

TS7700 Release Notes - 8.51.0.63 (R5.1)

IBM System Storage TS7700

Release Notes for the TS7700 (3957 VED / VEC)

- EC: P25057 released September 25, 2020

New Function Supported:

- **DS8K Object Store Compression/Encryption**
- **Grid Awareness of Volumes in Cloud**
- **DR Restore from the Cloud**
- **Dual Control**
- **Multi Cloud from Single Pool**

TS7700 CODE REQUIREMENTS

TS7700	8.51.0.63 (EC P25057, PN 02XX068, PN 02XX069, PN 02XX070, PN 02XX071 (DVD 1, 2, 3 & 4))
DB2	v11.1.4.4 Informational tokens are "DB2 v11.1.4.4", "s1902261400", "DYN1902261400AIX", and Fix Pack "4a"
AIX Base Level	AIX 7.2.4.0
AIX Fixpack	7200-04-01-1939+02
P9 Server Firmware	FW940.10 (VL940_050)
P8 Server Firmware	FW860.70 (SV860_205)
TCT	Version=1.1.8-1281
Cloud Support	IBM Cloud Object Storage System (COS) appliance solution Version 3.13.1 April Maintenance Release (Storage_COSS_3.13.1.34) / S3 Protocol AWS, S3 Protocol
TS4500 (Anaconda) Firmware	1701-D00
TS3500 (Anaconda) Firmware	H010
3592 J1A Tape Drive	D310_C90
3592 E05 Tape Drive	D311_F1F
3592 E06 Tape Drive	D312_883
3592 E07 Tape Drive	D313_DCB
3592 E08 Tape Drive	D314_A9A
TSSC	9.1.4
3956-CSB (2072-312 V5030E) Firmware	8.2.1.9
HDD (3956-CSB)	Seagate Evans Non-SED 7200 rpm, 10TB, SAS 12Gb/s 4Kn / FW BCL3 Seagate Tatsu Non-SED 7200 rpm, 10TB, SAS 12Gb/s 4Kn / FW lvi BCGA Seagate Mobula Non-SED 7200 rpm, 10TB, SAS 12Gb/s 4Kn / FW lvi BCH7

3956-CSA Firmware Storage Manager GUI	08.40.60.01 11.30.0A05.0037 Storage Manager GUI level
ISKLM	4.0.0.0
Atape	13.0.36.0
GPFS	GPFS Release 5.0.5
ITDT	9.0.1.20160222
AIX Diagnostics CD	Version 7.2
16Gbit Cisco Switch Firmware	BIOS level 2.1.17 Kickstart software level 6.2(9) System software level 6.2(9)
VTD EXECs	VTD_EXEC.080 v1.34 - Backup for server/frame replacement VTD_EXEC.081 v 1.33 - Create flag for frame replacement and update fixes for the replacement scripts VTD_EXEC.084 v1.26 - Merge pre-check VTD_EXEC.244 v1.07 - Add older versions of DB2 VTD_EXEC.261 v 1.11 - Frame replacement pre-check VTD_EXEC.222 v 1.5 - GGM vtd_exec to install/uninstall GGM proxy server in the CSG VTD_EXEC.900 v 1.00 - Update packages for GUI Updates panel

Platform Requirements Matrix

Test	Software Level
zOS	V2R4
zTPF	1.1
zVM	6.3, 6.4
zVSE	5.2, 6.1, 6.2

Switch and Channel Extender Support Matrix

Product Vendor and Model	Product Levels of Microcode Supported
Brocade 8510-8 IBM 2499-816 (SAN768B-2)	8.0.1b, 8.0.2b, 8.0.2b2, 8.1.0c, 8.1.2a, 8.1.2b2, 8.1.2j, 8.2.0a, 8.2.2a, 8.2.2b
Brocade 8510-4 IBM 2499-416 (SAN384B-2)	8.0.1b, 8.0.2b, 8.0.2b2, 8.1.0c, 8.1.2a, 8.1.2b2, 8.1.2j, 8.2.0a, 8.2.2a, 8.2.2b
Brocade 6510 IBM 2498-F48 8, 16 GB/sec (SAN48B-5)	8.0.1b, 8.0.2b, 8.0.2b2, 8.1.0c, 8.1.2a, 8.1.2b2, 8.1.2j, 8.2.0a, 8.2.2a
Brocade 7800 IBM 2498-R06 (SAN06B-R)	7.4.0a, 7.4.1b, 7.4.1d, 8.1.2j, 8.2.2a, 8.2.2b
Brocade 7840 IBM 2498-R42 (SAN42B-R)	8.0.1b, 8.0.2b, 8.0.2b2, 8.1.0c, 8.1.2a, 8.1.2b2, 8.1.2j, 8.2.0a, 8.2.1c, 8.2.2a, 8.2.2b
Brocade X6-8 IBM 8961-F08 (SAN512B-6)	8.0.1b, 8.0.2b, 8.0.2b2, 8.1.0c, 8.1.2a, 8.1.2b2, 8.1.2j, 8.2.0a, 8.2.2a, 8.2.2b
Brocade X6-4 IBM 8961-F0 (SAN256B-6)	8.0.1b, 8.0.2b, 8.0.2b2, 8.1.0c, 8.1.2a, 8.1.2b2, 8.1.2j, 8.2.0a, 8.2.2a, 8.2.2b
Brocade 620 IBM 8960-F64 8960-N64	8.0.1b, 8.0.2b, 8.0.2b2, 8.1.0c, 8.1.2a, 8.1.2b2, 8.1.2j, 8.2.0a, 8.2.1c, 8.2.2a, 8.2.2b

