

TS7700 Release Notes - 8.52.101.12 (R5.2 Phase 1 PGA1)

IBM System Storage TS7700

Release Notes for the TS7700 (3957 VED / VEC)

- EC: P25715 released March 25, 2022

New Function Supported:

- Quality Fixes (field and backlog)
- 1160 60F and 60G tape drives
- JE and JM media

TS7700 CODE REQUIREMENTS

| | |
|--|--|
| TS7700 | 8.52.101.12 (EC P25715, PN 02XY282, PN 02XY283, PN 02XY284, PN 02XY285 (DVD 1, 2, 3 & 4)) |
| DB2 | DB2 v11.5.4.0 Informational tokens are "DB2 v11.5.4.0", "s2006161200", "DYN2006161200AIX", and Fix Pack "0" |
| AIX Base Level | AIX 7.2.5.0 |
| AIX Fixpack | 7200-05-01-2038+06 |
| P9 Server Firmware | FW950.00 (VL950_045) |
| P8 Server Firmware | FW860.90 (SV860_226) |
| TCT | Version= 1.1.8-1281 |
| Cloud Support | IBM Cloud Object Storage System (COS) appliance solution Version 3.15.7.43 April Maintenance Release (Storage_COSS_3.15.7.43) / S3 Protocol AWS, S3 Protocol |
| TS4500 (Anaconda) Firmware | 1800-C00 |
| TS3500 (Anaconda) Firmware | H015 |
| 3592 E06 Tape Drive | D3I2_883 |
| 3592 E07 Tape Drive | D3I3_DCB |
| 3592 E08 Tape Drive | D3I4_B12 |
| 3592 60F Tape Drive | D3I5_78D |
| TSSC | 9.2.16 |
| 3956-CSB (2072-312 V5030E) 3956-CFC (2072-3N4 | 8.4.0.5 |

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|---------------------------------|--|
| V5035E) Firmware | |
| HDD (3956-CSB / 3956-XSB) | Seagate Evans Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW BCL4 |
| | Seagate Tatsu Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW lvl BCGA |
| | Seagate Mobula Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW lvl BCHB |
| SSD (3956-CFC / 3956-XFC) | Samsung 1643A SSD tier1_flash, 2.5 inch, 3.84TB, SAS 12Gb/s / FW lvl MS73 |
| 3956-CSA Firmware | 08.40.60.01 |
| Storage Manager GUI | 11.30.0A05.0037 Storage Manager GUI level |
| GKLM | 4.1.0.1 |
| Atape | 13.0.45.0 |
| GPFS | GPFS Release 5.1.0.3 |
| ITDT | 9.3.0.20181029 |
| 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 | |

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) | 8.2.3b |
| Brocade 8510-4 IBM 2499-416 (SAN384B-2) | 8.2.3b |
| Brocade 6510 IBM 2498-F48 8, 16 GB/sec (SAN48B-5) | 8.2.3b |
| Brocade 7800 IBM 2498-R06 (SAN06B-R) | 8.2.2b |
| Brocade 7840 IBM 2498-R42 (SAN42B-R) | 8.2.3b |
| Brocade X6-8 IBM 8961-F08 (SAN512B-6) | 9.0.1c,8.2.3b |
| Brocade X6-4 IBM 8961-F0 (SAN256B-6) | 9.0.1c |

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|---|---------------|
| Brocade 620 IBM 8960-F64 8960-N64 SAN64B-6 | 9.0.1c,8.2.3b |
| Brocade X7-8 IBM 8961-F78 (SAN512B-7) | 9.0.1c |
| Brocade X7-4 IBM 8961-F74 (SAN256B-7) | 9.0.1c |
| Brocade G720 IBM 8960-R64/8960-P64 (SAN64B-7) | 9.0.1c |
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| Cisco MDS9250i IBM 8977-R50 (SAN50C-R) | 9.2(1),8.5(1) |
| Cisco MDS9710 IBM 8978-E08 (SAN384C-6) | 9.2(1),8.5(1) |
| Cisco MDS9706 IBM 8978-E04 (SAN192C-6) | 9.2(1),8.5(1) |

PROBLEM FIXES:

Problems fixed in this level are described below. There are 267 enhancements/defects fixed in this release; 74 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: Grid Unjoin: Add stronger warnings about skipping consistency checks

Pervasive: No

Reference: 93035

Acute: Grid: Excessive polling for grid state information resulting in heartbeat loss between components and a reboot

Pervasive: YES

Reference: 92029

Acute: Security: Authentication issue when using local proxy

Pervasive: YES

Reference: 91991

Serious: Grid Flash Copy: Flash copy failed when lvols in mount pending

Pervasive: No

Reference: 92699

Serious: Grid Tape Attach: Memory leak in code that tracks volumes in cache.

