

# Migrate to the Cloud Without Disruption

Defining and tracking key performance indicators to take your data and applications to AWS





# Introduction

## Cloud migration: Today's business imperative

In the era of rapid digitalization, businesses across all industries are progressively embracing cloud migration to fuel growth and ensure longevity. For Fortune 500 companies, cloud migration has enabled over \$1T in business value<sup>1</sup>. Despite previous predictions of the market losing steam, public cloud spend is expected to grow 20.4 percent from \$563.6 billion in 2023 to total \$678.8 billion in 2024, taking a bigger share of the \$2.4T enterprise IT services market<sup>2</sup>.

Key drivers for moving to the cloud include:

- Building more performant, resilient, and secure applications faster
- Enabling a culture of experimentation
- Automating back-office operations
- Replacing outdated, legacy hardware, and applications
- Eliminating long procurement cycles
- Accessing a massive ecosystem and marketplace of advanced technologies like artificial intelligence (AI) and machine learning (ML)
- Lowering total cost of ownership (TCO) for IT infrastructure and increasing business flexibility
- Expanding operations and business globally

Migrating to the cloud can fundamentally transform how you operate and serve your customers, making it one of the most strategic decisions an organization can make. The increased operational speed, reduced time to market, and significant cost savings drive enhanced business value, helping organizations outrun the competition and stay ahead in the game. For executives, it's no longer a question of why they should migrate to the cloud, but how and when.

However, this shift to the cloud isn't without its unique challenges—90 percent of CIOs have experienced disrupted or failed migrations<sup>3</sup>, and many organizations are unable to get value out of the cloud because of inadequate planning, unforeseen interdependencies, unrealistic goals and strategies, escalating costs, and/or long migration timelines.

**90%**

of CIOs have experienced disrupted or failed migrations

1. The cloud transformation engine, [McKinsey 2022](#)

2. Worldwide public cloud end-user spending to reach \$679 billion in 2024, [Gartner 2023](#)

3. Source: [Cloud Security Alliance Survey](#)



## The purpose of this eBook

Measuring the outcomes of transformative initiatives such as cloud migration can be difficult, particularly when organizations have made significant investments in their current on-premises infrastructures or operating models. Tangible benefits such as a reduction in the TCO of IT infrastructure, improved software development speed, and enhanced online customer service may not materialize until months after migration is complete. How do you maximize the return on your existing investments while minimizing migration risks? How do you measure and track progress across migration initiatives that can last months to years? Are teams working together towards shared goals or obstructing each other? How do operational requirements like security and compliance change in a cloud environment? And what should you be mindful of to improve the security and efficacy of your cloud environment post-migration?

Major commercial cloud service providers (CSPs), including Amazon Web Services (AWS), recommend:

### Pre-migration

Inventory IT systems, define stakeholder responsibilities.

### During migration

Provide resources, test applications in cloud environments.

### Post-migration

Monitor IT enterprise, share data for collaboration.

Integrated observability platforms are crucial for IT modernization, informing decisions, and improving security, efficiency, and consumption during cloud migration. [Datadog](#) provides unified observability solutions for complex cloud migrations, IT initiatives, and digital transformations helping regulated institutions like Citizens Bank, London Stock Exchange, Toyota, and Comcast, as well as government organizations like the US Department of Agriculture and the Department of Veterans Affairs<sup>4</sup> move data and applications to the cloud without disruption.

This eBook suggests ways to use data-driven insights to inform cloud migration tactics and measure effectiveness across all stages of migration, including:

- **Plan:** Defining cloud migration key performance indicators (KPIs) that matter the most to your business
- **Migrate:** Tracking progress against migration KPIs
- **Run:** Optimizing cloud resources to minimize waste, costs, and risks in your post-migration environment

The last section, “Datadog for AWS migration”, provides an overview of the [AWS Cloud Adoption Framework](#) and offers ways AWS customers can use Datadog to securely move complex workloads to the cloud.

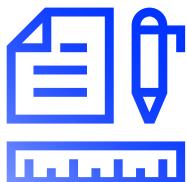
4. [FedRamp Marketplace](#): Name(s) of organization(s) that has/have issued a unique Provisional Authority to Operate (P-ATO), Authority to Operate (ATO) or Authority to Use (ATU) for this Cloud Service Offering (CSO).



