any endpoint filters for the profile are ignored for bulk migration. The only way to invoke the endpoint filters is to recall and externalize the content on the library or profile level.

**StoragePoint BLOB Migrate**

Provide StoragePoint BLOB Migration timer job settings in this section. This timer job will migrate content BLOBs in a given profile to the remote BLOB store of a specified endpoint.

Source Endpoint

Destination Endpoint

Hierarchical Scope (Site Collection)  Include  Exclude

Scope

Schedule this process to run:

on Server

[Advanced Job Settings \(Show\)](#)

To configure the BLOB Migration job:

1. Note the Timer Job Scope (at the top of the page) of the Storage Profile selected.
2. Select the Source Endpoint (where the BLOBs are moving FROM) from the dropdown.
 

**i** **NOTE:** The availability of bulk migration and the list of storage endpoints in the Source field are built by logic used against all storage endpoints.

  - Librarian endpoints used on other profiles will not be available.
  - The (All) option is only available if there is more than one endpoint in the Source field.
  - Backup endpoints will not be available.
  - Profile Endpoint settings (Use SharePoint Folder and/or Filename) used on the destination endpoint will not be applied to migrated data.
3. Select a Destination Endpoint (where the BLOBs are moving TO) from the dropdown.
4. (Optional) Hierarchical Scope Filter - A filter to restrict the migrate job to a specific site collection, if the scope of the profile is a content database or web application.
  - a. Select whether to include or exclude the site collection that is in the scope of the profile.
  - b. Click Add Scope, and in the dialog box that opens, select a site collection.
  - c. Click Ok to add the filter.
5. Enter a date in the Schedule this process to run box or click the calendar icon to pick the date from a calendar.
6. Select a time from the supplied time dropdowns.
7. (Optional) On the on Server dropdown list, select the WFE server to run the job on.
8. (Optional) Click the Show link next to the Advanced Job Settings to view notification settings.
9. (Optional) Enter the Number of Processing Threads to use during job execution. It will default to one thread per processor core if no value is supplied.
10. (Optional) Configure job roles. See [Controller and Worker Configuration](#) for more information.
11. Under the Send Completion Notice: header, select whether the email notification should go out Always, or Only when errors occur.
12. (Optional) In the To section:
  - a. Check the Default Notifications Contacts box to have a completion email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid web email address.

- b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
- 13. Click Save to save the configured job schedule.
- 14. (Optional) Click Run Now to run the job immediately.

## Migration – Analyze & Estimate

To display an estimate of the space needed to migrate content from one endpoint to another:

1. Click Analyze and Estimate.
2. The estimates for how many BLOBs will be migrated to the target endpoint selected will be displayed.

**Analyze & Estimate** StoragePoint by Quest

**Target Endpoint**

Endpoint	Adapter	Current Free Space (MB)	# of BLOBs to Migrate (# of Files)	Size of BLOBs to Migrate (MB)
2013 archive EP	FileSystem	969	0 (0)	0.000

Large Files ▼  
 Recycle Bin BLOBs ▼

[Back](#)

3. Click Back to return to the Timer Jobs screen.

# Archive Aging Configuration

The Archive Aging Timer Job will evaluate defined aging rules against items within the scope of the profile and queue content for migration to the configured destination endpoint. There is no notification when a BLOB meets the aging rule definition, so this timer job should be scheduled in order to scan for content. To configure aging archive conditions, open the profile. See [Configuring Archiving Rules](#) for more information.

The Archive Aging Timer job is found on the Timer Jobs page, which is linked from the Profiles page.

## 1. Set up the schedule for the Archive Aging timer job.

**Archive Aging**  
Provide StoragePoint Archive Aging timer job settings in this section. This timer job will evaluate defined aging rules against items within the scope of this profile and queue content for migration to the configured destination endpoint.

Schedule this process to run:

Never  
 Daily  
 Weekly on Sunday

between 12 AM 00  
and 1 AM 00

on Server W2K3-64-MOSSSP2

**Advanced Job Settings** [Hide](#)

Send Completion Notice:  
 Always  Only when errors occur

To:  
 Default notification contacts

Additional Contacts

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

2. Select an option for the Schedule this process to run field. Select a day if the process will run Weekly. Process Aging Rules Now can be used to manually archive content at any time.
3. Select a timeframe from the supplied between and and dropdowns for the archiving job to begin.
4. On the on Server dropdown list, select the WFE server to run the job on.
5. Click the Show link next to Advanced Job Settings to view notification settings.
6. Under the Send Completion Notice: header, select whether the email notification should go out Always, or Only when errors occur.
7. In the To section:
  - a. Check the Default Notifications Contacts box to have a completion email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - b. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.
8. Click Save to save the configured job schedule or click Process Aging Rules Now to run the job immediately.

# Deleting a Scheduled Storage Profile Timer Job

1. Click Clear to clear the date and time settings. (For Unused BLOB Cleanup, select "Never".)
2. Clicking Save with no date specified will delete an existing job schedule, if one exists.

## Troubleshooting

### Problem: SharePoint Site is unresponsive during Externalize or Recall

1. Ensure SQL Server instance hosting the Content Database has a valid Max Memory setting that is less than the available physical memory. Often this issue comes up in test environments where the SQL instance is set up quickly and left with an inappropriately high default value.
2. Check the resources of the WFE and SQL Server. If either is suffering from high CPU, Memory or Disk Queue. Consider adding hardware resources.
3. Consider changing (lowering) the thread count of the running job. This can be done by clicking the "setthreadcount" link next to the running job on the Storage Job Status screen.
4. Consider using the "Suspend" and "Resume" links for the running job in order to limit the times at which the Job is allowed to run. In this way a job can be suspended each morning and resumed each evening. In this case the job would only process in the "overnight" hours where the resource impact is minimized. In this way the job can work around heavy Farm usage times.
5. Remember – these are potentially long-running "one-time" migration\setup operations that are not necessary during normal use of Metalogix StoragePoint.

### Problem: I run a Recall job and there are files left behind on my endpoint

### Problem: I run an Externalization job after a recalling content and a few files failed to externalize

If there are read only files in the end point and a recall job is run, it will make a copy for the read only files and put it in the content DB. If externalize is run again, externalization for the read only files will fail since the endpoint still has the original files sitting in there.

### Problem: Bulk Migration isn't moving the blobs.

### Problem: Profile Timer Jobs won't run and the error says assemblies are missing

Profiles may be, or may have been, externalizing to more than one endpoint. 'All' may not have been an option in the Source endpoint dropdown for Bulk Migration. If that is the case, make sure that all endpoints that were ever used by that profile are selected as the Source. Multiple Bulk Migration jobs will need to be performed to move all of the blobs, if this is the case. If All is available, it is recommended that it be used, as only BLOBs associated with that profile will be migrated from any endpoint, to the destination endpoint.

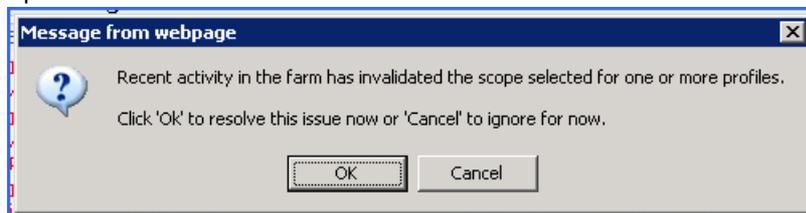
If the web application associated with the current profile isn't running on a particular farm machine then the timer job can't be run on the machine either. This applies to jobs configured\launched on the Profile Jobs page. The general settings jobs (Capacity\Breadcrumbs\Content Queue Migrator etc) generally don't have this constraint.  
Solution: Change the default server selection when configuring the job

### Problem: Content is not being externalized

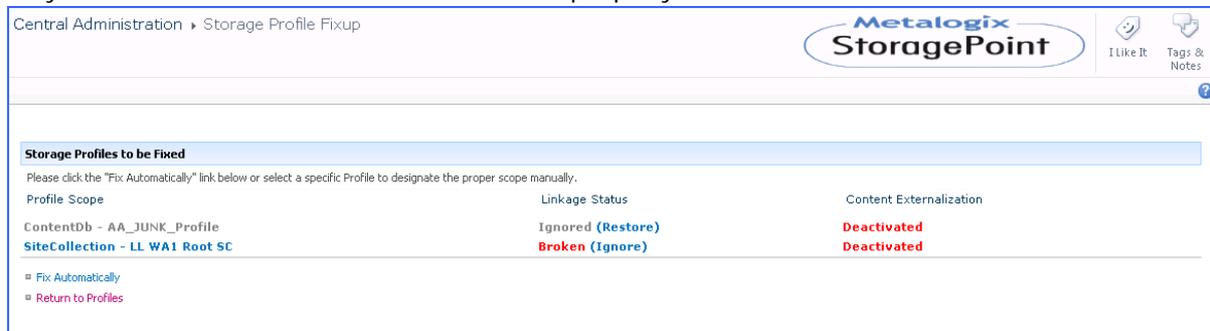
1. Ensure the storage profile in question has its Externalize Content BLOBs property set to Yes.
2. Ensure a properly formatted connection string has been entered. Go back to the Storage and Backup Endpoints page in Central Admin, click the storage endpoint in question, and click Test Storage Settings to verify that there is a valid connection. There will be an error message in red if there are issues with the connection string supplied.
3. Check BLOB store security as prescribed in the [Preparing the External BLOB Store\(s\)](#) of this document.
4. Review the SharePoint end Windows Event logs on each WFE to see if errors/information logged by the Metalogix StoragePoint EBS Provider can help diagnose the problem. Refer to the [Configure StoragePoint Logging](#) section of the document to configure Metalogix StoragePoint to use SharePoint's ULS.

## Profile Fixup

If there is an error in the Storage Profile, there will be a message when the Storage Profile page is opened.



Click OK to view and resolve the issue, and the Storage Profile Fixup page will display. Click Fix Automatically. The storage profile can also be opened to fix it manually, but use caution as content may become irretrievable if it is not corrected properly.



If no action is taken, there will be a new link, Ignored Profiles, on the Storage Profiles page. Use this link to view the storage profiles that have been ignored.



# Metalogix StoragePoint Timer Job Monitoring

Metalogix StoragePoint Timer Jobs can be monitored like any timer job shipped with SharePoint, along with some additional Metalogix StoragePoint-specific capabilities that will be outlined in this section.

For a list of running and scheduled timer jobs, see [Timer Jobs Report](#).

## Job Status

The Job Status page provides an overview of the status of Metalogix StoragePoint Timer Jobs.

The desired behavior is for a recurring job (of any type) to only show the most recently running or completed instance in the Storage Job Status page. This means in the case of the Capacity job running every five minutes that only the job from the last 5 minutes will ever be shown. This applies to all timer jobs, including profile timer jobs such as BLOB Health Analyzer. Manually run jobs will not be subject to this rule, and will show every instance that the timer job was run manually.

### Job Status



Filter Results	StoragePoint Jobs	Job Type	Scope	Assigned Server	Started	Status	Percent Complete	Actions (Clear All)
<b>Status</b> (All)	Bulk Externalize		ContentDb (directions)	S2-SP16-APP1	9/15/2021 8:57 PM	Running	0%	Cancel   Suspend   SetThreadCount
Abandoned (2)	Bulk Externalize		ContentDb (directions)	S2-SP16-APP1	9/15/2021 8:54 PM	Complete	100%	Clear   Summary
Complete (59)	Bulk Externalize		ContentDb (directions)	S2-SP16-APP1	9/15/2021 8:50 PM	Complete	100%	Clear   Summary
Exception (1)	Per-Server Maintenance		N/A	S2-SP16-WFE1	9/15/2021 8:48 PM	Complete	100%	Clear   Summary
Running (1)	Per-Server Maintenance		N/A	S2-SP16-WFE1	9/15/2021 7:49 PM	Complete	100%	Clear   Summary
<b>Job Type</b> (All)	Farm Wide Maintenance		N/A	S2-SP16-APP1	9/15/2021 7:36 PM	Complete	100%	Clear   Summary
17 (5)	Migration Queue Processing		N/A	S2-SP16-APP1	9/15/2021 7:00 PM	Complete	100%	Clear   Summary
Backup Synchronization (1)	Capacity Monitor		N/A	S2-SP16-APP1	9/15/2021 7:00 PM	Complete	100%	Clear   Summary
BLOB Health Analyzer (4)	License Verification		N/A	S2-SP16-APP1	9/15/2021 3:00 AM	Complete	100%	Clear   Summary
Capacity Monitor (5)	History Cleaner		N/A	S2-SP16-APP1	9/12/2021 2:41 AM	Complete	100%	Clear   Summary
Migration Queue Processing (6)	Unused BLOB Cleanup		WebApplication (SharePoint - 80)	S2-SP16-APP1	9/10/2021 4:04 PM	Complete	100%	Clear
Bulk Externalize (5)	Migration Queue Processing		N/A	S2-SP16-APP1	9/10/2021 4:00 PM	Complete	100%	Clear   Summary
Farm Wide Maintenance (5)								
History Cleaner (4)								
Librarian (1)								

1. Launch SharePoint Central Administration from the Administrative Tasks menu or enter the URL directly into a browser window.
2. Navigate to Application Management > Job Status.
3. As a timer job is executing an entry will be present on this page with an approximate percentage complete indicator in the Progress column.
4. Use the Filter Results column to help narrow down the search for a specific job summary.

5. In the Actions column, click Clear to remove that report from the page. (Or click Clear All in the Actions column to clear all notifications.) The job will no longer be available for review on the Job Status page. Once the job is complete, click Summary to review additional information about the timer job.

Example of a Standalone Timer Job Summary:

**Timer Job Summary**

This is an automated summary message only.

Job Detail	
Job Name	Endpoint Capacity Monitoring
Server	sp2010
Started	9/18/2013 11:00:01 AM
Completed	9/18/2013 11:00:04 AM
Total Job Time	00:00:03
Endpoints Updated	7 of 7
Completion Status	No errors
Last Error	n/a

EndPoint Capacity Processing Detail		
#	Endpoint	Available
1	36912 Web App Librarian_Endpoint (FileSystem)	16.6 %
2	Amazon Archive (AmazonS3)	n/a
3	Backup Endpoint A (FileSystem)	16.6 %
4	Base Endpoint (FileSystem)	16.6 %
5	endpoint A (FileSystem)	16.6 %
6	My Sites Endpoint (FileSystem)	16.6 %
7	MySites Backup Endpoint (FileSystem)	16.6 %

Close

Example of a Controller Timer Job Summary:

Timer Job Summary
□ ×

Timer Job Summary

This is an automated summary message only.

Profile Detail				
Profile Name	Directions			
Profile Scope	ContentDb			
Profile Id	2aa22661-6a2f-4019-b6aa-8fc81d992368			
Profile Endpoints	#	Endpoint	Write Mode	Online Filter
	1	EP1 (FileSystem)	Asynchronous	Yes None
Job Detail				
Job Name	StoragePoint Externalization			
Job Role	Controller			
Server	S2-SP16-APP1			
Started	9/15/2021 8:51:02 PM			
Completed	9/15/2021 8:52:51 PM			
Completion Status	No errors			
BLOBs Externalized	1937 of 2650 (3981 of 3981 files)			

Close

The content of the job will vary depending on the type of job that was run. For example, the Summary for Librarian has an additional link to view the Transaction Log to see what SharePoint content was created.

The Job Name is also a link that provides Running Job Detail that is especially helpful while the job is running in a Controller/Worker configuration. While the job is running, the thread count on each server can be changed, the batches waiting to be processed can be viewed, and the progress

overall can be viewed from the Controller Job information on the left side of the page.

## Running Job Detail



Bulk Externalize

Controller Job	
Server	S2-SP16-APP1
Scope	ContentDb <i>(directions)</i>
Profile	Directions
Started	9/15/2021 8:54 PM
Action(s)	<a href="#">Cancel</a>   <a href="#">Suspend</a>   <a href="#">SetThreadCount</a>
Progress	
Heartbeat	9/15/2021 8:54 PM
State	Running
Phase	n/a
Completion	n/a
Thread Count	4
Last Status	Controller Job Launching workers.
Last Error	No Errors
Throughput	
Bytes Per Minute	n/a
Items Per Minute	n/a

Participating Workers							
Assigned Server	Heartbeat	State	Threads	Data Rate	Item Rate	Actions (Clear All)	
S2-SP16-APP1	9/15/2021 8:54 PM	Running	4	n/a	n/a	Cancel   Suspend   SetThreadCount	

Work Allocation	
Available Batches	0
Assigned Batches	0
Completed Batches	0

If the job is in Standalone, the information will look like this, in a new window:

**Running Job Detail**

**Bulk Externalize**

<b>Standalone Job</b>	
Server	S2-SP16-APP1
Scope	ContentDb (directions)
Profile	Directions
Started	9/15/2021 8:57 PM
<b>Progress</b>	
Heartbeat	9/15/2021 8:57 PM
State	Complete
Phase	n/a
Completion	100%
Thread Count	4
Last Status	Completing Job
Last Error	No Errors
<b>Throughput</b>	
Bytes Per Minute	n/a

Close

## File Share Librarian

The File Share Librarian is a capability within Metalogix StoragePoint that facilitates a shallow copy migration of content from file shares to containers in SharePoint, meaning content currently stored in file system-based shares can be represented in SharePoint as items, without being physically moved or uploaded into SharePoint. The Librarian simply creates items that point to the already externalized or remoted BLOBs. Once cataloged, they are treated by Metalogix StoragePoint like any other remoted BLOB would be treated.

In addition to cataloging the items on the source file share, the Librarian can also create a dynamic container structure within SharePoint. If a Web Application is used as the destination container in SharePoint, the Librarian will start by creating site collections for the first sub level folders in the file share, then sites at the next level, then libraries, and finally folders. For example, if a file share starting with a folder named Contoso is cataloged into a site collection in SharePoint it would look something like this:



As containers are created in SharePoint, the Librarian can apply permissions to them based on the effective permissions of the file share folders. It will map users and groups on the folders to the Owner (full control), Member (read/write), and Visitor (read only) roles in SharePoint.

## File Share Librarian and File Shares

When using the File Share Librarian feature of Metalogix StoragePoint, it is important to understand that once a file share is cataloged by File Share Librarian, the file share is effectively under the control of SharePoint/Metalogix StoragePoint. Files on the file share may be modified or deleted depending on actions taken in SharePoint such as deleting files or removing folders, document libraries and cataloged sites.

For example, if the file is deleted in SharePoint and then purged from the SharePoint recycle bins, it will eventually be removed from the file share.

It is strongly recommended that a full backup of any cataloged file shares is taken before cataloging them with the File Share Librarian feature.

