



# StoragePoint File Shredding Overview

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**Table of Contents**

What is File Shredding? ..... 1

Why Shred a File? ..... 1

How Does StoragePoint Shred Files? ..... 1

When Does StoragePoint Delete/Shred a Blob File? ..... 1

Performance Impact ..... 2

Device Compatibility ..... 2

Standards Compliance ..... 2

Using the Shred Function in StoragePoint ..... 2

## What is File Shredding?

File shredding involves overwriting a file on disk with patterns of 0's and 1's before it is deleted from the disk. The goal is to prevent disk inspection and undelete tools from recovering the file after it has been deleted.

File shredding is necessary because on most file systems, deleting a file simply deletes the file pointers on disk. The file content is still present in unallocated sectors on the disk. This leaves the file content vulnerable to inspection or recovery.

## Why Shred a File?

There are many reasons to shred files before deleting them:

- Files may contain sensitive information that cannot be disclosed such as financial records, intellectual property or protected health information (PHI).
- There are legal obligations to protect the information (i.e. HIPAA Security, etc.).
- The legal retention on a file has expired and it must be purged entirely from the disk.
- The disk or storage unit may eventually be retired or moved out of the physical control of your organization.

## How Does StoragePoint Shred Files?

StoragePoint shreds files by overwriting them with different data patterns in 4 different passes. After each pass, the file is read to verify that the overwrite pattern was written correctly. After overwriting the file, StoragePoint also takes other steps including shrinking the file and renaming it before finally deleting it from the disk.

## When Does StoragePoint Delete/Shred a Blob File?

StoragePoint does not immediately delete or shred a BLOB file when it has been deleted in SharePoint. First, all references in SharePoint must have been removed – i.e. the Site and Site Collection Recycle Bins must have been cleared of the file. Then, the actual removal of the BLOB file will be handled by the StoragePoint Orphan BLOB Cleanup Job. This job can be configured to delete or shred files immediately or on a delay. See the StoragePoint Installation and Administration Guide for more details.

## Performance Impact

Enabling file shredding in StoragePoint can have a negative impact on performance. In many cases, it will be several times slower than a normal delete operation. However, this depends highly on the size of the file – larger files will have a more noticeable degradation in delete performance.

## Device Compatibility

Not all devices will have the support necessary to work with the File Shred option. Most modern SCSI and SATA disks will work. SAN and NAS device support will vary depending on device support. It is important to test the shred option with your device to ensure that file shred deletions are working properly on it.

## Standards Compliance

StoragePoint's File Shred function adheres to the NIST 800-36 and NIST 800-88 guidelines for sanitizing and clearing individual files on a disk. StoragePoint does multiple overwrite passes of the file as recommended by the NIST standards.

Please note that StoragePoint's File Shred function has not been officially certified by NIST or the DOD.

## Using the Shred Function in StoragePoint

The File Shred option is only available for use with the StoragePoint FileSystem adapter. It does not work with any other adapter including HCAP, Centera or any of the cloud adapters. However, those platforms may implement their own secure delete or file shred functionality (see your vendor's documentation for more details).

The Shred option can be enabled by simply adding a connection string attribute to your StoragePoint profiles. See the StoragePoint Installation and Administration Guide for more details.