



Key Messages: SATA Express

What is SATA Express?

SATA Express™ is a new specification under development within SATA-IO that combines SATA software infrastructure with the PCI Express interface to deliver high-speed storage solutions. SATA express enables the development of new devices that utilize the PCIe interface and maintains compatibility with existing SATA applications. The technology provides a cost-effective means to increase device interface speeds to 8Gb/s and 16Gb/s.

How has SATA technology evolved over the years?

Since its introduction in 2001, SATA technology has evolved from a solely client/server storage interface to provide low-cost, high performance storage solutions for a wide variety of device segments. Today SATA can be used both internally and externally with many different enterprise, consumer electronics and mobile devices. This evolution has helped make SATA the de facto standard for internal PC storage. It is also now implemented in many different user applications.

Why didn't SATA-IO decide to just increase SATA to 12 Gb/s?

There is an emerging segment of the SATA market that requires higher performance than 6Gb/s. This segment includes client SSDs and hybrid storage devices. Although these devices are likely to occupy a considerable number of client space storage ports in the future, this segment is not currently large enough to justify the development of a SATA interface faster than 6Gb/s which would then burden all other SATA applications with associated technological complexity and additional cost. To stay faithful to its mission of providing robust, affordable storage connectivity, SATA-IO introduced SATA Express. This provides the desired performance for the SSD segment by utilizing readily available, fast, and scalable PCIe connectivity while preserving established SATA software and applications legacy.

What does this mean for the long-term viability for SATA?

SATA is still the most widely implemented storage interface for desktop and mobile PC client systems, and we expect it to maintain this position for the foreseeable future. SATA-IO will continue to refine the specifications and interoperability programs to enable developers to produce highest quality storage solutions for their customers. We will also continue working to enhance SATA for use in additional device segments, where the speed and reliability of SATA 6Gb/s will prove advantageous. We fully expect to see the number of SATA implementations increase throughout all segments of the storage market.

Moreover, we are open to considering the idea of additional speed increases in the future, when the cost associated with changing the specification may not be as high, or when demand for higher speed SATA devices provides greater justification for the cost.

Is this being done in partnership with the PCI-SIG?

SATA Express is based on readily available technology. Obviously, SATA-IO is coordinating the use of such technology with appropriate organizations. However, as has been the case in the past, SATA-IO will continue to own the SATA Express connector/cable.