SAN64B-6	
Cisco MDS9506 IBM 2062-D04 IBM 2054-E04	6.2(5a), 6.2(5b), 6.2(11c), 6.2(11e), 7.3(0), 7.3(1)
Cisco MDS9513 IBM 2062-E11 IBM 2054-E11	6.2(5a), 6.2(5b), 6.2(11c), 6.2(11e)
Cisco MDS9222i	6.2(5a), 6.2(5b), 6.2(11c), 6.2(11e)
Cisco MDS9250i	6.2(11d), 6.2(11e), 6.2(11e), 8.1(1a), 8.1(1b), 8.4(1a), 8.4(2)
Cisco MDS9710	6.2(11d), 6.2(11e), 6.2(11e), 8.1(1a), 8.1(1b), 8.4(1a), 8.4(2)
Cisco MDS9706	6.2(11d), 6.2(11e), 6.2(11e), 8.1(1a), 8.1(1b), 8.4(1a), 8.4(2)

PROBLEM FIXES:

Problems fixed in this level are described below. There are 2229 enhancements/defects fixed in this release; 326 defects occurred or were related to problems in client installations. They are described below with the following designations:

HIPER = High Impact & Pervasive

High Impact = Loss of access or loss of data

Acute = An unrecoverable error with potential loss of data

Serious = An unrecoverable error with potential loss of access to data

Moderate = A system path is not operational and performance might be degraded

Service = A recoverable error, Service Improvements

Improvement = Improvement for better usability

Pervasive: problems with 3 or more occurrences

High Impact: During a DDM failure in the cache a mount may fail or the write may corrupt the data being written

Pervasive: No

Reference: 89232

High Impact: A marginal failing drive caused file system corruption

Pervasive: No

Reference: 81298

High Impact: A recall from a physical volume in read-only-recover state was resulting in failed mounts

Pervasive: No

Reference: 88135

High Impact: Grid performance after bringing a cluster on-line

Pervasive: No

Reference: 88026

High Impact: Cluster Ficon compression of ZTD not inherited from source Cluster

Pervasive: No

Reference: 87918

High Impact: Device allocation assist (DAA) tvs selection not optimal

Pervasive: No

Reference: 87551

High Impact: Virtual tape device hangs requiring a device reset when Sync copy mount fails

Pervasive: No

Reference: 85651

High Impact: Modifying the grid network from direct connection to a switched resulted in a total grid outage.

Pervasive: No

Reference: 85261

High Impact: Problems with the tape library resulted in poor pre-migration performance

Pervasive: No

Reference: 84397

Acute: After both cache controllers to string 1 were rebooted, we were unable to complete a SKLM key exchange.

Pervasive: No

Reference: 89383

Acute: After code upgrade cluster could not go online - failed to merge token information with an on-line cluster.

Pervasive: No

Reference: 87545

Acute: Cluster will not go on-line after code upgrade when the cluster was set for Flash Copy D/R testing before the code upgrade

Pervasive: No

Reference: 83089

Acute: File system script creating excessive number of log files

Pervasive: No

Reference: 89656

Acute: Surface an alert when a DDM enters a critical state so it can go through remove/replace

Pervasive: No

Reference: 89637

Acute: GPFS fix, not enough memory available for use by file system command

Pervasive: No

Reference: 89238

Acute: Mount failure of a private volume. Trailer had to be rebuilt. First time data capture

Pervasive: No

Reference: 88584

Acute: The WWID for worm volumes are not reconciled when a cluster is in service and comes back online

Pervasive: No

Reference: 88443

Acute: Recovery of a deleted logical volume fails if the volume size id > 2GB

Pervasive: No

Reference: 87938

Acute: Moving >30TB of data to the pre-migration queue caused a cluster to hang

Pervasive: YES

Reference: 87708

Acute: During a DR of the system disk, the cache code did not properly identify that there was valid data on the cache and the cache was deleted

Pervasive: No

Reference: 87033

Acute: Busy Grid does not throttle workload and uses up all system resources resulting in a reboot

Pervasive: YES

Reference: 87018

Acute: Mounts are slow due to a bad grid adapter

Pervasive: No

Reference: 84246

Serious: Replacing Management Interface HTTPS certificate 'lwiks' on EKM connected cluster may cause reboot.

Pervasive: No

Reference: 90281

Serious: Reduce online time for TS7760 when updating microcode from 8.4x to 8.5x level.

Pervasive: No

Reference: 90184

Serious: Performance enhancement on initialization after code activate.

Pervasive: No

Reference: 90170

Serious: File system filled during log collection

Pervasive: No

Reference: 90023

Serious: Illegal logical worm overwrite

Pervasive: No

Reference: 90019

Serious: Error recalling data sets from a logical WORM volume

Pervasive: No

Reference: 89869

Serious: Ficon panic due to NULL pointer

Pervasive: No

Reference: 89823

Serious: Token merge missing some volumes resulting in damaged volumes in a 2-way grid

Pervasive: No

Reference: 89706

Serious: BVIR fix for cloud volume map

Pervasive: No

Reference: 89555

Serious: BVIR volume collection ended abnormally

Pervasive: YES

Reference: 89406

Serious: TPF timeout detected after a system reset from a different host

Pervasive: No

Reference: 89391

Serious: TS7700 could reboot due to the loss of both tape drive paths while online with tape I/O

Pervasive: No

Reference: 89381

Serious: Volume mount failure while TS4500 was in force pause

Pervasive: YES

Reference: 89338

Serious: EKM server dropped the connection and the Management Interface did not report a tape drive encryption error

Pervasive: No

Reference: 89306

Serious: Permanent write errors on remote mount when all Grid networks fail

Pervasive: No

Reference: 89299

Serious: Stolen logical volumes go into damaged category after service cancel.

