BrightStor® ARCserve® Backup for Windows

Release Summary

r11.5

Contents

Chapter 1: New Features

This document provides a brief overview of the new features and enhancements, to help you identify what has changed and begin taking advantage of the powerful new functionality of BrightStor ARCserve Backup.

BrightStor ARCserve Backup delivers comprehensive data protection for distributed environments. It provides assured virus-free backup and restore operations. An extensive set of options and agents extends data protection throughout the workgroup and delivers enhanced functionality, including online hot backup and restore of application and data files, advanced device and media management, and seamless disaster recovery.

This chapter summarizes the new features that have been introduced for BrightStor® ARCserve® Backup for Windows r11.5.

New Features for BrightStor ARCserve Backup r11.5

These sections provide an overview of the new features added to BrightStor ARCserve Backup, to help you identify and utilize the powerful new functionality of BrightStor ARCserve Backup. This release of BrightStor ARCserve Backup for Windows provides support for:

- Smart Restore

- Optimize Restore Option

- Disk Staging Option

    - File System Device Capacity Management

    - Multistreaming

    - SnapLock™ Support

    - Command Line Support

- Microsoft SharePoint Portal Server Support

- One Button Disaster Recovery (OBDR) Support for Window XP/2003

- VSS Incremental/Differential Backup Support

- 64-bit Support

- Windows Virtual Server 2005 and Virtual PC 2004 Support

- User Profile Utility

- NEC CLUSTERPRO/ExpressCluster Environment Support

Smart Restore

Smart Restore is an automated process that BrightStor ARCserve Backup deploys to ensure that restore jobs continue without interruption, even when a media error occurs. Media or tape drive errors or hardware problems can cause a restore job to fail. If this occurs, BrightStor ARCserve Backup immediately scans your environment to find duplicate copies of the backup session that was being restored. This functionality is available when back up is performed using the Disk Staging Option or tapecopy. If a duplicate, or clone, of the backup session exists, BrightStor ARCserve Backup uses the copied session to complete the restore job automatically.

Optimize Restore Option

BrightStor ARCserve Backup discovers duplicate backup sessions, where one session resides on tape media and another session resides on a file system device, the Optimize Restore option directs BrightStor ARCserve Backup to restore the data from the session that resides on the file system device. This functionality is available when back up is performed using the Disk Staging Option or tapecopy.

Under most circumstances, restoring data from a file system device is faster than restoring from tape media. However, you may wish to consider disabling the Optimize Restore option if you are using tape media or a library with high-speed reading capabilities.

The Optimize Restore option is a global setting that is applied to all restore operations, and is enabled by default. To disable the Optimize Restore option, clear the check mark from the Optimize Restore check box.

Disk Staging Option

Using the Disk Staging Option you can back up data to a temporary data storage location, migrate (copy) the data to permanent storage media, and purge the data from the staging area at a later time. When necessary, the Disk Staging Option lets you restore data directly from the staging device.

Backing up to a file system device is generally faster than backing up to tape media. Faster backups require smaller backup windows. In addition, you can further decrease the backup window by streaming jobs simultaneously to a file system device.

BrighStor ARCserve Backup provides you with the capability of streaming multiple jobs simultaneously to the FSD. The base product allows you to write a maximum of two streams per job simultaneously. Licensing the Disk Staging Option enables you to increase the simultaneous streams to 32 (for each job and each staging group).

The Disk Staging Option also reduces the restore window. Restoring data from disk is generally faster than restoring from a tape, because there are no delays due to tape load and seek latency. When you back up data to a staging device, you can create policies so that the data can remain on the staging device after it is copied to tape media. If you need to restore data that exists in two locations (on the device and on tape), you can reduce the restore window by restoring your data directly from the staging device rather than retrieving the data from a tape stored in an off-site vault.

The Disk Staging Option provides you with the flexibility to change your backup destination by defining staging policies. For example, if your tape library is disabled, you can divert the backup job to an alternate file system device or library. Similarly, if a file system device reaches its storage threshold or is disabled, you can divert the backup job to a tape library.

Note: You cannot change the backup destination once the job has been created.

In addition, staging provides you with the following features:

- File System Capacity Management
- Multistreaming
- SnapLock Support
- Command Line Support

File System Device Capacity Management

Using the Disk Staging Option you can specify file system device capacity thresholds. The threshold can be represented as either the total volume used or as a percentage of the disk's total capacity used. This feature affords the following benefits:

- To ensure that BrightStor ARCserve Backup does not exhaust the full capacity of a disk, backup jobs fail when writing to a file system device when the total disk space used exceeds the threshold.

- To increase overall backup success rate, you can define staging policies that direct BrightStor ARCserve Backup to create a makeup job on Hold when data migration fails or create makeup jobs that will back up data to a final destination under disk full conditions.

