aws | dynatrace

Accelerate cloud modernization with AI-powered observability

What's inside

The cloud modernization imperative

Enterprises looking to modernize technology are rapidly adopting Amazon Web Services (AWS) to build new applications and retire legacy solutions. The hyperscale breadth of services from AWS can help significantly reduce your total cost of ownership (TCO), freeing up resources to focus on the enterprise's core mission and not in managing servers and manual deployments.

The rapid adoption of AWS underscores its pivotal role in accelerating digital transformation. But to fully realize the benefits of AWS, you need more than a rehosting (lift-and-shift) approach. You need to focus on cloud modernization—a practice that optimizes workloads and their processes to provide your applications with a long-term growth strategy.

However, modernizing business-critical applications introduces complexities because tightly coupled, often dynamic and ephemeral dependencies are challenging to see and manage. Further, the intricacy of your application environments can hinder cloud adoption and the ability to evolve at the scale needed to support your business. You need a continual, iterative process aimed at unlocking value at each stage of modernization—from a readiness assessment to management at scale. And for that continual process to take shape, observability is crucial.

Observability is key to modernization

Comprehensive, automatic and intelligent observability provides holistic, real-time visibility into and monitoring of complex application environments. With an integrated view of your entire cloud ecosystem, you gain real-time, actionable insights, no matter what modernization stage your organization is in.

Give your apps the foundation for innovation at scale

Cloud modernization cannot happen overnight. This ebook outlines best practices for application observability, broken down into three modernization phases:

Migrate

Innovate

Scale

No matter what stage you are in, Dynatrace and AWS provide the support you need to achieve observability at scale. As the only analytics and automation platform powered by causal artificial intelligence (AI), Dynatrace allows you to simplify cloud complexity and innovate faster, with an extensive, reliable and secure AWS cloud infrastructure as its foundation.

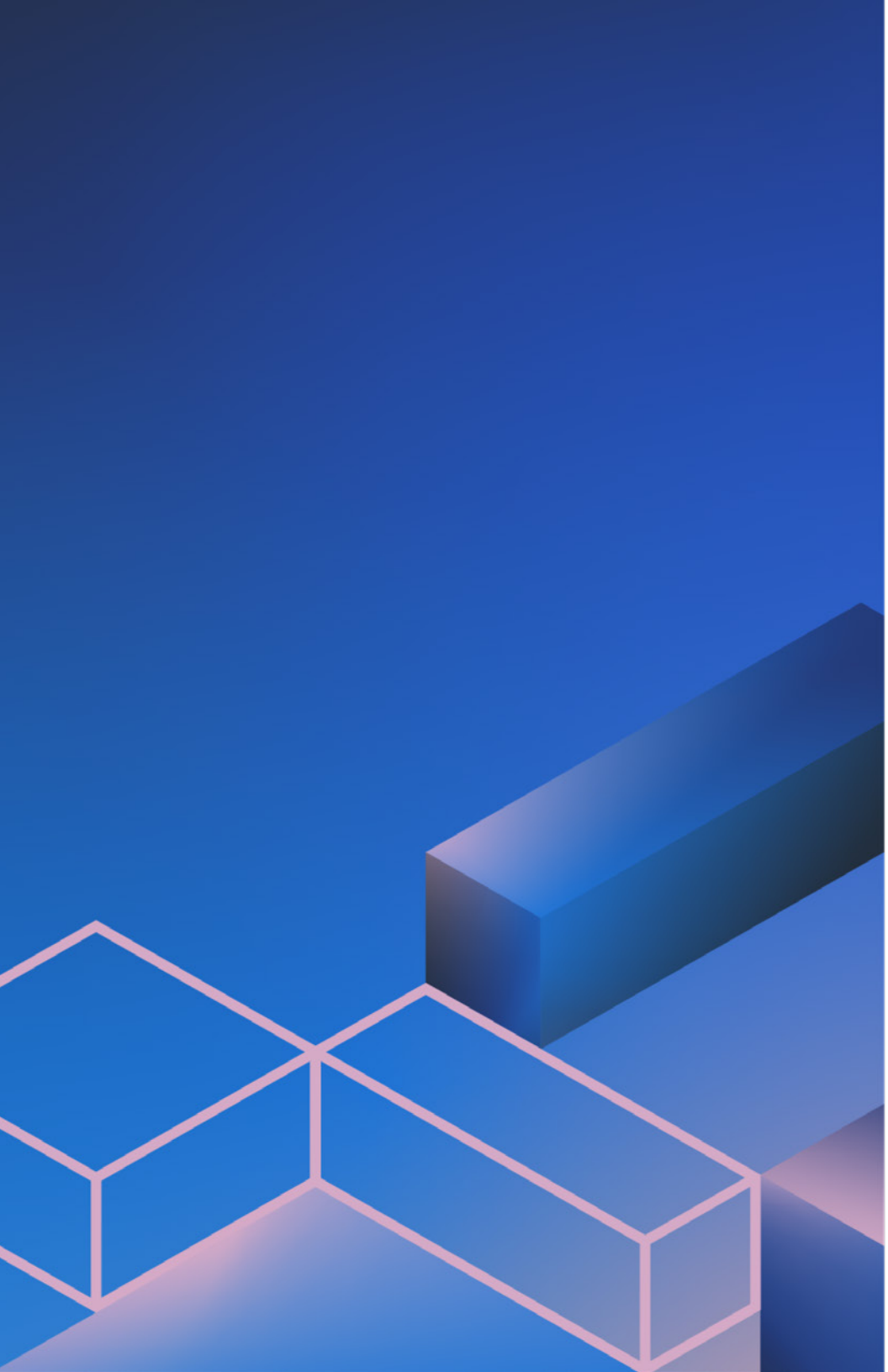
Migrate: Build a foundation for modernization

