TS7700 Release Notes - 8.52.103.23 (R5.2 Phase 1 PGA3)

IBM System Storage TS7700

Release Notes for the TS7700 (3957 VED / VEC)

- EC: P25847 released February 10, 2023

New Function Supported:

- **None**

TS7700 CODE REQUIREMENTS

TS7700	8.53.103.23
DB2	v11.5.5.1 informational tokens are "DB2 v11.5.5.1", "s2103171200", "DYN2103171200AIX",and Fix Pack "1"
AIX Base Level	AIX 7.2.5.101
AIX Fix pack	7200-05-03-2148+02
P9 Server Firmware	FW950.0 (VL950_099)
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 3592 E07 Tape Drive 3592 E08 Tape Drive 3592 60F Tape Drive	D3I2_883 D3I3_DCB D3I4_B12 D3I5_78D
TSSC	9.3.11
3956-CSB/CFC (2072-312 V5030E) Firmware	8.5.0.5
HDD (3956-CSB) SSD (3956-CFC / 3956-	Seagate Evans Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW BCL5
	Seagate Tatsu Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW lvl BCGd

XFC)	Seagate Mobula Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW lvl BCHC
	Seagate EvansBP Non-SED 7200 rpm, 3.5 inch, 10TB, SAS 12Gb/s 4Kn / FW KCP5
	Samsung 1643A SSD tier1_flash, 2.5 inch, 3.84TB, SAS 12Gb/s / FW lvl MS73
	Samsung 1653, Flash-SSD, 12Gb/s, 2.5 inch, 3.5TB, SAS 12Gb/s FW lvl SS82
Atape	13.0.46.0
GPFS	GPFS Release 5.1.5.1
ITDT	9.5.2.20211117
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 .389 v.106

Platform Requirements Matrix

Test	Software Level
zOS	V2R4
zTPF	1.1
zVM	6.3, 6,4
zVSE	5.2, 6.1, 6.2

Test Process Support Matrix

Code Name	Processor	Channel Speed
zEC12	2827	8Gbit
zBC12	2828	8Gbit
z13	2964	16Gbit
z14	3906	16Gbit
z15	8561	16Gbit
z16	3931	16+Gbit

PROBLEM FIXES:

Problems fixed in this level are described below. There are 249 enhancements/defects fixed in this release; 69 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: IO: Periodic cache check incorrectly deleted a newly written volume

Pervasive: No
Reference: 93543

Acute: Unjoin: Removing a cluster that was cloud attached resulted in unnecessary recalls

Pervasive: No
Reference: 93581

Acute: Tape Attach: Unable to mount physical volumes for recalls
Pervasive: No
Reference: 93579

Acute: Tape Attach: Unable to recall logical volume from a secondary physical volume when the primary physical volume is damaged
Pervasive: No
Reference: 93549

Acute: Grid: Issue disabling flash copy
Pervasive: No
Reference: 91445

Serious: CACHE: VEC cache logs grew too large when errors were detected resulting in filling the filesystem

Pervasive: No
Reference: 94021

Serious: BVIR: BVIR commands fail due to a file handle leak
Pervasive: No
Reference: 93885

Serious: GRID: Issue with appending to an existing volume from a different host results in volume getting marked hot
Pervasive: No
Reference: 93878

Serious: Grid Cloud Attach: Provide the capability to recall a volume from the cloud on a cluster that is marked inconsistent
Pervasive: No
Reference: 93619

Serious: IO: Cluster went offline unexpectedly resulting in no paths to tape drives - adding first time data capture
Pervasive: No
Reference: 93365

Serious: RAS: Tracing log exceeded size and caused system to reboot
Pervasive: No
Reference: 93127

Serious: Grid: OpenSSL thread resources not managed correctly resulting in cluster reboot

Pervasive: YES
Reference: 93119

Serious: Security: When synchronizing trust stores, remote clusters are not exporting PEM files
Pervasive: YES
Reference: 92910

Serious: Grid: Back to back write of the same volume resulted in a timing issue because the volume was still locked
Pervasive: No
Reference: 92816

Serious: Grid GGM: Cluster rebooted because GGM held a database lock resulting in using all system memory
Pervasive: No
Reference: 91674

Serious: RAS: Timing issue when checking local hard drives resulted in multiple checks getting spawned
Pervasive: No
Reference: 94300

Serious: RAS: Check for deleted volumes in cache is reporting incorrect data
Pervasive: YES
Reference: 94294

Serious: RAS: Check for deleted cache volumes in the cache is looking at the wrong file

Pervasive: No
Reference: 94142

Serious: RAS: AIX reporting the wrong version of ntp.rte installed resulting in failure to configure ntp
Pervasive: YES
Reference: 94110

Serious: RAS: Add code to periodically cleanup old log files
Pervasive: No
Reference: 94047

Serious: Grid: Synchronous copy can fail with SDT if certificate issues exist.
Pervasive: No
Reference: 93738

Serious: Security: New CA lwikis certificates did not copy properly
Pervasive: No
Reference: 93647

Serious: Code Activation: Code activation is failing to discover the disks in the server due to a timing issue
Pervasive: YES
Reference: 93459

Serious: Tape Attach: Mix of Jag6 and Jag 4 drives not using Jag6 drives with empty JC/JK cartridges
Pervasive: No
Reference: 93409
Serious: Tape Attach: Physical volumes not marked full after drive conversion to Jag4 and Jag6 mix

