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NVM Express™ Technical Errata

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| --- | --- |
| **Errata ID** | **008** |
| **Revision Date** | **01/13/2021** |
| **Affected Spec Ver.** | **NVM Express™ 1.4b** |
| **Corrected Spec Ver.** |  |

**Errata Author(s)**

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**Errata Overview**

ANA AEN Clarification – Reword the ANA AEN exception list to make it clear the requirement is to eliminate duplicate AENs and expand the list of events that may cause duplicate AENs to improve clarity about some specific events that should not cause duplicate AENs.

**Revision History**

|  |  |
| --- | --- |
| Revision Date | Change Description |
| 1/11/2021 | Initial creation |
| 1/13/2021 | Reword example list |
|  |  |
|  |  |
|  |  |

Editor’s Note:

**BLACK** text indicates unchanged text; **RED** text indicates new or deleted text; **BLUE** text indicates copied or moved text; **GREEN** text indicates editor notes.

**Incompatible Changes**

* The description of the ANA AEN (03h) indicated that the controller shall not send that event for cases where the Namespace Attribute Change is already sent (to reduce duplicate AENs for the same event – “as the Namespace Attribute Changed event is sent for these changes”). The text specifically mentions excluding the event if it was as a result of creation of the namespace or the deletion of the namespace. However, those two statements conflict. The general statement (to reduce duplicate AENs was not fully expanded to list the exact events that caused the duplicate AENs).

The Namespace Attribute Changed event is sent for any change in any Identify Namespace data (including changes to CNS=0h data, CNS=02h data, and CNS=11h data). Therefore, the statement to reduce the duplicate AENs and not send this the ANA AEN if the Namespace Attribute Change event is sent would apply – which would prevent the ANA AEN if it occurred as a result of an NS Create (CNS=11h change), an NS Attach (CNS=02h), a NS Detach (CNS=02h), or a NS Detach (CNS=11h change). However, the specific list does not include Attach or Detach.

This ECN clarifies this wording. This may be considered an incompatible change.

**Description of Specification Changes**

### Modify a portion of section 5.2 as shown below:

* 1. Asynchronous Event Request command

**…**

* + 1. Asynchronous Event Request command

**…**

| Figure 149: Asynchronous Event Information – Notice | |
| --- | --- |
| **Value** | **Description** |
| **…** |  |
| 03h | **Asymmetric Namespace Access Change:** The Asymmetric Namespace Access information (refer to section 5.14.1.12) related to an ANA Group that contains namespaces attached to this controller has changed (e.g., an ANA state has changed, an ANAGRPID has changed). The current Asymmetric Namespace Access information for attached namespaces is indicated in the Asymmetric Namespace Access log page (refer to section 5.14.1.12). To clear this event, the host issues a Get Log Page with the Retain Asynchronous Event bit cleared to ‘0’ for the Asymmetric Namespace Access log.  A controller shall not send this event if a Namespace Attribute Changed event is sent for the same event (e.g., the change is due to the creation of a namespace (refer to section 5.20), ~~; or the change is due to~~ the deletion of a namespace (refer to section 5.20)~~;~~, the attachment of a namespace (refer to section 5.19), or the detachment of a namespace (refer to section 5.19))~~,~~  ~~as the Namespace Attribute Changed event is sent for these changes~~. |
| 07h to EFh | Reserved |
| F0h to FFh | Refer to the NVMe over Fabrics specification |

**…**