Reinvention starts with cloud migration of your data infrastructure

Explore why the most efficient way forward is data-driven.

Business reinvention begins with data modernization

Data modernization marks a defining moment for any organization seeking to reinvent itself

With data becoming the new organizing principle—and the beating heart of successful, modern organizations—the individuals tasked with using data to make decisions and solve problems want to leverage it to become more agile, efficient, and innovative. IDG's 2021 State of the CIO Executive Summary lists data and business analytics as the number one initiative driving technology investments. If major market trends are any indication, organizations will continue to give data top priority for the foreseeable future.

It's easy to see why. Quite simply, the ability to collect, process, and interpret data has become key to an organization's ability to adapt and thrive into the future. And yet, even as organizations grasp the importance of data, they struggle with their existing self-managed data infrastructure. These legacy environments have become increasingly complicated. Costly, time-consuming manual operations require a large staff and additional investments that shift resources away from application development, innovation, and business growth.

Competitive market dynamics—the need to get innovative products and services to market fast—provide organizations with the incentive to become data-driven as quickly as possible.

Imagine diverting the time, resources, and money spent on managing these challenges to realizing the full potential of your data—capitalizing on all its opportunities. With the proper tools to stay agile, stakeholders in every department could be accessing data for critical insights that ultimately accelerate the pace of innovation and keep your business competitive.

Data offers the critical advantage of quickly and continuously discovering what drives vital business initiatives and produces favorable business outcomes. In this eBook, we'll explore how fully managed cloud data services can empower your teams to capitalize on market trends and achieve all the benefits of becoming data-driven. In addition, we'll demonstrate how these services solve on-premises and self-managed data infrastructure challenges and provide lasting business benefits across common use cases: databases, storage, and analytics.

Your takeaway:

Learn what you can do to leverage fully managed data services to refocus time and resources on innovation while reducing operational burdens.

Challenges organizations face with self-managing their data and analytics platform include:

Operational efficiency and cost

You'll need a dedicated team of experts to manage hardware and software installation, configuration, integration, patching, and backups.

Performance and availability

Are you sure your system will hold up during peak workload times? If it doesn't, how will the disruption impact the workflow and customer experience of your business?

Scalability

As data volumes increase, prepare for capacity planning and scaling clusters for storage and the extra costs that come with them.

Security and compliance

Self-management means you're responsible for the requirements and regulations for security and compliance at every stage of growth. When you move your data services to the cloud, Amazon Web Services (AWS) is responsible for security of the cloud while you are responsible for security in the cloud. This reduces the security burden on your team.

Learn more about the AWS Shared Responsibility Model ›

Top six challenges of on-premises and self-managed data infrastructure

On-premises and self-managed data infrastructures, such as databases, storage, and analytics, pose increasingly difficult challenges for organizations lacking highly specialized IT staff. Organizations tied to their on-premises and self-managed data infrastructures struggle with more data than they can handle. Data volumes continue to increase, and new types of data are emerging from new sources like log files, clickstream data, voice, and video. The adverse effects of data overload tend to multiply over time. They include but are not limited to:

1. Vendor lock-in from legacy databases

Organizations using on-premises databases typically choose commercial-grade providers like Oracle and Microsoft SQL Server. These legacy vendor solutions are expensive, proprietary, and commonly subject to the adverse effects of lock-in, most notably punitive licensing terms.

2. Cost-optimization

Employing a dedicated team of experts to manage data environments adds up over time. As data and applications scale, many organizations find it necessary to adopt more advanced features or hire additional teams to manage ongoing issues. Requirements such as software licensing and support, hardware capacity and refresh, and resources to install and manage the hardware and software add to the cost burden. And what about the opportunity cost of issues that don't get managed or that stay unresolved?

3. Performance limits

Many organizations experience performance growing pains with running on-premises and self-managed data solutions. Agility and flexibility are critical to ensuring seamless performance with no disruptions, especially as data volumes and workloads grow. Without these adaptive capabilities, performance can decline as the demand for data storage and processing increases—at least until more resources can be deployed.

4. Agility

Organizations today require flexible data services to efficiently manage growing or highly variable workloads and maintain a competitive advantage. The ability to scale storage and compute resources up or down—quickly and independently based on business needs—helps maintain that business momentum. Organizations still tied to traditional on-premises environments can't adapt as quickly. They require the procurement and installation of physical hardware and software, along with many hours of highly skilled manual effort to get the infrastructure back up to speed.

