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NVM Express™ Technical Errata

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Revision Date	01/14/2021
Affected Spec Ver.	NVMe over Fabrics 1.1
Corrected Spec Ver.	

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Errata Overview

The INCITS 556 Fibre Channel – NVM Express – 2 (FC-NVMe-2) standard has been published, and this errata updates the references in section 1 Introduction, figure 38 Get Log Page – Discovery Log Page Entry, and section 7.2 Transport Capsule and Data Binding: Fibre Channel.

Revision History

Revision Date	Change Description
05/12/2020	Creation
05/19/2020	Reviewed specification changes with FDMS subgroup, and updated Errata Overview text.
06/10/2020	Added figure 36 - Get Log Page – Discovery Log Page Entry change.
01/11/2021	Integrated into the NVMe-oF 1.1 Specification
01/13/2021	Changed 2020 to 2021. Made all new text blue.
01/14/2021	Accepted all changes and removed all comments for ratification.

Incompatible Changes

None

Description of Specification Changes

Modify section 1 as shown below:

1 Introduction

NVM Express™ (NVMe™) Base Specification revision 1.4 and prior revisions define a register level interface for host software to communicate with a non-volatile memory subsystem over PCI Express™ (NVMe™ over PCIe™). This specification defines extensions to NVMe that enable operation over other interconnects (NVMe™ over Fabrics). The NVM Express Base Specification revision 1.4 is referred to as the NVMe Base specification.

The mapping of extensions defined in this document to a specific NVMe Transport are defined in an NVMe Transport binding specification. This document contains an NVMe Transport binding specification for RDMA and TCP. The NVMe Transport binding specification for Fibre Channel is defined in INCITS 54956 Fibre Channel – Non-Volatile Memory Express - 2 (FC-NVMe-2), refer to <http://www.incits.org>.

Modify figure 38 in section 5.3 as shown below:

5.3 Discovery Log Page (Log Identifier 70h)

Figure 1: Get Log Page – Discovery Log Page Entry

Bytes	Description																
00	Transport Type (TRTYPE): Specifies the NVMe Transport type.																
	<table><tr><th>Value</th><th>Definition</th></tr><tr><td>00</td><td>Reserved</td></tr><tr><td>01</td><td>RDMA Transport (refer to section Error! Reference source not found.)</td></tr><tr><td>02</td><td>Fibre Channel Transport (refer to INCITS 54056)</td></tr><tr><td>03</td><td>TCP Transport (refer to section Error! Reference source not found.)</td></tr><tr><td>04 to 253</td><td>Reserved</td></tr><tr><td>254</td><td>Intra-host Transport (i.e., loopback) (NOTE: This is a reserved value for use by host software.)</td></tr><tr><td>255</td><td>Reserved</td></tr></table>	Value	Definition	00	Reserved	01	RDMA Transport (refer to section Error! Reference source not found.)	02	Fibre Channel Transport (refer to INCITS 54056)	03	TCP Transport (refer to section Error! Reference source not found.)	04 to 253	Reserved	254	Intra-host Transport (i.e., loopback) (NOTE: This is a reserved value for use by host software.)	255	Reserved
	Value	Definition															
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	04 to 253	Reserved															
	254	Intra-host Transport (i.e., loopback) (NOTE: This is a reserved value for use by host software.)															
255	Reserved																
...																	

Modify section 7.2 as shown below:

7.2 Transport Capsule and Data Binding: Fibre Channel

The Fibre Channel Technical Committee (ANSI/INCITS TC T11) has defined a transport binding for NVMe over Fabrics. The Fibre Channel Transport maps NVMe capsules onto Fibre Channel frames using the NVMe over FC protocol (FC-NVMe-2).

The binding of an NVMe implementation using the Transport Type of Fibre Channel Transport as defined in Figure 38 is specified in INCITS 54056 Fibre Channel – Non-Volatile Memory Express - 2 (FC-NVMe-2). See <http://www.t11.org> for more information on the Fibre Channel Technical Committee and <http://www.incits.org> for information on how to purchase Fibre Channel standards.

The diagram in Figure 43 illustrates the layering of the Fibre Channel Transport within the host and NVM subsystem.

Note – Figure 43 remains unchanged.