

# Intel® Rapid Storage Technology (Intel® RST) 14.8.16.1063.4 Production Version Release

27 October 2020

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## Supported Operating Systems<sup>#</sup>

**Microsoft Windows 7\***  
**Microsoft Windows 7 x64 Edition\***  
**Microsoft Windows 8\*<sup>#</sup>**  
**Microsoft Windows 8 x64 Edition\***  
**Microsoft Windows Server 2008 R2 x64\*<sup>#</sup>**  
**Microsoft Windows Server 2012 x64 Edition\*<sup>#</sup>**  
**Microsoft Windows Server 2012 R2 x64 Edition\***  
**Microsoft Windows 8.1\*<sup>#</sup>**  
**Microsoft Windows 8.1 x64 Edition\***  
**Microsoft Windows 10\*<sup>#</sup>**  
**Microsoft Windows 10 x64 Edition\***  
**Microsoft Windows 10 TH2\*<sup>#</sup>**  
**Microsoft Windows 10 TH2 x64 Edition\***

<sup>#</sup>- These OS versions pass validation testing but are not WHQL certified.

## Revision History

Date	Driver Revision	Build Number
27 October 2020	14.8.16.1063.4 PV	1063.4
31 March 2020	14.8.16.1063.3 PV	1063.3
18 March 2019	14.8.16.1063.2 PV	1063.2
22 October 2018	14.8.16.1063.1 PV	1063.1
27 April 2017	14.8.16.1063 Production Version	1063
11 April 2017	14.8.16.1063 Production Candidate	1063
18 November 2015	14.8.0.1042 Production Version	1042
12 November 2015	14.8.0.1042 Evaluation Release	1042

### Notes:

1. Known Issue is defined as a potential Intel® RST issue that has been replicated internally by the Intel® RST team but has not been root caused to be an Intel® RST defect.
2. The Intel® RST Package version is 14.8.16.1063.4. The driver version is 14.8.16.1063 and user interface version is 14.8.16.1072 and RAID OROM & UEFI version for this release is 14.8.0.2377. For Intel® RST Premium features (e.g. RAID, Intel® Optane™ memory, CPU Attached Storage), it is recommended that both the Intel® RST pre-OS and Intel® RST OS driver components are updated. Please contact your CE for further details.
3. If RTD3 is enabled, Windows can turn off disk for very short time (e.g. 20ms). The minimum off time for some disks can be much longer (even 1s). If the disk is turned on too fast, it can hang in some undefined state. RTD3 should be disabled if the disk specification states longer minimum off time.

## Resolved Issues

### Resolved Issue In 14.8.16.1063.4 Production Version Release

ID	Title	Operating System
N/A	Intel® RST Installer version updated	N/A

### Resolved Security Vulnerabilities In 14.8.16.1063.3 Production Version Release

ID	Title	Operating System
PSIRT-TA-201912-006	Intel® RST Installer Advisory Doc ID <a href="#">INTEL-SA-00324</a>	N/A
PSIRT-TA- 201810-009	Intel® RST Installer Advisory Doc ID <a href="#">604541</a>	Windows 10

### Resolved Issues in 14.8.16.1063.2 Production Version Release

ID	Title	Operating System
N/A	Intel® RST installer has been updated	N/A

#### Resolved Security Vulnerabilities In 14.8.16.1063.1 Production Version Release

ID	Title	Operating System
PSIRT-TA-201810-009	Intel® RST Installer Advisory Doc ID <a href="#">604541</a>	Windows 10

