Sun Dual Port 10GBase-T Adapter

Product Notes

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Important Information About the Sun Dual Port 10GBase-T Adapter

These product notes contain information about new features, known limitations, and documentation information for the Sun Dual Port 10GBase-T Adapter 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/pls/topic/lookup?ctx=SDP_10GbE-PCIe2.0-LPA_BASE-T

Important: The Sun Dual Port 10GBase-T Adapter was formerly named the Sun Dual Port 10 GbE PCIe 2.0 Low Profile Adapter, Base-T. The former product name might still appear in the product and document. This product name change does not indicate any change in product features or functionality.

Intel 10 GbE Driver Support for Linux and Windows

Information on the Intel 10 GbE drivers for Linux and Windows, including tools and documentation, is at the following web site:

http://www.intel.com/support/network/adapter/10gbe

Hardware and OS Software Support

The Sun Dual Port 10GBase-T Adapter 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/goto/sun-dual-port-pcie-20-gigabit

OS Patches and Updates

Before you patch the current OS due to version differences, you should update the entire OS image, if possible, on both the client system and the server system. If you cannot update the entire OS image, download the latest patch that contains the software driver from:

http://support.oracle.com/

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

Sun Dual Port 10GBase-T Adapter Firmware Semaphore Acquire Mechanism Needs To Be Optimized in the `ixgbe`(7D) Driver (CR 7148426)

When more than two Sun Dual Port 10GBase-T Adapter ports are present in the system, network performance might be degraded. The degradation increases as the number of ports increase.

Workarounds: Depending on the operating system and platform, download and apply the latest patch.

- **Oracle Solaris SPARC:** 148169-02
- **Oracle Solaris x86:** 148170-02

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 VTS on Sun Dual Port 10GBase-T Ethernet Networking cards might result in a test failure and improperly working links. This issue affects all of the Sun Dual Port 10GBase-T Ethernet Networking cards (Oracle PNs: 7100488, 7100563, 7100490, and 7100492).

Workaround: Avoid using Oracle VTS 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.

`net0` Has No Link After Oracle Solaris `svn_174` Boot From Port 0 (CR 7097919)

The Sun Dual Port 10GBase-T Ethernet Networking cards might fail to bring up links if you boot the Oracle Solaris 10 OS or the Oracle Solaris 11 OS using a network boot image.

This issue only affects Sun Dual Port 10GBase-T Ethernet Networking cards with these part numbers:

- 7100488
- 7100490

- 7100492
- 7100563

Workaround: Boot the system from a local disk or optical media, or boot the system by using an alternative NIC adapter.

Fix: Download and apply the appropriate updates:

- Oracle Solaris 11 OS: Latest service updates
- Oracle Solaris 10 OS (SPARC): Patch 148169-02
- Oracle Solaris 10 OS (Oracle x86): Patch 148170-02

Creating Thousands of VLANs Runs the System Out of Memory (CR 7145327)

The Sun Dual Port 10GBase-T Adapter supports up to 4094 VLANs. When you create a VLAN (or `vnic`), the system creates 16 `mac_rx_fanout_worker` threads for that VLAN. When you create close to the maximum number of VLANs on a sun4v system, the `dladm`(1M) command might hang because additional virtual memory cannot be allocated, so a deadlock between memory requests occurs.

Workaround A: Override the `segpsize` value in the `/etc/system` file by adding the following line:

```
set segkpsize=524288
```

Workaround B: Add the following line to the `/etc/system` file:

```
set mac:mac_rx_fanout_10g_boost=8
```

AER Multiple Corrected Errors (CR 7157354)

Before you hot swap the Sun Dual Port 10GBase-T Adapter, 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.

Sun Dual Port 10GBase-T Adapters Connected To Netgear JGS524 Switches Are Unable To Establish a Link (CR 7055438)

The links can not be established when the ports on the Sun Dual Port 10GBase-T Adapter are connected to Netgear JGS524 Gigabit Switches with Marvell PHY. The Marvell PHYs used on these switches are not fully compliant with IEEE specs.

There is no work around or fix for this problem. Customers are advised not to connect the Sun Dual Port 10GBase-T Adapters to Netgear JGS524 Gigabit Switches.

Related Documentation

Documentation	Links
All Oracle products	http://www.oracle.com/documentation
Sun Dual Port 10GBase-T Adapter	http://www.oracle.com/pls/topic/lookup?ctx=SDP_10GbE-PCIe2.0-LPA_BASE-T
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

Description	Links
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Learn about Oracle's commitment to accessibility	http://www.oracle.com/us/corporate/accessibility/index.html