

IBM CICS VSAM Recovery for z/OS, Version 4.2

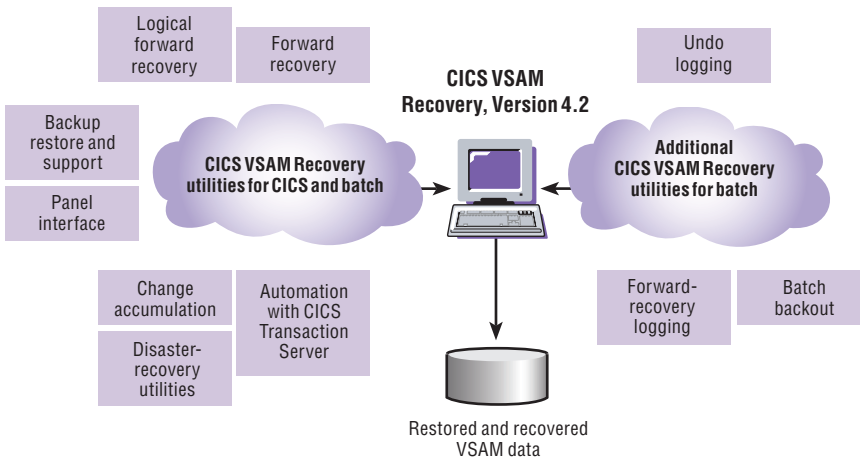
Highlights

- **Supports CICS Transaction Server for z/OS, Version 3.2**
- **Integrates with IBM ABARS and other external backup products**
- **Enables you to manually control VSAM sphere reorganization**
- **Provides enhanced logging support**
- **Includes hardware backup support and other enhancements**

You have become so accustomed to the superior reliability you get from the IBM System z™ platform that sometimes you forget about it. With everything else that's happening, it's nice when some things just work all of the time. However, even with your extensive and resilient infrastructure, chance failures can occur, however infrequently. When a failure does occur, the impact to your organization is determined by the time the data is unavailable to your employees and customers. In today's world of regulatory compliance—where you can no longer ignore the risk of data loss—it's no longer acceptable to ignore the risk of potential failure.

To minimize the actual or potential impact, you must take precautions to mitigate the risk of failure and maintain your organization's ability to handle large transaction volumes—without increasing the total cost of ownership (TCO) of your valuable IBM CICS® application and data assets.

IBM CICS VSAM Recovery for z/OS, Version 4.2 can help because it recovers CICS and batch Virtual Storage Access Method (VSAM) data from physical or logical corruption due to catastrophic hardware failure, software failure or human error. These robust capabilities enable you to recover from errors quickly, helping to reduce the need for offline processing, which helps minimize application outages.



CICS VSAM Recovery, Version 4.2 provides a range of automation options with CICS Transaction Server.

Governance and compliance have always been important in business, and current regulatory mandates, such as the U.S. Sarbanes-Oxley legislation, have made them even more relevant to the business of IT. CICS VSAM Recovery can help you to implement compliance-related initiatives, such as helping to ensure the integrity and availability of your valuable VSAM data.

CICS VSAM Recovery helps increase the responsiveness of your VSAM assets to fit your organization's unique needs. Whether your business goal is to boost performance, increase asset accessibility and availability, or improve the productivity of your VSAM assets and the storage administrators who oversee them, CICS VSAM Recovery for z/OS, Version 4.2 can help by:

- *Automatically recovering critical data from physical and logical corruption.*
- *Recovering updates made by CICS transactions or batch applications.*
- *Helping to reduce the downtime caused by unavailable VSAM data.*
- *Combining high-performance capabilities with low overhead.*

Significant new features and enhancements in this release

As part of a continual process of product improvement, CICS VSAM Recovery for z/OS, Version 4.2 delivers important new features and enhancements.

Support for CICS Transaction Server for z/OS, Version 3.2

New support for IBM CICS Transaction Server for z/OS, Version 3.2 means that CICS VSAM Recovery now supports extended entry sequenced data sets (ESDSs) used by CICS Transaction Server and also provides support in batch through CICS VSAM Recovery batch logging.

Extended ESDSs can also be used in a combined environment, sharing CICS VSAM record-level sharing (RLS) files with batch applications. (This support requires APAR OA19958 for transactional VSAM services [TVS].)

Enhanced backout-failure detection in CICS VSAM Recovery can now operate in a threadsafe mode to complement the file-control threadsafe support in CICS Transaction Server for z/OS, Version 3.2.

Integration with external backup products, including ABARS

Enhanced notification support helps improve control of the VSAM environment by enabling file recovery through the IBM Aggregate Backup and Recovery System (ABARS) function within the DFSMSHsm™ and DFSMSDss™ components of z/OS, and IDCAMS REPRO. CICS VSAM Recovery also delivers a new NOTIFY utility for backing up a VSAM sphere created by IBM or non-IBM products. It can then register information about the backup in the recovery-control data set (RCDS) in CICS VSAM Recovery. This feature makes backup information available for the CICS VSAM Recovery ISPF dialog. Keep in mind, though, that you should not use this utility for those backup products that already have implemented CICS VSAM Recovery notification service, DFSMSDss, DFSMSHsm and ABARS.

Manual control of VSAM sphere reorganization

The new ISPF REORG invocation enables you to manually reorganize VSAM spheres at any time. Previously, this function was integrated into the CICS VSAM Recovery automated-recovery feature and was available only for data sets that had suffered a backout failure. You can use the ISPF REORG invocation to generate and submit the reorganization job by means of the CICS VSAM Recovery ISPF dialog interface. You can use the reorganization job to increase the space allocated for the VSAM sphere, and to change the control-interval sizes of any sphere component.