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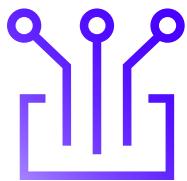
PART 1



## Plan: Defining cloud migration KPIs

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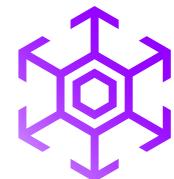
PART 2



## Migrate: Tracking progress against KPIs

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PART 3



## Run: Optimizing cloud resources

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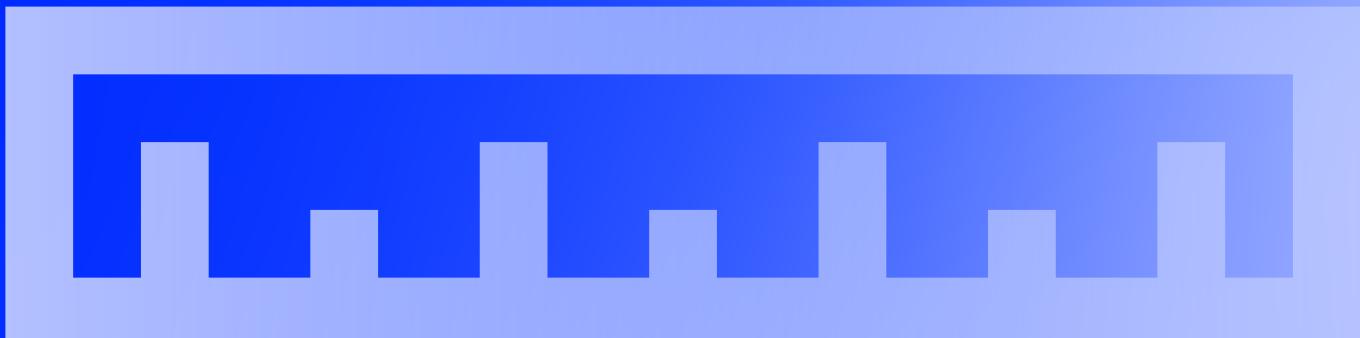
PART 4



## Get started: Datadog and AWS

PART 1

# Plan: Defining cloud migration KPIs



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Identify objectives and how to measure success



# Plan: Defining cloud migration KPIs

## What are cloud migration KPIs, and why are they important?

### Performance

Metrics like response time, throughput, and error rates to measure system performance and maintain optimal operation

### Security

Mean time to detect (MTTD) incidents and breaches, the percentage of data complying with security requirements, and the efficacy of compliance controls

### Automation

CI/CD timelines, incident detection and remediation times, and uptime/downtime to measure the efficiency of automation processes

### Release Frequency

Deployment frequency, lead time for changes, recovery speed post-failure, change failure rate, and deployment size to demonstrate the efficiency of the DevOps process and the quality of the releases

### Availability

Service disruptions, downtime incidents, and the speed of incident detection to ensure system availability and reliability

### Cost

KPIs that aim to contextualize upfront expenses and labor, mitigate surprises from data transfer services, consulting fees, and full-time employee training by measuring the economic implications such as initial data migration costs, ongoing operational costs, potential savings from reduced on-premises infrastructure, and assessing revenue impact

### User Experience

Usage patterns, navigation paths, session durations, error and bounce rates, user device and location data, conversion rates, and application responsiveness to analyze user interactions and identify potential friction points

Fig 1: Example cloud migration KPIs

Measuring migration ROI is difficult for several reasons:

- Business benefits like increased cost flexibility and service uptime take time to measure, evaluate, and monetize.
- Due to the relative newness of cloud computing and lack of decades-old industry standards, KPIs differ across migration stages, industries, companies, teams, and services.
- Many organizations haven't established IT performance benchmarks for their on-premises infrastructure, making pre- and post-migration ROI assessments unreliable.

This means migration teams are often left to their own devices to define KPIs, performance benchmarks, and datasets for analysis.

Many organizations have turned this ambiguity into an opportunity to build consensus across critical stakeholders who may not immediately recognize the potential long-term benefits of cloud migration, especially if they have long-standing IT software and hardware investments and procurement processes that would require change. We have seen migration leaders lobby for support from other executives by tying migration strategies to ongoing organizational concerns and business needs, such as accelerated go-to-market innovation, DevSecOps adoption to increase application security, and personalized online experiences. This approach encourages business stakeholders to support cloud migration initiatives.

The AWS CAF also emphasizes the importance of tying migration objectives to stakeholder responsibilities, one of the operational capabilities that underpin successful transformations (see Part 4 for further technical details).

## How do you define them?

Setting cloud migration KPIs involves identifying what you want to achieve and how you will measure success. As advised above and in the AWS CAF, this starts with understanding which ongoing organizational targets and business needs cloud adoption can address and accelerate. Examples include digital transformations, operational scalability, cost reduction, enhanced customer experiences, and DevSecOps-enabled application security.

Working backwards from these targets, migration teams can define quantifiable KPIs that illustrate the impact cloud adoption is having on operational efficiency and help identify whether the migration is improving outcomes for the organization. These KPIs should also inform the types of optimizations your migration team should make during and after migration to increase positive business impact.

## What types of KPIs should you be tracking?

The final step is to put systems in place to collect relevant datasets. For technical leaders, this often involves using monitoring tools to collect and analyze data and presenting it in a clear, easy-to-understand format—ideally, as informative business insights that will resonate with non-technical stakeholders.