#### Resolved Issues In 14.8.16.1063 Production Version Release

ID	Title	Operating System
1804671099	During S4 cycling test the system hang on logo screen	Windows 10-64
1804735400	Block installation of driver on unsupported platforms.	All OS
1804669082	ODD missing after offline ejection during dash process	Windows 10-64
1504378391	ODD lost after installing 14.8 driver	Windows 10-64
1804333718	Intel® RST UI miss Create option in Nvdiadiscrete mode legacy boot mode with RAID enabled.	windows_7_x64
1208477546	System cannot boot to Windows if the dump is created on the system that has Dual Storage	Windows10-64
1804322496	Intel® RST will disappear from Control Panel after repair with different install kit.	windows_10_th_desktop_x64
1208262660	USB KB/MS lose function when installing Win7 to RAID mode NVME SSD.	Windows 7- 64
1208017119	Get BSOD 0xF4 when run WinPVT restart only test on Win7 OS	Windows 7- 64
1208024234	Intermediate Bluescreen error while OBE testing	Windows 10-64
1208024346	BSOD-BAD_POOL_HEADER is being seen with recent versions of the Intel RST driver.	Windows 10-64
4938969	S3 resume ODD lost issue	Win7-64
4939144	BSOD xEF occurred while running S3 only	Windows 10-64
4939030	BSOD(0XA0) occurred after creating recovery volume and entering S4.	Win7-64
4938827	The percentage of the building RAID 1 process will not auto change until click 'Rescan' button in RST UI	Windows 10-64

4939130	System will hang up with black screen when resuming from S3.	Windows 10-64
4939079	Long time to sleep or resume(S3/S4) from system	Windows 10-64
4939072	Duplicated disks in CSMI_SAS_RAID_CONFIG_BUFFER during rebuild	Windows 10-64
4939084	Problem with CSMI_SAS_RAID_CONFIG ioctl during volume verify and repair	Windows 10-64
4939050	The installer does not update driver on clean installs.	All OS's
4938904	Certain model SSDs have increased power consumption	Windows 10-64
4938930	1e BSOD during S5/Reboot	Windows 10-64
4939074	RST 14.8.1.1043 system will show INACCESSIBLE_BOOT_DEVICE with NVME SSD RAID config,	Windows 10-64
4938911	NVMe APST Registry Function Fail in S3/S4 Resume	Windows 10-64
4938854	BSOD 0x1E occurred at shutdown system after removing disk 0 of RAID-1 array	Windows 8 - 64
4938838	RST does not process some HPA Security Commands	Windows 10-64
4938804	Two disks labeled as system disk in RST UI	Win7-64
4938874	Win7 System will hang when finish disk schedule error checking with M.2 PCIeNVMe SSD	Win7-64, Windows 10 - 64

**Resolved Issues In 14.8.0.1042 Production Version Release**

ID	Title	Operating System
4938355	ODD tray periodically ejects when ZPODD is enabled.	Windows 10-64
4938654	Loading IRST driver shows BSOD on Win7 installation.	Win7-64
4938771	CSMI_SAS_PHY_INFO cannot be obtained on some chipsets.	Win7-64, Windows 10 - 64
4938884	OS crash when SCSI VERIFY command with LBA on RAID and SRT configurations	Windows 10-64
4938858	Intermittent BSOD DRIVER_IRQL_NOT_LESS_OR_EQUAL	Windows 10-64
4938546	Disk name is not correct in the Device manager.	Win7-64
4938802	DRIVER_IRQL_NOT_LESS_OR_EQUAL when reboot test on win10 RAID0/1	Windows 10-64
4938828	Cannot Install Win7 OS with M.2 G2 PCIeSSD and 4G memory	Win7-64
4938732	There is a BSOD under S3/S4 stress test overnight.	Windows 10-64
4938702	WHQL, System - Sleep and PNP (disable and enable) with IO Before and After	Win7-64
4938448	Updating timeout value for SATA command initialize, set to 50ms	Windows 10-64
4938730	No bootable Device found failure occurs during warm boot cycling in RAID mode	Windows 10-64
4938615	7E caused by iaStorA during cold boot stress test	Windows 10-64
4938936	Accelerated drive's serial number is changed after create SRT and restart	Win7-64, Windows 10-64, Windows 8 - 64
4937847	Selecting option "Enable volume write-back cache" blocks creation Recovery volume.	Windows 8 - 64
4938497	No performance improvement for M2 PCIe SSD after re-mapping	Windows 10-64
4938585	IOCTL return incorrect port number after SRT volume delete	Windows 10-64
4938765	NVMe responsiveness too slow on SKL RVP10	Windows 10-64
4938806	Intermittent BSOD during reboot stress test with 3 PCIe remapping NVMe 3DR0 configuration	Windows 10-64
4938815	BSOD after S3 on remapped system	Windows 10-64, Windows 8 - 64
4938742	Incorrect data received from IOCTL when using remapped disk AHCI and NVMe at the same time	Windows 10-64

