



The Enterprise Guide to Database Migration

Increase agility and accelerate time to value by modernizing
with MongoDB Atlas and Amazon Web Services (AWS)

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Look to the cloud for the future of enterprise computing

Cloud computing represents a once-in-a-generation shift in how organizations operate. That's particularly true for enterprise companies, who can leverage the power of the cloud to compete with other major players. Elastic, on-demand computing allows enterprise companies to access the compute resources they need without the high costs and operational burden of on-premises systems.

The benefits of cloud computing—increased agility, just-in-time provisioning of resources, and accelerated delivery of new features to market—are just some of the reasons why Gartner predicted that by 2022, [75% of all databases](#) will be on a cloud platform.

The cloud also makes it possible for enterprise companies to access advanced analytics that drive real-time insights, making it easier for them to improve their product offerings, inform development, and drive customer engagement.

Moving beyond lift and shift

While the benefits of migrating to the cloud are clear, getting there can be less straightforward. Some organizations choose to simply take their existing applications and architectures from their on-premises environment and move them as-is to the cloud. Because this approach, known as “lift and shift,” still relies on outdated, legacy technologies, businesses using it miss out on the transformative opportunities that come from true modernization.

AWS Partner MongoDB Atlas takes a different approach, with solutions architected to take full advantage of all the cloud has to offer. MongoDB Atlas enables enterprise companies to simultaneously migrate their data and apply the latest innovations in development methodologies, architectural patterns, and technologies. The result? **Modernization that allows you to build fast, at the performance and scale your end users demand.**

MongoDB Atlas: Cloud-first database for modern applications

MongoDB's general-purpose, document-oriented database platform is made to leverage the speed and scalability of the cloud. [MongoDB Atlas](#) takes it one step further, with a fully managed MongoDB Atlas offering built to run on AWS, the world's most comprehensive and broadly adopted cloud platform. Millions of enterprise customers use AWS to lower costs, become more agile, and innovate faster.

MongoDB Atlas helps enterprise companies tackle some of their greatest data and technology challenges:

Enterprise companies often resort to deploying a complex sprawl of single-purpose data technologies to address new application requirements. This not only makes repeatable models of success unlikely but also puts a massive strain on the organization from a time, people, and cost perspective.



MongoDB Atlas enables enterprise customers to address any application's data needs quickly, accelerate time to value, and reduce complexity by picking and choosing what's needed from an integrated collection of data and application infrastructure services.

For development teams, working with data is often cited as one of the most difficult aspects of building applications. A fragmented developer experience across the disparate technologies developers need to touch makes that even harder as they have to learn and stay current on multiple database and data services.



MongoDB Atlas improves developer productivity and the developer experience with a unified and consistent interface (or API) across all data and application services.

The cost—measured in both time and money—of moving and reorganizing data within and across disparate data systems is often extraordinary, especially as data volumes increase and data velocity requirements become more demanding.



MongoDB Atlas dramatically reduces the time and cost development teams need to spend on system component interactions between disparate technologies, including integrations, data movement, and duplicate data management.



Meet MongoDB

[MongoDB](#) is a non-relational document database that provides support for JSON-like storage. The MongoDB database has a flexible data model that enables you to store unstructured data, and it provides full indexing support, and replication with rich and intuitive APIs.

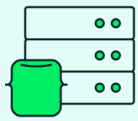
[MongoDB Atlas](#) is a global cloud developer data platform for modern apps available across the world, delivering a consistent MongoDB on AWS experience. Featuring an integrated set of database services and a unified developer experience on top of a fully managed database, MongoDB Atlas on AWS lets you build applications that are highly available, performant at global scale, and compliant with the most demanding security and privacy standards. With MongoDB Atlas on AWS, you can focus on driving innovation and business value while MongoDB takes care of infrastructure workloads like auto scaling, backup, archival, and others.

[MongoDB Atlas Serverless](#) is a fully managed database service that automatically scales up and down based on usage, providing cost savings and ease of use. With Atlas serverless, you can avoid the manual provisioning or scaling of resources, making it a convenient option for developers and organizations.

Read on to learn how MongoDB Atlas and AWS enable enterprise companies to take full advantage of the cloud.

Harness the power of data

At every stage of the cloud migration journey, MongoDB Atlas and AWS help enterprise companies unleash the power of software and data. These are just some of the benefits of working with us:



Intuitive data model

MongoDB's document data model maps to the objects in your application code and allows for a flexible schema so your data model can evolve as application needs change.



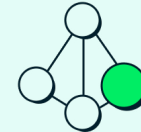
Broad use case support

Our unified Query API makes it easy to work with any modern data such as arrays, geospatial, time series, and more so you can address more use cases with a single platform.