While each migration presents unique challenges, we've found organizations that employ metrics to demonstrate ROI and identify areas to improve are the ones that see the most success. The foundational categories of KPIs that resonate with technical and non-technical leaders include:

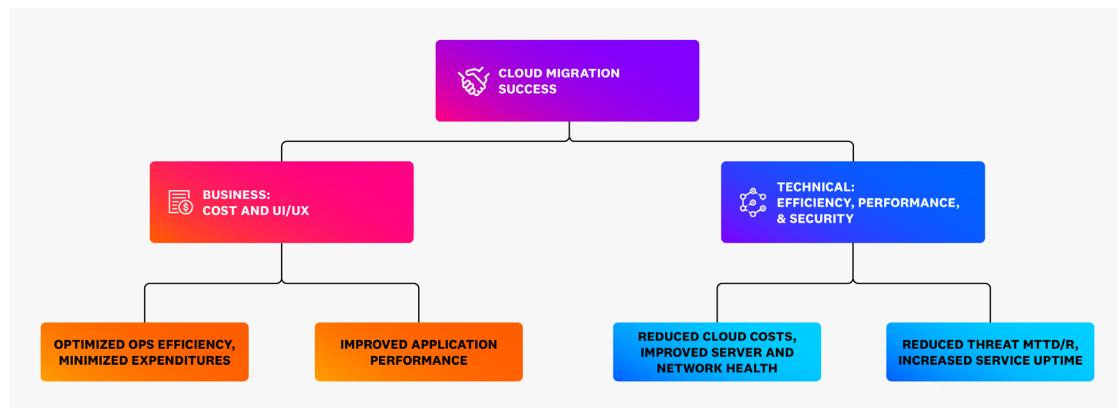
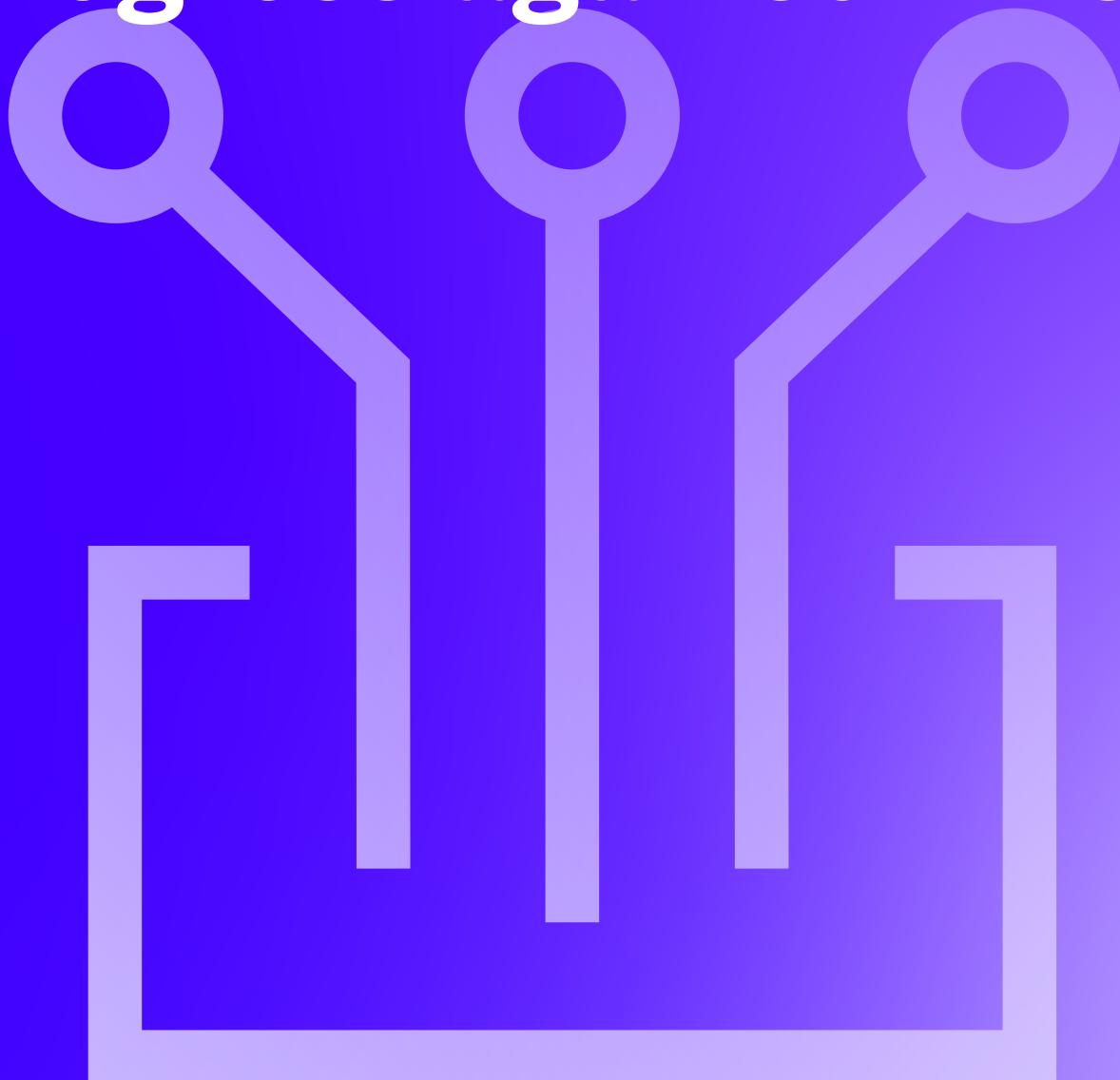


