

StoragePoint 6.4

Amazon S3 Adapter Guide



© 2024 Quest Software Inc. ALL RIGHTS RESERVED.

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Quest Software Inc.

The information in this document is provided in connection with Quest Software products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Quest Software products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST SOFTWARE ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL QUEST SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF QUEST SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest Software makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Quest Software does not make any commitment to update the information contained in this document.

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

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

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


Patents


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

Trademarks

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

Legend

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

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

Quest® StoragePoint

Updated July 2024

Version 6.4.0

Contents

Amazon S3 Adapter Configuration	4
Amazon S3 Adapter Connection String Parameters	5
Example Storage Endpoint using Amazon S3 Adapter	12
Appendix: Troubleshooting	13
Problem: Receiving errors on storage or retrieval of externalized content	13
Problem: Receiving errors on testing a storage endpoint.	14
About Us	15
Contacting Quest	15
Technical Support Resources	15

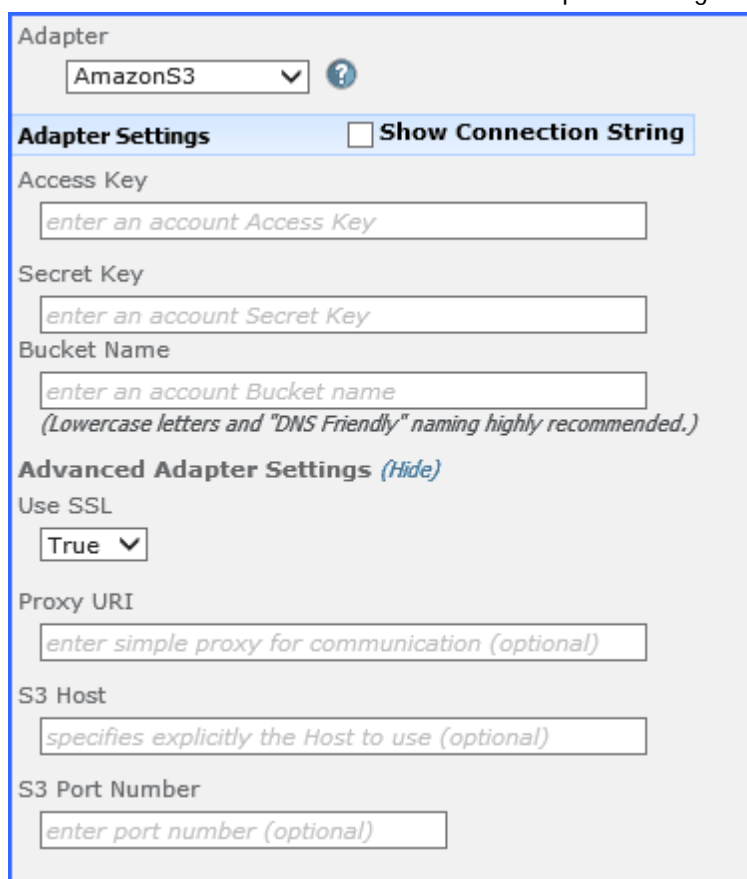
Amazon S3 Adapter Configuration

This section will provide you details on how to configure a storage endpoint's connection string to utilize the S3 Adapter. Please refer to the StoragePoint Reference Guide for information on managing Storage Endpoints.

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

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

Click the *Show* link next to the Advanced Adapter Settings to see the additional fields.



The screenshot shows a configuration form for the Amazon S3 Adapter. At the top, there is a dropdown menu for the Adapter type, currently set to 'AmazonS3'. Below this is a section for 'Adapter Settings' with a 'Show Connection String' checkbox. The form includes several text input fields: 'Access Key', 'Secret Key', and 'Bucket Name'. The 'Bucket Name' field has a note: '(Lowercase letters and "DNS Friendly" naming highly recommended.)'. There is also an 'Advanced Adapter Settings (Hide)' section with a 'Use SSL' dropdown set to 'True', and three more text input fields: 'Proxy URI', 'S3 Host', and 'S3 Port Number'. Each input field contains a placeholder text indicating what to enter.

Adapter
AmazonS3

Adapter Settings Show Connection String

Access Key
enter an account Access Key

Secret Key
enter an account Secret Key

Bucket Name
enter an account Bucket name
(Lowercase letters and "DNS Friendly" naming highly recommended.)

Advanced Adapter Settings (Hide)




Use SSL
True

Proxy URI
enter simple proxy for communication (optional)

S3 Host
specifies explicitly the Host to use (optional)

S3 Port Number
enter port number (optional)

Amazon S3 Adapter Connection String Parameters

Setting Value/Options
<p>Name</p> <p>Enter the unique name of the Storage or Backup Endpoint.</p>
<p>Type</p> <p>Type</p> <p><input checked="" type="radio"/> Primary <input type="radio"/> Backup</p> <p><i>Primary</i>– this endpoint will be available for externalization when creating storage profiles.</p> <p><i>Backup</i>– this endpoint will be in the Backup Services dropdown on the profile page.</p> <p>The selection is locked down when saving.</p> <p>See Backup Services Settings in the Reference Guide for more information on how Backup Endpoints are used.</p>
<p>Status</p> <p>Status</p> <p>Online </p> <p><i>Online</i>– Storage Endpoint should be available to associate to a Storage Profile and accept BLOBs. (default)</p> <p><i>Offline (Read Only)</i>– A storage endpoint can be configured, but not made available for externalizing content. The BLOBs already on the endpoint are still read only.</p>
<p>Adapter</p> <p>AmazonS3  </p> <p>Select the adapter for the endpoint that is being created.</p>
<p>Access Key</p> <p>enter an account Access Key</p> <p>The Access Key ID provided by Amazon when you signed up for the S3 service. Required.</p>

Setting
Value/Options

Secret Key

enter an account Secret Key

The Secret Access Key provided by Amazon when you signed up for the S3 service. Required.

