

# SOLUTION BRIEF: BlueArc + Riverbed

A Joint Solution by Riverbed and



## THE BLUEARC AND RIVERBED JOINT SOLUTION

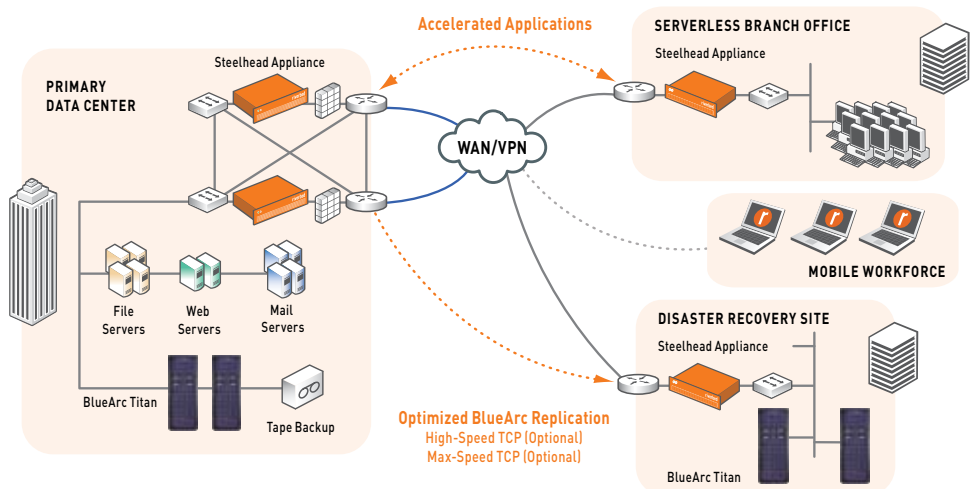
Riverbed and BlueArc offer a solution to enable highly-scalable IT infrastructure consolidation and optimized data replication for disaster recovery. The combined offering delivers the following benefits:

- Consolidation of data to a centralized high performing BlueArc Titan NAS system
- Accelerated access for remote users to the centralized repository of data
- Accelerated backups/disaster recovery across the WAN with no bandwidth upgrades
- Improved RPO (Recovery Point Objectives) and RTO (Recovery Time Objectives) to maximize application availability
- Accelerated application performance from the DR site when disasters occur

### Data Center Consolidation and Accelerated Disaster Recovery

CIOs worldwide have focused on IT infrastructure consolidation as a way to achieve hardware and labor cost savings, while increasing resource utilization. Although the benefits of consolidation are clear, organizations are often forced to make a trade-off between performance and centralization. In this scenario, remote sites encounter application performance degradation when accessing centrally located assets over the wide area network (WAN), and any costs saved from consolidation are outweighed by complaints about application response times. This performance conflict can stall data center consolidation efforts across the enterprise as the need for real-time access to data increases.

Additionally, enterprises are looking for robust disaster recovery (DR) solutions to address the threat of data loss that can affect the financial and operational bottom-line. As more mission-critical applications are deployed across the organization, the cost of downtime has continued to increase along with the value of information. Consequently, organizations large and small are looking to build and validate their backup and disaster recovery processes. Riverbed® and BlueArc have teamed up to deliver a solution that enables true site consolidation, without adversely affecting the end user experience at the branch office, as well as enabling high-performance disaster recovery.



### Server Consolidation

For most organizations, consolidating IT infrastructure into main data centers offers the opportunity to cut costs and reduce administrative overhead. With the realization that application and storage consolidation will drive an increased amount of data over the WAN, many IT organizations look to additional bandwidth as the de facto solution to maintain or improve performance. However, adding more bandwidth oftentimes will do nothing to address application performance problems, because additional bandwidth does not address the latency between locations or application protocol inefficiencies. Latency and application protocol chattiness can reduce application performance even when there is no bandwidth constraint, and must be addressed when planning for a consolidated environment. The proliferation of storage in the main data centers to improve scalability or overcome performance limitations presents additional challenges for IT as well.

BlueArc's Titan storage system is able to dynamically scale to hundreds of terabytes and even petabytes to handle the increase in capacity requirements caused by consolidation. Titan's hardware-based architecture also delivers the throughput needed to truly consolidate storage by delivering the performance of multiple server-based NAS systems in a single high-performance system. BlueArc's virtual server feature allows administrators to partition a single system to meet the needs of varying requirements between departments and locations. The Titan storage system and its value added feature set enables lower hardware, software, and support costs, simplified management, and lower environmental costs delivering on the promise of cost effective consolidation.

Riverbed's Steelhead® products enable LAN-like access to Titan Storage systems for users regardless of location. Steelhead products accelerate the performance of all TCP applications running over WANs by addressing the three primary issues of constrained bandwidth, TCP latency, and application chattiness. These optimizations work in harmony with each other to provide the highest levels of performance improvement. With LAN-like performance, site consolidation projects can now proceed without impacting end users. The chart below illustrates the performance of typical enterprise applications across the WAN with Riverbed Steelhead products.