- You can perform full, incremental, and differential backups.

Multistreaming

The Disk Staging Option lets you back up multiple jobs to the same file system device simultaneously, decreasing the backup window. Multistreaming provides you with the ability to restore data while backup jobs are running.

The Disk Staging Option allows you to stream two jobs simultaneously. To stream more than two jobs, you must license the Disk Staging Option. After you license the Disk Staging Option, you can transmit up to 32 streams of data to the staging device.

SnapLock Support

SnapLock™ is technology from Network Appliance that provides non-erasable, non-rewritable, Write Once Read Many (WORM) data security. SnapLock is available on any Network Attached Storage (NAS) device from Network Appliance that supports at a minimum ONTAP™ version 6.4.1.

When you back up data using SnapLock protection, you cannot purge or over-write the backed up data until the specified retention date elapses. This ability helps to ensure that your enterprise complies with regulatory data-retention requirements.

Command Line Support

BrightStor ARCserve Backup lets you create backup to staging device jobs using either the graphical user interface or the command line utility. In the event a copy to tape operation fails, you can use the Query tool to analyze the file and session contents on the staging device. You can purge sessions from a staging device, using the Purge tool to remove data and free disk space from a staging device.

Microsoft SharePoint Portal Server Support

BrightStor ARCserve Backup Windows Agent for Microsoft SharePoint works with BrightStor ARCserve Backup to efficiently back up and restore Microsoft SharePoint Portal Server 2003 and Microsoft Windows SharePoint Services data. The agent helps BrightStor ARCserve Backup retrieve and send data to and from the servers in your network in a consistent manner.

The Agent for Microsoft SharePoint offers a number of features to facilitate your backup and restore operations:

- Provides backup and restore capabilities on both Microsoft SharePoint Portal 2003 and Microsoft Windows SharePoint Services installations.

- Supports backup and restore functionality for both Microsoft SQL Server and MSDE/WMSDE databases.

- Provides protection to search indexes, backward compatible document libraries, and the Single Sign-On database for Microsoft SharePoint Portal 2003 installations.

- Supports database complete, database differential, Files/FileGroups differential, and Transaction log backups for SharePoint databases. Supports only complete backups for non-database data (search indexes).

- Supports full, incremental, and differential backups for internal content.

  Note: Only full backups are supported for external content.

- Enables both internal and external content to be restored to an alternate location.

One Button Disaster Recovery (OBDR) Support for Window XP and Windows 2003

The Disaster Recovery Option now supports One Button Disaster Recovery (OBDR) on Windows XP and Windows 2003. In traditional Disaster Recovery, a bootable CD and a floppy are needed to recover a system. With BrightStor ARCserve Backup OBDR support and OBDR capable hardware, you can recover a system using a single tape drive. OBDR uses Windows Automated Systems Recovery (ASR) technology.

OBDR also provides an enhanced user interface, improved error logging and faster recovery speed.

Disaster Recovery Integration with Disk Staging Option

Disaster Recovery integrates with Disk Staging Option. If you migrate or purge backup data an update of your disaster recovery information is triggered automatically to keep your machine-specific recovery information up to date.

Disaster Recovery for StorageTek ACSLS

Disaster Recovery supports local recovery of Windows 2003 backup servers using StorageTek ACSLS tape libraries.

Disaster Recovery for Windows Small Business Server 2003

Disaster Recovery for Windows Small Business Server 2003 allows you to backup and restore the default configurations of Windows Small Business Server 2003 including Microsoft SharePoint and Exchange data.

DRScanSession Utility Support for Windows XP and Windows 2003

The DRScanSession Utility is supported on Windows XP and Windows 2003 for local disaster recovery processes. It allows you to recover the local backup server from any tape media containing the backup for the server.

VSS Incremental/Differential Backup Support

BrightStor ARCserve Backup r11.5 introduces two additional backup methods that you can choose to back up.

Incremental Backup: backs up only those files that have changed since the last full or incremental backup was performed. After each backup, backed up files are marked so that they are not backed up during the next incremental backup job unless they have changed. It takes less time to process backup jobs using this method. However, to restore files from an incremental backup, you must supply both the most recent full backup and all subsequent incremental backup jobs.

Differential Backup: backs up only those files that have changed since the last full backup was performed. Because differential backup jobs do not mark files as having been backed up, the files that were backed up in the last differential job are backed up again. It takes longer to process backup jobs using this method. However, to restore files from a differential backup, you must supply only the most recent full backup and the most recent differential backup.

