



CallPilot - RAID Firmware Update

REVISION HISTORY

Date	Revision #	Summary of Changes
10 August 2010	Original bulletin	This is the original publication
24 March 2011	Rev. 1	Updated to reflect new URL for ESPL website.

Problem Description

A deficiency has been identified within the LSI RAID firmware 1L49 that may potentially cause service disruption on CallPilot 1002rp rackmount servers. Symptoms include:

- Unexpected server reboot
- No response from mouse or keyboard
- Video may be blank or view a blue screen
- Event logs do not include a Mini-dump or Dr. Watson for the outages

Scope of Impact

The vulnerability is only applicable to CallPilot 1002rp servers utilizing the LSI 320-2 RAID controller running firmware version 1L49. Systems were originally shipped with version 1L37 but may have been updated to version 1L49 in response to bulletin PAA-2008-0117-Global / *CallPilot RAID Subsystem -Power Console software and Firmware Updates Required (published 05-June-2008)*.

CallPilot 1002rp servers running prior firmware version 1L37, or newer version 1L51, are not susceptible. CallPilot 703t Tower or 1005r Rackmount servers utilizing the LSI 320-1 RAID controller running firmware version 1L37, 1L49, or 1L51 are not susceptible.

Problem Resolution

Avaya has corrected the vulnerability via updated RAID firmware version 1L51. Avaya recommends this update be applied to all 1002rp rackmount servers at the next earliest maintenance opportunity to avoid any further vulnerability.

Avaya recommends RAID firmware version 1L51 be applied to 703t Tower and 1005r Rackmount servers during the next scheduled maintenance opportunity to benefit from the additional corrective content with the update.

RAID Subsystem Update Procedures

Note: These firmware update procedures are only for 703t Tower, 1002r and 1005r Rackmount platforms with LSI320-1 or LSI320-2 RAID controllers, using firmware versions 1L37 or 1L49.

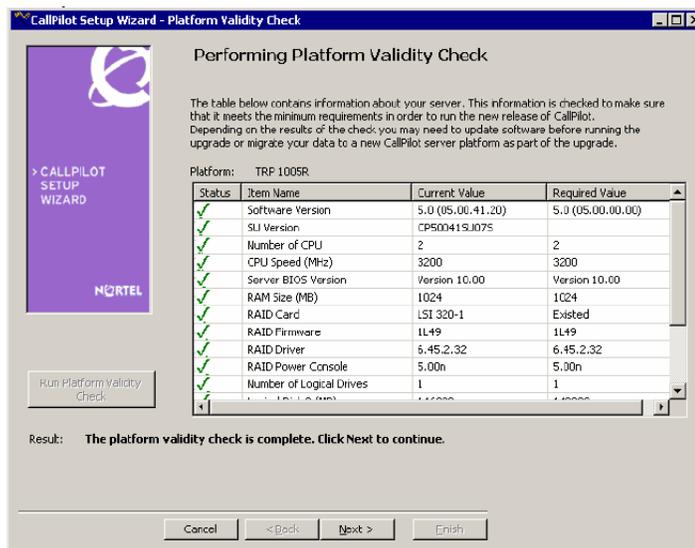
CallPilot 201i, 202i and 600r servers do not have a RAID system and therefore do not apply.

Note: It is recommended that CallPilot 5.0/Service Update 8 (SU08) (or higher) be installed prior to performing the following upgrade procedures.

Note: If the CallPilot 1002rp was downgraded to firmware version 1L37, when performing a platform migration, utilize Upgrade Wizard_v88 (PEP CP500_UpgradeWizard_v88). Ignore any pop-ups regarding RAID updates on the originating system.

Note: For CallPilot 4.0 JITC hardened systems, no changes are required when using the shipped version 1L37 firmware. If prior RAID firmware update 1L49 had been applied, the system should be downgraded to firmware version 1L37 as neither firmware version 1L49 or 1L51 are approved for use by JITC.

1. Confirm the CallPilot server's current type of RAID subsystem (RAID controller, firmware version, and Power Console application version) by launching the Setup Wizard (Start > Programs > CallPilot > Setup Wizard) and going to section "**Platform Validity Check**".



