

Whitewater Cloud Storage Gateways and Windows Azure

Enabling cloud storage for enhanced data protection

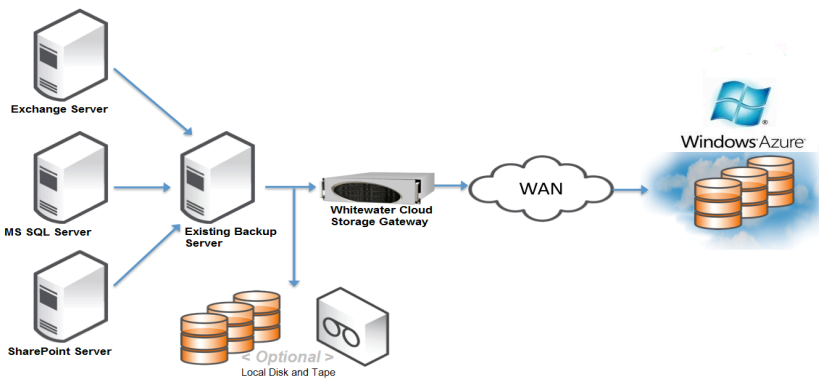
The exponential growth of unstructured data, increasing business expectations and flat capital budgets is encouraging IT professionals to consider new solutions to meet the growth and reduce the cost of their existing data protection infrastructures. As data protection systems typically consume large amounts of storage and often require long retention periods, the public cloud is an ideal location due to its scalability, pay-for-use pricing model, off-site data location and reduced administration requirements. Until recently, however, concerns around security, transmission speeds and the costs of storing large data set have been barriers to cloud storage adoption.

Riverbed® Whitewater® cloud storage gateways remove the barriers to cloud storage adoption and combined with Windows Azure deliver significantly reduced costs and a substantial return on investment through a secure, elastic, pay-as-you-go storage pool that eliminates expensive remote disaster recovery hardware and provides anywhere recovery should the unexpected occur.

Whitewater Cloud Storage Gateways

Riverbed Whitewater cloud storage gateways allow organizations to eliminate tape, reduce costs, streamline administration and improve disaster recovery readiness by leveraging the scalability, flexibility and pay-for-use pricing of Windows Azure cloud storage.

Disaster recovery capability is greatly improved by secure off-site storage within the public cloud without the expense of redundant hardware, power, cooling and hosting costs. Backup data stored in the cloud is available anywhere with an internet connection to provide fast, flexible recovery should the unexpected occur.



A Joint Solution by Riverbed and



BENEFITS

Key benefits of Whitewater cloud storage gateways with Microsoft Azure:

- Reduce costs 30 to 50% by eliminating tape systems, tape vaulting and remote disaster recovery hardware.
- Improve disaster recovery readiness with secure, off-site data sets in Windows Azure
- Improve recovery point (RPO) and recovery time objectives (RTO) with Whitewater's intelligent local cache, LAN-speed file access and WAN optimized real-time replication to Windows Azure
- Secure data in flight and at rest with SSL v3 and 256-bit AES encryption. This dual level security ensures that all data is protected end-to-end.
- Reduce cloud data storage requirements 10 to 30x with Riverbed's byte level based deduplication.
- Replace over a petabyte of tape with a single Whitewater gateway.
- Easy integration into existing backup solutions – no changes to the existing infrastructure are required.



Whitewater safeguards data during transmission and at rest using secure socket layer V3 (SSLv3) technology and strong AES 256 bit encryption. This dual layer of security ensures that sensitive data is protected end-to-end.

Leveraging Riverbed's industry leading deduplication, compression and optimization technologies, Whitewater gateways shrink data sets by 10 to 30x substantially reducing cloud storage costs while accelerating data transfers. This massive reduction in data sets allows a single gateway to replace more than a petabyte of data stored on tape.

Whitewater gateways secure, optimize and accelerate backup and recovery to the cloud without changes to the existing data protection solution. With Whitewater, customers can leverage their existing data protection applications such as: CA ARCserve, CommVault Simpana, EMC Networker, HP Data Protector, IBM Tivoli (TSM), Symantec NetBackup, Backup Exec, Quest vRanger or Veeam Backup and Replication with Microsoft Windows Azure for off-site storage without changes to the existing infrastructure, schedules or policies.

Microsoft Windows Azure

The Windows Azure Platform is an application platform in the cloud that allows Microsoft datacenters to host and run applications. Rather than providing software that Microsoft customers can install and run on their own computers, Windows Azure is a service: Customers can use it to run applications and store data on Internet-accessible machines owned by Microsoft.

To support cloud applications and data, Windows Azure has five components:

- Compute - runs applications in the cloud. These applications largely see a Windows Server environment, although the Windows Azure programming model is not exactly the same as an on-premises Windows Server model.
- Storage - stores binary and structured data in the cloud.
- Fabric Controller – that deploys, manages, and monitors applications. The fabric controller also handles updates to system software throughout the platform.
- Content Delivery Network (CDN) - speeds up global access to binary data in Windows Azure storage by maintaining cached copies of that data around the world.
- Connect - allows creating IP-level connections between on-premises computers and Windows Azure applications.

Windows Azure gives you four core storage services that are secure, scalable and easy to access, these services remain persistent and durable in the cloud. Blobs, Tables, and Queues are all available as part of the Windows Azure Storage account, and provide durable storage on the Windows Azure platform. Unlike local storage, blobs, tables, and queues are accessible by multiple applications or application instances simultaneously, and represent dedicated rather than temporary storage.

Regardless of how data is stored—in blobs, tables, or queues—all information held in Windows Azure storage is replicated three times. This replication allows fault tolerance, since losing a copy is not fatal. The system provides strong consistency, so an application that immediately reads data it has just written is guaranteed to get back what it wrote. Windows Azure also keeps a backup copy of all data in another data center in the same part of the world. If the data center holding the main copy is unavailable or destroyed, this backup remains accessible.

About Riverbed

Riverbed delivers performance for the globally connected enterprise. With Riverbed, enterprises can successfully and intelligently implement strategic initiatives such as virtualization, consolidation, cloud computing, and disaster recovery without fear of compromising performance. By giving enterprises the platform they need to understand, optimize and consolidate their IT, Riverbed helps enterprises to build a fast, fluid and dynamic IT architecture that aligns with the business needs of the organization. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com.



Riverbed Technology, Inc.
199 Fremont Street
San Francisco, CA 94105
Tel: (415) 247-8800
www.riverbed.com

Riverbed Technology Ltd.
One Thames Valley
Wokingham Road, Level 2
Bracknell, RG42 1NG
United Kingdom
Tel: +44 1344 401900

Riverbed Technology Pte. Ltd.
391A Orchard Road #22-06/10
Ngee Ann City Tower A
Singapore 238873
Tel: +65 6508-7400

Riverbed Technology K.K.
Shiba-Koen Plaza, Bldg. 9F
3-6-9, Shiba, Minato-ku
Tokyo, Japan 105-0014
Tel: +81 3 5419 1990