

# **BrightStor® ARCserve® Backup for Windows**

## **Release Summary**

**r11.5**



Computer Associates®

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# Chapter 1: New Features

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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 SP1 and r11.5.

## New Features for BrightStor ARCserve Backup r11.5 SP1

This release of BrightStor ARCserve Backup for Windows provides support for:

- Data Protection Manager Support
- Windows 2003 R2 Support
- File System Agent for FreeBSD
- Universal Serial Bus (USB) Storage Devices Support

### Data Protection Manager Support

BrightStor ARCserve Backup now includes support for Microsoft Data Protection Manager (DPM). DPM runs on Windows Server 2003 (Standard or Enterprise Edition) and Windows Storage Server 2003 (Standard or Enterprise Edition) with Windows Server 2003 Service Pack 1 and the Microsoft .NET Framework 1.1 Service Pack 1 installed.

Provides support for the following:

- Complete protection of a DPM server
- Manual procedure for implementing disaster recovery of a DPM server
- Ability to selectively protect
  - DPM Database
  - DPM Replica

- Ability to recover data to the DPM server as well as to the production servers that is protected by the DPM server.
- Ability to selectively recover individual files and directories of DPM Replica.

## Windows 2003 R2 Support

BrightStor ARCserve provides VSS Support for Windows 2003 R2. It includes protection and the recovery for the following applications and services writers:

- Active Directory Application Mode (through ADAM Writer)
- Distributed File System (through DFS Replication service writer)
- File Service Resource Manager (through FSRM Writer)

## File System Agent for FreeBSD

BrightStor ARCserve Backup Agent for FreeBSD provides basic backup and restore functionality, as well as support of FreeBSD specific features. The File System Agent for FreeBSD supports FreeBSD versions 4.11, 5.3 and 5.4. The specific FreeBSD features include:

- Backup and restore of FreeBSD Access Control Lists (5.3 and 5.4)
- Backup and restore of Extended Attributes (5.3 and 5.4)
- Backup and restore of File System Flags (4.11, 5.3 and 5.4)
- Backup and restore of Special Attribute Flags
- Backup and restore support for Fast File Systems
- Backup and restore support for Virtual Hosts
- Backup and restore support for VINUM Logical Volume

## Universal Serial Bus (USB) Storage Devices Support

BrightStor ARCserve Backup can detect the following types of Universal Serial Bus (USB) storage devices that are connected to the BrightStor ARCserve Backup server:

- Tape drives
- Medium changers
- USB removable drives

After you connect the USB storage devices to your BrightStor ARCserve Backup server, you can use them for all of your backup and restore operations.

## 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.

BrightStor 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 BrightStor ARCserve Backup base product 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 overwrite 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: Changes to Existing Features

BrightStor ARCserve Backup r11.5 SP1 includes all of the features and functionality available in BrightStor ARCserve Backup r11.5 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.

## **Modified Features in BrightStor ARCserve Backup r11.5 SP1**

This section describes the following enhancements to the existing features.

### **Enhancements to the Existing Features**

The following areas have been enhanced for BrightStor ARCserve Backup r11.5 SP1 for Windows:

- Extended Path Support
- Informix 10 Support

#### **Extended Path Support**

In this release of BrightStor ARCserve Backup file path support has been increased from 256 bytes to 512 bytes.

**Note:** Longer path names will be available starting with BAB r11.5 SP1. Previous versions will still have path name limitations.

#### **Informix 10 Support**

BrightStor ARCserve Backup now provides support for Informix 10 on HP-IA64.

## **Modified Features in BrightStor ARCserve Backup r11.5**

This section describes the following:

- Enhancements to the existing features
- Features not supported

## Enhancements to the Existing Features

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

- Merge Utility
- Scan Utility
- Cross-Platform GroupWise Browsing/Backup/Restore
- Single Object Restore in NDS
- 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.

### Cross-Platform GroupWise Browsing/Backup/Restore

BrightStor ARCserve Backup now provides an enhanced Client Agent for NetWare, allowing you to browse, back up, and restore GroupWise resources. The agent now consolidates and displays File System and GroupWise TSA resources under their respective servers, allowing BrightStor ARCserve Backup for Windows, BrightStor ARCserve Backup for UNIX, and BrightStor ARCserve Backup for Linux to browse, back up, and restore NetWare GroupWise resources.

## Single Object Restore in NDS

A single object can now be selected from the NDS tree for Restore operation.