Modern businesses recognize the value of cloud-based infrastructure. The possibilities for scalability, cost savings and operational agility are why so many are migrating from on-premises data centers to AWS. And observability is key to carrying out a successful migration without downtime, potential outages or performance issues.

The need for observability throughout migration

There are several solutions designed to streamline cloud migrations, but many of these are designed primarily for lift-and-shift migrations. More complex cloud environments need greater visibility throughout the process of assessing, planning, migrating and launching autonomous cloud operations.

- **Assessment and planning:** You must be able to identify which applications and workloads are best suited for the cloud and analyze those findings to make architectural decisions.
- **Migration:** Maintaining business as usual means avoiding service disruptions during migration, which can erode customer trust and result in financial impacts.
- **Continuous operation:** Across migrations, you need to be able to validate architectural integrity to enable autonomous cloud operations.



Accelerate your AWS cloud migration

While leveraging AWS migration tools and services, Dynatrace provides multi-data center visibility and an AI-powered engine to give you a real-time, full-stack picture of your applications for a clearer migration journey.

- **Real-time monitoring:** Facilitate informed decision-making with end-to-end visibility and real-time performance monitoring.
- **Anticipating outages:** Predict potential disruptions so you can put preventive measures in place for uninterrupted service, even during complex migration processes.
- **Simplifying operations:** Gain peace of mind after your migration is complete by automatically linking application services before and after your migration, simplifying and optimizing your operations.

Innovate: Embrace AWS cloud-native technologies

After migrating to AWS, true innovation can begin. The shift from on-premises systems to the AWS Cloud ushers in a new era of orchestration and application development. By embracing AWS-native technologies like Amazon Elastic Kubernetes Service (Amazon EKS) and AWS Lambda, which provides serverless compute and removes the need to manage underlying infrastructure, you gain time to focus on the future. As you move from traditional monolithic architectures to dynamic microservices, you'll be able to pivot, adapt and innovate with efficiency.

Challenges in adopting cloud-native technologies

Enhanced operational agility requires organizations to first navigate common obstacles to cloud-native adoption. These include:

- **Complexity in microservices:** Transitioning from a monolithic structure to microservices is pivotal to innovation but introduces fragmentation. You must maintain visibility and ensure seamless interactions across these services.
- **Scaling with agility:** As cloud-native applications facilitate new development, they need to scale rapidly in response to demands, without downtime or wasted resources.
- **Continuous integration and continuous deployment (CI/CD):** Adopting CI/CD is key to ongoing innovation. This requires tools and practices that ensure new features, updates or fixes don't disrupt existing services.

Innovate without bounds

Dynatrace enables your team to rely on AWS infrastructure and services so they can focus on innovation versus managing traditional on-premises infrastructure as business scales.

