

Intel® Rapid Storage Technology (Intel® RST) 16.8.3.1003.3 Production Version Release

16 July 2020

DISCLAIMER: Information in this document is provided in connection with Intel products. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty relating to sale and/or use of Intel products, including liability or warranties relating to fitness for a particular purpose, merchantability or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, lifesaving, or life-sustaining applications.

Intel may make changes to specifications and product descriptions at any time, without notice.

Contact your local Intel sales office or your distributor to obtain the latest specifications before placing your product order. * Other names and brands may be claimed as the property of others. Copyright © Intel Corporation 2000-2019

Supported Operating Systems#

Microsoft Windows 10 x64*

Microsoft Windows Server 2016 x64 Edition*

#- The OS support list referred here is a high-level OS support list for this release. However support varies by platform. Please refer the platform POR for the respective platform OS support.

Revision History

Date	Driver Revision	Build Number
16 July 2020	16.8.3.1003.3 Production Version (revised)	1003

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 RAID OROM & UEFI version for this release is 16.0.2.3402, the driver version is 16.8.3.1003 and the user interface version is 16.8.3.1007, HSA app version is 16.10700.1016.0.
3. **Security update:** Intel® RST 16.8.3.1003 driver has been updated to include functional and security updates. Users should update to the latest Intel® RST version. Users should update to the latest Intel® RST version.
 - Configuration Impacted: Intel® Optane Memory volume – 32 GB and higher.

Supported Hardware

Initial Intel® RST Release Version	Chipset Name	Platform / PCH / (Segment)	PCH SKU Details
16.x	Intel® 300 Series Chipset Intel® X299 Chipset Mobile Intel® 300 Series Chipset Mobile Intel® CM246 Chipset	Desktop	Intel® H310 Chipset ^(A) Intel® Q370 Chipset Intel® H370 Chipset Intel® B360 Chipset ^(O) Intel® Z370 Chipset Intel® Z390 Chipset
		High End Desktop	Intel® X299 Chipset
		Workstation	Intel® C246 Chipset
		Mobile	Intel® HM370 Chipset Intel® QM370 Chipset Intel® CM246 Chipset
N - 1			
	Intel® H110 Chipset Intel® 200 Series Chipset Intel® C236 Chipset Mobile Intel® 100 Series Chipset Mobile Intel® CM238 Chipset	Desktop	Intel® H110 Chipset ^(A) Intel® Q250 Chipset ^(O) Intel® H270 Chipset Intel® B250 Chipset ^(O) Intel® Z270 Chipset
		Workstation	Intel® C236 Chipset
		Mobile	Intel® HM175 Chipset Intel® QM175 Chipset Intel® CM238 Chipset

^(A) This base SKU of the chipset supports AHCI mode only

^(O) This base SKU of the chipset supports both AHCI and Intel® Optane™ memory modes only (nonRAID)

^{SX} This SKU is supported with SKL-X CPU only

Resolved Issues

Resolved Issues in 16.8.3.1003.3 Release

ID	Title	Operating System
1809173089	Creating RRT volume does not properly warn the user about data lost	windows.19h1.x64
18011777242	Users click on popup that initiate RRT Volume creation mistakenly on a recovery drive that has data/partition that appears randomly on some systems and inadvertently lose data on Recovery drive	windows.10_rs5.x64, windows.10_th.x32, windows.19h1.x64, windows.20h1_vibranium.x64
PSIRT-TA-201912-006	Intel® RST Installer Advisory Doc ID INTEL-SA-00324	N/A
1807075518	Shell extension INF validation reports error	windows.10_rs5.x64
1806474992 1805898415 1806665709 1806668684	Driver issue with Intel Optane memory enabled systems with Intel Rapid Storage Technology (RST) driver v.16.0.x, 16.5.x, or 16.7.x may potentially cause the loss of end user data or render a system inoperable TA CDI #604382	windows.10_rs4.x64
1806486353	RST Installers to inject driver to recovery partition	windows.10_rs4.x64
1806668676	Add HfcDisableService.exe service to run DISM tool	windows.10_rs4.x64
1806265299	Certain NVMe SSDs cannot be detected after installing Windows 10 RS4 w/RAID mode using F6 driver loading.	windows.10_rs4.x64
1806347440	Intel® RST 16.5.0.1030 will cause BSOD with NVMe drives with more than 32 MSI-X	windows.10_rs4.x64
1806301640	DPM installation failure is observed with 32G Intel® Optane Memory	windows.10_rs4.x64
1806416498	Uninstall "Intel® Optane Pinning Explorer Extensions" will cause Windows Explorer hang.	windows.10_rs4.x64
1806349753	High CPU Utilization while system idle with Intel® Optane™ memory Disabled (explorer pinning feature re-enabled which was disabled in RST 16.7.0.1009 because of this issue)	windows.10_rs4.x64