Pervasive: No

Reference: 89263

Serious: Ficon panic on a write

Pervasive: YES

Reference: 89135

Serious: High number (20k/hr) of small volumes (400MB) written resulted in a reboot

Pervasive: No

Reference: 89057

Serious: Perform a first time data capture to trace a Ficon panic

Pervasive: No

Reference: 89039

Serious: Cluster reboots when checking the temporary removal threshold and a network issue occurs

Pervasive: No

Reference: 87986

Serious: Ficon panic with 16Gb adapters

Pervasive: No

Reference: 87790

Serious: Logical volume mount fails and leaves drive in unusable state

Pervasive: No

Reference: 87692

Serious: Client deleted an existing data class and then was unable to read the data on a recall

Pervasive: No

Reference: 87604

Serious: Concurrent ESM replacement failed

Pervasive: No

Reference: 87577

Serious: Cluster rebooted because the Grid component did not throttle the incoming requests and exhausted system resources

Pervasive: No

Reference: 87424

Serious: Ficon panic

Pervasive: No

Reference: 87415

Serious: Online database reorg held up transactions and the cluster rebooted

Pervasive: No

Reference: 87413

Serious: After mounting a tape, a rewind gets an equipment check error

Pervasive: No

Reference: 87276

Serious: Ficon panic

Pervasive: No

Reference: 87154

Serious: Over 200K damaged token interventions were generated resulting in Management Interface issues,
Token Reconcile...

Pervasive: No

Reference: 87032

Serious: When the data in SBM (Sequence Buffer Memory) is transferred from the adapter to CEC (central electronic complex), the data is split too small block and exhaust DMA resource.

Pervasive: No

Reference: 87028

Serious: Host write of header 1 (HDR1) label can fail after host issues a back space file (BSF) when stacking data on a volume

Pervasive: YES

Reference: 86702

Serious: Code fails to read VPD due to lock contention so reports a cache issue

Pervasive: No

Reference: 86693

Serious: Database reorg stuck resulting in filling up active transaction logs and system rebooted

Pervasive: YES

Reference: 86658

Serious: Ficon Panic

Pervasive: No

Reference: 86490

Serious: A race condition occurs when collection adapter information from an adapter, an incoming message does not get processed or retried.

Pervasive: No

Reference: 86450

Serious: Ficon Panic during I/O

Pervasive: No

Reference: 86384

Serious: Database reorg hit a lock issue resulting in a cluster reboot

Pervasive: No

Reference: 86309

Serious: Mount fails after flash copy DR test.

Pervasive: No

Reference: 86251

Serious: Write fails when a volume was written past the logical end of tape (LEOT) warning and hits physical end of tape (PEOT) and returns the wrong length of data written

Pervasive: YES

Reference: 86068

Serious: Reset Local Virtual devices SMIT menu is resetting all devices when option is blank.

Pervasive: No

Reference: 85708

Serious: MDE 7084 may occur when using Surface EOT for 3490 Counters Handling option

Pervasive: No

Reference: 85582

Serious: Volume close was stuck behind a system call resulting in selective resets

Pervasive: No

Reference: 83291

Serious: Excessive number of recalls queued up and no available tape drives resulted in a timeout and failed recall

Pervasive: No

Reference: 82733

Serious: Fast ready mount failed and left a volume locked

Pervasive: No

Reference: 81967

Serious: Some adapter FRU part numbers incorrect for TS7770.

Pervasive: No

Reference: 90395

Serious: Fix to enable external disk encryption due to missing certificate

Pervasive: No

Reference: 90306

Serious: Update method to create a complete chain of trust to the TS7770-CSB regarding external encryption procedures, for cases where customer CA certificates are being used.

Pervasive: No

Reference: 90279

Serious: TS7770 incorrectly reports read/write errors for backup DVD.

Pervasive: No

Reference: 90255

Serious: Management interface performance enhancements

Pervasive: No

Reference: 90056

Serious: Unable to access file system node

Pervasive: No

Reference: 89897

Serious: Erroneous call homes posted when initiating flash copy for disaster recovery test

Pervasive: No

Reference: 89818

Serious: System check erroneously reports warning with all cards are in the correct position

Pervasive: No

Reference: 89811

Serious: Close out special directory after removing a cluster from the grid

Pervasive: No

Reference: 89810

Serious: SMIT menu misleading, caused SSR to do merge checks when actually doing a join.

Pervasive: No

Reference: 89722

Serious: Copy jobs stop due to unexpected locked special token *CSTDC.

Pervasive: No

Reference: 89653

Serious: Properly display database information when unable to mount disk

Pervasive: No

Reference: 89538

Serious: Memory leak causes the Management Interface to lock up.

Pervasive: YES

Reference: 89347

Serious: Add the local cluster ID to network connection Grid events.

