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SPECTRA 90990139 Revision S StorCycle Solution User Manual

SPECTRA 90990139 Revision S StorCycle Solution

Contents

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Part Number

90990139 Revision S

Revision History

Revision	Date	Description
J	October 2021	Updated for StorCycle 3.6.0.
K	April 2022	Updated for StorCycle 3.6.1.
L	July 2022	Updated for StorCycle 3.6.2.
M	August 2022	Updated for StorCycle 3.7.0.
N	October 2022	Updated for StorCycle 3.7.1.
O	April 2023	Updated for StorCycle 4.0.0.
P	May 2023	Updated for StorCycle 4.0.1.
Q	July 2023	Updated for StorCycle 4.0.2.
R	November 2023	Updated for StorCycle 4.1.0.
S	December 2023	Updated for StorCycle 4.1.1.

Note:
To make sure you have the release notes for the most current version of the StorCycle Release Notes, check the Spectra Logic Technical Support portal at support.spectralogic.com/documentation/release-notes/. You must sign into the portal before viewing Release Notes.

Contacting Spectra Logic

To Obtain General Information	
Spectra Logic Website: spectralogic.com	
United States Headquarters	**European Office**
Spectra Logic Corporation 6285 Lookout Road Boulder, CO 80301 USA **Phone:** 1.800.833.1132 or 1.303.449.6400 **International:** 1.303.449.6400	Spectra Logic Europe Ltd. 329 Doncastle Road Bracknell Berks, RG12 8PE United Kingdom **Phone:** 44 (0) 870.112.2150
Spectra Logic Technical Support	
Technical Support Portal: support.spectralogic.com	
United States and Canada **Phone:** **Toll free US and Canada:** 1.800.227.4637 **International:** 1.303.449.0160	**Europe, Middle East, Africa** **Phone:** 44 (0) 870.112.2185 **Deutsch Sprechende Kunden** **Phone:** 49 (0) 6028.9796.507 **Email: spectralogic@stortrec.de**
Mexico, Central and South America, Asia, Australia, and New Zealand **Phone:** 1.303.449.0160	
Spectra Logic Sales	
Website: shop.spectralogic.com	
United States and Canada **Phone:** 1.800.833.1132 or 1.303.449.6400 **Email: sales@spectralogic.com**	**Europe** **Phone:** 44 (0) 870.112.2150 **Email: eurosales@spectralogic.com**
To Obtain Documentation	
Spectra Logic Website: support.spectralogic.com/documentation	

Helpful Information

These release notes give you the latest information available about the Spectra® StorCycle® application.

Intended Audience

This guide is intended for data center administrators and operators who maintain and operate file storage systems. The information in this guide assumes a familiarity with computing terminology. You also need to be familiar with installing, configuring, and using data file storage and archival software.

User Interface Screens

The user interface changes as new features are added or other modifications are made between software revisions. Therefore, the screens you see in the user interface may differ from those shown in this guide.

Typographical Conventions

This document uses the following conventions to highlight important information:

⚠️ **WARNING** Read text marked by the "Warning" symbol for information you must know to avoid personal injury.

⚠️ **CAUTION** Read text marked by the "Caution" symbol for information you must know to avoid losing data.

⚠️ **IMPORTANT** Read text marked by the "Important" symbol for information that helps you complete a procedure or avoid extra steps.

Note: Read text marked with "Note" for additional information or suggestions about the current topic.

Related Publications

The latest revision of the following documents related to the Spectra Spectra StorCycle Solution are available as PDF files on the Spectra Logic website at: **support.spectralogic.com/documentations/user-guides**.

- The **Spectra StorCycle Solution Getting Started Guide** provides a quick reference for installing and configuring the Spectra StorCycle solution.
- The **Spectra StorCycle Solution User Guide** provides detailed information about installing, configuring, and using the Spectra StorCycle solution. The content of this guide, for your revision of the StorCycle solution, is

  accessible by clicking **Help** ⑦ in the toolbar of the software.

  The following document is available after logging into your Support portal account at: **support.spectralogic.com**.
- The **Spectra StorCycle Solution Release Notes and Documentation Updates** provide the most upto-date information about the solution, including information about the latest software releases and documentation updates.