Fig 2: Example stakeholders, target objectives, and migration KPIs

## PART 2

# Migrate: Tracking progress against KPIs



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Illustrate progress towards agreed-upon goals



# Migrate: Tracking progress against KPIs

Migrating on-premises infrastructure, applications, and data to the cloud is like moving a physical office. It's not just about relocating files, desks, and chairs—employees need to adopt new ways of working, such as commuting routes, building etiquette, and inter-office security. Similarly, cloud migration success is intrinsically tied to effective change management.

KPIs aid in changing people-based IT processes by providing direction and serving as guideposts. After KPIs are defined and shared with stakeholders, migration teams can use them to illustrate progress towards agreed-upon goals.

For KPIs to be actionable, they must be informed by reliable data sources that can accurately:

- Report system performance across your entire pre-migration IT environment and applications
- Provide end-to-end visibility from customer experiences to backend infrastructure resources
- Deliver consolidated views across cloud environments and on-premises servers

Only by having a holistic understanding of the health and performance of your technology can your teams establish demonstrable KPIs. Below are some ways we've seen organizations use Datadog's unified observability platform to securely migrate technologies to AWS and enable long-term, organization-wide adoption.

## **Unify observability across migration stages—the sooner, the better**

Most enterprises predating the cloud era carry decades of technology debt. Even digitally mature organizations can quickly accumulate a fragmented technology stack cluttered with redundant services. Cloud migration offers opportunities to consolidate and modernize outdated technologies, reduce resource waste, and save costs, but demonstrating its business value can be difficult, especially during the early stages of migration.

Organizations with unified observability platforms and monitoring standards are able to make correlations between migration tactics and business trends with more confidence. The sooner unified observability is incorporated into your migration journey, the more opportunities you'll have to calculate ROI and make optimizations that eventually make migration indispensable to the business.

The chart below lists the monitoring capabilities that enterprises need across the major stages of cloud migration. Datadog has helped organizations consolidate monitoring tools across all of these stages, from evaluating on-premises capabilities before migration to optimizing the cloud environment post-migration.

<b>Stage of migration</b>	<b>Migration team's focus</b>	<b>Monitoring requirements</b>
<b>Plan</b>	Setting KPIs and building stakeholder consensus	<ul style="list-style-type: none"> <li>- On-premises</li> <li>- 3 pillars of observability (metrics, traces, logs)</li> <li>- Integrations with third-party services (like SAP databases)</li> <li>- End-user journeys</li> </ul>
<b>Migrate</b>	Testing migrated technologies in their new environments	<ul style="list-style-type: none"> <li>- On-premises</li> <li>- Cloud environment(s)</li> <li>- 3 pillars of observability (metrics, traces, logs)</li> <li>- Integrations with third-party services (like SAP databases)</li> <li>- End-user journeys</li> </ul>
<b>Run</b>	Reducing IT resource waste and increasing efficiencies	<ul style="list-style-type: none"> <li>- Cloud environment(s)</li> <li>- 3 pillars of observability</li> <li>- Integrations with third-party services</li> <li>- End-user journeys</li> </ul>

Fig 3: Example monitoring requirements across major stages of migration



## Ensure uninterrupted service by protecting critical applications and datasets

A common challenge among organizations is maintaining 24/7 IT uptime and security through migration stages. This is of particular importance to regulated entities responsible for systemically important services like online global banking, telecommunications, hospital patient care, and emergency response teams. To avoid service outages at all costs, these kinds of organizations will keep some applications on-premises while migration teams refactor or rebuild them to operate in the cloud. Many teams may keep the most difficult-to-migrate IT systems on-premises, with no plans to take them to the cloud.

While hybrid environments offer increased resiliency and business continuity during and after migration, they require multifunctional monitoring capabilities that talk to your legacy systems. Whether a hybrid cloud operating model is a short-term solution or an indefinite one, your monitoring capabilities must accommodate these complex requirements.