Pervasive: No

Reference: 89297

Serious: Vital Product Data (VPD) cache related fields not filled in correctly on code activate resulting in failure of cluster to go online

Pervasive: No

Reference: 89184

Serious: Cluster rebooted due to cache issue and prevented service login

Pervasive: No

Reference: 89182

Serious: During a frame swap, process tried to migrate data that was already on tape

Pervasive: No

Reference: 89147

Serious: Stuck copy prevented a cluster from going into service

Pervasive: No

Reference: 88869

Serious: Enable switch ports to avoid full switch replacement

Pervasive: No

Reference: 88810

Serious: Conversion to 10GB grid links fails and cluster can't go online

Pervasive: No

Reference: 88487

Serious: Log collection hung up

Pervasive: No

Reference: 88457

Serious: Modify the log collection to include additional status files

Pervasive: YES

Reference: 88412

Serious: Restart issues on a first time install with the CSB cache

Pervasive: No

Reference: 88411

Serious: During a code activation or exec.326 installation, running db tools can cause an import to fail

Pervasive: No

Reference: 88409

Serious: Offline replacement of the fibre channel card to the cache resulted in an elongated online because the server could not reach the storage

Pervasive: No

Reference: 88404

Serious: Update server disk firmware on TS7760.

Pervasive: No

Reference: 88344

Serious: When performing a disaster recovery for the system disk, repeat attempts at recovery corrupted the file system.

Pervasive: No

Reference: 88341

Serious: The permissions on a login file are wrong and logins are blocked

Pervasive: No

Reference: 88126

Serious: Add recovery for local drive discovery when drives are not accessible

Pervasive: No

Reference: 88034

Serious: Can't login with LDAP after installing vtd_exec.269

Pervasive: YES

Reference: 87966

Serious: Token audit not exchanging correct information in a R4.12 and R4.2 mixed configuration

Pervasive: YES

Reference: 87913

Serious: When a volume has a bad trailer, the trailer is rebuilt during the mount. If a cache error exists during this rebuild the mount will hang

Pervasive: No

Reference: 87832

Serious: Cluster rebooted when going offline

Pervasive: No

Reference: 87824

Serious: Code activation fails in processing the local disks available

Pervasive: No

Reference: 87668

Serious: Upgrade DB2 to 11.1 Mod 4

Pervasive: No

Reference: 87649

Serious: The library operational offline bit was left ON when it should be OFF after the physical library returned to a good state.

Pervasive: No

Reference: 87444

Serious: Cluster was flooded with library state change after exiting service

Pervasive: YES

Reference: 87391

Serious: Sequencing error in manufacturing cleanup removes the cache password before cache is completely clean

Pervasive: No

Reference: 87222

Serious: False CBR3750I message is posted when copy exported volumes become sunset after tape drives are upgraded

Pervasive: No

Reference: 87185

Serious: Error re-mirroring server drives after code activate - first time data Capture

Pervasive: No

Reference: 87184

Serious: Code activation failed because of existence of a temporary table

Pervasive: No

Reference: 87156

Serious: When going online ensure that all paths to the cache are available and report any errors

Pervasive: No

Reference: 87146

Serious: Cluster rebooted due to an invalid state transition

Pervasive: No

Reference: 87090

Serious: Frame Swap MES failed due to missing database files

Pervasive: No

Reference: 86834

Serious: LDAP users unable to login due to older TLS version, need to enable TLS V1.2

Pervasive: No

Reference: 86828

Serious: The NTC process was having an issue in syncing and this prevented the update of the vital product data

Pervasive: No

Reference: 86801

Serious: Online cache expansion MES fails if previous MES did not assign a PVID

Pervasive: No

Reference: 86745

Serious: Error processing installed feature code information results in a failed MES

Pervasive: No

Reference: 86725

Serious: MI user permissions not set correctly after code upgrade

Pervasive: No

Reference: 86591

Serious: Join failed because a needed server was not running

Pervasive: No

Reference: 86499

Serious: Cluster reboots when LI REQ OTCNTL operation is initiated

Pervasive: YES

Reference: 86288

Serious: Service tool documentation and error prevention

Pervasive: No

Reference: 86259

Serious: Cluster rebooted due to a hung physical tape reclaim

Pervasive: No

Reference: 86238

Serious: Password settings not set correctly and the cache MES failed

Pervasive: YES

Reference: 86232

Serious: After a frame swap MES, virtual devices above 256 could not be varied online

Pervasive: No

Reference: 86196

Serious: Certain database values are not transferred over correctly from the source cluster to the target cluster during a frame swap.

Pervasive: No

Reference: 85940

Serious: Misleading disk mirror status after code activate

Pervasive: YES

Reference: 85896

Serious: Physical mounts would fail due to a database issue.

Pervasive: YES

Reference: 85565

Serious: Hdisk replacement fails when AIX is reporting missing status

Pervasive: No

Reference: 85319

Serious: Error being reported was not defined in the Information Center

Pervasive: No

Reference: 85104

Serious: Activation failed due to database backups being taken while the database backup file system was not mounted.

