USB4 1.0 ENGINEERING CHANGE NOTICE FORM

Title: Lock Bit Behavior when Disconnected
Applied to: USB4 Specification Version 1.0

Brief description of the functional changes:
Removes the requirement to ignore a write to the Lock bit when the Adapter does not have a Router connected on its DFP.

Benefits as a result of the changes:
Removes an unnecessary requirement.

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). Table 8-9, page 294
From Text:
Lock (LCK)

This bit controls whether or not a Connection Manager can access a Router that is downstream of the adapter.
This bit is only used for the Adapters in a Downstream Facing Port.
When the bit is 1b, the Adapter is "locked", which means that Control Packets are not forwarded to the downstream Router. When the bit is 0b, the Adapter is "unlocked" and Control Packets can be forwarded to the downstream Router.

An Adapter shall set this bit to 1b after a Connection Manager writes a value greater than 0 to the Connection Manager USB4 Version field in the Router Configuration Space.

An Adapter shall set this bit to 1b after the Adapter goes through a disconnect and the value in the Connection Manager USB4 Version field is greater than 0.

An Adapter shall ignore a write to this bit if the Adapter does not have a Router connected downstream.

Note: A TBT3 Connection Manager does not use this bit and the Adapter remains "unlocked" by default.

To Text:
Lock (LCK)

This bit controls whether or not a Connection Manager can access a Router that is downstream of the adapter.
This bit is only used for the Adapters in a Downstream Facing Port.
When the bit is 1b, the Adapter is "locked", which means that Control Packets are not forwarded to the downstream Router. When the bit is 0b, the Adapter is "unlocked" and Control Packets can be forwarded to the downstream Router.

An Adapter shall set this bit to 1b after a Connection Manager writes a value greater than 0 to the Connection Manager USB4 Version field in the Router Configuration Space.

An Adapter shall set this bit to 1b after the Adapter goes through a disconnect and the value in the Connection Manager USB4 Version field is greater than 0.

An Adapter ~~shall~~may ignore a write to this bit if the Adapter does not have a Router connected downstream.

Note: A TBT3 Connection Manager does not use this bit and the Adapter remains "unlocked" by default.