Migration teams that employ unified observability earlier in the process increase their chances of having demonstrable proof of migration-enabled value across the following hybrid cloud requirements:

- **Interoperability and integration:** Ensuring seamless cooperation and integration between public and private clouds is pivotal. Teams can potentially evaluate interoperability by looking at the agility and efficiency of data migration between disparate cloud platforms. They can also assess the timeframe and success rate of integrating new applications, as well as the system's capability to process cross-platform data requests without issues. Lastly, teams should track the thoroughness of the migration process and monitor whether procedures can be executed uniformly across platforms.
- **Data security and compliance:** Compliance KPIs relate to protecting data integrity and respecting privacy norms. They include the success rate of data encryption and decryption, as well as the consistency of successful audits. Additional metrics might include the frequency and results of penetration testing, as well as the frequency of data breaches. To ensure ongoing compliance, teams should monitor for any non-compliance issues and track the average time it takes to resolve such incidents.
- **Latency and performance:** Striking a balance between consistent performance and low latency in a hybrid cloud setup involves tracking parameters like the average time taken for data retrieval or data transfer and the cumulative uptime of the service. Teams should also track error and timeout rates within the cloud environment to ensure the system is functioning optimally.
- **Cost optimization:** Cost-related KPIs help ensure efficient usage of resources. This requires keeping tabs on all the costs involved in managing the hybrid cloud platform. Key indicators include the costs of maintaining and operating the infrastructure, as well as data transfer between distinct environments. Any costs arising from downtimes or system errors are also important to track.
- **Disaster recovery and business continuity:** Your system's capacity to recover from any mishap swiftly and resume regular operations—i.e., its recovery time objective (RTO)—is an essential KPI. This concept also requires you to set a recovery point objective (RPO), which measures the maximum time period of data loss that can be tolerated without critically affecting operations. Other KPIs include the success rate of data recovery following a disaster and the time taken to restore usual operations. Consider implementing periodic disaster recovery drills and tracking their success rates to measure the system's robustness in such situations.



Prior to using Datadog, organizations managing hybrid infrastructures typically use between two and eight different monitoring platforms—not including any additional solutions acquired through their subsidiaries. This results in a bulky, disjointed process in which teams have to compare datasets from on-premises monitoring solutions with their cloud counterparts, yielding incomplete insights. This approach leads to information becoming siloed across different systems and requires additional time and effort to piece together an overall picture of performance against KPIs. Moreover, the disparity between datasets from different platforms frequently leads to inconsistencies in results and discrepancies in interpretation, making it difficult to accurately gauge progress.

With Datadog, hybrid cloud organizations benefit from:



#### A single pane of glass

Datadog's unified observability platform allows for streamlined management of disparate infrastructure components.



#### Parallel tracking

Organizations can monitor the performance of both on-premises and cloud systems simultaneously. This allows for direct comparisons and highlights any disparities in performance and end-user experience.



#### End-to-end request tracing

Teams can track a request across different settings in a hybrid environment without context-switching and use a detailed view of system workflows to pinpoint any potential bottlenecks or slowdowns.

Fig 4: The benefits of using Datadog to monitor your hybrid cloud environment

## Enable a culture of collaboration from the start

One of the common pitfalls with cloud migration KPIs is a lack of proper knowledge and expertise. This includes not just familiarity with cloud computing concepts but also expertise in managing specific CSP-native services. Insufficient knowledge may make it difficult to define effective KPIs, track the relevant data, and interpret that data to make informed decisions.

Unified observability can mitigate knowledge gaps and enable a culture of collaboration by providing a shared perspective on an organization's data, services, and systems. By bringing all infrastructure and application data into a single, unified platform, teams can work across organizational silos and collectively analyze, interpret, and act on the data. In addition, a unified platform makes it easier for non-technical stakeholders to make sense of the data, participate in discussions, and support decision-making processes.

This is particularly relevant in the context of cloud migration, since the process is complex and that requires the cooperation of many teams. The absence of industry standards, combined with the potential lack of familiarity with cloud concepts and platform-specific services, can pose significant challenges. Mistakes or oversights during migration could cause data losses, downtime, technical difficulties, and wasted resources. By bringing all stakeholders into the fold, organizations can make more informed decisions and better navigate this complex process.



Unified observability can help in this effort by providing clear visibility into every stage of the migration process. Datadog enables a culture of collaboration by providing a holistic view of the entire system, collecting, correlating, and analyzing data from integrations with over 700 technologies. This allows teams to understand the impact of an issue across different layers of their technology stack, reducing the time it takes to resolve issues. Having unified monitoring across migration stages and infrastructure environments not only mitigates risks, but can also translate into cost savings. Datadog's observability platform streamlines the migration process, freeing up time and resources needed by eliminating redundancies and ensuring all systems are operating at peak efficiency.

From a long-term business perspective, having this kind of monitoring can improve continuous integration and continuous delivery (CI/CD) and security. CI/CD relies on frequent code updating and deployment, which a unified observability system can support by tracking and displaying all changes, identifying issues promptly, and enabling faster corrections. Through anomaly detection, Datadog enables proactive problem identification, pinpointing system deviations before escalating into large-scale issues. This translates into fewer errors, faster innovation, and more efficient use of developer time.

