

## 2024 FCIA Solution Guide

# President's Intro

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Happy Anniversary to the Fibre Channel Industry Association (FCIA) – 30 years and still going strong! For three decades, this nonprofit international organization of manufacturers, system integrators, developers, vendors, industry professionals, and end users has pioneered our fast, secure, and scalable protocol for server-to-storage and server-to-server networking.

The origins of the FCIA date back to 1994 when the two existing Fibre Channel-protocol trade organizations, the FCA (Fibre Channel Association) and FCLC (Fibre Channel Loop Community), merged to form what is now known as the FCIA. The original development of the Fibre Channel standard can trace its origins even further back, to 1988, making the protocol over 35 years old!

According to Quillin Research, Fibre Channel achieved another major milestone this year by exceeding the \$50 Billion barrier in cumulative adapter and switch revenue since 1998 (Figure 1). This is significant because it points to the value of an industry that works as one to solve market needs through innovation while fostering a multigenerational technology trend that rewards participating product vendors with long-term revenue generation. Over this period, more than 160 million Fibre Channel ports have been shipped with an estimated 35 million in service today. The forecast for Fibre Channel is strong, with consistent and expected growth to exceed 180 million ports shipped by 2027.

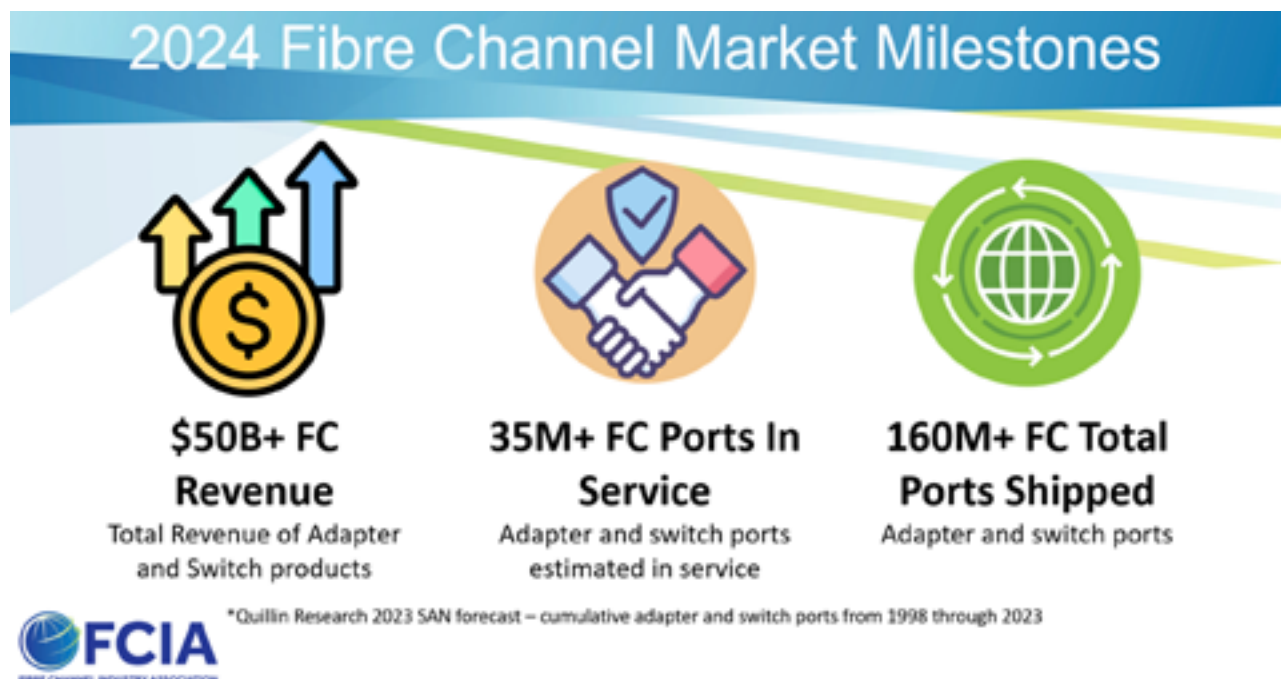
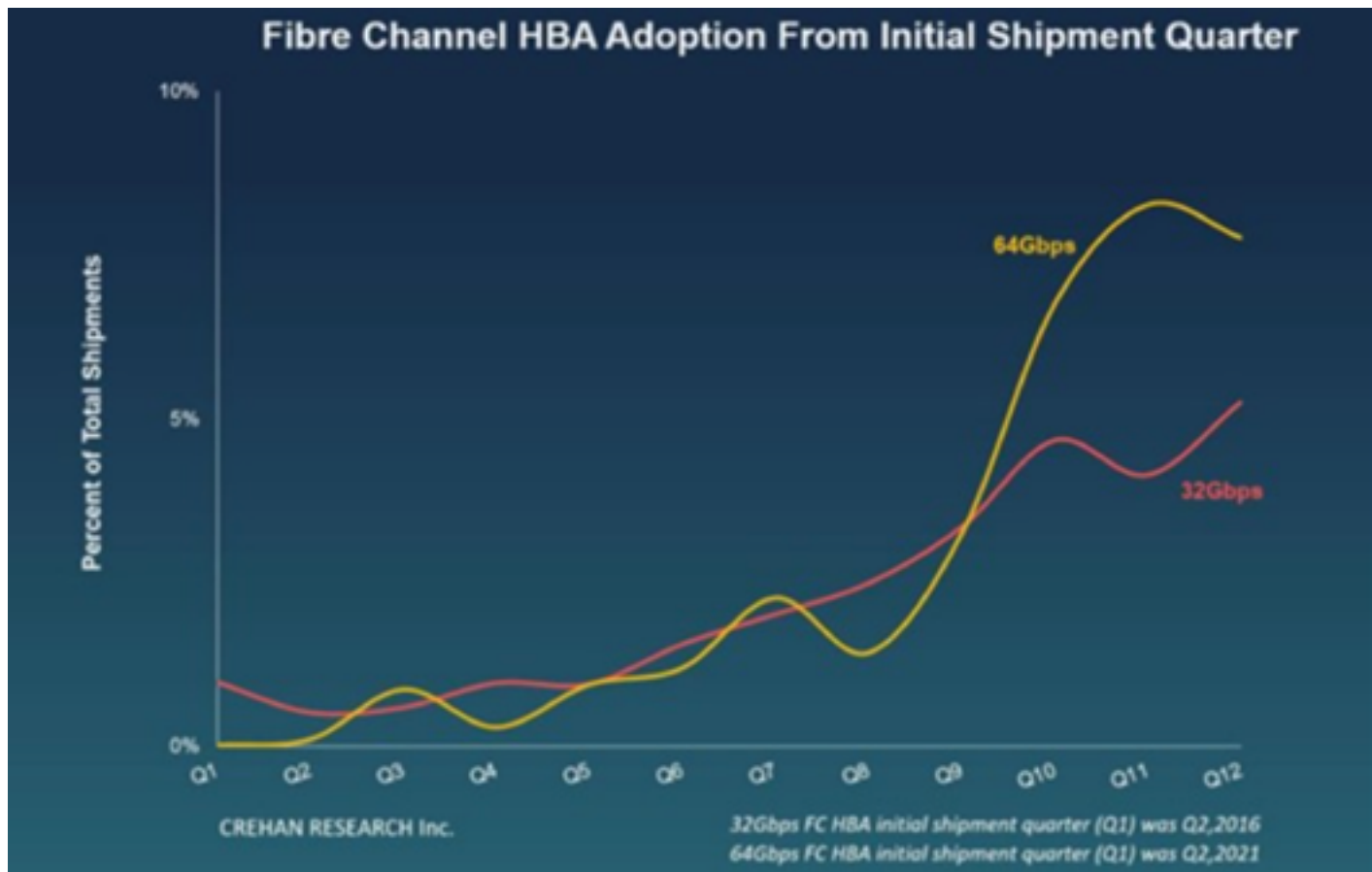