- a. Click "**Cancel**" to exit the Setup Wizard.

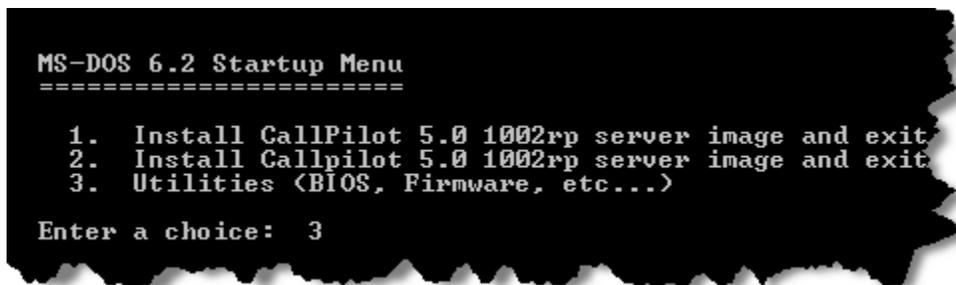
WARNING: On a LSI320-1 or LSI320-2 equipped server, these instructions are only for upgrading from 1L37 or 1L49. Upgrades from other version could corrupt data beyond repair. If on a previous firmware version follow the CallPilot 4.0 upgrade guide to install 1L37 first.

2. From the Enterprise Solutions PEP Library (ESPL) (<https://support.avaya.com/espl>), download and install required CallPilot Service Update 8 (SU08) to be used in conjunction with these RAID update procedures. At a minimum, SU07 must be installed BEFORE proceeding to Step 3 and performing the RAID update.

Note: This PEP ensures the CallPilot server is aware of the newer firmware version. Without it, Setup Wizard will return a failure advising the RAID versions are not what they are expecting, preventing the user from proceeding.

Note: If you are new to the ESPL website, you will need to register for a user ID/password. Please apply on-line or contact your Avaya Channel Partner Account Manager.

3. From ESPL, download "RAIDUpdate_1L51" to a temporary folder on a PC that can create a CD or use a USB drive. Run the .EXE file to extract the following files:
 - 518.rom,
 - AUTOEXEC.BAT
 - mflash.exe
4. Prepare either a CD (required for 1002rp Rackmount servers) or USB-drive to contain the required three (3) RAID update files.
 - a. To create a CD, burn all the three (3) required files (518.rom, AUTOEXEC.BAT, and mflash.exe) from temporary directory created in step 3. The files must be on the root of the CD or USB drive not under a folder.
 - b. To create a USB-drive, copy all three (3) required files (518.rom, AUTOEXEC.BAT, mflash.exe) from /1L51/ directory from the package obtained in step 3.
5. Reboot the CallPilot server from the DVD/CD-ROM drive using the server image DVD. After reboot, you will see the following menu:



```
MS-DOS 6.2 Startup Menu
=====
 1. Install CallPilot 5.0 1002rp server image and exit
 2. Install Callpilot 5.0 1002rp server image and exit
 3. Utilities <BIOS, Firmware, etc...>

Enter a choice: 3
```

Note: This screen may be different on other platforms and CallPilot versions.

Note: If the system rebooted into Windows instead of the screen shown above then it is necessary to alter the system boot order. CallPilot systems are typically configured to boot from the hard-disk drive first, but to perform these upgrade instructions it is required that the system boot from CD-ROM drive first. If boot sequence modifications are required, details for modifying the BIOS setup can be found in the CallPilot Maintenance and Diagnostics Guides. After adjusting the BIOS and rebooting, return to step #5-a.

- a. Choose option “Utilities (BIOS, Firmware, etc...)” and press <Enter>.
- b. The following sub-menu will appear. Choose option “Goto DOS”.

```

***** Avaya CallPilot 5.0 Image *****
*
* 1. 1002rp server BIOS update
* 2. 1002rp server FRU/SDR firmware update
* 3. 1002rp server Board management Controller (BMC) firmware update
* 4. LSI320-2 RAID controller firmware update
* 5. 1002rp server utilities and SEL viewer
* 6. Goto DOS
*
*****
[1,2,3,4,5,6]?_

```

Note: This screen may be different on other platforms and CallPilot versions.

