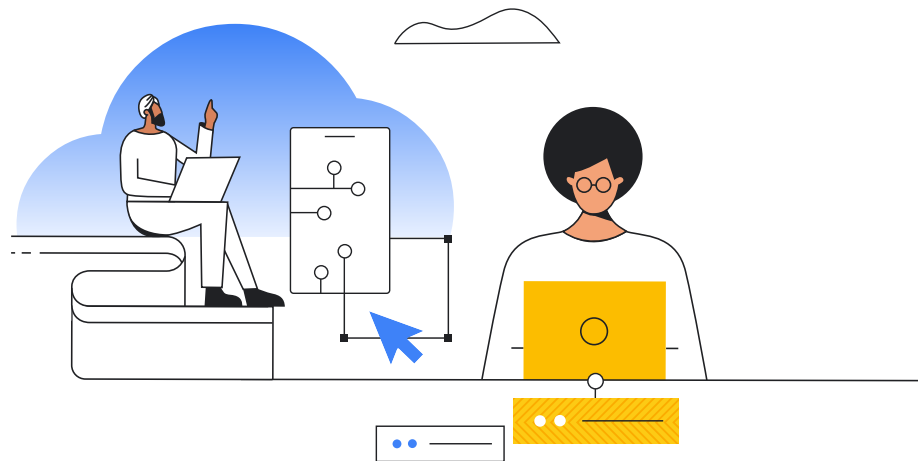




Migration solved:

# How Google Cloud helped leading organizations overcome their migration challenges



## Introduction

The word *migration* can be off-putting. Moving to a public cloud is often thought of as a long and painful process full of late nights, downtime, and overworked developers. This puts a lot of pressure on infrastructure owners, who are faced with the challenge of modernizing the IT landscape, reducing their costs, and helping teams innovate.

Google Cloud has helped some of the world's biggest names in business take the pain out of migration. Explore some of the real-life success stories of these leading organizations in various industries, supported by Google Cloud's hands-on, tailored partnership and flexible solutions.

Some of the results we'll cover include:

- 40% reduction in operating costs for Carrefour
- 7 data centers migrated with no disruption to AppLovin services
- <90 days to migrate 1,000 VMware instances for Mitel

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Cloud migration checklist: Get started in 4 steps

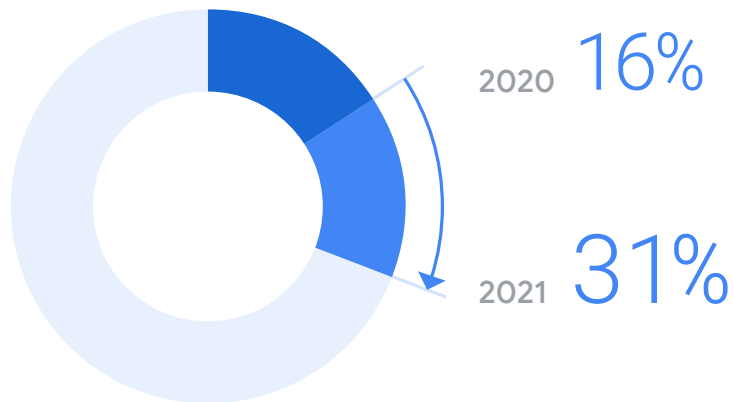
Rapid Assessment & Migration Program (RAMP) – Google Cloud’s migration framework

Forrester: The Total Economic Impact™ Of Migrating Expensive Operating Systems and Traditional Software to Google Cloud, June 2021

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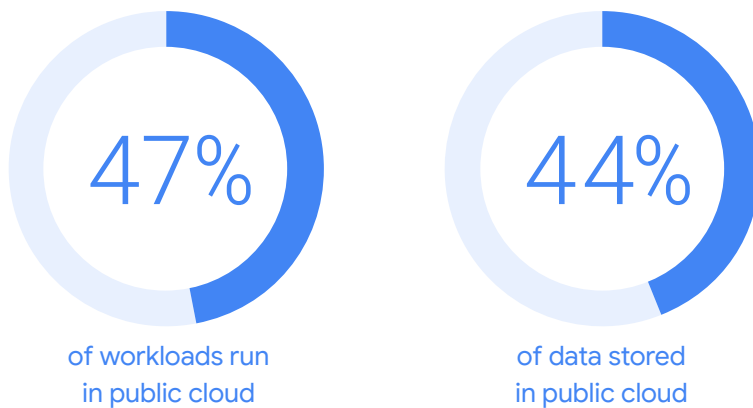
# The public cloud landscape

Public cloud has become a multi-billion dollar industry and the IaaS market share of computing continues to grow every year. The number of enterprises spending \$12M+ on public cloud doubled in the last year alone.



