

IBM Tivoli Advanced Catalog Management

Highlights

- Help ensure high service levels and drive business resilience by helping to maximize system availability
- Help avoid downtime sparked by unforeseen problems
- Speed and simplify diagnostic activities using tools to detect and alert you of potential errors before outages occur
- Enable productivity through an easy-to-use interface that provides rich functionality and centralized catalog management
- Optimize business resilience and disaster recovery operations through fast catalog and direct access storage device (DASD) data set synchronization
- Help reduce total cost of ownership by eliminating manual tasks

Manage catalogs effectively to increase availability and drive business resilience

In a mainframe environment, delivering fast, reliable access to critical information around the clock is essential.

Imagine customers being unable to use an automated teller machine (ATM) system, or an insurance company not being able to send healthcare information to providers. For companies that rely on IBM z/OS® processing environments, catalogs are the fundamental back-end structures that contain critical details to help people and applications locate information in IT systems.

Managing catalogs effectively is vital to protecting your key data assets and driving resilience.

With IBM Tivoli® Advanced Catalog Management for z/OS, Version 1.1 software, you can protect the integrity of your critical catalogs and avoid being caught off guard. Tivoli Advanced Catalog Management helps identify

potential errors before they cause a failure — and helps reduce outage times if a failure occurs. Use it to:

- Help maintain 24x7 data access.
- Assure the integrated catalog facility (ICF) environment is backed up for forward recovery.
- Back up and recover virtual storage access method (VSAM) data sets.
- Effectively manage ICF catalogs day-to-day.
- Correlate entries in the tape management catalog with ICF catalogs.

Avoid downtime sparked by unforeseen problems

Many organizations utilize hundreds of thousands or even millions of data sets relying on just a handful of ICF catalogs, making these catalogs a surprisingly weak link in z/OS systems. If you don't run diagnostics frequently enough, or if you fail to reorganize the catalog structure when needed, you're prone to hidden problems.

Something as simple as human error — or as massive as a natural disaster — can cause catalogs to become corrupted or lost. If this happens and your data becomes unavailable, key applications may not run or be accessible until the catalog is recovered. Even a single ICF catalog failure can lead to an entire z/OS system outage and missed service level agreements (SLAs). Considering that the cost of downtime could be millions of dollars daily, preventing outages is a top priority. Tivoli Advanced Catalog Management not only helps speed recovery from outages, it also includes secure recovery features that can help you get back in business fast. Auditing tools, secure recovery and day-to-day management help you access data sets and be prepared for unforeseen problems.

Speed and simplify diagnostic activities

To keep your business operating smoothly, Tivoli Advanced Catalog Management extends the built-in storage management capabilities of the z/OS operating system. The software includes powerful components that help you:

- Maintain day-to-day catalog health as you protect each catalog's complex structural integrity.

- Back up, recover and repair ICF catalogs and VSAM volume data sets (VVDS) quickly, safely and comprehensively.

Tivoli Advanced Catalog Management checks for performance issues, advises you if a catalog is approaching size limitations, validates catalog backup status and alerts appropriate personnel of any errors it finds. For example, a corrupted entry in your catalog that results in a broken link to a file creates an orphan file. Using Tivoli Advanced Catalog Management, you can quickly identify the orphan file, determine whether it is still usable and automatically create a new catalog entry to repair the link.

Enable productivity with an easy-to-use interface

Drill down to distinguish serious issues from simple mistakes

In some cases, routine catalog maintenance activities may generate unclear system responses. Suppose you want to delete a file, but the system sends a nonzero return code to your “delete” command that essentially says, “I couldn't delete the file.” Because this code does not indicate why the deletion failed, it may or may not signify a problem. With Tivoli Advanced Catalog Management, you can drill down to

determine the underlying reason for every return code. You can quickly determine if the results indicate a true problem or simply a mistake, such as a typographical error in the file name.

Stay online — and operational — as you perform routine maintenance

As they grow and become more complex, your catalogs need to be reorganized periodically to keep availability high. But to perform maintenance, you normally have to take the catalog offline, which can make entire systems and all associated applications unavailable. To avoid such downtime, Tivoli Advanced Catalog Management lets you perform routine maintenance activities while the catalog is online — helping to save time, money and the potential for lost business.