Also for this reason, any SharePoint Structure (Sites, Lists, libraries, folders) that are created as the result of cataloging should not be renamed in the SharePoint farm if it is expected that the librarian timer job may be run again at some point.

## Librarian and New File Externalization

New content within the scope of the librarian configuration will need a non-librarian endpoint if there isn't one already on an existing profile for that scope; otherwise it will go to the content database. For example, if a librarian configuration is created that is pointing to a Content Database, but there is already a profile for the Web Application, the Future File Externalization Endpoint field will not be necessary; the endpoint that is already on the profile will be used. If the web app profile had only Librarian endpoints, the field will display on the Librarian configuration page. Conversely, if the Librarian configuration is going to result in the creation of a new profile where only the librarian endpoint is added, a second endpoint can be added to that profile while making edits on the librarian configuration page. New content is anything added after the content is cataloged, including versions of cataloged content.

## File Share Librarian and System Cache

If there is a StoragePoint profile that uses RBS, System Cache must be configured in order to be able to add a Librarian configuration to the profile.

For example, if there is a profile for a content database that externalizes the data synchronously, and the plan is to catalog a file share to a site on that content database, system cache must be configured before creating the librarian configuration.

## Multiple Endpoints to one Library

Configuring multiple File Share Librarian configurations to catalog to the same Library or List is not supported.

In the [File Share Librarian](#) section, the scenarios included the generation of SharePoint structure using File Share Librarian. A Site was created, as well a Library. If there are multiple file shares being cataloged to one Library, i.e. Shared Documents, any content uploaded to the library will not go to the endpoints, but rather to the content database or to the alternate endpoint added to the librarian configuration or profile.

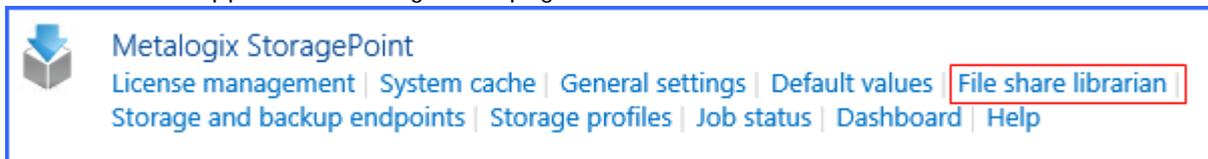
If another endpoint is added to the profile, uploaded content will go there instead of the content database. If a filter was added to the added endpoint, and the content doesn't meet the filter criteria for that endpoint, it will go to the content database.

# File Share to MySites Migration

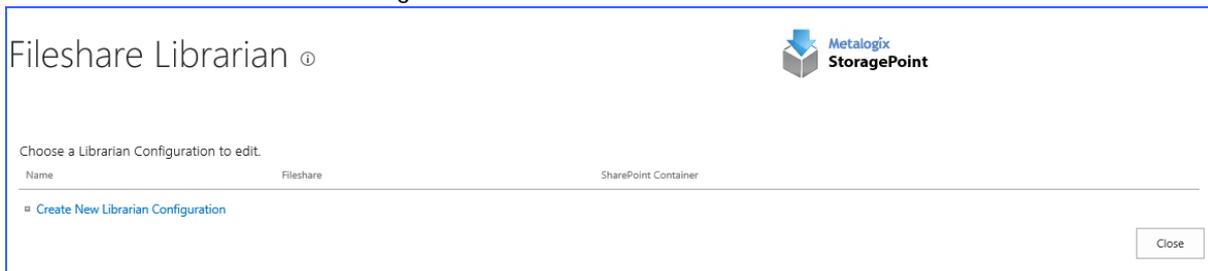
A special use case within the Librarian capability facilitates the move from that common user folder or drive (i.e. that network share a user is mapped to when they log in to Windows...the networked My Documents) everyone has to the SharePoint representation of that, a MySite or SharePoint Personal Site. Simply enter the File Share to Catalog and make sure the SharePoint Destination Container is a MySite Host and additional settings are provided to configure the Librarian for this type of cataloging. In addition to creating containers and cataloging items, the Librarian can also create SharePoint User Profiles and the actual Personal Sites themselves.

## Creating a Librarian Configuration

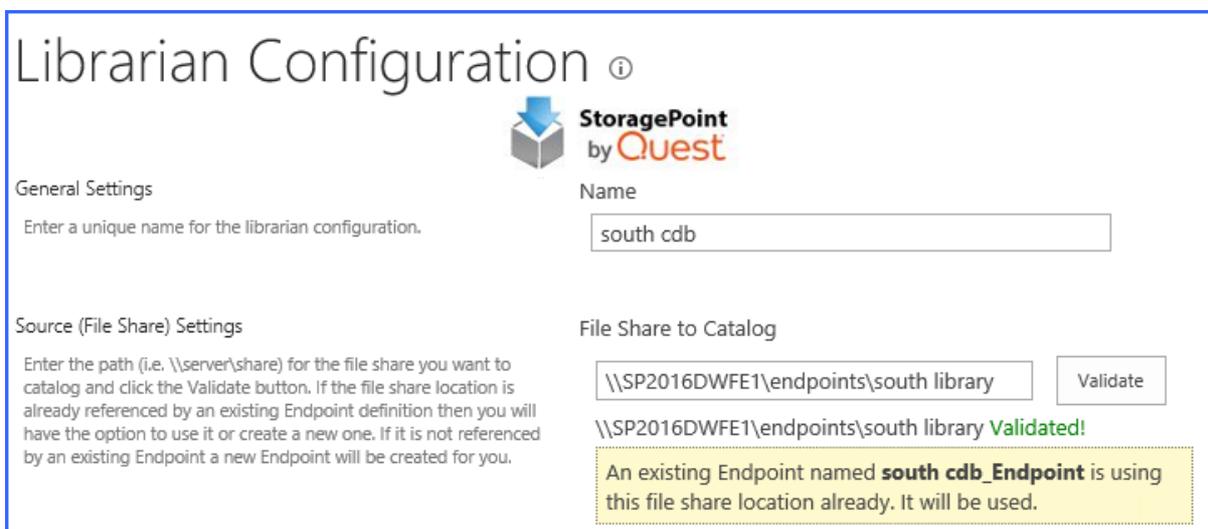
Click the File share librarian link in the StoragePoint section on the SharePoint Central Administration Application Management page.



Click Create New Librarian Configuration.



## Name and File Share to Catalog



1. Enter a name for the file share librarian job.

2. Enter the UNC path of the file share to be cataloged in the File Share to Catalog field and click Validate. Two things will happen:
  - a. The file share is validated against existing endpoints, and if no endpoints match, a new one will be created.
  - b. The structure of the file share is made available to the Folders and Files to Catalog Settings. If changes are made to the file share, to see those changes reflected before saving, click Validate again.

## Folders and Files to Catalog Settings

**Folders and files to catalog settings**

The Click to Configure Folders button allows custom filters or a search pattern for specific folders on your file share.

The default is to include all folders on the file share without any folder filter.

You can optionally exclude files contained within selected directories, created or last modified or last accessed before a certain date, or with certain names or file types (i.e. \*.exe), or file size greater than a specified value.

**Define folders to include or exclude**

**Exclude Files:**

Created Before

Last Modified Before

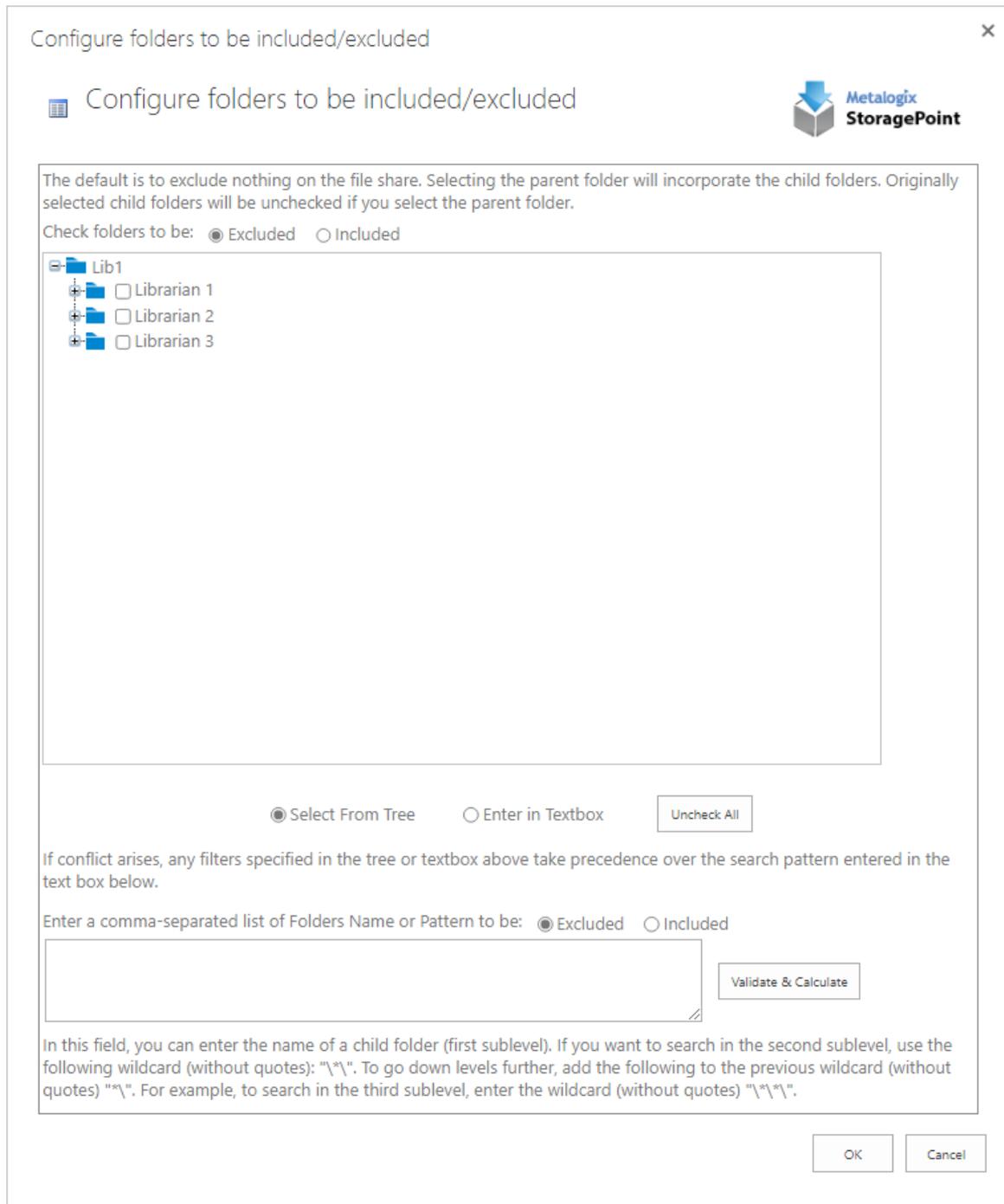
Last Accessed Before

File Size Greater Than  MB

File Type  Is Not (Exclude)  Is (Include)

*Provide a comma-separated list of filenames. To exclude or only include all files of a certain type specify extension (i.e. DOC,DOCX,XLS).*

1. To Include or exclude particular folders from within an endpoint, click Click to Configure Folders.



- a. Select whether to exclude or include folders from being cataloged.
- b. Select folders by placing a check in the box. Selecting a child folder if the parent is already selected is not necessary. Selecting a parent folder will uncheck any child folders, but the child folders will be included in the selection.
- c. Click Uncheck All to clear any checkmarks and start over.
- d. Path(s) can also be entered manually by using the Enter in Textbox option. Changes made during textbox entry will only be reflected on the tree view if the path is valid.

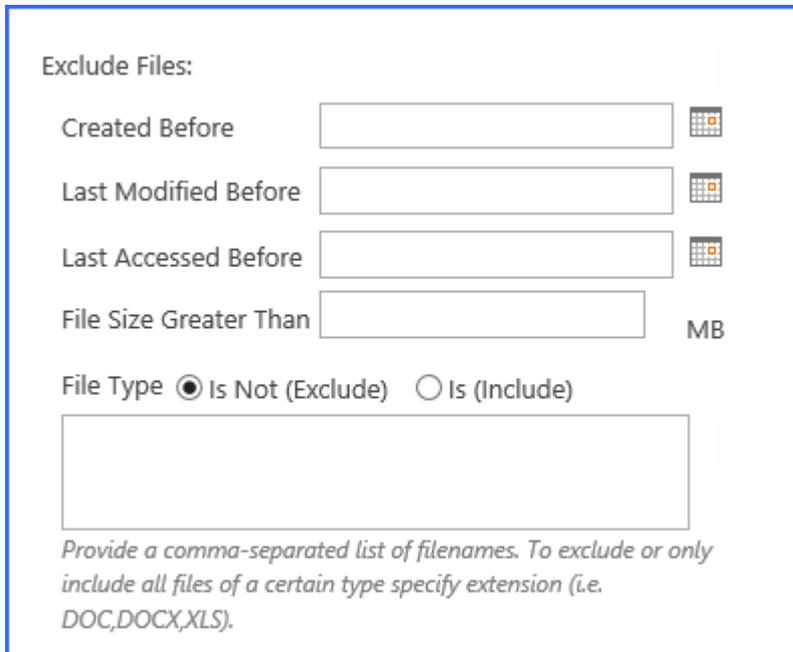
OR

- e. Use a search pattern to catalog only folders that meet a specific pattern. Use a backslash and asterisk (\\*\) for each level beneath the root where the named

folder would be found. See the screenshot above for an example. Click Validate & Calculate to show how many folders will be cataloged.



**NOTE:** If including only child folders, the parent folders may correspond to SharePoint structure that must be created in order to maintain folder integrity. The files in the parent folders will not be cataloged.

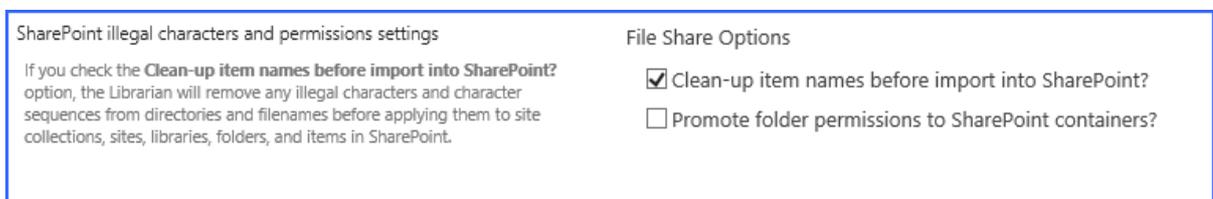


2. To exclude files by property information, select the date for the corresponding filter type – Created Before, Last Modified Before, or Last Accessed Before, and/or enter a numeric value for the File Size Greater Than filter.
3. To include or exclude particular files or file types, select the corresponding radio button and enter the information separated by commas in the provided text box.

### Large Files and File Share Librarian

File Share Librarian will catalog files greater than the web application upload threshold, but [Large File Upload](#) must be enabled on General Settings.

## File Share Options



1. Check the Clean-up item names before import into SharePoint? checkbox to have Metalogix StoragePoint check for and remove invalid characters or character sequences from file or folder names. Please refer to Microsoft's [guidance](#) on acceptable characters in SharePoint farms.
2. Check the Promote folder permissions to SharePoint containers? checkbox to have Metalogix StoragePoint promote the effective permissions on file share folders to the containers (i.e. sites, lists, and folders) it creates in SharePoint. The mapping of permissions is as follows:

- a. Users in file system with Full Control are mapped to "Owner"
- b. Users in file system with Write access are mapped to "Contributor"
- c. Users in file system with Read access are mapped to "Reader"

**i** | **NOTE:** Any permission changes made on the file share are not reflected on the SharePoint farm until the librarian timer job is rerun.

## Truncation

The Truncate feature allows the reduction/truncation of the folder or file names as necessary in order to catalog content to SharePoint. This is done by specifying the max folder name and max file name when the longest UNC Path is greater than 259 characters. The feature allows customization of the folder name size, file name size and truncation character replacement. Truncation can be done for only Files or only Folders or both. Truncation is applied at the most granular level of the file share to be cataloged. It will begin with file names, and then parent folders, as necessary, progressing further up in the hierarchy to accomplish a suitable URL.

**i** | **NOTE:** If planning to use truncation and using the simulate mode, run the timer job before enabling truncation and use the suggested file name and folder name length settings. See [Suggested Truncation Sizes](#) for more information.

Enable automatic truncation of long names

**Long Path Settings:**

Set the max **Folder** name length (Enter 5 - 128) :

Set the max **File** name length (Enter 10 - 128) :

Truncation Options:  ▼

**Advanced Truncation Options (Hide)**

Replacement character for truncated names:

1. Enter a number for the max Name length for each folder that will be created in SharePoint. The minimum is 5.
2. Enter a number for the max Name length for each file that will be cataloged. The minimum is 10.
3. Choose One option to apply the truncation:
  - Files and Folders .- this option will truncate file and folder names
  - Files.-this option will truncate only file names
  - Folders.-this option will truncate only folder names

4. (Advanced Truncation Options (optional) Enter a valid character to represent that folder or file has been truncated. This character will be inside the file or folder name. The default is = '\_' (underscore).
- Site collection names and sub site names never truncate if the scope is Web Application or Content Database.
  - Sub site names never truncate if the scope is site collection.
  - Beginning at the most granular level, truncation stops once a suitable URL length is reached and no more file or folder names will be truncated.
  - If 2 files have the same name after truncation, one of the file names is reduced by 2 characters and '\_#' is added to the file. For example:

EEEEEEEEEE_ EEEEEEEE	11/15/2016 3:56 PM
Metalog__Guj_2	2/29/2016 9:34 AM
Metalog__Guide	2/29/2016 9:34 AM
Metalog__Issues	2/29/2016 9:34 AM

## Suggested Truncation Sizes

Running the librarian timer job with 'Simulate and Log Issues' box checked allows the algorithm to suggest folder and file name changes based on what could not be cataloged. The results of the librarian timer job will provide a recommended max file name length and/or a max folder name length for the librarian settings. The feature searches the most granular folder and files in the fileshare structure and reduces by 1 character at a time, until total size of names < Max Url allowed.

Suggestion Truncation Example:

All files and folders in the diagram below need to be cataloged. The max folder name length = 40 and max file name length = 40 with scope = web application and Max Url = 226 characters. The results of running the librarian timer job with 'Simulate and log issues' checked would be the following. Red = folders and files not cataloged, Green= Folders and Files cataloged.



cataloged successfully.

