

Virtio-win RHEL7.3 Vioscsi Test Plan

1 Introduction

virtio-scsi is a virtualized storage stack for KVM. It overcomes virtio-blk limitations and supports advanced SCSI hardware. It has high performance as keeping the efficient design of virtio-blk. Its feature set depends on the target, not on virtio-scsi. It has multiple target choices, effective scsi passthrough, almost unlimited scalability and a drop-in physical disk replacement.

This plan is designed to cover the functions (install/reinstall/reboot/shutdown), capacity, stability (stress/pm), performance, related operation (migration/hot plug/hot unplug), to ensure the function and related feature work well as designed.

2 Driver Mapping table

Directory	Support OS
Install\Wlh	Windows Vista, Windows 7, Windows 2008, Windows 2008R2 (x86- 32bit, \amd64 - 64 bit)
Install\Win8	Windows 8 ,Windows 8.1 ,Windows 2012 ,Windows 2012R2,win2016
Intall\Win10	Windows 10

3 Configuration Matrix

Matrix		
Disk format	raw	qcow2
Chipset	pc	q35
bios	seabios	UEFI
Disk type	File Image	Virtual Block Size
multi-queue	on	off
virtio1.0	on	off

4 Test Requirement

Function Test Requirements

Virtio-win RHEL7.3 Vioscsi Function Test Requirement

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WHQL Test Requirements


Virtio-win RHEL7.3 Vioscsi WHQL Test Requirement

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5 Test Scenarios

* Installation Tests:


RHEL7-5510 - [virtio-win][vioscsi] install virtio scsi driver(in floppy) during guest installation

[ Needs Update]


RHEL7-5511 - [virtio-win][vioscsi] install virtio scsi driver(in floppy) on preinstalled guest

[ Needs Update]


RHEL7-5512 - [virtio-win][vioscsi] install virtio scsi driver(in iso) during guest installation

[ Needs Update]


RHEL7-5513 - [virtio-win][vioscsi] install virtio scsi driver(in iso) on preinstalled guest

[ Needs Update]

RHEL7-5514 - [virtio-win][vioscsi] Install/boot a kvm guest through virtio-scsi DVD/CD-ROM

[ Needs Update]

RHEL7-5515 - [virtio-win][vioscsi] Install/boot guest with Max image size over qcow2/raw


[ Needs Update]

RHEL7-5480 - [virtio-win][vioscsi] create lvm on scsi device and install guest


[ Needs Update]

* Migration tests


RHEL7-5481 - [virtio-win][vioscsi] do migration after/while do iozone/iometer

[ Needs Update]


RHEL7-5482 - [virtio-win][vioscsi] do migration after/while do Crystal disk mark

[ Needs Update]

RHEL7-5493 - [virtio-win][vioscsi] do migration after hot plug vdisk

[ Needs Update]


RHEL7-5494 - [virtio-win][vioscsi] do migration after hot remove vdisk

[ Needs Update]

RHEL7-37563 - [virtio-win][vioscsi] do migration when vioscsi driver is enabled

[ Draft]

RHEL7-5541 - [virtio-win][vioscsi] change cd image when guest running + migration


[ Needs Update]

* Power management tests


RHEL7-34950 - [virtio-win][vioscsi] Reboot guest when vioscsi driver is installed

[ Needs Update]


RHEL7-34949 - [virtio-win][vioscsi] Shutdown guest when vioscsi driver is installed

[ Needs Update]


RHEL7-5522 - [virtio-win][vioscsi] reboot guest after/while doing iozone

[ Needs Update]


RHEL7-5523 - [virtio-win][vioscsi] reboot guest after/while running Crystal disk mark w/ cache=none

[ Needs Update]


RHEL7-5532 - [virtio-win][vioscsi] shutdown guest after/while doing iozone

[ Needs Update]


RHEL7-5533 - [virtio-win][vioscsi] shutdown guest after/while running Crystal disk mark w/ cache=none

[ Needs Update]

RHEL7-5524 - [virtio-win][vioscsi] reboot/shutdown after online enlarge virtio scsi disks