4938634	Invalid maximum cache size in UI (up to 64 GB)	Windows 8 - 64
4938711	Unmap when miniports buildIO or startIO returns FALSE	Win7,Win7-64, Windows 10,Windows 10-64,Windows 8, Windows 8 - 64
4937992	Trim doesn't work on RAID0 on SATA SSD disks	Windows 8 - 64
4938189	Extremely low performance during copying file to RAID volume	Windows 8 - 64
4938206	BSOD 0x9F occurred as reboot system after finishing Burn-in tool (4 hours) (add HDD R/W loading) test	Windows Server 8 - 64
4938456	It cannot be built-up Recovery volume in IRST when the secondary hard drives size is the same as the prim	Win7-64
4938562	SCSI Compliance Test 2.0 fails with NVMedisks	Windows 10-64
4938569	SCSI Compliance Test fails with SRT Configuration	Windows 10-64,Windows 8 - 64
4938585	IOCTL return incorrect port number after SRT volume delete	Windows 10-64
4938614	SCSI Compliance Test fails with SRT Configuration	Windows 10-64,Windows 8 - 64
4938259	BSOD during OS start with incomplete RAID volume	Windows 10-64,Windows 8 - 64
4937872	Two drives marked as "System drive" in RST UI	Windows 8 - 64
4938408	Unable to create cache on remapped device on port 7	Windows 10-64,Windows 8 - 64
4938416	[SRT] File copy is slow when cache is 100% full	Windows 10,Windows 10-64,Windows 8,Windows 8 - 64
4938454	Two drives marked as "System drive" in RST UI	Windows 8 - 64
4938408	Unable to create cache on remapped device on port 7	Windows 10-64,Windows 8 - 64
4938398	No image is shown after returning from S4 state	Windows 8 - 64
4938364	RAID 5 Crash dump is not created on RST driver	Windows 10-64

## Known Issues

Known Issues In 14.8.16.1063.3 Production Version Release		
ID	Title	Operating System
4937196	"Offline" disk shows up as "Normal" after reinserting back into system while RAID is rebuilding and restarting system	Win7-64,Windows 8 - 64, Windows 8 – 64
4937432	30-second timeout will cause BSOD 0x133	Windows 8 – 64
4937145	7B BSOD after locking the HDD as part of a SDR0 using Win7 x64	Windows 7-64
4628030	After configuring SRT and conducting Dirty Shutdowns error: Unable to find System Disk	Windows 8
4936925	After multiple iterations of Hybrid S3 or S4, the sleep utility .tool indicates errors	Windows 8 – 64
4937109	BSOD 9f occurs when a passthru certain PCIe-AHCI SSD is attached.	Windows 8 – 64
4936935	BSOD D1 when entering Hybrid Sleep on a HDD OS accelerated by PCIe-AHCI device	Win7-64
4938938	BSOD during reboot after install driver 14.6.0.1029 with Windows 10	Windows 10-64
4938185	Bad block fail on AHCI PCIe raid1	Windows 10
4937470	Cache fail results in hangs/BSOD	Windows 8
4937364	ATAPI devices are reported to SecPort and we try to read metadata off the disks causing unexpected behavior	Win7,Win7-64,Windows 8, Windows 8 - 64,Windows 8, Windows 8 – 64
4937835	Data is lost if it is written to a volume just before the device is 'reset to available'	Windows 8 – 64
4937749	Data on drive which contains a Recovery and EFI System partitions is not deleted when creating a RAID volume	Windows 8 – 64
4937895	Deleting RAID volume: unknown error message but the volume is still deleted	Windows 8 – 64
4937712	Disk Drive model Changed after SRT Enabled	Windows 8 - 64,Windows 8 – 64
4937874	Disk Events section is incomplete for At risk (SMART event) state	Windows 8 – 64
4630336	Dual disk and SSHD fails to reach 90% iSct spin down	Windows 8 – 64
4159914	Enabling TRIM on SRT volumes on Win8 causes significant performance degradation	Windows 8,Windows 8 - 64, Windows Server 8, Windows Server 8 – 64
4937750	Error occurs when sending smart ioctls from ioctl_scsi_miniport	Windows 8
4937761	Error when deleting volume during or after rebuild has completed (ROHI enabled)	Windows 8 – 64

