Oracle Quad 10Gb Ethernet Adapter Product Notes

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Using This Documentation

- **Overview** – Provides late-breaking information on the Oracle Quad 10Gb Ethernet adapter
- **Audience** – Technicians, system administrators, and authorized service providers
- **Required knowledge** – Advanced experience troubleshooting and replacing hardware

These topics describe how to access the documentation and leave feedback on it.

- "Product Documentation Library" on page 7
- "Feedback" on page 7

Product Documentation Library

Documentation and resources for this product and related products are available at `http://www.oracle.com/goto/quad-10gb-ethernet-adapter/docs`.

Feedback

Provide feedback about this documentation at `http://www.oracle.com/goto/docfeedback`.

Late-Breaking Information

This document contains important and late-breaking information about Oracle's Quad 10Gb Ethernet Adapter.

- "Known Issues" on page 9
- "Physical Adapter Connection" on page 12
- "Switch Configuration" on page 12
- "Hardware and Software Requirements" on page 12
- "OS Patches and Updates" on page 13

Known Issues

These are the known issues for the adapter.

- "Intermittent Link Down Messages Seen in Log File (20548298)" on page 9
- "Option ROM Exhausted With the Adapter Card (20939415)" on page 10
- "X5-2L Server Hangs with the Adapter on UEFI During a Power Cycle (20819849)" on page 11
- "Reboot Panic: Deadlock Cycle (21137412)" on page 11
- "Misleading Error Messages Displayed With Firmware Update Tool" on page 11

Intermittent Link Down Messages Seen in Log File (20548298)

Some of the Oracle branded optical XCVRs (135-1204-01) generate link down messages in log files. These are false link down messages, link does not go down. These messages are generated intermittently and can be ignored. Example messages in `/var/adm/`messages log file:

```
Jul  8 15:08:52 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net10 link down
Jul  8 15:12:01 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net46 link down
Jul  8 15:14:19 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net13 link down
Jul  8 15:17:47 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net6 link down
```

```
Jul  8 15:31:14 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net57 link down
Jul  8 15:32:45 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net24 link down
Jul  8 15:32:45 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net27 link down
Jul  8 15:33:27 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net34 link down
Jul  8 15:33:49 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net61 link down
Jul  8 15:40:37 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net6 link down
Jul  8 15:42:12 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net17 link down
Jul  8 15:43:04 sca-m78-202-pd0 mac: [ID 486395 kern.info] NOTICE: net32 link down
....
```

Workaround: No recovery action required. There is no workaround. Check to see if switching to other XCVRs/cables fixes the issue. For the most up-to-date supported cables and part numbers, check the product web page.

Option ROM Exhausted With the Adapter Card (20939415)

Some systems might run out of Option ROM space if more than four adapter cards are installed. As a result, some of the cards or ports will not be listed as available for booting over a network.

Workaround: Listed cards or ports that are not used for booting can be disabled in BIOS to make Option ROM space for ports required for booting over the network.

To disable a card or port in BIOS, perform the following steps:

1. Boot the server to `reset/SYS` or `start/SYS` from the SP.
2. Press the F2 key to enter setup when the server is booting.
3. Select I/O from the top items.
4. Select Add In Cards.
5. Select Slot number.
6. Select Disable.
7. Press Esc to get back to the main BIOS menu.
8. Select Exit.
9. Select Save Changes and Exit.

Disabling PCI 64 bit resource allocation in BIOS mitigates this problem. To disable PCI 64 bit resource allocation, perform the following steps:

1. Boot the server to `reset/SYS` or `start/SYS` from the SP.
2. Press the F2 key to enter setup when the server is booting.
3. Select I/O from the top margin of BIOS menu.
4. Select PCI Subsystems Settings.
5. Select PCI 64 bin Resources.
6. Select Disable.

7. Press Esc to get back to the main BIOS menu.
8. Select Exit.
9. Select Save Changes and Exit.

X5-2L Server Hangs with the Adapter on UEFI During a Power Cycle (20819849)

The X5-2L server might hang in UEFI during a reboot. The boot process starts but hangs after displaying `Boot Mode = UEFI`.

Workaround: Subsequent reboots will clear the hang. Check for the availability of a new firmware version for this issue.

