SunVTS™ 6.3 Release Notes

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Contents

SunVTS 6.3 Release Notes

The SunVTS™ 6.3 software is designed for the Solaris™ 10 11/06 operating system (OS) and is compatible with the Solaris 10 or later OS.

Note – All new features, tests, and test enhancements that are released in SunVTS 6.3 are documented in the *SunVTS 6.3 Test Reference Manual*, and *SunVTS 6.3 User's Guide*. These documents are included on the Solaris on Sun Hardware collection on the Solaris Documentation DVD, in the extra value (EV) directory. These documents are also available at: `http://docs.sun.com`

For the latest version of this document (820-0084), go to:
`http://www.sun.com/documentation`

Note – The Automatic Configuration feature in the SunVTS GUI that automatically assigns predetermined sets of test options is EOL.

Note – The Netra-CT 820 DMC Test (`dmctest`) will be discontinued in a future release of SunVTS.

SunVTS Support for the Solaris OS on x86-Based Systems

Note – In this document these x86 related terms mean the following:
"x86" refers to the larger family of 64-bit and 32-bit x86 compatible products.
"x64" points out specific 64-bit information about AMD64 or EM64T systems.

Starting with the Solaris 10 OS, the SunVTS infrastructure and core diagnostics are available for x86 platforms. Starting with Solaris 10 3/05 HW1, SunVTS diagnostics for x86 platforms are supported in the AMD 64-bit environment for the SunVTS kernel (`vtsk`). All diagnostics are ported to 64-bit.

SunVTS is supported and tested on the following Sun x86 platforms:

- Sun Fire V20z
- Sun Fire V40z
- Sun Fire B100
- Sun Fire B200
- Sun Fire x4100
- Sun Fire x4100 M2
- Sun Fire x4200
- Sun Fire x4200 M2
- Sun Fire x4500
- Sun Fire x4600
- Sun Blade x8400
- Netra CP3020

Note – If you perform SunVTS on an unsupported platform, a warning message appears and SunVTS stops.

You must install the x86 version of the SunVTS packages to perform SunVTS on x86 platforms. The software packages use the same names as in the SPARC® environment. The SunVTS packages delivered separately for both x86 and SPARC Solaris platforms are as follows:

- `SUNWvts` – Contains the SunVTS core framework that includes the kernel and user interface.
- `SUNWvtsmn` – Contains the SunVTS online manual pages
- `SUNWvtsr` – Contains the SunVTS framework configuration files in the root partition (superuser).
- `SUNWvtsts` – Contains the SunVTS test binaries.

The SunVTS components available for x86 Solaris platforms are as follows.

Infrastructure:

- `sunvts`
- `vtsk`
- `vts_cmd`
- `vtstty`
- `vtsui`
- `vtsprobe`

SunVTS tests:

- BMC Environment Test(`bmcenvironment`)
- CD DVD Test (`cddvdtest`)
- CPU Test (`cputest`)
- Cryptographics Test (`cryptotest`)
- Disk and Diskette Drives Test (`disktest`)
- Data Translation Look-aside Buffer (`dtlbtest`)
- Emulex HBA Test (`emlxtest`)
- Floating Point Unit Test (`fputest`)
- InfiniBand Host Channel Adapter (`ibhcatest`)
- Level 1 Data Cache Test (`l1dcachetest`)
- Level 2 SRAM Test (`l2sramtest`)
- Ethernet Loopback Test (`netlbtest`)
- Network Hardware Test (`nettest`)
- Physical Memory Test (`pmemtest`)
- Qlogic Host Bus Adapter Test (`qlctest`)
- RAM test (`ramtest`)
- Serial Port Test (`serialtest`)
- System Test (`systest`)
- Tape Drive Test (`tapetest`)
- Universal Serial Board Test (`usbtest`)
- Virtual Memory Test (`vmemtest`)

Displaying SunVTS Package and Version Information

Use the following command to display SunVTS package information:

```
# pkginfo -c SUNWvts SUNWvtsr SUNWvtsts SUNWvtsmn
```

You can also use either of the following commands to display additional SunVTS package information:

- `# pkginfo | grep vts`
- `# showrev -p | grep vts`

Use either of the following commands to display SunVTS version information:

- `# sunvts -v`
- `# cat /opt/SUNWvts/bin/.version`

Open Issues

Possible Installation Issue: Install and Uninstall Using the Same Program

Use the same tool or utility for installation and removal of the SunVTS software. If you use `pkgadd` for installation, use `pkgrm` to uninstall; if you use Web Start for installation, use the Product Registry to uninstall.

Possible Runtime Issues for Both x86 and SPARC Platforms

CR 6353136 `qlctest` Prevents Multiple Test Instances

`qlctest` opens an exclusive path to the adapter port. This causes other instances of `qlctest` to fail when run on any port on the same board as a port that is already being tested.

Workaround: None.

