USB DevDays 2019 - Branding Session

Jeff Ravencraft - President & COO, USB-IF November 19, 2019



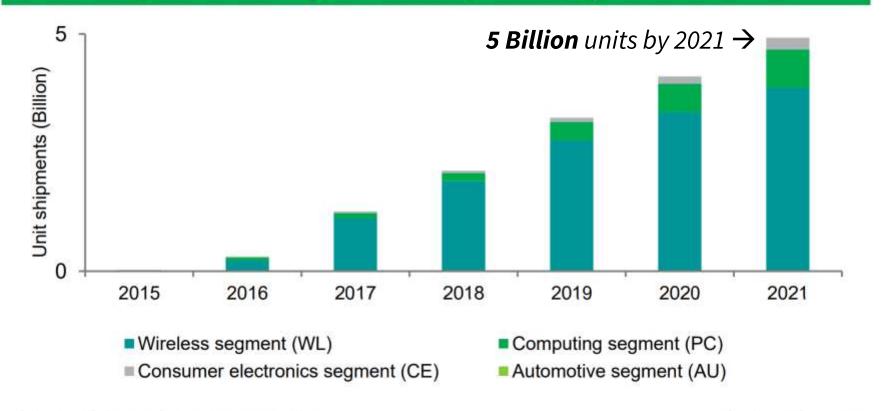
Agenda

- Market Snapshot
- USB Charging Initiative Update
- Importance of Certification/Branding
- USB 3.2 Updates
 - SuperSpeed USB 20Gbps Logos
 - SuperSpeed USB Branding Summary
 - SuperSpeed USB 5Gbps Updates
- USB4™ Introduction
 - Logos Preview
 - Consumer facing brand name
 - Certified 20Gbps cable notice
- USB Type-C[®], USB-C[®] Registered Trademarks

USB Type-C® Global Device Shipments

IHS Report - December 2017

Global adoption of USB Type-C across product segment : 2016 - 2021



Source: USB Type-C Report - 2018 Edition

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Certified USB Fast Chargers

Strong Industry Ramp



- USB-IF expanded its USB Charging Initiative to include Certified USB Fast Chargers
 - Surge in implementation of USB Fast Charging with **187** certified solutions to date
- Certified USB Fast Chargers:
 - Support the Programmable Power Supply (PPS) function of the USB Power Delivery 3.0 specification
 - Require new USB hosts, devices and chargers supporting PPS for users to take full advantage
 - Backwards compatible with devices that support USB Type-C[®] and USB Power Delivery
- Benefits:
 - Allows the smartphone OEMs to better manage the thermals while charging, enabling a faster charging experience for consumers
 - Adapters can allow Devices to control the Adapter's output voltage using the PPS mode
 - Device requests a PPS voltage and operating current within one of the defined ranges
 - Makes requests as often as needed to maintain the charging profile at the battery



Certified USB Fast Chargers

Growing Smartphone Market Adoption



Google now requires Digital Wellbeing and USB-C PD charging standard for new Android phones



iPhone 11 Pro and iPhone 11 Pro Max Include Faster 18W Charger in Box

"...the all-new iPhone 11 Pro and iPhone 11 Pro Max will ship with a faster 18W USB-C power adapter."



THE VERGE The iPhone 11 Procome with a USB-C18Wwall charger and USB-Cto Lightning cable



Samsung chips promise secure 100W USB-C fast charging

Samsung's two new chips promise to deliver fast and secure 100W USB-C charging





Why Certification?

Target recalls 90,000 USB cables that caused consumer finger burns

After reports of a USB-Lightning cable smoking and consumers burning their fingers, Target is recalling 90,000 charging cables.

29 May 2019, USA Today

https://www.usatoday.com/story/tech/2019/05/29/target-recall-90000-usb-charging-cables-can-shock-catch-fire/1277867001/

Target is recalling \$15 charging cables that can pose shock and fire hazards. The U.S. Consumer Product Safety Commission is urging consumers to stop using the 3-foot long USB-Lightning cables immediately, saying the metal around the cord can become electrically charged if it contacts the USB wall charger plug prongs while charging.

Target received 14 reports of the cables smoking, sparking or igniting, including two reports of consumer finger burns.

