Foreword

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Data center networking continues to be a critical piece of the puzzle in designing technology solutions to solve complex business problems for customers. Customer data and secure access to this data with high availability, reliability and performance sounds like a simple set of requirements but continues to be challenging to deliver in the real world.

In 2020, Fibre Channel continues to remain the premier storage fabric connectivity protocol in today's data centers delivering these requirements. Millions of ports of Fibre Channel are currently deployed by thousands of customers in their data centers around the world. Customers today have a wide variety of storage workloads driven by a similar wide variety of applications. The one common denominator that continues to remain proven and trustworthy to deliver these workloads is the Fibre Channel protocol.

FC-NVMe-2, the second version of the NVMe over Fibre Channel standard, is published and we are seeing products being announced and released in the market throughout the protocol stack. The announcement from VMware that vSphere 7 is supporting FC-NVMe with NVMe over Fabrics is proof that Fibre Channel will continue to remain dominant for SAN fabrics with NVMe-oF. Customers who have made investments in Fibre Channel will leverage the same hardware to run FC-NVMe. That just makes common sense. We have an article on this specific topic in this year's Solutions Guide. Please refer to "The Benefits of NVMe™ and NVMe-oF™".

Fibre Channel was built from the ground up for storage with a full featured highly available distributed name server built into the fabric. This gives FC-NVMe a unique edge over other network protocol standards in terms of rock-solid reliability, unmatched performance and massive scalability. FC-NVMe takes full advantage of this build-in name server, giving it the gold standard for reliability and "five nines of availability," meaning 99.999% of network uptime.

The Fibre Channel roadmap continues to be robust with the development of Gen 8 and other Fibre Channel technologies. Also, in this year's Solutions Guide, there are articles on autonomous SAN and the power of automation and orchestration in Fibre Channel with fabric notifications. Customer problems like fabric congestion are best solved at the protocol layer. These solutions at the protocol layer provide the most optimized and clean solutions without adding additional layers of software in the stack.

We cap off this year's guide with an article on the importance of technology standards in our industry. I hope you enjoy reading this year's Fibre Channel Solution Guide.