[ Needs Update]

RHEL7-5525 - [virtio-win][vioscsi] reboot/shutdown guest after online shrink virtio scsi disks

[ Needs Update]

* Hot plug/unplug tests

RHEL7-5503 - [virtio-win][vioscsi] Hot-plug a virtio scsi storage to guest and do basic read/write

[ Needs Update]

RHEL7-5504 - [virtio-win][vioscsi] Hot-plug multiple virtio scsi storages

[ Needs Update]

RHEL7-5505 - [virtio-win][vioscsi] Hot plug vdisk+stop/cont

[ Needs Update]

RHEL7-5506 - [virtio-win][vioscsi] hot plug virtio-scsi CD-ROM

[ Needs Update]

RHEL7-5507 - [virtio-win][vioscsi] Hot plug virtio-scsi/virtio-blk disks in turns

[ Needs Update]


RHEL7-5508 - [virtio-win][vioscsi] Hot remove a virtio scsi storage from guest

[ Needs Update]


RHEL7-5509 - [virtio-win][vioscsi] hot unplug vdisk+stop/cont

[ Needs Update]

RHEL7-5492 - [virtio-win][vioscsi] hot unplug virtio-scsi CD-ROM

[ Needs Update]


RHEL7-5490 - [virtio-win][vioscsi] Hot unplug virtio-scsi/virtio-blk disks in turns

[ Needs Update]


RHEL7-48425 - [virtio-win][vioscsi] Hot unplug virtio-scsi/virtio-blk disks in turns

[ Draft]


RHEL7-5542 - [virtio-win][vioscsi] Hot plug/unplug of snapshot device

[ Needs Update]


RHEL7-5491 - [virtio-win][vioscsi] block_resize a datadisk then hot-unplug it

[ Needs Update]


RHEL7-5495 - [virtio-win][vioscsi] do block_resize after hotplug a disk

[ Needs Update]


RHEL7-5520 - [virtio-win][vioscsi] Reboot and system_reset guest after hot-plug device

[ Needs Update]

RHEL7-5521 - [virtio-win][vioscsi] Reboot and system_reset guest after hot-unplug the block device

[ Needs Update]

RHEL7-5526 - [virtio-win][vioscsi] repeated hotplug/hot-unplug while the device is busy serving I/O

[ Needs Update]

RHEL7-5527 - [virtio-win][vioscsi] repeated hotplug/hot-unplug while the device is not busy serving I/O - controller

[ Needs Update]

RHEL7-5531 - [virtio-win][vioscsi] Shutdown and system_powerdown guest after hot-unplug the block device

[ Needs Update]

RHEL7-5547 - [virtio-win][vioscsi] Shutdown and system_poweroff guest after hot-plug the block device

[ Needs Update]

* Packaging and signature tests

RHEL7-5489 - [virtio-win][vioscsi] Disable/Enable vioscsi driver

[ Needs Update]


RHEL7-5496 - [virtio-win][vioscsi] Disable/Enable vioscsi driver within guest and shutdown&reboot

[ Needs Update]


RHEL7-37564 - Check the driver version after vioscsi is installed

[ Draft]


RHEL7-5535 - [virtio-win][vioscsi] Use "sigverif" Utility to verifying driver safety

[ Needs Update]


RHEL7-5536 - [virtio-win][vioscsi] use signtool.exe to check whether the virtio scsi driver is digital signed(files located in iso/floppy/src package)

[ Needs Update]


RHEL7-34951 - [virtio-win][vioscsi] Stop/Cont guest when vioscsi driver is installed

[ Needs Update]


RHEL7-26481 - [virtio-win][vioscsi] stop/cont guest while running iozone

[ Needs Update]

RHEL7-5534 - [virtio-win][vioscsi] upgrade/downgrade vioscsi driver

[ Needs Update]

RHEL7-5938 - [virtio-win][vioscsi]install/uninstall vioscsi driver within guest.


