

TS7700 Release Notes - 8.52.100.32 (R5.2 Phase 1)

IBM System Storage TS7700

Release Notes for the TS7700 (3957 VED / VEC)

- EC: P25216 released September 3, 2021

New Function Supported:

- SSD Drives for Cache (CFC/XFC)
- SSD in P9 for DS8k Object store
- Everglade 10G Grid Adapters (LW)
- CUIR1B

TS7700 CODE REQUIREMENTS

TS7700	8.52.100.32 (EC P25216, PN 02X640, PN 2XX641, PN 02XX642, PN 02XX643 (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	AIX Fix Pack 7200-05-01-2038+05
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	H010
3592 E06 Tape Drive	D3I2_883
3592 E07 Tape Drive	D3I3_DCB
3592 E08 Tape Drive	D3I4_B12
TSSC	9.2.11
3956-CSB (2072-312 V5030E) 3956-CFC (2072-3N4 V5035E)	8.4.0.2

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 lvi BCGA
	Seagate Mobula Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW lvi BCHB
SSD (3956-CFC / 3956-XFC)	Samsung 1643A SSD tier1_flash, 2.5 inch, 3.84TB, SAS 12Gb/s / FW lvi 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	13.0.42.0
GPFS	GPFS Release 5.1.0.3
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.331, vtd_exec.377, vtd_exec.901

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)	8.2.3
Brocade 8510-4 IBM 2499-416 (SAN384B-2)	8.2.3
Brocade 6510 IBM 2498-F48 8, 16 GB/sec (SAN48B-5)	8.2.3
Brocade 7800 IBM 2498-R06 (SAN06B-R)	8.2.2b
Brocade 7840 IBM 2498-R42 (SAN42B-R)	8.2.3
Brocade X6-8 IBM 8961-F08 (SAN512B-6)	9.0.0b
Brocade X6-4 IBM 8961-F0 (SAN256B-6)	9.0.0b
Brocade 620	9.0.0b

IBM 8960-F64 8960-N64 SAN64B-6	
Brocade X7-8 IBM 8961-F78 (SAN512B-7)	9.0.0b
Brocade X7-4 IBM 8961-F74 (SAN256B-7)	9.0.0b
Brocade G720 IBM 8960-R64/8960-P64 (SAN64B-7)	9.0.0b
Cisco MDS9250i IBM 8977-R50 (SAN50C-R)	8.5(1)
Cisco MDS9710 IBM 8978-E08 (SAN384C-6)	8.5(1)
Cisco MDS9706 IBM 8978-E04 (SAN192C-6)	8.4(2b)

PROBLEM FIXES:

Problems fixed in this level are described below. There are 287 enhancements/defects fixed in this release; 42 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: If any file system is above 95% usage do not allow the TS7700 to go online.

Pervasive: No

Reference: 91270

Serious: Fix Cache script to avoid executing I/O intensive mmdf command which is unnecessary.

Pervasive: No

Reference: 91464

Serious: When there is a tape library hardware problem, the TS7700 could take awhile to go into the force pause mode to direct host workloads to other clusters.

Pervasive: No

Reference: 90822

Serious: Incorrectly reporting write errors when appending LWORM logical volumes.

Pervasive: No

Reference: 89644

Serious: Improvement for copy performance.

Pervasive: No

Reference: 89599

Serious: Remove/Replace fix for server internal disk in 3957-VEC.

Pervasive: YES

Reference: 91670

Serious: Add support for more server disk drives to VTD_EXEC.365 - VEC/VED server disk drive firmware updates.

Pervasive: No

Reference: 91570

Serious: Allow 10GB Grid Ethernet Adapter remove/replace while online.

Pervasive: No

Reference: 91405

Serious: Cluster un-join falsely marking consistent volumes 'damaged'.

Pervasive: No

Reference: 91354

Serious: Enhance remove/replace for 10Gb Grid Adapter.