## 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

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The following sections provide information regarding fixes included in this release of BrightStor ARCserve Backup r11.5 SP1 and 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 for BrightStor ARCserve Backup r11.5 SP1

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

- [T2D2348] BrightStor ARCserve Backup has been enhanced to ensure that you no longer receive file header or trailer invalid signature errors when merging, scanning, or comparing NetWare NDS sessions using (at minimum) the BrightStor ARCserve Backup version 9.01 Client Agent for NetWare. Scan, merge, and compare all run properly with tapes created using (at minimum) the BrightStor ARCserve Backup Client Agent for NetWare version 9.0.

For tapes created using the BrightStor ARCserve Backup version 7.0 Client Agent for NetWare, you must add the registry DWORD value OldNDSSession under the following and set the value to 1:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ComputerAssociates\BrightStor ARCserve Backup\Base\Task\Common
```

- [T3D3017] BrightStor ARCserve Backup now properly records messages (without duplicates) when the Enable Message Logging into Windows Event Log setting is enabled.
- [T3D3022] BrightStor ARCserve Backup has been updated to ensure that the Retry Open Files operation executes properly when the Retry Open Files option and the Disable File Estimate options are both selected in the Backup Options.
- [T3D3026] The Client Agent no longer maintains connections to the backup drive root after backup jobs are finished, allowing you to format the backup drive without restarting the Client Agent.

- [T3D3055] BrightStor ARCserve Backup has been updated to ensure that you can restore more than two drives with quota information in the same job and that the quota information for the additional drives is accurately restored.
- [T3D3059] The BrightStor ARCserve Backup Agent Management GUI now properly displays job details from the log file for computers with names of three characters or fewer.
- [T3D3063][T245203] All messages are now reliably recorded in the BrightStor.log.
- [T16C349] BrightStor ARCserve Backup has been updated to ensure that jobs no longer fail with the error "E3801 Invalid Session Header Signature" on EXABYTE Mammoth2 tape drives.
- [T36A109] You can now back up Oracle instances with tablespaces with many data files.
- [T36A166] The Agent for Microsoft SQL Server now properly displays all Microsoft SQL databases, regardless of the characters used in the names.
- [T245032] BrightStor ARCserve Backup now reliably displays the source in the Manager tree when modifying jobs.
- [T245033] BrightStor ARCserve Backup has been updated to ensure that you can successfully merge tapes backed up with the File scanning option set to off without generating the error "E11033: The volume was backed up without file scanning, cannot merge session."
- [T245057] The BrightStor ARCserve Backup Tape Engine no longer changes the layout of disks when you delete and recreate one of the partitions on a disk. Previously, if a file system device existed in the partition, the Tape Engine changed the layout of the entire disk to one partition.
- [T3D3050][T3D3052] You can now successfully back up the System State on Windows XP or Windows Server 2003 without generating W3422 and W3404 warnings in the activity log, even if the registry contains a single entry with more than 523284 bytes.
- [T245065] BrightStor ARCserve Backup now reliably retries open files when you select the Retry After Job option.
- [T245157][T245150][T245158][T245067] BrightStor ARCserve Backup has been updated to ensure that the BrightStorMgr.exe process now closes properly when you close the Manager.
- [T245140] The BrightStor ARCserve Backup log no longer displays the tape alert message "A drive inside the library has been taken offline" when drives in HP C5713A (40x6 AL), HP DAT72x6 AL, and HP C1557A (24x6 AL) devices are being cleaned.

- [T245145] If you have enabled tape alert on changers that support tape alert, as soon as drive cleaning operations finish, you are now alerted when cleaning tapes have been exhausted.
- [T245182] You can now restore backed up folders from shared disks to non-shared disks without modifying the disk signature of the non-shared disk.
- [T369167] Write Once Read Many Media support messages have been added to the BrightStor ARCserve Backup base product in Simplified Chinese, French, German, Italian, and Japanese for Windows NT 4.0 and Windows 2000.
- [T1A5205] BrightStor ARCserve Backup has been updated to ensure that you can now shut down machines running both BrightStor ARCserve Backup and VC++ .net without generating application errors.
- [Q066651] [T146370] BrightStor ARCserve Backup has been updated to ensure that tapes are no longer incorrectly moved from the save set to the scratch set when you use Microsoft SQL Server as the alternate BrightStor ARCserve Backup database.