- c. The next step depends on type of media that contains the RAID firmware update files.
 - i. If using a CD-ROM, insert the CD containing the RAID firmware update files. Type “Z:” and press <Enter>.
 - ii. If using a USB-drive, type “D:” and press <Enter>.
 - iii. At the command prompt, type “dir” and press <Enter>. Confirm all three (3) required files (518.rom, AUTOEXEC.BAT, and mflash.exe) are listed.

```

Z:\>dir

Volume in Drive Z is 100416_1416
Directory of Z:\

510   ROM      1,048,576 01-25-10   3:17p
AUTOEXEC  BAT      622 02-09-10   3:10p
MFLASH   EXE     119,560 06-15-05   9:50a
      3 file(s)      1,168,758 bytes
      0 bytes free

Z:\>

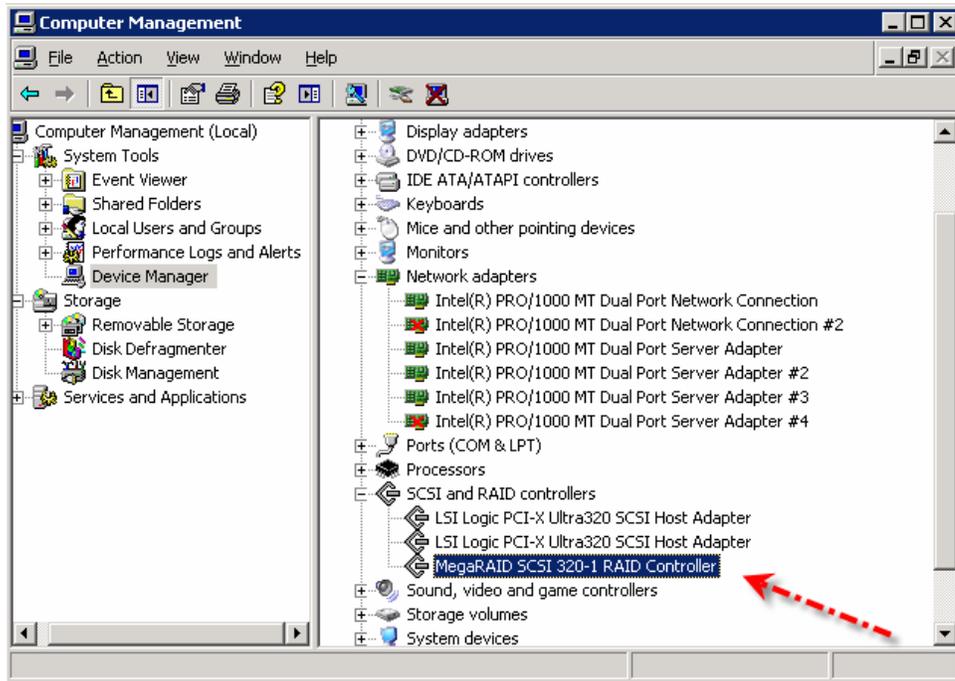
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- d. To start the firmware update process, type “AUTOEXEC.BAT” and press <Enter>. Follow the prompts on the screen to complete the update. The system confirms that you are upgrading to 1L51firmware. Choose “Y”(Yes) in response to all questions.

