

DEVELOPER UPDATE

CONTACTS:

Brad Saunders

USB 3.0 Promoter Group

+1 503-264-0817

brad.saunders@intel.com**Liz Nardozza**

USB-IF PR

+1 503-619-5224

press@usb.org

USB 3.0 Promoter Group Announces USB 3.2 Update

Specification defines doubling bandwidth to extend existing USB Type-C™ cable performance

Beaverton, OR, USA – July 25, 2017 – The USB 3.0 Promoter Group today announced the pending release of the USB 3.2 specification, an incremental update that defines multi-lane operation for new USB 3.2 hosts and devices. USB Developer Days 2017 will include detailed technical training covering USB 3.2, fast charging advancements in USB Power Delivery, and other exciting topics.

While USB hosts and devices were originally designed as single-lane solutions, USB Type-C™ cables were designed to support multi-lane operation to ensure a path for scalable performance. New USB 3.2 hosts and devices can now be designed as multi-lane solutions, allowing for up to two lanes of 5 Gbps or two lanes of 10 Gbps operation. This enables platform developers to continue advancing USB products to fit their customers' needs by effectively doubling the performance across existing cables. For example, a USB 3.2 host connected to a USB 3.2 storage device will now be capable of realizing over 2 GB/sec data transfer performance over an existing USB Type-C™ cable that is certified for SuperSpeed USB 10 Gbps.

"When we introduced USB Type-C to the market, we intended to assure that USB Type-C cables and connectors certified for SuperSpeed USB or SuperSpeed USB 10 Gbps would, as produced, support higher performance USB as newer generations of USB 3.0 were developed," said Brad Saunders, USB 3.0 Promoter Group Chairman. "The USB 3.2 update delivers the next level of performance."

"With increased performance and seamless compatibility, the new USB 3.2 specification brings even more speed and bandwidth benefits to new USB 3.2 devices, while remaining compatible with USB 3.0 and earlier devices," said Roanne Sones, General Manager, Strategy and Ecosystem for Windows and Devices, Microsoft. "We're excited to work with our partners in the USB 3.0 Promoter Group to help showcase these benefits to users around the world."

Key characteristics of the USB 3.2 solution include:

- Two-lane operation using existing USB Type-C™ cables
- Continued use of existing SuperSpeed USB physical layer data rates and encoding techniques
- Minor update to hub specification to address increased performance and assure seamless transitions between single and two-lane operation

For users to obtain the full benefit of this performance increase, a new USB 3.2 host must be used with a new USB 3.2 device and the appropriate certified USB Type-C™ cable. This update is part of the USB performance roadmap and is specifically targeted to developers at this time. Branding and marketing guidelines will be established after the final specification is published. The USB 3.2 specification is now in a final draft review phase with a planned formal release in time for the USB Developer Days North America event in September 2017.

About the USB 3.0 Promoter Group

The USB 3.0 Promoter Group, comprised of Apple Inc., Hewlett-Packard Inc., Intel Corporation, Microsoft Corporation, Renesas Electronics, ST Microelectronics, and Texas Instruments, continues to develop the USB 3.x family of specifications to meet the market needs for increased functionality and performance in SuperSpeed USB solutions. Additionally, the USB 3.0 Promoter Group develops specification addendums (USB Power Delivery, USB Type-C™, and others) to extend or adapt its specifications to support more platform types or use cases where adopting USB 3.x technology will be beneficial in delivering a more ubiquitous, richer user experience.

About the USB-IF

The non-profit USB Implementers Forum, Inc. was formed to provide a support organization and forum for the advancement and adoption of USB technology as defined in the USB specifications. The USB-IF facilitates the development of high-quality compatible USB devices through its logo and compliance program, and promotes the benefits of USB and the quality of products that have passed compliance testing. Further information, including postings of the most recent product and technology announcements, is available by visiting the USB-IF website at www.usb.org.

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