  For additional information about the Spectra BlackPearl® Nearline gateway and the Spectra BlackPearl NAS solution, refer to the publications listed in this section.
- The **Spectra BlackPearl Nearline Gateway User Guide** provides detailed information about configuring, using, and maintaining your BlackPearl system.
- The **Spectra S3 API Reference** provides information on understanding and using the Spectra S3 API.

- The **Spectra BlackPearl Eon Browser User Guide** provides installation and usage information for the Black Pearl Eon Browser.
- The **Spectra BlackPearl NAS Solution User Guide** provides information about configuring, using and maintaining your BlackPearl NAS solution.

  The following documents are available after logging into your Support portal account at: **support.spectralogic.com**.
- The **Spectra BlackPearl Release Notes and Documentation Updates** provide the most up-to-date information about the Black Pearl and Black Pearl NAS systems, including information about the latest software releases and documentation updates.

API Documentation

To access the documentation for the REST API, after StorCycle is installed, go to **https://localhost/apidocs/.** For additional API documentation and examples, go to **https://github.com/SpectraLogic/storcycle_api/**.

User Feedback

Contact us at (800) 833-1132 to give us suggestions or feedback on our products and documentation.

StorCycle Solution Updates

This section provides an overview of the features and changes for each released software version.

Package History

The following sections list the released Spectra StorCycle Solution update packages, and provide information about new features and updates that affect the application and its components.

StorCycle 4.1.1

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 4.1.x from StorCycle 4.0.x. If you are upgrading from a different version of the StorCycle solution, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

Enhancements

This release removes user interface support for deleting a storage location.

Feature	Description
Storage Location Deletion Button	Removed the user interface option to delete a storage location. To delete a storage location, please contact Spectra Logic Technical Support at **support.spectralogic.com**.

Known Issues

Issue	Workaround
When restoring breadcrumbs using the Browse feature, the StorCycle solution fails to apply any specified filters.	Add all desired files to a restore list then initiate a restore from the list.

StorCycle 4.1.0

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 4.1.x from StorCycle 4.0.x. If you are upgrading from a different version of the StorCycle solution, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

Enhancements

This release adds search filters, a new Browse Objects page, delayed source removal for migrated files, storage location deletion, and other new features listed in the table below.

Feature	Description
Search Improvements	The browse feature allows users to select a source location and add filters like file name, project name, tag, free text, archive date, and within path separators to further narrow search results. These improvements are also supported on the Migrate / Store, Restore, Scan, Jobs, Reports – Catalogs, Delete Files, Database Backup Jobs, Storage, Departments, and User pages.
Browse Objects	Users can now search through multiple sources or projects for archived files and data and initiate a restore project for all objects selected on the new Browse Objects page.
Delayed Source Removal	During creation, Migrate / Store operations have a new Delayed Source Removal option. Delayed Source Removal allows users to archive data from a source without removing the source data until the specified time.
Storage Location Deletion	Users may delete storage locations that have been used in a job.
Improved UI and Error Messaging	Improved the consistency and quality of the wording used in the user interface and error messaging.
Preserve Permissions on Storage Locations	Administrator users can configure storage locations to keep or remove file permissions after a restore.

Resolved Issues

Issue	Resolution
Creating a storage location fails when running an archive job simultaneously.	This issue no longer occurs.
Archiving a scanned file from a versioned source fails if the file is no longer present on the source.	This issue no longer occurs.
Non-administrator users could access log endpoints in the StorCycle user interface.	The user interface now locks log endpoints from non-administrator users.
Restoring files from a BlackPearl system with packing enabled and large data sizes causes the restore to hang.	This issue no longer occurs.
Testing a new Spectra NAS storage location would fail unless the user included a management port.	Test Location now works with only an IP address.
The StartJob() command did not take interrupted or resumed jobs into account, preventing the jobs from completing or from being canceled.	Interrupted or resumed jobs now complete correctly and can be canceled.
The Post Action Pending indicator on the Migrate / Store page could incorrectly hide error indicators.	Warning and Error indicators now override the Post Action Pending indicator.
Attempting to restore retention-deleted files using the API returned an unclear error message.	A new error message displays.
Updating the MongoDB configuration file failed to account for the native system OS resulting in long run times.	StorCycle now possesses platform specific files for updating the MongoDB configuration file for Windows and Linux systems.
Job cancellation would occasionally hang indefinitely.	This issue no longer occurs.
Migrating a large amount of files to a Microsoft Azure environment fails.	This issue no longer occurs.

