AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

COP218-L

Ready, set, operate: The AWS Cloud Ops Model

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AWS

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Vice President of Monitoring
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Josh Prewitt
Chief Product Officer
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Goldman Sachs

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Expedia



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Companies of every size benefit from moving to AWS



Cost savings

51% lower 5-year cost of operations



Staff productivity

62% more efficient IT infrastructure staff



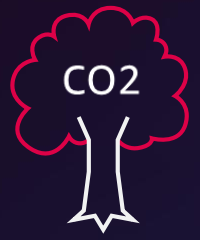
Operational resilience

57% decrease in downtime



Business agility

37% decrease in time to market



Carbon savings

88% reduction in carbon footprint of IT operations

Based on independent research of 1,500 AWS enterprise customers

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Why are we defining the cloud operations model?

Millions + **>1 billion** + **100,000+** + **20+ years**

of active AWS customers every month globally

end users served by our customers

AWS Partners from more than 150 countries

of Amazon's operations management experience

Over 6 quadrillion

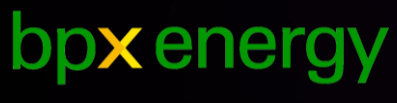
metric observations per month

That's 2.3 billion a second!

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AWS is used and trusted by global customers









































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AWS Cloud Ops is fast and secure, built at cloud scale from the beginning