Librarian Log

StoragePoint by Quest

[12/5/2016 2:52:01 PM] Suggested Truncation Size Info

Suggested Folder Name length	15
Suggested File Name length	15
Details	Some Folder or Files could not be catalog with having max folder size constrain: 40 and max file size constrain: 40 you could execute a

Save Log Close

This truncation suggestion may be found even on successful timer jobs. Be sure to check the entire Librarian Log for details.

[12/7/2016 4:17:06 AM] Created library Kayaks

[12/6/2016 11:15:31 PM] Suggested Truncation Size Info

Suggested Folder Name length	25
Suggested File Name length	25
Details	constrain: 50 and max file size constrain: 50, you could execute a successful catalog with max Folder Size: 25 and max File Size: 25

# Destination Settings

**Destination (SharePoint) Settings**

Select the destination container (content database, site collection, site, list, or folder) within SharePoint where the Librarian should start creating containers and items. If you select a content database, site collections will be the first containers created or if you select a document library, folders will be the first containers created. Depending on your selection, you will optionally be able to select site and list templates as well as a primary site collection owner.

If the destination container is a My Site Host (Site Collection) then you will see additional options specific to My Sites. These options will tell the Librarian how you want to deal with user profile and personal site creation. You will also be able to control the number of My Sites that are added per content database.

**NOTE:** You can create all or part of the structure manually before running the librarian if you wish. The Librarian will only create the containers that do not already exist.

After you save the configuration, the Managed Path selection will be locked and cannot be changed.

SharePoint Destination Container [Change](#)

Web Application = Directions  
Content Database = southwest

The Destination Container falls within the scope of an existing Profile named **southwest\_Profile**. It will be used. If a new Endpoint needs to be created it will be added to this Profile.

**Destination Structure**  
Create **Site Collection(s)** in the Destination Container starting with the sub directories(s) under the **southwest** directory of the selected endpoint.

**Site Options**  
Managed Path  
sites

Site Template  
Team Site

Primary Site Collection Administrator  
SP Farm

**List Options**  
List Template  
Document Library

Use Document Sets instead of folders  
None

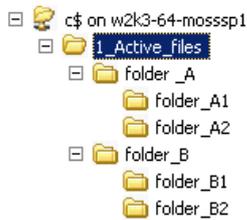
1. Click the Change link to select the SharePoint Destination Container. The structure of the SharePoint farm will display in another window. Use the URL search field to find a location, or select the location for the cataloged content to reside. Note that as stated above, if a Web Application is selected, the cataloged content will begin at the Site Collection level, and folders that are below the root of the source will become sites, and so forth. If the destination container selected is already covered by an existing Metalogix StoragePoint storage profile and that profile's endpoint does not match the File Share to Catalog, the endpoint will be added to the existing storage profile.

**i** **NOTE:** A broader scoped File Share Librarian configuration cannot be configured. For example, if a Site Collection is selected as the destination, there cannot also be a configuration for the content database or web app that hosts that site collection.

If the destination container selected is not already covered by an existing Metalogix StoragePoint storage profile, one will be created for the most specific scope available. If the destination is a MySite Host, the scope of the created profile will be the web application. The Destination Structure message will populate after a destination container is selected. The message will instruct on where the Librarian will start building containers in SharePoint.

Example:

If the source to be cataloged looks like this:



And the cataloging is configured to begin at the web application level, it would create:

1\_Active\_Files

folder\_A = Site Collection

folder\_A1 = Site

folder\_A2 = Site

folder\_B = Site Collection

folder\_B1 = Site

folder\_B2 = Site

Files will be found at their respective levels within the structure. If there are files in the folders that are to become Site Collections or Sites, those files will be found in the Shared Documents library of the respective site or site collection.

2. There may be additional configuration options based on the structure the Librarian will need to create. Those options are as follows:

- a. Managed Path – If the destination is a Web App or Content Database, the Managed Path option will be available. This field will be locked down once the configuration is saved.
- b. Site Template – select a template that will be used when site collections or sites are created.

**i** | **NOTE:** For SharePoint 2019 and Subscription Edition, be sure that the correct Site Template is used if using Team Site. Team Site (Classic Experience) is the default.

- c. Primary Site Collection Administrator – provide this value if the Librarian will create site collections.
- d. List Template – select a template that will be used when document libraries are created.
- e. Use Document Sets instead of folders - None, For Parent Folders Only, or For All Folders (SharePoint 2013 Only). This option allows the creation of document sets, if available on the site collection, in place of where folders would normally be added. The document set will contain any documents within the folder. Pay special attention to the structure of the file share that is being cataloged, when using document sets, making sure that the correct level corresponds with the creation of document sets.

# Destination Settings for MySite Host

**Destination (SharePoint) Settings**

Select the destination container (content database, site collection, site, list, or folder) within SharePoint where the Librarian should start creating containers and items. If you select a content database, site collections will be the first containers created or if you select a document library, folders will be the first containers created. Depending on your selection, you will optionally be able to select site and list templates as well as a primary site collection owner.

If the destination container is a My Site Host (Site Collection) then you will see additional options specific to My Sites. These options will tell the Librarian how you want to deal with user profile and personal site creation. You will also be able to control the number of My Sites that are added per content database.

**NOTE:** You can create all or part of the structure manually before running the librarian if you wish. The Librarian will only create the containers that do not already exist.

**Username Folder Search Pattern**  
This option will let you specify a pattern for identifying which folders within the **File Share to Catalog** are associated with the root of a User's share. The search pattern options are as follows:

**Starts with: string\***  
- For example, username folders are **domain\_username** so search pattern would be **domain\_\***

**Ends with: \*string**  
- For example, username folders are **username@domain** so search pattern would be **\*@domain**

**Folder nesting level: \\***  
- For example, username folders are organized by **businessunit\department\username** so search pattern would be **\\*\\*\\*** or 3 levels below the root of the **File Share to Catalog**

**User Name Mapping Pattern: prefix\*postfix**  
- For example, the user name for claim based authentication could be **i:05.tjsamlprovider|username@storagepoint.net**, so the mapping pattern will be: **i:05.tjsamlprovider|\***@storagepoint.net

SharePoint Destination Container [Change](#)

Web Application = My Sites Web App  
Content Database = ContentDb\_MySites  
Site = http://sp2010:25049 (My Site Host)

The Destination Container does not fall within the scope of an existing Profile. A new Profile will be created.

**Destination Structure**  
Create **My Site(s)** in the Destination Container starting with the sub directories(s) under the **My Sites Fileshare** directory of the selected endpoint.

**My Sites Options**  
Create Nonexistent User Profiles?

Username Folder Search Pattern

Username Mapping Pattern(Optional)

Source Folder Format

Item Import Location

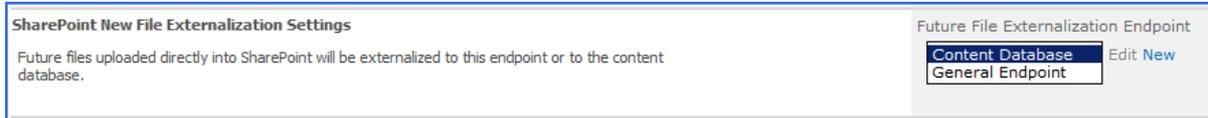
List Options  
List Template

If the SharePoint Destination Container is a MySite Host then there will be additional options that will allow Librarian configuration for User Profile and Personal Site creation.

1. Create Nonexistent User Profiles? – by default the Librarian will create User Profiles that are not already present in SharePoint. Setting this option to No will cause the Librarian to log exceptions for any User Profiles that do not already exist.
2. Username Folder Search Pattern – this setting provides a means to find user folders within a non-flat folder structure either by some pattern or level. For example, all the folders may be username@domain, so set the search pattern to \*@domain to identify folders with that pattern as user folders for cataloging. Set Source Folder Format to username@domain so the Librarian knows how to strip the username out of the folder name. If using a non-flat folder structure where the user folders are at the same level in the folder hierarchy, but grouped by business unit or region or some other dimensions, simply indicate the level with a series of \\* sequences. For example, it may have a folder structure that is [\myfileserv\userdrives\businessunit\countrycode\username](#). In this scenario, [\myfileserv\userdrives](#) would be the File Share to Catalog and the search pattern would be [\\\*\\\*\\\*](#) indicating that the username folders are 3 levels below the File Share to Catalog root.
3. Username Mapping Pattern (Optional) – use to provide parameters needed for claims based authentication.
4. Source Folder Format – this selection simply tells the Librarian what to expect when it finds a username folder and how to extract the username from the folder name. The possible selections for this option are username, username@domain, and domain\_username.
5. Item Import Location – this selection tells the Librarian where to start cataloging items. By default, a SharePoint 2010 personal site contains two libraries, Personal Documents and Shared Documents. Librarian by default will start cataloging items into the Personal Documents library, but Shared Documents or Create New List(s) and Folder(s) can also be used. This field is locked down after the first successful run of the File Share Librarian cataloging timer job. For SharePoint 2013, the default library is Documents.

# New File Externalization Settings

New content within the scope of the librarian configuration will need an endpoint if there isn't one already on an existing profile for that scope. If no other selection is made, new content will go to the Content Database (default). A new endpoint can be created from this screen by clicking the New link.



Note that in order to use the [Large File Upload](#) to upload files larger than the web application upload threshold, an endpoint must be selected. If Future File Externalization is left on Content Database, large files can be uploaded, but they will remain in System Cache because the Content Queue Migrator cannot find a suitable endpoint for the file. To resolve this, an unfiltered endpoint can be added to the profile, and the Content Queue Migrator will process the Large File on the next run of the timer job.

# Timer Job Settings

The timer job to catalog data can be run once, or recurring to catalog content that gets added to the librarian endpoint.

Schedule this service to run:

Never

**Recurring**

Every  Minute(s)

Daily

Weekly on  between  and

**One-time**

Schedule this process to run:

on Server

**Advanced Job Settings** ([Show](#))

Simulate librarian catalog job

Simulate and log issues?

To run the job one time, at a *scheduled* time:

1. Leave Never selected.
2. Select a date and time to run the librarian job in the One-Time field. If this is a large job that will consume processing resources, this job can be scheduled to run in 'off' hours.
3. Click Save. This will also save the librarian configuration, and create the profile and endpoint if necessary.

To run the job *manually* one time:

4. Leave Never selected.
5. Click Catalog File Share Now. This will also save the librarian configuration, and create the profile and endpoint if necessary.

To run a *recurring* timer job:

6. Select the Every, Daily, or Weekly on option.
7. To run the job once an hour, enter a number between 1 and 59 to represent the frequency, in minutes, for this job to run in the Every field.

8. For Weekly, select the day of the week from the supplied dropdown.
9. For Daily or Weekly, select the start window time from the between dropdowns and the end window time form the and dropdowns.
10. In the Job Server field, select a WFE for this process to run.
11. (Optional) Click the Show link next to Advanced Job Settings.
12. (Optional) Enter the Number of Processing Threads to use during job execution. It will default to one thread per processor core if no value is supplied.
13. Under the Send Completion Notice: header:
  - a. Select the Always or Only when errors occur option for frequency of notification.
  - b. Check the Default Notifications Contacts box to have an email sent to the email address entered in General Settings. Note that for this feature to work, the Default Notification field on General Settings must contain a valid email address.
  - c. In the Additional Contacts box, enter a semi-colon delimited list of other email addresses that should receive the notification.

**i** | **NOTE:** Most fields are locked after clicking Catalog File Share Now. To edit these, either change the destination or delete the configuration and recreate.

14. The Simulate and log issues? checkbox allows the running of the Librarian timer job without actually cataloging any content. It will look for conditions that may prevent an item from being cataloged and log them as exceptions, providing an opportunity to correct them before running the job.

**i** | **NOTE:** SharePoint container(s) will be created in Simulate mode. If changes are made to folder names in the share after running the Librarian in Simulate mode delete the structure that was created in SharePoint before running Librarian again.

15. Click Save at the bottom of the page to save the settings or click Catalog File Share Now to begin cataloging BLOBs. Clicking Catalog File Share Now will automatically save the configuration; Cancel out of the page without losing the configuration.

**i** | **NOTE:** If the librarian configuration resulted in the creation of a profile that has a scope of Content Database or Web App, [master key encryption](#) needs to be done by opening and saving the profile. This will happen automatically the first time the profile is saved, but should be done manually, as soon as possible.

## Deleting a File Share Librarian

There is a Delete button on the bottom of the File Share Librarian configuration page. Clicking Delete will delete the configuration immediately and content on that file share will cease being cataloged into SharePoint.

**i** | **NOTE:** Deleting the File Share Librarian configuration does NOT delete the Storage Profile or the Storage Endpoint.

# Troubleshooting

## Problem: Librarian continues to catalog content that has been deleted in SharePoint

Check the timing of the librarian and Unused BLOB Cleanup timer jobs. If a folder or file has been deleted (moved to the recycle bin), the subsequent running of the librarian timer job will mark that content so that it is not re-cataloged. However, if the file or folder is removed from the recycle bin AND the Unused BLOB cleanup job is run before the Librarian timer job, the content may be re-cataloged.

The content will continue to be re-cataloged as long as it is in the source endpoint for the Librarian configuration. Librarian does not carry through SharePoint deletions to the endpoint.

## Problem: Large File Uploads aren't working

The Large File Upload may be displayed but it may not be operational if the library was created as a result of cataloging content.

## Problem: The Scope of the created profile isn't the Web App selected as the destination

If selecting a web app as the destination, the content begins building in the Content Database. As a result, the scope of a resulting profile will be that Content Database. To keep the scope at the web application level, create the profile first and leave externalization disabled, and then create the librarian configuration.

## Problem: The content is being cataloged, but the following error appears in the ULS logs: "An unexpected error occurred while activating the SPFx function: '\_\_AppCatSiteId' was not found" (SharePoint 2019+)

This error occurs when there is no App Catalog in the scope. This is potentially due to StoragePoint not being configured previously for the modern UI. To prevent this error from recurring, please refer to the [Modern UI for SharePoint 2019/SharePoint SE](#) section and verify that StoragePoint was configured correctly based on the instructions before continuing to catalog content.

---

## Large File Support

SharePoint does not support the uploading of files greater than 2GB, or in some cases, 10 GB in size. Web Applications also have upload size limits. In SharePoint 2010 and newer, Metalogix StoragePoint has a feature that allows a custom upload interface to circumvent this limitation, *if the Document Library is in the scope of an active StoragePoint profile*. By dragging the file to the custom upload page, the document is moved to the endpoint, and a link (aspx file) is placed in the document library to access that file. The link will have a content type of 'StoragePoint Document Link'. The BLOB will be externalized to the endpoint.

If for whatever reason StoragePoint is uninstalled, these large file uploads will no longer be available, because the endpoint is no longer available.

### Administrators should ALSO know:

- StoragePoint must be present to allow for continued management of Large File content through SharePoint.
- Large File Support can be used with any of the StoragePoint-supported adapters.
- System Cache using the File System adapter is required to enable Large File Support.
- On the Unused BLOB Cleanup timer job, large files are not included by default, but this can be configured for the timer job.
- Bulk Migration operations will move Large File content across endpoints.
- Bulk Recall does not process Large File Content.
- Archiving will only move the .aspx files to the archive endpoint.
- It is recommended that the information in the Large File Upload section of the Administration Guide, or this supplement, be shared with end users if this feature is being enabled.
- Use of the large file upload feature requires at a minimum, the View Application Pages and Add Item permissions. When adding a custom permission level, Add Item will also automatically enable View Items, View Pages, and Open. These permissions are included with the default permissions of "Contribute" and higher. This is important to note if using custom security groups or breaking inheritance with security on lists or libraries.
- Large File Uploads are not compatible with any type of migration within SharePoint or from one farm to another. However, the actual large files can be uploaded from the endpoint, in the destination, since they are complete files.

## Users should know:

- A user with the ability to edit document properties should not change the content type from 'StoragePoint Document Link'.
- The aspx file will not be subject to metadata requirements normally placed on a document content type; there can be list data fields, but changing the content type to get those fields is not supported.
- Open or download can only be performed by clicking on the name of the document.
- Previous versions can only be accessed from the Large File Details Download link.
- The option to 'download a copy' is not supported.
- Office Web Applications are not supported.
- The file does not need to be large to use this interface, but files smaller than the upload limit for the web application will not generate a link; they will be externalized to the endpoint like a regular upload.
- The recommended maximum number of files to be used with the Large File Upload interface is 100.

## Enabling Large File Support

To enable large file support, select 'yes' on the dropdown, on the General Settings page. Large file support will be enabled on any Document Libraries under the scope of an active storage profile.

Large File Support	Large files may be linked into a SharePoint Document Library.
	

System Cache, using File System Adapter, is required to enable Large File Support. There will be a link available to edit System Cache if it is not already created.

# Large File Support and Unused BLOB Cleanup Timer Job

**StoragePoint Unused BLOB Cleanup**

Provide Unused BLOB Cleanup timer job settings in this section. This timer job will remove BLOBs that are no longer in use by SharePoint. The **Unused BLOB Retention Policy** settings on the Storage Profile will dictate whether the BLOBs are removed immediately or retained for a specified number of days.

Include Large File Scanning?  
**Yes**

Schedule this process to run:

Never  
 Daily  
 Weekly on **Sunday**

between **12 AM** **00**  
and **1 AM** **00**

on Server **sp2010**

[Advanced Job Settings \(Show\)](#)

**Analyze & Estimate** **Remove Unused BLOBs Now**

Select Yes or No for Include Large File Scanning. Yes will include the BLOBs and stubs created while using the Large File Upload in the scan for content to be removed. No (default) will ignore them.

If Large File Support is enabled, the Unused BLOB Cleanup job scans all content for orphaned BLOBs. If a Site Collection has recently been deleted, SharePoint doesn't delete it until the Gradual Site Delete timer job has been run. The Unused BLOB Cleanup job may return errors until the deleted site collection is removed by SharePoint. It is recommended that the Gradual Site Delete timer job be run manually, after deleting a Site Collection.

## Troubleshooting

[Problem: I'm having problems with large files in SharePoint](#)

[Problem: I'm getting request timeouts dealing with large file operations](#)

1. Make sure the *Maximum Upload Size* setting on the *Web application general settings* page for the web application in question is set to a value larger than the file(s) being uploaded.
2. Use the multi-file upload option vs. the single-file upload option even if uploading a single file.
3. It could be a request timeout. See Microsoft knowledgebase article number [925083](#) for information on addressing this issue.
  - a. Optionally, add the following node to the LAYOUTS\web.config to catch other operations (check-in, version restore, etc.):

```
<configuration>  
  <system.web>  
    <httpRuntime executionTimeout="999999" />  
  </system.web>  
</configuration>
```

4. If SharePoint (WSS or MOSS) web front-end server(s) is running on 32bit versions Windows 2003 or 2008, consider moving to a 64bit version.

