Proposal for OCP NIC 3.0 Management Requirements

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Disclaimer

- The information in this presentation represents a snapshot of work in progress within the DMTF.

- This information is subject to change without notice. The standard specifications remain the normative reference for all information.

- For additional information, see the Distributed Management Task Force (DMTF) website.

OCP NIC 3.0 Management Requirements – Background

- OCP NIC 3.0 covers Lan-On-Motherboard (LOM), Mezzanine (Mezz), and PCIe NIC (including smart NIC/accelerators) implementations

- One set of NIC management requirements cannot be mandated across all OCP NIC 3.0 implementations

- We need to define management requirements for OCP NIC 3.0
  - The goal is to limit the number of sets of management requirements to a small number

- Two sets of OCP NIC 3.0 management requirements (details in following slides)
  - LOM/Mezz
  - (Standalone) PCIe Card

- An OCP NIC 3.0 implementation is required to support at least one set of the above mentioned management requirements

Management Requirements (Physical Interfaces & Transports)

Requirements	LOM/Mezz	PCIe Card
NC-SI 1.1 or later Compliant RMII Based Transport (RBT)	Required	Optional
At least one of the following Sideband I/Fs: 1. SMBus 2.0 Interface 2. PCIe VDM Interface	Required	Required
MCTP	Required MCTP Base 1.2 or later At least one of the following bindings: MCTP/SMBus MCTP/PCIe VDM	Required MCTP Base 1.2 or later At least one of the following bindings: MCTP/SMBus MCTP/PCIe VDM

Management Requirements (NC-SI Traffic)

Requirements	LOM/Mezz	PCIe Card
NC-SI Control/RBT (NC-SI 1.1 or later compliant)	Required	Optional
NC-SI Control/MCTP (NC-SI/MCTP 1.2 or later and NC-SI 1.1 or later compliant)	Optional	Required
NC-SI Pass-Through/RBT (NC-SI 1.1 or later compliant)	Required	Optional
NC-SI Pass-Through/MCTP (NC-SI/MCTP 1.2 or later and NC-SI 1.1 or later compliant)	Optional	Optional

Management Requirements (MC MAC Address Provisioning)

Requirements	LOM/Mezz	PCIe Card
MC MAC Address Provisioning	Required	Optional
MC MAC Address Retrieval Method At least one of the following: 1. NC-SI Control/RBT (NC-SI 1.1 or later compliant) 2. NC-SI Control/MCTP (NC-SI/MCTP 1.2 or later and NC-SI 1.1 or later compliant)	Required	Optional

Management Requirements (Temperature Reporting)

Requirements	LOM/Mezz	PCIe Card
OCP NIC ASIC Temperature Reporting	Required	Required
ASIC Temperature Reporting Method At least one of the following: 1. NC-SI Control (NC-SI 1.1 or later compliant) 2. PLDM Platform Monitoring & Control (DSP0248 1.1 Compliant) 3. TMP421 emulation over SMBus 2.0	Required	Required
External Optical Modules Temperature Reporting	Optional	Optional
Optical Modules Temperature Reporting Method At least one of the following: 1. NC-SI Control (NC-SI 1.1 or later compliant) 2. PLDM Platform Monitoring & Control (DSP0248 1.1 Compliant)	Optional	Optional

Management Requirements (Power Reporting)

Requirements	LOM/Mezz	PCIe Card
ASIC Power Consumption Reporting	Optional	Optional
ASIC Power Consumption Reporting Method At least one of the following: 1. NC-SI Control (NC-SI 1.1 or later compliant) 2. PLDM Platform Monitoring & Control (DSP0248 1.1 Compliant)	Optional	Optional

Management Requirements (Link Status/Speed)

Feature	LOM/Mezz	PCIe Card
Link Status Reporting	Required	Required
Link Status Reporting Method At least one of the following: 1. NC-SI Control (NC-SI 1.1 or later compliant) 2. PLDM Platform Monitoring & Control (DSP0248 1.1 Compliant)	Required	Required
Link Speed Reporting	Required	Required
Link Speed Reporting Method At least one of the following: 1. NC-SI Control (NC-SI 1.1 or later compliant) 2. PLDM Platform Monitoring & Control (DSP0248 1.1 Compliant)	Required	Required

Management Requirements (Pluggable Module Status)

Feature	LOM/Mezz	PCIe Card
Pluggable Module Presence Reporting	Optional	Optional
Pluggable Module Presence Reporting Method 1. NC-SI Control (NC-SI 1.1 or later compliant) 2. PLDM Platform Monitoring & Control (DSP0248 1.1 Compliant)	Optional	Optional
Pluggable Module Insertion/Removal Events	Optional	Optional
Pluggable Module Insertion/Removal Reporting Method At least one of the following: 1. NC-SI Control (NC-SI 1.1 or later compliant) 2. PLDM Platform Monitoring & Control (DSP0248 1.1 Compliant)	Optional	Optional

Management Requirements (Firmware Update)

Feature	LOM/Mezz	PCIe Card
PLDM FW Update (DSP0267 1.0 Compliant)	Optional	Optional