Source: Flexera 2021 State of the Cloud report

In 2021, public cloud accounts for nearly half of enterprise workload and storage usage.




Source: Flexera 2021 State of the Cloud report

# 10 common reasons to migrate

Migrating to a public cloud isn't usually driven by solving one variable, but solving for many. Whatever your motivation, it's important to always keep the reasons for migration top of mind:

 Reasons	
Computing demands	Refresh cycles
Licensing & support	Acquisitions
Business innovation	Compliance
Optimize costs	Customer experience enhancements
Data center exits	Faster development cycles

Once migrated, organizations can expect to see a range of benefits. These benefits could be any combination of the following:

 Benefits	
Higher performance, reliability, scalability	Easier auditing
Operational flexibility, time savings	Stronger security
Better end-user experience	Smaller hardware footprint
Faster modernization	Fewer license renewals

## Challenges: Know where the speed bumps are before you start



### Pacing

Weigh the speed at which you need to move against the risks involved. Every organization has its own time constraints driven by things like data center contracts, hardware refreshes, and management deadlines.



### Staffing

It's crucial to make sure you're properly staffed for your migration. If your current staff isn't trained in cloud, consider putting training programs in place or reaching out to a migration partner.



### Culture

Migrating has effects that are felt beyond the IT team. Get your app and line of business owners on board, and make sure everyone understands the benefits of cloud and why you're migrating.



### Lock-in

Make sure you understand the conditions of your migration. Things to consider are exit penalties, proprietary formats, cloud interoperability, and whether you're using a best-in-class or standardized environment.



### Security

It's important to know the depth of security you need, and to consider options like operational and device security, internet communication, identity storage services, service deployment, and hardware infrastructure.



### Cost

To get the whole organization on board, everyone needs to understand the value in cloud. Make sure you have the right staff to manage cloud budgets and understand the effects of switching from CapEx to OpEx.

# Google: Your partner in cloud

Google Cloud provides faster and easier end-to-end migration with minimal disruption to your business. Most migrations are completed in less than a year, with some workloads completely migrated in less than a month.

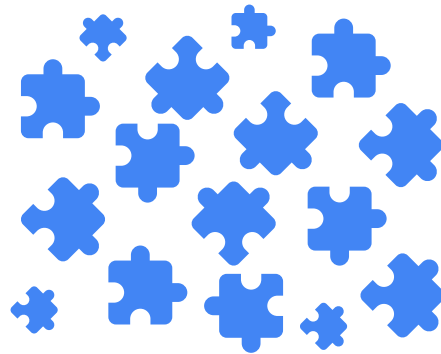
Google Cloud and our technology partners provide end-to-end migration services that assist enterprises during all phases of migration. You can also leverage this white-glove partnership to assess your business needs, plan and execute application migrations, and optimize cloud resources after you migrate.

## Tools built for smooth migrations

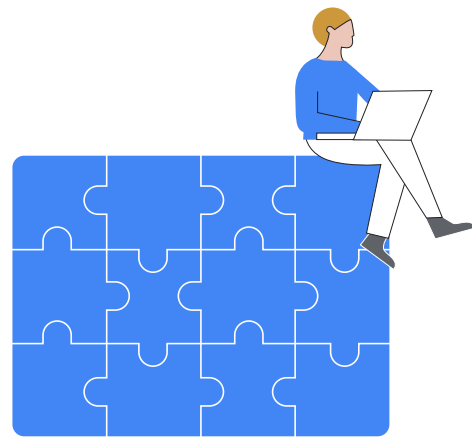
Google Cloud provides free-to-use tools for migrating applications, data, databases, and more from on-premises environments and other clouds to Google Cloud. These provide minimal-click migration paths for simple applications and more straightforward paths for multitiered applications.

### What migration feels like:

without the right partnership



with the right partnership



## 3 reasons customers choose Google Cloud for multi-phased migration

### 1 Achieve a range of goals and priorities

Google Cloud isn't just a public cloud, it's also a:

#### Data cloud

Unifying data across the organization to:

- Derive deeper AI-driven insights
- Make better real-time decisions
- Power data-driven applications

#### Open cloud

An open approach gives you freedom in how you innovate and drive differentiated customer experiences.