5. Operational inefficiency

On-premises and self-managed environments are like an older car that requires ongoing service to keep running. Similarly, traditional environments must be constantly managed to accommodate application and data growth, intermittent spikes, and performance requirements. Maintaining these environments shifts the focus away from innovation and new business opportunities and impacts time to market—a critical factor in competitiveness.

6. Maintaining security and compliance

Amid the rapidly changing privacy and security landscape, organizations find it increasingly difficult to keep their self-managed data platforms protected and compliant. Regulatory violation penalties can be severe, and so can the costs of a security incident, including possible loss of revenue due to a decline in customer trust. Organizations must work tirelessly to ensure uninterrupted security, conduct rigorous audits, and maintain compliance standards such as PCI, HIPAA, SOC, and more in the US and around the globe.

Discover a better way forward with AWS Cloud migration

By modernizing data infrastructure, organizations can get off self-managed data stores and onto a fully managed cloud data infrastructure. AWS services take care of all management tasks such as server provisioning, patching, configuration, and backups. For example, Amazon Aurora continuously replicates six copies of the data across three AWS Availability Zones and transparently recovers from failures in less than 30 seconds. This lets organizations save time and costs while improving performance, availability, and scale.

AWS databases built for what you need

To further drive innovation and free your teams from time-consuming database tasks, AWS offers a broad portfolio of purpose-built databases to suit your specific needs. Over 15 purpose-built database engines support a range of data models, including relational, key value, document, in memory, graph, time series, wide column, and ledger databases. Low-cost AWS database services provide continuous monitoring, self-healing storage, and automated scaling while delivering the high availability, reliability, and security required for business-critical workloads.

When choosing the right cloud provider to trust with their data, organizations want to be confident their choice of technology will deliver value from their data while keeping it secure and compliant across a broad and ever-changing set of regulations. They want a technology provider they can trust, one who understands their use cases and will grow with them as their data volume grows. Leading organizations trust AWS for its unmatched experience and the scalability, reliability, security, and performance AWS services deliver.

Amazon Aurora transparently recovers from failures in less than

30 seconds

Discover a better way forward with AWS Cloud migration (cont'd)

Internally, we say there's no compression algorithm for experience, and that's because you can't learn certain lessons until you get to different milestones at scale. AWS is built for scale. Amazon Simple Storage Service (Amazon S3) provides industry-leading storage scalability, data availability, security, and performance. It is built from the ground up to deliver 99.999999999 percent (11 9's) of durability and stores data for millions of applications for companies all around the world. With hundreds of thousands of customers already using AWS to unlock value from their data and tens of thousands of partners globally, AWS has the largest and most dynamic customer base—a measure of trust that AWS can run data at scale.

AWS is also architected to be the most secure cloud computing environment. Our core infrastructure is built to satisfy the security requirements of the military, global banks, and other high-sensitivity organizations. This is backed by a broad set of cloud security tools that includes deep capabilities for compliance and data governance.

Here's what's possible with AWS

SOLUTION

Move to fully managed AWS databases

Organizations that want to manage and maintain their databases at scale while keeping the same database engine they were using before can now move to fully managed AWS databases with little or no changes required.

Benefits:

AWS managed databases handle operational tasks and lower the total cost of ownership (TCO) with managed services such as:

- **Amazon Aurora,** a fully managed MySQL- and PostgreSQL-compatible database that delivers high performance and availability.
- **Amazon DynamoDB,** a fully managed serverless, key-value NoSQL database designed to run high-performance applications at any scale.
- **Amazon ElastiCache,** a fully managed in-memory caching service supporting flexible, real-time use cases.
- **Amazon DocumentDB,** a serverless, key-value NoSQL database designed to run high-performance applications at any scale. Organizations can stay with the same database engine they're already using, enabling a rapid migration to a fully managed AWS Cloud database.

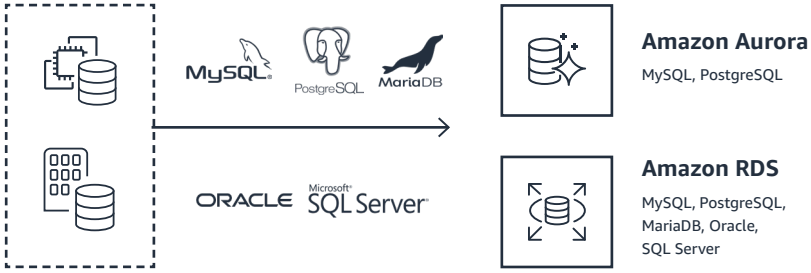
Details:

AWS provides database services that help organizations migrate to a managed environment:

Commercial relational database

Amazon Relational Database Service (Amazon RDS)

This is usually the best choice for organizations running commercial databases like Oracle and Microsoft SQL Server on premises. Amazon RDS provides cost-efficient and resizable capacity while automating time-consuming administration tasks such as hardware provisioning, database setup, patching, and backups.