64-bit Support

BrightStor ARCserve Backup can now be installed on a variety of Windows 64-bit operating systems. The following 64-bit Windows platforms are supported:

- Intel Itanium (IA64) family
- x64-based systems, including AMD Athlon64 and Opteron and Intel Xeon EM64T

The following BrightStor ARCserve Backup Agents and Options are supported on 64-bit Windows systems:

- 64-bit Native
  - Client Agent for Windows
  - Agent for VSS Snap-Shot
  - Agent for Open Files

- Through Windows-on-Windows (WOW64)
  - BrightStor ARCserve Backup Server (requires native Client Agent for Windows)
  - BrightStor ARCserve Backup Portal Ready
  - BrightStor ARCserve Backup Manager and Cross-Platform Management
  - Server Admin
  - Enterprise Module
  - Disk Staging Option
  - Tape Library Option
  - Storage Area Network (SAN) Option
  - Diagnostic Utility
  - Agent for Microsoft SQL Server

Due to architectural differences between 64-bit and 32-bit Windows platforms, various elements of 64-bit operating systems cannot be accessed by 32-bit applications. These elements include areas of the Windows System Registry, system settings files included in a System State backup, and Volume Shadow Copy Service (VSS) writers.

To overcome these limitations, and to successfully perform backup and restore operations when the BrightStor ARCserve Backup server is running a 64-bit version of Windows, the 64-bit version of the BrightStor ARCserve Backup Client Agent must be installed with the BrightStor ARCserve Backup server on a 64-bit machine.

Windows Virtual Server 2005 and Virtual PC 2004 Support

BrightStor ARCserve Backup now supports Windows Virtual Server 2005. File-system and client agents support Windows Virtual Server 2005 and Virtual PC 2004.

User Profile Utility

The User Profile Utility lets the BrightStor ARCserve Backup administrator manage user profiles and user access to BrightStor ARCserve Backup.

When you install BrightStor ARCserve Backup, the caroot user profile is the default, with the administrator group assigned to it. The Administrator group provides control over all BrightStor ARCserve Backup functions operating within a given BrightStor ARCserve Backup domain.

Using the User Profile utility the BrightStor ARCserve Backup server administrators can:

- Add a user
- Delete a user
- Change a user's password
- Assign a user to a group

Supporting NEC CLUSTERPRO/ExpressCluster Clusters

BrightStor ARCserve Backup can be installed and configured in a cluster environment either as a CLUSTERPRO/ExpressCluster-aware application or as a CLUSTERPRO/ExpressCluster unaware application.

BrightStor ARCserve Backup is a fault-tolerant application, capable of handling failover and providing backup and restore capabilities for data residing in cluster environments.

NEC Cluster Server (CLUSTERPRO/ExpressCluster) allows multiple Windows based servers to connect with one another so that they appear to network clients to be a single, highly available system. BrightStor ARCserve Backup supports NEC CLUSTERPRO/ExpressCluster version 7.0 SE and LE.

BrightStor ARCserve Backup support for NEC CLUSTERPRO/ExpressCluster offers the following advantages:

- Ability to run on NEC CLUSTERPRO/ExpressCluster and take advantage of high availability features such as:

  - Automatic failover of BrightStor ARCserve Backup services from one node in a cluster to another node

  - Ability to fail jobs over from one BrightStor ARCserve Backup node in a cluster to another node when BrightStor ARCserve Backup failover occurs

  - Ability to restart jobs after failover

  - Ability to install BrightStor ARCserve Backup on an Active/Passive cluster as the SAN primary server to allow the continuation of distributed server backup operations after failover

  - Ability to use NEC cluster management tools

- Data backup and restore functionality for NEC cluster nodes.

- Disaster protection for NEC CLUSTERPRO/ExpressCluster nodes through the Disaster Recovery Option. For more information, see the *Disaster Recovery Option Guide*.

Chapter 2: Modifications to Existing Features

BrightStor ARCserve Backup r11.5 includes all of the features and functionality available in BrightStor ARCserve Backup r11.1 and includes multiple enhancements to that functionality, in addition to its many new features, to help you maximize backup and restore performance. The following Chapter provides information about the enhancements to existing features included in this release.

Enhancements to the Existing Features

The following areas have been enhanced for BrightStor ARCserve Backup r11.5 for Windows:

- Merge Utility
- Scan Utility
- GroupWise and Cluster Object Support
- DLTWorm Support
- Vulnerability Enhancements
- Backup Manager Global Operation Options

Merge Utility

The Merge Utility allows you to merge information from media into the database. Using the Merge utility you can merge the following:

- A single session.
- A range of sessions, using one of the following types of ranges:
    - From a specific start session to a specific end session.
    - From a specific start session to the end of the media.

Scan Utility

The Scan Utility gives you information about your media backup sessions. Each source that you select to back up is saved on media as an individual session. Using the Scan utility you can obtain information on:

- A single session or and entire media.
- A range of sessions, using one of the following types of ranges:
    - Specific start session to a specific end session.
    - Specific start session to the end of the media.