# Using Large File Support

Please see the Large File Support document, found by clicking the Help link on the Large File Upload page.

## Large File Support and My Sites

If not already enabled, make sure the ID that is upgrading the farm has full control for the Web Application hosting the My Site Host. (Select the Web App, User Policy>Add user.) If enabling this access is not preferred, temporarily add the ID, then disable externalization on the StoragePoint profile, save it, enable externalization on the profile, save it, and remove the user from the Web App user policy when complete. Otherwise, my site users may see an error when they try to use the large file upload window on their my site.

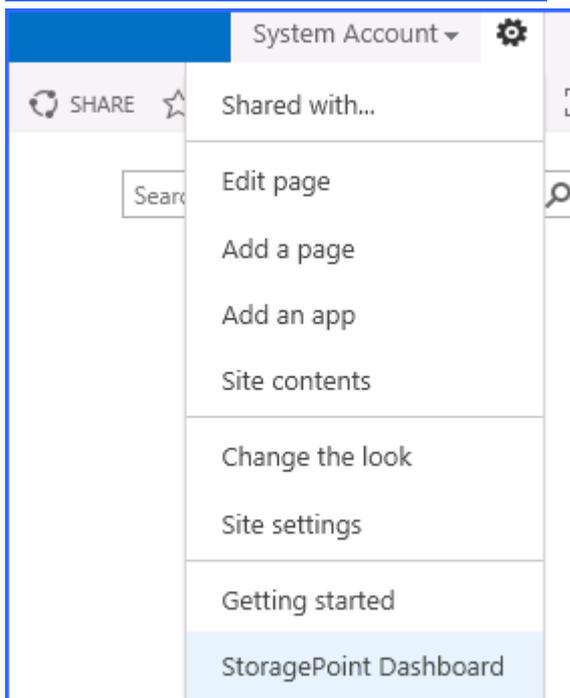
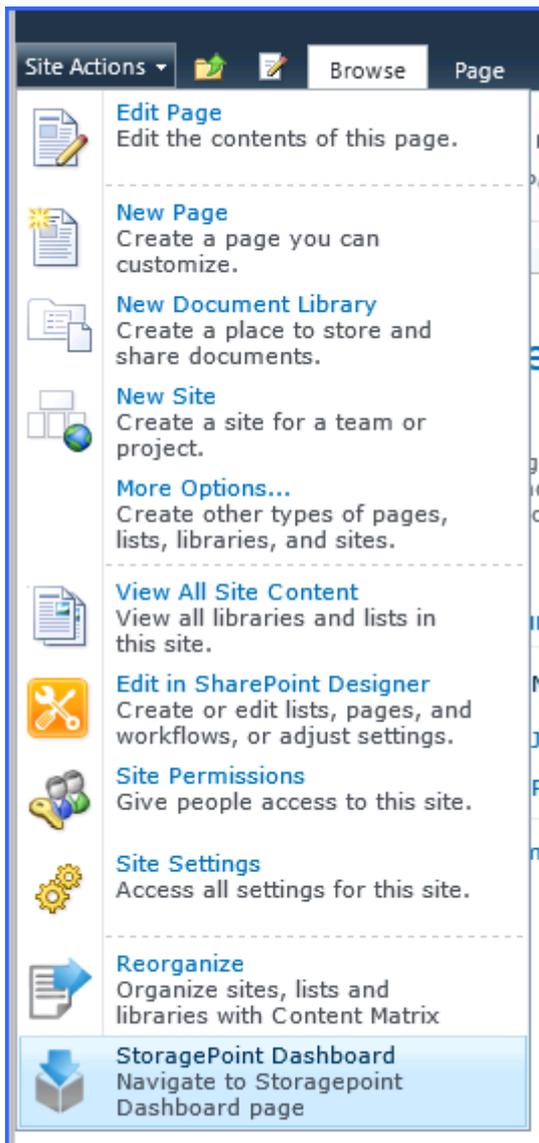
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# Dashboard

Farm administrators can view information about the health and storage utilization of their Metalogix StoragePoint implementation.

# Access and Navigation

The Dashboard can be accessed from the StoragePoint Menu on the Application Management page. It can also be accessed from the site collection by the link found in the Site Actions menu.





**NOTE:** Accessing the dashboard from a Site Collection will only provide Profile and Endpoint information for the profile covering the scope of that site collection.

## StoragePoint Dashboard



The dashboard features several navigation tiles: SYSTEM HEALTH (with a red X), DATABASES (with a green check), PROFILES (with a green check), ENDPOINTS (with a green check), TIMER JOBS (with a green check), and SUPPORT TOOLS. To the right are links for Jobs Report and System Health.

Three charts are displayed: Farm BLOB Count (Most Used EndPoints), Farm Endpoint Sizes (Most Used EndPoints), and System Cache. The System Cache chart shows a split between Free (orange) and Used (yellow) space.

Summary statistics for endpoints are shown below the charts:

ALL	PRIMARY	BACKUP
25	23	1

The Endpoints table shows details for 'Endp1':

Name	Endp1	Status	Online
Adapter Type	FileSystem	Compression	No
Encryption	No	Path	PATH=C:\FARE
Endpoint Type	Primary		

There are five main sections to the dashboard: System Health, Databases, Profiles, Endpoints and Timer Jobs. Support Tools is a BLOB ID decoder. Click the tile of each of these sections to see the relevant information displayed below.

The [Jobs Report](#) is covered below, and [System Health Report](#) works the same as the utility on General Settings.

System Health will show the overall performance information, along with the status of some critical timer jobs. Each of the sub-tiles can be selected to display a status message along with a link to the page where more information can be found.

The ULS Logs link will indicate what errors are appearing in the ULS logs. These errors can be cleared from the dashboard using the Clear All links at the bottom of the page, but will remain in the logs.

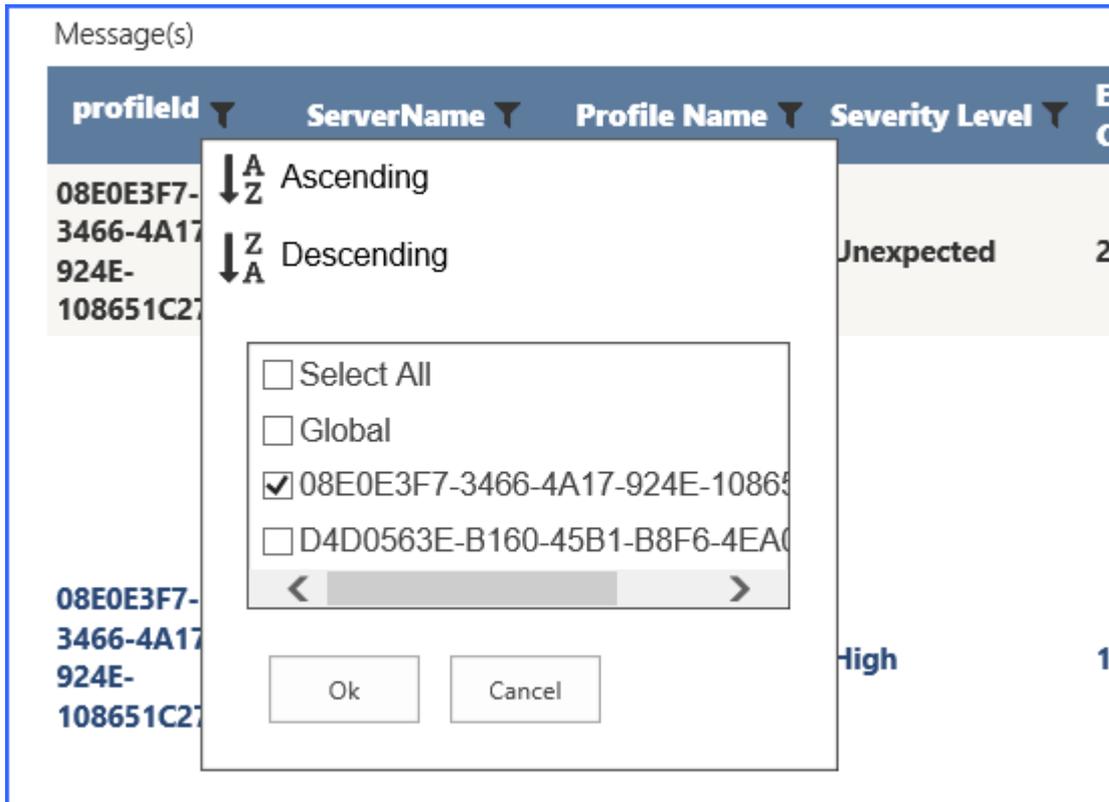
The dashboard shows an error notification: "Error ULS logs contains 85 errors." Below this are navigation tiles for SYSTEM HEALTH (with a red X), DATABASES, PROFILES, ENDPOINTS, TIMER JOBS, and SUPPORT TOOLS. To the right are links for Jobs Report and System Health.

Additional navigation tiles include LICENSE, ULS LOG (with a red X), ENDPOINT STATUS, UNUSED BLOB CLEANUP, TIMER JOBS, CONTENT MIGRATION JOB, SHARE-POINT SERVICE, and SYSTEM CACHE.

The error log table shows the following entry:

profile	ServerName	Profile Name	Severity Level	Errors Count	Last Message	First Occurrence
Global	MP-SP16-A-	N/A	Unexpected	1	Stack Trace: at System.Data.ProviderBase.DbConnectionFactory.TryGetConnection(DbConnection owningConnection, TaskCompletionSource`1 retry, DbConnectionOptions userOptions, DbConnectionInternal oldConnection, DbConnectionInternal& connection) at System.Data.ProviderBase.DbConnectionInternal.TryOpenConnectionInternal(DbConnection outerConnection, DbConnectionFactory connectionFactory, TaskCompletionSource`1 retry,	5/25/2017

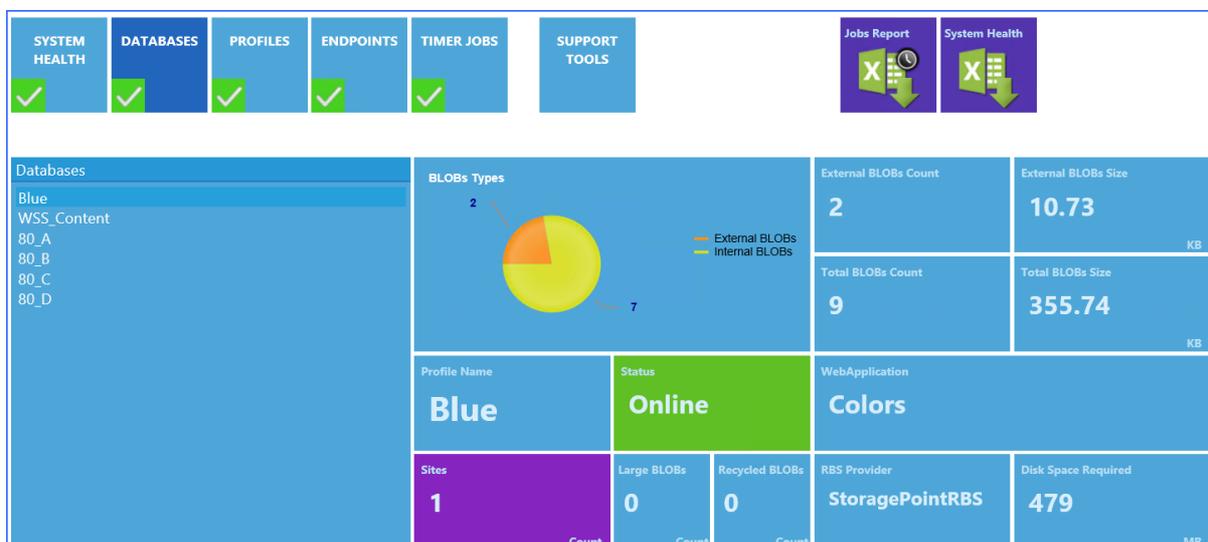
Use the filter buttons to organize the messages by Profile ID, Server Name, Profile Name or Severity Level.



The System Cache dashboard link will show whether the system cache is reaching a threshold, and advise steps to correct it, namely running the [StoragePoint BLOB Health Analyzer](#) for each profile, and the [Content Migrator](#) job.

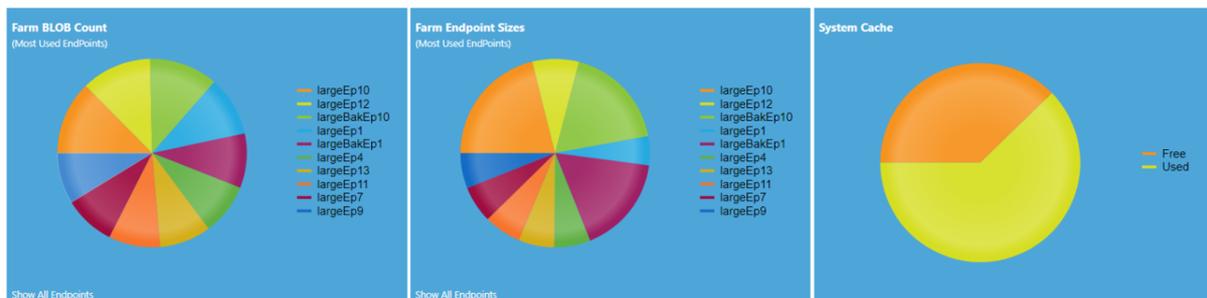
The Databases page shows all of the content databases in the SharePoint farm. Clicking the name of the database in the left column refreshes the data in the tiles to the right. If the tiles are not refreshing, security may have timed out: try refreshing the whole page.

Note that administrators can see the breakdown of internal and external BLOBs, and see in Disk Space Required, how much space is needed on an endpoint, at this point in time. Profile Name will say No Profile if the content database is not in a profile scope.



The Profiles page shows the configuration information for the StoragePoint profiles. The sub-tiles on this page can be used to filter the profiles if there are a large number of them configured for the farm. Select the name of the profile from the column on the left, and the graphs and fields will update accordingly. The expanding sections at the bottom also contain more information about the profile, such as which endpoints are storing BLOBs for the profile.

The Endpoints page opens with graphs that show information for all endpoints. Clicking the name of an endpoint will toggle the information between appearing or not, in the graph.



If 10 or more profiles have been created, click on the 'Show All Endpoints' link to show each Endpoint and their respective externalized Blobs.

The sub-tiles can be used as filters if there are a large number of endpoints in the StoragePoint configuration.

ALL	PRIMARY	LIBRARIAN	BACKUP
✓ 10	✓ 6	✓ 1	✓ 2

Endpoints	Name	Status
amazon	Archive EP1	Online
Archive EP1		
Backup EP1		
backupEP2		
BUEP1		
directions		
EP1		
EP2		
SYSTEM CACHE		
test_Endpoint		

Adapter Type	Compression	Encryption
FileSystem	No	No

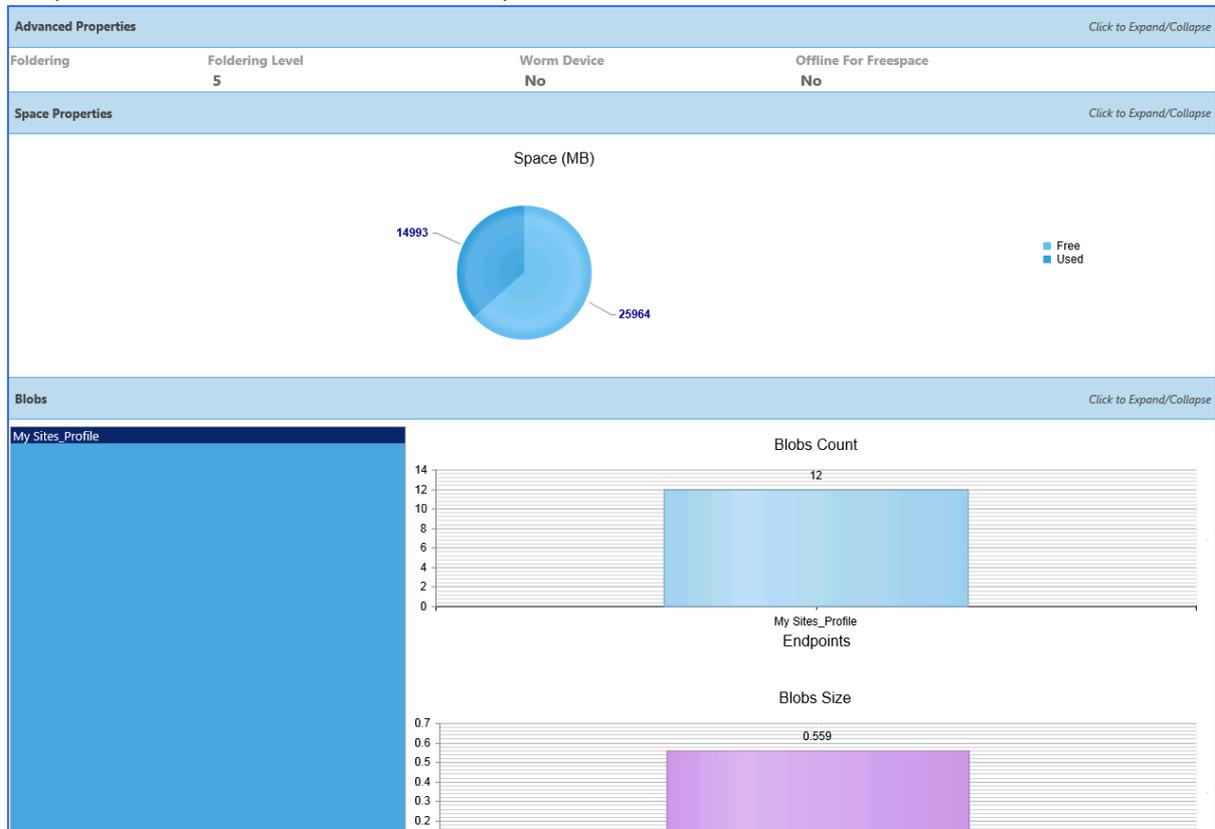
Path	Endpoint Type
PATH=\\SP2013DTWFE1\Endpoints\Archive EP1;AUDITDELETE=False;	Primary

**Advanced Properties**

**Space Properties**

**Blobs (Not Available)**

The expanding sections at the bottom contain more detailed information about each endpoint, included which profiles are using them. (If there is no information in the Space Properties, that endpoint cannot be monitored for free space.)



The Timer Jobs page shows the configuration options for both farm wide and profile specific timer jobs. Use the sub-tiles to select which to view. In the profile jobs page, select a profile to see which timer jobs are configured, and how, for that profile.

