
Cloud Migration

More than 50% of organizations around the world are migrating their on-premises applications to public cloud service providers like Amazon Web Services, Microsoft Azure and others.

However, the transition to cloud presents challenges for any organization. Incomplete planning can lead to delays, insufficient or excess capacity, unexpected performance issues, and poor end-user experiences.

Migrating to the cloud doesn't have to be a gamble. Enterprises need integrated solutions that provide complete performance awareness of their apps, make optimal use of their network resources and improve user experience.

The Business Challenge


Many organizations have adopted a cloud-first strategy that includes a goal of moving all users and apps to the cloud. This is not surprising because there are many benefits to using cloud services. Migration to cloud provides elasticity, scalability and efficiency to drive their businesses.

For a good end-user experience, however, the performance and availability of the cloud-based applications must be comparable to the on-premises versions. This can be difficult for distributed enterprises to achieve—particularly for remote users.

Network planning and design is important for application performance and also for migrating to the cloud. Building networks from the enterprise to the cloud, within clouds, and between clouds vendors can be complex.

Choices must also be made between high-cost, SLA-guaranteed MPLS and lower-cost, broadband Internet. Organizations that underestimate network requirements may incur project delays and unplanned costs to mitigate performance issues.

Lastly, as applications are migrated to the cloud, operations and development teams must determine if apps can be lifted-and-shifted, or if they need to be re-engineered for the cloud. The latter case often hampers migration plans with development bottlenecks and performance issues.



The Riverbed Solution

Riverbed solutions can help you speed your migration to the cloud by keeping network and application performance consistently high and improving productivity by delivering a better end-user experience.

Understanding before and after performance

Migrating on-premises applications to public cloud can be difficult. Performance can be negatively affected by differences in the infrastructure stack and insufficient network design, as well as changes to latencies between application tiers.

Riverbed solutions provide complete lifecycle support and help you identify hidden risks and constraints that can lead to performance issues, unexpected delays and unplanned costs by:

- Establishing network baseline and providing survivability analysis
- Projecting traffic patterns and determining latency for mission-critical apps before migration
- Mapping application dependencies
- Using quantitative analysis to predict post-migration performance
- Modeling application behavior on the network

Our suite of performance management tools for applications and networks provides the insights that are central to this cloud migration planning phase.

Speeding data transfer to the cloud

Accelerating data migration from on-premises to the cloud can have its own set of challenges. If not planned correctly, this process can be time-consuming, and bandwidth constraints can lead to application performance degradation. Riverbed can help you secure and optimize data migration by:

- Improving the performance of all applications by using WAN optimization between your enterprise and the cloud
- Minimizing bandwidth consumption by up to 97% and delivering up to 33x faster file downloads*
- Ensuring data is encrypted end-to-end, from on-premises all the way to cloud

Modernizing the network

Traditional WAN management systems were not designed for the cloud. Configuring, managing and scaling branch offices can be a very complex and manual process involving arcane CLI commands.

Furthermore, IT often wants to work with one central router in the datacenter to backhaul all the VPN traffic into the cloud. This creates latency and often moves the applications farther from the users, as they reach the cloud using several extra hops.

Riverbed's solution leverages SD-WAN technology to provide:

- Transport-agnostic data migration, giving you the ability to select network paths and prioritize traffic by application, user or location. You might, for example, choose to route VoIP traffic on an MPLS link with high priority and send file downloads across broadband Internet.
- Direct routing from the branch to the cloud—without several touch points needed to stand up a robust VPN framework
- The ability to bring workforce closer to apps
- More agile connections to the cloud, without compromising security, by decreasing manual configurations through increased automation and orchestration
- The capability to connect multiple branches quickly to the cloud (AWS, Azure and/or others) in 5 clicks and only 15 second

Monitor Applications and End User Experience

Businesses need a holistic understanding of how your apps and digital services are performing after migration—across all locations and devices.

Riverbed tools give you the ability to assure that the post-migration application performance and end-user experience are optimal with:

- Real-time monitoring of applications, networks, and end-user experience
- Detailed diagnostics that reduce the need to replicate bugs so developers can fix them faster
- Powerful analytics that illuminate hidden performance issues in app software and pinpoint their causes down to the code level
- Insights on user satisfaction, response times and trends with end user experience monitoring

Solutions for Cloud Migration are built on a robust suite of Riverbed products, which enable a successful migration to the cloud.

Cloud Migration	Software Defined-WAN (SD-WAN)	Digital Experience Management (DEM)
Enabling organizations a faster, smoother and more secure migration to the cloud	The future of your network starts here. SD-WAN Remote LAN Cloud	Deliver superior digital experiences to all your users, across all apps and devices
Learn More at Riverbed.com/CloudMigration	Learn More at Riverbed.com/SD-WAN	Learn More at Riverbed.com/DEM

Footnotes:

1. Narayanan, Shankar. "Growth Numbers Behind Microsoft Azure Cloud Infrastructure Business." 1redDrop.com, October 30, 2016. <http://1reddrop.com/2016/10/30/growth-numbers-microsoft-azure-cloud-infrastructure-business/>
2. "Magic Quadrant for Cloud Infrastructure as a Service, Worldwide." Gartner. August 3, 2016. <https://www.gartner.com/doc/reprints?id=1-2G205FC&ct=150519>
3. "Magic Quadrant for Enterprise Application Platform as a Service, Worldwide." Gartner. March 24, 2016. <https://www.gartner.com/doc/3263917/magic-quadrant-enterprise-application-platform>

Learn More

Let Riverbed help you achieve a faster, smoother and a more secure migration to the cloud.

About Riverbed

Riverbed Technology, Inc. enables organizations to modernize their networks and applications with industry-leading SD-WAN, application acceleration, and visibility solutions. Riverbed's platform allows enterprises to transform application and cloud performance into a competitive advantage by maximizing employee productivity and leveraging IT to create new forms of operational agility. At more than \$1 billion in annual revenue, Riverbed's 28,000+ customers include 97% of the *Fortune* 100 and 98% of the *Forbes* Global 100. Learn more at riverbed.com.

The Riverbed logo consists of the word "riverbed" in a bold, lowercase, sans-serif font. The letters are a vibrant orange color. The "i" and "e" have small dots, and the "d" has a small tail. The logo is positioned on the right side of the page, below a horizontal line.