GroupWise and Cluster Object Support

BrightStor ARCserve Backup r11.5 has been enhanced to allow the client agent to backup and restore Novell NetWare GroupWise and cluster objects.

DLT Worm Support

DLTWorm support is an enhancement to the existing BrightStor ARCserve Backup WORM feature that allows you to create DLTWorm tapes. The existing DLTWorm support requires Quantum software "DLTSage xTalk" to generate DLTWorm tapes before using BrightStor ARCserve Backup WORM feature.

The BrightStor ARCserve Backup r11.5 DLTWorm feature allows users to specify a particular library as WORM. The Tape Engine converts regular DLT tapes to DLTWorm accordingly.

The following BrightStor ARCserve Backup modules are affected by the DLTWorm enhancement:

- Backup Manager
- Device Manager
- Job Packaging
- Tasks
- Media Pool
- TapeCopy
- Command Line
- TapeEngine
- Changer Cross-Platform

Vulnerability Enhancements

BrightStor ARCserve Backup r11.5 has been updated to correct the following vulnerability issues:

- BrightStor ARCserve/Enterprise Backup Discovery Service SERVICEPC Remote Buffer Overflow Vulnerability

- BrightStor ARCserve/Enterprise Backup UDP Probe Remote Buffer Overflow Vulnerability

- BrightStor ARCserve/Enterprise Backup Agent for SQL Buffer Overflow Vulnerability

- BrightStor ARCserve/Enterprise Backup Default Backdoor Account Vulnerability

- BrightStor ARCserve Backup home directory access has been limited for non-administrators

- Usage of 3DES encryption is used for internal data

Backup Manager Global Operation Options

The Backup Manager Global Operation Options has been modified to allow you to Reset File Access Time (Windows file system only) prior to performing a backup. You can use this option to establish how Access Time will be treated for the files being backed up.

- If you enable this option, the Access Time of any files that are backed up is reset to the original value that was present before the backup was performed.

- If you disable this option, the Access Time of any files that are backed up is updated to the new value that is present when the backup is completed.

Features Not Supported

The following features are not supported at this time by BrightStor ARCserve Backup r11.5:

- BrightStor ARCserve Backup command line utilities do not support OLO and IOMEGA

- Disk Staging Option is not supported by the following agents and options:

    – SAP agent for Windows

    – Multi-Stripping SQL

    – HW VSS

    – Serverless Backup Option

    – NAS

Chapter 3: Fixes Included in this Release

The following sections provide information regarding fixes included in this release of BrightStor ARCserve Backup r11.5 for Windows. Each item in the following sections includes a fix number and a brief synopsis of the fix.

All items in the following sections beginning with [Txxxxxx] or [Qxxxxxx], where xxxxxx is the test or published fix number, are included in this update. If you received a test fix not listed in any of the following sections, contact Computer Associates Customer Support to determine how the fix can be reapplied.

Included Fixes

The following section provides information about the fixes included in this release:

- [T245023] BrightStor ARCserve Backup has been enhanced to ensure that the Restore by Query option now displays Japanese Kanji filenames properly.

- [T46B009] You can now back up NetWare NDS using multistreaming or multiplexing backup jobs without having the agent reject the job because it is still busy processing file system backups.

- [T46B019] Tapecopy jobs now create random tape IDs if an IDR switch is provided. Previously, if you ran a tapecopy job and erased the target tape, the source tape database records were also deleted because both tapes had the same name and tape ID. Tapecopy now gives target tapes a different tape ID.

- [T16C516] The user field in SAN configuration is no longer limited to 23 characters.

- [T245074] Deleted files are no longer lost when the Delete After Backup option is enabled and a media error occurs before the backup can be completed and the files cannot be restored from the tape.

- [T2AC193] Tapecopy jobs no longer stop running if you log off of Windows.

- [T146366] [T3D4050 You can now modify jobs that use media pools in the Destination Tab without clearing the media pool selection when you refresh the screen.

- [T2D2445] If you install BrightStor ARCserve Backup on a Windows system other than Windows 2000, the Job Detail log now displays Windows System Options. Previously, regardless of the Windows system, the Job Detail log displayed Windows 2000 Options.

- [T36B155] You can now add multiple distributed servers to a primary server using the SAN configuration utility. Previously, if you added multiple distributed servers with the utility, you could not see all the distributed servers.

- [T3F8074] Oracle backup jobs no longer fail in error with the message "E8604 Failed to start backup. (DBNAME = XXX, EC = Backup Agent Error (261) "Backup Agent cannot process the request."

- [QO67815] (T1A5246) You can now safely and reliably restore from multiplexing backup jobs using IBM Ultrium tape drives.

