Intel® Omni-Path Fabric Thermal Management Microchip (TMM)

Release Notes for 10.8

Rev. 1.0

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1.0 Overview of the Release

This document provides a brief overview of the changes introduced into the Intel® Omni-Path Thermal Management Microchip (TMM) by this release. Intel® Omni-Path TMM is used for the hardware listed in Table 3 on page 7.

The information contained in this document is intended as supplemental information only; it should be used in conjunction with the documentation provided for each component.

These Release Notes list the features supported in this release, open issues, and issues that were resolved during release development.

1.1 Audience

The information provided in this document is intended for installers, software support engineers, service personnel, and system administrators.

1.2 Document Versions

The following table lists the end user document versions supported by this release.

Table 1. Supported Document Versions

Title	Doc. Number	Revision
Intel® Omni-Path Fabric Quick Start Guide	J57479	5.0
Intel® Omni-Path Fabric Setup Guide	J27600	9.0
Intel® Omni-Path Fabric Switches Hardware Installation Guide	H76456	7.0
Intel® Omni-Path Host Fabric Interface Installation Guide	H76466	5.0
Intel® Omni-Path Fabric Software Installation Guide	H76467	10.0
Intel® Omni-Path Fabric Switches GUI User Guide	H76457	10.0
Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide	H76458	10.0
Intel® Omni-Path Fabric Suite FastFabric User Guide	H76469	10.0
Intel® Omni-Path Fabric Suite Fabric Manager User Guide	H76468	10.0
Intel® Omni-Path Fabric Suite Fabric Manager GUI User Guide	H76471	10.0
Intel® Omni-Path Fabric Host Software User Guide	H76470	10.0
Intel® Performance Scaled Messaging 2 (PSM2) Programmer's Guide	H76473	10.0
Intel® Omni-Path Fabric Performance Tuning User Guide	H93143	12.0
Intel® Omni-Path IP and LNet Router Design Guide (Old title: *Intel® Omni-Path IP and Storage Router Design Guide*)	H99668	7.0

continued...

Title	Doc. Number	Revision
Building Containers for Intel® Omni-Path Fabrics using Docker and Singularity* Application Note*	J57474	5.0
Intel® Omni-Path Management API Programmer's Guide	J68876	4.0
Configuring Non-Volatile Memory Express (NVMe*) over Fabrics on Intel® Omni-Path Architecture Application Note*	J78967	1.0
Intel® Omni-Path Fabric Software Release Notes	K21143	1.0
Intel® Omni-Path Fabric Manager GUI Release Notes	K21144	1.0
Intel® Omni-Path Fabric Switches Release Notes (includes managed and externally-managed switches)	K21142	1.0
Intel® Omni-Path Fabric Unified Extensible Firmware Interface (UEFI) Release Notes	K21145	1.0
Intel® Omni-Path Fabric Thermal Management Microchip (TMM) Release Notes	K21147	1.0
Intel® Omni-Path Fabric Firmware Tools Release Notes	K21148	1.0

1.3 Software License Agreement

This software is provided under license agreements and may contain third-party software under separate third-party licensing. Please refer to the license files provided with the software for specific details.

1.4 If You Need Help

Technical support for Intel® Omni-Path products is available 24 hours a day, 365 days a year. Please contact Intel Customer Support or visit http://www.intel.com/omnipath/support for additional detail.

1.5 Supported Features

- The list of supported hardware is in Table 3 on page 7.
- Creates a standalone package of hfi1-tmm firmware that is external to the Intel OPA IFS package.

1.6 Firmware Files

This release contains the firmware files listed in the table below.

Table 2. Firmware Files

Description	File Name	Version
HFI1 SMBus Microcontroller Firmware (Thermal Monitor) CHF (temp sensor) column	hfi1-tmm-10.8.0.0-214.noarch.rpm	10.8.0.0.214
HFI1 SMBus Microcontroller Firmware (Thermal Monitor) CHF (temp sensor) column	hfi1_smbus.fw	10.8.0.0.214

1.7 Intel Hardware

The following table lists the Intel hardware supported in this release. The table does not include OEM-specific hardware, such as custom adapters and switches.

Note: The Intel® PSM2 implementation has a limit of four (4) HFIs.