GOVERNANCE

Security

Compliance

Operations

Spend management

AGILITY

Automated

Self-service access

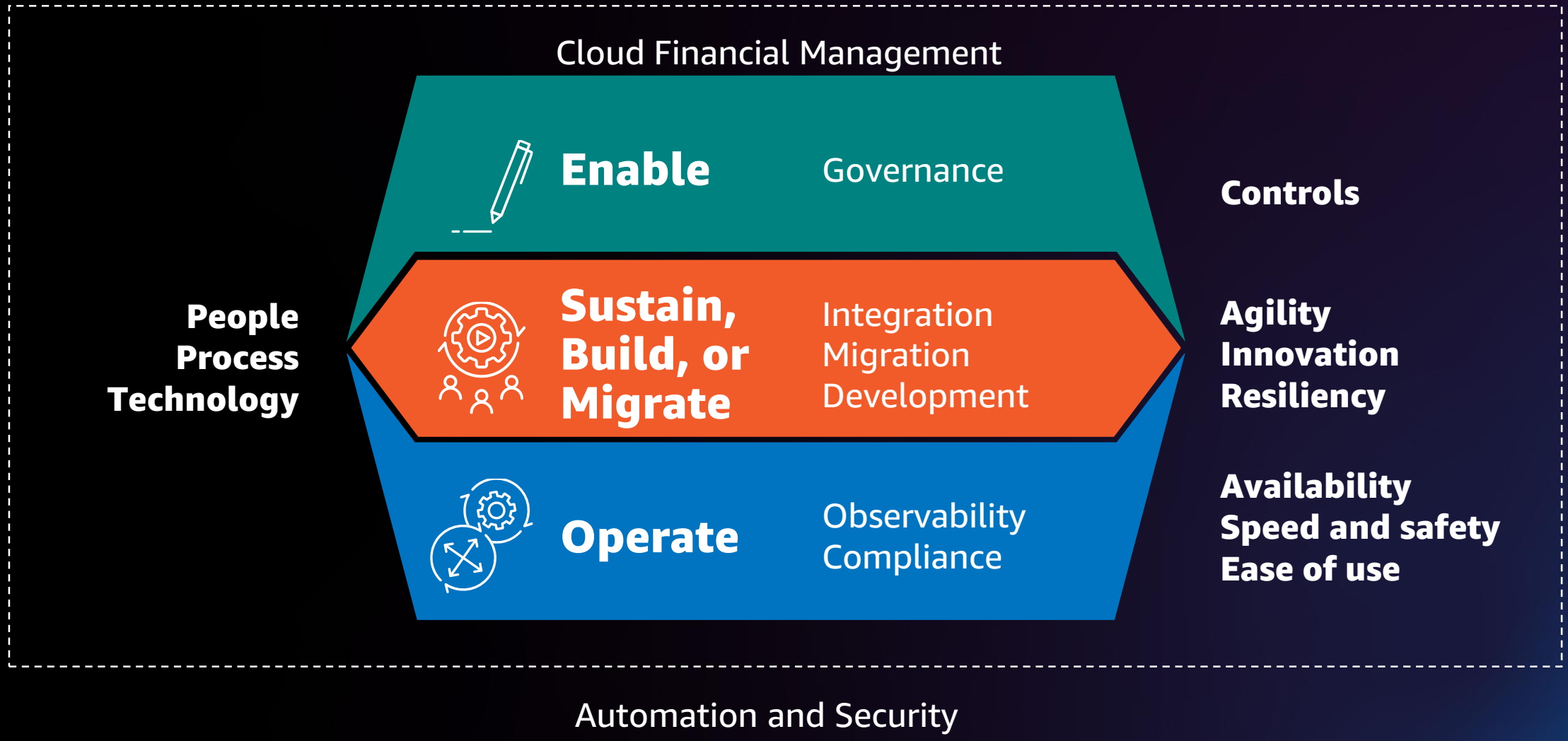
Experiment fast

Respond quickly to change

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AWS Cloud Ops Model

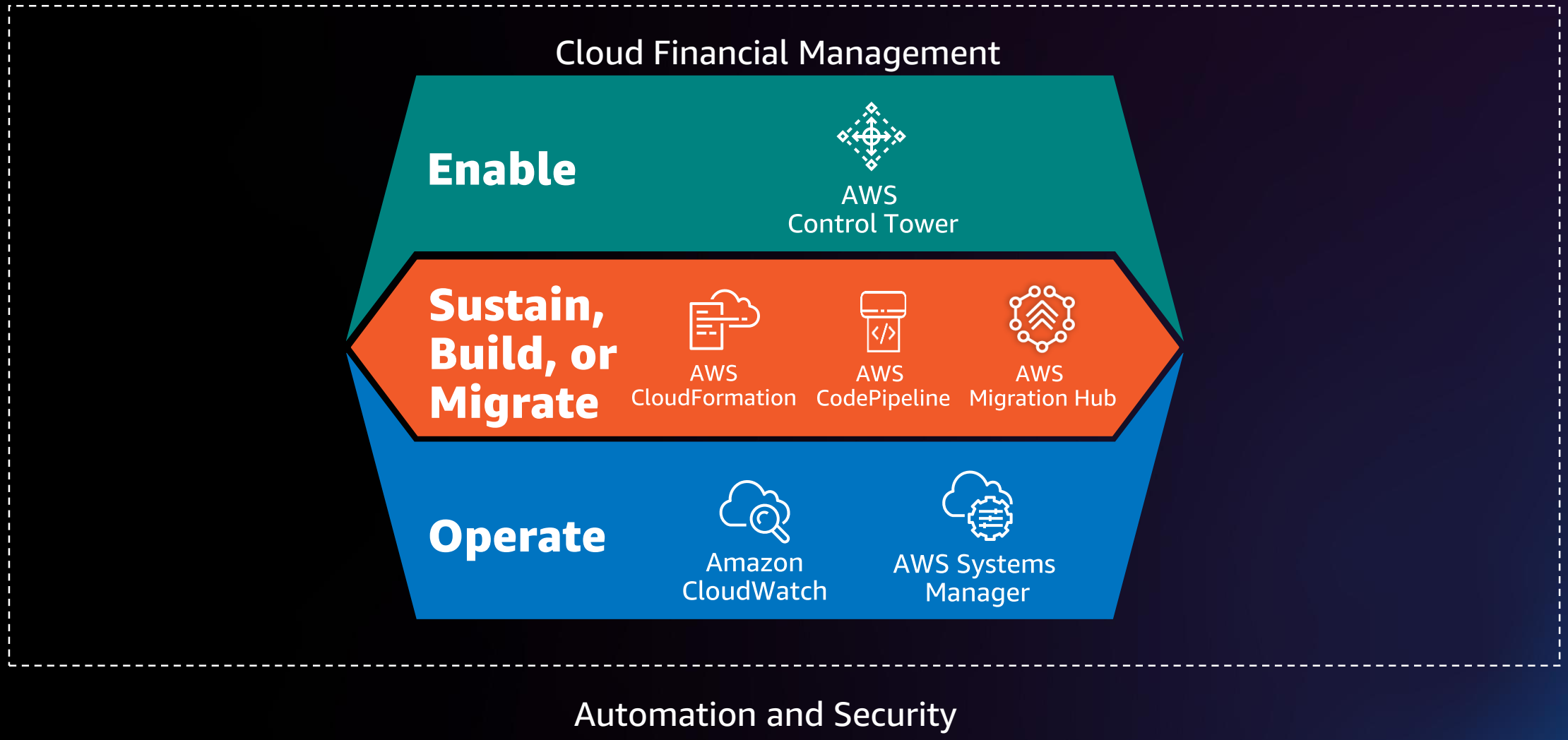
SPEED UP INNOVATION BY DELIVERING OPERATIONAL OUTCOMES IN THE CLOUD, ON PREMISES, AND ON THE EDGE



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Today, AWS offers a set of services to help you

AUTOMATE MANAGEMENT OF APPLICATION PERFORMANCE, AVAILABILITY, AND GOVERNANCE AT SCALE



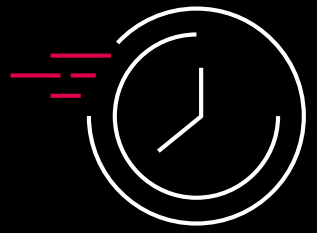
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Create a foundation to move to the cloud

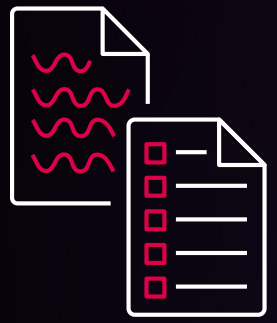
ENABLE

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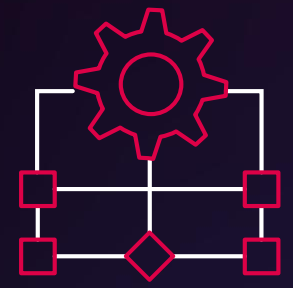
Easy setup and governance



Set up in minutes



Deploy guardrails



Enable governance

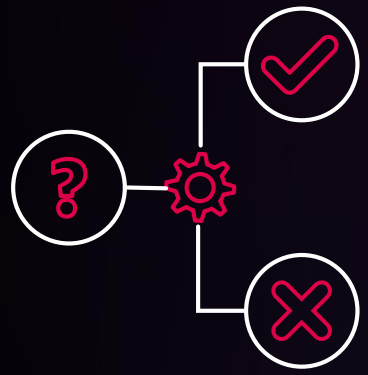


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Our goal: Simplify data residency controls



Limit within geographic locations



Reduce complexity



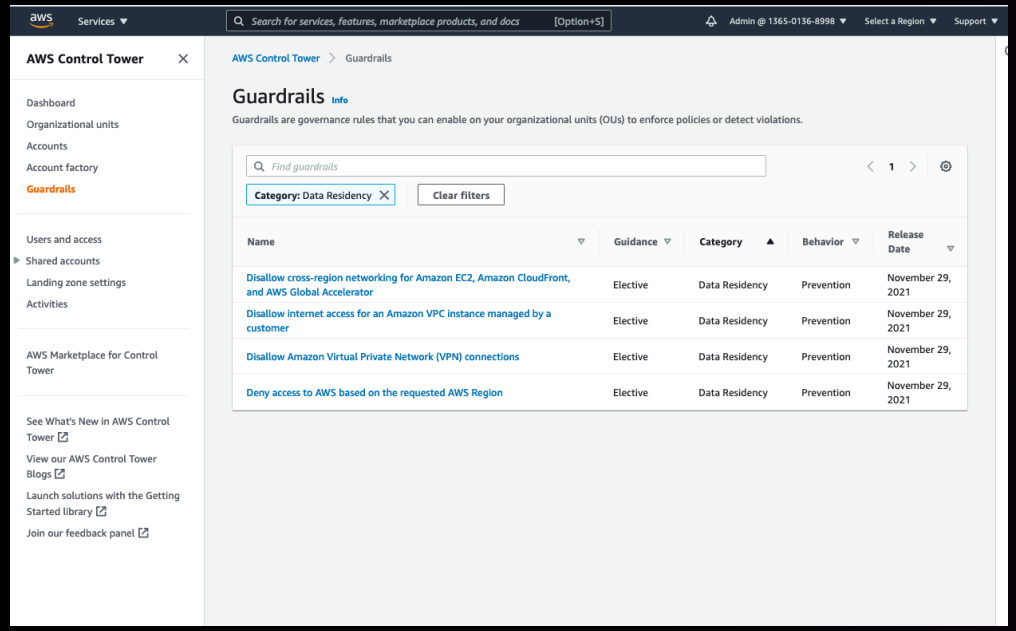
Save time

ENABLE

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Protect your data, focus on your business

NEW RELEASE: DATA RESIDENCY GUARDRAILS IN AWS CONTROL TOWER (GA)



Keep your customer data compliant

Use purpose-built guardrails

Set up in minutes

ENABLE

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UCI University of California, Irvine

“Within five minutes, AWS Control Tower had begun creating a best-practice accounts structure, enabling security guardrails, and establishing governance controls for us. What previously took us weeks of effort was completed in about an hour.”