- [QO66654] (T46B020) BrightStor ARCserve Backup has been enhanced to ensure that the correct number of tapes are maintained in the save set and moved from the save set to the scratch set when you use Microsoft SQL Server as the alternate BrightStor ARCserve Backup database.

- [T16C533] You can now reliably format tapes from the Device Manager interface even if blank tapes occupy any slots.

- [T245126] BrightStor ARCserve Backup has been enhanced to strengthen security when restoring data backed up using the Client Agent for Windows.

- [T2D2454] (T245126) During system state backups, the client agent now properly backs up all registry related files.

- [T1A5237] [T1A5238] - BrightStor ARCserve Backup has been updated to ensure that the Agent for Open Files no longer fails with an error indicating that another process is accessing the file on 32-bit and 64-bit machines.

- [T2D2446] - BrightStor ARCserve Backup has been updated to ensure that the Client Agent for Windows opens properly on 64-bit machines.

- [T1A5229] - BrightStor ARCserve Backup has been updated to ensure that volumes freeze properly when using the Image Option on Windows 2003 with SP1.

- [T36A238] - Disaster recovery information is now generated properly on Windows 2003 SP1.

- [T16C529] - BrightStor ARCserve Backup has been updated to ensure that the virtual tape engine no longer disconnects erroneously when the tape engine is started after applying Windows 2003 SP1.

- [T146376] - BrightStor ARCserve Backup has been updated to ensure that the job queue is properly loaded when using the Advanced Type in the Diagnostics wizard on Windows 2003 SP1.

- [T146354] If you erase multiple tapes at one time from BrightStor ARCserve Backup with the Microsoft SQL Server database, and you receive media management errors for tapes not protected by media management, the error messages may indicate a login failure with Microsoft SQL Server. Under certain circumstances (if the login failure error generates error codes 18456, 18452, or 5), BrightStor ARCserve Backup now retries the login to Microsoft SQL Server.

- [T16C477] Device Configuration reliably configures StorageTek ACSLS libraries without generating errors or failures.

- [T16C501] You can now reliably use the Auto Configuration option during the configuration of the Tape Library Option with multiple changers managed by BrightStor ARCserve Backup.

- [T1A5212] You can now reliably restore backups made with the BrightStor ARCserve 2000 Image Option using BrightStor ARCserve Backup r11.1.

- [T1A5213] BrightStor ARCserve Backup has been enhanced to solve a number of Microsoft oplock-related issues:

    – Applications such as Quickbooks or AXIUM can now open files in multi-user mode

    – Error messages no longer incorrectly indicate damaged .pst files on remote machines with the Agent for Open Files installed.

    – You can now reliably archive folders in Outlook 2000.

- [T1A5216] You can now import and export tapes from the Device Manager on a Windows primary server in a cross-platform SAN environment.

- [T1A5225] BrightStor ARCserve Backup has been enhanced to increase the SCSI protocol timeout period for transmitting data, to ensure that the NDMP NAS Option no longer times out.

- [T1A5228] BrightStor ARCserve Backup has been enhanced to provide raw NDMP mode support to allow EMC Celerra to detect tape devices.

- [T245079] The restore query function now reliably matches filenames that include wildcards and Japanese Shift-JIS characters that include the value 0x5c in NAS volumes backed up with the NDMP NAS Option.

- [T2D2387] Tapecopy operations now find full backup Microsoft SQL Server database sessions using the –qMethod FULL option to query all sessions.

- [T2D2396] You can now restore more than 100 GB to NAS devices using network shares without difficulty.

- [T326180] You can now create a Disaster Recovery boot kit when using Windows 2000 Traditional Chinese Advanced Server SP4 integrated CDs.

- [T367146] You can now set machine-level filters through the Client Agent to exclude file patterns such as abc.ext or driveletter:*.ext.

- [T367147] You can now reliably back up Microsoft Exchange data at the Document level using the Attachment Exclude filter, even when email attachments have no titles.

- [T367148] BrightStor ARCserve Backup has been updated to prevent certain situations in which brick-level backup jobs fail after a small number of mailboxes have been backed up.

- [T367149] You can now configure the Agent for Microsoft Exchange Server on a Domain Controller, and BrightStor ARCserve Backup now properly generates the ExchVerify.log.

- [T36A205] [T36A206] Oracle backup jobs now properly release resources when they finish running.

- [T36A207] You can now reliably connect to an Oracle database on machines with multiple versions of Oracle installed.

- [T36A211] BrightStor ARCserve Backup now properly skips the MSDE writer during full backup operations when the Agent for Microsoft SQL Server is installed on the machine.