#### People cloud

A successful transition into this new era of work hinges on keeping your people engaged, productive, and connected and on creating new ways to serve your customers' needs.

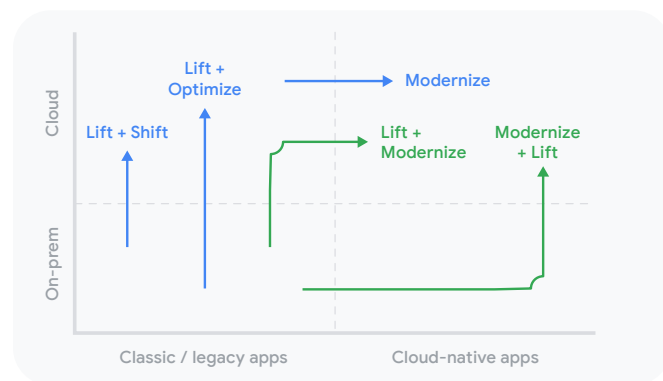
#### Security cloud

Google Cloud offers reliable, unique capabilities, including:

- A secure foundation that customers can verify and control
- Interaction verification that reduces access risk and data loss
- A shared-fate model built on best product and practices
- A secure platform and security products

### 2 Freedom of choice

Google Cloud offers the freedom to choose how you want to migrate and modernize your workloads. If time is of the essence, we can easily help you pull off a lift and shift. Or, if you're more concerned with adopting open source technologies, we can help you create the right modernization plan.



Migration workload paths

### 3 The right people

When you work with Google Cloud, we go out of our way to help you fill any talent gaps. We've got an extensive list of teams on call, including:

- Professional services
- Technical account managers
- Customer success managers
- Customer engineers
- And many more



# 9 leading organizations who found success with Google Cloud

## Auto Trader created a seamless development experience with Cloud SQL.

### Challenge

Auto Trader needed to move faster. It invested a lot in on-premises infrastructure and was starting to shift to the cloud, but there were capabilities that were becoming increasingly difficult to realize without a significant overhaul.

### Solution

Cloud SQL was a natural fit for Auto Trader, now sitting at the heart of its data store strategy. Cloud SQL's fully managed relational database service for MySQL, PostgreSQL, and SQL Server took away the headache of database maintenance that would typically take up a lot of resources and cost.

### Results

- 65% of Oracle footprint migrated to Cloud SQL
- Release cadence improved by over 140% YoY
- Peak of 458 releases to production in a single day
- 36,000 releases in a year with improved success rate of 99.87%



“

Moving to Cloud SQL has significantly impacted the way our teams work and has helped us create a seamless development experience.”

Mohsin Patel,  
Principal Database Engineer,  
Auto Trader UK



## Atom bank built a cloud-based banking stack designed for security, scalability, and seamless customer experience.

### Challenge

As Atom bank attracted more customers and wanted to offer more products, its existing infrastructure was slowing growth and limiting the bank's agility.

### Solution

Atom bank examined a range of cloud providers before deciding on Google Cloud for its technical capabilities, level of service, and competitive pricing. Google Cloud helped the bank strengthen its infrastructure and engineering capabilities as a partner, rather than simply being a supplier.

### Results

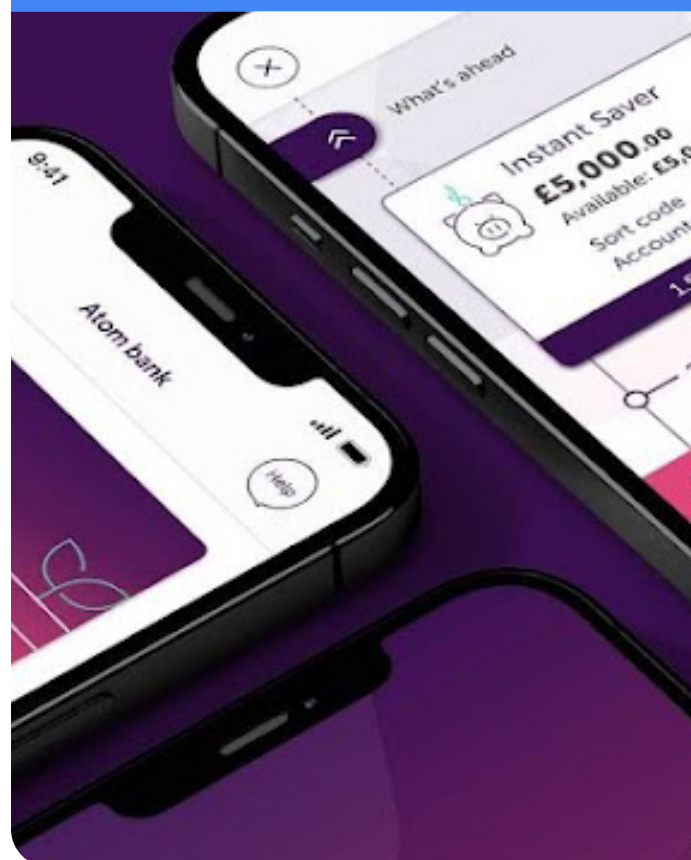
- Quickly migrated VM workloads
- Increased speed and lowered latency
- Improved customer experience



