

RIVERBED GRANITE

SEAMLESSLY INTEGRATE YOUR DATA CENTER AND GLOBALLY DISTRIBUTED OPERATIONS

BUSINESS CHALLENGE

In the past, data centers and remote offices were managed through separate operational processes, procedures, and infrastructures. For performance reasons, organizations ran applications on servers and corresponding storage in branch environments close to end users. What's more, the demands of custom and write-intensive applications, as well as the need to work with large data sets and the concern of user productivity in the face of WAN outages, have forced businesses to maintain IT resources at the edge.

In fact, according to Forrester Research, for a majority of organizations, more than 50 percent of corporate data sits outside the data center.¹ This means that servers with data and storage, as well as backup, are all being managed outside the four walls of the secure data center. This not only leads to higher costs, but also puts critical data at risk.

THE RIVERBED SOLUTION

Riverbed Granite solutions deliver a new architectural approach that enables the complete consolidation of edge servers and storage to the data center, while projecting applications and data to edge locations where they perform as if they were local.

Granite solutions decouple storage from its server — over thousands of miles — and deliver the data to remote locations as if the storage were still local to the server. As a result, end users at edge locations get uncompromised performance, while IT management is able to manage, backup, provision, patch, and protect branch data on enterprise storage within the four walls of the data center.

¹ Forrester Consulting, *Successfully Consolidating Branch-Office Infrastructure In The Face Of More Users, Services, And Devices*, October 2011 (<http://media-cms.riverbed.com/documents/AnalystReport-Riverbed-Forrester-Branch-Consolidation.pdf>)

KEY BENEFITS

» ENSURE COMPLETE SERVER AND STORAGE CONSOLIDATION

- Pull data back from the edge and manage it in the data center — at lower cost and with reduced risk, improved security, and reliable controls
- Eliminate the need to purchase and support servers and storage in branch offices

» ENSURE LOCAL PERFORMANCE, WHILE MANAGING DATA CENTRALLY

- Deliver local-speed access to servers and storage managed in the data center
- Give remote office workers local access and performance even when disconnected from the data center during WAN outages

» ENABLE NEAR-INSTANT BRANCH PROVISIONING AND RECOVERY

- Boot servers over the WAN from data center storage within minutes
- Support dynamic business requirements by quickly establishing service wherever and whenever needed
- Quickly re-provision services in the event of a disaster to continue business operations

» CENTRALIZE AND SECURE DATA

- Leverage state-of-the-art authentication and encryption to ensure the security of data
- Protect and secure servers and data in the data center using the same tools and methodologies applied to all corporate data
- Eliminate the need to purchase, install, and manage a backup solution in the branch office

» SIMPLIFY MANAGEMENT

- Reduce administration costs by leveraging standardized data center policies and procedures
- Eliminate the need for branch-based IT personnel and “fly and fix” missions

» ACHIEVE NEW LEVELS OF IT AGILITY

- Ensure storage availability for remote locations through high availability (HA) deployment options and multi-path I/O (MPIO) support
- Quickly provision remote and branch offices

GRANITE PRODUCTS

Granite products extend the benefits of the data center to global branch offices and transform the delivery of IT services to the edge. The Granite solution is made up of two components:

» **Granite Core** – physical or virtual appliances in the data center that connect to your centralized storage area network (SAN) and project storage LUNs to branch offices

- Predicts and pre-fetches storage blocks for high-speed access in the branch
- Writes incoming data changes from the branch to SAN storage
- Interacts with storage arrays to trigger snapshots used for data protection and recovery
- Provides a high availability option and MPIO support to ensure maximum uptime and performance for remote locations

» **Granite Edge** – a standalone branch office appliance that provides high-speed local access to projected data-center storage and servers

- Provides an authoritative block cache that delivers high performance for servers and applications in the branch
- Integrates VMware vSphere for local execution of data-center-managed virtual machines (VMs)
- Deduplicates data traffic between the branch and the data center
- Provides a high availability option and MPIO support to eliminate downtime in the event of component failures

LEARN MORE

Granite appliances enable IT departments to embrace a more fluid architecture by overcoming the barriers of distance, while still maintaining the performance characteristics required in the branch. As a result, you will ensure that edge users are productive while ensuring control in the data center.

To learn more about Granite, please visit <http://www.riverbed.com/granite>