AWS for Enterprise Apps

Running Microsoft workloads on AWS and Brillio

Your questions answered:

In collaboration with AWS & Brillo

brillio

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Your top 10 questions answered

Amazon Web Services (AWS) has been helping customers migrate their Microsoft workloads to the cloud since 2008—longer than any other major cloud provider. We've earned the trust of millions of active customers who are now experiencing better performance and reliability, greater security, a lower total cost of ownership (TCO), and flexible licensing options for their Windows Server, SQL Server, and .NET workloads.

From lifting and shifting workloads to moving entire data centers, AWS provides the organizational, operational, and technical capabilities you need for a successful migration to the cloud. With the deepest set of migration and modernization services, programs, and partners that specialize in Microsoft applications, you can start realizing the business value of AWS quickly.

In this eBook, we answer 10 questions we're often asked about running Microsoft workloads on AWS—ranging from why AWS to the licensing, migration, and optimization options for your Windows Server, SQL Server, and .NET workloads. We've also included our top recommendations for any customer running these workloads on AWS.

Modernize your Microsoft Windows workloads with Brillio

As businesses evolve, legacy Microsoft Windows environments often become costly, complex, and inefficient, limiting agility and innovation. Brillio, an AWS Advanced Tier Services Partner, helps organizations modernize and migrate their Windows workloads to AWS, unlocking cost savings, enhanced performance, and improved scalability.

Why Modernize Windows workloads on AWS?

- Reduce costs & optimize licensing: By migrating to AWS, organizations eliminate on-premises infrastructure overhead and optimize Windows licensing, reducing overall IT expenses by up to 36 percent.

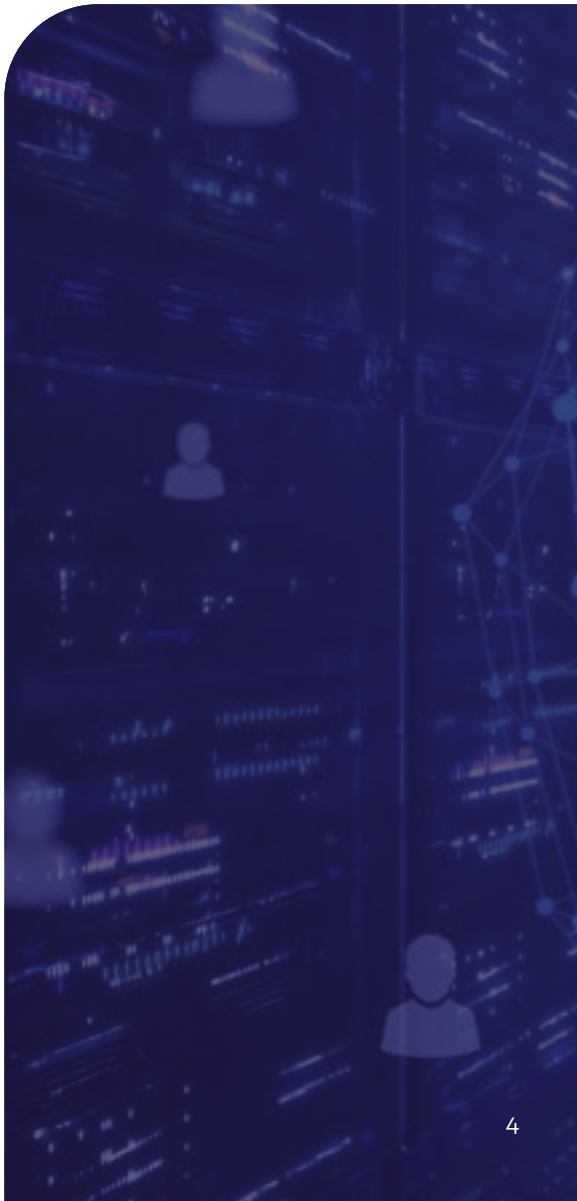
- Enhance performance & reliability: AWS provides high availability, automatic scaling, and resilient architectures, ensuring Windows applications run faster, more securely, and with minimal downtime.

- Accelerate Innovation with Cloud-Native Technologies: Modernizing Windows workloads with AWS-native services such as Amazon Relational Database Service (RDS) for SQL Server, AWS Lambda, and Amazon ECS enables automation, agility, and improved developer productivity.

- Strengthen Security & Compliance: AWS delivers built-in security, automated patching, identity management, and compliance frameworks to protect your Windows applications from vulnerabilities.

- Seamless Migration & Modernization Journey: Brillio provides end-to-end migration support, whether you choose to lift-and-shift, replatform, or refactor your Windows applications. Our experts assess, plan, and execute a risk-free, high-value transformation to AWS.