Jason Noennig

Systems Administrator, University of California, Irvine

ENABLE



aws

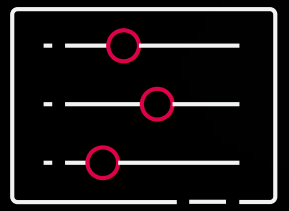
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Package and deploy with speed and safety

SUSTAIN, BUILD, OR MIGRATE 

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Reuse what you like, integrate with AWS



Quick implementation



No need to reinvest



Agility and governance

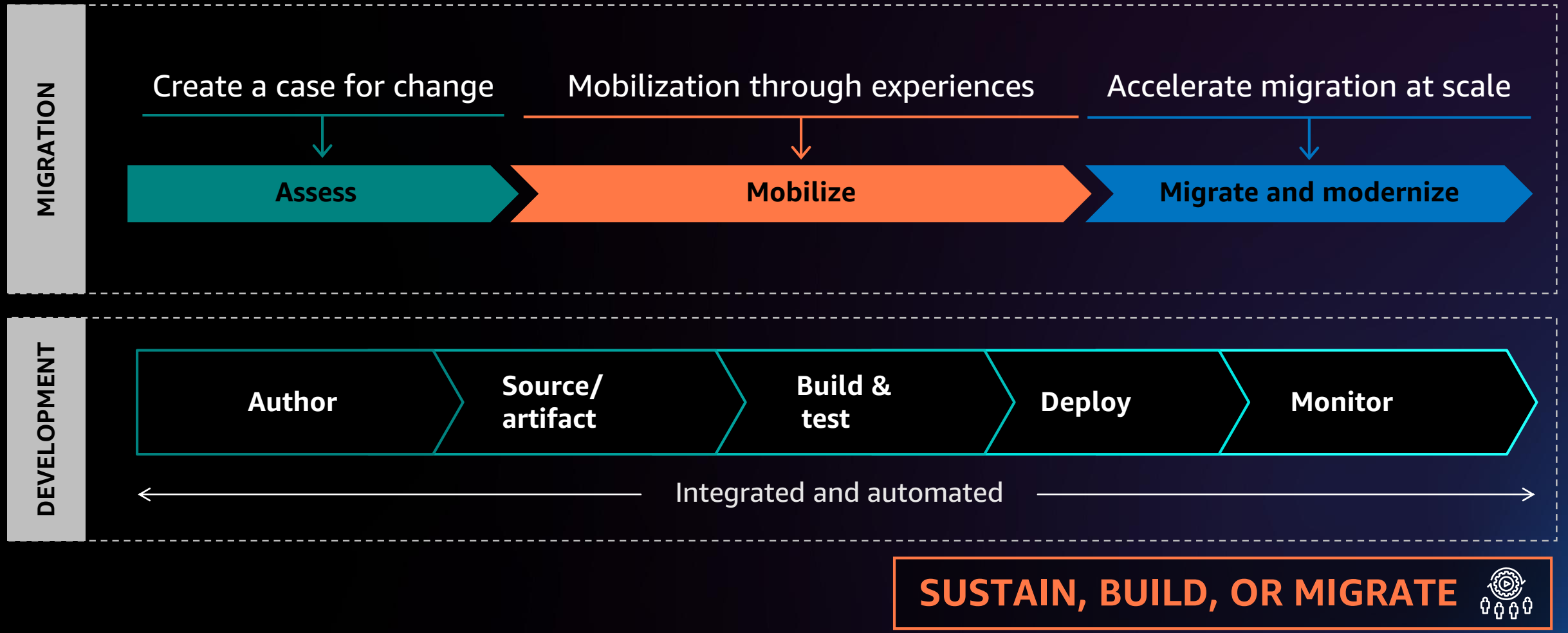
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Development in the cloud

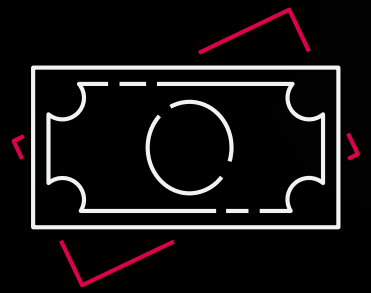
END-TO-END SOLUTIONS HELP DEVELOPMENT ORGANIZATIONS GO FASTER



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Our goal: Ensure applications leverage cloud capabilities to maximize resilience



Reduce cost



Leverage for container and serverless



Efficient resiliency testing

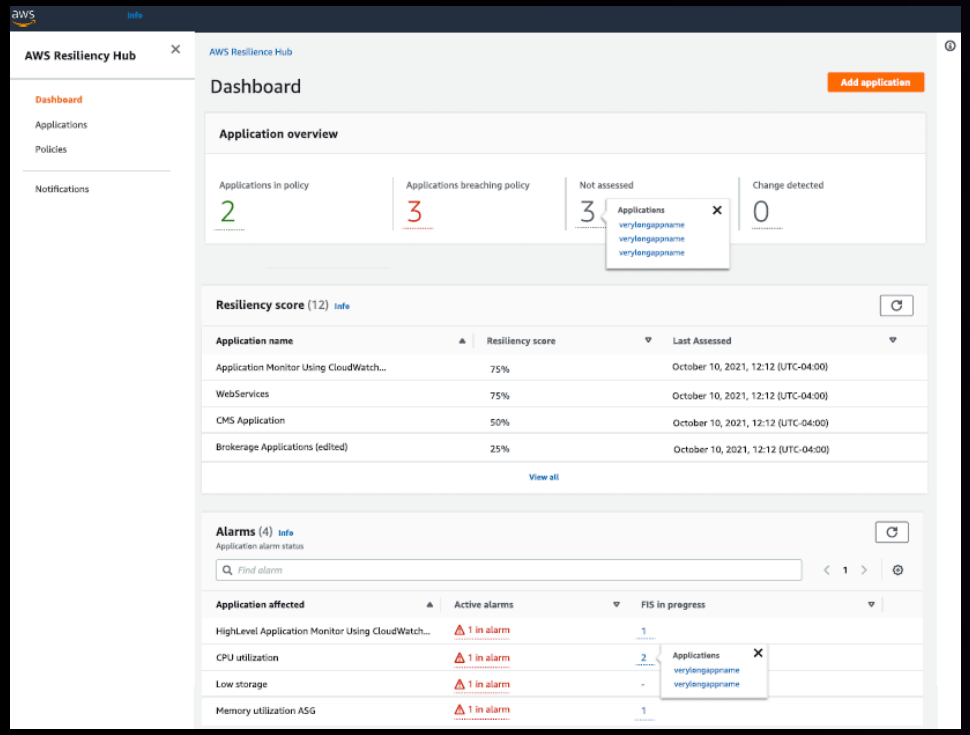
SUSTAIN, BUILD, OR MIGRATE



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Reduce outages, keep business running

NEW RELEASE: APPLICATION RESILIENCE WITH AWS RESILIENCE HUB (GA)



Easy to use

Built for cloud

Highly resilient

SUSTAIN, BUILD, OR MIGRATE

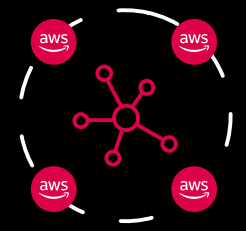
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Optimize operations to scale in the cloud

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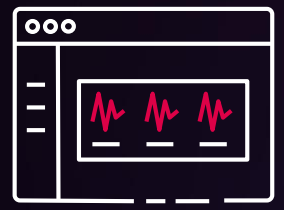
Operate anywhere



