Cornelis™ Omni-Path™ PLDM Commands Supported by TMM Micro Firmware

Application Note

Rev. 1.0

May 2021

Doc. No: A00005, Rev.: 1.0

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Revision History

Date	Revision	Description	Author
May 2021	1.0	Initial release.	Usha Srinivasan

1 Introduction

This document provides an overview of the PLDM commands supported by TMM micro firmware.

1.1 Terminology

Table 1. Terminology

Term	Description
PDR	Platform Descriptor Records
PLDM	Platform Level Data Model
TMM	Thermal Management Module

1.2 Reference Documents

Table 2. Reference Documents

Ref#	Document Title
DSP0240	Platform Level Data Model (PLDM) Base Specification
DSP0245	Platform Level Data Model (PLDM) IDs and Codes Specification
DSP0248	Platform Level Data Model (PLDM) for Platform Monitoring and Control Specification

2 PLDM Commands Supported

The following sections describe the commands supported by TMM micro firmware.

2.1 GetPLDMVersion

This command returns the versions supported for these PLDM Type Codes:

0 = PLDM Messaging Control and Discovery
2 = PLDM for Platform Monitoring and Control

It returns:

Byte	Field Name	Value
0	CompletionCode	0x00 (SUCCESS)
1:4	NextDataTransferHandle	0x00
5	TransferFlag	0x05
6:9	Version	0xF1F0F000 PLDM Messaging Control and Discovery 0xF1F1F000 PLDM for Platform Monitoring and Control
10:13	VersionChecksum	0x4A868FFB PLDM Messaging Control and Discovery 0x539DBEBA PLDM for Platform Monitoring and Control

2.2 GetPLDMTypes

This command returns the PLDM types that are supported:

Byte	Field Name	Value
0	CompletionCode	0x00 (SUCCESS)
1	PLDM Types	0x05 PLDM Messaging Control and Discovery PLDM for Platform Monitoring and Control
2:8	PLDM Types contd.	0x00

2.3 GetPLDMCommands

This command returns the PLDM command capabilities for each PLDM Type code supported.

For PLDM Messaging Control and Discovery it returns:

Byte	Field Name	Value
0	CompletionCode	0x00 (SUCCESS)
1	PLDMCommands	0x3E (SetTID, GetTID, GetPLDMVersion, GetPLDMTypes, GetPLDMCommands)
2:32	PLDMCommands contd.	0x00

For PLDM for Platform Monitoring and Control returns:

Byte	Field Name	Value
0	CompletionCode	0x00 (SUCCESS)
1:2	PLDMCommands	0x00
3	PLDMCommands contd.	0x26 (GetSensorReading, GetSensorThresholds, GetSensorHysteresis)
4	PLDMCommands contd.	0x00
5	PLDMCommands contd.	0x02 (GetStateSensorReadings)
6:10	PLDMCommands contd.	0x00
11	PLDMCommands contd.	0x03 (GetPDRRepositoryInfo, GetPDR)
12:32	PLDMCommands contd.	0x00

2.4 GetTID

This command returns the Terminus ID (TID). It returns the special value 0x00 – Unassigned TID.

2.5 SetTID

This command is accepted and a completion of success is returned but the new TID value is ignored.

2.6 GetSensorReading

This command returns the readings for a numeric sensor identified by sensorID in the request. See DSP0248 for response details. The supported sensorIDs are:

sensorID	Name
1	Board Health
2	QSFP 1 Present
4	QSFP 1 Temp
5	QSFP 2 Present
7	QSFP 2 Temp
8	Wolf River ASIC
9	Ambient Temp

2.7 GetSensorThresholds

This command returns the thresholds for a numeric sensor identified by sensorId in the request. See DSP0248 for response details.

2.8 GetSensorHysteresis

This command returns the current hysteresis settings for a numeric sensor identified by sensorID in the request. See DSP0248 for response details.

2.9 GetStateSensorReadings

This command returns state sensor reading for sensorIDs 1, 2, 5. For each, a compositeSensorCount of 1 is returned. See DSP0248 for response details.

2.10 GetPDRRepositoryInfo

This command returns the number of PDRs kept in the repository and the total size of the repository. See DSP0248 for response details.

2.11 GetPDR

This command returns individual PDRs from the PDR repository. It supports multi-part transfers.

Note: Multi-part transfer support will be included in the next revision of the firmware.