With Brillio's Microsoft Windows modernization services, you can future proof your IT environment, reduce operational burdens, and accelerate your digital transformation.



Why should you choose AWS?

When experience and modernization matter, customers choose AWS.

Let's face it—Microsoft licenses are expensive. This is where we can help. AWS offers flexible licensing options for your Microsoft workloads, allowing you to bring your own licenses or pay as you go without signing any contracts or agreements. With AWS, you can replace your Microsoft-licensed products and applications with specialized, built-for-the-cloud technologies and break free from the punitive terms and high cost of Microsoft licensing.

Why Brillio for your Microsoft workloads on AWS?

Brillio knows how to leverage customers' existing Microsoft investments and resources to safeguard a transition that's seamless and tailored to your specific needs. Running Microsoft workloads on AWS with Brillio is not only easy—it can also super-charge your current Microsoft environment. With Brillio on AWS, you can:

- Support your existing Microsoft technologies. Brillio has native support for common Microsoft technologies, such as SQL Server and Active Directory (AD), making it possible to lift and shift these environments to AWS.
- Maintain full governance and control. Create a series of controls that mimic your existing on-premises IT governance and extends to the cloud.
- Modernize and reduce your risk: Brillio offers a variety of options for new and existing Microsoft software licenses.
- Drive innovation on a proven cloud. AWS and Brillio together offer a broad selection of modern, cloud-native tools and services to help you drive innovation, simplify operations, and increase efficiency

Can you bring your Microsoft licenses to AWS?

Yes, you can bring your own licenses—it's called BYOL. You can also use AWS instances that include the cost of licensing.

As a Microsoft Authorized License Mobility Partner, AWS allows you to bring all your Microsoft licenses—such as SQL Server with active Software Assurance—to Amazon Elastic Compute Cloud (Amazon EC2) on shared tenancy.

BYOL if you want to:

- Take advantage of cloud efficiencies and leverage your existing licensing investments
- Extend the lifecycle of your software without additional hardware costs
- Expedite your migration to the cloud by using existing virtual machine images

By using AWS-provided licenses on Amazon EC2 or Amazon Relational RDS instances, your Windows Server, SQL Server, Office, and Visual Studio licenses will always be fully compliant.

Choose AWS-provided licenses if you want to:

- Pay as you go with no upfront costs or long-term commitments
- Deploy workloads that scale up and down as needed
- Fully control when you are being billed for license-included instances Let AWS manage licensing compliance for you

When you're ready to get started, Brillio can help. By assessing your existing Microsoft licenses, Brillio can help you find opportunities to reduce costs by optimizing Windows server workloads and licenses to align with AWS deployment models or leverage AWS-provided licenses.

How can you reduce your dependency on Microsoft licensing with AWS?

We get this question all the time. New and existing customers alike are looking for ways to break free from the punitive terms and high cost of Microsoft licensing.

Customers want to lower their costs, harden their security, and improve the price performance of their Microsoft applications. This is where AWS can help. With AWS, you can speed up innovation by replacing your Microsoft-licensed products and applications with open-source alternatives and technology built specifically for the cloud.

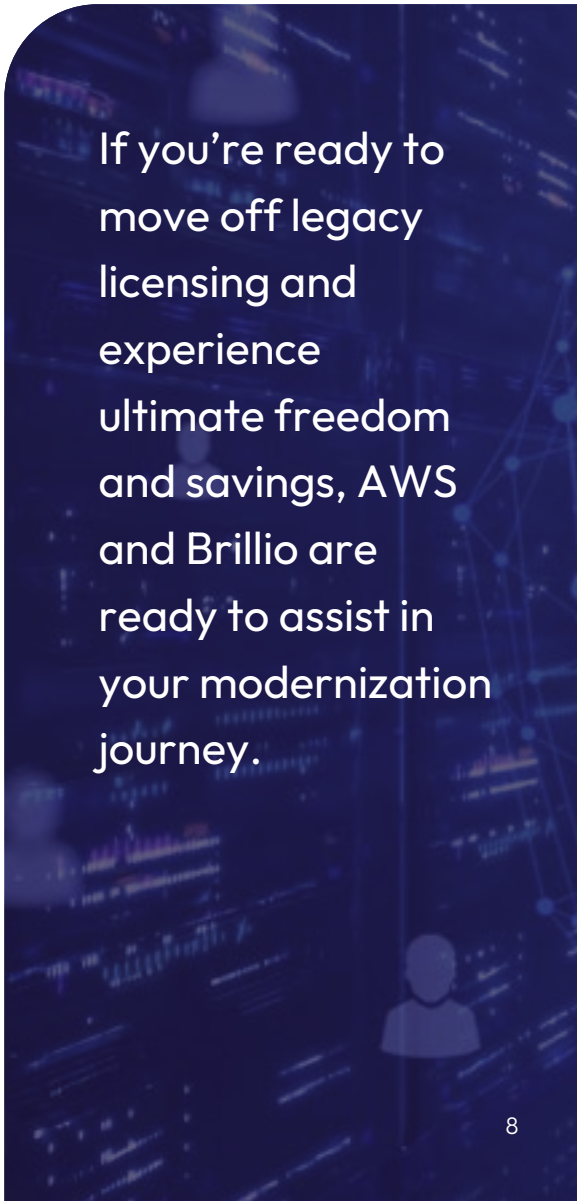
Here are some ways our customers are reducing their licensing dependencies:

- Moving from Windows Server to Linux
- Porting applications from .NET Framework
- Decomposing monoliths into microservices
- Implementing DevOps with container and serverless technologies
- Transitioning your data tier to Amazon Aurora and other purpose-built databases

Brillio can help

Brillio is an AWS OLA Certified Partner and have helped customers in migrating their MS workloads and helped in reducing their licensing costs. Customers who are ready to take the leap and run their Microsoft workloads on AWS turn to Brillio to:

- Assess and optimize on-premises and cloud environments, reduce required instances, and enhance resource efficiency
- Analyze actual resource use, license status, and application dependencies
- Provide the information needed to build an optimal architecture and licensing strategy for the transition to AWS
- Shift Windows-based applications running on on-premises or AWS EC2 SQL Servers to cloud-based Amazon EC2 on Linux OS
- Refactor SQL Server to a new database engine, such as an open-source or cloud-native solution
- Replatform directly to Windows Server containers
- Refactor applications from .NET Framework to .NET Core to run on Linux
- Rearchitect to an event-driven and serverless architecture



How can you optimize the cost of your Windows Server?

AWS offers more than 750 generally available secure and resizable compute instances—more than any other major cloud provider. This includes a wide selection of instance types optimized to fit different use cases, including CPU, memory, storage, and networking capacity. While this gives you the flexibility to choose the appropriate mix of resources for your applications, the over-provisioning of resources on Amazon EC2 can lead to unnecessary costs and resource consumption.

Here are a few recommendations to help you optimize costs and lower the TCO for your Windows Server workloads with AWS and Brillio:

- **Ongoing optimization:** Brillio provides continuous infrastructure optimization, helping customers provision instances that align precisely with workload demands.
- **Rightsizing:** Adjust instance types and sizes to meet performance and capacity needs while minimizing costs.
- **Resource efficiency:** Identify opportunities to reduce or eliminate excess resources without compromising capacity or performance, leading to significant cost savings.
- **Modernization:** Migrate file shares to Amazon FSx for Windows File Server to leverage optimized file storage. Consider modernizing Windows workloads with Amazon ECS, EKS, or AWS Lambda to minimize infrastructure costs and improve scalability.

These strategies can help you identify opportunities to eliminate or downsize without compromising capacity or other requirements, resulting in lower costs.

Can you automate the migration of your Microsoft workloads?

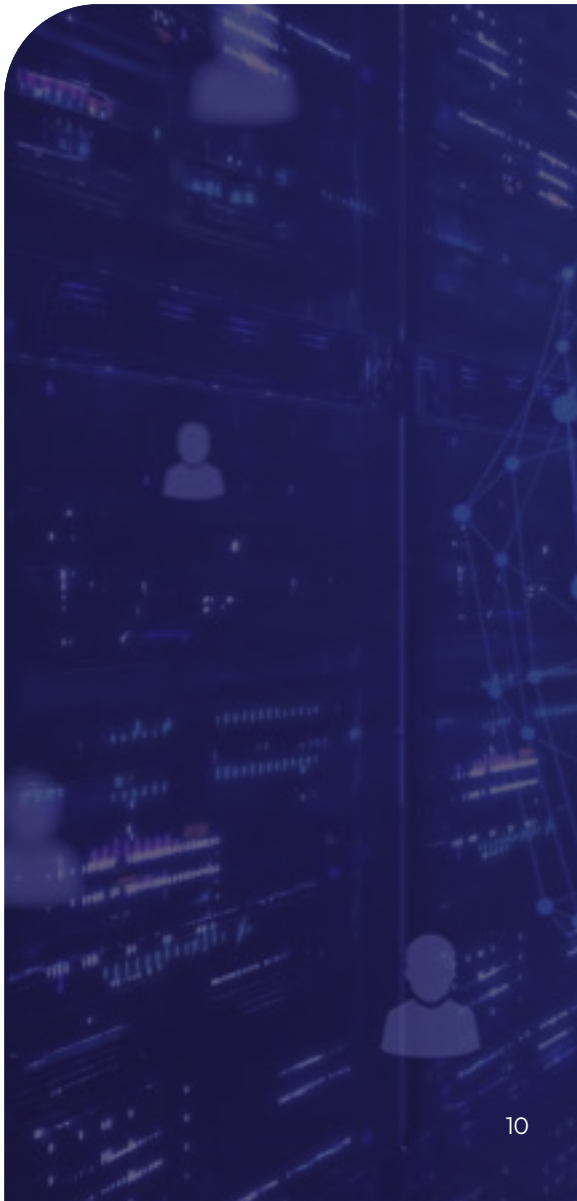
Yes, Brillio's flagship accelerator brillioOne.ai brings to you a suite of AI driven capabilities, solutions and products to accelerate the migration of workloads to the cloud.