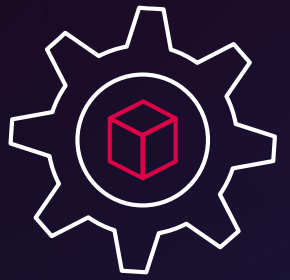
Integrate with existing toolsets



In the cloud, on-premises, hybrid, and at the edge



Application-centric



Automated

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Our goal: Simplify management of edge devices



Reduce number of management tools



Save time and simplify setup



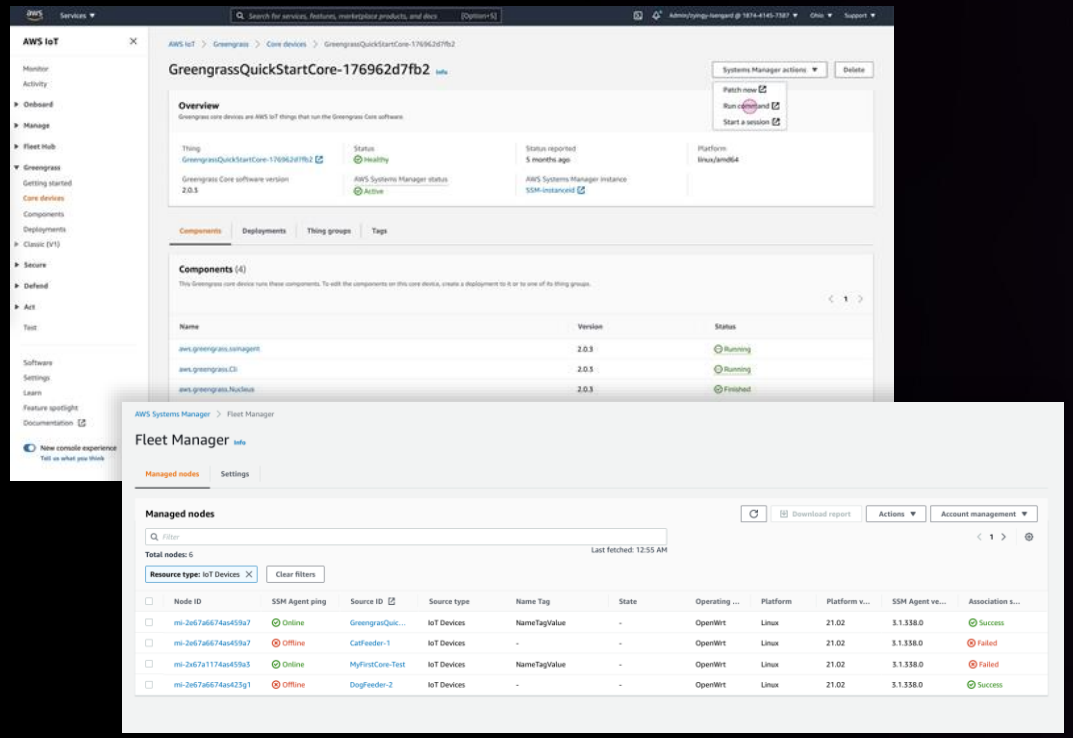
Integrated management of edge device stack

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Run your business anywhere, easily

NEW RELEASE: INTEGRATED REMOTE MANAGEMENT OF ON-SITE DEVICE INFRASTRUCTURE AND CLOUD INFRASTRUCTURE USING AWS SYSTEMS MANAGER (GA)



Integrated edge and cloud management with AWS Systems Manager and AWS IoT Greengrass

Prebuilt operational runbooks

Integrated OS and edge app management

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Our goal: Provide secure console-based access to Windows instances



Simplify process



Secure configuration



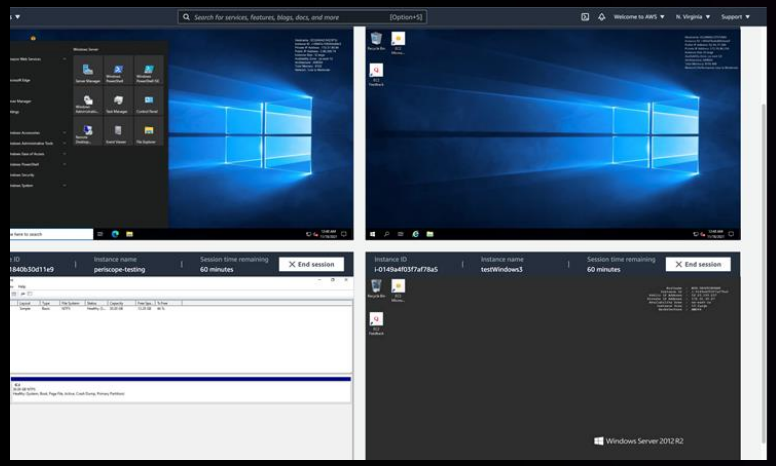
Control access

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Secure point-and-click Windows management

NEW RELEASE: CONSOLE-BASED MANAGEMENT FOR WINDOWS IN AWS SYSTEMS MANAGER FLEET MANAGER (GA)



Graphical user interface

Secure connection

Single Sign-On

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Rackspace scales with AWS Cloud Ops

Josh Prewitt
Chief Product Officer
Rackspace Technology



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60,000+ VMs

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20,000 events

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150 automated tasks

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70% automation

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1,200 hours saved/month



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400%
performance improvement



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Observe and detect for application availability and performance

Nandini Ramani
VP of Monitoring

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Data drives decisions



Collect data



Monitor performance



Analyze patterns



Act

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Our goal: Understand and visualize operational metrics at scale



Query high-volume data



Identify findings quickly



Flexibly analyze trends



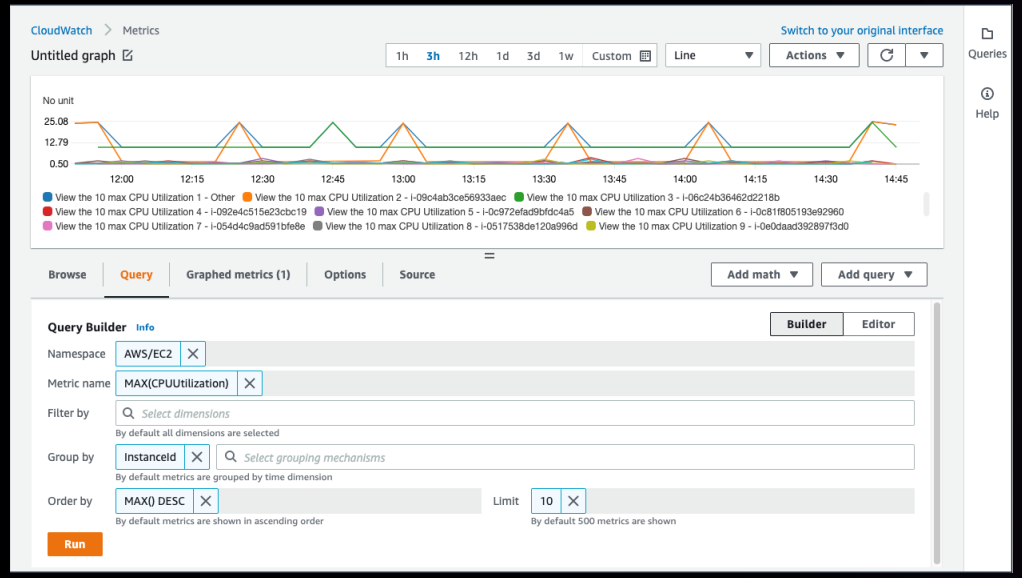
Reduce overhead

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Make your data work for you as you scale