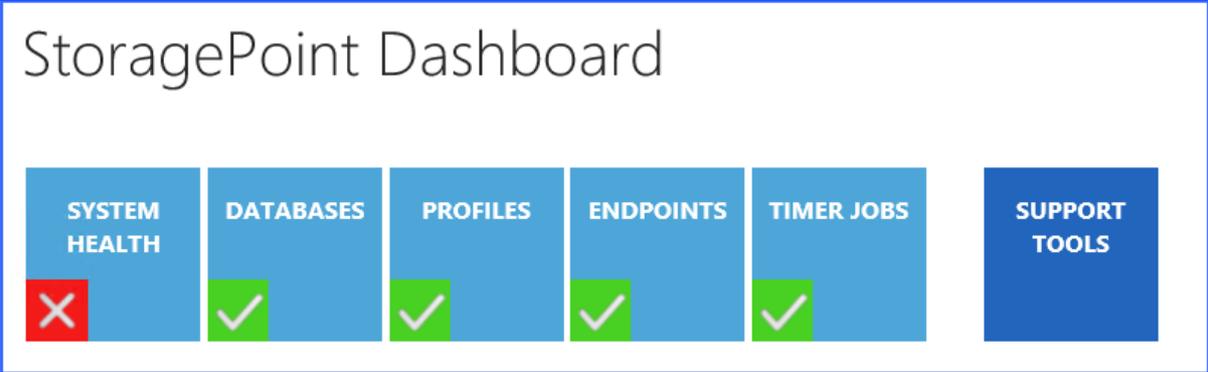
<table border="1"> <tr> <td>GENERAL JOBS</td> <td>PROFILE JOBS</td> </tr> <tr> <td>✓ 4</td> <td>✓ 9</td> </tr> </table>	GENERAL JOBS	PROFILE JOBS	✓ 4	✓ 9	<div style="border: 1px solid #ccc; padding: 5px;"> <span>Colors</span> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <b>Profile Jobs</b> <ul style="list-style-type: none"> <li>StoragePoint Backup Synchronization Service</li> <li>StoragePoint Aging</li> <li>StoragePoint BLOB Health Analyzer</li> </ul> </div>	
GENERAL JOBS	PROFILE JOBS					
✓ 4	✓ 9					
<div style="border: 1px solid #ccc; padding: 5px;"> <b>Server</b> SP2013DTWFE1 </div>	<div style="border: 1px solid #ccc; padding: 5px;"> <b>WebApplication</b> Colors </div>	<div style="border: 1px solid #ccc; padding: 5px;"> <b>Schedule</b> every 15 minutes </div>				
<div style="border: 1px solid #ccc; padding: 5px;"> <b>Status</b> Online </div>	<div style="border: 1px solid #ccc; padding: 5px;"> <b>Last Run Time</b> 9/4/2015 8:45 AM </div>	<div style="border: 1px solid #ccc; padding: 5px;"> <b>JobRole</b> N/A </div>				

**Advanced Properties** (Not Available for this Job)

# BLOB ID Decoder

The BLOB ID Decoder is used to return information about a BLOB. For example, a timer job may say it can't find a BLOB. This tool will help identify where in the SharePoint farm that BLOB is in use.

Click Support Tools on the dashboard.



When the window refreshes, paste or type in a BLOB Id and click Parse.

**Blob Id:**

**Result:**

```
Blob Id: 92b97d3c-2f66-463b-b9a7-31266b270953  
Profile Id: 1a3c1caf-e70b-4e93-b7f2-3ad21ca84b23  
Profile Name: Colors CDB  
EndPoint Id: 7726619e-0350-45b5-b79b-  
Folder: Blue\2017\12\05\23\35  
File Name:  
EndPoint Name: EP1  
EndPoint PATH: PATH=\\S1-SP10-SQL08  
\Users\stpadmin\Desktop\Endpoints\EP1;AUDITDE  
E=8192;SHREDONDELETE=False;USEMETA=False;  
  
Content DB: colors  
Doc Id: 9a7b28c5-e703-42b4-8267-d9c6cb81b1e0,  
97d8-4f70-82ab-c5a7997b325c  
URL: sites/level 1/Shared Documents/Baseball
```

The results will help to identify where the file can be found within the SharePoint farm.

Use the Clear button to clear the search results.

Use the Copy button to copy the search results to the clipboard.

# Dashboard Editor

The System Health report can be modified to represent the notification levels that reflect thresholds deemed acceptable.

Go to the [General Settings](#) page and click Dashboard Editor in the Utilities section..

Dashboard Editor

Dashboard Editor allow You to edit settings for dashboard boards such as visibility of signals controls or behaviour of controls.

To start, click on the following link: [Dashboard Editor](#)

The threshold represents the point at which the notifications become more urgent. For example, if the threshold is 5 for displaying errors, and 1 for displaying a warning, the alert will show as an Error on the ULS information. All errors and warnings can be displayed, but the threshold lets an organization decide at what level it becomes more urgent. If there are between 1 and 4 errors, the alert will show as a Warning.

- Uncheck the boxes to remove a Signal from the System Health dashboard.

- Use the arrows to go up or down by 10, or type a threshold in manually. Click OK. This will save the Dashboard settings, or click Save on General Settings to exit the General Settings page.

Dashboard Editor
✕

Dashboard Editor allow You to edit settings for dashboard boards (System Health board) such as visibility of signals controls or behaviour of controls.

**System Health board settings**

**ULS Log** ( Show ULS Log Signal)

ULS Logs count for displaying errors 5

**Endpoint Status** ( Show Endpoint Status Signal)

Endpoints out of space count for displaying errors 1

Endpoints out of space count for displaying warnings None

**Timer Jobs** ( Show Timer Jobs Signal)

Timer jobs error count for displaying errors 1

Timer jobs error count for displaying warnings None

**Content Migration Job** ( Show Content Migration Job Signal)

Content Migrator error count for displaying errors 1

Content Migrator error count for displaying warning None

**Unused BLOB Cleanup** ( Show Unused BLOB Cleanup Signal)

**Sharepoint Sevices** ( Show Sharepoint Sevices Signal)

**System Cache** ( Show System Cache Signal)

System Cache items count for displaying errors None

System Cache items count for displaying warnings 1000000

[Reset to defaults](#)

On the dashboard, the selections will be reflected in the amount of data provided.

Example:

## Export Dashboard Data

A report of dashboard information can be exported to a CSV file. Click the CSV icon (without the clock) in upper right corner of the screen. Once clicked, a message will display that the job was started, and to go to the [Job Status](#) page to retrieve the report (a link is provided in the message). The messages will refresh when the job is complete, and eventually disappear, or can be clicked to remove them from the page.

On the Job Status page, click the Summary link for the [System Health Report](#) timer job.

StoragePoint Jobs							
Job Type	Scope	Assigned Server	Started	Status	Percent Complete	Actions (Clear All)	
System Health Report	(All)	STP-LL-SP16-00	5/17/2022 12:54 PM	Complete	100%	Clear   Summary	
Farm Wide Maintenance	N/A	STP-LL-SP16-00	5/17/2022 12:51 PM	Complete	100%	Clear   Summary	

Click View Report to open it in a new window, or click Download CSV to download a copy of the report.

Job Detail	
Job Name	StoragePoint System Health Report
Server	STP-LL-SP16-00
Started	5/17/2022 12:54:17 PM
Completed	5/17/2022 12:54:21 PM
Total Job Time	00:00:04
Summary File	<a href="#">View Report (Download CSV)</a>

The System Health Report csv file contains the following information about BLOBs:

Document ID, Folder Path, File Name, BLOB ID, Dir Leaf Name, Document URL, Endpoint Name, Externalization Type, Size (bytes), Encrypted, WORM Device

The System Health Report csv file contains the following information about BLOBs marked for deletion:

BLOB Id, Document Id, Profile Id, Size (bytes), Encrypted, WORM Device, Endpoint Name, Endpoint Path, Endpoint Adapter, Backed Up

## Timer Jobs Report

A report of Timer Job Configurations can be exported to a CSV file. The report shows values for currently running and jobs scheduled to run in the next two weeks. This information should be used to modify timer job schedules to help moderate server load.

Click the CSV icon (with the clock) in upper right corner of the screen. Once clicked, a message will display that the job was started, and to go to the [Job Status](#) page to retrieve the report (a link is provided in the message). The messages will refresh when the job is complete, and eventually

disappear, or can be clicked to remove them from the page.



On the Job Status page, click the Summary link for the StoragePoint Jobs Report.

Job Type	Scope	Assigned Server	Started	Status	Percent Complete	Actions (Clear All)
StoragePoint Jobs Report	N/A	STP-LL-SP16-00	5/17/2022 1:19 PM	Complete	100%	Clear   Summary
Per-Server Maintenance	N/A	STP-LL-SP16-02	5/17/2022 1:17 PM	Complete	100%	Clear   Summary

On the Summary page, click the View Report link to view the CSV or click the Download CSV link to save the file. The default file name will be in this format:

Job Detail	
Job Name	StoragePoint Report Job
Server	s1-sp10-sql08
Started	12/5/2017 10:49:16 PM
Completed	12/5/2017 10:49:21 PM
Total Job Time	00:00:04
Summary File	<a href="#">View Report (Download CSV)</a>

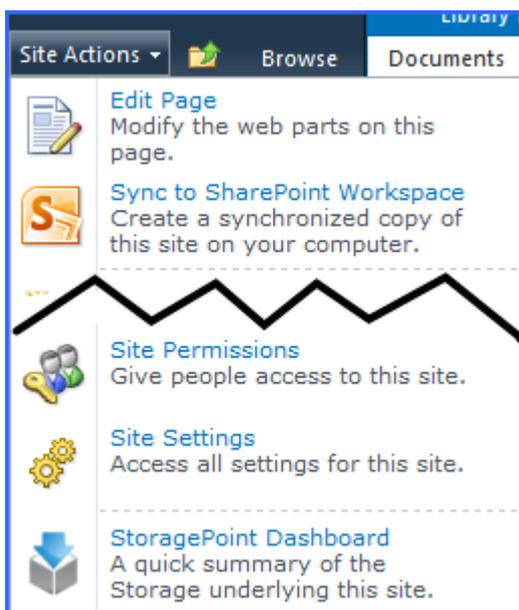
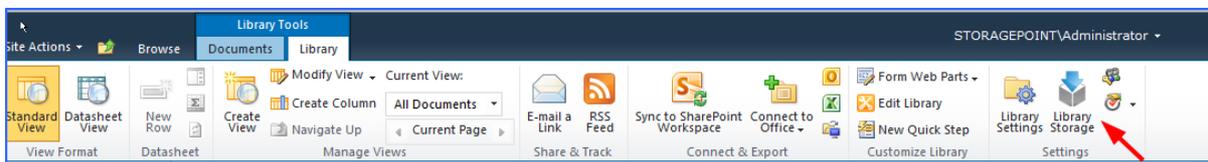
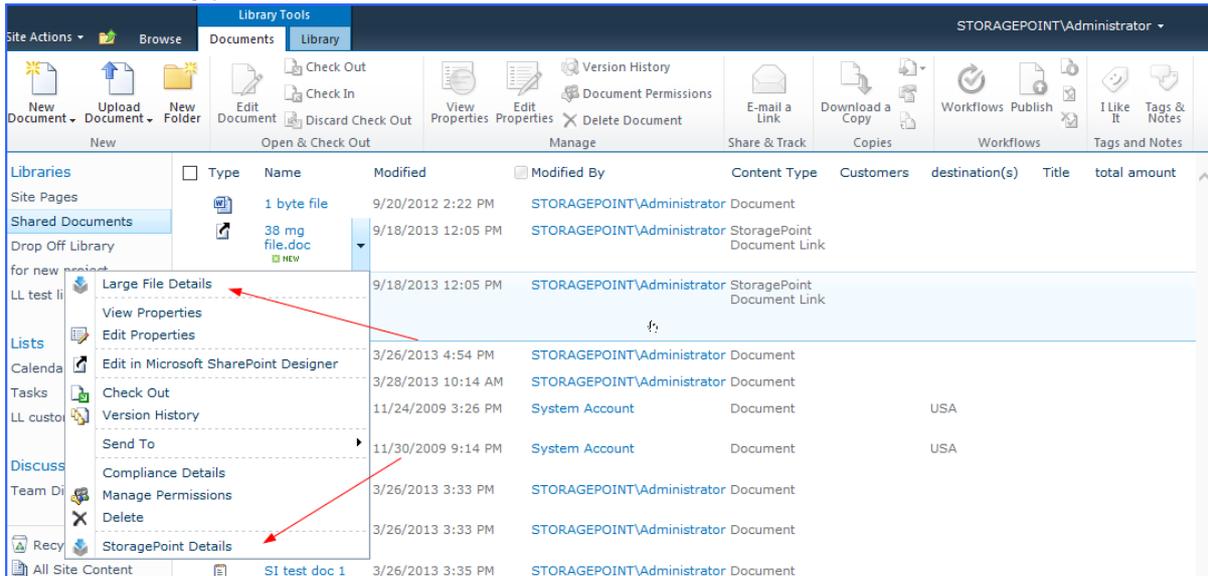
The data contained in the file will show the most recent information:

- Profile - Name of the profile or NA for [Farm Wide Timer Jobs](#).
- Job Name - Name of the timer job (with Profile ID, where applicable)
- Start - Start time of the most recent run of the timer job. The schedule of the timer job will also be shown, if applicable.
- Server Name - Server where the job was run from.

- Job Duration - The time it took for the job to run.
- Status - This will say Scheduled or Running.
- Explicitly Run, - Yes, If the job was run by clicking a button, rather than by being scheduled.
- Master Job ID - The GUID of a controller timer job, if applicable. Otherwise, N/A.
- Worker Job IDs - The GUID of any worker timer job, if applicable. Otherwise, N/A.

# User Experience

Metalogix StoragePoint has been designed to ensure that SharePoint's user experience is not affected and that only those with the proper level of access know where and how to interact with the functionality provided.



# Modern UI for SharePoint 2019/SharePoint SE

SharePoint 2019 and SharePoint Server Subscription Edition (SharePoint SE) have an updated look and feel for the user interface. StoragePoint links will work on this new user interface, but some additional configuration is necessary.

A Site Collection Feature will be deployed to SharePoint 2019 farms as of the 5.9.1 release, and for SharePoint SE as of the 6.2 release. This feature should be enabled on the site collection for full StoragePoint user interface functionality.

Before activating the Site Collection Feature, an App Catalog must be configured for the web application, as well as an App Management service application.

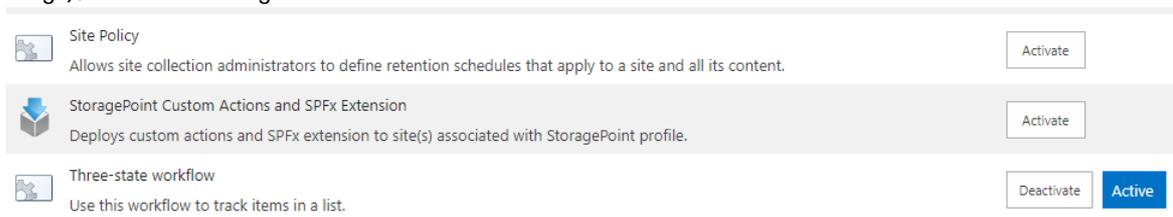
Please reference the following articles for provisioning these resources.

<https://docs.microsoft.com/en-us/sharepoint/administration/configure-an-environment-for-apps-for-sharepoint#configure-the-subscription-settings-and-app-management-service-applications>

<https://docs.microsoft.com/en-us/sharepoint/administration/manage-the-app-catalog>

There are some PowerShell script examples in the PowerShell and API Guide for provisioning these resources.

When these steps are done, open the Site Collection Features (Gear Icon>Site Info>View All Site Settings), scroll to StoragePoint Custom Actions and SPFx Extension and click Activate.



## Large File Upload Note to Administrators

**NOTE TO ADMINISTRATORS:** This section covers the interface that users with Large File Upload access will see. It may be beneficial to share this section of information if this feature is being enabled. Access to this upload method is controlled on the [Metalogix StoragePoint General Settings](#) page. Please review the information found in the General Settings section before using the tool.

By dragging the file to the custom upload page, a link is placed in the document library to access that file. The link is an aspx file and will have a content type of 'StoragePoint Document Link'. Do not change this content type. The aspx file will not be subject to metadata requirements normally placed on a document content type.

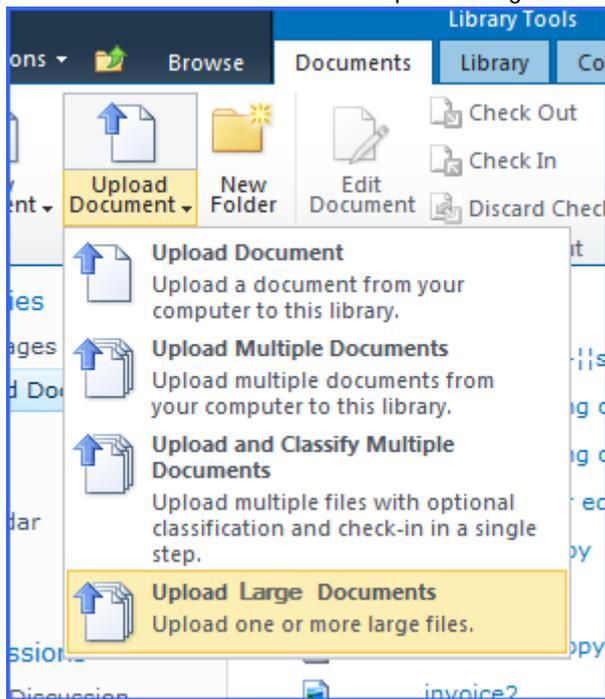
Open or download responses can only be performed by clicking on the name of the document. The option to 'download a copy' is not supported. Office Web Applications are not supported.

The file does not need to be large to use this interface, but files smaller than the upload limit for the web application will not generate a link, but rather will behave like a regular upload.

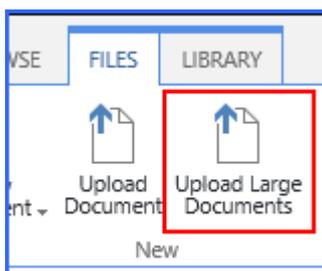
## Using Large File Upload

A user who has access to upload files will see an option to upload large files with a different type of interface. This tool is only available in the Document Library list.