brillioOne.ai, can supercharge your cloud migration journey across the five key phases: Prepare, Plan, Migrate, Operate, and Optimize. Brillio accelerator, brillioOne.ai, is specifically designed to streamline this process by leveraging the AWS Well-Architected Framework across each migration phase while integrating AI-driven intelligence for automation, optimization, and security. Using this approach organizations would be 100% AWS Well-Architected Aligned by ensuring security, reliability, performance efficiency, cost optimization, and operational excellence. BrillioOne.ai eliminates manual effort, accelerates migration timelines, and reduces human errors and integrates with AWS-native services for a future-ready cloud environment.

Prepare

In the **Prepare** phase, brillioOne.ai helps you assess your current infrastructure and readiness for cloud migration. With AI-driven insights, you can identify potential challenges and opportunities, ensuring a smooth transition. This phase includes:

- **Readiness Assessment:** Evaluate your existing systems and processes.
- **Risk Analysis:** Identify and mitigate potential risks.
- **Stakeholder Alignment:** Ensure all key players are on the same page.



Plan

During the **Plan** phase, brillioOne.ai assists in creating a detailed migration strategy tailored to your specific needs. This includes:

- **Roadmap Creation:** Develop a clear, actionable plan.
- **Resource Allocation:** Optimize resources for efficiency.
- **Timeline Management:** Set realistic milestones and deadlines.

Migrate

The **Migrate** phase is where the actual transition happens. BrillioOne.ai streamlines this process with:

- **Automated Migration Tools:** Leverage AI to automate and accelerate the migration.
- **Data Integrity Checks:** Ensure data is transferred accurately and securely.
- **Minimal Downtime:** Achieve seamless migration with minimal disruption.

Operate

Once your workloads are in the cloud, the **Operate** phase focuses on maintaining and managing your new environment. BrillioOne.ai offers:

- **Performance Monitoring:** Continuously monitor system performance.
- **Issue Resolution:** Quickly identify and resolve any issues.
- **Security Management:** Maintain robust security protocols.

Optimize

Finally, the **Optimize** phase ensures you get the most out of your cloud investment. BrillioOne.ai helps you:

- **Cost Management:** Optimize costs and reduce unnecessary expenses.
- **Performance Tuning:** Enhance system performance for better efficiency.
- **Continuous Improvement:** Implement ongoing improvements based on AI-driven insights.

With **brillioOne.ai**, each phase of your cloud migration is powered by cutting-edge AI capabilities, ensuring a faster, smoother, and more efficient transition.

How can you optimize and modernize your SQL Server?

We know that the high cost of Microsoft licenses for SQL Server, especially SQL Server Enterprise edition, is a point of concern for many of our customers.

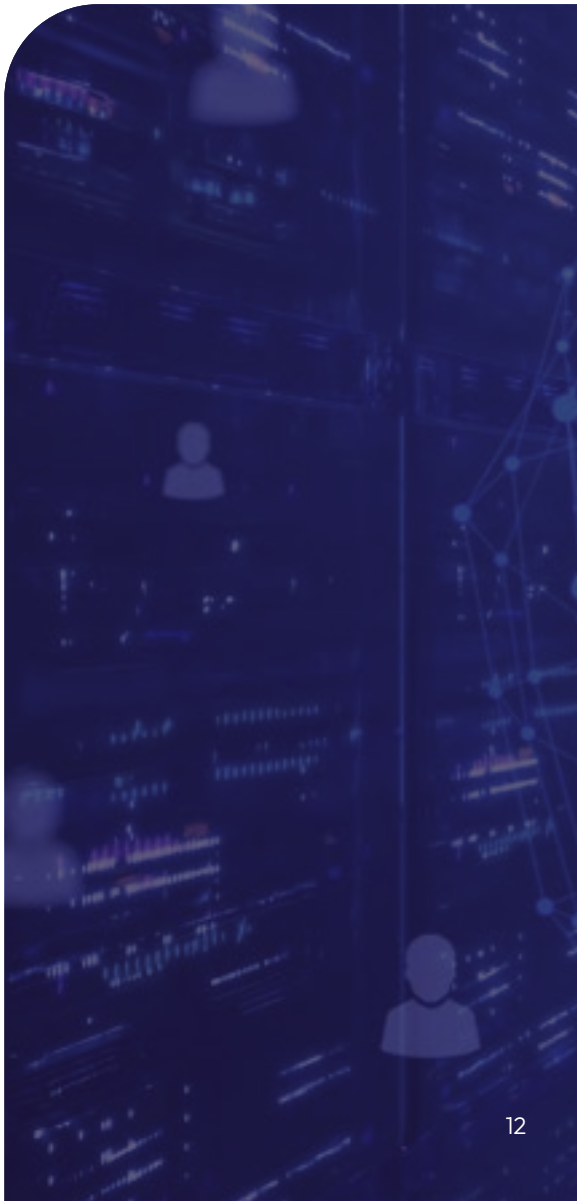
AWS and Brillio have a few money-savings recommendations for SQL Server on Amazon EC2 deployments:

- Consolidate small SQL Server databases
- Use SQL Server Developer edition for non-production environments
- Use the Optimize CPU feature to save up to 75 percent

You can also deploy SQL Server on Amazon RDS. You get a fully managed relational database service that makes it easy for you to set up, operate, and scale your SQL Server deployment while significantly reducing your operational overhead.

In addition to supporting SQL Server, AWS and Brillio offer one of the widest variety of databases that are purpose-built for different types of applications so that you can choose the right tool for the job to get the best cost and performance.

Brillio has extensive experience in migrating and modernizing SQL Server on AWS. Our cloud and database experts possess deep expertise across leading technologies, enabling us to support customers through their entire journey—whether upgrading to a newer version of SQL Server or transitioning to an open-source or purpose-built database engine.



Brillio offers several options for upgrading or modernizing databases on AWS while continuing to use SQL Server:

- **SQL Server on Amazon EC2 (Linux OS):** Reduce costs by eliminating Windows Server licensing fees and using the open-source Linux operating system. Instances can be rightsized to meet performance and capacity needs at the lowest cost.

- **Amazon RDS for SQL Server:** Simplify database management with a Platform-as-a-Service (PaaS) solution. This fully managed option reduces administrative overhead by handling infrastructure tasks such as backups, patching, and scaling.

- **Modernization:** Refactor your SQL Server workloads by transitioning to a new database engine, such as an open-source or cloud-native solution, to enhance scalability and flexibility.

Can you run your .NET applications on AWS?

Yes, you can; in fact, we have been supporting .NET in the cloud since 2008. You can run both your legacy .NET Framework and modern .NET applications on AWS with Brillio, and here's how:

Migrate

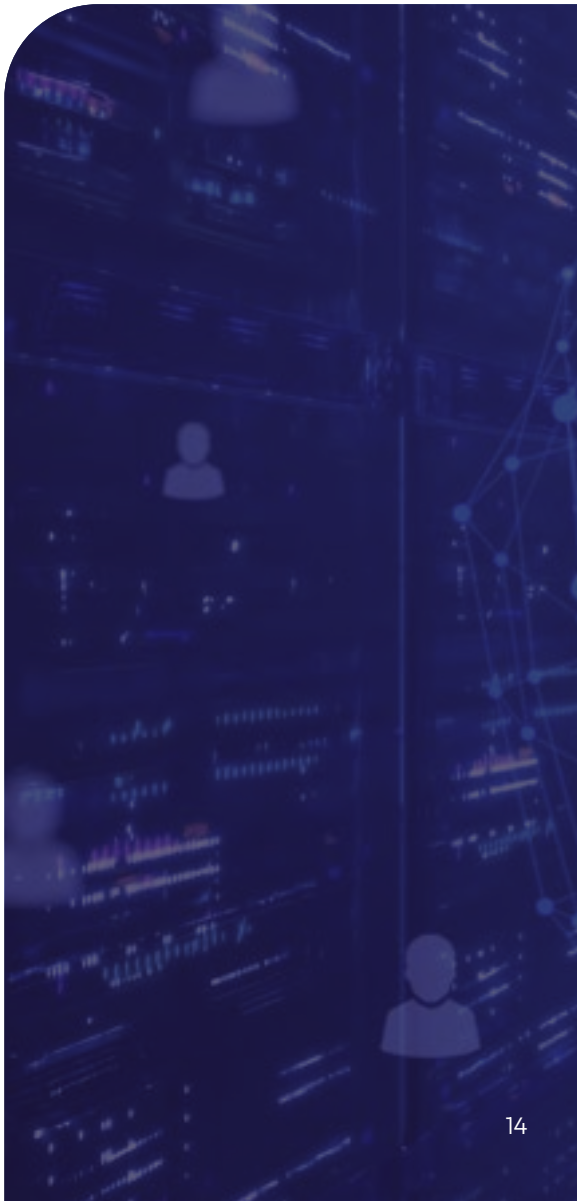
The simplest way to migrate .NET applications to AWS is to rehost them using AWS Elastic Beanstalk or Amazon EC2.