NEW RELEASE: METRICS INSIGHTS WITH AMAZON CLOUDWATCH (PREVIEW)



High performance

Flexible analysis

Out-of-the-box solution

Easy to onboard with standard SQL

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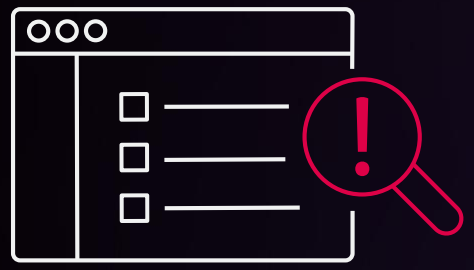


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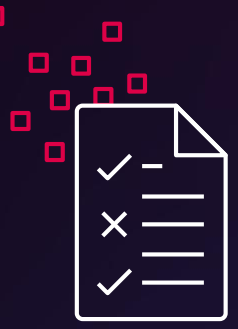
Our goal: Faster, safer rollouts of new features



Save time



Gain control and visibility



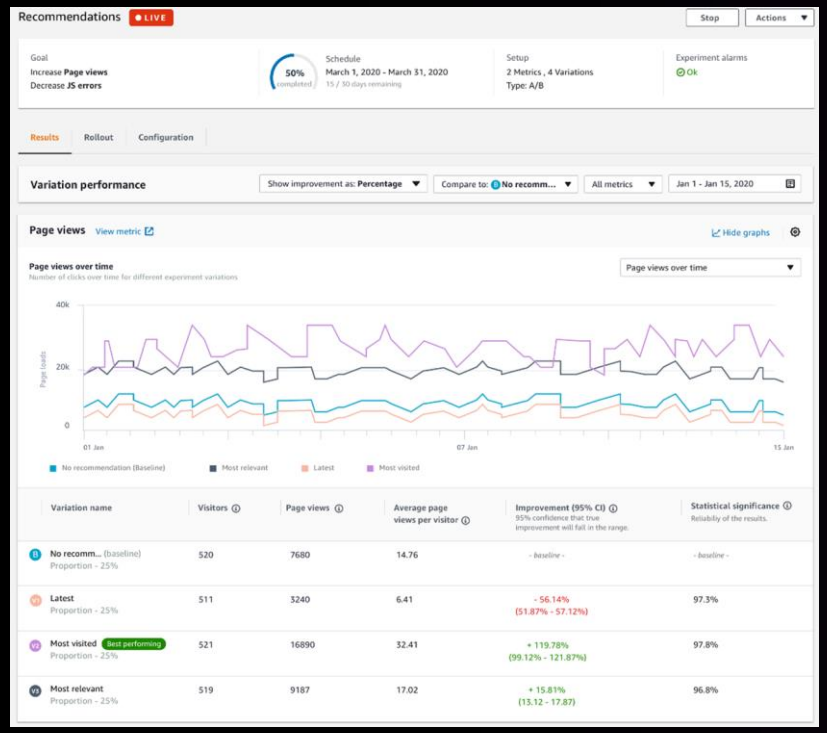
Analyze quickly and easily

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Improve testing, improve customer experience

NEW RELEASE: SAFELY LAUNCH NEW FEATURES USING AMAZON CLOUDWATCH EVIDENTLY (GA)



Faster, safer rollouts

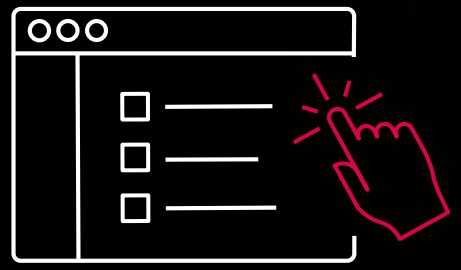
Visibility

Accurate interpretation

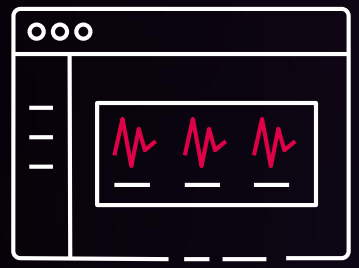
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Our goal: Optimize end user app experience



Identify performance issues



Gain visibility into **end user app experience**



Reduce time to code

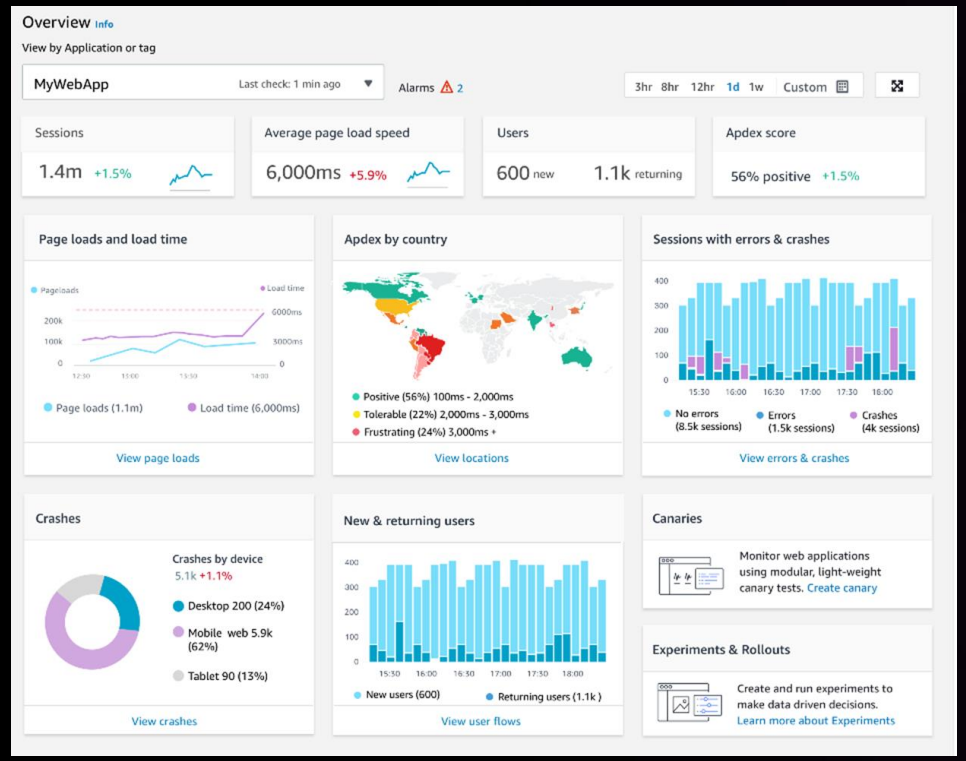
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Monitor front-end app performance

NEW RELEASE: REAL USER MONITORING WITH AMAZON CLOUDWATCH (GA)