- Bad, poorly built products cause consumer concern, mistrust and negative brand recognition
- Bad, poorly built products cause negative press/media coverage
- Bad, poorly built products pose potential legal liability concerns
- Handling any product twice (product returns) eliminates all profit margin, resulting in a loss

Why Certification?

Sheffield fire deaths: Faulty charger likely cause

A fire which killed five people was most likely caused by an "electrical fault involving a faulty charging device", investigators have said.

12 May 2014, BBC News UK

http://www.bbc.com/news/uk-england-south-yorkshire-27371854

Two women and three children died in the blaze in Wake Road, Sheffield, on 28 April, including Shabbina Begum, 53. Her daughter Anum Parwaiz Kayani, 20, Adyan Parwaiz Kayani, nine, Amaan Parwaiz Kayani, seven, and nine-week-old Minahil Parwaiz Kayani also died.

Woman in Australia killed by cheap phone charger

Australian authorities investigate after woman in her 20s found electrocuted

27 July 2014, The Telegraph

http://www.telegraph.co.uk/news/worldnews/australiaandthepacific/australia/10929662/Woman-in-Australia-killed-by-cheap-phone-charger.html

Australian authorities issued a warning about cheap, non-compliant USB-style chargers after a young woman died from apparent electrocution while using a laptop and possibly a smart phone. The 28-year-old was found wearing headphones and with her computer in her lap with burns on her chest and ears at a home in Gosford, north of Sydney, in April.

Why Certification?

- Non-compliant USB Type-C[®] chargers and cables are available in the market now
- Consumers are purchasing faulty products and experiencing frustration
- Consumer demand for compliant products is evident
- Participate in USB-IF compliance testing/certification and logo programs
- USB-IF marketing and advertising initiatives educate consumers about our brands

How can consumers trust a USB product? "Look for the Logo"

Why Certification – Why Not!

- Retailers recognize that the USB-IF logos communicate to the sales associates and consumers:
 - USB logos on products immediately communicates that the product is a safe reliable purchase
 - USB logos quickly/easily communicates that the product has been certified to be compliant to the USB standards
- Protecting your Brand
 - Reassurance/confidence for your customers!
 - Resellers and consumers
 - Validation/reassurance/confidence for your company!
- Certification and logo use means your products have met the highest standards in the industry
 - Products were certified to be compliant to the specification
 - Products were tested for interoperability
- Trademark License agreement/logo license fee included with USB-IF Membership
- USB-IF members may attend a USB-IF certification workshop and get their product(s) certified at no cost

The Importance of Branding

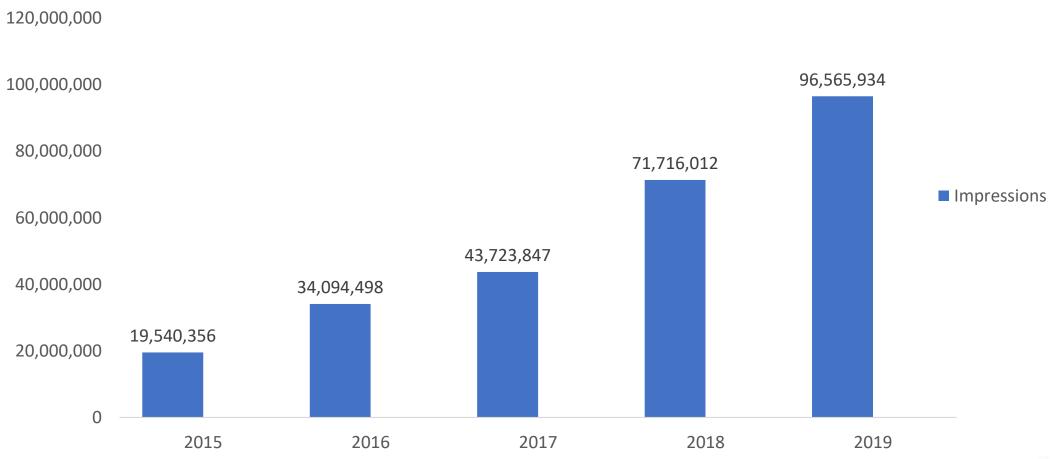
- Communicates to the consumer products are certified and meet the highest standard in the Industry
- USB-IF Logos insures consistent messaging globally across multiple manufactures and products
- The consumer is conditioned to look for USB-IF Logos
- It is essentially additional free advertising for your company
- USB-IF invests in advertising our logos directly to the consumer and the industry at large