- [T16C512] BrightStor ARCserve Backup has been updated to ensure that, if you append an Exchange backup to a tape after restoring the sessions, you can successfully restore the same (or older) sessions, without generating error messages.
- [T3D3015] [T3D3019] BrightStor ARCserve Backup has been updated to ensure that the Message Engine Service starts properly on machines with multiple processors and with Microsoft Service for UNIX 3.0 installed.
- [T36A079] [T36A080] [T36A104] The Disaster Recovery Option has been updated to support the Japanese versions of Windows 2000 Server with SP4 and Windows 2000 Advanced Server with SP4.
- [T245115] BrightStor ARCserve Backup has been updated to ensure that it properly recognizes tapes in the scratch set and save set slots in media pools. Previously, when rotation jobs mounted tapes from a particular media pool scratch set, the job would not finish.
- [T245116] BrightStor ARCserve Backup can now successfully back up three-node jobs when the second node is for the Agent for Microsoft SQL Server and the tape spans while the second node is being backed up. Previously, the job failed with the error "E3841 Unable to find session number" (MEDIA=testmedia, SESSION=22, EC=EARLY WARNING) during verification when trying to find the third node.
- [T245120] The Backup Manager now properly and reliably displays Media Pool status on the Destination tab.

- [T245123] System State backup jobs no longer erroneously generate the following error and warning when long Active Directory DNS names are set and NTFRS replica root values are set with the prefix \\?\\:
  - W3301 Unable to find directory. (DIR=\\, EC=The filename, directory name, or volume label syntax is incorrect.)
  - E3322 Unexpected return from find first file. Unable backup files after (FILE=\\?\\c:\\windows\\sysvol\\domain\\\*.\* , EC=The network path was not found.)
- [T245149][T245148] BrightStor ARCserve Backup now reliably backs up data in jobs that span two barcode tapes with the same media name when the "Overwrite Same Media Name, or Blank Media" backup option is enabled.
- [T245185] BrightStor ARCserve Backup can now successfully run jobs submitted from the Job Scheduler Wizard.
- [T245198] You can now successfully change the name of tape library RAID groups from GROUP0 using the Device Group Configuration dialog. Previously, the name was reset automatically to GROUP0 when the tape engine restarted.
- [T326113] The Disaster Recovery Wizard now correctly displays tape information.
- [T1A5295] The Agent for Open Files has been updated to ensure that you can now successfully back up open files without generating the message "the process cannot access the file because another process is accessing the file." Additionally, the agent has been updated to improve the speed of backup or restore jobs.
- [T146388][T31A320] BrightStor ARCserve Backup Application Agent and BrightStor Enterprise Backup application agent buffer overflow code has been enhanced to avoid security vulnerabilities. This applies to the following products:
  - BrightStor ARCserve Backup v9.01
  - BrightStor ARCserve Backup Version 9 Agent for SQL for Windows
  - BrightStor ARCserve Backup Version 9 Agent for Oracle for Windows
  - BrightStor ARCserve Backup Version 9 Agent for SAP R/3 for Windows

This test fix supersedes QO70770.

- [T31A288] The BrightStor ARCserve Backup Universal Agent and BrightStor Enterprise Backup Universal Agent buffer overflow codes have been updated to prevent a security vulnerability. We strongly recommend that you immediately apply this security update to all systems utilizing any of the following products:
  - BrightStor ARCserve Backup v9.01
  - BrightStor ARCserve Backup v9.01 Client Agent for Windows
  - BrightStor ARCserve Backup v9.01 Network Attached Storage (NAS) Option for Windows
  - BrightStor ARCserve Backup v9.01 Agent for Oracle for Windows
  - BrightStor ARCserve Backup v9.01 Agent for SAP R/3 for Windows
- [T31A261] 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 v9.0 base product and any BrightStor ARCserve Backup agents are installed.
- [T3F8085] For Microsoft SQL Server, BrightStor ARCserve Backup has been updated to successfully back up more than 1500 databases.
- [T16C408] BrightStor ARCserve Backup has been enhanced to ensure that you no longer receive the error "File header signature or stream signature is invalid" when restoring or verifying data from certain backup sessions (a backup session is a backup of a file system or database - backup jobs can contain multiple sessions). Previously, data corruption problems occurred during backups if, while the first session of a backup job was running, 1000 other backup sessions started and were completed. If a new backup session started (session 1001) while session 1 was still running, this session would be corrupted.