Table 3. Supported Intel Hardware

Hardware	Description
Intel® Xeon® Processor E5-2600 v3 product family	Haswell CPU-based servers
Intel® Xeon® Processor E5-2600 v4 product family	Broadwell CPU-based servers
Intel® Xeon® Scalable Processors	Skylake CPU-based servers
Intel® Xeon Phi™ x200 Product Family	Knights Landing CPU-based servers
Intel® Xeon Phi™ 72x5 Processor Family	Knights Mill CPU-based servers
Intel® Omni-Path Host Fabric Interface 100HFA016 (x16)	Single Port Host Fabric Interface (HFI)
Intel® Omni-Path Host Fabric Interface 100HFA018 (x8)	Single Port Host Fabric Interface (HFI)

1.8 Installation Requirements

1.8.1 Installation Instructions

For installation details, refer to the *Intel® Omni-Path Fabric Software Installation Guide*.

1.8.1.1 Download the Standalone Firmware

Download the standalone firmware rpms from an Intel web page or other Intel secured location using the following procedures.

1. Using a web browser, go to https://downloadcenter.intel.com/search?keyword=Omni-Path.

   Notes: You can manually navigate to the software using the following steps:

   a. Using a web browser, type `downloadcenter.intel.com` in the address field and press **Enter**.

   b. In the "Search downloads" field, type `Omni-Path` and press **Enter**.

2. In the Description list, select the "Intel® Omni-Path Host Fabric Interface Platform Firmware" for the version you want to install.

   Note: The latest version of each type of each download type is showing in the list. To show previous versions, select "Show more" at the bottom of the list.

3. In the "Available Downloads" list, select the files you need.
4. Review the Intel Software License Agreement.
5. Click "I accept the terms in the license agreement."
6. Save the download to your hard drive.

1.8.1.2 Installing and Upgrading rpms

This section provides information for installing or upgrading standalone firmware rpms.

- To install the rpms, use `rpm -ivh <rpm name>`.

- To upgrade the rpms, use `rpm -Uvh <rpm name>`.

Important Information for TMM Tools

- When trying to install `hfi1-tmm rpm` on OPA-IFS prior to V10.4, the installation fails due to an existing version of TMM firmware owned by other rpm i.e., `hfi1-firmware rpm`.

  To resolve this issue, you can safely force the installation of the rpm using the following command:

  ```
  rpm -ivh --force hfi1-tmm-<version>.rpm
  ```

- When trying to install a pre-10.4 version of OPA-IFS on systems where the `hfi1-tmm rpm` is already installed, the `hfi1-firmware` will fail to install due to existing versions owned by the `hfi1-tmm`.

  To resolve this issue, you can

  — Uninstall the existing `hfi1-tmm rpm` prior to the OPA-IFS installation.

  — If desired, you can safely force the installation of the rpm using the following command:

  ```
  rpm -ivh --force hfi1-tmm-<version>.rpm
  ```

- When trying to install `hfi1-tmm rpm` on OPA-IFS versions between V10.4 and the current release (or vice versa), installation will succeed and the user can see that the TMM firmware is owned by two rpms (`hfi1-tmm` and `hfi1-firmware`).

  This is an expected behavior as TMM firmware in both the rpms are identical.

  —
  ```
  rpm -qf /lib/firmware/updates/hfi1_smbus.fw
  ```

  ```
  hfi1-tmm-<version>.noarch
  ```

  ```
  hfi1-firmware-<version>.noarch
  ```

1.9 Product Constraints

None.

1.10 Product Limitations

This release has the following product limitations:

2.0 Issues

This section lists the resolved and open issues in the Intel® Omni-Path TMM.

2.1 Resolved Issues

2.1.1 Issues Resolved in this Release

The following table lists issues that are resolved in this release.

Table 4. Issues Resolved in this Release

ID	Description	Resolved in Release
145917	TMM: As required by the System Management Bus (SMBUS) specification, when the BUS is idle for >50us, the HFI card pulls the BUS into low voltage. However, the BUS does not remain in low voltage for a long enough interval.	10.8

2.2 Open Issues

The following table lists the open issues for this release.

Table 5. Open Issues

ID	Description	Workaround