

Virtio-win RHEL7.3 Pvpanic Test Plan

1 Introduction

pvpanic device is a simulated ISA device, through which a guest panicevent is sent to qemu, and a QMP event is generated. This allowsmanagement apps (e.g. libvirt) to be notified and respond to the event. The management app has the option of waiting for GUEST_PANICKED events,and/or polling for guest-panicked RunState, to learn when the pvpanicdevice has fired a panic event.

2 Driver Mapping table

Provide a context diagram of the system, with explanations as applicable. The context of a system refers to the connections and relationships between the system and its environment.

Directory	Support OS
Install\Wlh	windows server 2008(\x86 - 32bit , \ amd64 - 64bit)
Install\Win7	Windows 7, Windows 2008 R2. (\x86 - 32bit , \ amd64 - 64bit)
Install\Win8	Windows 8, 8.1 ,2012,2012R2 ,win2016(\x86 - 32bit , \ amd64 - 64bit)
Install\Win10	win10(\x86 - 32bit , \ amd64 - 64bit)

3 Test Requirements


Function Test Requirement

RHEL7-48540 - Virtio-win Pvpanic Function Test Requirement

Virtio-win Pvpanic Function Test Requirement [ Draft]

WHQL Test Requirement

RHEL7-48541 - Virtio-win Pvpanic WHQL Test Requirement

Virtio-win Pvpanic WHQL Test Requirement [ Draft]

4 Function Test Scenarios

* Installation tests

[virtio-win][pvpanic]Install pvpanic drivers on preinstalled OS

[virtio-win][pvpanic]Install pvpanic drivers during guest installation

* Power management tests

[virtio-win][pvpanic]shutdown guest after pvpanic driver enabled

[virtio-win][pvpanic]Reboot guest after pvpanic driver enabled

[virtio-win][pvpanic]system_reset guest after pvpanic driver enabled

* Migration tests

[virtio-win][pvpanic]Live migration during BSOD dump generating triggered by NMI

[virtio-win][pvpanic]live migration when pvpanic driver enabled

* Packaging and signature tests

[virtio-win][pvpanic]Use signtool.exe to check whether the driver is digital signed

[virtio-win][pvpanic]check the pvpanic driver version for *.inf,*.sys,*.cat

[virtio-win][pvpanic]Use "sigverif" Utilityto verifying driver safe

[virtio-win][pvpanic]uninstall pvpanic driver

[virtio-win][pvpanic]Downgrade/upgrade pvpanic driver

[virtio-win][pvpanic]stop/cont guest when pvpanic driver enabled

* Driver functional tests

[virtio-win][pvpanic]Check GUEST_PANICKED QMP event when BSOD trigger by USB keyboard after pvpanic driver installed and CtrlScroll 32bit dword is configured in register

[virtio-win][pvpanic]Check GUEST_PANICKED QMP event when BSOD trigger by NMI after pvpanic driver installed and NMIcrashDump value is configured in regisiter

[virtio-win][pvpanic]Check GUEST_PANICKED QMP event by using notmyfault app

[virtio-win][pvpanic]Check GUEST_PANICKED QMP event when BSOD trigger by PS/2 keyboard after pvpanic driver installed and CtrlScroll 32bit dword is configured in register

5 WHQL Test Scenarios

[WHQL][pvpanic][HLK]DP WLK - Hot-Replace - Device Test - Verify driver support f...

[WHQL][pvpanic][HLK]DP WLK - Hot-Replace - Device Test - Verify driver support for D3 power state

[WHQL][pvpanic][HLK]DF - Fuzz zero length buffer FSCTL test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz zero length buffer FSCTL test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz sub-opens with streams test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz sub-opens with streams test (Certification)

[WHQL][pvpanic][HLK]Wdf - Kmdf Fault Injection Test

[WHQL][pvpanic][HLK]Wdf - Kmdf Fault Injection Test

[WHQL][pvpanic][HLK]DF - Fuzz random IOCTL test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz random IOCTL test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Remove Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Remove Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP DIF Remove Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP DIF Remove Device Test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz open and close test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz open and close test (Certification)