4937893	Match Disk SystemDisk on disks with system raid	Windows 8 – 64
4937987	File copy from ATAPI device to RAID volume does NOT finish properly if SX states are entered during the copy process	Windows 8 – 64
4938267	Get features wrong buffer size expected	Windows 8 – 64
4937891	Hot unplugging SSD SATA disk is not reflected after disk refresh operation is done	Windows 8 – 64
4937304	BSOD when rebuilding volume with ROHI enabled	Windows 8 – 64
4938609	Inconsistent average I/O response time on some NVMe drives	Windows 8 – 64
4629502	Intel RRT manual volume is in Normal State after rebuild but should be BrokenClone	Win7-64
4937909	Ioctl GetSetCapabilities with SubFunctionGetSpeed fails on SKL platforms	Windows 8 – 64
4630214	Maximum Volume size during a boot session is incorrect	Win7-64
4629183	Memory Footprint ends earlier with errors when RST Caching enabled	Windows 8 – 64
4938105	NVME queryTemperatureInfo wrong buffer size expected	Windows 8 – 64
4936673	No timeout for a device that does not enumerate and stalls the OS boot process	Windows 8 - 64, Windows 8 – 64
4160462	Nvm cache mode does not change when requested	Windows 8 – 64
4937083	OS Spin down of matrix RAID volumes causes hang	Windows 8 – 64
4937441	PNP removal of our driver by disabling Intel's AHCI controller through device manager	Windows 8 – 64
4937068	ROHI: SMART Event disk rebuilding after system reboot of successful Raid 1 creation	Win7-64, Windows 8 - 64, Windows 8 – 64
4937837	RST UI drive icon does not reflect the drive's state properly in some cases	Windows 8 – 64
4938308	RST un-installer doesn't recover original Windows register settings what can have OS performance impact	Windows 10-64
4938390	Remapped Sata Express Shut down/ restart issue	Windows 10
4937816	RVP10: Cannot mark eSata disk as spare	Windows 8 – 64
4937911	SSD SATA is seen as HDD after unplugging HDD and plugging in SSD	Windows 8 – 64
4937452	SSHD sequential cut off percentage is incorrect	Windows 8 – 64
4938933	Secure boot causes problems with RST	Windows 10-64
4937630	PCI-E SSD custom space defaults at 64 GB, even if the drive has less than 64 GB of space left	Windows 8 – 64
4937286	UI Writeback Cache checkbox (Advanced tab) disabled during Irrt volume creation	Windows 8
4937358	BSOD when clicking "Hide recovery disk files" actionable link with On request RRT Volume.	Windows 8 – 64
4937399	System drive is not displaying or being	Win7, Win7-64