Enhanced logging support

A new “multiple undo logs” enhancement enables you to use any number of undo logs instead of a single undo log. You can select a particular undo log to use based on user ID, job-name prefix and VSAM sphere-name high-level qualifier. The enhancement also enables you to segment use of function, for example to separate test logs from production ones.

Using the CICS VSAM Recovery interface, you can set a retention period for IBM MVS™ log streams and logs of logs streams. The “retention period for blocks” value applies to all registered log streams. With this release, you can specify individual retention criteria for log streams that are registered to CICS VSAM Recovery.

Also, the “automatic individual deregister” field on the “CICS VSAM Recovery individual log-stream deregister” window shows whether an individual retention period is specified for any log stream (ON) or no log streams registered to CICS VSAM Recovery that have individual deregistration criteria specified (OFF).

Log-stream copy utilities have been enhanced as well. Start and stop times can now be more granular by specifying them in time-of-day format. You can specify a browse cursor to control continuity of the log-stream copying. And a new DELETE option enables you to delete all blocks from the log stream up to the last copied block inclusively, which is useful when you want to prevent log-stream overloading.

These capabilities provide an alternative to the existing CICS VSAM Recovery function of log-stream autoderegistration, enabling you to delete log-stream data and allowing CICS VSAM Recovery to proceed only upon successful copying of the log stream.

In addition, the log-of-logs scan utility scans all the logs of logs that are registered in the RCDS, gathers information needed for recovery, and updates the RCDS with this information. The scan runs automatically when you use the panel interface to perform a forward recovery. CICS VSAM Recovery provides a capability to automatically run the log-of-logs scan at regularly scheduled times using the CICS VSAM Recovery server address space, helping to reduce the overall overhead and cost of data-set recovery. You can also manually run the log-of-logs scan at the most suitable times using SETSMS commands to interact with the CICS VSAM Recovery server address space.

Also, a new journal-print utility prints information about records that were logged by CICS VSAM Recovery in an MVS log. You can invoke the CICS VSAM Recovery journal-print utility by submitting a batch job running the utility program, DWWJUP.

Hardware backup support and other enhancements

Some hardware backup programs (for example, the IBM FlashCopy® utility) do not use the backup while open (BWO) protocol. To support these programs for VSAM data-set forward recovery, a new no-tie-ups option is available.

Additionally, several changes involving error-message processing, the installation verification procedure (IVP), RCDS migration and sample code have improved product usability.

Other robust features

CICS VSAM Recovery for z/OS includes a range of other features to meet your business needs.

- *Operations capabilities enable easier day-to-day use, such as initiating backups and assistance with restores that require preallocation of data sets such as IDCAMS REPRO.*
- *The backup process can be invoked from the CICS VSAM Recovery panel interface, to allow both sharp and fuzzy (if enabled) backups to be created.*
- *The target data-set can be allocated before it is restored from a backup. This feature supports backups by REPRO (a DFSMS data-set copy utility on the IBM z/OS® platform) and other backup types where restore processing does not include allocating data sets.*
- *Automated recovery following failure helps reduce data-set downtime.*
- *Authorization-management capabilities enable you to manage authorization for specific tasks initiated through the panel interface, based on user ID.*
- *Selective forward recovery enables you to remove specific unwanted changes or eliminate bad data, by choosing or omitting records from the forward-recovery logs that are used as input to your recovery job.*
- *Change-accumulation processing sorts forward-recovery records into change-accumulation data sets, which can speed up forward recovery if individual VSAM records have been updated many times.*
- *Commands and disaster-recovery reports enable you to review and validate what is needed at a remote disaster-recovery site.*
- *The ability to test forward-recovery and backout procedures enables you to test recovery processes without affecting production data.*
- *The ability to manage log streams with powerful functions helps simplify recovery tasks.*

Use the System z tools portfolio

CICS VSAM Recovery for z/OS is part of an extensive portfolio of System z tools that can help you to modernize and transform existing CICS and other System z applications whether your goal is to:

- *Develop and deploy new workloads to take advantage of the unique performance, availability, security and cost benefits of the System z platform.*
- *Increase your responsiveness to business requirements by modernizing your mainframe platform.*
- *Optimize management of your IT environment, helping to reduce cost and complexity while improving governance and compliance.*

System z tools, including CICS tools, problem determination tools and application-development tools, support the entire enterprise-application life cycle to help you build, integrate, test and manage enterprise solutions. As a result, you can make the most of your System z platform investments and take advantage of the latest functions introduced in CICS Transaction Server for z/OS, Version 3. With these tools, you can optimize your IT operations and transform CICS applications to achieve greater business flexibility, without losing touch with governance and compliance requirements.

For more information

CICS VSAM Recovery for z/OS, Version 4.2 can help mitigate the impact of loss through physical or logical damage to batch or online VSAM data. With its robust capabilities, you can help ensure that your valuable VSAM data assets are available whenever you need them. To learn more about IBM CICS VSAM Recovery for z/OS, Version 4.2, or other System z tools, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/cics/tools

IBM CICS VSAM Recovery for z/OS, Version 4.2 at a glance

Hardware requirements

- Any IBM S/390® or IBM z/Architecture™ processor that supports the required release of z/OS
- 4 MB minimum storage space below the 16 MB line

Software requirements

- z/OS, Version 1.6 or later
 - For extended ESDS support: CICS Transaction Server for z/OS, Version 3.2
 - CICS Transaction Server for z/OS, Version 2.2 or later
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Hursley Park
Winchester
Hampshire
SO21 2JN
United Kingdom

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