- [T1A5182] Restore jobs no longer erroneously generate the error "N3941 Skip file - Marked as invalid. (FILE=File Path Name>" in the log file.
- [T352094] You can now create encrypted session passwords when backing up data.
- [T3D3023] BrightStor ARCserve Backup has been updated to include a Symbol Table File.
- [T3D3018] Restore jobs on NetApp Ontap 6.4.x no longer create the full path structure from the volume root as the restore destination when the Do Not Create the Base Directories option is enabled.

Additionally, incremental and differential backup jobs no longer create Restore Symbol Table files at the volume root.

- [T369134] BrightStor ARCserve Backup has been updated to correct the following issues:
  - You can now back up databases from two Microsoft SQL Server instances in a single job without mixing databases from the second instance with databases of the same name from the first instance.
  - You can now restore Microsoft SQL data to alternate locations.
- [T1A5143] When you restore specific files using the Image Option, you now receive an error message if all of the specified files are not restored.
- [T245178] When a restore job cannot replace a file, it creates either a ACT\$xxxx file or a SYT\$xxxx file in the same directory as the file that could not be replaced. Previously, if the file was under `WINDOWS\System32\CatRoot`, the digital signature of the driver would sometimes disappear after you rebooted the machine and an error indicating that the ACT\$xxxx file could not be found would be recorded in the `dberr.log`. BrightStor ARCserve Backup now ensures that digital signatures no longer disappear after you reboot.
- [T245184] BrightStor ARCserve Backup has been updated to ensure that, after you reboot your system (if files were active and could not be replaced while a full restore job was running), restored files now reflect the correct timestamps, not the time the restore job ran.
- [T1A5296][T245191] File names containing Japanese characters are no longer garbled in the Agent for Open Files settings (`ofawin.exe`) when you add these names to groups.
- [T245170][T245177] BrightStor ARCserve Backup now reliably backs up `catalog.wci` directories even when the `catalog.wci` directory is empty or has no changed files to back up (in differential backup jobs) and the Estimate File Size option is enabled.
- [T245171] You no longer erroneously receive the message "Computer Associates Licensing - 3BAL - Component not licensed" when backing up data using the BrightStor ARCserve Backup r11.1 Oracle Agent for Linux.
- [T46B066] BrightStor ARCserve Backup has been updated to correct the following decryption issues:
  - You can now properly restore Oracle databases backed up with local file system drives with global encryption
  - You can now properly back up file system drives (for example, C) from one server and database agents from another node using global encryption and restore the database agent sessions without generating the error "E3482 Failed to decrypt data."
  - You can now properly restore Linux data and preserve attributes. Previously, random, nonsense characters were restored with the data and the attributes were not preserved.

- [T16C514] BrightStor ARCserve Backup has been updated to ensure that you can properly run Serverless backup and restore jobs when the backup spans tapes and that you can reliably run restore jobs if the world wide name is all zeros. In addition, BrightStor ARCserve Backup now supports the CISCO Serverless solution.
- [T16C515] You can now run VSS backup jobs on Windows 2003 machines with Windows 2003 SP1 installed.
- [T1A5232] BrightStor ARCserve Backup has been updated to ensure that you no longer receive the error "Ofant.exe - Entry point not found; The procedure entry point setEUCStatus could not be located in the dynamic link library service.dll" in the Windows Event Viewer.
- [T1A5259] When you install the Agent for Open Files and reboot your machine, the Login dialog no longer loses focus.
- [T245122] System State backup jobs no longer erroneously generate the following error and warning when long Active Directory DNS names are set and NTFRS replica root values are set with the prefix \\?:
  - W3301 Unable to find directory. (DIR=\", EC=The filename, directory name, or volume label syntax is incorrect.)
  - E3322 Unexpected return from find first file. Unable backup files after (FILE=\\?\c:\windows\sysvol\domain\\*.\*., EC=The network path was not found.)
- [T245124] BrightStor ARCserve Backup has been updated to ensure that Pre/Post commands for Preferred Shares/Machines nodes, set in the Pre/Post Option dialog, are saved when you save or run these jobs and that they execute properly.
- [T245129][T245131] The registry value Every reboot, SOFTWARE\ComputerAssociates\BrightStor ARCserve Backup\Base\SNMP, is no longer inserted in the following key after every reboot:  