Optimize end user experience

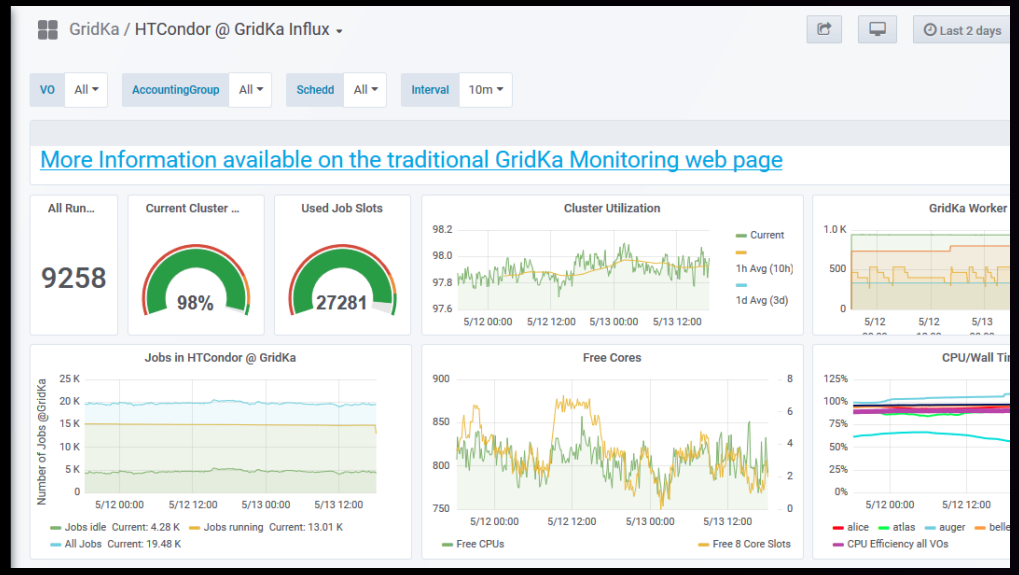
Surface relevant data

Simplify development

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Collaboration with open source community



Amazon Managed Service for Prometheus monitors cloud and on-premises workloads

Amazon Managed Grafana offers powerful data visualizations

AWS Distro for OpenTelemetry offers secure, open-source distribution with predictable performance

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Goldman Sachs drives decisions with observability

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Improve compliance and security in the cloud

Bill Vass
Vice President of Engineering, AWS

OPERATE // Compliance



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Delaware North

"By leveraging the security best practices of AWS, we've been able to eliminate a lot of compliance tasks that in the past took up valuable time and money."

Brian Mercer

Senior Software Architect, Delaware North

OPERATE // Compliance



aws

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Compliance is complex and time-consuming









Enterprises are subject to internal, industry, local, and global regulations

Leverage AWS best practices and ready-to-use templates

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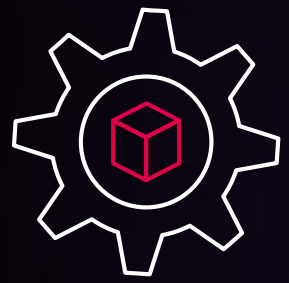


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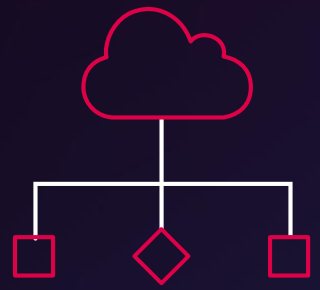
Automated compliance and audit



CIS-recommended



Automated

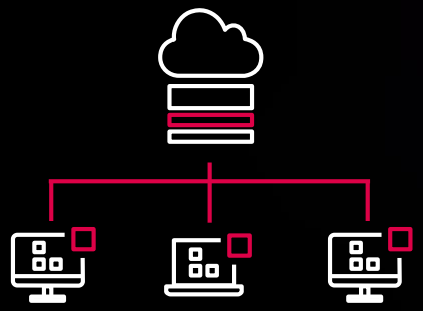


Centralized

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Our goal: Simplify data pipeline maintenance



Reduce DIY solutions



Query in real time



Control data sprawl

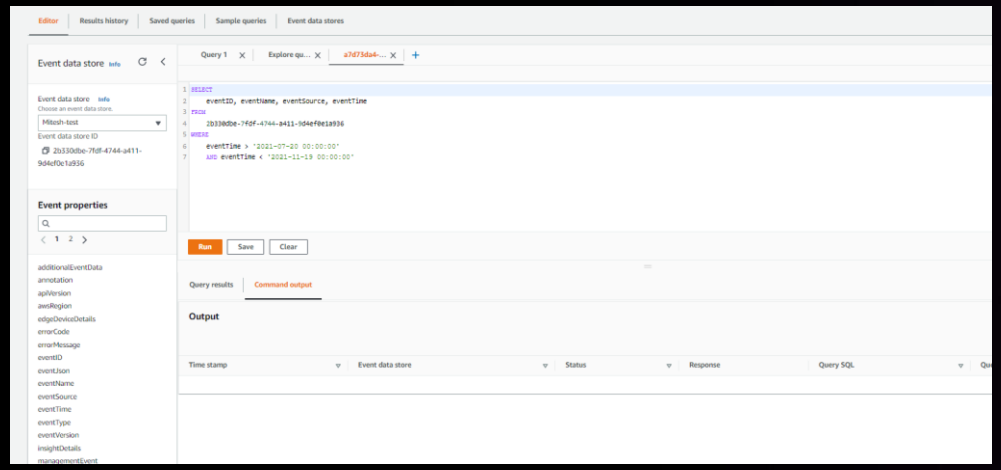
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Easily query data

NEW RELEASE: MANAGED AUDIT LAKE IN AWS CLOUDTRAIL (PRE-ANNOUNCEMENT)