[ Needs Update]

* Driver functional tests:

RHEL7-34961 - [virtio-win][vioscsi] passthrough generic scsi device with sg_dd testing

[ Needs Update]

RHEL7-34962 - [virtio-win][vioscsi] test the passthrough host DVD/CD via scsi-generic

[ Needs Update]

RHEL7-34963 - [virtio-win][vioscsi] scsi-generic testing with cache option

[ Needs Update]

RHEL7-5483 - [virtio-win][vioscsi] change cd image(non-exist/other image) during guest are running

[ Needs Update]

RHEL7-5484 - [virtio-win][vioscsi] Burn host CD/DVD-CDROM

[ Needs Update]

RHEL7-5485 - [virtio-win][vioscsi] Boot guest with virtio scsi disks [N:1]

[ Needs Update]

RHEL7-5486 - [virtio-win][vioscsi] Boot guest with virtio scsi disks [N:M]

[ Needs Update]


RHEL7-5487 - [virtio-win][vioscsi] boot guest with multi virtio-scsi devices on different targets

[ Needs Update]


RHEL7-5500 - [virtio-win][vioscsi] boot guest with multi virtio-scsi devices on the same target

[ Needs Update]


RHEL7-5501 - [virtio-win][vioscsi] boot guest with readonly hard drive

[ Needs Update]


RHEL7-5516 - [virtio-win][vioscsi] run iometer on multiple virtio scsi disks at the same time

[ Needs Update]

RHEL7-5517 - [virtio-win][vioscsi] online enlarge and shrink virtio-scsi system disk

[ Needs Update]

RHEL7-5518 - [virtio-win][vioscsi] online enlarge and shrink virtio-scsi data disk

[ Needs Update]

RHEL7-5519 - [virtio-win][vioscsi] passthrough (local)

[ Needs Update]

RHEL7-5530 - [virtio-win][vioscsi] serial number check(limited to 20 characters)

[ Needs Update]


RHEL7-5537 - [virtio-win][vioscsi][msi]Checking default MSI default value while guest with virtio scsi disk

[ Needs Update]

RHEL7-5538 - [virtio-win][vioscsi][msi]Disable MSI from registry within windows guest

[ Needs Update]

RHEL7-5539 - [virtio-win][vioscsi][msi]Set vectors=0 to cli in order to disable MSI/MSI-X

[ Needs Update]


RHEL7-5540 - [virtio-win][vioscsi]Boot guest with virtio scsi disks [1:N]

[ Needs Update]

RHEL7-5543 - [virtio-win][vioscsi]run fio on data disk

[ Needs Update]

RHEL7-5544 - [virtio-win][vioscsi]run iometer on data disk

[ Needs Update]

RHEL7-5548 - [virtio-win][vioscsi][1214568]Add WMI facility to check the virito-scsi mq enabled

[ Needs Update]

RHEL7-32200 - [virtio-win][vioscsi] passthrough (cdrom)

[ Needs Update]

RHEL7-57898 - [virtio-win][vioscsi] MS Failover Cluster Configuration Validate on Win2012-R2

[ Draft]

6 WHQL Test Scenarios

RHEL7-5550 - [WHQL][vioscsi]DP WLK - Hot-Replace - Device Test - Verify driver support for D3...
[WHQL][vioscsi]DP WLK - Hot-Replace - Device Test - Verify driver support for D3 power state [🔧 Draft]

RHEL7-5551 - [WHQL][vioscsi]DF - Fuzz zero length buffer FSCTL test (Certification)
[WHQL][vioscsi]DF - Fuzz zero length buffer FSCTL test (Certification) [🔧 Draft]

RHEL7-5552 - [WHQL][vioscsi]DF - PNP DIF Remove Device Test (Certification)
[WHQL][vioscsi]DF - PNP DIF Remove Device Test (Certification) [🔧 Draft]

RHEL7-5553 - [WHQL][vioscsi]DF - Fuzz random IOCTL test (Certification)
[WHQL][vioscsi]DF - Fuzz random IOCTL test (Certification) [🔧 Draft]