Open-source relational database

Amazon Aurora or Amazon RDS

Organizations running open-source databases can move their MySQL and PostgreSQL databases to Amazon Aurora or Amazon RDS. Amazon Aurora is a MySQL- and PostgreSQL-compatible relational database built for the cloud. It combines the enterprise-grade performance and availability of commercial-grade databases with the simplicity and cost-effectiveness of open-source databases. At up to five times faster than standard MySQL databases and three times faster than standard PostgreSQL databases, Amazon Aurora provides the security, availability, and reliability of commercial databases at one-tenth of the cost. Organizations with MariaDB can move to Amazon RDS for MariaDB.

Modernizing data delivers measurable results

In-depth research by IDC found that customers who moved their databases from on premises to Amazon RDS could get:

86%
faster deployments of new databases

97%
less unplanned downtime

264%
ROI over three years and 39 percent lower cost of operations

5
-month average investment payback period

Atlassian runs applications on AWS to support customers at scale

ATLASSIAN

Challenge:

In the midst of strong growth, Atlassian, a leading developer of productivity software, wanted to focus more time on supporting customers and less time on managing its physical infrastructure. It needed a foundation that would support innovation and scaling for continued growth.

Solutions used:

Amazon Aurora PostgreSQL, Amazon CloudWatch, Amazon RDS

Results:

- Atlassian was able to increase its number of databases from approximately 350,000 to over 2.8 million, increase performance and availability, and significantly reduce costs through automatic, on-demand database instance pricing
- By using AWS Managed Services, Atlassian was also able to spend more time on its customers

aws

AWS helps Cathay Pacific transform business by improving booking

Challenge:

Running its passenger revenue optimization system (PROS) on premises provided suboptimal compute power and created a heavy maintenance burden on Cathay Pacific, which needed to process bookings with efficiency and stability.

Solution used:

Amazon RDS for Oracle

Results:

- Improved security posture through automated security patching
- Increased performance by 20 percent
- Enabled a focus on innovation, which led to new features of PROS

CATHAY PACIFIC

"AWS helps Cathay Pacific to transform the business and stay ahead of the competition."

Lawrence Fong
GM of Information Technology, Cathay Pacific

Blackboard drives down costs and saves time with automation

Challenge:

Blackboard delivers innovative education, technology, and services, including Blackboard Learn, a comprehensive learning management system offered in three configurations: on premises, hosted, and fully managed software as a service (SaaS). Its managed hosting environment resulted in high licensing costs and significant investments in resources for day-to-day database management.

Solution used:

Amazon RDS

Results:

- Eliminated licensing fees
- Reduced management overhead
- Offered customers read-only access to real-time data without significantly increasing computational workload

aws

Blackboard

"Developing innovative educational software is what we do best, and we can spend more time doing that by partnering with AWS and leveraging their broad set of infrastructure services."

Tim Tomlinson
Former Chief Product Officer, Blackboard

Open-source nonrelational database

Amazon DocumentDB, Amazon ElastiCache, or Amazon Keyspaces

Organizations running open-source nonrelational (also known as NoSQL) databases, such as MongoDB, Cassandra, Redis, or Memcached, can move their self-managed databases to Amazon DocumentDB, Amazon ElastiCache, or Amazon Keyspaces (for Apache Cassandra).

MongoDB on Amazon DocumentDB

Amazon DocumentDB is a fast, scalable, highly available, and fully managed document database service that supports MongoDB workloads. It's designed from the ground up to give organizations the performance, scalability, and availability they need when operating mission-critical MongoDB workloads at scale.

Amazon ElastiCache for Redis or Memcached

Amazon ElastiCache quickly deploys, operates, and scales an in-memory data store and cache in the cloud. Amazon ElastiCache offers fully managed Redis and Memcached for demanding applications that require sub-millisecond response times.