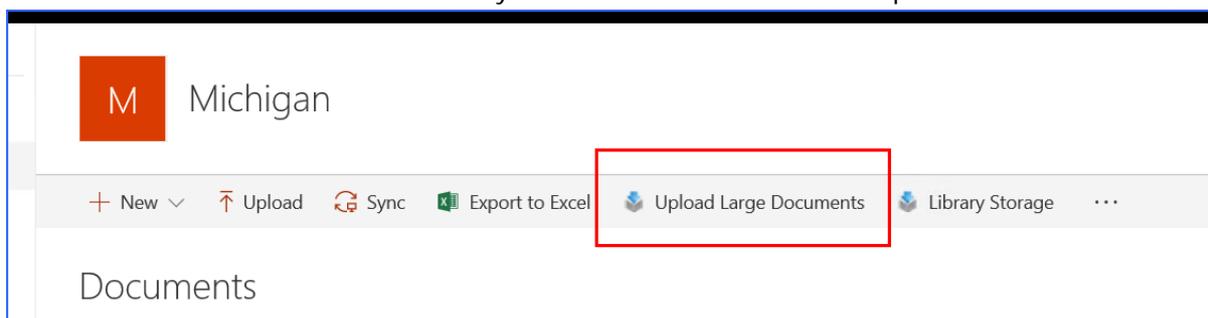
From the Documents tab, click Upload Large Documents from the Upload Document dropdown.



Or click the Upload Large Documents button in the Files ribbon.

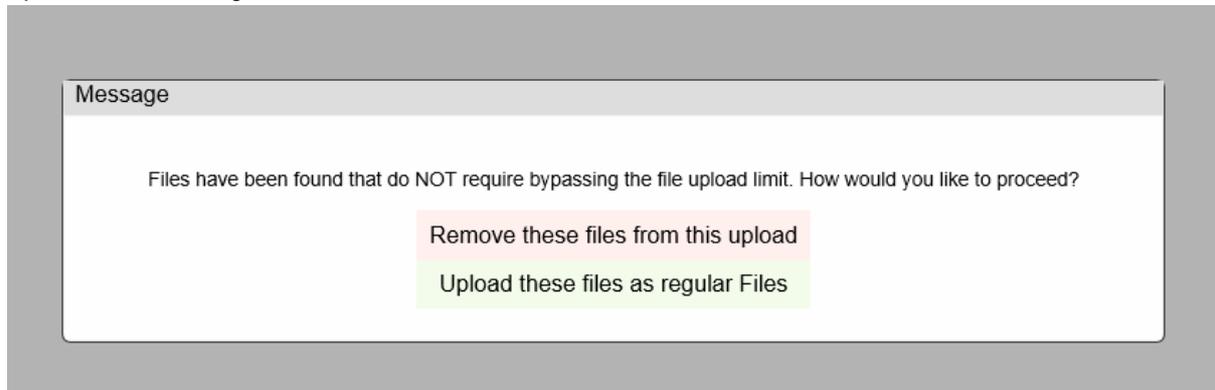


Or use the link in the ribbon in the library of the SharePoint 2019/Subscription Edition Modern UI.

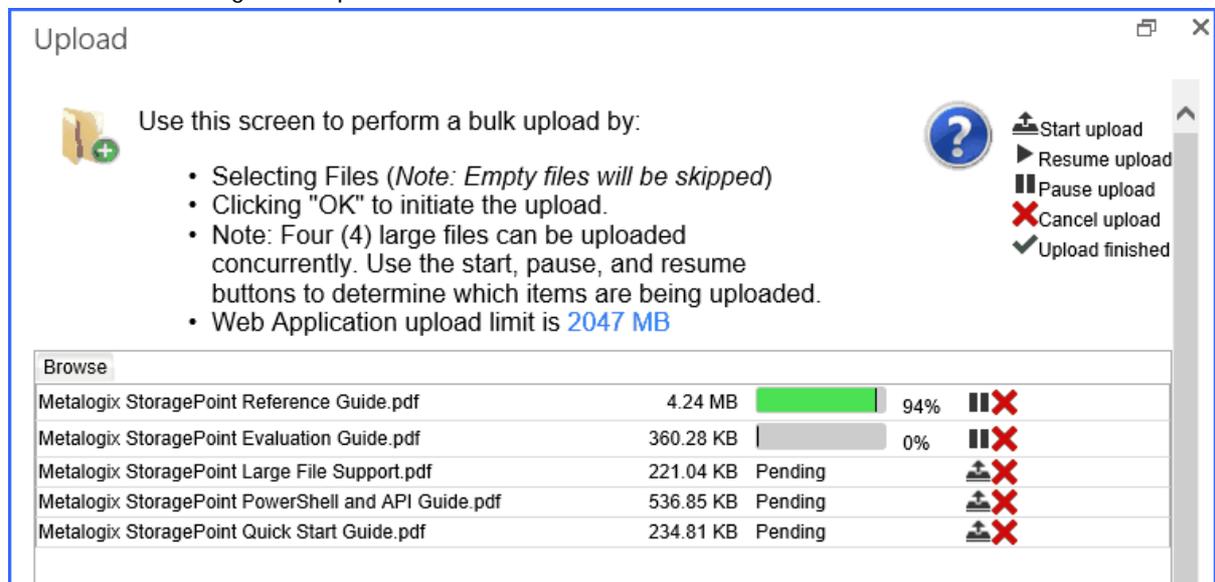


A new window opens. Drag files from the windows explorer onto the page.

If there are files that are less than the upload limit, a notice will ask whether to remove these or to upload them as regular files.



and click OK to begin the upload.

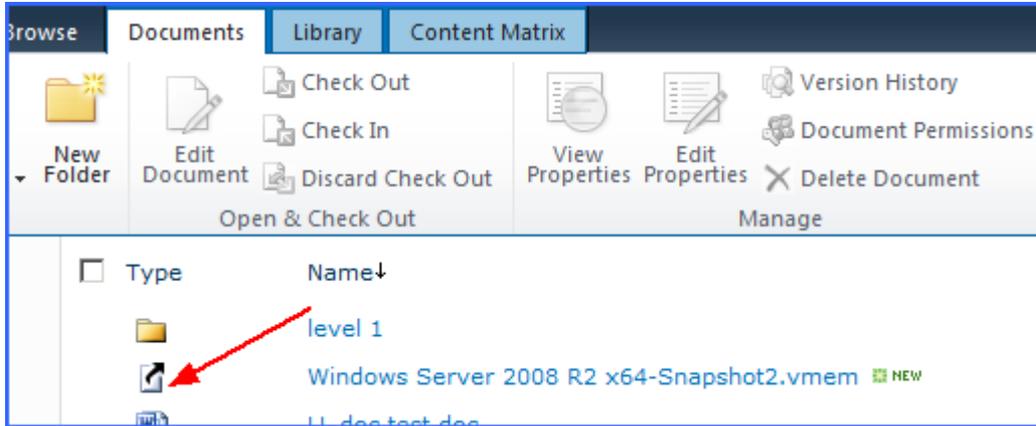


The files can be managed to reduce resource usage, by using the pause, resume, start upload or cancel buttons to the right of the file name, after clicking the OK button. If left alone, the files will upload on their own.

- Clicking the OK button begins the upload.
- By default there will be 2 files being uploaded at the same time.
- A maximum of four files can be uploading at the same time.
- Paused files will not be uploaded automatically; to continue with the upload they should be resumed.
- If pause is clicked for a file in progress, it does not enable another file to begin the upload; it only pauses that file.
- The Start Upload button will be displayed when there are more than 2 files to be upload and not more than 4 in progress (paused/resumed). The 5th file will not have this button displayed until one of the uploads is completed.

- The Pause All button at the bottom will pause all running uploads; toggle this button to pause and resume running uploads.
- The recommended maximum number of files to be used with the Large File Upload interface is 100.

The item in the document library will look like this:



Click the name of the file to open or download.

**i** **NOTE:** The link that will display in the Versions window or in the Edit Properties window will not be correct and should not be used to access the file. Also, if the File Size column is displayed in the view, for Large File Uploads, that data is the size of the aspx file, not the large file size. Use the [Large File Details](#) window for these operations.

## Large File Upload Details

Access to the Large File Upload details is found on the context menu:



The details will show the item as the aspx, but the other details relate to the location of the actual content.

The data shown in the Large File Details window will depend on the access of the logged in user. A Site Collection or Farm Administrator will see the same date they would see on StoragePoint Details, but a user with contribute access will see only the name and size of the file.

Farm and Site Collection Administrators' view of Large File Details:

The screenshot shows a window titled "StoragePoint Large File Details" with the Metalogix StoragePoint logo in the top right. The main content area displays a table of file details:

Version(s)	Version 1.0
Item	120MB.txt (Download)
Item Location	Externalized (Stub)
Item Size	128.00 MB
Endpoint	SYSTEM CACHE
Adapter	FileSystem
Connection	PATH=\\Sp2010b-wfe1\qa_endpoint\System Cache;AUDITDELETE=False;BUFFERSIZE=8192;SHREDONDELETE=False;USEM ETA=False;
Folder	LFS
Filename	120MB_d76573e5-b446-4c00-bd7f-08a13391d7a7.txt
Other	Compression is Off and Encryption is Off

At the bottom right of the table area, there is a "Copy Info" button. Below the table area is a "Close" button.

Contribute Level User's view of Large File Details. Use the download link on this page if the SharePoint link is not opening the file.

The screenshot shows a window titled "StoragePoint Large File Details" with the Metalogix StoragePoint logo in the top right. The main content area displays a table of file details:

Version(s)	Version 1.0
Item	38 mg file.doc (Download)
Item Size	37.16 MB

Below the table area is a "Close" button.

## Editing Large File Uploads

Files uploaded using the Large File Upload tool can't be edited like regular uploads. To edit the files, it must be checked out first. Open the file, save a copy locally, and upload the edited file using the large file upload interface. This will overwrite the current file.

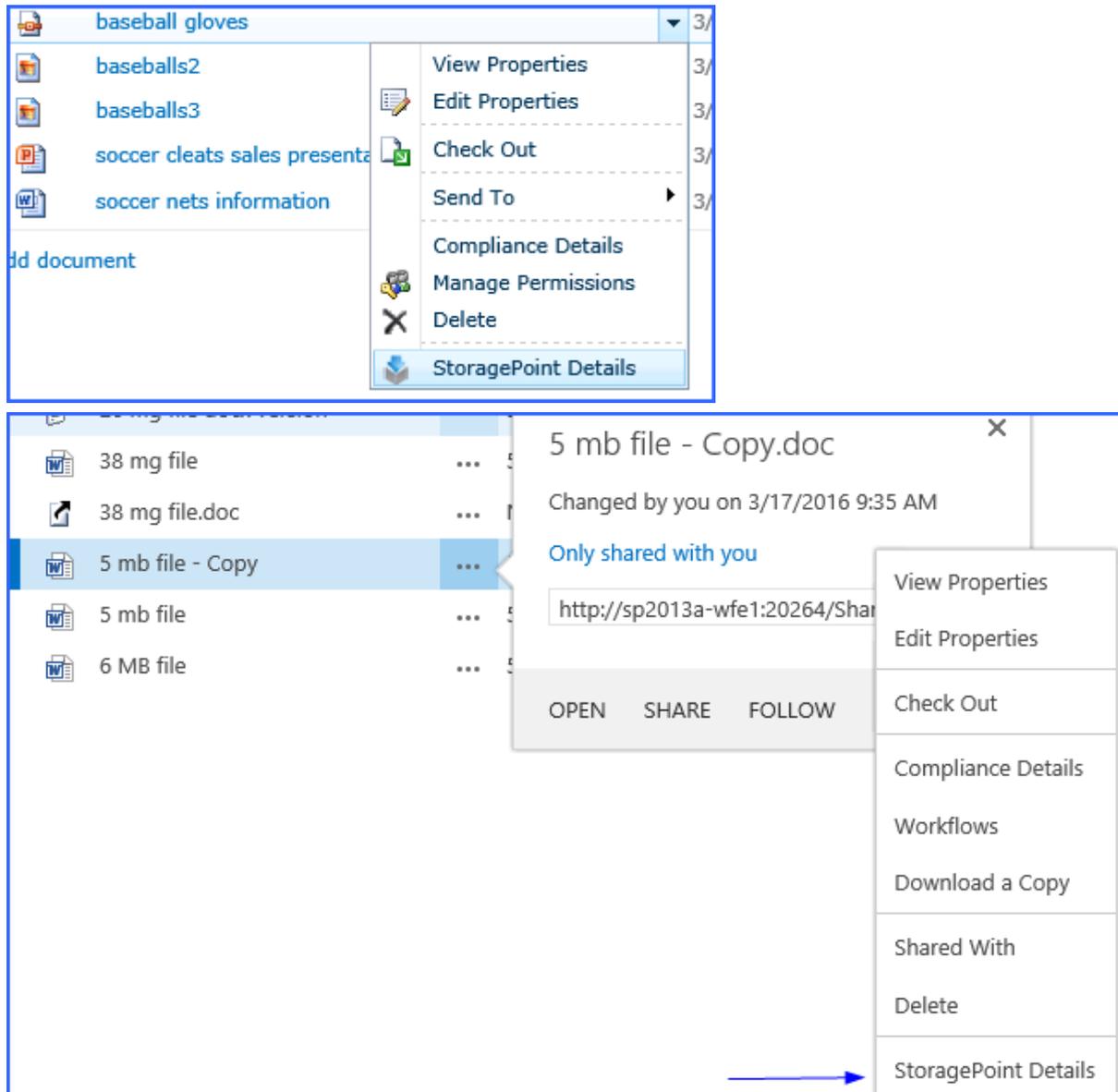
# Versioning

If versioning is enabled on the document library, the previous versions are accessed by selecting the version in the dropdown of the StoragePoint Large File Details window, and clicking the Download link.

## StoragePoint Details

When a user who has access selects the StoragePoint Details menu item, they are presented with a dialog that will indicate whether or not the content associated with the list item is externalized and how it is externalized if applicable. Additionally, there are links that allow this user to externalize, recall, or migrate individual content, down to the version level.

Access to the StoragePoint details is found on the context menu:



## Externalized Sample

StoragePoint Item Details

Version(s) Version 2.0

Item Metalogix StoragePoint Quick Start Guide.pdf

Item Location Externalized (RBS)

Endpoint Archive EP

Adapter FileSystem

Connection PATH=\\DSP2016WFE1\Endpoints\Archive EP1;AUDITDELETE=False;BUFFERSIZE=8192;SHRED ONDELETE=False;USEMETA=False;

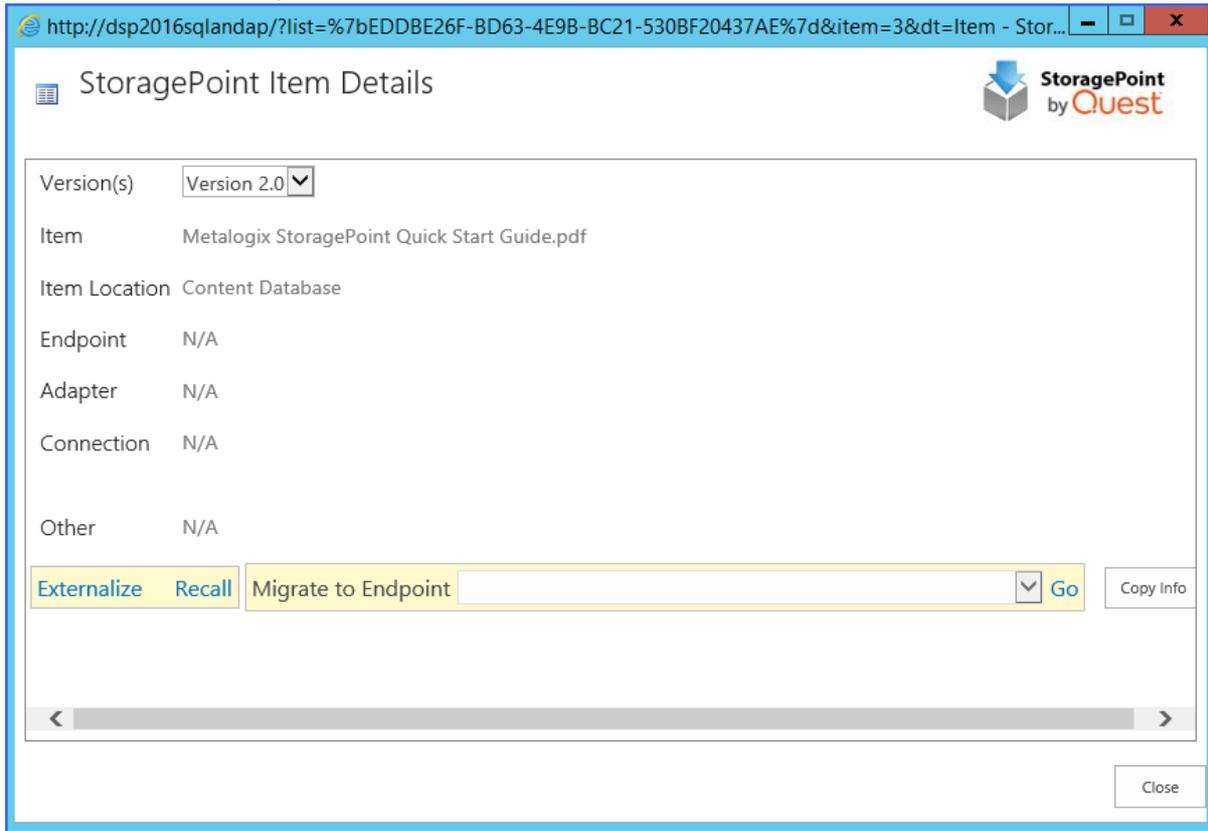
Folder/Filename (Total: 5 ) sites\test2\Shared Documents\Metalogix StoragePoint Quick Start Guide\_v1.0\_436cec37-1; sites\test2\Shared Documents\Metalogix StoragePoint Quick Start Guide\_v1.0\_60eddb29-c; sites\test2\Shared Documents\Metalogix StoragePoint Quick Start Guide\_v1.0\_6187ebca-6

Other Compression is **On** and Encryption is **Off**

Externalize Recall Migrate to Endpoint EP1 (default) Go Copy In

Close

## Non-Externalized Sample



The Copy Info button allows a copy of the information in the StoragePoint Details screen to be saved to the clipboard.

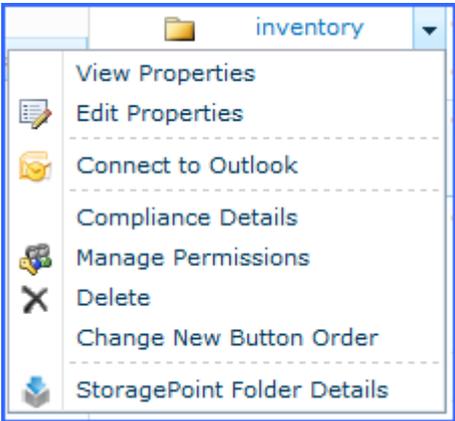
- i** | **NOTE:** For Large File Uploads, the StoragePoint Details page shows the size of the aspx file (stub). To see the true size of the file, open the Large File Upload details.
  