```
HKEY_LOCAL_MACHINE\CurrentControlSet\services\SNMP\Parameters\ExtensionAgents
```
- [T245144] You are now properly alerted if your cleaning tape is exhausted when you have tape alert enabled on devices that support tape alert.
- [T245146] BrightStor ARCserve Backup now properly recognizes tapes manually replaced in slots on NEC LL0101H-0A FW=0002 libraries with IBM Ultrium-TD1 FW=16E0 drives. To enable this fix, create the DWORD value DoorShutInit in the following key and set it to 1:  

```
HKEY_LOCAL_MACHINE\SOFTWARE\ComputerAssociates\BrightStorARCserve
Backup\Base\TapeEngine\CHANGER_CFG
```
- [T31A315] [Q069236] BrightStor ARCserve Backup now supports NEC Cluster Server (CLUSTERPRO/ExpressCluster) r4.2, version 7.0 SE and LE. For more information about this support and for information about configuring BrightStor ARCserve Backup in an NEC Cluster Server environment, see the *Administrator Guide*.

- [T31A311] BrightStor ARCserve Backup has been enhanced to support CLUSTERPRO/ExpressCluster in Active/Passive environments.
- [T36A235] If you use Microsoft SQL Server as the BrightStor ARCserve Backup database, media pool definitions are no longer reset to zero when you submit rotation jobs.
- [T36A244] BrightStor ARCserve Backup has been updated to address a potential security vulnerability caused by a buffer overflow condition in the Agent for Microsoft SQL Server.
- [T3F8101] BrightStor ARCserve Backup has been updated to address a potential security vulnerability caused by a buffer overflow condition in the Agent for Microsoft Exchange Server.
- [T3F8110] Document level backup operations with folder filters enabled now properly back up user mailboxes as defined in the parameters of the filters.
- [T46B039] BrightStor ARCserve Backup now reliably runs backup jobs successfully even when Pre-job commands return the exit code -1.
- [T245161] BrightStor ARCserve Backup has been updated to enhance the speed of restore jobs on NEC changers. Previously, restore jobs were slowed because tapes were returned to the home slot when each session finished. This behavior has been corrected.
- [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.
- [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.
- [T367143] BrightStor ARCserve Backup has been enhanced to ensure that Document Level backup jobs no longer fail incorrectly with Error 8535.
- [T245156] Japanese characters in the Day column name of the Calendar dialog now display correctly when you run BrightStorMgr.exe on Windows2003 English Edition with Multilingual/Multilanguage User Interface.
- [T1A5279] The BrightStor ARCserve Backup NDMP NAS Option has been updated to ensure that it no longer intermittently generates exceptions and fails and it no longer generates false spanning conditions at the end of restore operations. In addition, you can now reliably restore directories from NAS backups and can successfully perform DAR restores.

- [T245159][T3D3045] The BrightStorMgr.exe process no longer occupies nearly 100% of CPU utilization. In addition, if you shut down the manager and start it again, the manager opens properly.
- [T245160] You can now successfully perform Disaster Recovery full backup jobs on Windows 2003 or Windows XP with 21 or more partitions.
- [T245166][T245167] BrightStor ARCserve Backup has been updated to ensure that skipped files are properly reported and the correct job status is recorded for compare jobs that do not use the Client Agent.
- [T245162] On Lotus Notes Servers with names containing the character O in the first or second byte, you can now use the Setup Wizard without generating the error "Setup cannot find the file "notes.ini" of item 1 on the drive and directory specified."
- [T245164] The RDS.EXE process no longer increases memory usage each time you run a job.
- [T245165] BrightStor ARCserve Backup has been updated to allow you to specify that tapes should be rewinded at the end of jobs. To specify this, create the REG\_DWORD value DisableLazyRewind in the following registry key and set it to 1:  