- [T36A223] You can now perform a full system backup of remote Microsoft SQL Server machines. Previously, after applying the patch QO63594, such jobs would fail with the error "E8604 Failed to start backup errMsg=[Microsoft][ODBC SQL Server Driver][SQL Server]Login failed for user '(null).' Reason: Not associated with a trusted SQL Server connection."

- [T36B163] You can now select the entire machine and enable the option Scan backup media content when backing up Windows XP machines using the Client Agent for Windows.

- [T36B182] The message "Filtering invalidates backups for the Disaster Recovery Option" has been changed to "Filtering might invalidate backups for the Disaster Recovery Option" to indicate that filtering does not always invalidate such backups.

- [T3F8079] You can now restore a mix of file system and agent backup data with the global option for encryption set without generating the error message E3482 Failed to decrypt data (EC 27).

- [T3F8080] BrightStor ARCserve Backup reconnects properly if the connection to the Exchange Information Store session is lost during document-level backups and finishes the job properly.

- [T3F8082] You can back up Microsoft Exchange Server at the Document level when the Microsoft Exchange Mailbox Store name includes special characters such as /, #, or :.

- [T3D3053] You can run system state backup operations using the Client Agent for Windows on Windows 2003 servers with registries larger than 524284 KB without generating warning messages or causing the job status to be Incomplete.

- [T16C456] BrightStor ARCserve Backup has been enhanced to ensure that all tapes are exported properly at the end of multistreaming jobs when the option Eject Tape and Export Tape is enabled.

- [T16C462] HP-UHDL autoloaders now run inventories of all slots only when necessary.

- [T16C481] BrightStor ARCserve Backup has been updated to ensure that slot 0 is handled identically by the ca_devmgr –v –mediainfo command and the Device Manager GUI.

- [T16C486] You can now reliably back up from distributed servers when new sessions start without generating an error message in the BrightStor log.

- [T16C487] BrightStor ARCserve Backup now reliably sets the block size value so that backup jobs no longer fail as a result of an incorrectly set block size.

- [T16C490] The Device Manager now properly displays the barcode or serial numbers of libraries with bar code readers with names containing hyphens (for example, ABC-XYZ).

- [T16C492] BrightStor ARCserve Backup has been updated to ensure that all error messages are properly cleared from the GUI when you click OK. Previously, an error message appeared when the Tape Engine started and could not be cleared, preventing the Tape Engine from starting.

- [T16C499] BrightStor ARCserve Backup now properly identifies slots as empty after magazines are changed.

- [T16C503] BrightStor ARCserve Backup has been updated to ensure that, after GFS rotation jobs begin, the slot used in the last backup job is released.

- [T16C504] BrightStor ARCserve Backup now correctly reports the results of quick inventory procedures launched after tapes are manually moved out of libraries.

- [T16C506] Plasmon DVD Jukeboxes now appear as on line after you start the Tape Engine.

- [QO64863] (T16C508) BrightStor ARCserve Backup has been enhanced to ensure that, if a successful restore job is followed by a backup job that appends to the same tape, the backup job does not overwrite valid data on the tape.

- [T1A5210] BrightStor ARCserve Backup performance has been enhanced when backing up to file system devices on Windows 2003 Server. Previously, such backup jobs caused high CPU resource usage.

- [T1A5222] Backup jobs no longer randomly fail at the beginning of the job.

- [T1A5224] The Tape Engine now reliably and automatically inventories HP C1557A libraries after you replace magazines.

- [T245069] BrightStor ARCserve Backup has been updated to ensure that you can restore subfolders using the Create Directories from the Base option without restoring the parent folder erroneously.

- [T245070] You can now reliably sort by date in the Search dialog of the Restore Manager.

- [T245078] The BrightStorMgr.exe process now stops when the window is closed.

- [T245086] BrightStor ARCserve Backup now finds tapes in slots without generating erroneous messages indicating that it is unable to find media.

- [T245088] BrightStor ARCserve Backup has been enhanced to ensure that tapes are properly identified as write-protected even if they were set to write-protect after having been identified as write-enabled in the inventory.

- [T245092] The restore query function now properly and reliably matches filenames containing wildcards and Japanese Kanji characters.

- [T2D2382] [T2D2384] You can now run backup jobs while running eTrust 7.0 and 7.1 without causing the server to freeze during or after the backup.

- [T2D2391] You can now restore large .jpeg and .bmp files without generating error messages.

- [T2D2399] BrightStor ARCserve Backup has been enhanced to ensure that you can properly back up DHCP files.

- [T2D2405] You can now run Tapecopy jobs with more than 100 source sessions.

- [T2D2413] BrightStor ARCserve Backup has been updated to ensure that the output from the following command displays the correct size (in MB) of the tapecopy job:

  ```
  tapecopy  -d DR -qPastTime 1 -g -fDstMux -eject
  ```

- [T2D2422] You can now restore multiple files with one job using the ca_restore command without specifying tape sessions.