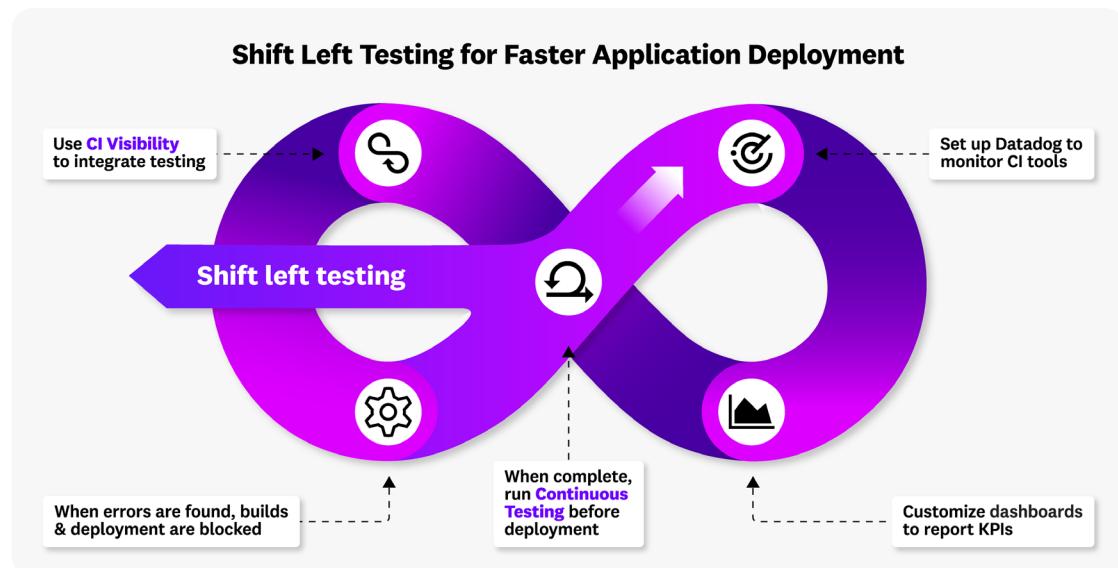


Fig 5: Datadog fosters a knowledge-sharing culture so that teams can accomplish their goals and ensure fast, stable releases

From a security standpoint, unified observability helps identify suspicious activity or potential threats. Datadog [Incident Management](#) and [Cloud Security Management](#) process logs and metrics from your cloud environment in real time, so your teams can come up with fast, coordinated responses to identified threats. With [Continuous Profiler](#) and [Error Tracking](#), teams can identify and fix vulnerabilities within the codebase.

## Anticipate common operational issues, and optimize with automation

Even after taking all of the aforementioned precautions, migration teams should still anticipate some common issues and prepare their stakeholders with proper protocols for response.

- **Temporary downtime** may impact routine operations and take a toll on customer experiences.
- **Unexpected costs** can arise, especially for first-time migration customers, making cost-related KPIs difficult to predict, track, and control.
- **Post-migration performance issues** may occur even after extensive refactoring and testing performance.
- **Ongoing support and training** will likely be needed post-migration, as stakeholders might encounter challenges and require further education to operate in the cloud. After migration, customers should set new KPIs for long-term performance of their cloud-based IT environment with regular updates and assessments (see Chapter 3 for more details). This can include training goals across the organization.

If minor issues are not promptly identified and rectified, they may accumulate into larger problems that affect the output and reliability of your cloud-hosted IT systems. The challenge lies in detecting these hiccups early in order to evaluate them as symptoms of a larger issue, before it leads to disruptions or inefficiencies.

### The potential of AIOps-enabled observability

AIOps refers to the application of AI and ML to IT operations, with the goal of optimizing systems, increasing automation, and minimizing disruptions. This requires having the IT capabilities and AI/ML expertise to collect massive stores of data and write models to find potential issues across your cloud environment.

Combining cloud migration with unified observability gets you one step closer to an AIOps-enabled IT environment, which can bring long-term cost savings, resource efficiencies, and optimizations.

[Datadog Watchdog](#) is a built-in intelligence layer in the Datadog observability platform that continuously analyzes billions of data points from across your infrastructure and applications to help you separate important signals from the noise and proactively address latencies and errors—before they impact your end users.

Watchdog automatically detects and alerts teams of performance anomalies across their systems, without the need for any manual setup or intervention. By monitoring all of your application's key metrics and performance trends concurrently, Watchdog can identify correlations that humans might miss, providing insights into how different components of the system influence each other. This transforms the conventional reactive approach into a proactive one, as issues are identified and addressed before they impact system performance or user experience.

In addition to anomaly detection, Watchdog goes a step further to offer root cause analysis on problems that it flags, so you can rectify the issue and prevent it from recurring. This substantially reduces mean time to resolution (MTTR) and enhances efficiency.

PART 3

# Run: Optimizing cloud resources



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Lay the foundation for efficient resource management



# Run: Optimizing cloud resources

While cloud migration offers scalability, flexibility, and convenience, poorly planned and executed migrations could result in wasted resources, escalating costs, and unforeseen risks.

KPIs serve as objective metrics that validate the success of cloud migration projects and guide ongoing optimization. They can also play a crucial role in optimizing cloud resources to minimize waste, costs, and risks in the post-migration environment. Achieving your predetermined targets for KPIs can lay the foundation for efficient cloud resource management.