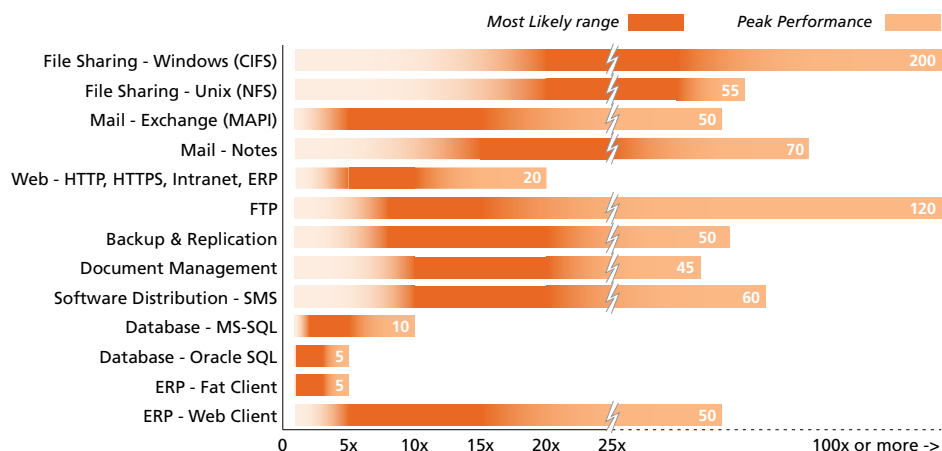


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## SUMMARY

The reasons to consolidate IT infrastructure - including email, applications, and databases as well as tape libraries - are wide-ranging. While most IT managers focus on just the cost of the physical IT infrastructure, there are far greater benefits that can be derived from IT consolidation:

- Reduced IT management overhead
- Data compliance and security
- The ability to scale systems more quickly
- Reduced server and software costs

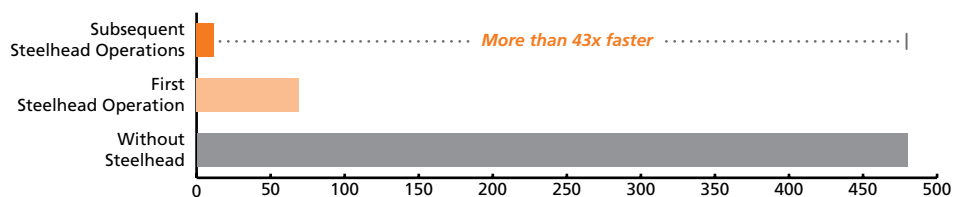


## High-Performance Disaster Recovery

To reduce costs and enable maximum uptime, IT organizations are increasingly looking at improving their DR strategies. Common strategies include replicating multiple copies of data to different geographical sites, taking more frequent snapshots or backups of data, and reducing the time required to recover when disasters occur. The prerequisite for these enhancements is a solution that is capable of transporting large amounts of data over long distances within the allocated backup window. Many companies face an insurmountable challenge because it simply takes too long to replicate all their data due to bandwidth and latency constraints. As a result, they must rely on partial backups and manually shipping tapes, which leave major gaps in an effective DR strategy.

BlueArc's Titan storage system delivers enterprise-class replication either synchronously over a SAN or asynchronously over a local area network (LAN) or WAN. Titan can replicate incrementally to reduce the amount of data transferred over the WAN as well. However, in write intensive environments or during initial replication, the limited bandwidth of a WAN link often creates a significant bottleneck. Titan combined with Riverbed accelerates initial and incremental replication by optimizing the WAN transfer of data, shortening replication windows, and reducing bandwidth utilization. This accelerated disaster recovery strategy greatly reduces data loss risk and exposure for organizations and enhances recovery times in the face of a DR event.

Time Improvement of Initial Replication of 10GB of Data - Time to Complete (in minutes)



## About Riverbed

Riverbed Technology is the performance leader in wide-area data services (WDS) solutions for companies worldwide. By enabling application performance over the wide area network (WAN) that is orders of magnitude faster than what users experience today, Riverbed is changing the way people work, and enabling a distributed workforce that can collaborate as if they were local. Additional information about Riverbed (Nasdaq: RVBD) is available at [www.riverbed.com](http://www.riverbed.com).

## About BlueArc

BlueArc is the performance, scalability and simplicity leader in world-class network storage systems and software. BlueArc solutions enable customers to accelerate applications, reduce costs and enable infrastructure consolidation through a unique, patented platform architected well beyond today's market offerings. Information about BlueArc solutions and services can be found at [www.bluearc.com](http://www.bluearc.com).

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