Amazon Keyspaces (for Apache Cassandra)

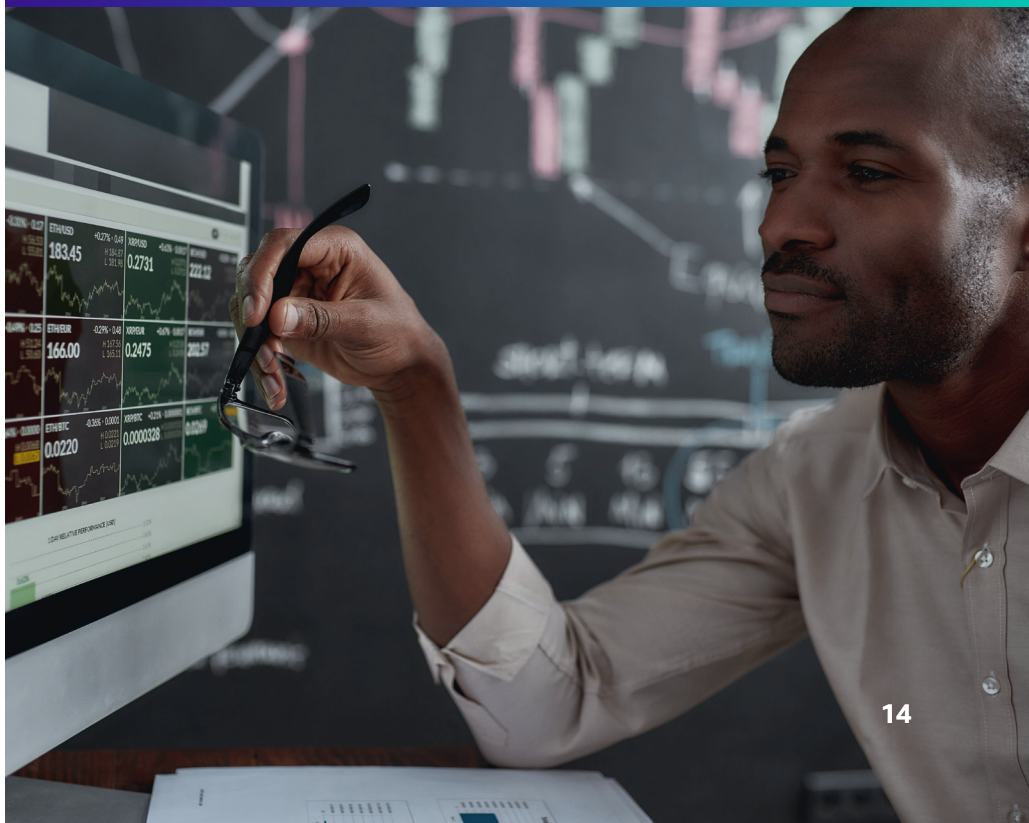
Amazon Keyspaces (for Apache Cassandra) is a scalable, highly available, and managed Apache Cassandra–compatible database service. Organizations can run Cassandra workloads on AWS using the same Cassandra application code and developer tools they use today. They don't have to provision, patch, or manage servers—and they don't have to install, maintain, or operate software.

Dow Jones

“We are excited about collaborating with AWS around Amazon DocumentDB, which meets key needs in order to simplify our operations and free up our developers to invest in innovative experiences for our customers rather than undifferentiated operations.”

Ramin Beheshti
Former Chief Product & Technology Officer, Dow Jones

DOW JONES



Genesys reduces overhead associated with self-managed infrastructures

As a company that sells customer experience and call center technology, Genesys wanted to serve more customers themselves. They moved workloads from self-managed Redis Cluster on Amazon Elastic Compute Cloud (Amazon EC2) to fully managed and secure Amazon ElastiCache for Redis. The reduced overhead associated with self-managed infrastructures gave them more time to serve customers and provide a secure, resilient, and elastic in-memory system for caching and event distribution.

GENESYS™

SOLUTION

Break free from legacy databases

Organizations are doing more than simply moving the same database engine to the cloud. They're looking to break completely free from commercial-grade providers like Oracle and Microsoft SQL Server, which lock you in, extract punitive licensing terms, and require frequent audits involving vendor practices that border on being hostile. Organizations are moving to open-source-friendly engines, but they find it difficult to match the performance of commercial-grade databases.

Benefits:

AWS provides Amazon Aurora, a fully managed MySQL- and PostgreSQL-compatible database that delivers high performance and availability with up to 15 low-latency read replicas, point-in-time recovery, continuous backup to Amazon S3, and replication across three AWS Availability Zones. Customers get the performance and availability of commercial-grade databases at one-tenth of the cost.