“

With Google Cloud, we could handle our own infrastructure and engineering capability and ultimately take control of our own destiny.”

Stewart Bromley, CTO, Atom Bank



Trax migrated seamlessly to public cloud, freeing up developers to focus on data.

#### Challenge

Trax was experiencing rapid growth, driven by the acquisition of new, world-famous clients. These new clients had security and commercial concerns, which required Trax to diversify its existing cloud infrastructure. And the sheer scale of these retailers' product ranges meant that Trax's platform had to cope with new technical challenges of scale and complexity.

#### Solution

The company embarked on a three-month trial of the leading cloud vendors, and decided on Google Cloud for its cost-effectiveness and ease of use.

#### Results

- Trax engineers preferred Google Cloud
- Improved flexibility
- Scaled at speed
- Opened up new markets



“

It [Google Cloud's migration tools] reduces the time to migrate instances to Google Cloud from two weeks to just a few hours. Our DevOps guys love it.”

Ariel Cohen,  
Director of Global Strategic Alliances, Trax



## Carrefour reduced operating costs by 40% by migrating its on-premises landscape to Google Cloud.

### Challenge


Carrefour wanted to modernize its aging IT infrastructure by moving to the public cloud as part of its ambitious transformation plan to improve customer experiences and reduce operating costs.

### Solution

The company moved its on-premises landscape to Google Cloud VMware Engine, leveraging data to offer consumers tailored ecommerce experiences, while reducing operating costs and energy consumption.

### Results

- 40% reduction in operating costs
- 45% reduction in energy consumption
- Minimized service disruption during migration

 [See the full case study](#)



“

By moving to Google Cloud, we've been able to cut our running costs by 40%, and that's just the beginning. As we continue to implement best practices and adapt our operations to the cloud, we'll be able to reduce our costs even further in the future.”

Nicolas Forgues,  
Chief Technology Officer,  
Carrefour France





## Major League Baseball increased operational efficiency, scalability, and cost savings.

### Challenge

MLB's goal was to have baseball content wherever people are consuming it, and engage more people, particularly younger fans.

### Solution

MLB partnered with Google Cloud to provide the missing pieces of innovation and expertise that will drive success in its technology modernization program. To deepen engagement with fans, MLB established a foundation for innovation by migrating key parts of its business to Google Cloud.

### Results

- 7 months to migrate Wheelhouse to BigQuery
- 50% faster to run complex queries
- Increased operational efficiency, scalability, and cost savings
- Lowered overhead and reduced maintenance



## Mitel migrated 1,000 VMware instances in less than 90 days.

### Challenge


Mitel wanted to improve its stability, scale, SLA, and security. With 30 data centers globally, high OpEx and CapEx, and longer lead times to bring innovations to market, the company started to look into cloud services. They needed to outsource non-core competency activities and leverage more advanced IT infrastructure and services.

### Solution

Mitel chose to work with Google Cloud and Google Cloud Premier Partner RiverMeadow to overhaul its IT and data infrastructure to capitalize on microservices, automation, and advanced technical tooling.

### Results

- 1,000 VMs migrated to the cloud in less than 90 days using Google Cloud VMware Engine
- 200 VMs migrated weekly at peak
- Reduced OpEx and CapEx for IT infrastructure
- 4x increased monthly operational output

 See the full case study



**RiverMeadow provided us with discovery, assessment, and migration services and, thanks to their deep Google Cloud VMware Engine and HCX expertise, we were able to significantly expedite our global migration timeline, regardless of the required use case.”**

**Rick Cirigliano,**  
SVP of Cloud Operations, Mitel



## Deutsche Börse made a speedy VM migration with portability between clouds.

### Challenge

Deutsche Börse had been using traditional virtual machines on private servers in its data centres. The legacy infrastructure was reaching its limits, and the costs of installation and maintenance was stacking up. Similarly, they lacked the ability to scale at speed.