Known Issues

Issue	Workaround
Retrieving object files with names containing the character '\' on a Linux system will fail.	Rename the file and do not include '\' in the file name.

StorCycle 4.0.2

Resolved Issues

Issue	Resolution
When archiving a large number of small versioned files, the system experiences slower performance.	Improved archiving performance.

StorCycle 4.0.1

Resolved Issues

Issue	Resolution
When archiving versioned files with packing enabled, the system creates small packs of less than the expected 10,000 files per pack because the filtering of versioned objects occurs after the files are packed.	The filtering of versioned files now occurs before the files are packed, and pack files now contain 10,000 files per pack.
Archive jobs to storage targets fail when metadata files exceed the metadata size threshold of the storage target.	Metadata files that exceed the size threshold are skipped and the job continues normally.
When modifying the domain search query for user restrictions, administrators are unable to filter on designated names or designated groups.	Users can now modify the search query to search or restrict designated names or groups.

StorCycle 4.0.0

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 4.0.0 from StorCycle 3.7.1 or StorCycle 3.7.0. If you are upgrading from a different version of the StorCycle solution, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

Enhancements

This release changes the licensing structure and improves file discovery behavior, data protection, useability, and adds the new features listed in the table below.

Feature	Description
Require Database Backups	The StorCycle solution requires daily database backups to be configured for any migrate / store job to complete without warning. If no database backup is scheduled, the StorCycle solution notifies the user to create a daily database backup before executing the job.
Post Archive Deletion Delay	The StorCycle solution requires two successful database backups to complete before removing or replacing source files for applicable migrate / store jobs.
Retention Policy / Scheduled Delete	Previously only available to higher level licenses or as an upgrade, StorCycle 4.0.0 unlocks this feature for all license levels. Retention policies configured on target storage locations delete migrated data after a user defined retention period.

Project Restore	Browse an entire project during a restore. Enables the following new actions: • Restore directories archived over multiple migrate / store jobs • Restore the latest version of archived files across multiple migrate / store jobs • Restore an entire project • Browse all versions of archive file objects for restoration • Restore single or multiple versions of archived files
Hash Type Selection	The StorCycle solution calculates a checksum hash on every file during scan, migrate, and restore operations. Available hashes include default and cryptographic. • Default (xxH64) • Cryptographic (Blake2B256) Hash type selection is a global setting and applies to all jobs and files migrated after the setting is changed. The StorCycle solution uses the hash type first associated with a file even if current hash type setting differs.
Installation on a Customer Defined Share	The StorCycle database supports installation on a user defined local share. Windows installations no longer require the database to be installed on **C:\ProgramData**. Linux installations support any local share selection. To move the existing database to a new local share, follow these steps: • Create a database backup. • Install the StorCycle solution to the desired local share. • Perform a database restoration to the local share. **Note:** Spectra Logic recommends **contacting support** for help with migrating your database.
Time Stamps on Packs	ZIP and TAR packs sent to a BlackPearl system include a time stamp and the end of the file name, allowing users to easily identify packs created by the StorCycle solution outside of the management software.
Help Menu	Added a Help menu to the StorCycle dashboard. The Help menu provides links to the StorCycle user guide, StorCycle release notes, and Spectra Support Portal.
Encryption Key Management	Administrators can now save the encryption password to a local file, removing the requirement on Crypto Officer users to re-enter the encryption password after every reboot.
Configuration Information in Logs	Logs now include feature configuration information such as storage location, users, and licenses.
Geo Network Tool	StorCycle installations include the Spectra Logic Geo Network tool as a separate executable.
Google Cloud Platform	The Google Cloud Platform is supported as both a source and target through the standard S3 location endpoint.
AWS Native Glacier Deprecation	The StorCycle solution no longer supports AWS Glacier as a native target storage location. Users who require AWS Glacier must use a standard AWS S3 storage class bucket policy to move data to and from the S3 bucket.