Pervasive: No

Reference: 92355

Serious: Grid: Memory leak when opening files

Pervasive: No

Reference: 92214

Serious: Grid: Timing issues due to incorrect sequencing when calling secure socket layer (SSL) library routines

Pervasive: No

Reference: 91801

Serious: Grid: Timing issues due to incorrect sequencing when calling secure socket layer (SSL) library routines

Pervasive: No

Reference: 91741

Serious: Copy Export: Copy export can't be executed after physical library maintenance

Pervasive: No

Reference: 91292

Serious: RAS: Incorrectly fenced a cluster due to a lost cache path when it successfully switched to the secondary path

Pervasive: No

Reference: 91001

Serious: TS7700 Config: Add a warning about resizing a tape partition

Pervasive: No

Reference: 89239

Serious: Grid: Memory leak when network errors occur

Pervasive: No

Reference: 84951

Serious: Host IO: Unable to unmount a stand-alone device after host IPL

Pervasive: No

Reference: 92914

Serious: RAS: Upgrade local disk firmware fails

Pervasive: No

Reference: 92894

Serious: ACT_FINIS failed - Failed to configure network for GPFS - etc/ssh/sshd_config line 205: Subsystem 'sftp' already defined

Pervasive: No

Reference: 92882

Serious: Code Activation: Issue with increasing the size of a filesystem

Pervasive: No

Reference: 92836

Serious: RAS: Fixed issue with failed remove and replace of FCS adapter

Pervasive: No

Reference: 92817

Serious: RAS: Unable to configure ldap on ts7700 using name

Pervasive: No

Reference: 92813

Serious: Security: Server certificate is not replaced until web server is restarted

Pervasive: No

Reference: 92705

Serious: Performance: Slow filesystem response

Pervasive: No

Reference: 92648

Serious: Management Interface: Issue updating category expiration time

Pervasive: No

Reference: 92597

Serious: RAS: Need more context of what an MDE 8101 error indicates

Pervasive: No

Reference: 92534

Serious: Host IO: AIX panic when an uninitialized tape device was accessed

Pervasive: No

Reference: 92341

Serious: RAS: On CSA cache, the parser that checks for errors is creating logs so big that it is filling up the hydlog directory

Pervasive: YES

Reference: 92228

Serious: Grid: System ran out of memory and trapped.

Pervasive: No

Reference: 92227

Serious: Grid Tape Attach: Code bug when multiple physical volume reclamations are in process and a logical volume is recalled from one of those tapes. This results in a cluster rebooting

Pervasive: YES

Reference: 92164

Serious: Frame Swap: Code missing to backup to DVD RAM

Pervasive: No

Reference: 92122

Serious: RAS: System checkout not detecting when a filesystem is unmounted

Pervasive: No

Reference: 91744

Serious: Grid: Filesystem became unmounted and we failed to fence the cluster resulting in failed mounts

Pervasive: No

Reference: 91740

Serious: Cluster Renumber MES: Improve restart on a cluster renumber failure

Pervasive: No

Reference: 91641

Serious: Security: Enhance security with LDAP user information

Pervasive: No

Reference: 91586

Serious: Grid: Unable to remove a cluster from a family

Pervasive: No

Reference: 91237

Serious: Grid Tape Attach MES: Volumes written to a cluster after a Tape Attach MES was performed were written to the wrong pool

Pervasive: No

Reference: 91162

Serious: HYDME1189I and unable to logout _vts_ras id's and unable to use DNS name in RSYSLOG

Pervasive: No

Reference: 90997

Serious: RAS: After a cluster fenced and rebooted, the status checking was locked out

Pervasive: No

Reference: 90774

Serious: Grid: Reboot of a cluster in service resulted in online cluster going offline to the host

Pervasive: No

Reference: 87654

Moderate: Host Communications: Ficon panic when a write fails

Pervasive: No

Reference: 92669

Moderate: RAS: Timing issue resulted in multiple call home processes running simultaneously and resulted in a memory leak

Pervasive: No

Reference: 91973

Moderate: Database Maintenance: In a failure scenario, online reorg failed to cleanup a flag that blocked cache walk

Pervasive: No

Reference: 92350

Moderate: Grid: Timing issue when closing volumes causes a delay.