- [T2D2411] Incremental backups in rotation jobs with the character * in the media name now consistent append to previous media as specified.

- [T36B174] You can now modify GFS backup jobs without causing the Calendar View to display the backup type of the current day as Full, rather than Incremental or Differential.

- [T36B175] [T36B176] BrightStor ARCserve Backup no longer erroneously displays the message "The product is not currently licensed."

- [T36B177] You can now use the ca_restore command to restore files backed up from Linux machines.

- [T36B178] Weekly full backups in rotation jobs with the character * in the media name no longer append to the tapes used for the incremental backups in the rotation job.

- [T46B008] BrightStor ARCserve Backup properly prepares for certificate services during system state backup operations.

- [T46B014] The Exclude *.* filter properly excludes all specified files and directories.

- [T46B015] You can run system state backup operations on Windows 2003 servers with registries larger than 524284 KB without generating warning messages.

- [T46B016] BrightStor ARCserve Backup has been updated to ensure that jobs with the pre/post options Run Command Before Job and Run Job Immediately On Exit Code 0 selected do not run if the pre/post command does not return an exit code of 0.

- [T46B017] BrightStor ARCserve Backup has been enhanced to ensure that the sub-jobs of multistreaming rotation jobs run until the entire job is finished, even if some of the sub-jobs actually run on the next calendar day.

- [T46B018] You can view all media in a Save Set when you use the command ca_dbmgr –show poolmedia.

- [T3D3056] You can restore the Quota information of multiple drives in the same job.

- [T3D3057] BrightStor ARCserve Backup properly calculates the drive usage time for jobs that span tapes, allowing auto-cleaning to be launched correctly.

- [T3D3058] The Agent Management GUI has been updated to display job details from the log file for computers with names of three characters or fewer.

- [T36B167] Modifying jobs while an inventory is running no longer causes the media pool name to disappear from the job.

- [T36B170] Modifying a copy job no longer causes the machine name to appear twice under the Microsoft Windows Network.

- [T367152] You must now set all related options (for example, the Bigger than and Older than parameters) to identify how much data to prune and when to run the pruning job, before you can select the Enable Auto-Pruning option.

- [T367154] The correct files are copied when you copy files from a remote Windows machine using the Include: Directory Pattern: \ filter.

- [T31A229] This service pack addresses a security vulnerability due to buffer overflow in the BrightStor ARCserve Backup Discovery Service. This security update should be applied to all Windows systems on which the BrightStor ARCserve Backup for Windows r11.1 base product and any BrightStor ARCserve Backup agents are installed.

- [T16C458] You can now restore sessions from multiplexing tapes without generating the error message "AE0040 Invalid file signature: 0x421761de."

- [T2D2383] The Tapecopy –ex command now supports database query commands.

- [T2D2392] IIS settings are now properly retained during system state restore jobs.

- [T2D2400] Data growth jobs from BrightStor® ARCserve® Backup Laptops & Desktops no longer fail randomly.

- [T31A210] BrightStor ARCserve Backup has been enhanced to allow you to use the backup method specified in the job options for system state backup operations.

- [T31A211] BrightStor ARCserve Backup has been enhanced to allow you to use Restore by Query with all double-byte Kanji characters.

- [T31A212] BrightStor ARCserve Backup no longer sends duplicate alert messages.

- [T31A214] BrightStor ARCserve Backup managers can now display unrecognized media types without problems.

- [T367124] The owritesameblankany parameter of the ca_backup command no longer incorrectly requires a tape name.

- [T367138] Copy jobs now reliably copy all specified files and folders on all supported Windows platforms.

- [T36A176] BrightStor ARCserve Backup now consistently and reliably retains options when remote backup jobs are modified.

- [T36A195] After running the Diagnostic Wizard, BrightStor ARCserve Backup now properly and reliably records information in the Activity log when jobs are executed. Previously, the Diagnostic Wizard improperly set the Message Type in Activity Log option to None, so that no information was recorded.

- [T36A198] Incremental and Differential GFS backup jobs no longer create and include disaster recovery sessions on local cluster nodes.

- [T367123] You can now modify and resubmit Information Store Level Storage Group Backup jobs without causing the Job Manager to fail.

- [T367135] BrightStor ARCserve Backup now retains the selected backup methods for Database Level backup jobs when you modify previously submitted jobs.

- [T367143] BrightStor ARCserve Backup has been enhanced to ensure that Document Level backup jobs no longer fail incorrectly with Error 8535.

- [T31A213] You can now reliably perform merge operations on Document Level backup sessions with multibyte characters such as Japanese, and the Database and Restore Managers now properly display items containing multibyte characters.