Containers

With containers, you can bundle your .NET application with its dependencies and configuration, making it easy to port between on-premises and the cloud. AWS offers a variety of container services to host your containerized .NET Framework application on Windows or your modern .NET application on Linux. You can use the AWS App2Container tool to generate a container image for your application.

Modernize

You can modernize your .NET application to a cloud- based architecture to maximize scale and reliability, take advantage of serverless compute, and run on Linux at a reduced cost. The Porting Assistant for .NET tool helps you port your code to modern .NET, and the AWS Microservice Extractor for .NET tool simplifies the process of transforming your monolithic application into microservices.



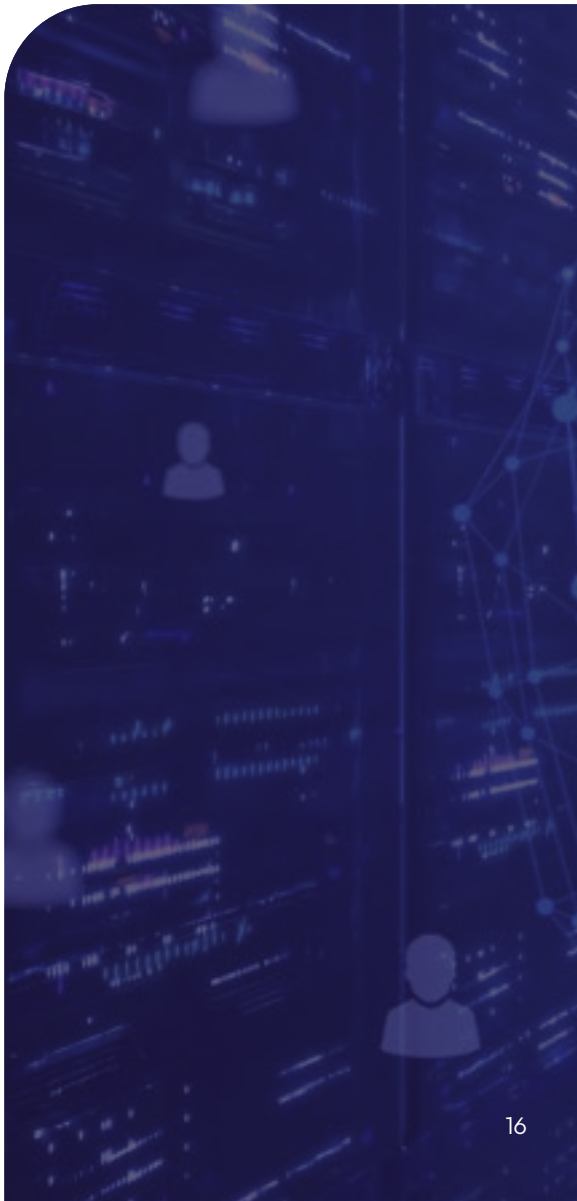
Brillio is dedicated to supporting customers in migrating, upgrading, and modernizing their Windows Server workloads (.Net) with tailored programs, tools, and technical expertise. That's why we provide the following migration and modernization pathways for .Net applications:

- **Rehosting:** Deploy applications on AWS Elastic Beanstalk or Amazon EC2 to quickly migrate workloads with minimal changes.
- **Replatforming:** Move applications to Windows Server containers for improved flexibility and efficiency.
- **Refactoring:** Transition from .NET Framework to .NET Core, enabling applications to run on Linux for better performance and lower costs.
- **Rearchitecting:** Redesign applications to adopt event-driven or serverless architectures, enhancing scalability and responsiveness.

Can you run Windows Server containers on AWS?

Yes, you can run Windows Server containers on AWS, and here's why you should.

- Containers are more efficient than virtual machines. They provide better isolation and let you maximize the placement of your applications to increase the utilization of your infrastructure resources and reduce overall costs.
- It's easier to automate the three stages of the development lifecycle: build, test, and deploy. By automating these processes, DevOps teams have more time to focus on innovating.
- You can modernize legacy applications by using Windows Server containers and running them on a modern infrastructure. This will help you improve the scalability, security, and maintainability of your legacy applications.
- Containers allow your applications to scale up rapidly, making them useful for applications that require fast expansion or cloud bursting.