Figure 1

Fibre Channel is well into its 7th speed generation: 64GFC, or Gen 7, has been in the marketplace for a number of years and is becoming the dominant speed that is shipped today. Crehan Research Inc. announced in June 2024 that the 64GFC HBA (Host Bus Adapter) market had posted its second consecutive quarter of 30% revenue growth (Figure 2). The adoption of 64GFC is now starting to surpass that of 32GFC in the marketplace.



**Figure 2**

In late 2023, the FCIA hosted its 41st plugfest event at the University of New Hampshire InterOperability Laboratory. The event was the first plugfest with a broad ecosystem of 64G Fibre Channel Gen 7 devices to be held under a single roof. The results of this plugfest provide assurance to the Fibre Channel SAN community that the latest 64GFC specification meets the needs of flash storage technologies. The nine participating companies are the major vendors of FC HBA, fabric switch, optics, cable, and test equipment products.



Development of the Fibre Channel standard continues within INCITS/Fibre Channel (formerly INCITS/T11), the group of engineers and technical architects from a diverse group of companies that regularly meet to work on a series of enhancements to keep Fibre Channel at the forefront of data center technology. The committee completed the FC-PI-8 standard (the standard for 128GFC Fibre Channel speed) in 2023, and already the group has started on FC-PI-9, the single-lane standard for 256GFC. Additional major initiatives include FC-RDMA, which is the mapping of the remote directory memory access (RDMA) protocol to run over Fibre Channel. FC-RDMA will help folks that use RDMA applications take advantage of the advanced management and security inherent within a Fibre Channel fabric. The T11 workgroup FC-SP-3 is advancing Fibre Channel security capabilities by updating the standard to meet future government data encryption regulations while at the same time allowing for FC in-flight encryption to be automatic and ubiquitous in the future.

Other approaches to end-to-end encryption involve application-based mechanisms that are both expensive due to licensing and prevent storage array features such as compression and de-duplication from delivering customer value. Encrypting automatically between zero-trust endpoints, such as Secure HBAs, will help customers meet upcoming government regulations while saving significant cost and maintaining advanced array features.

Looking forward to the next 30 years of Fibre Channel, education is a key initiative within the FCIA. The [FCIA Brighttalk channel](#) regularly adds new content presented by the technology experts that craft the industry standards for storage networking. Please visit the [FCIA website](#) to find [future roadmaps](#), articles, blogs, and the latest news on Fibre Channel technologies and products. The FCIA also offers its [YouTube channel](#) highlighting dozens of video presentations organized into playlists according to skill level – something for everyone from Fibre Channel basics to expert’s courses. Please follow the FCIA progress by visiting on social media at [@FCIAnews on twitter](#) and [Facebook](#).

Thank you all for being part of this important community, and best wishes for the next 30 years!