```
HKEY_LOCAL_MACHINE\Software\CA\BrightStor ARCserve
Backup\Base\TapeEngine\CONFIG
```
- [T245168] On Japanese language Windows servers, the Backup Manager now properly displays directory names when you expand parent directories in the source tree when the source is a UNIX or Linux machine viewed through the Client Agent.
- [T245173] BrightStor ARCserve Backup has been updated to allow Disaster Recovery information to be copied to an alternate location without generating the error 1326 "Failed to establish connection" in the drcfgdll.log.
- [T245176][T245174] BrightStor ARCserve Backup has been updated to ensure that you can open Event logs that were restored to different locations using the Client Agent.
- [T245179][T245192] You can now remove and add changer slots from groups without causing the Tape Engine to fail.
- [T245180] The Operation tab of the Global Options dialog now accurately indicates when the Do not Eject Media option is selected for modified jobs.
- [T245188] You can now use the back arrow when browsing the Technical Support and eNews links in the Japanese version of BrightStor ARCserve Backup.

- [T245194] You can now format MTF tapes using the ca\_devmgr -format command. Additionally, the ca\_backup command with the owritesameblaankany option specified can now write to MTF tapes without generating the error "W3831: Unable to find any Computer Associates media."
- [T245196] You can now run multiple processes of ca\_backup.exe -waitForJobStatus commands in parallel without generating erroneous exit status codes.
- [T245195] In Japanese environments, the date format in the print preview of the Job Status Report has been updated to display in YYYY/MM/DD format.
- [T16C549][T16C587][Q075067] BrightStor ARCserve Backup has been updated to ensure that backup jobs with the Append option no longer overwrite valid data on tapes when they follow successful restore jobs. This previously caused restores of particular sessions to fail with the error "E3802 Invalid File Header Signature."
- [T36B202] You can now properly restore Linux data and preserve attributes. Previously, random, nonsense characters were restored with the data and the attributes were not preserved.
- [T245199] BrightStor ARCserve Backup has been updated to ensure that you can load media in C9264CB-VS80 without starting a full inventory.
- [T1A5285] BrightStor ARCserve Backup has been enhanced to improve performance when you restore files to a machine on which the Agent for Open Files and Symantec Anti Virus are both installed.
- [T31A337] You can now restore backed up folders from shared disks to non-shared disks without modifying the disk signature of the non-shared disk.
- [T31A305] A security vulnerability has been found in the BrightStor ARCserve Backup Universal Agent Service for Windows and the BrightStor Enterprise Backup Universal Agent Service for Windows. We strongly recommend that you immediately apply this security update to all systems utilizing any of the following products:
  - BrightStor ARCserve Backup r11.1
  - BrightStor ARCserve Backup r11.1 Client Agent for Windows
  - BrightStor ARCserve Backup r11.1 for Windows Agent for Oracle
  - BrightStor ARCserve Backup r11.1 for Windows Agent for Microsoft Exchange Premium Add-on
  - BrightStor ARCserve Backup r11.1 for Windows Enterprise Option for SAP R/3 for Oracle
  - BrightStor ARCserve Backup r11.1 for Windows NDMP NAS Option

- [T367144][T36A293] BrightStor ARCserve Backup has been updated to successfully restore data on Lotus Notes servers with names that contain the character / without generating the error "E8601 Failed to Connect to Agent."
- [T46B074] Backup jobs no longer create multiple cst\*.tmp files in the C: root and BAB Home\TEMP directories.
- [T46B041] If you set job-level Pre/Post commands for a backup job, specifying that the job should run only if a particular exit code is received for the pre-command, the job now runs only if the specified exit code is returned. If the exit code is not received, the job fails.
- [T146382] BrightStor ARCserve Backup has been enhanced to reliably start scheduled jobs when the Tape RAID Option is enabled.
- [T245203] When Tape Alert is enabled, the Tape Engine now successfully runs full inventories of libraries with many slots.
- [T245200][Q075044] Backup jobs with Sony SDX-800V as target devices no longer generate the error "E3803 Invalid file trailer signature. (SIG=2be62572)" when spanning sessions.
- [T16C416] BrightStor ARCserve Backup has been enhanced to use tapes formatted by Windows Backup Exec.
- [T36A287][T36A294] BrightStor ARCserve Backup now supports Disaster Recovery Boot Kit creation on the German version of Windows 2000 Professional with SP1 integrated CDs.
- [T1A5289] You can now install the Agent for Open Files without causing random system crashes with stop code C2.
- [T2D2481] You can now run successful consecutive tapecopy jobs using the -mTargetPool switch for the first and subsequent tapecopy. Previously, the subsequent tapecopy job failed unless you deleted or erased the target tape from the first tapecopy job.
- [T31A335] The Agent for Microsoft Exchange Server has been updated to improve performance for document level (specifically, user mailbox level) browsing. To enable this fix, create the DWORD value DisableChaseReferrals in the following and set it to 1:  

