

# USB Type-C ENGINEERING CHANGE NOTICE

## Title: VCONN-powered Accessories Failure Notifications Applied to: USB Type-C Specification Release 1.2

<b>Brief description of the functional changes proposed:</b>
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This ECN is to eliminate silent failures from Sinks with Accessory Support.
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<b>Benefits as a result of the proposed changes:</b>
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Improved user experience.
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<b>An assessment of the impact to the existing revision and systems that currently conform to the USB specification:</b>
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Will require new Sinks with Accessory Support to add an ability to provide user notification.
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<b>An analysis of the hardware implications:</b>
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Additional circuitry may be required to enable user notification, although the method of notification isn't explicitly specified by this spec.
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<b>An analysis of the software implications:</b>
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Depends on the method of implementation – there is no assumption that the Sink has software. Presumed more likely a firmware impact.
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<b>An analysis of the compliance testing implications:</b>
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Compliance will be updated to verify that the notification will appear when tested with an unsupported device.
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## Actual Changes Requested

The following is proposed changes to USB Type-C spec.

### Before:

#### 4.5.2.2.21 Unsupported.Accessory State

This state appears in Figure 4-14.

If a VCONN-powered accessory does not enter an Alternate Mode, the [Unsupported.Accessory](#) state is used to wait until the accessory is unplugged before continuing.

##### 4.5.2.2.21.1 Unsupported.Accessory Requirements

Only one of the CC1 or CC2 pins shall be in the [SRC.Rd](#) state. The port shall advertise Default USB Power (see Table 4-17) on this CC pin and monitor its voltage.

The port shall not drive VBUS or VCONN.

##### 4.5.2.2.21.2 Exiting from Unsupported.Accessory

The port shall transition to [Unattached.SNK](#) when the [SRC.Open](#) state is detected on the monitored CC pin.

### After:

#### 4.5.2.2.21 Unsupported.Accessory State

This state appears in Figure 4-14.

If a VCONN-powered accessory does not enter an Alternate Mode, the [Unsupported.Accessory](#) state is used to wait until the accessory is unplugged before continuing.

##### 4.5.2.2.21.1 Unsupported.Accessory Requirements

Only one of the CC1 or CC2 pins shall be in the [SRC.Rd](#) state. The port shall advertise Default USB Power (see Table 4-17) on this CC pin and monitor its voltage.

The port shall not drive VBUS or VCONN.

A Sink with Accessory Support shall provide user notification that it does not recognize or support the attached accessory.

##### 4.5.2.2.21.2 Exiting from Unsupported.Accessory

The port shall transition to [Unattached.SNK](#) when the [SRC.Open](#) state is detected on the monitored CC pin.