Replatform to Windows Containers with Brillio

Brillio helps customers replatform their .NET applications to Windows containers on AWS, leveraging the lightweight, efficient nature of containers to increase infrastructure density and utilization. This is especially important in Windows environments, where optimizing compute, storage, and licensing costs can deliver significant savings.

With the introduction of Docker Windows Containers and support for Kubernetes Windows worker nodes, Brillio enables customers to transition their .NET workloads seamlessly to containerized infrastructure.

AWS offers flexible options for running Windows containers, including self-managed environments on Amazon EC2 and fully managed orchestration services with Amazon ECS and Amazon EKS. Customers can also leverage AWS Fargate for a serverless, pay-as-you-go compute engine to run Windows applications without managing servers.

How can AWS help you handle end-of-support challenges for Windows Server and SQL Server?

When it comes to migrating, optimizing, and modernizing end-of-support (EOS) workloads, it is imperative to evaluate cloud providers holistically.

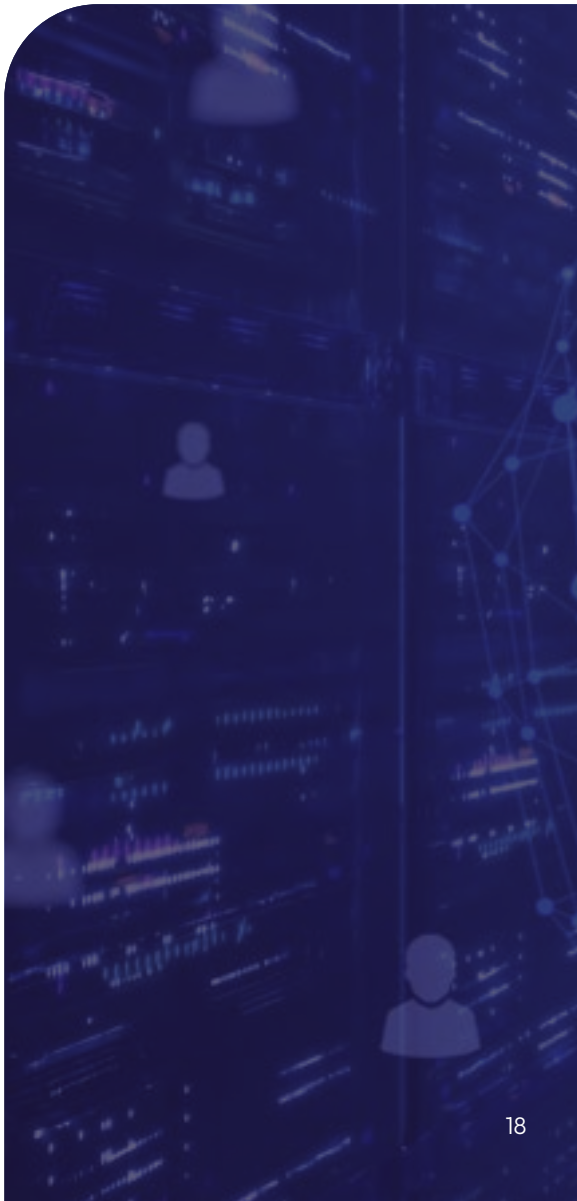
Forced decision points, like EOS events, create a unique opportunity for you to think about the future state of your business, evaluate options and alternatives, and determine which path is right for you. When evaluating cloud providers, you will want to consider such factors as price performance, reliability, breadth and depth of technology, pace of innovation, and flexible licensing options.

Here are a few of the options you have with AWS:

Start with the free AWS Optimization and Licensing Assessment (OLA) to assess and optimize your current on-premises and cloud environments. After your optimized migration, automate your upgrades with AWS Systems Manager automation runbooks for our EOS workloads.

Future-proof your legacy Windows Server applications. To address compatibility and dependency issues, AWS offers the End-of-Support Migration Program for Windows Server to help you migrate your legacy applications to the latest supported versions of Windows Server on AWS without any code changes.

Modernize your workloads to accelerate innovation with open-source and cloud-based technologies. Accelerate the modernization of your legacy infrastructure, databases, and applications to open-source and cloud-based technologies, and break free from software upgrade and refresh cycle.



What is the top recommendation for running Microsoft workloads on AWS?

Our top recommendation is to optimize your Microsoft workloads—from both a licensing and infrastructure standpoint—to run in the cloud. If you simply lift and shift your workloads from on-premises to the cloud without optimizing, you may miss out on the savings and efficiencies the cloud provides.

For license optimization, Brillio offers a free AWS OLA program for both new and existing customers. An AWS OLA gives you the opportunity to assess and optimize your on-premises and cloud environments based on actual resources used and third-party licensing. By analyzing your hardware, application performance, and contracts, AWS offers a tailored migration and licensing strategy to optimize resources, reduce costs, and maximize existing investments—only pay for what you need.