```
HKEYLOCALMACHINE\SOFTWARE\ComputerAssociates\BrightStorARCserve
Backup\ExchangeDocumentAgent\Parameters\
```
- [T31A336] BrightStor ARCserve Backup has been updated to ensure that you no longer receive the message Unrecognized command during Exchange database backup operations. Previously, this message appeared when the database exceeded thresholds during data transfer.
- [T36A282] Physical nodes in clusters now display only the Agents for Oracle configured on active servers.

- [T36A292] You can now back up archive logs with log sequences greater than 99999 without generating the error "Agent cannot find next archive log to back up."
- [T36A288] Microsoft SQL Server instances are now reliably displayed in the manager when you restore master databases in Microsoft SQL clusters using the command prompt on physical nodes when the SQL server is in single user mode.
- [T36A290] BrightStor ARCserve Backup now supports Microsoft SQL Server 2005.
- [T36A289] BrightStor ARCserve Backup has been enhanced to support the Agent for Microsoft SQL Server on Windows 2003 64-bit operating systems.
- [T31A332][QO75196] BrightStor ARCserve Backup has been enhanced to support long file paths. For more information, see the readme file.
- [T16C564] You can now start the Tape Engine on Seagate DAT DAT72 virtual tape libraries.
- [T16C567] BrightStor ARCserve Backup no longer changes IBM Ultrium-TD2 tape drives to IBM Ultrium-TD1 tape drives after the Tape Engine starts and now properly recognizes LTO-II tapes (which hold 400 GB of data) as different from LTO-I tapes (which hold 100 GB of data) for tape libraries attached to Network Appliance filers. You can enable high density auto-selection mode for Network Appliance filers by adding the DWORD value PreferHighDensityForNetapp to the following key before NAS device configuration and set it to 1:  

```
HKEY_LOCAL_MACHINE\SOFTWARE\ComputerAssociates\BrightStor ARCserve Backup\Base\TapeEngine\CONFIG
```
- [T16C570] After successful auto-configuration (from the Windows side) of StorageTek ACSLS libraries shared between Windows and UNIX platforms, the correct assigned drives are now reliably saved in the NLODRV.CFG file.
- [T16C576] BrightStor ARCserve Backup has been enhanced to launch consecutive RAID GFS rotation jobs. Previously, after the first RAID job was finished, no other jobs could be launched.
- [T245190] BrightStor ARCserve Backup has been updated to ensure that if you turn your Compression settings to Off from Device Management, the setting is not changed to On during media formatting. Previously, this setting was changed to On even when the registry setting FormatWithoutHardwareCompression was not set to 1.
- [T16C579][QO74774] You can now run multiplexing backup and restore jobs that span several sequences on Sony SDX 500C or 700C tape drives without generating warnings or errors.

- [T16C572] BrightStor ARCserve Backup has been updated to ensure the following:
  - In cluster environments without failover, after you successfully configure your SAN environment, the configuration is properly retained when you close and reopen the SAN Configuration dialog. In addition, physical server names added to clusters are also retained properly.
  - BrightStor ARCserve Backup has been enhanced to allow you add a registry key to display physical node names and filter out virtual node names in cluster environments without failover enabled. To do so, add the following key to the registry:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ ComputerAssociates\BrightStor ARCserve Backup\ Base\Tapeengine\DisplayPhysicalNodes
```
- [T245192][T245179] BrightStor ARCserve Backup has been updated to ensure that if you cancel the removal of changer slots from a group in the Device Group Configuration dialog, the slots are not removed. In addition, the Tape Engine now reliably starts after you cancel the removal
- [T245184] BrightStor ARCserve Backup has been updated to display accurate timestamps for restored files. Previously, if the files were active and could not be replaced while a full restore job was running, the timestamp of the restored file was changed to the time when the restore job ran.
- [T2D2482] Data backed up using the 64-bit Client Agent for Windows is now reliably and properly encrypted.
- [T36B206] The Agent for Open Files console has been updated to accurately display license status.
- [T16C573] The log file  
  \ProgramFiles\CA\BrightStorARCserveBackup\LOG\Tsk Jobxx.log no longer grows rapidly and uses all available disk space when backup jobs span tapes and blank media is not provided.
- [T31A339] Lotus Domino backups of large database files (500 MB or larger) are now displayed correctly in the Restore Manager. Previously, database files were displayed incorrectly and, if selected for a restore operation, the entire session was restored along with the selected file.
- [T1A5297] You can now reliably view tape libraries attached to NAS filers after you run Device Configuration to configure EMC Celerra 5.4 and manually enter a changer name.
- [T16C584] You can now submit jobs simultaneously from a UNIX server and a Windows server without causing the job on the Windows server to fail.