Pervasive: No

Reference: 91263

Serious: Call Home code is calling out a DDM that had just been replaced.

Pervasive: No

Reference: 91262

Serious: After code upgrade on a 5282-Enabled cluster, the object partition was not correctly identified.

Pervasive: No

Reference: 91240

Serious: Improve server hard disk replacement to handle un-mirrored condition.

Pervasive: No

Reference: 91225

Serious: Show Encryption Settings does not display IPP/TLS Port.

Pervasive: No

Reference: 91206

Serious: Failed to report CSB Cache DDM went offline, add First Time Data Capture logging.

Pervasive: No

Reference: 91196

Serious: Collect additional service logs for data capture.

Pervasive: No

Reference: 90906

Serious: Enhance remove/replace scripts for Fibre Adapter.

Pervasive: No

Reference: 90905

Serious: Do not restore previously deleted Management Interface user account after code update.

Pervasive: No

Reference: 90691

Serious: New FW level for CSB / CFC cache model to obtain latest fixes.

Pervasive: No

Reference: 89652

Moderate: Fixed issue where disk cache capacity is improperly reported after installing R5.1.

Pervasive: No

Reference: 91267

Moderate: Slow LDAP access validation due to IPv6 name resolution entry.

Pervasive: No

Reference: 91528

Moderate: Fix issue where DR cluster falsely takes ownership of logical volumes.

Pervasive: No

Reference: 91353

Moderate: The TS7700 Management Interface will only show a maximum of 8.79609302 TB of cache space used for an object partition even when usage is more than that.

Pervasive: No

Reference: 91258

Moderate: Panic FOE5(CT_MLE_COMPRESSION_NO_SBMCB0) happens intermittently.

Pervasive: No

Reference: 91245

Moderate: For TS7700 with DS8000 object store enabled, add support for misconfigured networks.

Pervasive: YES

Reference: 91150

Moderate: Update Customer documentation to add support for Guardium Key Lifecycle Manager (GKLM) for disk and tape encryption.

Pervasive: No

Reference: 91136

Moderate: Enhance 'Repair Fibre Paths to Cache' to try fscsi path enablement even if TS7700 is online.

Pervasive: No

Reference: 90107

Service: Report TSSC Call Home is in locked state only if more than 1 hour has passed.

Pervasive: No

Reference: 88128

Service: Add message to show user RC of Aborting procedure & RC of command called.

Pervasive: No

Reference: 91406

Service: Fixed issue where online reorg may skip index reorg

Pervasive: No

Reference: 91106

Service: Fix reporting issue for FCS Adapter, only call home if TX Power does not match specification.

Pervasive: No

Reference: 91085

Improvement: VEC/VED server disk drive firmware updates fails for disk drives with alphanumeric firmware levels.

Pervasive: No

Reference: 91601

Improvement: Update customer documentation for All Compatible Devices setting located in Physical Volume Pool Properties web page.

Pervasive: No

Reference: 91529

Improvement: Add more Cache DDM attributes to MRPD.

Pervasive: No

Reference: 91118

Improvement: Add RPM speed of DDM drives to MRPD.

Pervasive: No

Reference: 91619

Improvement: Provide capability to fence multiple clusters at a time from Management Interface.

Pervasive: No

Reference: 90895

Improvement: Added conditional to avoid activation of traps when .profile is running in the background with no terminal attached.

Pervasive: No

Reference: 90777

Improvement: Add process name and parent ID in Atape trace logs

Pervasive: No

Reference: 90704

Improvement: Allow Management class to be removed even if copy mode is sync between an existing cluster and a removed cluster.

Pervasive: No

Reference: 90301

Improvement: LWORM FICON recovery fails

Pervasive: No

Reference: 90024

Improvement: Provide capability to fence multiple clusters at a time from Management Interface.

Pervasive: No

Reference: 88667

Improvement: Increase cache configuration logging.

Pervasive: No

Reference: 88081