Details:

Amazon Aurora is the fastest-growing service at AWS, currently being used by over 100,000 customers. These include organizations like Airbnb, AstraZeneca, BP, Capital One, Fannie Mae, Petco, Verizon, and Volkswagen. AWS customer Best Western improved its digital push platform process to 2.3 billion room availability messages—98.2 percent of all the hospitality leader's availability data—in less than 60 seconds. Its migration from Oracle to Amazon Aurora saved the company over half a million dollars in hardware and software costs, as well as additional future savings.

aws

BW | Best Western Hotels & Resorts

"The hotel industry is rapidly changing, as more customers expect the ease and convenience of mobile computing. Moving to AWS brings our organization to the forefront of innovation and allows us to give our guests fast, reliable and secure data processing so they can organize their trips, change their reservations, and book their stay with us."

David Kong
Former President & CEO, Best Western

Samsung migrates to Amazon Aurora to accommodate growth and savings

Challenge:

Samsung's monolithic legacy Oracle internet data center solution was expensive and becoming difficult to scale to accommodate growing traffic.

Solutions used:

AWS Data Migration Service (AWS DMS) to migrate from Oracle to Amazon Aurora

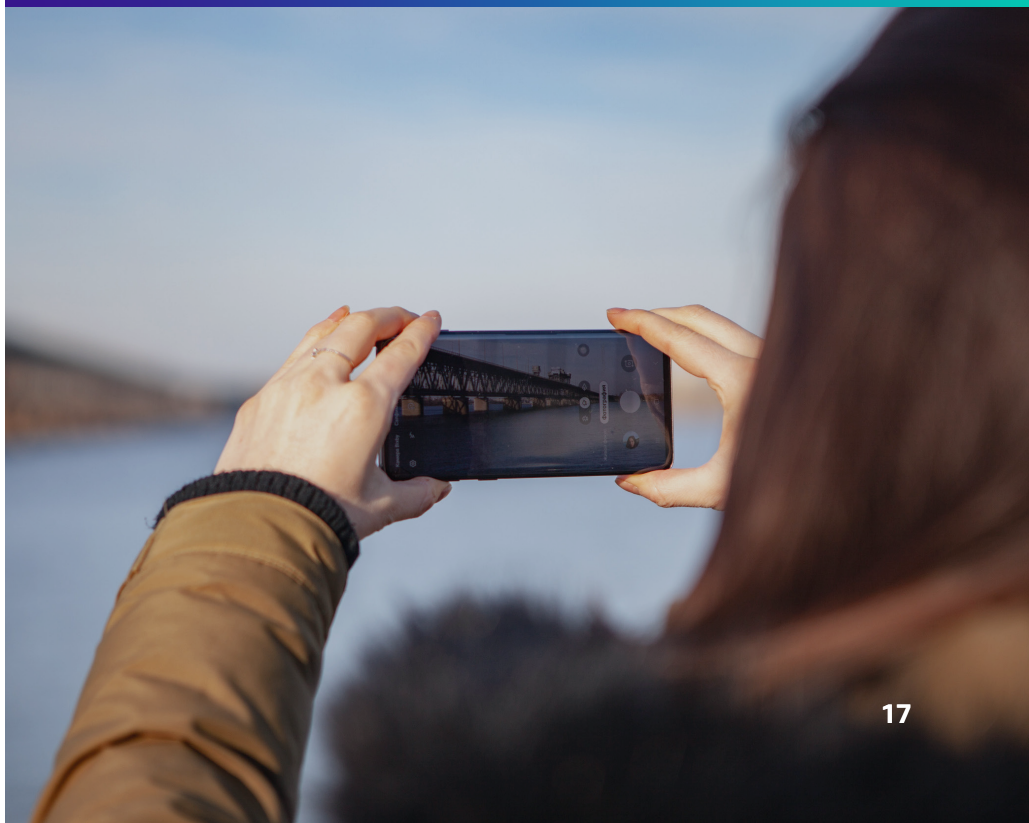
Results:

- Migrated 1.1 billion users across three continents
- Reduced monthly database costs by 44 percent and another 22 percent in maintenance fees

SAMSUNG

"The scalability of Amazon Aurora is the best benefit—especially if we focus on the cost."