## Datadog for resource and cost optimization

Datadog's [Cloud Cost Management](#) optimizes KPIs in terms of resource usage and cost. It provides visibility into infrastructure usage across multiple clouds and accounts, enabling businesses to precisely understand cost drivers, identify inefficiencies, and make data-driven decisions. One example of a helpful post-migration KPI you can monitor using Datadog is percentage of idle computing power. This metric enables you to identify underutilized resources and turn them off, thereby reducing costs. Another key KPI is cost per service or workload, which helps track the exact spend on each service, facilitating accurate budgeting and planning.

## Strengthening security post-migration

Migrating to the cloud increases the surface area for security threats as your environment grows in scale and complexity. Datadog [Cloud SIEM](#) provides advanced, cloud-native threat detection, helping organizations meet their security KPIs. One example KPI you can track after your cloud migration is the mean time to detect (MTTD) a security threat. By optimizing this KPI, organizations can ensure quick detection of breaches and enhance their security stance. Another vital KPI is the percentage of unauthorized access attempts. Regularly monitoring this percentage helps ensure that all unauthorized access attempts are promptly identified, investigated, and contained.

## Enhancing cross-functional partnerships and training with visualization

For successful cloud migration, cross-functional partnerships and training are crucial. [Cloudcraft](#)'s cloud diagramming tool, now part of the Datadog platform, offers real-time visual representation of your cloud infrastructure, facilitating training and education on the cloud estate across teams so you can more easily hit your cross-functional KPIs. One example of this type of KPI is the number of staff fully trained in cloud management. Cloudcraft helps both technical and non-technical team members visualize the infrastructure, aiding in the learning process and making it easier to increase this KPI. Another important KPI is the time taken for cross-team problem resolution. Using Cloudcraft, different teams can easily understand the infrastructure, leading to faster troubleshooting.



## Adapting to emerging technologies: generative AI and LLM monitoring

With innovations advancing at an unprecedented rate, it's critical that organizations adapt their infrastructure and processes to be able to integrate emerging technologies. As generative AI takes a more prominent role in the enterprise environment, its high utilization of data and infrastructure resources is likely to significantly impact cloud strategies. One part of this evolution involves establishing clear KPIs that can benchmark resource utilization, AI model performance, and cloud strategy effectiveness. Through leveraging advanced solutions like Datadog's large language model (LLM) monitoring capabilities and AI stack integrations, organizations can more effectively gauge these KPIs to help monitor and streamline their LLM-based applications and capabilities. This adaptive process fosters improved operational efficiency and informed decision-making as businesses navigate an evolving technological landscape.

By optimizing these KPIs, organizations can drive efficiencies in their cloud migration processes and optimize utilization of cloud resources long after they've migrated to the cloud. Harnessing an integrated observability platform like Datadog to manage resources, costs, security threats, training, and partnership challenges can significantly enhance your cloud migration efforts. With these strategies in place, your post-migration environment will be set up for success, ensuring a better return on your cloud investment.

PART 4

# Get started: Datadog and AWS



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Set and track best practice KPIs to  
ensure AWS migration success

# Get started: Datadog and AWS

Moving to cloud-based infrastructure greatly changes how your organization manages technological resources. Traditionally, organizations assumed total ownership and responsibility for all layers of their technology, ranging from infrastructure to software. Switching to a cloud-based model allows your organization to provision and use resources only when necessary. With a remarkable range of infrastructure design options available in the cloud, organizations need a proven, reliable method for adopting cloud technologies to ensure success. Cloud adoption frameworks can provide much-needed guidance throughout your cloud adoption journey.

Effective cloud adoption starts long before you choose a specific cloud platform provider. The first step is when business and IT decision-makers recognize that adopting cloud technologies is a means to an end in their journey to expedite business transformation objectives. A cloud adoption framework assists these decision-makers in aligning strategies for business, cultural, and technical change to achieve the desired outcomes.

## Datadog-supported AWS CAF capabilities

The [AWS Cloud Adoption Framework \(CAF\)](#) ties migration success to your organization's ability to transform the technologies, processes, organizations, and products ("transformation domains") supporting critical functions to achieve specific outcomes (also called "foundational capabilities") across six distinct stakeholder types or "perspectives" (business, people, governance, platform, security, and operations).



Fig 6: AWS CAF cloud transformation value chain showing transformation domains, foundational capabilities, perspectives, and business outcomes

The AWS CAF provides examples of foundational capabilities critical to successful migration, organized by perspectives.

While all foundational capabilities are important to migration, those owned by operations stakeholders—such as infrastructure and operations leaders, site reliability engineers, and information technology service managers—underpin successful transformations of the foundational capabilities across the other five perspectives.