Pervasive: No

Reference: 84541

Serious: Cluster will not go online due to token ownership transfer issues

Pervasive: No

Reference: 83933

Serious: Unreadable sector scan is slow

Pervasive: No

Reference: 83782

Serious: Hdisk replacement failed

Pervasive: No

Reference: 83513

Serious: Hot swap of fibre adapter did not update the firmware on the adapter

Pervasive: No

Reference: 83395

Serious: Multiple disk failures result in filling up a file system log

Pervasive: No

Reference: 82194

Moderate: Ping -S does not work with new Cisco feature

Pervasive: YES

Reference: 88136

Moderate: Report tape drive encryption issue in a timely manner

Pervasive: No

Reference: 87988

Moderate: Add multi path I/O (MPIO) checks to cache to the regular system checks

Pervasive: No

Reference: 87144

Moderate: Management interface to remove unneeded calls to retrieve feature code information.

Pervasive: No

Reference: 89353

Moderate: logical paths lost, logical paths recovered

Pervasive: No

Reference: 88860

Moderate: Sick-but-not-dead algorithm introduced in 8.412 may locally fence a cluster if there is a database timeout involving a volume that contains D401 in the label.

Pervasive: No

Reference: 84931

Moderate: Update cache script to prevent unnecessary shutdown when TS7700 is online

Pervasive: No

Reference: 84751

Moderate: Mounted logical device with immediate copy mode unusable after sudden link failures.

Pervasive: No

Reference: 89295

Moderate: The fix to allow the usage of wild cards for LDAPs users didn't consider the scenario when the cluster is offline or in service, so LDAP users matching the wild card pattern won't be able to access the MI while the cluster is not fully online.

Pervasive: No

Reference: 86668

Moderate: The mount of a volume detected an issue and tried unsuccessfully to rebuild the trailer resulting in hanging the logical device

Pervasive: No

Reference: 85463

Moderate: After reset all virtual devices from SMIT, Ficon adapters do not go online.

Pervasive: No

Reference: 89681

Moderate: Memory leak in XML library

Pervasive: YES

Reference: 88964

Moderate: Provide a tool for relabeling many tapes

Pervasive: No

Reference: 88438

Moderate: Cluster Un-join Resulted in Damaged Tokens

Pervasive: No

Reference: 87155

Moderate: Fence alert threshold set too low on busy system

Pervasive: No

Reference: 86925

Moderate: Permissions not set correctly on directory resulting in error executing database recovery tools

Pervasive: No

Reference: 84306

Moderate: Incorrect copy delay reason when a copy times out

Pervasive: No

Reference: 90032

Moderate: Drives Going Offline After One Drive is Pulled Out And Rebooting TS7700

Pervasive: No

Reference: 89283

Moderate: No indication from SMIT the tape library is in force pause mode

Pervasive: No

Reference: 89262

Moderate: Tuning required for CSB cache during a rebuild

Pervasive: No

Reference: 89112

Moderate: Customer can't use Management Interface as not responding timely and command line is slow

Pervasive: No

Reference: 88868

Moderate: When collecting data from a TPF environment the rasutil dump is impacting system performance

Pervasive: YES

Reference: 88390

Moderate: Tape daemons are kept offline after the third attempt to restart since online, improve the logic and allow up to 5 restarts a day and the counter is reset daily.

Pervasive: No

Reference: 87709

Moderate: Resource contention when many mounts come in at the same time

Pervasive: No

Reference: 87295

Moderate: Cancel on a channel resulted in a halt on the subchannel

Pervasive: No

Reference: 86926

Moderate: After the join, Grid Copy to joined cluster invoked by COPYRFSH can get stuck.

Pervasive: No

Reference: 86424

Moderate: Logical volumes on cache file system are not migrated to tape.

Pervasive: No

Reference: 86163

Moderate: After a frame swap MES, incorrect pmthlvl and pmprior values calculated because of Feature Code 5274 (Enable 1TB Tape Capacity) mismatch

Pervasive: No

Reference: 84507

Moderate: LI REQ OTCNTL operation can't be stopped.

Pervasive: No

Reference: 84423

Moderate: Cache started filling and the auto removal was slow because the scratch removal candidates were small and many

Pervasive: No

Reference: 82315

Moderate: Incorrect handling of tape drive error during tape drive encryption key exchanges

Pervasive: No

Reference: 90369

Moderate: Failed to export customer defined lwik certificates needed for external disk encryption.

Pervasive: No

Reference: 90161

Moderate: Internal process threads cause deadlock

Pervasive: No

Reference: 89982

Moderate: Management interface memory leak

Pervasive: No

Reference: 89959

Moderate: CBR3750I - DRSETUP FAILED - SYNCHRONIZATION FAILED

Pervasive: No

Reference: 89871

Moderate: Add info to KC about Management Interface authentication policies

Pervasive: No

Reference: 89786

Moderate: Performance enhancements processing cache file list

Pervasive: No

Reference: 89776

Moderate: Copy Export checks format of all physical volumes in Copy Export pool and sends invalid format error message if it finds invalid format.

Pervasive: No

Reference: 89648

Moderate: Library Maintenance Mode and Online Processing

Pervasive: No

Reference: 89601

Moderate: Key server certificates are not exported to a remote cluster

Pervasive: No

Reference: 89581

Moderate: Unable to fail over to alternate EKM for tape encryption

Pervasive: No

Reference: 89558

Moderate: Copy Export error reporting

Pervasive: No

Reference: 89557

Moderate: Upgrade of the adapter code outside of TS7700 code activate

Pervasive: No

Reference: 89482

Moderate: Incorrect serial number reported after Grid join

Pervasive: No

Reference: 89455

Moderate: World wide port number not correct for Ficon port 0 on TS7770-VED

Pervasive: YES

Reference: 89388

Moderate: Mount/Unmount does not apply 3490 Counters Handling configuration change to a logical volume.