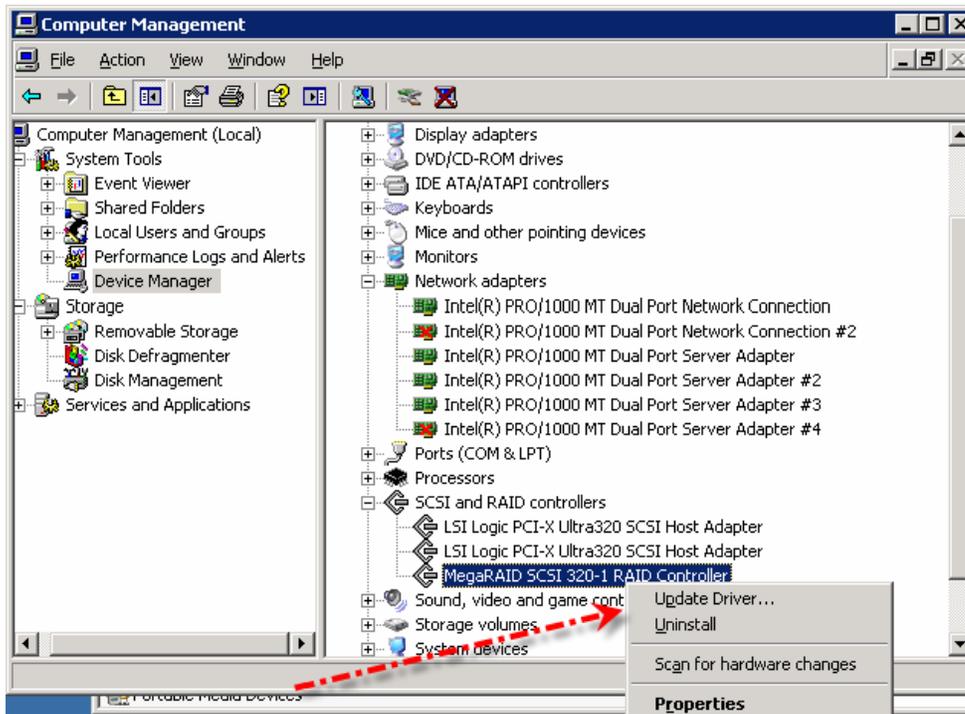
When complete, the system will instruct you to reboot. Remove the CD-ROM and/or the USB-drive and press <Ctrl>+<Alt>+<Delete> to reboot into service. The RAID firmware portion of the update procedure is complete.

Updating RAID drivers:

6. Open “Device Manager” and double-click to expand “SCSI and RAID controllers”.



7. Right-click on “Mega RAID SCSI 320-I RAID Controller”.



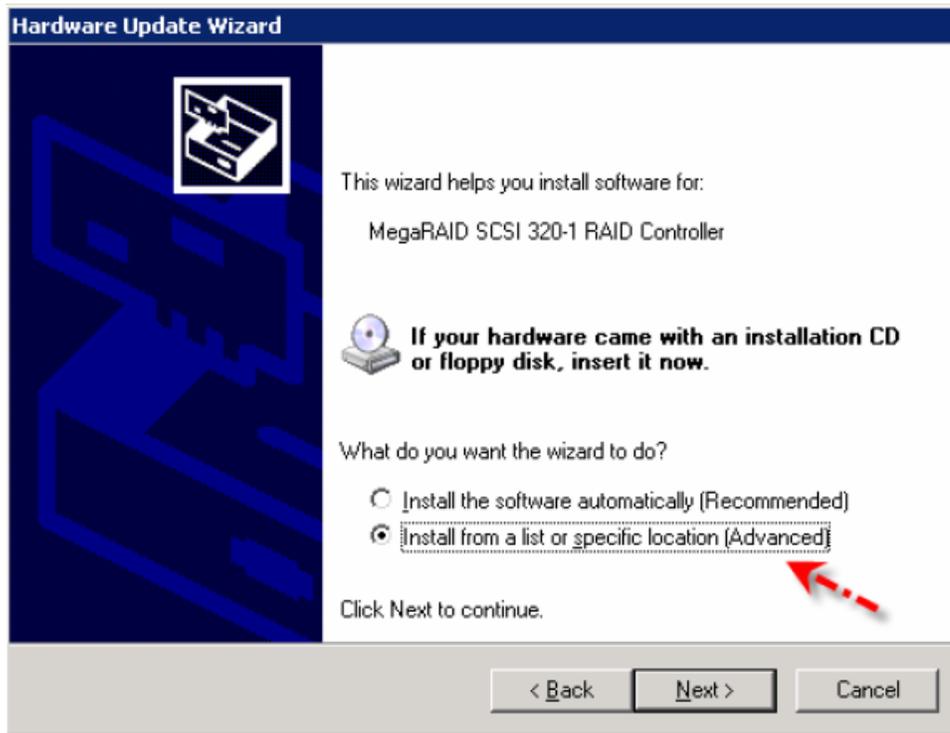
8. The “Hardware Update Wizard” welcome screen appears.



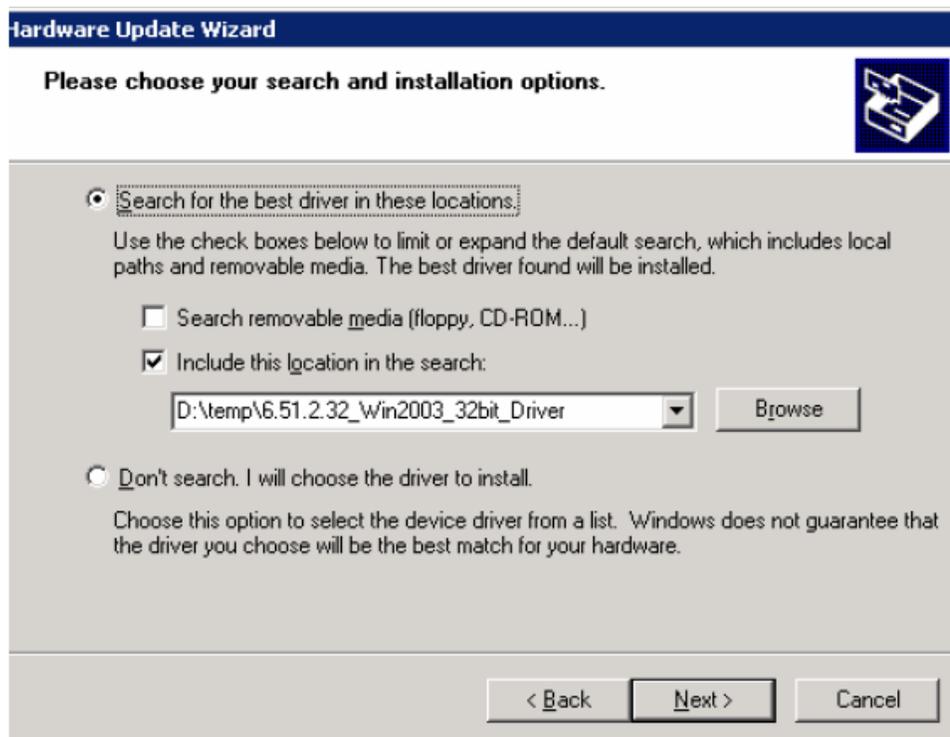
9. Select “No, not this time” and click “Next >” to continue.



10. Select “Install from a list or specific location (Advanced)” and click “Next >”.



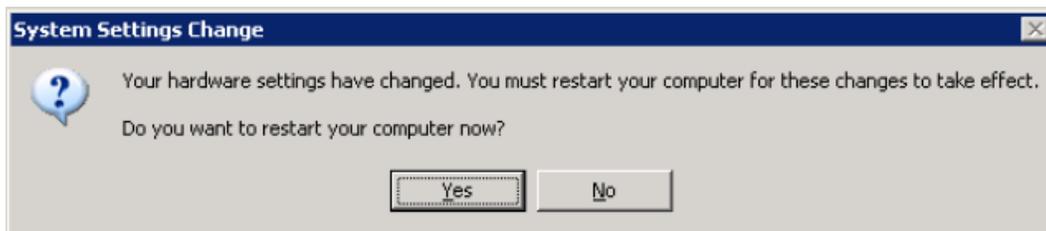
11. Navigate to (and include) the directory where the “6.51.2.32_Win2003 Server_32bit_driver” are located and then select “Next >”.