2019 Total Advertising Impressions

Placement	Impressions
CES 2019 McCarran Airport – <i>airport</i>	10,400,000
American Public Media – <i>radio</i>	34,285,600
DIGITIMES sponsorship (Computex) – digital/print	1,606,515
Amazon US – <i>digital</i>	14,861,111
Amazon UK – <i>digital</i>	14,594,595
Amazon Germany – <i>digital</i>	11,698,113
Amazon China – <i>digital</i>	9,120,000
Totals	96,565,934



YoY Advertising Metrics – 2015-2019



Industry Call to Action

1. Follow official USB-IF specifications when designing USB solutions

• All USB-IF specifications are freely available at https://www.usb.org/documents

2. Get your USB solutions certified by:

- Participating in a USB-IF Sponsored Compliance Workshop (USB-IF Member Company Benefit Only)
- Sending your product to an Authorized Independent Test Lab (ITL)
- Participating in the USB-IF Qualification by Similarity (QBS) Program
- Attending the USB-IF Platform Interoperability Lab (PIL) (USB-IF Member Company Benefit Only)
- OEM Arrangements

3. Use USB-IF certification logos and follow USB-IF naming and packaging guidelines

All USB-IF logo, naming and packaging guidelines are available at <u>www.usb.org</u>

USB 3.2 Updates

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Deprecation of USB 3.0/USB 3.1 Specification References

- The USB 3.2 specification absorbed all prior 3.x specifications
- USB 3.2 identifies three transfer rates, USB 3.2 Gen1 (5Gbps), USB 3.2 Gen2 (10Gbps) and USB 3.2 Gen2x2 (20Gbps). These specification references should only be used when addressing a technical audience
- It is important that vendors clearly communicate using the marketing names below for the performance signaling that a product delivers in the product's packaging, advertising content, and any other marketing materials that are consumer facing
 - Marketing name: SuperSpeed USB 5Gbps
 - Product capability: product signals at 5Gbps
 - Marketing name: SuperSpeed USB 10Gbps
 - Product capability: product signals at 10Gbps
 - Marketing name: SuperSpeed USB 20Gbps
 - Product capability: product signals at 20Gbps







NOTEs:

- USB 3.2 Gen1, USB 3.2 Gen2, USB 3.2 Gen2x2, SuperSpeed Plus, Enhanced SuperSpeed and SuperSpeed+ are defined in the USB specifications however these terms are not intended to be used in product names, messaging, packaging or any other consumer-facing content
- USB 3.2 protocol specification only defines the performance capabilities that may be implemented in a product.
 - USB 3.2 is not USB Type-C®, USB Standard-A, Micro-USB, or any other USB cable or connector.
 - USB 3.2 <u>is not</u> USB Power Delivery or USB Battery Charging.

SuperSpeed USB 20Gbps

Packaging Logo



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Cable & Port Logo



USB Type-C® Charging Trident Logo



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SuperSpeed USB Branding Summary

Brand Name	Packaging Logo	Port & Cable Logo	USB Type-C® Charging Trident Logo
SuperSpeed USB 5Gbps*	SUPERSPEED USB 5 Gbps	SS S	SSC ⁵
SuperSpeed USB 10Gbps	SUPERSPEED+ CERTIFIED USB 10 Gbps	SSC=10	SSC-10
SuperSpeed USB 20Gbps	SUPERSPEED+ CERTIFIED USB 20 Gbps	SS← 20 ®	SSC ²⁰

^{* &}quot;5Gbps" added to SuperSpeed USB brand name and logos to better indicate performance level.

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USB in the News

USB-IF Announces Publication of USB4™ Specification

Beaverton, OR, USA – September 03, 2019 — USB Implementers Forum (USB-IF), the support organization for the advancement and adoption of USB technology, today announced the publication of the USB4™ specification, a major update to deliver the next-generation USB architecture that complements and builds upon the existing USB 3.2 and USB 2.0 architectures. The USB4 architecture is based on the Thunderbolt™ protocol specification recently contributed by Intel Corporation to the USB Promoter Group. It doubles the maximum aggregate bandwidth of USB and enables multiple simultaneous data and display protocols.