RHEL7-5554 - [WHQL][vioscsi]DF - PNP Remove Device Test (Certification)
[WHQL][vioscsi]DF - PNP Remove Device Test (Certification) [🔧 Draft]

RHEL7-5555 - [WHQL][vioscsi]TDI filters and LSPs are not allowed
[WHQL][vioscsi]TDI filters and LSPs are not allowed [🔧 Draft]

RHEL7-5556 - [WHQL][vioscsi]Disk Verification (LOGO)
[WHQL][vioscsi]Disk Verification (LOGO) [🔧 Draft]

RHEL7-5557 - [WHQL][vioscsi]PCI Hardware Compliance Test For a Single Device (PCIHCT)
[WHQL][vioscsi]PCI Hardware Compliance Test For a Single Device (PCIHCT) [🔧 Draft]

RHEL7-5558 - [WHQL][vioscsi]Operate In Server Core Test
[WHQL][vioscsi]Operate In Server Core Test [🔧 Draft]

RHEL7-5559 - [WHQL][vioscsi]DF - Fuzz Query and Set File Information Test (Certification)
[WHQL][vioscsi]DF - Fuzz Query and Set File Information Test (Certification) [🔧 Draft]

RHEL7-5560 - [WHQL][vioscsi]DF - Concurrent Hardware And Operating System (CHAOS) Test (Certi...
[WHQL][vioscsi]DF - Concurrent Hardware And Operating System (CHAOS) Test (Certification) [🔧 Draft]

RHEL7-5561 - [WHQL][vioscsi]Wdf - Verify Driver Load Order Group is not WdfLoadGroup
[WHQL][vioscsi]Wdf - Verify Driver Load Order Group is not WdfLoadGroup [🔧 Draft]

RHEL7-5562 - [WHQL][vioscsi]DF - PNP Disable And Enable Device Test (Certification)
[WHQL][vioscsi]DF - PNP Disable And Enable Device Test (Certification) [🔧 Draft]

RHEL7-5563 - [WHQL][vioscsi]DF - PNP Rebalance Fail Restart Device Test (Certification)
[WHQL][vioscsi]DF - PNP Rebalance Fail Restart Device Test (Certification) [🔧 Draft]

RHEL7-5564 - [WHQL][vioscsi]DF - Sleep and PNP (disable and enable) with IO Before and After...
[WHQL][vioscsi]DF - Sleep and PNP (disable and enable) with IO Before and After (Certification) [🔧 Draft]

RHEL7-5565 - [WHQL][vioscsi]Driver Memory Test

[WHQL][vioscsi]Driver Memory Test [📝 Draft]

RHEL7-5566 - [WHQL][vioscsi]Multiple processor group device test

[WHQL][vioscsi]Multiple processor group device test [📝 Draft]

RHEL7-5567 - [WHQL][vioscsi]Disk Stress (LOGO)

[WHQL][vioscsi]Disk Stress (LOGO) [📝 Draft]

RHEL7-5568 - [WHQL][vioscsi]DF - Fuzz sub-opens test (Certification)

[WHQL][vioscsi]DF - Fuzz sub-opens test (Certification) [📝 Draft]

RHEL7-5569 - [WHQL][vioscsi]DF - Fuzz open and close test (Certification)

[WHQL][vioscsi]DF - Fuzz open and close test (Certification) [📝 Draft]

RHEL7-5570 - [WHQL][vioscsi]DF - PNP Stop (Rebalance) Device Test (Certification)

[WHQL][vioscsi]DF - PNP Stop (Rebalance) Device Test (Certification) [📝 Draft]

RHEL7-5571 - [WHQL][vioscsi]Flush Test

[WHQL][vioscsi]Flush Test [📝 Draft]

RHEL7-5572 - [WHQL][vioscsi]DF - Fuzz Misc API test (Certification)

[WHQL][vioscsi]DF - Fuzz Misc API test (Certification) [📝 Draft]

RHEL7-5573 - [WHQL][vioscsi]DF - Fuzz zero length buffer IOCTL test (Certification)

[WHQL][vioscsi]DF - Fuzz zero length buffer IOCTL test (Certification) [📝 Draft]

RHEL7-5574 - [WHQL][vioscsi]DF - PNP Rebalance Request New Resources Device Test (Certificati...