- [T36A300] BrightStor ARCserve Backup has been updated to allow you to install SAP applications (other than SAP/R3) on machines with the Agent for Oracle installed without erroneously generating the message: "Backup Agent error (260) - Backup Agent does not support SAP/R3. Please get SAP/R3 backup Agent."
- [T36A299] The system path has been updated to properly include the Oracle DLL directory. Previously, when you configured the Enterprise Option for SAP R3 for Oracle, BrightStor ARCserve Backup returned the error "Failed to copy 'initsid.utl' file!" and, when you expanded the SAP R3 instance, BrightStor ARCserve Backup returned the error "Cannot find Oracle DLL from the system path. Please set system path properly to include Oracle DLL directory."
- [T245087] You can now successfully restore data backed up from Client Agent for Windows remote nodes using specific session passwords without generating the error "AE0322 Failed to initiate the encryption library. Job aborted."
- [T245081] BrightStor ARCserve Backup has been updated to accurately detect current tape status. Previously, if a tape was set to write-protected after it had been detected as a write-enabled tape cartridge in the inventory, backups finished successfully despite the write-protected tape status.
- [T245076] BrightStor ARCserve Backup has been updated to accurately detect tapes in slots. Previously, tapes were not reliably detected in slots, generating the messages "W3831 Unable to find any media that can be used in this job" or "W3832 Unable to find a blank media" in the Activity log and the message "Error in search for tape for JobID[370]. EC=ENUM\_TAPE\_EXHAUSTED" in the Tape log.
- [T245060] BrightStor ARCserve Backup has been updated to ensure that, if the Agent for Oracle is installed, the Universal Agent no longer holds the handles of Oracle data folders after Client Agent backup jobs finish.
- [T245054] Unrecognized format tapes (for example, netvault) in changer slots no longer generate an exception in the manager during automatic inventory operations after the Tape Engine is restarted.
- [T245050] You can now restore data from MTF tapes with names that have multibyte characters occupying the 23rd and 24th byte.
- [T245028] Image Option merge jobs no longer fail with the messages "E11033: The volume was backed up without file scanning, cannot merge session" and "E3841: Unable to find session number."
- [T245024] BrightStor ARCserve Backup has been updated to ensure that Japanese Kanji file names match restore queries.
- [T245007] In Japanese, incorrect comment text on the Alert tab of the Configuration window of the Server Admin tool indicating that text is case sensitive has been corrected to indicate that the text is case insensitive.

- [T245002] BrightStor ARCserve Backup has been updated to allow the Unicenter® Network and Systems Management (Unicenter® NSM, formerly known as Unicenter® TNG) Integration Option (CSTNGX.EXE) to create a managed object for BrightStor ARCserve Backup on Windows 2003 machines in the Business Process View and Unispace of the Unicenter NSM repository.
- [T3D3048] BrightStor ARCserve Backup has been updated to allow the BrightStor ARCserve Backup v9.01 Client Agent for NetWare (running in a BrightStor ARCserve Backup 11.0 Windows environment) to restore NDS objects to their original location without generating the error "E3814 invalid session/encryption password."
- [T3D3037] The error E11063, indicating that an object identifier is duplicated, is no longer generated unnecessarily.
- [T3D3029] The Client Agent for Windows no longer keeps a connection to the backup drive root after backup jobs are finished. Previously, the client agent kept a connection to the backup drive root after backup jobs finished so the backup drive could not be formatted unless the agent was restarted.
- [T245125] If you use the floppy-based Disaster Recovery method (local or remote) for a Windows 2000 server (rather than the more efficient CD recovery), see the readme file for information on how to update your installation.

## Included Fixes for BrightStor ARCserve Backup r11.5

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.
- [T2D2395] [T352124] BrightStor ARCserve Backup has been enhanced to ensure that the DHCP database is backed up by local backup jobs when run on a Windows 2003 server, or when a local backup job includes a remote Windows 2003 server. In addition, the activity log no longer reports that the dhcp.mdb file is not found.
- [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."
- [Q067815] (T1A5246) You can now safely and reliably restore from multiplexing backup jobs using IBM Ultrium tape drives.
- [Q066654] (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.
- [Q064863] (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 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.