Pervasive: No

Reference: 89369

Moderate: Cleanup a touch file that was used for a work around to a mount issue

Pervasive: No

Reference: 89368

Moderate: Unable to enable DS8K Offload because statistics files had not yet been created

Pervasive: No

Reference: 89366

Moderate: Failure to enable cache encryption on new string added

Pervasive: No

Reference: 89268

Moderate: EKM IPs not displayed in Management Interface after frame migration

Pervasive: No

Reference: 89260

Moderate: Loss of access to alternate key server reported when it is not installed

Pervasive: No

Reference: 89244

Moderate: Progress of Auto Removal can be slow and enter out of cache state when Time Delayed Copy is configured

Pervasive: No

Reference: 89170

Moderate: Improve the usability of configuring Health Check Reporting

Pervasive: No

Reference: 89018

Moderate: Grid link throughput missing on the Management Interface.

Pervasive: No

Reference: 88894

Moderate: Display number of each feature key installed on SMIT display Feature Codes

Pervasive: No

Reference: 88845

Moderate: On CSB cache, code activation failed in validating that local encryption was enabled because the USB key drive was not installed.

Pervasive: No

Reference: 88842

Moderate: Display feature instance in the Management Interface feature table and exported feature list.

Pervasive: No

Reference: 88836

Moderate: Management Interface tape encryption must use IP address as workaround

Pervasive: No

Reference: 88832

Moderate: Hot swap of chaple card failed

Pervasive: No

Reference: 88763

Moderate: Old dump files that were automatically generated are not deleted

Pervasive: No

Reference: 88749

Moderate: CSB Configuration changes

Pervasive: No

Reference: 88731

Moderate: TS7700 never rebooted to recover from file system issues.

Pervasive: No

Reference: 88285

Moderate: Correct the status messaging when changing the ownership for a large group of volumes

Pervasive: No

Reference: 88268

Moderate: After code activation the Management Interface main page is not loading

Pervasive: No

Reference: 88017

Moderate: Send a message to the host when Physical Library is in a degraded state

Pervasive: No

Reference: 88009

Moderate: Management Interface event related to tape drive encryption was not automatically cleared

Pervasive: No

Reference: 87927

Moderate: BVIR output filling up a file system

Pervasive: YES

Reference: 87842

Moderate: Volume data state on Management Interface is displayed as Pending Deletion but the volume was already deleted

Pervasive: No

Reference: 87620

Moderate: Online processing did not clean up the copy queue correctly

Pervasive: No

Reference: 87600

Moderate: LDAP port change results in users unable to login

Pervasive: No

Reference: 87285

Moderate: Service-prep on a cluster did not complete due to incomplete CUIR vary-offline devices using the incorrect WWNN

Pervasive: No

Reference: 87282

Moderate: Provide construct information in dump output

Pervasive: No

Reference: 87162

Moderate: Compressed volumes using LZ4 or ZSTD do not show as compressed

Pervasive: No

Reference: 87134

Moderate: Error notification on re-insert of bad cartridge

Pervasive: No

Reference: 87100

Moderate: The number of available cells in the library is reported as 0.

Pervasive: No

Reference: 87092

Moderate: Working with planned tape library outage

Pervasive: No

Reference: 86812

Moderate: Management Interface Admin account is repopulated after code update.

Pervasive: YES

Reference: 86798

Moderate: On 16Gb Ficon adapter, compression ratio of write data is not worse than 8Gb Ficon. This issue is recreated only during Ficon compression. No problem on software compression.

Pervasive: No

Reference: 86684

Moderate: Virtual volume details not displayed correctly after copy export.

Pervasive: No

Reference: 86646

Moderate: A file handle leak in database directory cleanup code will cause various database operations to fail.

Pervasive: No

Reference: 86628

Moderate: NTC initialization failures were undetected for cluster re-numbering

Pervasive: No

Reference: 86565

Moderate: Various database changes performed during a join/merge may lead to volume ownership issues or stuck copies after issuing a copy refresh.

Pervasive: No

Reference: 86496

Moderate: Add new operator messages to let RMM know ejected and copy exported volumes information

Pervasive: No

Reference: 86467

Moderate: Add additional debug logging to frame MES scripts.

Pervasive: No

Reference: 86250

Moderate: Unexpected ownership change occurred after LI REQ COPYRFSH completes.

Pervasive: No

Reference: 86222

Moderate: User program receives unexpected wrong result from TS7700 16Gb Ficon host adapter for Read Buffer Log command to a tape device. i.e. Failure on Read Buffer Log command to the tape device.

Pervasive: No

Reference: 86210

Moderate: When cluster and URL association fails, error event message may be confusing because it does not indicate cloud container name.

Pervasive: No

Reference: 86206

Moderate: Admin user name in the Management Interface gets repopulated after a code upgrade despite being previously deleted.

Pervasive: No

Reference: 86139

Moderate: If a DDM goes into an Unresponsive State, no Management Interface event and host notification is sent out.

Pervasive: No

Reference: 86089

Moderate: Copy export recovery reports a failure at the end when it was actually successful

Pervasive: YES

Reference: 86063

Moderate: Online Reorg doesn't complete and the cluster needs to be rebooted for the recovery.