Salva Jung
Former Principal Architect & Engineering Manager, Samsung



SOLUTION

Move to AWS managed analytics

Managing open-source analytics software, like Apache Hadoop, Apache Spark, Apache OpenSearch, and Apache Kafka, on premises or self-managed in the cloud (on Amazon EC2) is complex, time-consuming, and expensive. Organizations face challenges like keeping a dedicated team of experts to manage hardware and software configuration, patching, and backups; tuning and optimizations for performance; and capacity planning for future growth. A move to AWS managed analytics can save time, reduce costs, and significantly improve productivity.

Benefits:

AWS managed analytics services handle operational tasks and reduce TCO by moving on-premises data warehouses to Amazon Redshift, the world's most widely used cloud data warehouse. Apache Hadoop and Apache Spark implementation can be moved to Amazon Elastic MapReduce (Amazon EMR), on-premises Apache OpenSearch implementation to Amazon OpenSearch Service, and on-premises Apache Kafka implementation to Amazon Managed Streaming for Apache Kafka (Amazon MSK). Organizations can move to fully managed services quickly and let AWS take over infrastructure management and operations tasks, enabling them to accelerate time to insights and spend more time innovating and building new applications.

Modernizing data delivers measurable results

In-depth research by IDC found that customers who moved their Apache Hadoop and Apache Spark solutions from on premises to Amazon EMR could experience:

57%

reduced cost of ownership

342%

five-year ROI

99%

reduction in unplanned downtimes

Details:

Amazon EMR

This industry-leading cloud big data platform processes vast amounts of data using open-source tools such as Apache Spark, Apache Hive, Apache HBase, Apache Flink, Apache Hudi, and Apache Presto. With Amazon EMR, organizations can run petabyte-scale analysis at less than half the cost of traditional on-premises solutions and over 1.7 times faster than standard Apache Spark.

Amazon OpenSearch Service

Organizations can use this fully managed service to securely unlock real-time search, monitoring, and analysis of business and operational data.

Amazon MSK

Amazon MSK is a fully managed service that makes it easy for you to build and run applications that use Apache Kafka to process streaming data. Apache Kafka is an open-source platform for building real-time streaming data pipelines and applications. With Amazon MSK, you can use native Apache Kafka APIs to populate data lakes, stream changes to and from databases, and power machine learning (ML) and analytics applications.

Amazon Redshift

Amazon Redshift enables you to accelerate your time to insights with fast, easy analytics at scale, freeing you from the time and cost of setting up and managing an on-premises data warehouse. With Amazon Redshift, you can analyze all your data across databases, data lakes, and data warehouses with consistently high performance at any scale for any number of users.

SOLUTION

Modernize your data warehouse

Data is an invaluable resource in today's world, and it is growing in volume and complexity faster than ever before. Traditional data warehousing systems cannot keep up. With rigid architectures that require significant investment to maintain, update, and secure, they do not give organizations the opportunity to make the most of their data.

Moving to a cloud data warehouse like Amazon Redshift frees your analytics from these limitations. You can run queries across petabytes of data in your data warehouse and extend the query into your data lake.

Organizations that migrate on-premises data warehouses to the cloud typically do so to address critical business challenges, including:

- The need for higher performance, availability, ease of use, lower costs, and lower operational burdens
- Exponential growth of event data like log files, clickstream data, and machine-generated data from the Internet of Things (IoT) devices
- Data silos that limit the ability to derive end-to-end insights from data analysis

Benefits:

Organizations are modernizing their on-premises data warehouses by moving them to Amazon Redshift, a fully managed, petabyte-scale data warehouse service that makes it simple and cost-effective for organizations to efficiently analyze all their data using their existing business intelligence tools. It's optimized for datasets ranging from a few hundred gigabytes to a petabyte or more and costs less than $1,000 per terabyte per year—one-tenth of the cost of most traditional data warehousing solutions.

Details:

Set up, deploy, and manage with ease

Amazon Redshift is simple to use, enabling you to deploy a new data warehouse in minutes and load virtually any type of data from a range of cloud or on-premises data sources. It automates most of the common administrative tasks to manage, monitor, and scale your data warehouse so you can spend your time on more productive, needle-moving endeavors. It delivers fast query performance, improves I/O efficiency, and scales up or down as your performance and capacity needs change.

Operate at the lowest cost

Start small at $0.25 per hour and scale up to petabytes for under $1,000 per terabyte per year. Pay only for what you use and know how much you'll spend with predictable monthly costs. Amazon Redshift is at least 50 percent less expensive than other cloud data warehouses.

Scale and pay for storage and compute separately and get the optimal amount of storage and compute for diverse workloads. Choose the size of your Amazon Redshift cluster based on your performance requirements. The managed storage automatically scales your data warehouse storage capacity without you having to add and pay for additional compute instances.