Fully managed, 7-year storage included

SQL-based querying

Individual and multi-account support

OPERATE // Compliance

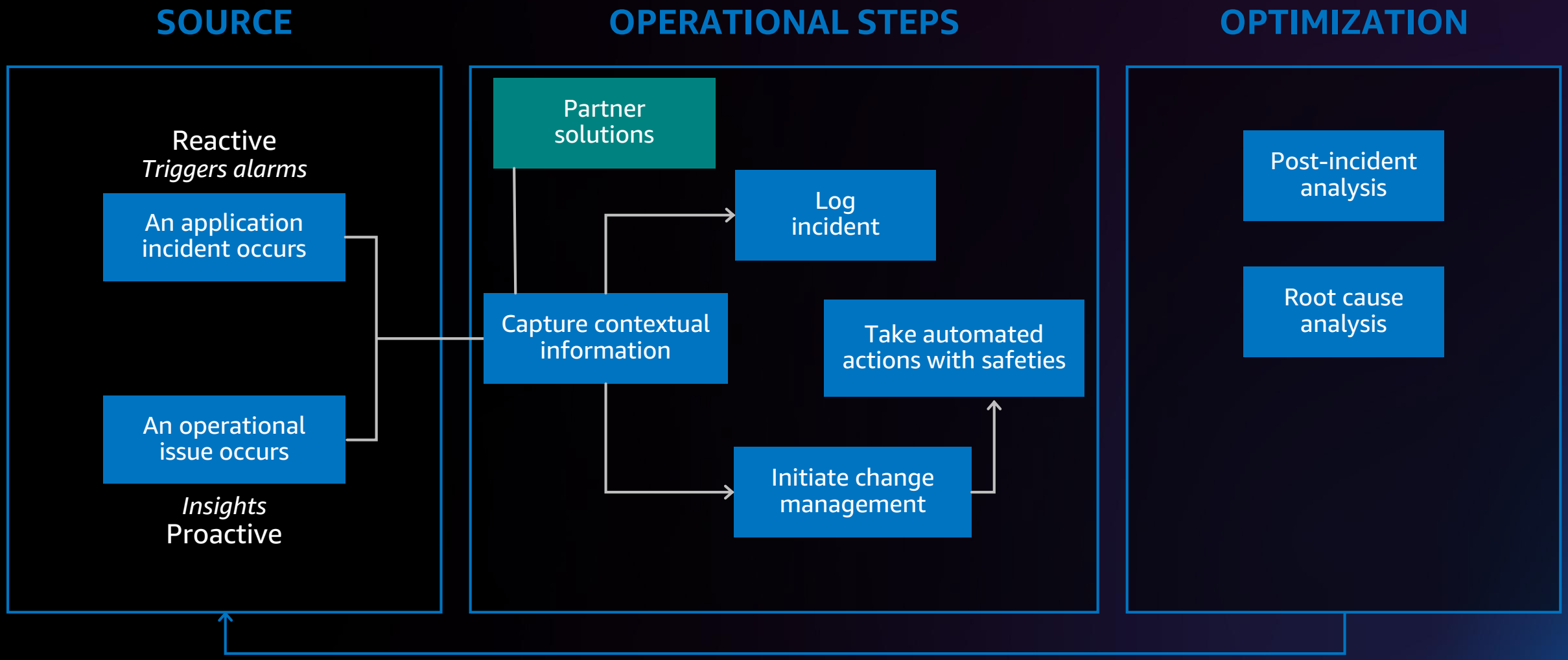
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Take operational actions safely, at scale

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AWS Cloud Ops optimization at work

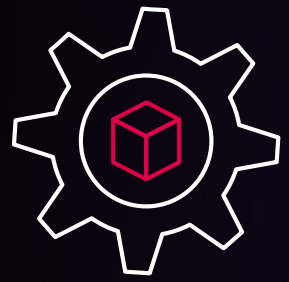


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Our combined Cloud Ops services provide a central operations hub



Continuous visibility



Automation



ITSM in the cloud

Observe, understand, take action, and automate

OPERATE

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The same automation and services we use to scale can be leveraged by our customers

6 quadrillion
metric observations per month

3.5 exabytes
of logs per month

5 billion
configuration checks per month

10 million
instances managed per week

7 million
auditing API events per second

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Expedia builds with AWS Cloud Ops

Robert Duffy
VP, Developer Experience
Expedia



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expedia group™

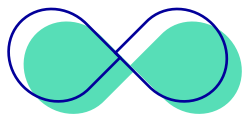


5,000+
Technologists

200+
Travel Sites

70+
Countries

Our Platform Journey



DevOps Culture

+



Open Source Tools

+



Cloud Migrations

×



Brand Tech Teams



Force simplicity

Game-Changing Outcomes



Build the travel platform for the world

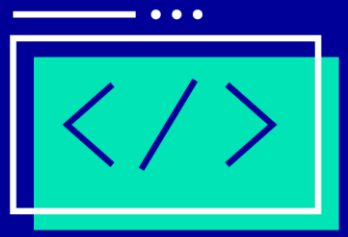


Remove all friction for developers

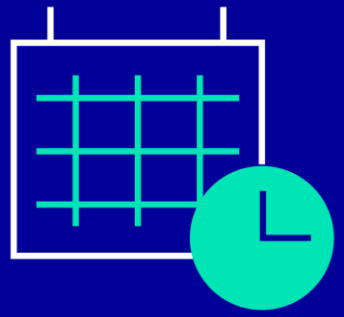


Efficiency, quality & resiliency by default

Fast Forward to 2021



Aligned on our technology



Aligned on our roadmap

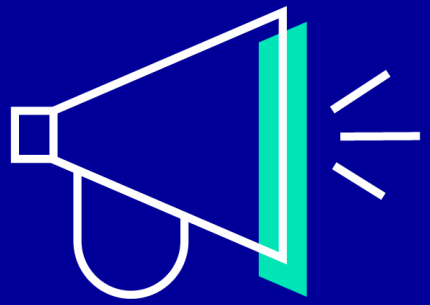


Aligned on our architecture



Move quickly

Your Choice



Mandate



Movement

Our Playbook for Re-Platforming

1. Form an amazing team
2. Pick your tools
3. Find your allies
4. Win over detractors
5. Execute

Our Playbook for Re-Platforming

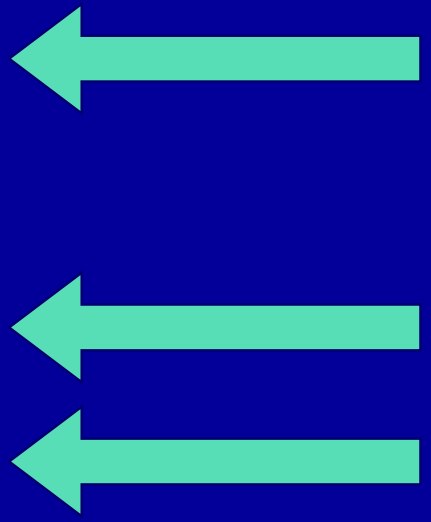
1. Form an amazing team
2. Pick your tools
3. Find your allies
4. Win over detractors
5. Execute





Our Playbook for Re-Platforming

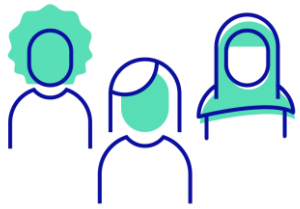
1. Form an amazing team
2. Pick your tools
3. Find your allies
4. Win over detractors
5. Execute





