

# USB4 1.0 ENGINEERING CHANGE NOTICE FORM

**Title: Enter Sleep Signals for a Host Router**  
**Applied to: USB4 Specification Version 1.0**

**Brief description of the functional changes:**

Removes PERST# as an explicit mechanism to initiate sleep entry at a Host Router.

**Benefits as a result of the changes:**

Simplifies sleep entry. Removes the requirement to support PERST# as a mechanism to initiate sleep entry at a Host Router.

**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 (simplification)

**An analysis of the software implications:**

None (not used today)

**An analysis of the compliance testing implications:**

None

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## Actual Change

### (a). Section 4.5.1 Entry to Sleep

Change the following text:

A Router shall enter sleep state when the *Enter Sleep* bit is set to 1b and one of the following sleep events occur:

- Host Router
  - ~~○ The Router is a PCIe Host Router and it receives a PCIe PERST# signal that transitions from logical high to logical low. If the Router tunnels PCIe traffic, then it shall send at least 3 PERST Active Tunneled Packets on each Downstream Facing Port before entering Sleep state.~~
  - The Router receives an implementation-specific signal indicating entry to Sleep state.
- Device Router
  - The Router tunnels PCIe traffic and receives a PERST Active Tunneled Packet on the Upstream Facing Port.
  - The Router receives an LT\_LRoff Transaction on the Sideband Channel of an Upstream Facing Port.