- [T3F8081] When browsing Microsoft SQL servers with large numbers of databases, BrightStor ARCserve Backup now properly displays all of the databases. In addition, full backup jobs now properly and reliably back up all of the databases on these servers and the RPC server no longer fails.

- [T369182] BrightStor ARCserve Backup now supports the use of all Japanese characters in tablespace names.

- [T36A180] You can now reliably and properly back up your data using the Agent for Oracle with SAP ITS Web Application 6.20 SAP Portal installed.

- [T36A187] BrightStor ARCserve Backup has been enhanced to ensure that the dates and times of all sessions are displayed correctly when merging tapes from cross-platform backup jobs.

- [T3F8074] Oracle backup jobs no longer fail in error with the message "E8604 Failed to start backup. (DBNAME = XXX, EC = Backup Agent Error (261) "Backup Agent cannot process the request."

- [T3F8073] Oracle SAP backup jobs no longer fail in error with the message "E8604 Failed to start backup. (DBNAME = XXX, EC = Backup Agent Error (261) "Backup Agent cannot process the request."

- [T31A194] BrightStor ARCserve Backup Disaster Recovery Option has been enhanced to allow you to use filtering during disaster recovery backup jobs.

- [T36A177] BrightStor ARCserve Backup has been enhanced to ensure that USB keyboards are properly detected during disaster recovery operations on Japanese versions of Windows 2000.

- [T16C484] Media pools now reliably display the proper media after the Tape Engine is restarted in SAN environments. This fix addresses a problem with BrightStor ARCserve Backup connecting to remote Microsoft SQL Server databases. To enable this fix, add the the string value RemoteDBMachineNameEx to the following registry key on your BrightStor ARCserve Backup machine:

  HKEY_LOCAL_MACHINE\SOFTWARE\ComputerAssociates\BrightStor
  ARCServeBackup\base\Database

  Set the value of this string as the name of the machine on which Microsoft SQL Server is installed.

- [T16C485] BrightStor ARCserve Backup has been updated to ensure that GFS rotation jobs with the Append option enabled now launch properly and reliably in cross-platform SAN environments.

- [T16C473] BrightStor ARCserve Backup has been enhanced to ensure that the Device Manager now properly displays the drives in changers in SAN environments in which distributed servers have locally attached tape drives. Previously, the Device Manager displayed the locally attached tape drive in the changer.

- [T16C475] The Tape Engine on primary servers no longer fails randomly with the message "E6500 Client connect to tape failed" when backing up from the distributed server.

- [T16C465] The Tape Engine no longer fails if a job fails and tapes are exported for multistreamed jobs.

- [T16C479] BrightStor ARCserve Backup has been enhanced to ensure that in non-barcode changers, slots with tapes no longer appear empty when the Tape Engine starts, prompting an unnecessary inventory.

- [T245072] BrightStor ARCserve Backup has been updated to ensure that backup jobs no longer hang as errors are repeatedly recorded in the tape log.

- [T16C482] To avoid a situation in which the Tape Engine stops after it starts when two StorageTek 9710 libraries are managed by one ACSLS with one library used by BrightStor ARCserve Backup and the other by AS400, add the following DWORD value:

  ShareWithAS400

  under the following key:

  Software\ComputerAssociates\BrightStor ARCserve backup\Base\Tapeengine\Config

  Set this value to 1.

- [T1A5208] This test fix addresses the following issues:

  – When you replace a magazine in an HP C5713A library, the Tape Engine now automatically inventories and detects tapes in the new magazine.

  – The Tape Engine no longer hangs on read element status SCSI commands.

  – You can now position media with IBM 4560SLX libraries and HP Ultrium 1-SCSI drives.

  – Per IBM, the ASC text Unsupported Target Descriptor Type Code [04, 07] has been changed to Logical Unit Not Ready, task in progress [04, 07].

- [T31A207] Double-sided Optical Media now appear correctly in the Backup Manager.

- [T16C488] Rotation jobs now use RAID 1 sets properly. Previously, if only one tape of a two tape RAID set was found, BrightStor ARCserve Backup backed up only the one tape. This fix ensures that, if only one tape is found (for example, if the other tape was exported from the library), BrightStor ARCserve Backup erases the remaining tape and creates a new RAID set for the rotation backup job. To enable this fix, you must add the DWORD value RaidForceToUseBlankSet to the following registry key:

  `SOFTWARE\ComputerAssociates\BrightStor ARCServe Backup\Base\Tapeengine\CONFIG`

  Set this value to 1.

- [T16C497] BrightStor ARCserve Backup has been updated to ensure that, when the RAID Option is installed, GFS rotation jobs start properly when blank tapes exist in a tape library.