riverbed

Solution Brief

Cloud Accelerator

Removing network inhibitors for fast, secure, delivery of cloud workloads anywhere

Applications sit at the center of today's digital culture. To help reduce costs and gain greater levels of agility and efficiency when delivering new apps or updates to existing services, many businesses are embarking on cloud-first strategies.

The state of cloud adoption underscores the criticality of such strategies. As of 2018, 96% of enterprises are using some form of cloud services, while 99% of executives consider the cloud to be vital to their ongoing digital strategies.

Business Challenges

With the combination of digital transformation and recent global events comes never-before-seen complexity of apps, networks, end points and places where business is being executed. Data centers and branch offices are no longer the center of the IT universe. Today's digital landscape has expanded to multi-cloud, hybrid networks and work-from-anywhere, as well as an almost endless array of new cloud-based business applications and workloads traversing networks to the widely-distributed users consuming them. With the complexity, there are increasing concerns about IT agility, application performance, and containing costs.

And as valuable as cloud-based infrastructure may seem, businesses cannot afford to have excessive downtime when migrating massive workloads from on-premises to the chosen cloud vendor and are always looking to shorten these timelines.

Solution

Riverbed's Cloud Accelerator solution extends subscription-based network optimization and application acceleration to IaaS clouds. With support for Microsoft Azure, AWS and OCI, the solution is particularly well suited for cloud migrations by eliminating network inhibitors inherent with today's data-rich and distributed collaboration environments, and drastically enhancing access and reliability for any workload from any location, including:

Internal Apps: Data Center/proprietary apps, Collaborative, Email, SharePoint

Line-of-Business Mission-critical Apps: Cross-Site Replication, Disaster Recovery

Media: Video Streaming

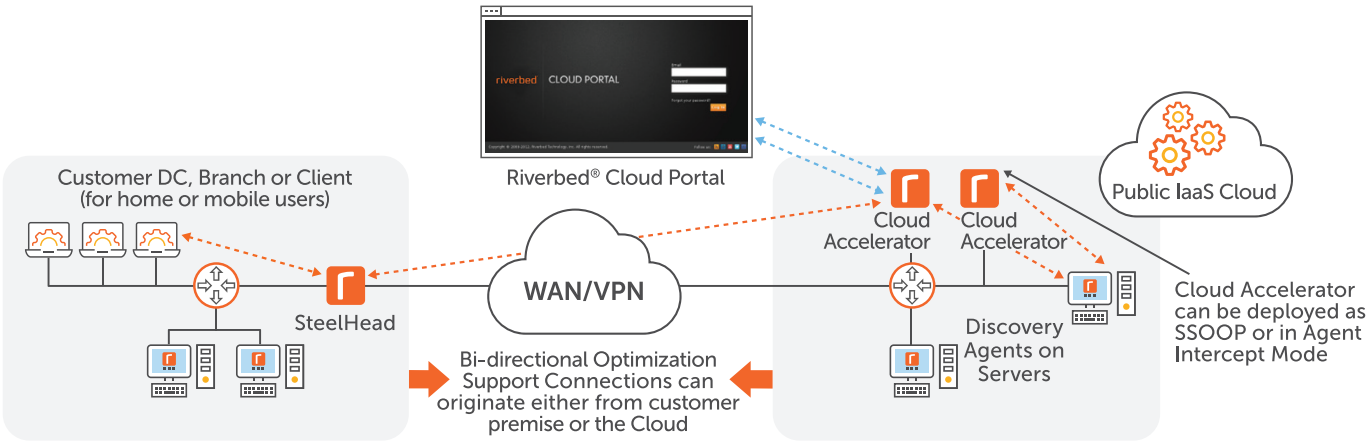
Tiered Storage: Hot data on premise, Cold data move to public cloud, Web Applications E-Business, Internet-facing web

Use Case: Move to the Cloud with Greater Agility and Confidence

In order for enterprises to maximize the flexibility and cost savings of the public cloud, they must overcome latency and bandwidth constraints imposed by distance and unreliable last mile networks. With the Riverbed Cloud Accelerator solution, IT and Apps teams have the agility to keep up with business demands for new cloud services while overcoming these inherent performance limitations. In a cloud migration scenario, A virtual form factor of Riverbed® SteelHead™ CX gets deployed from the provider's marketplace. Once peered with an on-prem SteelHead (datacenter or branch), data and app migrations are dramatically faster.