12. The wizard will apply the updates and the following window will appear.

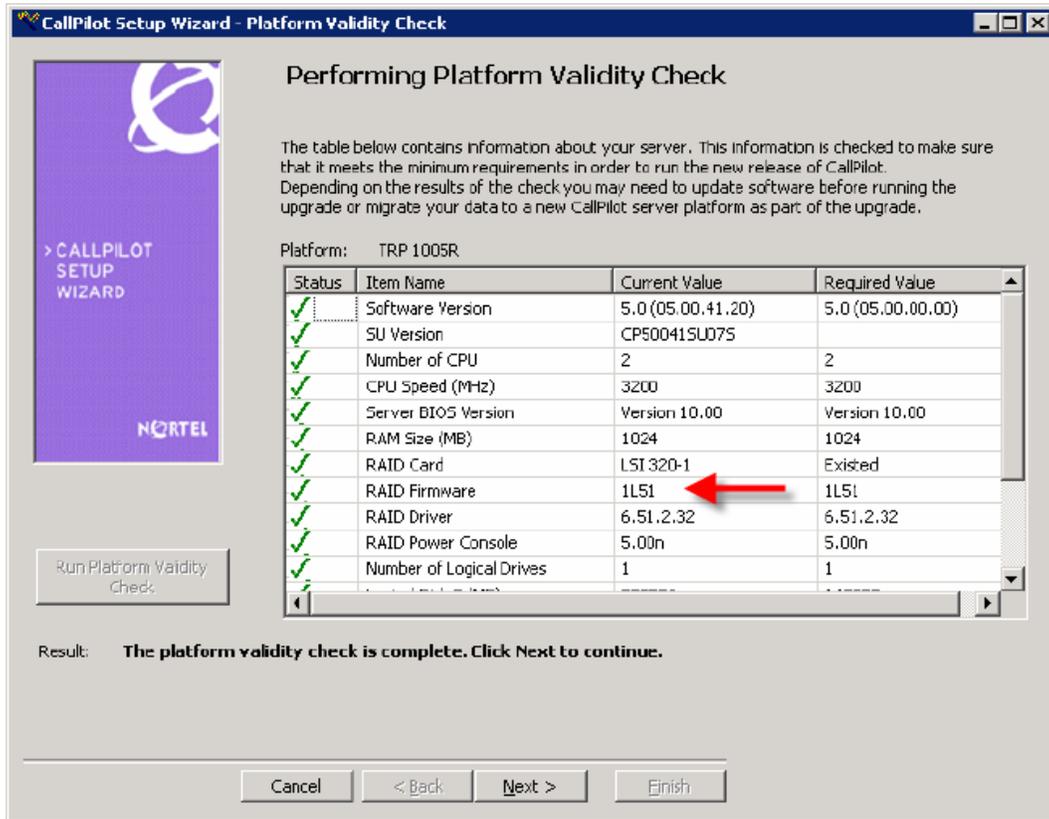


13. Click "Finish".



14. Click "Yes" to reboot.

15. All steps required to update the RAID firmware are now complete. Once the reboot completes, the Setup Wizard will appear as follows with the RAID firmware reflecting version 1L51.



Additional Notes:

The following outlines major changes/updates since RAID firmware 1L49.

- LSID100095208 (DFCT) Potential for incorrect data with media errors while IOs and rebuild going on in parallel.
- LSID100068728 (DFCT) Firing up an Oracle instance then letting it sit nearly idle for ~30 hours causes Oracle to lose log data and abort.
- LSID100069953 (DFCT) Potential data integrity issue when running error injection script along with rebuilding drive.
- LSID100069136 (DFCT) Potential data integrity issue when running error injection script along with I/O in partially degraded mode.
- LSID100050418 (DFCT) Potential data integrity issue on VPD Inquiry.
- LSID100054852 (TASK) Potential data integrity issue (System Event ID 55) under RMW-WT.
- LSID100065060 (DFCT) Cluster / Temporary Offline Feature are incompatible
- LSID100062803 (DFCT) Problem with passive SCSI cluster installations
- LSID100069379 (DFCT) HDD status LED does not light after power recycle during rebuild.
- LSID100069376 (DFCT) SMART warning is returned even though SMART is set to disable (SMART=1) by MFC parameter.
- LSID100069991 (DFCT) Potential data integrity issue when media error in source drives of an array.
- LSID100067682 (DFCT) Potential data integrity issue after a rebuild has completed when using Raid 5.
- LSID100065371 (DFCT) Stop error happens when reboot the system after performing hot rebuild using PCP

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