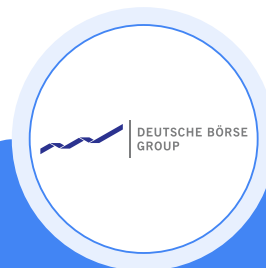
### Solution

Deutsche Börse became one of the first users of Google Cloud VMware Engine, running existing VMware workloads natively on Google Cloud.

Apart from the security, cost efficiency, and scale benefits of Google Cloud, the new hybrid-cloud strategy ensured all applications ran seamlessly, with next to no downtime if any issues occurred within individual environments.

### Results

- Fast VM migration using Google Cloud VMware Engine
- Ensured portability between on-premises and cloud
- Scalability and resilience without changing existing VMware instances



“

We needed the public cloud to improve agility, drive efficiency, and gain access to cutting-edge analytics and AI tools. But we also needed a rock-solid infrastructure, able to provide a strong foundation. Google Cloud impressed us with its technical capabilities, robust security posture, and mindset of a true partner.”

Michael Girg,  
Chief Cloud Officer,  
Deutsche Börse Group





## Rossi Residencial migrated 4 SAP environments in one month with no system outages.

### Challenge

Rossi Residencial wanted to improve its availability and scalability. The company began looking for a new provider and a partner to support migration in a short time window as its previous contract was about to expire. The new partner needed to be familiar with the previous one to ensure the operation's success.

### Solution

Google Cloud offered Rossi Residencial the best financial conditions and a solution that truly catered to the company. And out of the many partners they contacted, Sky.One offered the best work planning and service.

### Results

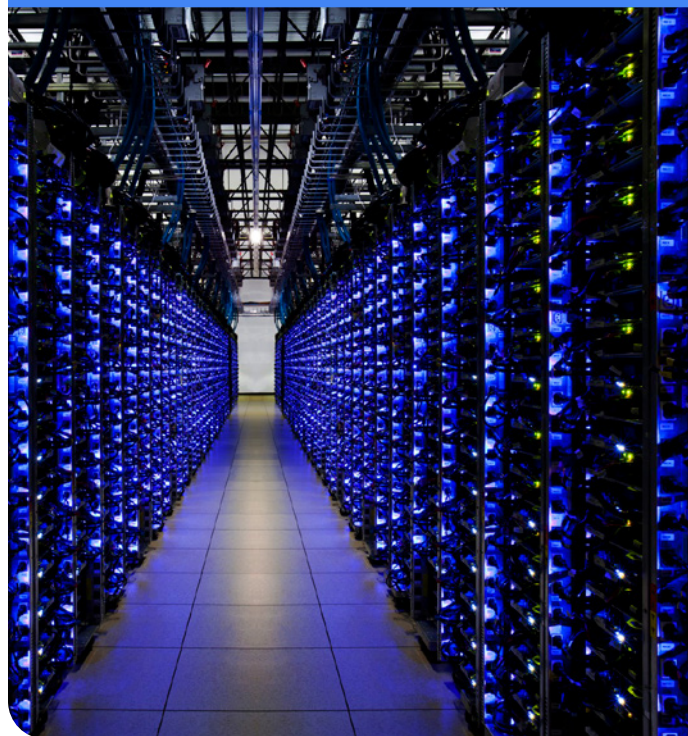
- 4 SAP environments and 4 servers migrated in just 1 month
- Zero unavailability periods since migrating
- 50% savings on monthly cloud costs

**ROSSI**

“

This is the first time, after three previous migrations to private and public clouds, that our users have not felt any impact and we didn't have system outages. It was a six-hands project that worked very well.”

Eduardo Araújo,  
IT Manager, Rossi Residencial





## AppLovin migrated 7 data centers with no service disruption.

### Challenge

As its growth accelerated and customers' needs grew, AppLovin wanted a cloud platform on which to run and scale their business.

### Solution

The company chose to deliver its core services and applications to customers on Google Cloud's low-latency, scalable infrastructure. This ensures AppLovin customers can run campaigns and have access to the tools they need to grow their apps and that AppLovin has a cloud partner who will easily scale alongside them.