Pervasive: No
Reference: 93408

Serious: MI: Dual control adding a new checker not working
Pervasive: YES
Reference: 93407

Serious: Copy Export: Fix timing issue that resulted in not exporting all available volumes
Pervasive: No
Reference: 93207

Serious: RAS: Add additional capabilities to identify a bad sas adapter
Pervasive: No
Reference: 93205

Serious: RAS: System dump file going to the wrong directory resulting in a full filesystem
Pervasive: No
Reference: 92718

Serious: Tape Attach: The code is incorrectly flagging logical end of media on JD cartridges resulting in underutilized tapes
Pervasive: No
Reference: 92410

Serious: RAS: Collect fresh log data when calling home with a cache issue

Pervasive: YES
Reference: 90772

Serious: Join/Merge: Reusing a cluster id on a join/merge where the new cluster with only 2 grid links when the previous had 4 links leaves the residual links
Pervasive: No
Reference: 89962

Serious: Tools: Need to provide the SSR with the ability to run the inconsistency check
Pervasive: No
Reference: 84309

Moderate: IO: Resource contention between two threads resulted in a deadlock and the cluster became sick but not dead.

Pervasive: No
Reference: 94066

Moderate: RAS: Entering incorrect IPs for an external EKM results in a memory leak
Pervasive: No
Reference: 94189

Moderate: EKM: Back-port the EKM improvements released in R5.2.2
Pervasive: No
Reference: 93963

Moderate: Grid: Outbound copy rate imbalanced between clusters in the grid
Pervasive: No
Reference: 93029

Moderate: RAS: Call home is paging space increases > 10%
Pervasive: No
Reference: 92175

Moderate: UI Dual Control: When a user with checker authority changes their password they lose checker authority
Pervasive: No
Reference: 94457

Moderate: Tape Attach: JD media fails to mount on Jag6 drive
Pervasive: No

Reference: 94184

Moderate: UI: Management class panel missing on the MI
Pervasive: No
Reference: 94124

Moderate: CACHE: Error path tried to switch to the alternate I/O path when it was unavailable
Pervasive: No
Reference: 94101

Moderate: Copy Export: Offsite Reclaims Will Not Run with JAG6 heterogeneous setup
Pervasive: No
Reference: 93608

Moderate: RAS: System check is incorrectly reporting an error when an adapter is not installed
Pervasive: No
Reference: 93585

Moderate: Config: Host throughput not getting configured correctly
Pervasive: No
Reference: 93548

Moderate: DS8K Offload: Change fileset names to lowercase to accommodate a DS8K change
Pervasive: No
Reference: 93489
Moderate: LWORM: Improve overwrite detection and reporting
Pervasive: No

Reference: 93417

Moderate: MI: Installed vtd execs are not displayed correctly
Pervasive: No
Reference: 93379

Moderate: Tape Attach: Configuration change required for flagging low on scratch media with new 1160 media
Pervasive: No
Reference: 93355

Moderate: Tape Attach: Incorrectly alerting out of scratch physical media after introducing Jag 6 drives
Pervasive: No
Reference: 93327

Moderate: RAS: Incorrectly reporting physical tape drive error when a drive is busy
Pervasive: YES
Reference: 93281

Moderate: WORM: Use julian dates for monitoring data
Pervasive: No
Reference: 93263

Moderate: LWORM: Retention time is calculated incorrectly resulting in volumes being retained twice as long as requested
Pervasive: No

Reference: 93262

Moderate: Cache MES: Correct a connection issue when performing a CSB cache MES
Pervasive: No
Reference: 93108

Moderate: Security: LDAP certificate retrieval failure
Pervasive: No
Reference: 92704

Moderate: Code Activation: Firewall rules not defined correctly when GGM is configured
Pervasive: No
Reference: 92683

Moderate: MI: Provide dual control when adding scratch categories
Pervasive: No
Reference: 91279

Moderate: Join/Merge: Join fails when the vital product data contains German characters
Pervasive: No
Reference: 90402

Service: RAS: Cache check incorrectly reporting an error during a rebuild then reporting that cache is optimal
Pervasive: No
Reference: 93915

Service: RAS: Health checks on cache incorrectly aborting due to a timing issue
Pervasive: No
Reference: 94162

Service: RAS: Add first time data capture to troubleshoot intermittent issues with certificate synchronization across the grid
Pervasive: No
Reference: 94313

Service: Unjoin: Fix a timing issue with removing the unjoined cluster from the list of active clusters in the vital product data
Pervasive: No
Reference: 91719

Service: RAS: Add certificate synchronization checking to system checks
Pervasive: No
Reference: 93826

Improvement: Unjoin: Cleanup management class settings for the cluster that was unjoined
Pervasive: No
Reference: 90665

Improvement: RAS: Collect additional logs when the system hits an abort
Pervasive: No
Reference: 93284

Improvement: RAS: Increase CSB cache logging
Pervasive: YES
Reference: 93105

Improvement: CONFIG: Increase the size of a logging filesystem
Pervasive: No
Reference: 94046

Improvement: Code Activation: Fix error in logging when increasing logging size
Pervasive: No
Reference: 93292

Improvement: Tools: Qradar only reports logins and not logouts from the TS7700
Pervasive: No
Reference: 91502