Resolved Issues

Feature	Description
Re-Use Project Name / Delete Files	Starting with StorCycle 4.0.0, previously deleted project names are available as names for new projects.
Out of Memory When Scanning Many Objects	Resolved an out of memory error when scanning millions of objects with complex nested directories.
Histogram Rollup	Fixed an issue scanning histogram charts inside complex data structures.

Known Issues

Feature	Description
Linux Read-Only File Systems	Linux Read-Only file systems cannot be configured in the StorCycle user interface using existing configuration instructions. Configure Linux directories as storage locations in the StorCycle interface before mounting a read-only share to the directory.
Storage Location Deletion	Storage locations previously used in a project cannot be deleted.

StorCycle 3.7.1

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 3.7.1 from StorCycle 3.7.0 or StorCycle 3.6.2. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

Enhancements

This release improves file restoration behavior and adds new features listed in the table below.

Feature	Description
File Restoration Queue	When restoring multiple files to the same working directory, the StorCycle library now places subsequent files in a queue.
Sync and Batch Retry	When encountering a sync or batch error, the process now retries.
Windows Server 2019	Support for Windows Server 2019.
Red Hat Enterprise Linux	Support for Red Hat Enterprise Linux version 8.

StorCycle 3.7.0

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 3.7.0 from StorCycle 3.6.1, StorCycle 3.6.0, or StorCycle 3.5.0. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

⚠️ **IMPORTANT**

If you have a Spectra NAS or BlackPearl storage location that is running BlackPearl 5.4.2 or later, the StorCycle solution must be configured to connect to the storage location using a user with Monitor and Login access, and not Administrator access.

Enhancements

This release improves the user interface and error messages, and adds the new features listed in the table below.

Feature	Description
Versioning	When enabled, multiple versions of a file from the source storage location are kept on the target storage location after multiple migrate / store jobs. Each file name has a code appended to the file name that indicates the date and time that the file was migrated / stored.
Storage Location Security	To add storage location security to a new or existing source storage location, an administrator can assign an AD / LDAP group to the source storage location which restricts access to scan, migrate / store, and restore jobs, as well as file listings associated with the source, to members of the designated group and administrators.
Snapshots on Existing Spectra NAS Storage Locations	Existing BlackPearl NAS storage locations which have been used in a job can have snapshots enabled and will begin taking snapshots with the next migrate / store job.
Windows Installer	The Windows installer is updated to allow the creation of a service account during program installation, list the installation location of the MongoDB, and improve post-installation navigation.

Resolved Issues

Issue	Resolution
If a Delete Project job fails, for example, because a job using an overlapping storage location is already in progress, then it cannot be run a second time even when the reason for the original failure is resolved.	This issue no longer occurs.
No notification is provided to the user when a license key is deleted, or a new license key is applied over an existing license key.	An information message informing the user of the intended action displays before the key is deleted or overwritten.

StorCycle 3.6.1

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 3.6.1 from StorCycle 3.6.0, 3.5.0, or 3.4.0. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see Contacting Spectra Logic

This release adds the capability of specifying whether the StorCycle solution should wait until data migrated / stored to a BlackPearl gateway is fully persisted to tape before the Replacement Option (Remove Source File: no links, Remove Source File: create Symbolic link, or Remove Source File: create HTML link) occurs. This feature should only be used under direction of Spectra Logic Technical Support.

StorCycle 3.6.0

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 3.6.0 from StorCycle 3.5.0 or StorCycle 3.4.0. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

Enhancements

This release improves OpenAPI documentation. improves the user interface, and adds the new features listed in the table below.

Feature	Description
Single Key Encryption	S3, Amazon S3 Glacier, MS Azure, and MS Azure Archive targets can now be configured to have all files encrypted before they are migrated / stored to the target.
Spectra NAS Target Snapshots	Spectra NAS targets can be configured to create a snapshot of the data in a migrate / store job after the job completes. Optionally, targets with snapshots enabled can be set to read-only after migrate / store jobs complete. This provides ransomware protection, but is only suitable for a storage location dedicated to receiving data from StorCycle migrate / store jobs.
BlackPearl Bucket Ingest	A bucket on a BlackPearl system with data added outside of the StorCycle solution can be ingested so that the objects in the bucket are managed by the StorCycle solution.