[WHQL][pvpanic][HLK]Operate In Server Core Test

[WHQL][pvpanic][HLK]Operate In Server Core Test

[WHQL][pvpanic][HLK]DF - Fuzz Query and Set File Information Test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz Query and Set File Information Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Rebalance Request New Resources Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Rebalance Request New Resources Device Test (Certification)

[WHQL][pvpanic][HLK]Wdf - Verify Driver Load Order Group is not WdfLoadGroup

[WHQL][pvpanic][HLK]Wdf - Verify Driver Load Order Group is not WdfLoadGroup

[WHQL][pvpanic][HLK]DF - PNP Disable And Enable Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Disable And Enable Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PCI Root Port Surprise Remove Test (PCI devices only) (Certification)

[WHQL][pvpanic][HLK]DF - PCI Root Port Surprise Remove Test (PCI devices only) (Certification)

[WHQL][pvpanic][HLK]DF - Sleep and PNP (disable and enable) with IO Before and After (Certification)

[WHQL][pvpanic][HLK]DF - Sleep and PNP (disable and enable) with IO Before and After (Certification)

[WHQL][pvpanic][HLK]Wdf - Check Kmdf Function Table Test

[WHQL][pvpanic][HLK]Wdf - Check Kmdf Function Table Test

[WHQL][pvpanic][HLK]Multiple processor group device test

[WHQL][pvpanic][HLK]Multiple processor group device test

[WHQL][pvpanic][HLK]TDI filters and LSPs are not allowed

[WHQL][pvpanic][HLK]TDI filters and LSPs are not allowed

[WHQL][pvpanic][HLK]DF - Fuzz sub-opens test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz sub-opens test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Stop (Rebalance) Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Stop (Rebalance) Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Rebalance Fail Restart Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Rebalance Fail Restart Device Test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz Misc API test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz Misc API test (Certification)

[WHQL][pvpanic][HLK]Wdf - Check Kmdf Coinstaller Version Test

[WHQL][pvpanic][HLK]Wdf - Check Kmdf Coinstaller Version Test

[WHQL][pvpanic][HLK]DF - Fuzz zero length buffer IOCTL test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz zero length buffer IOCTL test (Certification)

[WHQL][pvpanic][HLK]DF - Concurrent Hardware And Operating System (CHAOS) Test (Certification)

[WHQL][pvpanic][HLK]DF - Concurrent Hardware And Operating System (CHAOS) Test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz Query and Set Security Test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz Query and Set Security Test (Certification)

[WHQL][pvpanic][HLK]DevFund Broker Test

[WHQL][pvpanic][HLK]DevFund Broker Test

[WHQL][pvpanic][HLK]DP WLK - Hot-Add - Device Test - Verify driver support for Hot-Add CPU

[WHQL][pvpanic][HLK]DP WLK - Hot-Add - Device Test - Verify driver support for Hot-Add CPU

[WHQL][pvpanic][HLK]DF - Reinstall with IO Before and After (Certification)

[WHQL][pvpanic][HLK]DF - Reinstall with IO Before and After (Certification)

[WHQL][pvpanic][HLK]Driver Memory Test

[WHQL][pvpanic][HLK]Driver Memory Test

[WHQL][pvpanic][HLK]DF - Embedded Signature Verification Test (Certification)

[WHQL][pvpanic][HLK]DF - Embedded Signature Verification Test (Certification)

[WHQL][pvpanic][HLK]DevFund INF Test

[WHQL][pvpanic][HLK]DevFund INF Test

[WHQL][pvpanic][HLK]DF - Sleep with IO During (Certification)

[WHQL][pvpanic][HLK]DF - Sleep with IO During (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz random FSCTL test (Certification)

[WHQL][pvpanic][HLK]DF - Fuzz random FSCTL test (Certification)

[WHQL][pvpanic][HLK]Static Tools Logo Test

[WHQL][pvpanic][HLK]Static Tools Logo Test

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

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

[WHQL][pvpanic][HLK]DF - PNP Cancel Remove Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Cancel Remove Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Surprise Remove Device Test (Certification)

[WHQL][pvpanic][HLK]DF - PNP Surprise Remove Device Test (Certification)

[WHQL][pvpanic][HLK]Device Driver INF Verification Test (Certification)

[WHQL][pvpanic][HLK]Device Driver INF Verification Test (Certification)

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

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