- i** | **NOTE:** In SharePoint 2013, the Site Owner may see the StoragePoint Details link in the context menu, but the page displayed will be a message saying that it hasn't been shared with them.
  
- i** | **NOTE:** In SharePoint 2019 and Subscription Edition, the pop-up blocker needs to be disabled to view the StoragePoint Details.

# Migrate, Externalize, and Recall by Folder and List

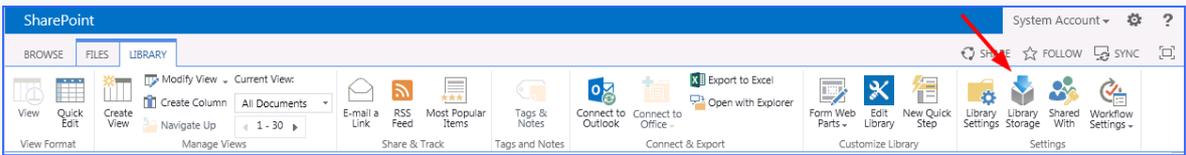
There is a StoragePoint Folder Details and StoragePoint menu option that applies to folders and entire libraries or lists. If the context menu for a folder is selected, there would be a StoragePoint menu at the bottom that would open a dialog where BLOBs can be externalized, recalled, and migrated within the scope of the selection. This will schedule a manual timer job instance of the requested operation.

In order for these timer jobs to complete, the web app pool account should have access to the SharePoint configuration database (as well as the StoragePoint configuration database) to create the timer job.

Folder Menu



SharePoint 2013 and SharePoint 2016 List Ribbon



http://dsp2016sqlandap/?list={585e9567-6792-43dd-83b6-db2583272817}&item=-1&dt=Library - Storag - I...

### StoragePoint Library Details



Item	Documents -
Database	Files: 4 (0.08 MB) Versions: 0 (0.00 MB)
External	Files: 21 (0.72 MB) Versions: 0 (0.00 MB)

[Externalize](#) [Recall](#) [Migrate to Endpoint](#)

<  >

## Activating the Software

The Metalogix StoragePoint software licenses are activated during the installation of the software. There are a few times when the software may need to be activated.

- If the number of servers in a farm is changed or an existing server is re-provisioned, the software must be re-activated to obtain a new license key. Make sure there are enough available licenses if adding servers to the farm. Contact [support](#) to purchase additional licenses.
- If the license was activated via Offline Activation during installation, the license needs to be reactivated every 6 months using Offline Activation. Online activations can be kept in synch by using the [License Verification](#) timer job.

**i** **NOTE:** If activating a Trial license key, all Metalogix StoragePoint features except deleting storage profiles and the Recall timer job will stop working at the end of the trial period.

1. Open SharePoint Central Administration:
2. Navigate to the Application Management page.
3. Click the License Management link in the StoragePoint section of the page.
4. If taken to the License Management page start here:

License Management ⓘ 

Current License Information  
StoragePoint Version: 6.0

Application	License Status	Expiration Date	# of WFE(s)	Data (Used)	Days Left to Reactivate	Managed Persons	Activation
Metalogix StoragePoint (Enterprise)	Valid	2/3/2022	1	1 (0)	180	2	Reactivate

Activate/Reactivate License  
Use this section to activate or reactive a StoragePoint license for the farm. Activation can be done via an Internet connection or manually when there is no Internet connection.

Application: None Selected

Select Activation Method:

Close

One or more Application licenses will display, depending on what Metalogix StoragePoint products are installed. To activate or reactivate a license, click the Activate/Reactivate link associated with the product that needs to be activated.

**i** **NOTE:** If the License Status is Valid and more servers are not being added to the farm or correcting a corrupt license key, no action is necessary. Go directly to [Planning the Metalogix StoragePoint Implementation](#).

The following sections will go through the Automatic and Manual activation processes.

# Automatic (Internet) Activation

Automatic activation requires an internet connection to access the Metalogix StoragePoint activation server. If the WFE(s) in the farm do not have access to the internet then they will need to be activated manually. See the Manual Activation section below for more information.

**License Management** ⓘ

**Current License Information**

Application	License Status	Expiration Date	# of WFE(s)	Data (Used)	Days Left to Reactivate	Managed Persons	Activation
Metalogix StoragePoint (Enterprise)	Valid	2/3/2022	1	1 (0)	180	2	Reactivate

**Activate/Reactivate License**

Use this section to activate or reactivate a StoragePoint license for the farm. Activation can be done via an Internet connection or manually when there is no Internet connection.

Application: Metalogix StoragePoint (Enterprise)

Select Activation Method:

**Step 1 - Enter Registration Key**

Registration Key:

**Step 2 - Verify Web Front End Count**

Web Front End Servers in Farm:

**Step 3 - Provide Local Administrator Credentials**

The license provisioning process requires an account that is a member of the local Administrators group on each web front-end server. This account will be used for component registration and performance counter creation on each WFE. The credentials for this account should be entered below. Note that these credentials are used only for the provisioning process and are not stored for future use.

Domain (optional)

Username

Password

**Step 4 - Activate License on Farm**

To start the Automatic Activation process:

1. Click the link in the Activation column.
2. Select the Automatic (Internet) option from the Select Activation Method dropdown.
3. Enter the registration key in the Registration Key box.

**i** **NOTE:** There may be more than one registration key depending on what licenses are installed. Please make sure to use the correct key. There are different keys for production and non-production licenses.

4. Verify the number of WFE servers in the farm. This can be less than the number requested with the license. Enter an explanation in the Reason for Override field if the Override box is checked.
5. Provide the credentials for an account that has local administrator rights on the WFE(s). The activation and provisioning job that runs requires this access to register certain components on each WFE.
6. Click Activate to start the activation process.
7. Go to the [Activation Completion](#) section below.

# Manual Activation

Use this activation method if the web front-ends do not have access to the internet.

The screenshot shows the 'License Management' interface. At the top, there is a table with license information:

Application	License Status	Expiration Date	# of WFE(s)	Data (Used)	Days Left to Reactivate	Managed Persons	Activation
Metalogix StoragePoint (Enterprise)	Valid	2/3/2022	1	1 (0)	180	2	Reactivate

Below the table, the 'Activate/Reactivate License' section is active. It includes instructions and a multi-step process:

- Step 1 - Enter License Key:** A text box contains the license key: 86ED4-51103-2020A-45SUX-LW420.
- Step 2 - Verify Licensed Web Front End Count:** A text box contains the number '1'.
- Step 3 - Obtain License Key File:** A 'Generate Activation Data' button is present. Below it is a large empty text area for pasting activation data.
- Step 4 - Upload License Key File:** A 'Browse...' button is next to a text box for the license key file.
- Step 5 - Provide Local Administrator Credentials:** Fields for Domain (optional), Username, and Password.
- Step 6 - Activate License on Farm:** An 'Activate' button.

A 'Close' button is located in the bottom right corner of the interface.

**NOTE:** If manual activation is used, it will need to be done every 180 days to prevent an invalid license status.

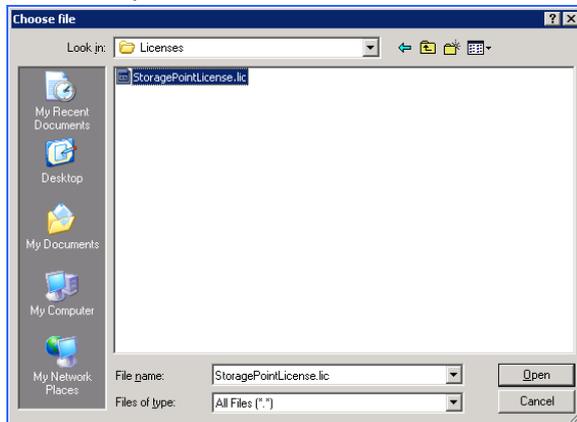
To start the Manual Activation process:

1. Select the Manual (License File) option from the Select Activation Method dropdown.
2. Enter the registration key provided in the Enter Registration Key box.

**NOTE:** There may be more than one registration key depending on what licenses are installed. Please make sure to use the correct key. There are different keys for production and non-production licenses.

3. Enter the number of WFEs from the License Management page into the Verify Licensed Web Front End Count box. This can be less than the number requested with the license. Enter an explanation in the Reason for Override box if the Override box is checked.
4. Click Generate Activation Data to generate the data. Copy the generated data.
5. Click the link or open a browser on a computer with access to the internet and navigate to <https://support.quest.com/offline-activation>
6. Paste the Activation Data in the top field and click Activate.

7. There will be an error if an invalid registration key is entered. If all values entered are valid a file download dialog displays. Save the file to a location that is accessible by the server where the license activation is being performed.
8. Back on the License Management page in SharePoint Central Administration, upload the license key file by clicking Browse... and navigate to the location where the file was saved. Select the file and click Open.



9. Provide the credentials for an account that has local administrator rights on the WFE(s). The activation and provisioning job that runs requires this access to register certain components on each WFE.
10. Click Activate to start the activation process.
11. The activation process can fail for any numbers of reasons. The following tables list the possible error messages and License Statuses that can be returned along with a description. The messages are prefixed with "An error occurred while activating the license".

Must specify at least one WFE to activate	Number of WFE(s) specified during manual activation is 0 or less.
Invalid Registration Key Format	The format of the supplied registration key is incorrect. Please verify that it is a GUID (xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx)
Invalid Registration Key	Registration key cannot be validated. It has not been issued by Metalogix.
Insufficient Activations (x) Remaining on this Registration Key	Not enough authorized activations available to account for all servers in the farm.
A trial key has already been activated on this farm. Cannot activate another trial.	Only one trial license can be activated on a farm.
Not Activated	License has not been activated yet.
Too Many WFE(s)	Too many WFEs for the current license. The software needs to be reactivated to account for newly added server(s).
Farm Mismatch	The license file supplied is for a different Farm.

WSS-only License	WSS-only license being used on MOSS.
License Expired	The license has expired. This is likely due to an expired trial/evaluation license.
License Corrupt	Signature didn't match license or there is something wrong with the license format. This would occur if the license file was tampered with. Reactivate the software to resolve.
License Invalid	Miscellaneous license issues. Should check the SharePoint logs for details.

Go to the [Activation Completion](#) section below.

## Activation Completion

The License Provisioning Status page is displayed.

Central Administration > License Provisioning Status  
 This page shows the status of the license provisioning process on each Web Front End server.

The Table below shows the WFE servers in the farm and the currently reported status of the provisioning job on each one. This page will refresh periodically to update the current status of the provisioning job on each server.

Server Name	Status	Message
sp2010	Waiting	

Continue

This page will periodically refresh to update the provisioning status for each WFE. Possible statuses are Waiting, In Progress, Complete, and Error. The Message column may also contain a value depending on the status. If an error on any server is displayed, look at the SharePoint logs on that server for more detailed information.

The provisioning process could take several minutes depending on the size of the farm.

Microsoft SharePoint 2010 Central Administration > License Provisioning Status  
 This page shows the status of the license provisioning process on each Web Front End server.

**Success** License provisioning was successful on all WFE servers in the farm.

The Table below shows the WFE servers in the farm and the currently reported status of the provisioning job on each one. This page will refresh periodically to update the current status of the provisioning job on each server.

Server Name	Status	Message
sp2010	Complete	Success

Continue

Upon completion, the Continue button will be enabled and **MUST** be clicked to complete the activation process. The License Management page is then displayed.

Back on the License Management page, notice that the Current License Information section has been updated with information about the license.

Upon successful completion the screen will contain the following information:

Field	Description
Version	The currently installed version of the component
License Status	Valid
Expiration Date	Expiration Date if a trial, otherwise <i>No Expiration</i>
# of WFEs	The current number of WFE(s) in the farm
Data(Used)	The amount of externalized data (GB) and how much has been used.
Days Left to Reactivation	The number of days remaining before the license must be reactivated. If the farm has internet access, the StoragePoint License Verification timer job will take care of this, otherwise it needs to be reactivated manually every 180 days.

## StoragePoint License Verification

The StoragePoint License Verification timer job can be found under Review Job Definitions. This job can be scheduled if there is an internet connection on the farm, to keep license information up-to-

date.

Central Administration > Edit Timer Job

Use this page to change or delete a timer job.

I Like It Tags & Notes

**Job Title** StoragePoint License Verification

**Job Description**

**Job Properties**

This section lists the properties for this job.

Web application: N/A

Last run time: 5/5/2012 3:53 AM

**Recurring Schedule**

This timer job is scheduled to run:

Minutes Starting every day between

Hourly 2 AM 00

Daily and no later than 3 AM 45

Weekly

Monthly

Run Now Disable OK Cancel

## Troubleshooting

**Problem:** License Provisioning process is failing on one or more WFE servers.

1. Ensure the account specified on the License Management page is in the local Administrators group on each server.
2. Ensure the Windows SharePoint Services Timer service is running on each WFE server.
3. Ensure that the Metalogix StoragePoint solution properly deployed to each WFE.
  - a. Open SharePoint Central Administration and navigate to System Settings > Manage Farm Solutions.

- b. Click `bluethread.storagepoint.feature.wsp`.

Solution Properties	
<a href="#">Retract Solution</a>   <a href="#">Back to Solutions</a>	
<b>Name:</b>	bluethread.storagepoint.feature.wsp
<b>Type:</b>	Core Solution
<b>Contains Web Application Resource:</b>	No
<b>Contains Global Assembly:</b>	Yes
<b>Contains Code Access Security Policy:</b>	No
<b>Deployment Server Type:</b>	Front-end Web server
<b>Deployment Status:</b>	Deployed
<b>Deployed To:</b>	Globally deployed.
<b>Last Operation Result:</b>	The solution was successfully deployed.
<b>Last Operation Details:</b>	STP-LL-SP16-00 : The solution was successfully deployed. STP-LL-SP16-02 : The solution was successfully deployed. STP-LL-SP16-01 : The solution was successfully deployed.
<b>Last Operation Time:</b>	5/17/2022 2:27 AM

4. Try restarting the Windows SharePoint Services Timer service on the WFEs that are having problems with the provisioning process and try again.

Problem: [Metalogix StoragePoint stops working](#)

Problem: [Metalogix StoragePoint works intermittently](#)

Problem: [I'm receiving invalid license errors in Central Admin](#)

1. Make sure it is not an expired trial or evaluation license. Check this by going to Metalogix StoragePoint's License Management page in Central Administration.
2. If servers have been added to the farm, reactivate all installed Metalogix StoragePoint components so a new license can be provisioned on the farm.
3. If a server has been re-provisioned or replaced, all installed Metalogix StoragePoint components need to be reactivated so the license can be provisioned/activated on the new server.

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## Appendix A: Import\Export Tool

There are two main scenarios the StoragePoint Import\Export Tool is designed to support.

### The “Promotion” Use Case

The first scenario involves following the best-practice of working with a staging or QA SharePoint environment before pushing a project into production. StoragePoint works well in this scenario with the use of a trial and/or our “non-prod” licensing.

The snag most folks run into is when it comes time to “promote” the solution into production. Without tooling specifically for this need; the only way to do this is to manually reproduce the StoragePoint settings from QA in the production Farm. Using the Export\Import tool, the elements of a QA configuration can be exported to a file. Then take the tool and the file to the production system and use them to selectively import elements that were defined in QA.

### The “Cloning” Use Case

The second scenario that folks encounter is the desire to take a “back-up” of some portion of the Production Farm that contains externalized content and restore it into an existing QA system that has “diverged” from and is not an exact replica of Production.

The general solution for “Cloning” in this direction without additional tooling is to make a copy of the external content, restore the entire StoragePoint database from Production into QA along with the desired Content Database and point the configuration at the copied data. In this case, existing QA StoragePoint configuration information would be over-written. This can be undesirable – particularly if QA already has externalized content with a StoragePoint configuration that differs from Production.

Using the Export\Import tool, export the Production farm configuration, take the tool and the exported file to the QA Farm and selectively import only the configuration elements from Production which need to be added to the QA Farm. This prevents over-writing the existing configuration of the QA farm but still allows successful Cloning of content from Production to a divergent QA system.

### Planning for Export\Import

Supported StoragePoint configuration elements currently include Profiles, Librarian configurations, Endpoints and Settings. The Profiles may be defined at several scopes with ContentDb being the most common. This choice makes it easy to move external content from one farm to another without pulling it back into any database or back-up set. To do this, the following items are required:

1. Database back-up
2. Blob-Store back-up



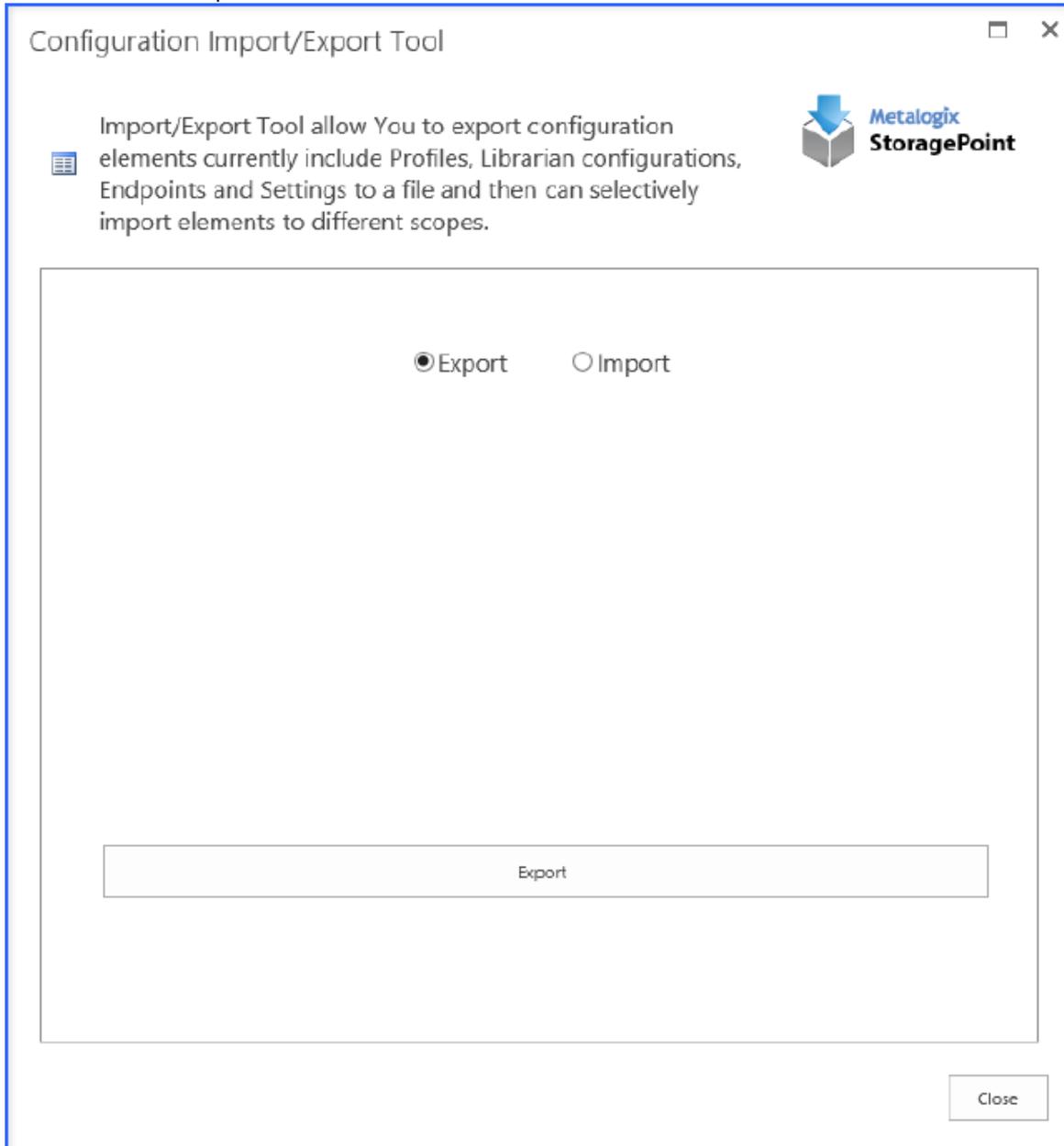
**NOTE:** It is a best-practice to run the Content Queue Migration job on the source Farm just prior to taking any Content DB back-up that will accompany the Exported configuration. In this way the chances that any content from the System Cache of the source Farm will be needed on the destination is minimized.