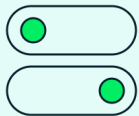
Always-on security

With MongoDB Atlas, your data is protected with preconfigured security features for authentication, authorization, encryption, and more.



Elastic scale

MongoDB Atlas databases automatically scale to meet growing data volumes and user loads of all sizes.



Deployment flexibility

Choose from pre-provisioned or serverless capacity models to best meet the needs of your workload.



Native tooling

Connect to your database from the command line, with your preferred programming language or via fully managed APIs.



Global reach

Deploy your data across 90+ regions or create a multi-cloud cluster to enable applications that make use of two or more clouds at the same time.

Clear your way to the cloud with MongoDB Atlas on AWS

As an AWS Partner, MongoDB Atlas works seamlessly with AWS solutions designed to meet the needs of enterprise companies. These include:



[AWS Identity and Access Management \(IAM\)](#): Securely manage identities and access to AWS services and resources.



[AWS Glue Studio](#) graphical user interface: Easily create, run, and monitor extract, transform, and load (ETL) jobs in [AWS Glue](#).



[AWS Fargate](#): Build applications with Serverless Computing for containers.



[Amazon Redshift](#): Access the power of real-time analytics and predictive insights.



[Amazon Managed Streaming for Apache Kafka \(Amazon MSK\)](#): Securely stream data with a fully managed, highly available Apache Kafka service.

Deploy with confidence

MongoDB Atlas on AWS is available in 20+ regions around the world, delivering better resilience, enabling lower-latency data access, and addressing data residency requirements. Learn more:

- Deploy MongoDB Atlas from your AWS environment through [AWS Quick Start](#) or through [AWS CloudFormation](#).
- [Migrate legacy systems](#) to modern application development environments with MongoDB Atlas using AWS guides.
- Build [serverless, event-driven applications](#) with [Atlas Application Services](#) and [Amazon EventBridge](#).
- [Integrate with Amazon MSK](#) to easily ingest and analyze streaming data.
- More AWS and MongoDB Atlas integrations can be [found here](#).

MongoDB Atlas and AWS in action: Midland Credit Management

Specialty finance company boosts scalability 50x,
cuts execution costs 120x with MongoDB and AWS

“In a short amount of time, we’ve built the foundation needed to implement more advanced use cases. The next time we want to add something to the mix, working with MongoDB and AWS will be at the top of our list.”

—Ali Montazer, Chief Technology Officer,
Midland Credit Management, Inc.



Challenge

As part of its commitment to treating consumers with empathy and respect, specialty finance company [Midland Credit Management, Inc.](#) (MCM) sought to build an omnichannel solution to improve both the consumer and agent experience. With an on-premises IT infrastructure built on batch and offline data extract, transform, and load (ETL) processes, MCM realized it needed to modernize its architecture to achieve its goals.



Solution

Working with AWS and MongoDB, MCM migrated from a legacy system to a distributed, hybrid, serverless architecture capable of supporting several omnichannel use cases. The new architecture makes it possible to create an accurate, unified view of the consumer from siloed on-premises data sources. MCM leveraged the AWS ISV Workload Migration Program, which simplifies the migration process and reduces costs for customers interested in migrating on-premises workloads to the cloud.

While modernizing its architecture was important, shifting the culture at MCM in support of this change was just as critical. After starting with a few simple use cases, MCM engaged the MongoDB professional services and product teams, as well as AWS, to migrate increasingly more complex workloads.



Results

So far, MCM has implemented serverless solutions for emails, marketing letters, and SMS. In the case of marketing letters, the results have been impressive: a 50x improvement in scalability, a 5x improvement in speed, and a 120x savings in processing costs.

The combined capabilities of AWS and MongoDB Atlas have also enabled use cases that were impossible with the legacy system, such as optimizing the process for generating accurate contact information.

Going forward, MCM expects to move even more of its legacy solutions to the new architecture.

The journey starts here

Through the [AWS ISV Workload Migration Program](#), MongoDB and AWS have joined together to simplify the migration process and reduce costs for customers interested in migrating on-premises workloads to the cloud. Contact MongoDB today to learn how you can qualify for funding to support your migration. You can also visit the [AWS Marketplace](#) or the [MongoDB Atlas web page](#) to try Atlas for free.

To jumpstart your journey, check out these resources:

- **Blog:** [Migrate to MongoDB Atlas on AWS with Relational Migrator](#)
- **YouTube video:** [Bring Your Relational Workloads to MongoDB with Confidence](#)
- **AWS Prescriptive Guidance:** [MongoDB Atlas on AWS: Migrating from a self-managed environment to the AWS Cloud](#)
- **MongoDB documentation:** [Migrate or import data](#)
- **MongoDB tools:** [Relational migrator](#)