Resolved Issues

Issue	Resolution
When an Active Directory user is added as a local user and then deleted as a local user, the user is no longer able to log in to the StorCycle solution to restore when **Allow any Active Directory / LDAP user to restore** is enabled.	An Active Directory user who was added as a local user and then deleted can now log into the StorCycle solution to restore when **Allow any Active Directory / LDAP user to restore** is enabled.
In the Projects report, a Post Archive Action is sometimes displayed for a restore project.	This issue no longer occurs.
Completed restore jobs occasionally display a status of "Active" in the Jobs panel of the Restore dashboard.	This issue no longer occurs.

StorCycle 3.5.0

⚠️ **IMPORTANT**

You can only upgrade to StorCycle 3.5.0 from StorCycle 3.4.0 or StorCycle 3.3.x. If you are upgrading from a

version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

Enhancements

This release adds the new features listed in the table below.

Feature	Description
Single Key Encryption	Spectra NAS, Non-Spectra NAS, and BlackPearl targets can be configured to have all files encrypted before they are migrated / stored to the target.
Linked Instances	A StorCycle instance can link to other StorCycle instances to allow searching for data managed by other StorCycle solution installations.
Single HTML File Replacement Option	Migrate / store projects now include an option to replace migrated / stored files with a single HTML link to restore all files in the project.
Ignore Certificate Warnings on S3 Targets	When creating an S3 or S3 Glacier target storage location, you can select to indicate that it is a trusted site and that security certificate warnings should be ignored, even if it has a self-signed or missing security certificate.
Exclude Files from Migrate Job by File Extension	Files to be migrated / stored can now be filtered using a **Files to Exclude** setting.
Clone BlackPearl Storage Location	If you are creating a new BlackPearl storage location and want to use the same endpoint and credentials of an existing BlackPearl storage location, you can clone the previous BlackPearl storage location.
Promote Queued Job	Queued jobs can be promoted to the next job to run.
CentOS 7.9	The docker image for StorCycle 3.5.0 now uses CentOS 7.9.
High Availability Failover on Virtual Machines	The StorCycle solution fully supports the capability of hyper-converged virtual machines (VMs) to provide failover. The VM automatically restarts the StorCycle solution on a new node if one instance fails.
Improved User Interface	User interface improvements include: • An updated dashboard which updates in real time. • Units shown as base 2 instead of base 10. • A streamlined Storage Locations screen with sort options on columns and project details available by clicking **View Details**. • Information about who modified the project included on the Job Details – Project tab.

Resolved Issues

Issue	Resolution
Restore jobs from a BlackPearl storage location that are larger than the Black Pearl cache fail.	Restore jobs from a BlackPearl storage location that are larger than the Black Pearl cache are now broken into several smaller jobs so that they do not fail.
The **Mark All As Read** button only marks visible messages as read.	The **Mark All As Read** button now marks all messages as read.
Report data may be inaccurate if the StorCycle solution power cycles during a migrate / store job.	This issue no longer occurs.
When you enter an invalid SMTP server address and click **Submit**, the page becomes unresponsive and after a while displays "Lost Communication with Server".	If you enter an invalid SMTP server address while configuring SMTP, an error message indicating an invalid SMTP server address displays.
When a migrate / store project is deleted by retention policy, and then searched for using the option **Search by tag**, the project displays and can incorrectly be used in a restore project. The restore project fails with the error, "could not retrieve archive location: unable to get available archive storage location for restore job".	This issue no longer occurs.
When editing a recurring project with a weekly recurrence, the day of the week selected changes to the next day of the week if the selected time to run is past midnight UTC.	This issue no longer occurs.
The Dashboard Configured Users count does not include restore users.	The Dashboard Configured Users count now includes restore users.
Restore users do not display on the Users screen and cannot be deleted.	Restore users now display on the Users screen and can be deleted.