Reboot Panic: Deadlock Cycle (21137412)

The system might panic at the first reboot of a fresh install with the following panic message:

```
panic[cpu29]/thread=2a10f183b80: Deadlock: cycle in blocking chain
```

You will see a similar output message:

```
@Loading smf(5) service descriptions: 224/224
@Configuring devices.
@Loading smf(5) service descriptions: 3/3
@panic[cpu29]/thread=2a10f183b80: Deadlock: cycle in blocking chain
```

Workaround: Reboot the server. This issue does not happen on every boot. Check for the latest updates or patches for a fix to this issue.

Misleading Error Messages Displayed With Firmware Update Tool

Misleading error messages might be displayed, leading the user to believe the device was skipped.

```
Cannot initialize adapter:[x:y:z]
```

Workaround: Power on and power off the server. Run the firmware update tool in inventory mode to check if the adapter that showed the error shows the correct version of the firmware. Check for the latest updates or patches of the tool.

Physical Adapter Connection

The adapter supports 10Gb only. It is currently configured in the factory default 4x10 mode. For this mode to work, the cable must be connected to Port 0. Refer to the *Oracle Quad 10Gb Ethernet Adapter User's Guide* for more information.

Switch Configuration

When using QSFP to QSFP cables to connect the adapter to a 40Gb switch, ensure that the QSFP ports on the switch are configured in the 4x10 mode. Check that the switch in use does not need any special configurations for the QSFP port to work in the 4x10 mode.

Hardware and Software Requirements

Before using the adapter, ensure that your server meets the hardware and software requirements. For additional information, check the product web page at:

http://www.oracle.com/goto/10gb-ethernet-adapter

Supported Hardware and Operating Systems	Supported Products
Hardware, Oracle servers	■ X5-2 ■ X5-2L For the most up-to-date supported platforms, check the product web page for the specific server and its I/O options.
Optical transceivers	QSFP+ transceiver (short haul) QSFP+ transceiver (long haul)
Operating Systems	■ Oracle Solaris 11.2 SRU11 ■ Oracle Linux 6.6, Oracle Linux 7, Oracle Linux 7.1 ■ Red Hat Enterprise Linux (RHEL) 6.5, RHEL 6.6, RHEL 7, RHEL 7.1 ■ SUSE Linux Enterprise Server (SLES) 9 SP5, SLES 10 SP3, SLES 11 SP3, SLES 12 ■ Microsoft Windows Server 2008R2 SP1, Windows Server 2012 For the most up-to-date supported OS's, check the product web page for the specific server.
Hypervisors	■ VMware ESXi 5.1 (in 10 GbE mode) and 5.5 ■ Oracle VM 3.3.2 ■ Microsoft Hyper-V

Cabling Options	Description
QSFP Optical Transceiver	QSFP optical SR (supports multimode cables, MPO connector up to 100m)
QSFP to QSFP Optical Cable Options	■ QSFP optical SR (supports multimode cables, MPO connector up to 100 m) ■ High-bandwidth QSFP optical cable: 10 meters, MPO to MPO ■ High-bandwidth QSFP optical cable: 20 meters, MPO to MPO ■ High-bandwidth QSFP optical cable: 50 meters, MPO to MPO ■ High-bandwidth QSFP optical cable: 100 meters, MPO to MPO For the most up-to-date supported cables and part numbers, check the product web page.
QSFP to 4 SFP+ Optical Splitter Cable Options	■ MPO to 4LC optical splitter cable, 10 meter, multimode ■ MPO to 4LC optical splitter cable, 20 meter, multimode ■ MPO to 4LC optical splitter cable, 50 meter, multimode
QSFP to QSFP Direct-Attach Passive Copper Cable Options (QSFP transceivers not required)	■ QSFP to QSFP passive copper cable, 1 meter ■ QSFP to QSFP passive copper cable, 2 meters ■ QSFP to QSFP passive copper cable, 3 meters ■ QSFP to QSFP passive copper cable, 5 meters
QSFP to 4 SFP+ Splitter Cable Options	■ QSFP to 4 SFP+ passive copper splitter cable, 1 meter ■ QSFP to 4 SFP+ passive copper splitter cable, 3 meters ■ QSFP to 4 SFP+ passive copper splitter cable, 5 meters

OS Patches and Updates

Before you patch the current OS due to version differences, update the entire OS image, if possible, on the client system.

If you cannot update the entire OS image, download the latest patch that contains the software driver.

https://support.oracle.com

For additional information, check the product web page at:

http://www.oracle.com/goto/10gb-ethernet-adapter