Pervasive: No

Reference: 85753

Moderate: Prioritized reclamation of a physical tape was not honored

Pervasive: No

Reference: 85431

Moderate: The /var directory on the TS7700 gets full and a call home is generated

Pervasive: No

Reference: 85312

Moderate: Dump of the database component data caught on a system call to hdb_status and cluster rebooted

Pervasive: No

Reference: 84980

Moderate: Include cluster list information in MRPD

Pervasive: No

Reference: 84621

Moderate: Add TS7700 code matrix table to copy export documentation.

Pervasive: No

Reference: 84449

Moderate: Offsite reclamation of a copy export tape fails

Pervasive: No

Reference: 84267

Moderate: Provide the customer with a knob to manage the removal of E (exists) copies

Pervasive: No

Reference: 82857

Moderate: Li Req STATUS,GRID on pre R4.0 cluster does not show status from R4.0 or later clusters.

Pervasive: YES

Reference: 81585

Moderate: The system monitoring process was not running on a cluster

Pervasive: YES

Reference: 81366

Moderate: Information regarding installed execs is lost after a cluster renumber

Pervasive: No

Reference: 81057

Moderate: Improve the efficiency of the periodic cache walk consistency checks

Pervasive: No

Reference: 80991

Moderate: Copy export merge should fail immediately if not run on the lowest level cluster in the grid.

Pervasive: No

Reference: 80129

Moderate: Unable to access LDAP after cluster join

Pervasive: No

Reference: 79550

Moderate: Prevent unnecessary LDAP delays doing IPv6 name resolution on IPv4-only networks

Pervasive: YES

Reference: 79015

Moderate: Error modifying management class when containing Portuguese characters

Pervasive: No

Reference: 76867

Service: Incorrect out of scratch presented to the customer

Pervasive: No

Reference: 89389

Service: System should not call home for 793B error code.

Pervasive: YES

Reference: 89109

Service: Security scanners complaining about missing a HTTP header that provides more protection against direct attacks.

Pervasive: No

Reference: 86636

Service: Change host alert status from serious to informational when the code generates a drive dump

Pervasive: No

Reference: 86618

Service: False out of scratch warnings for physical tape

Pervasive: YES

Reference: 85725

Service: Some SMIT actions are not sending SNMP/Rsyslog entries

Pervasive: No

Reference: 90246

Service: When confirming cache drawer installation on a VED-CSB the incorrect LEDs were illuminated

Pervasive: No

Reference: 88683

Service: Operator interventions are not closed out with the correct ID making it appear that they are still open

Pervasive: No

Reference: 87922

Service: Cache hit vs Cache Miss reported incorrectly via Management Interface

Pervasive: No

Reference: 87509

Service: Management interface not operational due to a large number of events

Pervasive: No

Reference: 87035

Service: The aix_cfg script is missing capabilities required for troubleshooting

Pervasive: No

Reference: 85054

Service: Incorrect physical tape drive location displayed when attached to 3584 tape library.

Pervasive: No

Reference: 84443

Service: PLF Library Audit (LA, X'0A') returns ERA 75 MOD1 for scratch volumes

Pervasive: No

Reference: 89141

Service: Grid core /reboot HDB logging shows current context count negative

Pervasive: No

Reference: 88240

Service: After a reboot the service personnel should get a warning to wait a set amount of time before beginning service

Pervasive: No

Reference: 87631

Service: Correct the severity of events G0005 and G0030 from informational to warning

Pervasive: No

Reference: 87071

Service: Disable Archive Mode Unthread (AMU) support on 3592 E08 and 60F tape drives

Pervasive: No

Reference: 86886

Service: Add support to display uninstalled and removed status for vtd_exec's

Pervasive: No

Reference: 89378

Service: Customers were not able to reclaim media that was > 95% used

Pervasive: No

Reference: 89007

Service: System check Incorrectly reporting logical volume issue

Pervasive: No

Reference: 87477

Service: Copy Export can time out when Offsite Reclaim is running and there is Read-Only physical volume.

Pervasive: No

Reference: 87339

Service: Unnecessary routine calls resulting in excessive logging

Pervasive: No

Reference: 87294

Service: Stand-alone dump from z/OS fails when data spans multiple tapes

Pervasive: No

Reference: 86826

Service: Process for a tape attached system being monitored under disk only systems.

Pervasive: No

Reference: 84884

Service: Mount fails because of auto removal activity

Pervasive: No

Reference: 84317

Service: Grid could not query state of other clusters resulting in a reboot

Pervasive: No

Reference: 82421

Service: Issue with parsing the stats files resulting in a segmentation fault and Management Interface reboots

Pervasive: YES

Reference: 82310

Service: Failed to eject sunset JA media

Pervasive: No

Reference: 87147

Improvement: Improve Management Interface help text to replace lwiks certificates.

Pervasive: No

Reference: 89401

Improvement: Add customer email address to TS7700 call home settings.

Pervasive: No

Reference: 87381

Improvement: Reporting of adapter information is out of order

Pervasive: No

Reference: 86827

Improvement: Customer knowledge center expire hold descriptions required updating

Pervasive: No

Reference: 86568

Improvement: Log collection may not gather all required logs

Pervasive: No

Reference: 90025

Improvement: Automatically capture a concurrent component dump during log collection.

Pervasive: No

Reference: 89882

Improvement: lall tool reports incorrect count of tape deamons.