Known Issues

Issue	Workaround
Restores may generate a security ID warning after a successful restore if the original user who was recorded as the owner of the files no longer has ownership permissions. The warning does not impact the restoration of, or access to, the data.	There is no workaround for this issue.

StorCycle 3.4.0

⚠️ **IMPORTANT**
You can only upgrade to StorCycle 3.4.0 from StorCycle 3.3.x or StorCycle 3.2.0. If you are upgrading from a version of the StorCycle solution other than these, contact Spectra Logic Technical Support (see Contacting Spectra Logic on page 3).

⚠️ **Enhancements**
This release updates the user interface, improves error handling and error messages, and adds the new features

listed in the table below.

Feature	Description
Source S3 Storage Locations	S3 storage locations can now be used as sources. Files on an S3 source can only be migrated / stored to a BlackPearl (object) storage location, and then can only be restored to a Spectra or non-Spectra NAS storage location.
Daily Restore Limits for Restore Only Active Directory / LDAP Users	If you selected to allow any Active Directory / LDAP user to restore files, you can now select whether to limit the amount of data an AD / LDAP user can restore each day and if selected, enter the daily limit in either TiB or GiB.
Enhancements to the Migrate / Store Feature	• Migrate / store projects can now be edited, and their schedules can be paused and resumed. A previously completed single run project may have the schedule edited and converted into a recurring project. • The migrate / store wizard now allows you to set a custom age filter and to select to delete empty directories after removing migrated / stored files.
HTML Link Enhancements	• You can now select to whether to remove HTML links when files are restored to the original location from which a migrate / store with the option to replace files with HTML links was done. • You can now configure a Hostname Override to use instead of a hostname lookup in HTML links created to replace migrated / stored files.
Configure Restore Target in Restore Wizard	You can now configure a new non-Spectra NAS storage location in the Restore wizard to use as the target of the restore project.
Select BlackPearl Bucket Data Policy	When you configure a BlackPearl storage location, you can now view and select the data policy for a new bucket.
Rerun Scans	On the Scan dashboard, next to each project is a Run icon to use to rerun the project with a Start Now schedule.
Search by Tags on Delete Page	When selecting projects to delete files, you can now search on tags.

Resolved Issues

Issue	Resolution
A single run project in the process of migrating / storing files displays as a candidate for deletion on the Delete Files screen. If selected, files continue to migrate / store while the project is deleted, leaving the files on the target (s) in an unknown state.	This issue no longer occurs.
When a scan is interrupted due to loss of network connection, the job may report completed with no warnings or errors.	A scan job interrupted by the loss of a network interruption now the appropriate warning and errors.
The **Restore Symbolic Links** option is not available when a restore project is configured from the Catalog Search screen.	The **Restore Symbolic Links** option is now available when a restore project is configured from the Catalog Search screen.
The state for an active Migrate/Store job displays as " Completed:Errors" as soon as an errors occur.	The state for an active job with warnings or errors displays as "Active:Warnings" or "Active:Errors" as appropriate.
"If you attempt to run a database backup job while a retention delete job is in progress, the database backup fails and you get the error message,"default not allowing Retention Delete with BackupDb".	This issue no longer occurs.
Attempting to delete a project archived to an S3 target which was not configured with an S3 Region, fails.	This issue no longer occurs.
A database backup may fail with the error, "must specify an archive or scanAndArchive policy type."	This issue no longer occurs.

Known Issues

Issue	Workaround
Report data may be inaccurate if the StorCycle solution encounters a power cycle during a migrate / store job **Note:** This issue is resolved in StorCycle 3.5.0.	There is no workaround for this issue.
When you enter an invalid SMTP server address and click **Submit**, the page becomes unresponsive and after a while displays "Lost Communication with Server". **Note:** This issue is resolved in StorCycle 3.5.0.	There is no workaround for this issue.

CUSTOMER SUPPORT

Documents / Resources

SPECTRA 90990139 Revision S StorCycle Solution [pdf] User Manual
90990139 Revision S StorCycle Solution, 90990139, Revision S StorCycle Solution, StorCycle Solution, Solution

References

- 🌐 **Spectra Logic Store**
- ⟩ **Data Storage Solutions: Preserve, Protect & Defend - Spectra Logic**
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