Optimize business resilience and disaster recovery operations

Because your z/OS system must read large amounts of system management facilities (SMF) data to recover, backing up catalogs frequently is crucial to speeding the recovery process if a catalog fails. While the basic catalog structure (BCS) should be backed up every day, highly critical or volatile catalogs that repeatedly have new data set allocations or deletions

should be backed up more often. It's also important to know exactly how to locate backups — so you can recover successfully if needed. To assure dependability and effectively back up the ICF catalog environment for forward recovery, you can run a check before each backup to be certain your catalog's index is not broken.

Rather than relying on embedded z/OS utilities and hierarchical storage management (HSM) products for backup and recovery efforts, Tivoli Advanced Catalog Management automatically synchronizes catalogs with data to help reduce errors. You can use Tivoli Advanced Catalog Management to clean hundreds of thousands of catalog entries in minutes and speed recovery time — from hours or days to just minutes.

Leverage rich capabilities to optimize your catalog environment

For all major functions — including forward recovery — Tivoli Advanced Catalog Management allows you to simulate commands before executing the task, helping prevent errors or failures during processing. Other features enable you to:

- Benefit from better VSAM performance and identify potential DASD space savings.

- Reorganize and change catalog attributes dynamically — such as catalog name, volume or space allocation values — without having to manually delete and redefine the catalog beforehand.
- Correlate entries in the tape management catalog with ICF catalogs to find uncataloged tape data, data on tapes in “scratch” status, missing catalog records and more.
- Audit your BCS, VVDS and volume table of contents (VTOC) structures and generate automated “fix” commands to correct errors.
- Search across catalogs, volumes or system wide using more than 100 data set attributes, and create data set reports from catalogs and VTOC.

Conclusion

Tivoli Advanced Catalog Management provides data protection and helps increase data availability and recovery. Its auditing tools, secure recovery and day-to-day management tools help access data assets and increase resilience to unforeseen problems caused by human error or natural disasters. And, its automated features help reduce total cost of ownership by eliminating manual tasks. With an easy-to-use, interactive system productivity facility (ISPF) interface, Tivoli Advanced Catalog Management accommodates varying skill levels and facilitates more efficient, centralized catalog management.

Tivoli Advanced Catalog Management is one of several powerful solutions designed to help you manage data and storage in your z/OS environment. Other related solutions include IBM Tivoli Advanced Backup and Recovery for z/OS and IBM Tivoli Advanced Audit for DFSMSHsm™.

z/OS storage management products like Tivoli Advanced Catalog Management are vital components of z/OS business continuity solutions, providing unmatched reliability, availability and scalability. Because they provide tools to monitor and manage backup and archiving procedures, z/OS storage management products enable your organization to respond adeptly to rapid changes and growing complexity. Whether you're creating new space or adding new storage to the IT infrastructure, you can use z/OS storage management solutions to help maintain business continuity across the enterprise.

For more information

To learn more about how Tivoli Advanced Catalog Management can help automate the tasks required to protect catalogs and deliver reliable access to your critical business data, contact your IBM representative or IBM Business Partner, or visit ibm.com/tivoli



Tivoli Advanced Catalog Management, Version 1.1 at a glance

Hardware requirements:

- Any machine capable of running z/OS, Version 1.4 or later

Software requirements:

- z/OS, Version 1.4 or later

Related products:

- IBM Tivoli Advanced Audit for DFSMSHsm
- IBM Tivoli Advanced Backup and Recovery
- IBM Tivoli OMEGAMON® XE for Storage

About Tivoli software from IBM

Tivoli software provides a comprehensive set of offerings and capabilities in support of IBM Service Management, a scalable, modular approach used to deliver more efficient and effective services to your business. Meeting the needs of any size business, Tivoli software enables you to deliver service excellence in support of your business objectives through integration and automation of processes, workflows and tasks. The security-rich,

open standards-based Tivoli service management platform is complemented by proactive operational management solutions that provide end-to-end visibility and control. It is also backed by world-class IBM Services, IBM Support and an active ecosystem of IBM Business Partners. Tivoli customers and partners can also leverage each other's best practices by participating in independently run IBM Tivoli User Groups around the world — visit www.tivoli-ug.org

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Software Group
Route 100
Somers, NY 10589
U.S.A.

Produced in the United States of America
3-07

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