Pervasive: No

Reference: 89682

Improvement: Failure to collect data for the gfa component

Pervasive: No

Reference: 89159

Improvement: Increase the number of Grid logs to allow for more effective data capture

Pervasive: No

Reference: 88098

Improvement: Capture additional data on write error with header 1 (HDR1) following header 2 (HDR2)

Pervasive: No

Reference: 88097

Improvement: Need to run new devscan tool to help determine MPIO issues

Pervasive: No

Reference: 87968

Improvement: Include the DEVSCAN tool on the TS7700 to allow development additional resource for troubleshooting issues with pathing to the cache

Pervasive: No

Reference: 87964

Improvement: LP code load fails on newly installed FICON adapter.

Pervasive: No

Reference: 87416

Improvement: Format trace data when data collection is running on customer setup.

Pervasive: No

Reference: 87041

Improvement: Core dump for TS7700 Removable Media Manager process occurred and the dump file was not collected by Call Home.

Pervasive: No

Reference: 85645

Improvement: Need more information gathered when a machine reboots to better understand root cause

Pervasive: No

Reference: 84679

Improvement: Disable Storage Manager Web Server to remove Java JMX exposure

Pervasive: No

Reference: 90189

Improvement: Create script to check CSB cache for bad blocks

Pervasive: No

Reference: 89849

Improvement: Install instrumentation logging to expose delays in high stress situations where full AIX message queues block callers for minutes.

Pervasive: No

Reference: 89695

Improvement: Monitor inode file system usage

Pervasive: No

Reference: 89684

Improvement: Performance enhancements processing cache file list

Pervasive: No

Reference: 89669

Improvement: Address issues with secure data overwrite on the new cache

Pervasive: No

Reference: 89345

Improvement: Alert the customer when cache partition 0 goes into an over commit state

Pervasive: No

Reference: 89336

Improvement: Management Interface resources are not handled correctly causing an invalid session

Pervasive: No

Reference: 89315

Improvement: Send SNMP trap for cache re-key operations.

Pervasive: No

Reference: 89134

Improvement: Make use of additional file system space that is available particularly for dump data

Pervasive: No

Reference: 88858

Improvement: Allow logical volume insert of up to 100K volumes

Pervasive: No

Reference: 88665

Improvement: Failed logins into Management Interface or SSH (service/enhanced) are not easily identified in Rsyslog

Pervasive: No

Reference: 87762

Improvement: NPS survey changes

Pervasive: No

Reference: 87702

Improvement: Add Host workload information to BVIR report for logical volumes

Pervasive: No

Reference: 87694

Improvement: New function - a host can only see the volumes which can be accessible from the host only through PLF-PRSD-IV

Pervasive: No

Reference: 87658

Improvement: Rsyslog host name reported in-correctly.

Pervasive: No

Reference: 87646

Improvement: New function to track memory usage by components

Pervasive: No

Reference: 87586

Improvement: Need to collect more channel path data to troubleshoot channel errors

Pervasive: No

Reference: 87454

Improvement: Slow mounts/close were experienced when using device allocation assist (DAA)

Pervasive: No

Reference: 87279

Improvement: Add recovery for physical mounts when the tape library aborts a move command

Pervasive: No

Reference: 87250

Improvement: Provide a knob to allow customers to identify that the attached tape library is in service. When exiting service improve the throttling of premigrating the data to tape.

Pervasive: No

Reference: 87029

Improvement: Allow specification of a specific volser for LIB REQ OTCNTL

Pervasive: No

Reference: 86842

Improvement: Notify host about tape library issues.

Pervasive: No

Reference: 86170

Improvement: Provide longest copy queue age (family deferred/time delayed/others (except those)) into stats.

Pervasive: No

Reference: 85465

Improvement: Management Interface needs to be updated in order to allow up to 128 excluded categories.

Pervasive: No

Reference: 85208

Improvement: Increase the number of write-protect excluded categories which customers can define from 32 to 128.

Pervasive: No

Reference: 85204

Improvement: Allow hot swap of the I/O drawer

Pervasive: No

Reference: 84871

Improvement: Tool to support field analysis

Pervasive: No

Reference: 84553

Improvement: Fencing a cluster after 30 minutes of slow cache activity is too long need the 30 minute threshold lowered to 10

Pervasive: No

Reference: 84393

Improvement: Include battery install time in MRPD

Pervasive: No

Reference: 84137

Improvement: LI REQ to force the relabeling of a physical tape on next write at beginning of tape

Pervasive: No

Reference: 84108

Improvement: Do not move the logical volume ownership by COPYRFSH and other internal functions other than the host I/O and LI REQ OTCNTL.

Pervasive: No

Reference: 84027

Improvement: New function add packet retransmission statistics to grid link statistics

Pervasive: No

Reference: 83441

Improvement: Allow delete expire to expire more than 2000/hr

Pervasive: No

Reference: 82894

Improvement: New LI REQ feature to initiate service-prep

Pervasive: No

Reference: 82404

Improvement: Provide LI REQ to get up to 40 copy jobs for various types. Also provide LI REQ to cancel copy job.

Pervasive: No

Reference: 82333

Improvement: New LI REQ feature to allow the client to set the copy queue warning threshold to a value other than ≥ 24 hours

Pervasive: YES

Reference: 79137

Improvement: vtd_execs that were installed prior to code activation are not listed

Pervasive: No

Reference: 79089

Improvement: Provide active copy job in-flight time (duration) in LI REQ, COPY, ACTIVITY.

Pervasive: No

Reference: 78950

Improvement: Allow users to change an expired password

Pervasive: No

Reference: 78803