- **Automated discovery:** Introduce new services and use automated discovery, which is especially valuable in microservices environments where new instances and services are rapidly rolled out.
- **Hypermodal AI insights:** Deploy hypermodal AI to not only identify issues but to pinpoint their exact root cause. It offers proactive and prescriptive recommendations based on observed patterns, leading to incident prevention and faster development cycles.
- **Integrated observability:** Create a singular, comprehensive view of your AWS resources with consolidated insights across distributed services and various AWS environments.

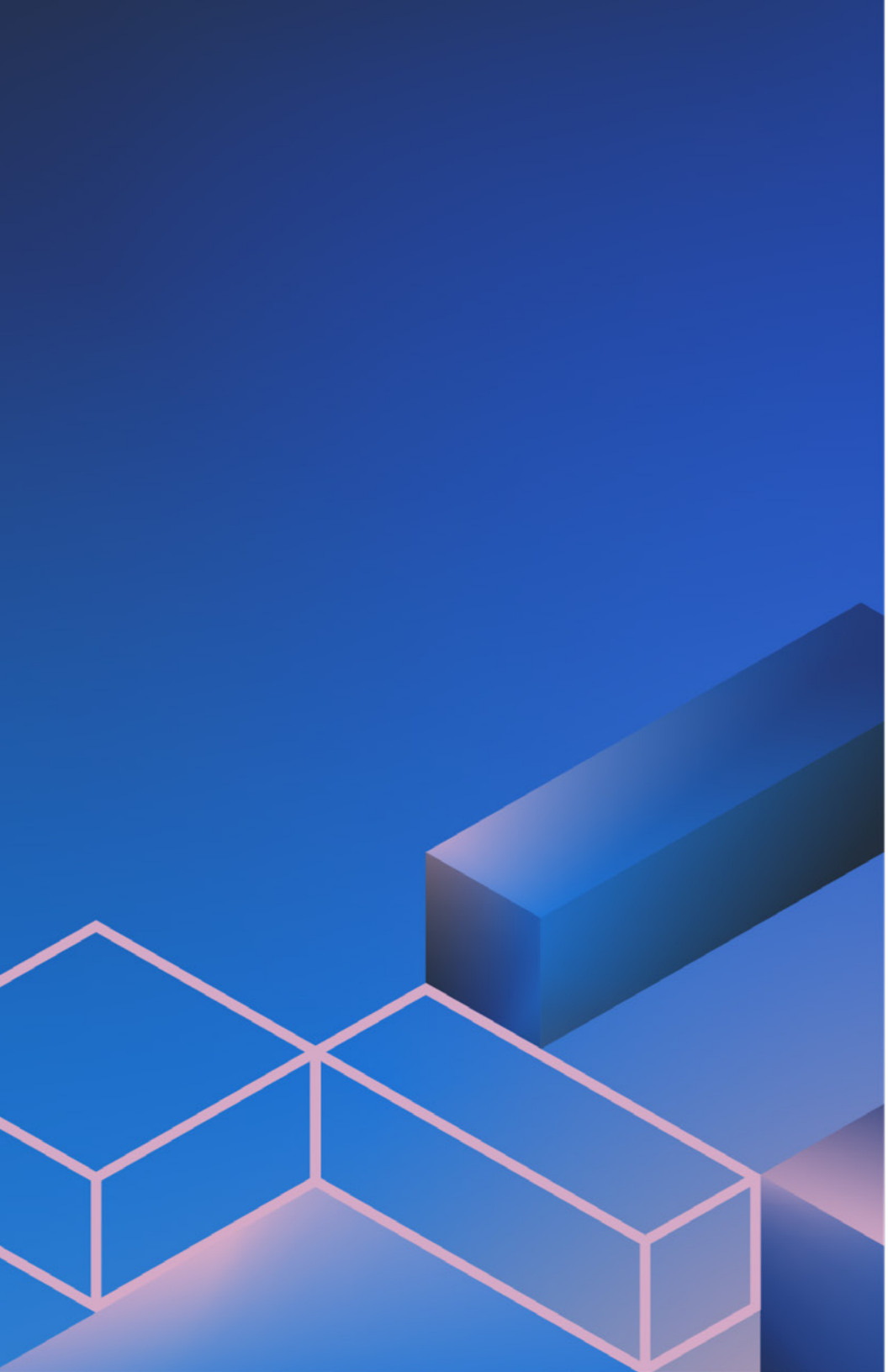
Scale: Future-proof operational excellence

As enterprises finalize their migration to the cloud and embrace cloud-native technologies, the journey doesn't end. The next challenge is ensuring consistent operational excellence while scaling efficiently in a dynamic environment. That requires strategies and tools that not only maintain performance, but also proactively optimize and secure resources for the future.