	recognized in RST UI	
4937829	Unable to create raid with OS disk	Windows 8 – 64
4630520	Unexpected Surprise removal during hybrid sleep cycles resulting in BSOD 0x7A	Windows 8 – 64
4937897	Volume initialization info inconsistency	Windows 8
4937903	Volume rebuild problems for replugged disk	Windows 8
4937936	Cannot set password on disk from RAID 1 volume	Windows 8 – 64
4938720	Special characters during creating volume inside Name text box are accepted but should not.	Win7-64,Windows 8 –64
4938697	APST disabling sometimes doesn't work	Windows 10-64
4938111	DevSlpRegEditTool creates reg keys with invalid disk product_id	Windows 10-64
4938774	Disk form factor is set incorrectly	Windows 10,Windows 10-64
4938733	TimeOut when upgrading firmware while OS disk is under pressure of HeavyIOs	Windows 10-64
4938627	Invalid APST parameters values sometimes set on platform	Windows 10-64,Windows 8 – 64
4938288	It is not possible to Enable write caching on the device on remapped NVMe disks	Windows 10-64,Windows 8 – 64
4938094	Intel RST Menu is accessible on legacy BIOS settings	
4938878	PCIe link speed information is not updated in RST UI after exiting S3	Windows 8 – 64
4938441	Copying speed from accelerated OS drive to other SSD drops	Windows 10-64
4938782	cannot unlock hard drive after creating RAID	Windows 8 – 64
4938302	RCfgSata does not allow to re-use 'Available' Cache to accelerate disk	
4938410	Disk is locked/unlocked after back from S4 with password enter/not enter	Windows 8 – 64
4938940	RCfgSata don't allow create cache volume with SSD /pcie AHCI disk after creating RAID0 or RAID1 (2HDD disks)	
4938839	RCfgSata returns incorrect disk's ID when Mark disk as spare	
4938275	RAID0 created using legacy OROM missing metadata on one of the drives	Windows 8 – 64
4938766	Cannot delete RRT (Recovery) volume when RTD3 is enabled in BIOS	Windows 10-64
4938393	RAID1 is not automatically rebuilding after connecting a passthru disc to platform	Windows 8 – 64
4938368	Performance drops to 0 bytes/s when disk management is opening	Windows 10-64
4938597	Very low performance on PCIe NVMe in interposer	Windows 10-64, Windows 8 – 64
4938936	Accelerated drive's serial number is changed after create SRT and restart	Win7-64, Windows 10-64, Windows 8 – 64
4938848	RST CLI cache warming is not working as expected.	Windows 10-64
4938421	inconsistent naming convention	Windows 8 - 64,

	when PCIe drives engaged	Windows 8 – 64
4937082	not all expected TRIMs occurring on SRT	Windows 8 – 64
4938800	SRT bsods on multiple cache create+cache full	Windows 10
4938246	PCIe NVMe SSD 2DR0 (2-disk RAID 0) performance lower than pass-through single SSD	Windows 8 – 64
4938346	RAID w/ PCI SSD Group1~3, then the RAID configuration HDD cannot boot after install OS.	Windows 8 – 64
4938689	Two pcie storage RAID0 unable to S3/S4 aging.	Windows 8 – 64
4938705	The system can't find the PCIE SSD on RAID Mode.	Windows_10_mobile_x64 4
4938907	System crash with maximized mode SRT reboot stress test over night	Windows 8 – 64
4938929	Loading RST driver would have BSOD when installing Win10 from the specific ODDs	Windows 8 – 64
4938854	0x1E occurred at shutdown system after removing disk 0 of RAID-1 array	Windows 8 – 64
4938847	System will BSOD with code_Unexpected Store Exception When Stress Overnight	Windows_10_mobile_x64 4
4938928	BSOD occurs when system left idle about 5-10minutes with NVMe+RAID	Windows_10_mobile_x64
4938716	System BSOD after idle about 10mins.	Windows_10_mobile_x64
4938557	S4 hang black screen with WD 2DR0 / 3DR5	Windows 8 – 64
4938874	Win7 System will hang when finish disk schedule error checking with M.2 PCIe NVMe SSD	Win7-64
4938797	BSOD 0x154 when run 3Dmark11 or SAS Hybrid shutdown	Windows_10_mobile_x64