Maximize performance with Amazon Redshift, the fastest cloud data warehouse available

Amazon Redshift is the world's fastest cloud data warehouse and gets faster every year. For performance-intensive workloads, you can use the new Amazon Redshift RA3 instances for up to three times the performance of any cloud data warehouse and achieve insights faster. AQUA (Advanced Query Accelerator) for Amazon Redshift is a new distributed and hardware-accelerated cache that allows Amazon Redshift queries to run up to 10 times faster than other cloud data warehouses by automatically boosting certain types of queries.

Achieve the deepest integration with your data lake and AWS services

No other data warehouse makes it as easy to gain new insights from all your data. With Amazon Redshift, you can query petabytes of structured and semi-structured data across your data warehouse, operational database, and data lake using standard SQL. Amazon Redshift lets you easily save the results of your queries back to your Amazon S3 data lake using open formats like Apache Parquet to further analyze from other analytics services such as Amazon Athena, Amazon EMR, and Amazon SageMaker.

Customer examples

Currently, the most popular data warehouse in the cloud, Amazon Redshift, is used by tens of thousands of organizations like Electronic Arts, Aetna, McDonald's, Yelp, Dow Jones, Pfizer, and Liberty Mutual.

Autodesk accelerates problem-solving and gains deeper insights with AWS

Challenge:

Autodesk's application data log solution struggled to keep up with the growing volume of data needing to be analyzed and stored. At stake: a smooth, reliable experience for customers using its 3D design software.

Solution used:

Amazon MSK, Amazon OpenSearch Service, Amazon Redshift

Results:

- Improved visibility into data logs that allows for real-time data collection and measurement
- Faster answers to application problems for more in-depth data analysis
- Better forensic analysis that improves overall mean time to recover

AUTODESK

"Ultimately, we are improving our software products and offering better service to our customers because of the real-time visibility we're getting into log data."

Tommy Li
Former Sr. Software Architect, Autodesk

Nasdaq uses AWS services for flexibility, scalability, and performance

Challenge:

With the mission-critical nature of its business, Nasdaq is always looking for new cloud technologies to help it scale to meet the sometimes-unpredictable nature of volatility across the capital markets ecosystem. To strengthen the ability to scale with market volumes and improve reporting and customer response times, Nasdaq moved from an on-premises data warehouse to AWS for its US market's transactional data.

Solution used:

Migrated from on-premises data warehouse to Amazon S3 and Amazon Redshift

Results:

- Jumped from 30 billion to 70 billion records a day with no disruption
- Improved market data load times leading to up to five hours faster time to insight

Nasdaq

"We were able to easily support the jump from 30 billion records to 70 billion records a day because of the flexibility and scalability of Amazon S3 and Amazon Redshift."

Robert Hunt
VP of Software Engineering, Nasdaq

3M HIS chooses AWS to support digital transformation and growth

Challenge:

3M Health Information Systems (HIS) was processing regulated healthcare data for its customers. Leveraging artificial intelligence (AI) and machine learning to get the data into a useful format was a complex and time-consuming effort. The company needed to build out a solid foundation that would deliver greater customer value and scale and support its increasing volume of data and business growth overall.

Solution used:

Migrated from on-premises data warehouse to Amazon Redshift

Results:

- Ability to store a larger quantity of data for a longer time
- Ensured accurate and compliant reimbursement
- Improved health system and health plan performance
- Lowered costs for the company and customers

"Amazon Redshift met our needs by providing a fast, fully managed, petabyte-scale data warehouse solution. Redshift improves our services by using columnar storage to minimize I/O, providing high data-compression rates and offering greater performance."

Dhanraj Shriyan
Enterprise Data Architect, 3M Health Information Systems

SOLUTION

Modernize your storage solutions

On-premises storage can be costly and complex, with expensive hardware refresh cycles and data migrations to support system upgrades. Data trapped in silos from multiple storage systems also makes it difficult to gain insights. With the cloud consumption model, you adjust on the fly and use whatever storage you need now without being locked into another hardware refresh. You pay for what you use, gaining agility and access to new services to get the most value from your data. Moving to AWS storage keeps you agile, reduces costs, and provides unlimited scale while also eliminating data silos so you can gain insights from data.

Benefits:

With AWS storage services, resources are only a click away. You reduce the time it takes to make those resources available to your organization from weeks to just minutes. This results in a dramatic increase in agility for your organization. AWS storage is integrated with the broadest and most complete set of analytics and machine learning tools so you can extract more insights from your data to fuel innovation.

