

Sun Dual 10GbE SFP+ PCIe 2.0 ExpressModule

Product Notes



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Important Information About the Sun Dual 10GbE SFP+ PCIe 2.0 ExpressModule

These product notes contain information about new features, known limitations, and documentation updates for the Sun Dual 10GbE SFP+ PCIe 2.0 ExpressModule 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 Sun documentation portal at the following site:

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

Intel 10GbE Driver Support for Linux and Windows

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

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

Note – To use the FCoE software with the Windows OS, you must download and reinstall the FCoE driver from the Oracle download site after you install the OS. Refer to the *Sun Dual 10GbE PCIe 2.0 Fibre Channel Over Ethernet Software User's Guide*.

Oracle Solaris Operating System Support

The ExpressModule is supported on the following versions of the Oracle Solaris Operating System (OS):

- Oracle Solaris 11 SPARC (with latest service update)
- Oracle Solaris 11 x86 (with latest service update)
- Oracle Solaris 10 5/09 OS SPARC and newer (with patches)
- Oracle Solaris 10 5/09 OS x86 and newer (with patches)
- OpenSolaris 2009.6 OS (with updated IPS driver package)

For the most up-to-date supported Oracle Solaris OS information, see the product web page at:

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

Oracle Solaris 10 OS Patch Information

The ExpressModule is supported at both 1GbE and 10GbE speeds on Oracle Solaris 10 5/09 OS and newer with the patches listed in [TABLE 1](#).

The patches are available at:

(<http://www.oracle.com/us/support/software/premier/my-oracle-support-068523.html>)

TABLE 1 Oracle Solaris 10 OS Patches for the ExpressModule

Oracle Solaris Platform	Patch ID	Description
Oracle Solaris 10 SPARC	143354-02 or newer	SunOS 5.10: ixgbe patch
	148169-03 or newer	Auto-negotiation fix
Oracle Solaris 10 x86	143355-02 or newer	SunOS 5.10_x86: ixgbe patch
	148170-03 or newer	Auto-negotiation fix

Note – Before contacting support, ensure that all mandatory patches are installed on your server. Check the My Oracle Support web site on a regular basis for the availability of new patches.

To determine if a patch is present on your system, see [“To Download Patches” on page 3](#).

▼ To Download Patches

1. Determine whether the patches have been installed on your system.

For example, using the `showrev` command, type the following for each patch number:

```
# showrev -p | grep "Patch: 143354"
```

- If you see patch information listed for the queried patch, and the dash extension (the last two digits) matches or exceeds the required version, your system has the proper patches already installed and no further action is required.

For example, if Patch 143354-02 or later is installed, your system has the required version of this patch.

- If you do not see patch information listed for the queried patch, or if the dash extension precedes the required version, go to [Step 2](#).

2. Go to My Oracle Support to download the patch.

Using the PatchFinder tool, specify the base Patch ID number (the first six digits) to access the current release of a patch.

3. Download the latest version of the patch.

4. Follow the installation instructions provided in a specific patch's README file.

Known Issues

The following issues apply to the ExpressModule.

TCP RX Throughput Regresses 25% on Gen1 Systems (CR 6875360)

The ExpressModule is not currently supported in PCIe Gen1 systems. If you plug an ExpressModule into a Gen1 system, it will exhibit degraded performance. This situation is described in the Intel Errata 24 for the Intel 82599 controller.

Workaround: While the ExpressModule is not supported in PCIe Gen1 systems, you can use the ExpressModule. Follow Intel's recommendation of setting the PCIe payload size to 256 bytes or higher, if supported in the BIOS.

ixgbe(7D) Auto-Negotiation Does Not Work (CR 7104532)

The ExpressModule accepts either 1GbE or 10GbE connections and should automatically set the speed level of the connection by using the auto-negotiation mechanism. However, in the current releases of Oracle Solaris 10 and 11, the mechanism does not operate properly.

Workaround: Depending on the platform and version of the operating system, perform one of the following steps:

- **Oracle Solaris 11 (SPARC and x86):** Ensure that the latest service update has been applied to the system.
- **Oracle Solaris 10 (SPARC and x86):** Download and apply the appropriate patch (see ["Oracle Solaris 10 OS Patch Information"](#) on page 2).

Fibre Channel Over Ethernet

The Sun Dual 10GbE SFP+ PCIe 2.0 ExpressModule from Oracle supports Intel's Fibre Channel Over Ethernet (FCoE) software. For more information about Oracle's FCoE implementation, refer to the following documents:

- *Sun Dual 10GbE PCIe 2.0 Fibre Channel Over Ethernet Software User's Guide*
- *Sun Dual 10GbE PCIe 2.0 Fibre Channel Over Ethernet Software Product Notes*

To obtain copies of these documents, go here:

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

Note – As of this release, FCoE is not supported in the Oracle Solaris OS.

Feedback

Provide feedback on this documentation at:

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

Support and Accessibility

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