### Results

- 7 data centers migrated without disrupting services
- 5 data centers migrated in a single day
- 25% decrease in latency on its bidding platform



**Migrating to Google Cloud has been instrumental to our technology platform. The speed and strength of Google Cloud's infrastructure and hardware has driven noticeable improvements across our business, and has given us a path to grow."**

**Omer Hasan,**  
VP of Operations, AppLovin



# Google Cloud: Your business comes first

## Take the pain out of migration

Google Cloud puts your business outcomes first. For most, the best path to success is slow and steady, and optimizing your technology through cloud adoption means starting with a few small, easy-to-migrate workloads. A well-deployed foundation in the cloud lets you move to more challenging workloads later.

This foundation will deliver immediate business value and put you in a strong position to modernize going forward – no matter if you're moving individual apps or workloads, VMware systems, raw databases, Microsoft/Windows environments, and/or SAP.

We meet you where you are, and accelerate your path to the cloud with our 4-step methodology:

- **Discover** and assess your existing infrastructure and organization
- **Plan** your migration priorities and prepare your foundations
- **Migrate** waves of workloads of any type
- **Optimize** workloads and operations, build value from the cloud

## Discover the results

- Protect what's important with advanced security tools
- Transform how your people connect, create, and collaborate
- Save up to 30% over three years
- Build quickly and easily on the platform designed by developers for developers
- Solve your business problems with our industry solutions
- Run your apps where you need them with open, hybrid, and multicloud solutions
- Become smarter and make better decisions with the leading data platform
- Reduce environmental impact today with the industry's cleanest cloud

# Start your journey

It's time to get started. Here are some useful resources to help you take action and kickstart your migration.

## Cloud migration checklist: Get started in 4 steps


See next page. For more information:

 [Read the essential guide and checklist](#)

## Forrester report: The Total Economic Impact™ Of Migrating Expensive Operating Systems and Traditional Software to Google Cloud, June 2021


Forrester conducted a Total Economic Impact (TEI) study and examined the potential ROI enterprises may realize by migrating to Google Cloud. Forrester interviewed five customers and aggregated their experiences into a single, composite organization.

Read the report to explore the results and evaluate the potential financial impact of migrating to Google Cloud.

 [Read the report](#)


## Estimate cloud migration costs with a free assessment

Get an inventory of your infrastructure, a total cost of ownership (TCO) assessment, and more from Google Cloud and our partners.

 [Request assessment](#)

## Rapid Assessment & Migration Program (RAMP) – Google Cloud's migration framework

Our RAMP framework helps you find the right people, partners, and programs to get you migrated successfully.

 [Learn more](#)

### Google's holistic migration framework delivers a clear path to success

Guidance

Tools

Professional services

Training

Partners

Offers

Accelerate migration velocity

De-risk & reduce costs

Ultimate customer success

# Cloud migration checklist

## 1. Assess

- Define the resources and capacity your application requires
- Create a list of your applications (e.g., who is using what and how often)
- Identify key stakeholders and involve them early in the process
- Create a survey to send to application owners to define requirements and prioritize your migration pipeline
- Determine which applications are cloud-eligible
- Determine which applications are cloud-desirable
- Understand application interdependencies and network configurations
- Specify security and compliance requirements
- Validate SLA and high-availability requirements

## 2. Plan

### Strategies / Tools

- Pick a strategy for each application: rehost, replatform, or rebuild
- Plan and design the cloud infrastructure including services like networking, security, etc.
- Identify key capabilities for migrating workloads:
  - Support for complex, multi-tier apps
  - Pre-migration testing & validation
  - On-prem rollback
  - Post-migration customization
- Create migration plan for both apps and their data

### Testing

- Test data migration and synchronization
- Measure performance
- Validate security controls required
- Evaluate your cloud footprint costs
- Document necessary changes to be done as part of the actual migration
- Plan the time required for application cutover
- Consider cloud instance right-sizing recommendations

Continued on next page...

### 3. Migrate

Migrate according to the plan created

Use a phased approach, and for each phase:

- Execute migration wave

- Validate in-cloud

- Apply lessons to next wave

Apply lessons learned

### 4. Optimize

Monitor application and cloud usage

Implement bursting or scaled-usage to optimize user experience

Empower IT to successfully manage ongoing operations

Monitor cloud costs and adjust as needed

# Thank you.

We look forward to collaborating with you to create innovative migration solutions that are cost-effective, fast, and easy.