## Using the Tool

1. Go to the General Settings page and at the bottom, under Utilities, click the Import/Export link.

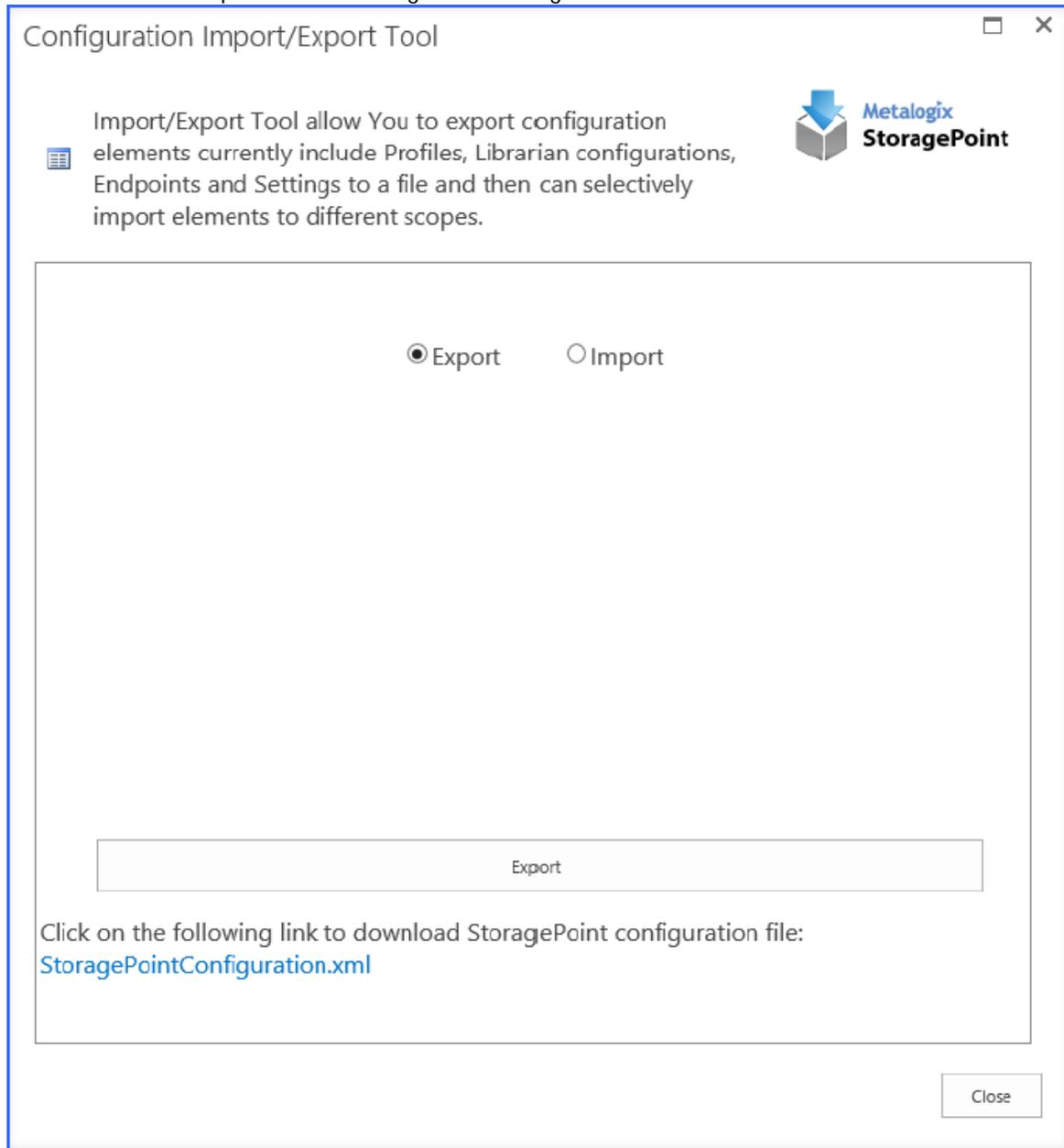
Utilities (Tools)	
<b>Configuration Import/Export Tool</b> Tool imports/exports StoragePoint configuration from/to a file. Configuration file contains information about StoragePoint settings, profiles, endpoints, librarians and archive rules.	To start, click on the following link: <a href="#">Import/Export</a>

2. A new window is opened.



# Export

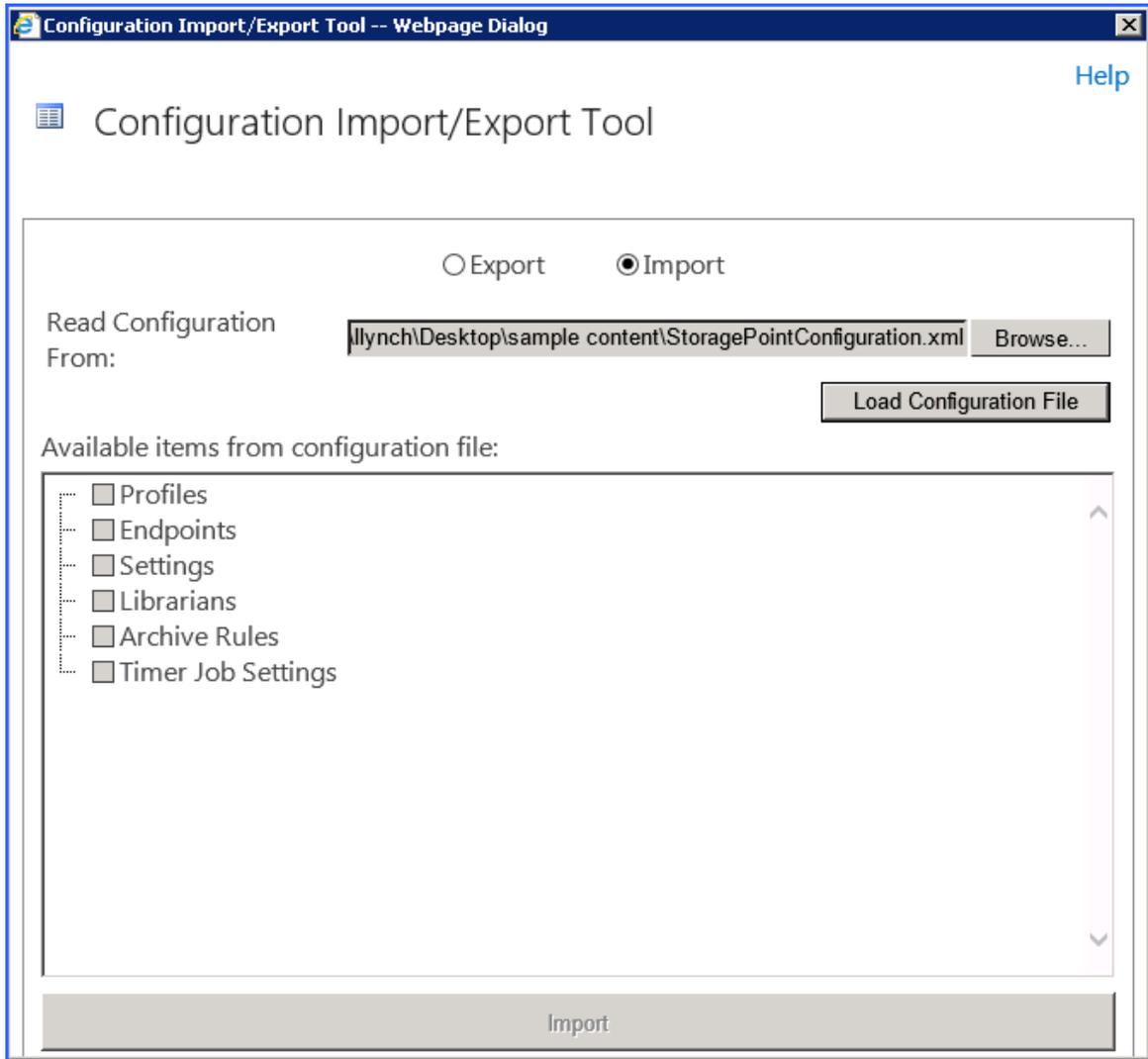
1. Select the Export option and click Export.
2. A new link shows up. Click the `StoragePointConfiguration.xml` link.



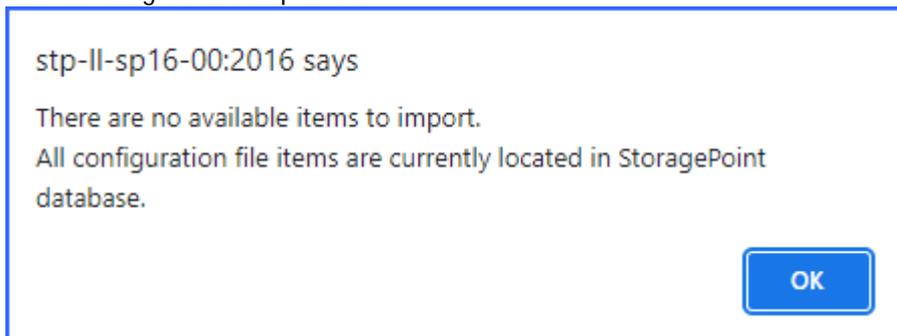
3. An open/save dialog box is opened which allows the file to be viewed or saved (using whatever extension is needed) to an accessible location.

# Import

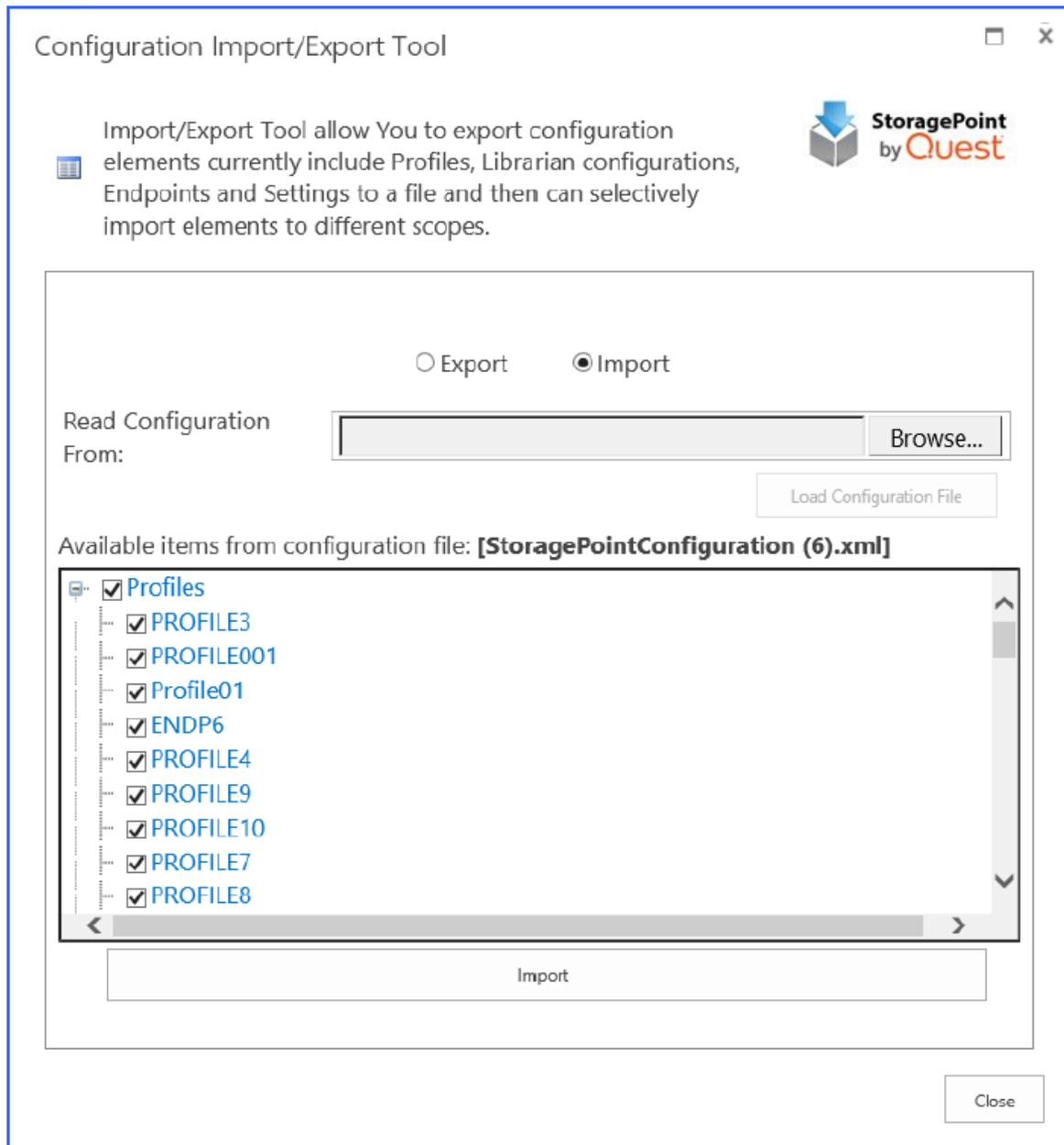
1. Click the Import option, and browse for the previously exported configuration.
2. After clicking Browse (or Choose File) and selecting a valid configuration file, click Load Configuration File and the tool will load all available features from that file.



If the configuration file has no artifacts that aren't already in the farm, a message is displayed that nothing can be imported.

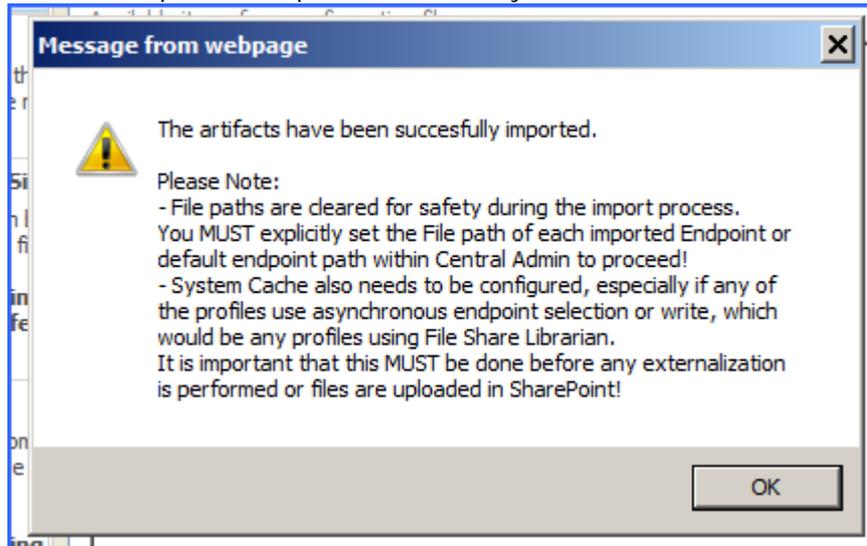


3. In this form, the configuration elements that may be imported into the current Farm are listed in a tree-view with check-marks. Place a check by each item to be imported and click Import to begin the import.

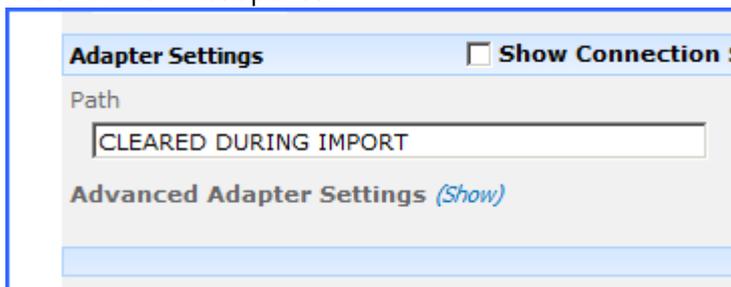


- Selecting at the top level will select all items below it.
- Selecting a Profile also automatically selects all of the end points that it uses.
- Selecting a Librarian configuration will automatically select associated endpoints and profiles.
- Artifacts that already exist in the target Farm will not be listed for selection.
- Select NEW PROFILE DEFAULTS or NEW ENDPOINT DEFAULTS to import the default settings found on General Settings and Default Values.

- When the import is completed successfully there will be a confirmation message. Click OK.



- Click the close button (top right) to close the Import\Export window.
- If a profile or endpoint was imported please open Central Administration to correctly set the path(s) to point to the file-share copy\back-up that was made previously. The path will look like this when first opened:



Check the default path, if one was imported, on [Default Values](#).

**i** **NOTE:** [System Cache](#) also needs to be configured, especially if any of the profiles use [asynchronous](#) endpoint selection, which would be any profiles using File Share Librarian. It is important that this be done before any externalization is performed or files are uploaded in SharePoint.

If Use Breadcrumbs was selected on the [General Settings](#) page, the default retention setting on Default Values won't be imported and will need to be entered manually.

**WARNING:** Do not use the same endpoint for more than one farm, i.e. development, staging, and production. This is not a supported configuration.

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## 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](http://www.quest.com).

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## 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 enables 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