Moving storage workloads from on premises to the cloud helps you reduce TCO. And the flexible buying model enables you to eliminate over-provisioning, refresh lifecycles, and reduce the cost of maintaining storage infrastructure. After you move your data to the cloud, AWS offers more ways to help you optimize your costs. They include the industry's lowest-cost storage for your data, elastic volumes, choices of storage classes, and the only storage class in the world that automatically tiers your data to the right storage class based on usage patterns.

AWS helps organizations transition to cloud-based databases and analytics solutions

The AWS Database Freedom program assists organizations in migrating to AWS database and analytics services with tools, experts, programs, and financial incentives. It covers the entire migration journey from Assess to Mobilize to Migrate.

Features include:

Expert advice

Qualifying organizations receive expert advice on application architecture, migration strategies, program management, and employee training customized for their technology landscape and migration goals. Support for proofs of concept to demonstrate the feasibility of migration is also available.

Making migration easy with AWS Database Migration Service (AWS DMS)

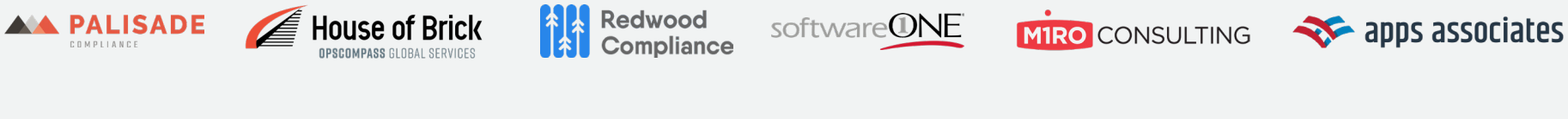
AWS can assist your migration through tools like AWS DMS, a low-cost service that helps you migrate databases to AWS quickly and securely while allowing your source database to remain fully operational during the migration. With AWS DMS, you can begin a database migration with just a few clicks in the AWS Management Console. Once the migration has started, AWS DMS manages all the complexities of the migration process, including automatically replicating data changes that occur in the source database during the migration process.

Highly reliable and simple to use, AWS DMS can migrate your data to and from most of the widely used commercial and open-source databases. It supports homogeneous migrations such as Oracle to Oracle, as well as heterogeneous migrations between different database platforms, such as Oracle to Amazon Aurora. Migrations can be from on-premises databases to Amazon RDS or Amazon EC2 databases running on Amazon EC2 to Amazon RDS, or vice versa, as well as from one Amazon RDS database to another Amazon RDS database. You can also move data between SQL, NoSQL, and text-based targets.

AWS Professional Services plus our network of AWS Database Freedom Partners further support your data migration. These teams and organizations specialize in a range of database and analytics technologies and have experience migrating thousands of databases, applications, and data warehouses to AWS. Qualified organizations can receive service credits to fund their migrations.

AWS Database Freedom Partners

AWS Partners validated through the AWS Service Delivery Program and AWS Service Ready Program have developed the offerings to help you migrate from on premises to AWS. These AWS Partner offerings have demonstrated technical proficiency and proven customer success.



Start your data modernization journey

Leveraging data as a strategic asset can help your organization meet customer expectations and remain competitive. But the insights and truth that data offers must be accessible to every facet of your business. If you're committed to reinventing your organization to a data-driven one, you can empower everyone in your organization to unlock data's potential and innovate in new ways.

The move from on-premises and self-managed data solutions to fully managed cloud data services is the critical first step. Teams that are now free from managing complex and expensive infrastructures can spend time innovating and building new applications. With the right cloud partner, you can make this initial move immediately.

Organizations want to be confident that their choice of technology will deliver value from their data while keeping it secure and compliant. More organizations partner with AWS to do this than anywhere else, with more than 625,000 databases migrated from on premises to the cloud using our database migration service. In fact, we at AWS have completed this data modernization ourselves. Amazon.com migrated 75 petabytes of internal data stored in nearly 7,500 Oracle databases to AWS databases and reduced costs by over 60 percent.

AWS provides you with an easy path to increased access for all, greater visibility of your data, and immediate peace of mind along with it. Migration to fully managed databases, storage, and analytics services on AWS allows you to offload infrastructure management tasks to AWS and focus on building applications. Join the dynamic AWS community of customers and take the first step of your data modernization journey.

Learn more about advancing your data modernization ›