StorageTek Automated Cartridge System Library Software

Release Notes

Version 8.0.2

Part Number: 316144201
September 2010, Revision AA

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Revision History

Date	Revision	Description
September 2010	AA	This release supports Redundant Electronics.

ACSLS 8.0.2 Release Notes

Please check the website for any maintenance releases.

Note – ACSLS 8.0.1 must be installed before you apply ACSLS 8.0.2 maintenance.

Software Requirements

- ACSLS has been fully tested and verified on Oracle's Sun SPARC and X86 platforms running Solaris-10 (U6 10/2008, U7 05/2009, or U8 10/2009). Other operating systems, including AIX and virtual environments, are not tested or supported.
- Because of special device driver requirements to enable virtual libraries, ACSLS 8.0.1 cannot run in a Solaris Zoned environment. However, ACSLS can run in a logical domain on a SPARC system with Chip Multithreading (CMT) technology. ACSLS HA systems must be installed on their own dedicated platform pair.
- The graphical user interface and SMCE service in ACSLS requires Java 1.6 U14 and is included on the ACSLS CD for easy installation. You cannot install ACSLS unless this requirement is met. Please note that:
  - Should you choose to install Java in a different directory, a soft link must be provided that points to the java binaries located in: /usr/java/bin/java
  - To verify the version, enter the command: `java -version`.

    The system should reply with `java version 1.6.0_14`

System Requirements

- Memory: 2GB minimum
- Swap: Configure swap to be no less than the configured amount of physical memory.
- File systems:

  Installation fails if the following file systems do not exist as separate file systems.
  - `/export/home` - 5GB or greater

- `/export/backup` - 5GB or greater

- Optional Fibre card.

  A Fibre card is optional. However, a contemporary QLogic Fibre HBA (4GB or higher) is required if:

  - A dedicated Fibre port is required to operate in target mode for client communication to logical libraries.
  - Another port is required to act as an initiator for communication with SCSI-attached libraries, such as the SL500 or SL700.

Note: If neither of these is required, you do not need a Fibre card. However, during normal GUI operations a critical error icon shows up in the Web Console. Ignore this error.

Browser Requirements:

ACSLS has been tested and fully verified on the following browsers:

- Internet Explorer 8.x
- FireFox 2.x, 3.0.x
- Chrome 4.x

Co-Hosting

Co-hosting other applications with ACSLS 8.0.1 is supported on machines that support logical domains (LDOMs). Because ACSLS drivers are attached to hardware devices, ACSLS must be installed in the primary domain. Co-hosting is otherwise not supported with ACSLS.

Updates

ACSLS provides the following new functions or enhancements:

- Redundant Electronics (RE)

  ACSLS now connects to multiple SL8500 libraries with RE in a string and accurately tracks and reports the status of each connection. When RE is installed and licensed in a library, ACSLS identifies which Library Controller card (LC) is active and only sends requests to the active LC on each library.

- Tracks both the Desired State and the Current State of LSMs and Tape Drives

  Current state is now tracked more accurately than before, reflecting whether a library component is ready and communicating, limited by the desired state of the component.

The desired state manages library and tape drive availability. Desired state is the availability that you want for an ACS, port connection, LSM, and tape drive. You set the desired state via the vary command. The desired state for any of the library components can be viewed using the query lmu and display commands.

ACSLS now accurately tracks the current state of LSMs and drives. For example, if the desired state of an LSM is online but it is not ready, its current state is offline.

The desired state for ACSs and ports is already supported, and ACSLS has tracked the current state of ACSs and ports for years.

The availability of logical libraries and tape drives in logical libraries is also governed by the desired state that you set for both the underlying physical library and the logical library. If the desired states for both the physical library and logical library are online, the current states of logical libraries and logical tape drives reflect the current state of the underlying physical libraries and drives.

- Queue and Retry Mounts and Dismounts when the Library is Temporarily Unavailable

  ACSLS now queries mount and dismount requests when temporary library outages are detected. Mount and dismount requests from all sources are automatically queued and retried, as long as the desired state of all required library components is **online**. This means mount and dismount requests from the following sources are all automatically queued and retried:

  - ACSAPI clients
  - `cmd_proc`
  - Fibre-attached clients for tape drives in logical libraries

  ACSLS now queues and retries mount and dismount requests for clients when temporary library outages are detected.

  Temporary outages occur when the desired state of the library hardware is **online**, but the current state is **offline**. Examples of temporary outages are: when an LSM door is open; when ACSLS loses communications with a library; or during an LC switch operation. During a temporary library or tape drive outage, mounts and dismounts are queued, and are retried when the library is available.

  If the desired state of the library hardware is **offline**, then ACSLS fails mount or dismount requests with the appropriate error status.

  New dynamic variables control queuing and retrying mounts and dismounts:

  - MOUNT_RETRY_DELAY controls how often queued mounts and dismounts are retried or availability of libraries and drives are re-checked.
  - MOUNT_RETRY_TIME_LIMIT is the time limit to queue and retry mounts and dismounts. After this, requests fail.

- New acs_renumber.sh utility

  This is a simple tool that enables you to change the identifier of a given ACS in your library complex without having to reconfigure the attached libraries. Since every LSM, every CAP, every drive, and every volume in the library is identified in relation to an ACS, this utility updates all of the various database tables so that each library resource aligns with the new ACS i.d. that you assign.

- Avoid "CAP is not operational" Messages for Non-existent SL8500 Second CAPs

  The SL8500 has always reported two CAPs, even when only one CAP was installed. Because two CAPs were reported, ACSLS would add both to its database. This caused the following error messages when ACSLS tried to recover the non-existent second CAP. An example would be during ACSLS startup.

```
2005-05-24 08:35:36 ACSLH[0]:
1377 N Co_ProcessResponses.C 1  546
LMU error: Co_4400:st_parse_error: ACS 0: State s_reserve_int: Error "0705"
LSM robotics error:  CAP is not operational.
```

The new SL8500 6.01+ firmware now reports non-existent second CAPs as "not installed" and ACSLS does not configure these non-existent CAPs. After you re-configure with the new library firmware, ACSLS removes any CAPs that the library reports as "not installed" from its database. You are no longer be bothered by these messages when ACSLS starts or an ACS comes online.

Known Issues

There are known issues with the following browsers:

- Internet Explorer 7.x mis-interprets line breaks in drop-down menus as legitimate selections.
- Firefox 3.5.x and 3.6.x are unable to auto refresh the ACSLS Tree menu (left frame). The frame can be manually refreshed as follows: Right-click in the left frame, select This-Frame -> Reload Frame.

  This issue can be resolved by installing the FireBug Add-on to FireFox.