Pervasive: No

Reference: 92196

Moderate: Performance: Cache statistics queries from database slow requiring an index update

Pervasive: No

Reference: 92168

Moderate: Performance: Slow return to scratch processing requires a database index change to check LWORM values

Pervasive: YES

Reference: 92147

Moderate: Security: Issue receiving signer information for a certificate

Pervasive: No

Reference: 92888

Moderate: Management Interface: Improvements to the Web Code Updater installation

Pervasive: No

Reference: 92842

Moderate: Performance: DB2 backup checking improvements

Pervasive: No

Reference: 92523

Moderate: Cluster reboot after backward time adjustment

Pervasive: No

Reference: 92281

Moderate: Grid Tape Attach: Delayed premigration not honored during on-line transition.

Pervasive: No

Reference: 92279

Moderate: Grid BVIR: BVIR request for volume data on a 4 million volume database fails to create an output file

Pervasive: No

Reference: 92237

Moderate: RAS: fcs adapter replacement failed because of a firmware incompatibility

Pervasive: No

Reference: 92190

Moderate: Tape Attach: Add first time data capture for monitoring the physical device daemon - process died

Pervasive: No

Reference: 92117

Moderate: Grid: Local fencing of a cluster not working correctly when box is sick but not dead (SBND)

Pervasive: YES

Reference: 91943

Moderate: Grid Flash Copy: Write protect exclude categories not all identified with LIBREQ

Pervasive: No

Reference: 91936

Moderate: RAS: Call home for failed DDM need to include FRU

Pervasive: No

Reference: 91935

Moderate: RAS: vtd_exec status shows installed when it failed

Pervasive: No

Reference: 91887

Moderate: RAS: Enhance the cache path checking

Pervasive: No

Reference: 91749

Moderate: Security: Secure Data Transfer certificate validation fails after code load

Pervasive: No

Reference: 91704

Moderate: Security: MI not disabling HTTP in all cases

Pervasive: No

Reference: 91560

Moderate: Security: Permanently disable SHA1 ciphers

Pervasive: No

Reference: 91509

Moderate: Security: Can't login when box is offline.

Pervasive: No

Reference: 91060

Moderate: Security: Unable to login to MI when LDAP is enabled locally on one cluster and remote cluster is configured for local policy

Pervasive: YES

Reference: 91006

Moderate: Grid Join: Issues when setting data_deleted=Y on joining/merging cluster. Inherit value from existing cluster

Pervasive: No

Reference: 89957

Service: RAS: Disable ping to key servers

Pervasive: No

Reference: 91236

Service: RAS: Old interventions are left on the machine and resurface after a reboot reporting SERIOUS alert.

Pervasive: YES

Reference: 91135

Service: RAS: Improve handling of special characters when parsing log files for cache

Pervasive: No

Reference: 91721

Service: Tape Attach: Incorrect ERA and library status states paused when operational

Pervasive: No

Reference: 92367

Service: Security: Fixed issue resulting in SSL certificate validation failure when using client CA certificate

Pervasive: No

Reference: 91930

Improvement: Grid Join: Clarify filesystem error reasons when encountered

Pervasive: No

Reference: 92646

Improvement: RAS: After installing FC 5282 (disk encryption) FIPS compliance was registering as N

Pervasive: No

Reference: 91990

Improvement: RAS: Increase the size of /tmp filesystem for exec installation

Pervasive: No

Reference: 92818

Improvement: RAS: First time install (FTI) disable the lights on cache enclosures after a failure

Pervasive: No

Reference: 92120

Improvement: RAS: Automatically clear TS7700 MI Events for key server errors 0xEE31 and 0xEE32 when condition is corrected

Pervasive: No

Reference: 91745

Improvement: Grid Merge/Join: Merge/Join does not work with single-Use LDAP Authentication

Pervasive: No

Reference: 91402

Improvement: Grid Join: Issues when setting data_deleted='Y' on joining/merging cluster for volumes in 0xFF00.

Inherit value from existing cluster

Pervasive: No

Reference: 89506

Improvement: RAS: Add some additional error reporting

Pervasive: YES

Reference: 83706