Once the migration is completed, traffic caused by IaaS-hosted application data accessed over the public Internet or MPLS circuits is dramatically reduced, the application performance effects of high latency diminished, and ultimately a better experience for the end user is achieved. Customers can expect file downloads to improve by as much as 33x and the amount of data traffic reduced by up to 99%. These capabilities can also be extended to mobile workers, eliminating the IT unpredictability of coping with last mile networks, and ensuring users have fast, secure access to apps, no matter where they need access.

> "Delivering business-critical apps over the Internet saves us millions without sacrificing performance."
>
> Edward Wagoner, JLL's Chief Information Officer, Americas, JLL



The Power of SteelHead – In the Cloud

With the cloud and a digital culture, we have more options than ever before for deploying enterprise architectures, however, the amount of data being accessed over increasingly complex, hybrid networks, and the distributed nature of workforces only make application reliability more unpredictable and complicated. Riverbed's Cloud Accelerator removes performance barriers to enterprise-class public cloud deployments by combining market leading Riverbed WAN optimization technology along with a purpose-built cloud portal for manageability.

Data streamlining

- Uses patented, scalable, data referencing technology to reduce the bandwidth used to transmit data by up to 99%
- Provides industry-leading scalability and patented deduplication
- Works with TCP-based protocols and applications, including file sharing (SMB), Web applications (HTTP and HTTPS), database software (Oracle), and collaboration tools (CAD, SharePoint, email)
- Works with UDP-based file transfer applications, including Signiant, Aspera, and Symantec's Veritas Volume Replicator

Transport streamlining

- Reduces the number of TCP packets required to transfer data by 65-98%
- Enables the acceleration of SSL-encrypted traffic to eliminate the security versus performance trade-offs
- Improves end user experience and reduces traffic over direct Internet connections with a fully embedded, transparent HTTP(S) proxy
- GD to verify accuracy Supports satellite optimization for TCP links (based on SCPS extensions) over satellite connections that tend to be high latency, dynamic bandwidth, or lossy due to signal-to-noise ratio

Application streamlining

- Offers the broadest support for application-specific modules to provide performance improvements on top of the data and transport streamlining optimization performed on all TCP traffic
- Reduces application protocol chattiness up to 98%
- Minimizes application overhead to provide massive throughput increases to applications such as file sharing (SMB2/3, and NFS), collaboration software (SharePoint), email (Exchange and IBM Lotus Notes), cloud-based SaaS offerings (Office 365 and Salesforce), Web applications (HTTP and HTTPS), database (Oracle), and storage and disaster recovery (NetApp SnapMirror and EMC SRDF/A)

Manageability

- Web-based portal hosted and maintained by Riverbed
- The Riverbed Cloud Portal allows organizations to connect to their cloud provider and deploy a SteelHead CX cloud instance in just a few clicks
- Simplifies deployment, management, licensing, and allows for instant upgrades

Flexibility

- Allows for fast, reliable consumption of application workloads residing in Azure, AWS or OCI clouds with any required endpoint location: data center, branch, alternate cloud, and mobile client

Let Riverbed Help You Remain in Control of the Cloud

Moving applications and data to the cloud is fraught with risk, but Riverbed is here to help you navigate the uncertainties. With Riverbed, you can accelerate your cloud transformation while preempting the pitfalls of moving to the cloud, gaining the levels of performance, agility, and security needed to thrive in today's digital age.

To learn more, refer to the following resources:

- De-risk your move to the cloud
- Riverbed solutions for Amazon Web Services
- Riverbed solutions for Microsoft Azure
- Riverbed solutions for Oracle Cloud Infrastructure

About Riverbed

Riverbed enables organizations to maximize performance and visibility for networks and applications, so they can overcome complexity and fully capitalize on their digital and cloud investments. The Riverbed Network and Application Performance Platform enables organizations to visualize, optimize, remediate and accelerate the performance of any network for any application. The platform addresses performance and visibility holistically with best-in-class WAN optimization, network performance management (NPM), application acceleration (including Office 365, SaaS, client and cloud acceleration), and enterprise-grade SD-WAN. Riverbed's 30,000+ customers include 99% of the *Fortune* 100. Learn more at riverbed.com.

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