USB4 1.0 ENGINEERING CHANGE NOTICE FORM

Title: Lane Disable Condition
Applied to: USB4 Specification Version 1.0

Brief description of the functional changes:
Prevents transitions to CLd when *Lane Disable* bit is still set to 1b.

Benefits as a result of the changes:
Describes accurately the preferred behavior.

An assessment of the impact to the existing revision and systems that currently conform to the USB specification:
None

An analysis of the hardware implications:
None

An analysis of the software implications:
None

An analysis of the compliance testing implications:
None

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Actual Change

(a). Figure 4-8 The Lane Adapter State Machine, page 136

Need to add a condition to the "Disconnect" arrow and change it to "Disconnect and (Lane Disable = 0b)"

(b). Section 4.2.1.1.1.3 Exit from State, page 137

From Text:

An Adapter shall exit this state when the *Lane Disable* bit in the Lane Adapter Configuration Capability is set to 0b. See Section 4.4.6 for details.

To Text:

An Adapter shall exit this state when the *Lane Disable* bit in the Lane Adapter Configuration Capability is set to 0b. See Section 4.4.6 for details.

Note: This is the only event on which the Lane Adapter exits the Disabled state.

(c). Section 4.2.1.2.1 Entry to State, page 137

From Text:

A Lane Adapter shall enter this state on any of the following events:

- Router power-on.
- The USB4 Port is disconnected (see Section 4.4.5).
- Router enters Sleep state (see Section 4.5.1).

To Text:

A Lane Adapter shall enter this state on any of the following events:

- Router power-on.
- The USB4 Port is disconnected and *Lane Disable* bit in the Lane Adapter Configuration Capability is set to 0b (see Section 4.4.5).
- Router enters Sleep state (see Section 4.5.1).

(b). Section 4.4.5.2.1 SBRX Goes Low, page 180

From Text:

When a Downstream Facing Port detects SBRX at logical low for tDisconnectRx, the Port is disconnected and shall:

To Text:

When a Downstream Facing Port detects SBRX at logical low for tDisconnectRx and its Lane Disable bit in the Lane 0 Adapter Configuration Capability is set to 0b, the Port is disconnected and shall:

(c). Section 4.5.1 Entry to Sleep, page 187

From Text:

Transition the Adapters to CLd state if they are not disabled.

To Text:

Transition the Adapters to CLd state ~~if they are not disabled~~.