Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP

Product Notes

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Important Information About the Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP

These product notes contain information about new features, known limitations, and documentation updates for the Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP, from Oracle.

New issues are added to the product notes as needed. Be sure to read the most recent version of the product notes that is available on the web. For the most recent version of the product notes, go to the Oracle documentation portal at the following site:

http://www.oracle.com/technetwork/documentation/oracle-net-sec-hw-190016.html

Intel GbE Driver Support for Linux and Windows

Information on the Intel GbE drivers for Linux and Windows, including tools and documentation, is at the following web site:

http://www.intel.com/p/en_US/support/highlights/network/esa-i350-t4

Hardware and OS Software Support

The Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP, is supported on various hardware platforms running either the Oracle Solaris (SPARC or x86), Linux, or Windows operating environment.

To obtain a list of the currently supported hardware and operating environment versions, go to the product web page at:

http://www.oracle.com/us/products/servers-storage/networking/ethernet/index.html

Known Issues

Each known change request (CR) is listed by its synopsis and its CR number. Each entry describes the issue and provides a workaround, if one is available. Check the latest status of CRs at:

http://support.oracle.com

Links Do Not Work Correctly After Running Oracle VTS and Internal Loopback Test Fails (CR 7147018 and CR 7008767)

Performing an internal network loopback test with Oracle SunVTS on Sun Quad Port PCIe 2.0 Gigabit Ethernet Networking Cards might result in a test failure and improperly working links.

Workaround: Avoid using Oracle SunVTS network loopback test. If you ran the test and the links are not working properly, try the following solutions, depending on the operating system.

For the Oracle Solaris 10 OS, perform these steps:

1. Reboot the system.
2. Power cycle the system.
3. Download, and apply the latest patches.

If downloading the latest patch does not solve the issue, contact your Oracle service provider.

For the Oracle Solaris 11 OS, update the system with the latest service patches.

Link LEDs Stay ON With the 3.3V Standby Power (Intel Issue 661741)

The Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP, supports the Wake-on-LAN facility for desktop PC environments. When any LAN cable is connected to the Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP, the EM detects the link and tries to establish the connection. When the connection is established, the green LNK (link) LED becomes steady on, or it blinks when there is activity on the link. The amber speed LED will be on for 1-GbE links.

As of this release, the Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP, tries to establish a link even though the slot power is disabled or the host system is powered down (with the AC main power plugs inserted). This issue does not pose any threat to the operation of the EM in any supported chassis. Because the power is drawn mainly by the PHY section of the EM, the power consumed during the link-on state is low and does not load the 3.3V AUX rail of the chassis.

Workaround: At the time of this release, there is no workaround for this issue.

Network Latency Under Oracle OpenSolaris Is Three Times Slower Than Solaris 10 5/09 (CR 6933376)

Starting with Solaris 10 10/09, you could see network latency spikes. This issue is related to the Intel power management feature and deep C-state. When a CPU is idle, it can either halt until it is woken up, or the CPU can spin. `MWAIT` and `HLT` can halt a CPU, but they have different wakeup mechanisms. Deeper C-states are greater power-saving halt states, but they can also cause longer wake-up times.

Workaround: Add these entries in the `/etc/system` file then reboot both systems.

```
...
set idle_cpu_prefer_mwait=0
set idle_cpu_no_deep_c=1
...
```

When only `idle_cpu_no_deep_c=1` is set, the system only uses the C1 halt state. Thus, you must set both states. This works with either `HLT` or `MWAIT`.

AER Multiple Corrected Errors

Before you hot-swap a Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP, you must press the ATTN button so that the system powers down the slot. During this operation, you might see AER multiple-corrected errors. You can safely ignore these messages.

Related Documentation

Documentation	Links
All Oracle products	http://www.oracle.com/documentation
Sun Quad Port GbE PCIe 2.0 ExpressModule, UTP	http://www.oracle.com/pls/topic/lookup?ctx=SQP_GbE-PCIe2.0-EM_UTP
Oracle Solaris 10 Operating System	http://docs.oracle.com/cd/E23823_01/index.html
Oracle Solaris 11 Operating System	http://docs.oracle.com/cd/E23824_01/index.html
Oracle Solaris OS and systems software library	http://www.oracle.com/technetwork/indexes/documentation/index.html#sys_sw

Feedback

Provide feedback on this documentation at:

http://www.oracle.com/goto/docfeedback

Support and Accessibility

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