BROCADE
A Broadcom Company

Six Reasons
to Choose Fibre Channel for Next-gen Storage

Data center modernization is an integral part of enterprise-wide transformation. While there are many factors to consider, one of the most important is to choose the right storage architecture.

Enterprises have never had so many infrastructure technology choices, making it important to fully understand the critical capabilities that your business requires, and more importantly, to be aware of the limitations and opportunities that different architectures present.

Making the Right Choice

Across industries and verticals, the cornerstone of all modern enterprises is the availability and performance of business applications. However, not all storage networks are equal.

Critical applications and data require purpose-built networking for storage. Depending on the demands of the applications, there are several criteria that need to be evaluated:

- Reliability
- Security
- Performance
- Simplicity
- Visibility
- Scalability

Having considered the above criteria, when two or more of these characteristics are required, the best choice is Fibre Channel.

Brocade® Fibre Channel solutions provide cutting-edge, high-performance networks known for their resilience and effortless deployment, management, and scalability for the most demanding environments—making it the most reliable and widely used network infrastructure for mission-critical storage applications.

It is Important to Understand the Advantages that Fibre Channel Networks Provide

1 Reliability

Keep your data available no matter what, with "uptime all the time".

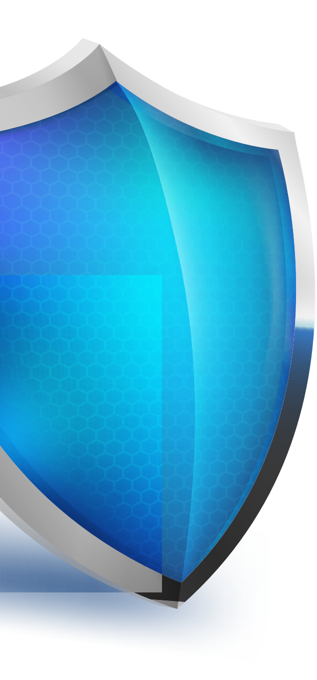
Six-nines (99.9999%) availability makes Fibre Channel the most reliable storage fabric, providing the highest levels of uptime for operational stability, predictable performance, and non-stop operations.

Fabric redundancy ensures that servers can maintain access even in the event of an outage in one fabric.

Data is never forwarded unless fabric and devices have capacity to process, reducing potential downtime.

Fibre Channel provides much higher availability with fewer service windows than any other storage architecture.

2 Security



Mitigate potential security risks and protect your data across the network.

- SAN-attached storage has no direct exposure to IP networks.
- Silicon-based Root of Trust validates the integrity of hardware and software
- Isolation within the data center ensures no outside access.
- OpenSSL certificate management eliminates human error.
- Only the assigned server can access the relevant data, limiting exposure.
- Security features are fully integrated and automatically deployed.

3 Performance

Unleash your best application performance with high-speed, lossless, low-latency, deterministic storage traffic.

Fibre Channel provides the ideal combination of low latency and high data speeds for multiple applications running in parallel.

Traffic Optimizer separates slower traffic from faster traffic to ensure all traffic can flow at its maximum capable speed without impacting each other's performance.

Trunking ensures aggregate bandwidth and inherent load distribution across available links.

Buffer-to-buffer credits ensures end-to-end lossless delivery, with industry-leading cut-through switching achieving the lowest latency.

Proactively identify and inform MPIO layer when physical infrastructure links are Sick-But-Not-Dead.

4 Simplicity

Reduce the burden on IT resources by simplifying every data process with an autonomous fabric that doesn't require "hand holding".

Autonomous SAN infrastructure has the tools and insight to automatically resolve issues.

Self-optimizing technology can maximize performance across the network.

Easy-to-use tools enable the flexibility to manage a single switch or your whole fabric at once.

Achieve total visibility and manageability, from initial deployment to ongoing troubleshooting.

Administrators can easily set up monitoring and configurations for greater productivity.

Seamlessly scale your fabric by adding new switches without hundreds of commands.

5 Visibility

Identify congestion points and the flows involved instantly to mitigate problems fast.

Automatically measure and manage your storage network.

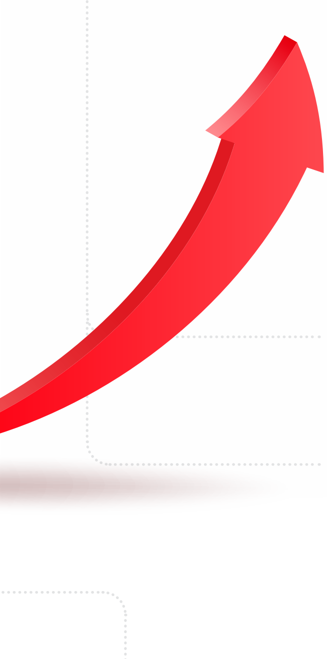
Get granular visibility into all traffic and latency hundreds of thousands of times per second on every port in the fabric.

Visibility of individual application VM performance and traffic profiles on shared storage.

Decades of storage networking knowledge and analysis is applied in every switch, monitoring your environment against 300+ rule sets for automatic issue identification, mitigation, and resolution.

Advanced analytics to identify issues and patterns at both physical and logical layers, to protect your critical application workloads.

6 Scalability



Dynamically add more components or new technology so your business can scale without compromise.

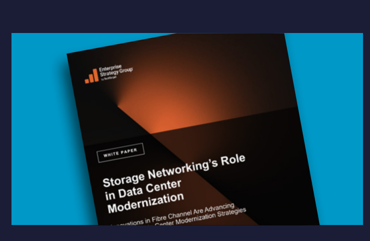
- Confidently scale performance and capacity in line with your application and business needs.
- Seamlessly add scale to your compute, storage, and network, without wasting resources.
- Dynamically and independently scale new storage and server elements in your architecture, without impacting performance.
- Simplify and reduce your OpEx with the industry's highest-density rack deployments.

Whatever your combination of application and data requirements, choosing Brocade Fibre Channel gives you the confidence that your business can depend on.

Fibre Channel is an essential piece of an enterprise's critical storage infrastructure due to its industry-leading security, reliability, and long-lasting investment protection.

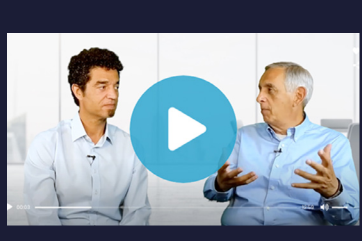
With a foundation of six-nines availability and multi-generational compatibility, Fibre Channel continues to add new capabilities and value to address the evolving needs of storage.

Learn more about Brocade Fibre Channel



To learn more about how innovations in Fibre Channel are advancing essential data center modernization strategies, download our free white paper: *Storage Networking's Role in Data Center Modernization.*

Download Now



For a deeper dive, watch our latest video featuring Brocade experts AJ Casamento and Marcus Thordal, discussing the importance of architecture in a cyber-resilient world.

Watch Now