[WHQL][vioscsi]DF - PNP Rebalance Request New Resources Device Test (Certification) [📝 Draft]

RHEL7-5575 - [WHQL][vioscsi]DF - Fuzz random FSCTL test (Certification)

[WHQL][vioscsi]DF - Fuzz random FSCTL test (Certification) [📝 Draft]

RHEL7-5576 - [WHQL][vioscsi]DF - Fuzz Query and Set Security Test (Certification)

[WHQL][vioscsi]DF - Fuzz Query and Set Security Test (Certification) [📝 Draft]

RHEL7-5577 - [WHQL][vioscsi]DevFund Broker Test

[WHQL][vioscsi]DevFund Broker Test [📝 Draft]

RHEL7-5578 - [WHQL][vioscsi]DP WLK - Hot-Add - Device Test - Verify driver support for Hot-Ad...

[WHQL][vioscsi]DP WLK - Hot-Add - Device Test - Verify driver support for Hot-Add CPU [📝 Draft]

RHEL7-5579 - [WHQL][vioscsi]DF - Fuzz sub-opens with streams test (Certification)

[WHQL][vioscsi]DF - Fuzz sub-opens with streams test (Certification) [📝 Draft]


RHEL7-5580 - [WHQL][vioscsi]DF - Embedded Signature Verification Test (Certification)

[WHQL][vioscsi]DF - Embedded Signature Verification Test (Certification) [📝 Draft]


RHEL7-5581 - [WHQL][vioscsi]Storage Imports Test (LOGO)

[WHQL][vioscsi]Storage Imports Test (LOGO) [📝 Draft]

RHEL7-5582 - [WHQL][vioscsi]Storage Query Property (LOGO)

[WHQL][vioscsi]Storage Query Property (LOGO) [ Draft]

RHEL7-5583 - [WHQL][vioscsi]DF - Sleep with IO During (Certification)

[WHQL][vioscsi]DF - Sleep with IO During (Certification) [ Draft]


RHEL7-5584 - [WHQL][vioscsi]DevFund INF Test

[WHQL][vioscsi]DevFund INF Test [ Draft]

RHEL7-5585 - [WHQL][vioscsi]Static Tools Logo Test

[WHQL][vioscsi]Static Tools Logo Test [ Draft]

RHEL7-5586 - [WHQL][vioscsi]DF - Fuzz misc API with zero length query test (Certification)

[WHQL][vioscsi]DF - Fuzz misc API with zero length query test (Certification) [ Draft]

RHEL7-5587 - [WHQL][vioscsi]DF - Reinstall with IO Before and After (Certification)

[WHQL][vioscsi]DF - Reinstall with IO Before and After (Certification) [ Draft]

RHEL7-5588 - [WHQL][vioscsi]DF - PNP Cancel Remove Device Test (Certification)

[WHQL][vioscsi]DF - PNP Cancel Remove Device Test (Certification) [ Draft]

RHEL7-5589 - [WHQL][vioscsi]DF - PNP Surprise Remove Device Test (Certification)

[WHQL][vioscsi]DF - PNP Surprise Remove Device Test (Certification) [ Draft]

RHEL7-5590 - [WHQL][vioscsi]DF - PCI Root Port Surprise Remove Test (PCI devices only) (Certi...

[WHQL][vioscsi]DF - PCI Root Port Surprise Remove Test (PCI devices only) (Certification) [ Needs Update]

RHEL7-5591 - [WHQL][vioscsi]Device Driver INF Verification Test (Certification)

[WHQL][vioscsi]Device Driver INF Verification Test (Certification) [ Draft]

RHEL7-5592 - [WHQL][vioscsi]DF - PNP Cancel Stop Device Test (Certification)

[WHQL][vioscsi]DF - PNP Cancel Stop Device Test (Certification)

[ Draft]