The development of the USB4 specification was <u>first announced in March 2019</u> by the USB Promoter Group. It is now officially published by USB-IF and available for download at <u>www.usb.org</u>.

Key characteristics of the USB4 solution include:

- Two-lane operation using existing USB Type-C[®] cables and up to 40Gbps operation over 40Gbps certified cables
- Multiple data and display protocols that efficiently share the maximum aggregate bandwidth
- Backward compatibility with USB 3.2, USB 2.0 and Thunderbolt 3

Industry Reaction



USB4 will resurrect those ever-so-useful USB hubs



The New USB4 spec promises a lot: Thunderbolt 3 support, 40Gbps bandwidth, and less confusion



With USB4, Thunderbolt 3's benefits become open to all



Embracing Thunderbolt 3 will make next-gen USB4 twice as fast

USB 3.2 and USB4™ Branding Overview



USB 3.2 will be the final USB Performance specification and identity to use SuperSpeed USB.

With the introduction of USB4, we have the opportunity to create a visual distinction and a unified brand look for the future of USB Performance.

Packaging Logo





Cable & Port Logo





USB Type-C® Charging Trident Logo





USB4 Branding Summary

Brand Name	Packaging Logo	Port & Cable Logo	USB Type-C® Charging Trident Logo
USB4™ 20Gbps	USB20 TM Gbps	20 	20 ← [
USB4™ 40Gbps	USB40 TM Gbps	40	40 C

^{*20/40}Gbps performance indicates maximum aggregate bandwidth for available data and display protocols

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SuperSpeed USB Passive Cable Consolidation

• Background:

- SuperSpeed USB 10Gbps, SuperSpeed USB 20Gbps and USB4™ 20Gbps passive cables offer the same capability to deliver maximum performance up to 20Gbps
- Given this overlap, the potential for consumer confusion is higher which we need to minimize

• Solution:

- USB-IF will immediately deprecate SuperSpeed USB 10Gbps and SuperSpeed USB 20Gbps passive cable certification and logos
- Transition SS 10/SS 20 passive cables certification to USB4™ 20Gbps and use the new logo







Note on Thunderbolt™ Certification

- USB4™ specification defines how to build Thunderbolt™ 3 compatible products
- Thunderbolt certification, brand names and logos are managed and owned by Intel
- Products registered with USB-IF using the brand name "Thunderbolt™ 3" and/or claiming Thunderbolt certification must present supporting documentation from Intel to be accepted



Thunderbolt™ and the Thunderbolt logo, are trademarks of Intel Corporation

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USB Type-C®/USB-C®

Trademark Update



Registered Trademark Update

- "USB Type-C®" and "USB-C®" are now registered trademarks of USB-IF and are only for use with products based on and compliant with the USB Type-C® cable and connector specification
- The registered trademark notice symbol ® must be included in the first instance of "USB Type-C®" or "USB-C®" in any material. USB Type-C® and USB-C® should not be translated into languages other than English
- The trademark attribution statement should be included in any materials using the word marks "USB Type-C®" and/or "USB-C®"

USB-IF Word Marks

USB Type-C®

USB-C®

Trademark Attribution Statement

USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum.

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Correct Naming Usage continued

- It is not "Type-C"
- It is not "Standard-A" or "Std-A"
- It is not "Micro-B" or "Micro"
- It is not "Power Delivery" or "PD"
- These terms should always be preceded by "USB", i.e.:
 - "USB Type-C®"
 - "USB Standard-A" or "USB Std-A"
 - "USB Micro-B" or "USB Micro"
 - "USB Power Delivery" or "USB PD"

Do not use "Type-C" - Do not use "Power Delivery" or "PD"





USB Charging Initiative

- Provides a universal charger for the evolving device and computing markets
 - Certified USB Chargers (announced August 2016)
 - Certified Fast USB Chargers (announced January 2018)
- Benefits:
 - Increases reusability and sharing of chargers
 - Reduces electronic waste in landfills
 - Cross-vendor interoperability makes sharing/borrowing chargers easier
 - Allows for the development of vendor neutral chargers
 - Open standard enables OEM's to save R&D, manufacturing & inventory management costs
- Industry support growing for universal charging via USB Type-C® technology
 - China Communications Standards Association (CCSA)
 - Digital Europe
 - International Electrotechnical Commission (IEC)

