

# Powering Transformation Through Data Mobility

## A Unified Approach to Cloud Migration and AI with Riverbed Data Express

### Data Movement: The Unseen Constraint

As enterprises modernize, data movement has become inseparable from business outcomes. Organizations that treat it as an afterthought risk slower migrations, stalled AI projects and unpredictable costs.

Traditional data transfer approaches were built for occasional file movement or limited synchronization, not for today's reality of continuous, petabyte-scale data flows.

As data volumes grow and environments become more distributed, enterprises struggle to move information fast enough to meet business timelines. Transfers that take weeks or months extend project schedules, inflate costs, increase operational risk and delay the realization of value.

This challenge surfaces most visibly in cloud migration and AI initiatives—two areas where data must move not once, but repeatedly, across diverse environments. In both cases, success depends on speed, predictability, cost control and operational simplicity.

Those that address data movement strategically gain speed, confidence and flexibility across their most important initiatives.

### Cloud Migration: From Strategy to Results

Cloud migration is often framed as a technology decision, but in practice it is a data movement challenge. Applications cannot be modernized or retired until their data arrives securely and consistently in the target environment.

### Business Challenge

Enterprise transformation increasingly hinges on one critical capability: the ability to move large volumes of data quickly, reliably and cost-effectively.

While organizations continue to invest in cloud platforms and AI technologies, many discover that their progress is constrained not by compute or applications, but by the mechanics of data movement itself. Data has become disperse, massive and essential—yet the tools and architectures used to move it have not kept pace.

Cloud migration and AI initiatives are fundamentally constrained by the same underlying challenge: moving data at speed and at scale.

In cloud migration, enterprises must transfer vast datasets repeatedly as applications are modernized, validated and cut over. These transfers often span data centers and multiple cloud environments, where limited bandwidth, inconsistent performance and unexpected costs can delay timelines, increase risk and erode expected ROI.

AI amplifies these challenges even further. Training, tuning and retraining models requires massive datasets to be moved frequently into specialized compute environments, such as GPU clouds. When data movement is slow or unpredictable, expensive compute resources sit idle, experimentation slows and time to insight stretches out.

Across both use cases, traditional data transfer tools—built for occasional, smaller-scale movement—struggle to keep up. The result is that data mobility, not strategy or ambition, becomes the primary bottleneck to cloud transformation and AI-driven innovation.

As cloud migrations progress, data must be synchronized continuously to accommodate application refactoring, testing and phased cutovers. In hybrid and multi-cloud strategies, data rarely moves in a straight line, further complicating execution.

## AI: Moving Data at the Speed of Innovation

If cloud migration exposes the scale problem of data movement, AI magnifies it. AI initiatives depend on frequent movement of massive datasets to specialized compute environments, such as GPU-based cloud platforms. Training, tuning and retraining models require data to be relocated repeatedly, often across regions and providers.

When data movement becomes a bottleneck, AI pipelines stall. GPU resources sit idle while teams wait for data to arrive. Experimentation slows, model timelines slip and the gap between pilot projects and production impact widens. In this environment, data movement is no longer a background task—it is a core determinant of AI success.

Without an optimized approach for AI or cloud migrations, organizations face extended timelines, escalating operational costs, exploding cloud egress charges and increased risk, delaying business outcomes.

## A Transformational Approach to Enterprise Data Mobility

Riverbed Data Express enables enterprise-scale data movement between major cloud hyperscalers and data centers that is fast, simple, secure and visible. Whether organizations are accelerating cloud migrations or enabling AI pipelines, Data Express removes friction from the data layer so teams can focus on outcomes, not transfers.

For cloud migration, Data Express delivers the speed and predictability required to move large datasets across hybrid and multi-cloud environments (AWS, Azure, Oracle Cloud, Google Cloud and datacenters), helping enterprises shorten timelines, reduce risk and control data movement costs. For AI, it provides the high-throughput, repeatable performance needed to keep training, tuning and retraining pipelines moving—ensuring data reaches specialized compute environments without delay.

Across both use cases, Riverbed Data Express provides clear visibility into transfer performance and throughput, giving teams the insight needed to optimize workflows, improve planning and scale with confidence. The result is a unified data movement foundation that supports critical initiatives today while adapting to future demands.

By breaking down the barriers to enterprise data movement, Riverbed Data Express helps organizations move faster, operate more efficiently and transform with confidence—turning data mobility into a durable competitive advantage rather than a constraint.

Learn more at [riverbed.com/dataexpress](https://riverbed.com/dataexpress).



### About Riverbed

Riverbed, the leader in AIOps for observability, helps organizations optimize their user's experiences by leveraging AI automation for the prevention, identification, and resolution of IT issues. With over 20 years of experience in data collection and AI and machine learning, Riverbed's open and AI-powered observability platform and solutions optimize digital experiences and greatly improve IT efficiency. Riverbed also offers industry-leading Acceleration solutions that provide fast, agile, secure acceleration of any app, over any network, to users anywhere. Together with our thousands of market-leading customers globally – including 95% of the FORTUNE 100 – we are empowering next-generation digital experiences.

Learn more at [riverbed.com](https://riverbed.com).