Trust each other

Accelerating Success with AWS



Form the team



Pick the tools



Win over detractors



Find your allies

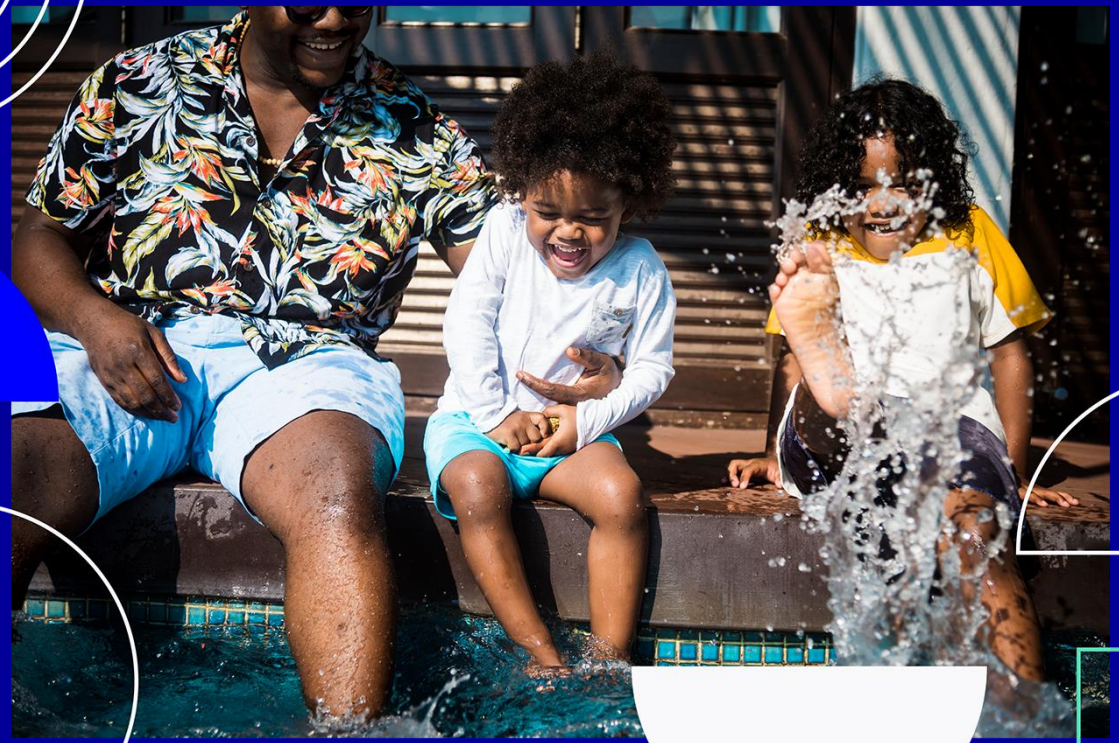
Go get what's next

10,000+
Applications

500+
Teams

600+
Clusters

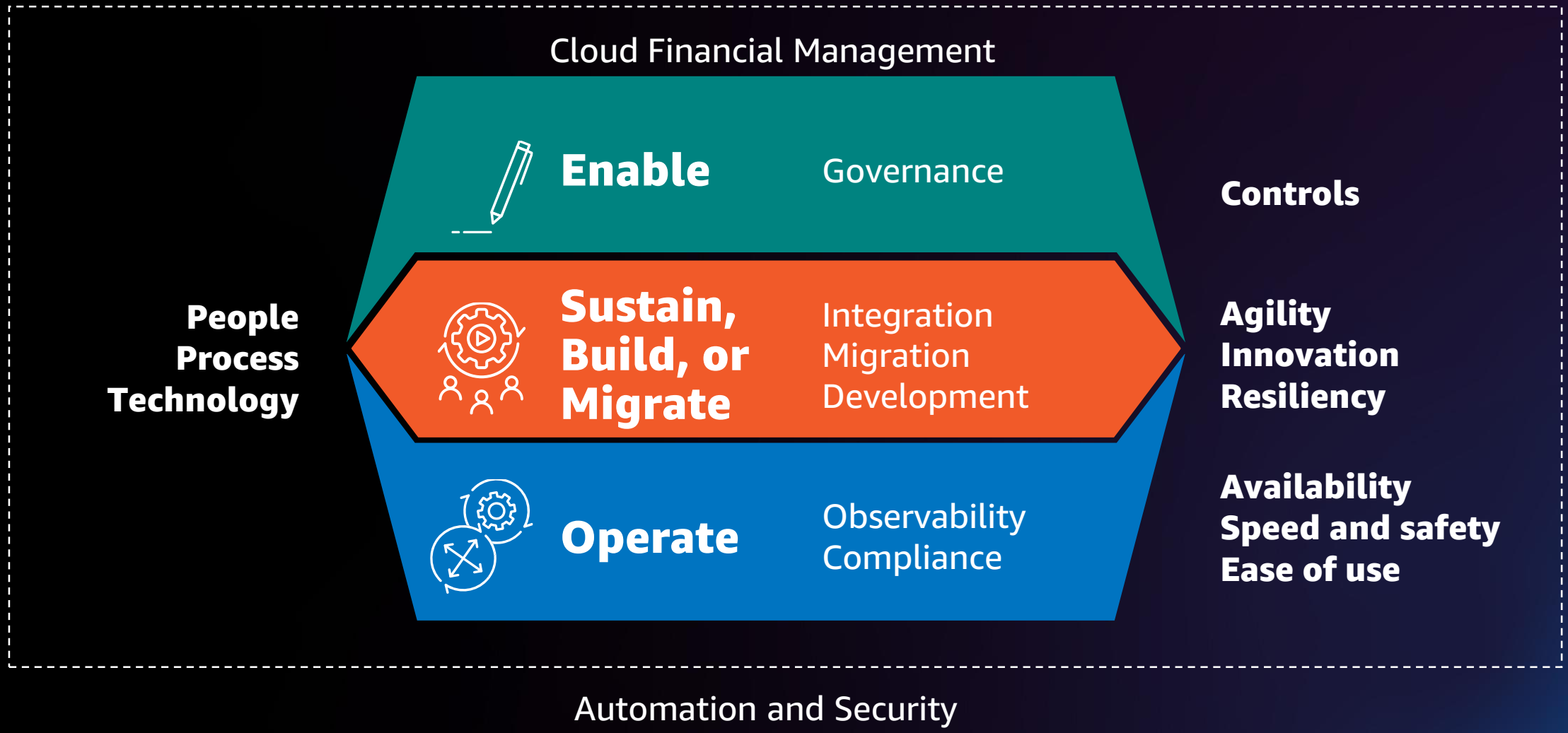
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AWS Cloud Ops Model

SPEED UP INNOVATION BY DELIVERING OPERATIONAL OUTCOMES IN THE CLOUD, ON-PREMISES, AND ON THE EDGE



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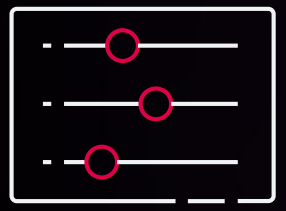
Predict, manage, and optimize IT costs

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Adapting traditional processes to be cloud-ready



Forecasting



Control



Traceability



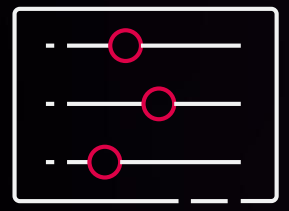
Oversight

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AWS Cloud financial management portfolio



Plan
Plan & evaluate



Run
Manage & control



See
Organize & report



Save
Optimize & save

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People, processes, and skills: We are ready to help



AWS Managed Services

Operational excellence in the cloud



AWS Partners

Helping companies build successful AWS-based business practices



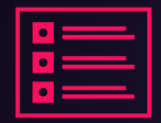
Marketplace

Find, test, buy, and deploy software that runs on AWS



Training & certification

Learn from AWS experts



AWS Cloud Adoption Framework

Accelerate your cloud-powered digital transformation

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aws.amazon.com/cloudops

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Thank you!

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