## AWS CAF operations perspective foundational capabilities mapped to Datadog

Datadog's unified [observability and security platform](#) along with [700+ built-in integrations](#) helps customers assess all of the following foundational capabilities:

### Observability

Gain actionable insights from your infrastructure and application data, including metrics, traces, and logs

#### EXAMPLE KPIs

- Performance
- Availability
- User experience

#### CORRESPONDING DATADOG CAPABILITIES

- [Infrastructure Monitoring](#)
- [Application Performance Monitoring](#)

### Event Management (AIOps)

Detect events, assess their potential impact, and determine the appropriate control action

#### EXAMPLE KPIs

- Automation
- Performance
- User experience

#### CORRESPONDING DATADOG CAPABILITIES

- [Event Management](#)
- [Workflow Automation](#)

### Incident and Problem Management

Quickly restore service operations and minimize adverse business impact

#### EXAMPLE KPIs

- Availability
- Automation
- User experience

#### CORRESPONDING DATADOG CAPABILITIES

- [Automated Incident Management](#)

## Change and Release Management

Introduce and modify workloads while minimizing the risk to production environments

### EXAMPLE KPI'S

- Release frequency
- Performance
- Automation

### CORRESPONDING DATADOG CAPABILITIES

- [CI Visibility](#)
- [Continuous Testing](#)

## Performance and Capacity

Monitor workload performance and ensure that capacity meets current and future demands

### EXAMPLE KPI'S

- Performance
- Availability
- Cost

### CORRESPONDING DATADOG CAPABILITIES

- [Observability Pipelines](#)
- [Container Monitoring](#)
- [Serverless Monitoring](#)
- [Infrastructure Host Map](#)

## Configuration Management

Maintain a record of cloud workloads, relationships, and configuration changes over time

### EXAMPLE KPI'S

- Performance
- Automation
- Release frequency

### CORRESPONDING DATADOG CAPABILITIES

- [Observability Pipelines](#)
- [Cloudcraft](#)

## Patch Management

Systematically distribute and apply software updates

### EXAMPLE KPI'S

- Performance
- Release frequency
- Automation

### CORRESPONDING DATADOG CAPABILITIES

- [Software Composition Analysis \(SCA\)](#)
- [Continuous Testing](#)

## Availability and Continuity

Ensure availability of business-critical information, applications, and services

### EXAMPLE KPI'S

- Availability
- Cost
- User experience

### CORRESPONDING DATADOG CAPABILITIES

- [Infrastructure Monitoring](#)
- [Application Performance Monitoring](#)
- [Real User Monitoring](#)
- [Synthetics](#)

## Application Management

Investigate and remediate application issues in a single pane of glass

### EXAMPLE KPI'S

- User experience
- Performance
- Automation

### CORRESPONDING DATADOG CAPABILITIES

- [Application Performance Monitoring](#)

## Vulnerability Management

Automate the identification, classification, remediation, and mitigation of security vulnerabilities

### EXAMPLE KPI'S

- Security
- Performance

### CORRESPONDING DATADOG CAPABILITIES

- [Software Composition Analysis \(SCA\)](#)

## Application Security

Detect and address security vulnerabilities during the software development process and while operating the application

### EXAMPLE KPI'S

- User experience
- Performance
- Automation

### CORRESPONDING DATADOG CAPABILITIES

- [Application Security Management](#)

## Datadog's AWS competencies, including migration and cloud operations

As part of our commitment to helping our customers modernize securely and at scale with AWS, Datadog is an official Partner for 10 AWS-defined Competencies—the most of any observability company.

Every earned competency speaks to Datadog's technical expertise and proven customer success, which are vetted and validated by AWS. As an AWS Migration and Modernization Competency Partner, Datadog is a recognized modernization solution that provides insight into hybrid infrastructures and distributed applications. AWS customers work with us every day to ensure their migrated workloads meet performance targets and security objectives. Learn more about [Datadog's AWS Competencies](#).



Fig 7: Datadog offers AWS-validated capabilities across 10 industries and specialized solution areas

## Enterprise AWS migration customer story

### zendesk<sup>®</sup>

When Zendesk migrated production workloads to a highly dynamic, container-based environment on AWS, their existing set of monitoring tools wasn't equipped to provide actionable insights into the health and performance of their new, complex infrastructure. Multiple monitoring tools led to silos between teams, drove up operational costs, and required manual correlation of metrics, traces, and logs across systems, making it difficult to resolve issues.

Datadog's unified monitoring solution and turn-key integrations with AWS and Kubernetes provided Zendesk with the visibility they needed to effectively facilitate their cloud migration. Not only did Datadog give Zendesk's engineering teams full visibility into their AWS environment, but it also enabled Zendesk to focus on accelerating feature development for their end customers.

Visibility  
into  
**25**  
K8s clusters

Data centers  
across  
**6+**  
AWS Regions

Workstream  
automation for  
**60+**  
teams

# About Datadog

Datadog is the monitoring and security platform for cloud applications.

Our SaaS platform integrates and automates infrastructure monitoring, application performance monitoring, and log management to provide unified, real-time observability of our customers' entire technology stack. Datadog is used by organizations of all sizes and across a wide range of industries to enable digital transformation and cloud migration, drive collaboration among development, operations, security and business teams, accelerate time to market for applications, reduce time to problem resolution, secure applications and infrastructure, understand user behavior and track key business metrics.