If your Microsoft Enterprise Agreement is coming up for renewal or you're running Windows Server or SQL Server versions that are reaching (or have reached) EOS, now is a great time to do an AWS OLA. This comprehensive evaluation leads to actionable recommendations for both immediate cost savings and long-term optimization opportunities.

Transform your business with the Brillio migration and modernization framework

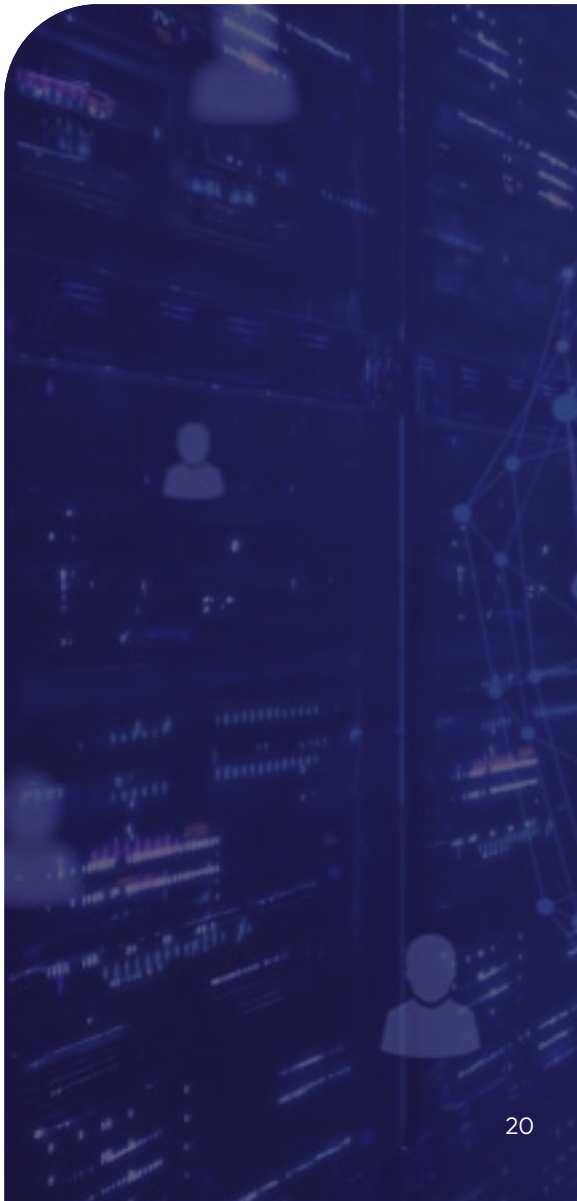
Brillio provides a clear, decision-driven framework to guide cloud migration and modernization, addressing critical factors such as where to begin, infrastructure and application data collection, cost savings, cloud governance standards, and compliance requirements. Additionally, Brillio conducts intelligent portfolio rationalization, generating a priority-based migration strategy and an agile wave plan to ensure a structured approach.

The journey is divided into three key phases:

- **Discovery, assessment, and sizing:** Brillio uses a data-driven approach to gather comprehensive system information, evaluate current capabilities, and forecast future requirements. This analysis helps determine the best starting point for migration.

- **Cloud foundation or landing zone creation:** To overcome the limitations of traditional methods, Brillio establishes a secure and scalable cloud foundation by creating landing zones. This involves provisioning cloud prerequisites in advance, ensuring a seamless migration process.

- **Migration, testing, and deployment:** Brillio goes beyond simple lift-and-shift migrations. By assessing the existing IT infrastructure, it identifies necessary optimizations before migrating applications and infrastructure. Rigorous testing follows to validate performance and functionality, culminating in the deployment of the new cloud environment.



ABOUT BRILLIO

Brillio is a digital technology services company that drives AI-first engineering and design-led experiences for global enterprises. Born digital in 2014, its consulting-led services span Customer Experience, Data & AI, Product Engineering, and Digital Infrastructure. With an industry-leading NPS of 71, Brillio accelerates time to market through its proprietary BrillioOne.ai platform, powered by AI-ready talent with deep domain expertise. Brillio is the official Digital Transformation Partner and the official Data and AI Services Provider of Atlassian Williams Racing. Brillio partners with leading technology providers including Microsoft, AWS, Google Cloud, Salesforce, Adobe, Databricks, and Snowflake and operates with 6,000+ “Brillians” across 15 global delivery centers. Consistently recognized as a Great Place to Work® since 2021, Brillio blends innovation, talent, and purpose to deliver measurable outcomes for clients and fulfilling careers for employees.

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