USB 3.2 is going to make the current USB branding even worse

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USB 3.2, which doubles the maximum speed of a USB connection to 20Gb/s, is likely to materialize in systems later this year. In preparation for this, the USB-IF—the industry group that together develops the various USB specifications—has announced the branding and naming that the new revision is going to use, and… it's awful.

USB 3.0 was straightforward enough. A USB 3.0 connection ran at 5Gb/s, and slower connections were USB 2 or even USB 1.1. The new 5Gb/s data rate was branded "SuperSpeed USB," following USB 2's 480Mb/s "High Speed" and USB 1.1's 12Mb/s "Full Speed."

But then USB 3.1 came along and muddied the waters. Its big new feature was doubling the data rate to 10Gb/s. The logical thing would have been to identify existing 5Gb/s devices as "USB 3.0" and new 10Gb/s devices as "USB 3.1." But that's not what the USB-IF did. For reasons that remain hard to understand, the decision was made to retroactively rebrand USB 3.0: 5Gb/s 3.0 connections became "USB 3.1 Gen 1," with the 10Gb/s connections being "USB 3.1 Gen 2." The consumer

branding is “SuperSpeed USB 10Gbps.”

What this branding meant is that many manufacturers say that a device supports “USB 3.1” even if it’s only a “USB 3.1 Gen 1” device running at 5Gb/s. Meanwhile, other manufacturers do the sensible thing: they use “USB 3.0” to denote 5Gb/s devices and reserve “USB 3.1” for 10Gb/s parts.

USB 3.2 doubles down on this confusion. 5Gb/s devices are now “USB 3.2 Gen 1.” 10Gb/s devices become “USB 3.2 Gen 2.” And 20Gb/s devices will be… “USB 3.2 Gen 2×2.” Because they work by running two 10Gb/s connections along different pairs of wires simultaneously, and it’s just obvious from arithmetic that you’d number the generations “1, 2, 2×2.” Perhaps they’re named for powers of two, starting with zero? The consumer branding is a more reasonable “SuperSpeed USB 20Gbps.”

The good part of all this is that USB 3.2 could mean 5, 10, or 20Gbps. You can bet that there will be manufacturers who are going to exploit that confusion wherever and whenever they can.

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