CR 6423074 SunVTS Kernel Could Cause a Core Dump

The SunVTS kernel (`vtsk`) could cause a core dump due to a SIGBUS call during a kernel routine, either when tests are forked or when tests exit. If this occurs, an error message similar to the following is displayed:

```
"Not connected to any SunVTS kernel"
```

Workaround: Start tests with just "Start" instead of using session record mode ("Start with Record").

CR 6331819 SunVTS Memory or CPU Tests Could Fail Due to Lack of System Resources

When too many instances of SunVTS functional tests are run in parallel on UltraSPARC® T1 CMT CPU-based (sun4v) entry-level servers with low memory configurations, SunVTS tests might fail due to lack of system resources. For example, you could see an error message similar to the following:

```
"System call fork failed; Resource temporarily unavailable"
```

Workaround: Decrease the number of SunVTS test instances or perform SunVTS functional tests separately. In addition, you can increase the delay value for CPU tests or increase the test memory reserve space.

CR 6310384 Using `usbtest`

The `usbtest` keyboard test might indicate a successful keyboard probe when a keyboard is not present.

Workaround: None.

CR 6344791 Supporting x86 Clients on a SPARC Server

Installing SunVTS x86 packages on a SPARC server to serve x86 clients with SunVTS images is not supported. Installing SunVTS SPARC packages on an x64 or x86 server to serve SPARC clients is supported.

Workaround: None.

CR 6333687 Using `cddvdrwtest`

In rare cases, repeated reuse of DVD+RW optical media on Sun Ultra 45 workstations could cause failures when performing high stress DVD+RW SunVTS tests.

Workaround: Replace the DVD+RW media upon failure, or use other types of media such as CD-RW.

CR 6220163 Using `cddvdtest`

`cddvdtest` might fail when used for testing CD/DVD RW drives with Read/Write media.

Workaround: Either use a blank media for testing, or insert a CD-ROM media into the drive and restart SunVTS. The user interface then invokes the test with read only options.

CR 6484045 Using `netlbtest`

`netlbtest (eri)` internal loopback test requires loopback cable to pass test.

Workaround: Use loopback cable to run test.

CR 4858028 Using `serialtest` and `disktest` Simultaneously

Sun Blade™ 100 and 150 systems with SunVTS can produce errors when the serial port controller (southbridge) is also handling other traffic as data access from and to the IDE hard disk. With SunVTS simultaneously running `serialtest` and `disktest` on Sun Blade 100 and 150 systems, you might see `serialtest` report failures.

Workaround: Do not perform `serialtest` and `disktest` simultaneously.

SunVTS Does Not Support Processor Sets

If processor sets are defined, you must first delete the processor sets before running SunVTS.

Workaround: None.

Netra CT 820 Server Support

The Netra™ CT 820 server is not currently supported in Solaris 9 or Solaris 10 Operating Systems.

Possible Runtime Issues for x86 Platforms

`bmcenvironment` Test Displays Failure When Critical Threshold is Reached but Not Exceeded (CRs 6328901, 6363524, 6368948, and 6368997)

On Sun Fire V20z and Sun Fire V40z servers, it is possible for some sensor readings to reach the corresponding critical threshold without exceeding it. The `bmcenvironment` test flags a sensor reading as a failure both when the critical threshold is reached and exceeded. If a failure occurs due to a sensor reading reaching but not exceeding the critical threshold value, as shown in the log, the failure can be disregarded.

Workaround: None.

CR 6344143 Using `qlctest`

Performing `qlctest` with the default settings (Exclusive test mode and Online Selftest enabled) could fail with an error message similar to the following:

```
......
Probable_Cause(s):
    (1)wrong/missing QLC driver
    (2)system software
  Recommended_Actions:
    (1)Reload correct revision driver
    (2)if the problem persists, contact authorized Sun service
provider
.......
```

Workaround: Disable the Online Selftest.

CR 6466222 `vtsui` Segment Fault

SunVTS UI (user interface) might dump core due to `SEGV` on some x86 systems when used from a bootable CD.

Workaround: Restart UI.

Possible Runtime Issues for SPARC Platforms

Using `env5test` (CR ID 6176527) and `i2ctest` (CR ID 6176554)

`env5test` and `i2ctest` could fail due to a Solaris 10 OS PICL initialization issue. When PICL is stopped and started, the tests pass appropriately.

Workaround: Enter the following commands directly after the Solaris OS is booted:

```
# cvsadm disable /system/picl
# cvsadm enable /system/picl
```

CR 4938281 `pfbtest` Fails When Used in the Gnome Desktop Environment

`pfbtest` might fail when performed in the Gnome desktop environment on a Sun XVR-100 graphics accelerator if the test is performed in the default console window.

This failure does not occur in the Solaris 8 2/02 OS and the Solaris 8 HW 3/03 OS. If this failure occurs, an error message similar to the following is displayed:

```
pfb3(pfbtest)            passes: 26 errors: 12
```

Workaround: Most graphics tests fail when running under Gnome. Enter the `xscreensaver-command -exit` command before performing graphics test under the Gnome desktop environment to avoid these failures.