Bucket Name

enter an account Bucket name

(Lowercase letters and "DNS Friendly" naming highly recommended.)

The container within your S3 account where content associated with a storage profile will be stored. Bucket names are case sensitive and unique across the entire S3 service namespace.

Use SSL

No

(true/false) Determines whether or not the adapter negotiates an SSL connection for all data (and metadata) transfers. Default = True.

Proxy URI

enter simple proxy for communication (optional)

Used to take the URL (optionally including a port) of a simple non-authenticating proxy that will be used when communicating with Amazon services.

S3 Host

specifies explicitly the Host to use (optional)

IP or DNS name that represents the access point for the Amazon AWS service. Default = s3.amazonaws.com

S3 Port Number

enter port number (optional)

Port used to access the Amazon S3 service. Default = 80 (443 if UseSSL is True)

Strict SSL

No

(Yes/No) If *UseSSL* is *Yes*, the *StrictSSL* flag controls whether or not the use of "self-issued" or

Setting
Value/Options

otherwise suspicious certificates on the system will be tolerated.

Region

Used in AWS4 request signing, this is an optional property; change it only if the region cannot be determined from the service endpoint.

For custom or private clouds or where StoragePoint cannot automatically retrieve the region because of security or permission reasons.

Setting Value/Options

Retention

Delete Allowed

Permanent

Indefinite

Date Format:

Duration/Interval:

Day(s) 

If supplied, the Amazon adapter will calculate and supply a retention policy when saving content. This only works if S3 Object Lock is enabled.

Possible settings:

Delete Allowed

No special permissions are required to delete content on this endpoint.

Permanent

This sets Compliance mode enabled.

Indefinite

Sets Compliance mode disabled. Content cannot be deleted, but retention can be changed at a later time.

Date Format

This sets a date for the retention policy. Click the calendar icon to select a date, or type it like this example: 08/31/2029

Duration/Interval

Type a number in the first box, and select an interval from the dropdown. The interval may be days (D), months (M) or years (Y).



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

Setting
Value/Options

AmazonS3-Specific

Hold

Putting a Hold prevents an object version from being overwritten or deleted and remains in effect until removed.

Is WORM Device

No ▼

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

Folder Content in BLOB Store

No ▼

Folder Scheme

YYYY/MM/DD/HH/MM ▼

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

Yes– Externalized content BLOBs are placed in folders.

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

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

Test Storage Settings

The Test Storage Settings button can be used at this point, or after completing the endpoint configuration, to verify that the endpoint is accessible. For some adapters, testing the connection will create the bucket if it doesn't already exist.

Compress Content in BLOB Store

No ▼

Content is compressed using the GZip/Deflate method.

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

Yes– Externalized content BLOBs are compressed.

Setting Value/Options

Encryption Method for Content in BLOB Store

None ▼

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

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

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

Encryption Key Passphrase

Generate Key

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

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

Generate warning notification if:

10 or more successive errors are encountered

there is less than 10 MB % of free space

A warning email can be sent if the endpoint encounters errors.

Automatically take endpoint offline if:

25 or more successive errors are encountered

there is less than 1 MB % of free space

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

Setting
Value/Options

Send Offline Notifications to:

Use Notification Defaults

Additional Contacts


admin@contoso.com;systems@contoso.com

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

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

Example Storage Endpoint using Amazon S3 Adapter

Edit Storage Endpoint ⓘ



StoragePoint
by **Quest**

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.

Name

Type
 Primary Backup

Status

Adapter
 [?](#)

Adapter Settings Show Connection String

Access Key

Secret Key

Bucket Name

(Lowercase letters and "DNS Friendly" naming highly recommended.)

Advanced Adapter Settings *(Show)*

Is WORM Device

Folder Content in BLOB Store

Folder Scheme

Click the *Show Connection String* checkbox to edit the connection string. Otherwise, fill in the connection fields shown for the adapter selected. Notice that the connection string parameters

are name/value pairs separated by semi-colons.

The screenshot shows the 'Storage Settings' configuration page. On the left, there is a section titled 'Storage Settings' with the instruction 'Please provide storage device settings in this section.' On the right, the 'Adapter' is set to 'AmazonS3'. Below this, there are 'Adapter Settings' and a checked checkbox for 'Show Connection String'. Under the 'Connection' section, a text box contains the following connection string: `ACCESSKEY=KAUDH7TUCK45UHND;SECRETKEY=***
**;BUCKET=megaep1;USESSL=True;PROXY=;HOST=;
PORT=;STRICTSSL=False;REGION=;RETENTION=;HO
LD=False;`. Below the text box, a note reads: 'Provide adapter-specific connection attributes. Please refer to the adapter documentation for connection string details.'

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

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

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

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

Appendix: Troubleshooting

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

Wherever possible, StoragePoint surfaces error messages returned by the adapter either directly to the user or within the SharePoint ULS logs. You should refer to your storage platform/provider documentation for resolution to errors logged by the adapter.

Problem: Receiving errors on testing a storage endpoint.

StoragePoint may surface an error message as if the bucket name has already been taken. While this is definitely possible, you should also check that the bucket name is valid.

Amazon S3 has the following expectations for bucket names:

1. The bucket name must start with an alpha or numeric character.
2. The bucket name must be between 3 and 63 characters.
3. The bucket name must be completely lower case.*
4. Underscore characters are discouraged.

** When the UseSubDomains connection option is set to False, this restriction does not apply.*

About Us

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

Contacting Quest

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

Technical Support Resources

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

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