*: Resolve issues were the comparison to 16.7.0.1009

Known Issues

Known Issues in 16.8.3.1003 Production Version Release

ID	Title	Operating System
1805815700	Sporadically restart option not showing, After enabling/disabling Intel® Optane™ Memory with one click installer	windows.10_rs3.x64
1604306111	BSOD is observed during Shrink of Disk Partition (C:) drive after enable Intel® Optane™ Memory before Restart the SUT	windows.10_rs1.x64
1806916393	Lower performance (S4 suspend time and S4 resume time) for user experience at RAID 0 than non-RAID	windows.10_rs4.x64

1807075852	L10N Chinese Traditional OS Intel® RST driver not translate into target language	windows.10_rs5.x64
1807076607	After enable/disable Intel® Optane™ Memory volume and can't restart from HSAGUI when the app download from Microsoft Store (0XA0010064).	windows.10_rs5.x64
1806514730	When S3 or shutdown, the system run will black screen/BSOD with certain HMB PCIE M.2 SSD	windows.10_rs4.x64
1806301478	RAID Volume have lost after load f6 driver during RS4 OS installation	windows.10_rs4.x64
1806420500	OS DRIPS percentage is low when PSON is enabled on the system with OPTANE+HDD as boot media.	windows.10_rs4.x64
1806343993	Standby performance test result in S3 suspend violate certain spec.	windows.10_rs4.x64
1806255084	Create tab of IRST UI Stopped Working with NVMe SSD on CPU attached storage present along with other drives and remapping disabled	windows.10_rs4.x64
1806420548	UI setup screen only shows 60GB Optane even though using a 64GB module.	windows.10_rs4.x64
1806021177	BSOD DPC_WATCHDOG_VIOLATION (133) [in SATA] during S4 flow when Optane is enabled	windows.10_rs4.x64
1407988477	ODD is not powered off if ODD tray is closed after system enters modern standby	windows.10_rs4.x64
1806502232	Blue screen may occur during reboot after dirty shutdown happens in the optane volume enabling process. (RS5 only)	windows.10_rs5.x64
1806123397	The display problem of "Intel Optane Memory" in iRST	windows.10_rs4.x64
1806382332	BSOD "DPC_WATCHDOG_VIOLATION"(113) when run MS	windows.10_rs4.x64
1806536312	TBT3 PCIe Box is attached and unattached, disk device will be delayed to disappear in DM after un-plugging.	windows.10_rs4.x64
1806426523	The system occurred BSOD with bug check code 0x9F (DRIVER_POWER_STATE_FAILURE) during S3 on certain systems.	windows.10_rs4.x64
1806148650	[RSTCLI]System can't deconfig optane in WinPE if optane been configured intermittently	NA
1305911397	Some character is not in simplified Chinese with Intel Optane Memory UI.	windows.10_rs4.x64
1806301405	[HP WorkStation] ODD serial number shows Not Available in IRST UI.	windows.10_rs4.x64
1806518703	SLP_S0 residency can't meet 95% for monitor MS by PHM for at least 4 hours.	windows.10_rs4.x64

Terminology

Common Terms and Acronyms	Definition
AEN	Asynchronous Event Notification

mSATA	Computer bus interface that connects host bus adapters to mass storage devices such as hard disk drives and optical drives. Uses PCI Express Mini Card-like connector that is electrically SATA.
NAI	Notification Area Icon
NTFS	NT File System
NVC	Non-Volatile Cache
NVMe*	Non-Volatile Memory Express: Non-Volatile Memory Host Controller Interface Specification (NVMHCI), is a specification for accessing solidstate drives (SSDs) attached through the PCI Express (PCIe*) bus
OEM	Original Equipment Manufacturer