The need to sustain operational excellence at scale

In a limitless cloud environment, operational excellence is not just about maintaining performance but ensuring that operations are optimized, costs are managed and the environment is respected. However, it can be difficult to sustain operations in all the ways that are necessary for excellence, such as:

- **Resource optimization:** Leveraging resources without overprovisioning directly impacts your bottom line.
- **Maintaining low total cost of ownership (TCO):** Cloud costs can quickly escalate if they aren't monitored and optimized. Identifying inefficiencies and unnecessary expenditures is crucial.
- **Sustainability and carbon footprint:** As companies become more environmentally conscious, it's important to understand and reduce your carbon footprint.



Leverage AWS solutions and Dynatrace for sustained excellence

With AWS and cutting-edge observability tools from Dynatrace, enterprises can confidently future-proof their operations, ensuring longevity and sustained excellence in their cloud journey.

- **Efficient resource allocation:** Understand how storage and compute resources are being used through Dynatrace, which identifies over-allocations within Amazon Elastic Compute Cloud (Amazon EC2) and Amazon Simple Storage Service (Amazon S3) and suggests areas where resources can be scaled back. This complements the capabilities of AWS Compute Optimizer, which helps you see when EC2 instances are overprovisioned.
- **Dynatrace Carbon app:** Make environmentally friendly decisions regarding your cloud usage using the Dynatrace Carbon app, which offers insights into the carbon footprint of your cloud operations.
- **AI-powered insights:** Address challenges before they become obstacles with Dynatrace's causal AI capabilities. These not only provide real-time feedback, but also forecast potential issues.

Dynatrace and AWS: Observability in motion

The increasing intricacy of cloud environments necessitates a holistic view that captures every angle, from application performance to infrastructure health. As businesses expand their AWS footprint, having an AWS Service Ready Partner like Dynatrace is key. This provides:

- **Unified observability:** Dynatrace presents a unified view of applications, infrastructure and services to help bridge teams and align both business and technical goals.
- **Automated anomaly detection:** Dynatrace's automated capabilities can spot anomalies before they escalate and potentially affect end users or business operations.
- **Efficient cloud modernization:** Dynatrace supports every stage of the AWS modernization journey, from initial migration to full-scale cloud-native transformation, ensuring businesses get maximum value from their AWS investments.

PHOTOBOX

Photobox delivers frictionless ecommerce experiences with Dynatrace

Photobox, a leading photo printing and gifting service, needed to monitor its diverse and custom technology stack that powers its website, applications and factories. The company had to rely on 10 different monitoring and logging solutions that were costly, inefficient and delivered little value.

Photobox chose Dynatrace to consolidate all monitoring data into a single pane of glass across the company's end-to-end technology stack. Dynatrace was the clear choice due to its flexibility and ability to provide real-time, actionable insights on customer behavior, application performance and business outcomes. Today, Photobox has improved its customer experience by reducing its mean time to resolution (MTTR), reducing critical incidents during peak events such as Cyber Monday, and Photobox can and make more confident decisions based on data-driven insights.

- Reduced MTTR by up to 80%
- Reduced critical incidents by 60% during peak periods
- Resolved real user-impacting issues with digital experience monitoring

Learn more >

Dynatrace and AWS: Migrate, innovate, scale

The AWS modernization journey goes beyond infrastructure—it represents a transformative leap toward scalability, agility and operational efficiency.

With deep integrations into AWS and hundreds of other third-party services, Dynatrace empowers businesses to optimize each phase of their modernization journey, no matter where they start. The Dynatrace approach to observability maturity provides a compass, guiding organizations from initial migration through to continuous innovation.

As businesses seek ways to integrate machine learning and AI, enhance security protocols and strengthen hybrid and multi-cloud strategies, Dynatrace and AWS provide the support needed to make it happen.

Get started today with a free trial of Dynatrace in AWS Marketplace.