
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

SUP201

AWS Incident Detection and Response

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Agenda

Support needs for critical applications

AWS Support Incident Detection and Response (IDR)

The Chase.com migration to AWS

Best practices and call to action

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Support needs for critical applications

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“If you know the enemy and know yourself, you need not fear the result of a hundred battles.

If you know yourself but not the enemy, for every victory gained you will also suffer a defeat.

If you know neither the enemy nor yourself, you will succumb in every battle.”

Sun Tzu

The Art of War

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What customers tell us



"We only become aware of critical incidents once our **end users complain**."



"We need help in identifying the **trigger** of an incident to determine whether it can be found in the application, AWS infrastructure, or third-party service."



"If we **can't address critical incidents quickly**, we risk downtime, revenue loss, and erosion of customer trust."

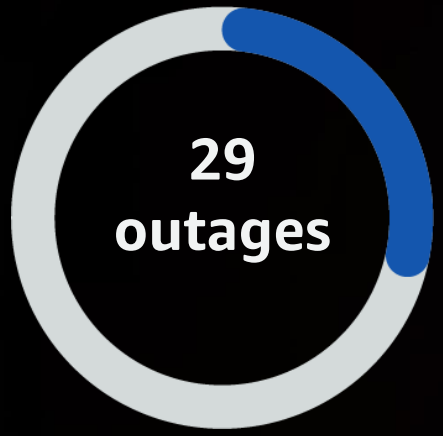


"We experience **frequent workload disruptions** and want to become more resilient."

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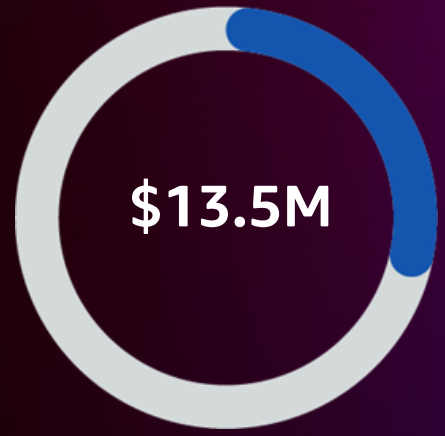
Disruptions are costly



Unplanned outages
On average, organizations experience 29 unplanned outages per year



Mean time to resolution
Organizations spend an average of 5 hours to repair each incident

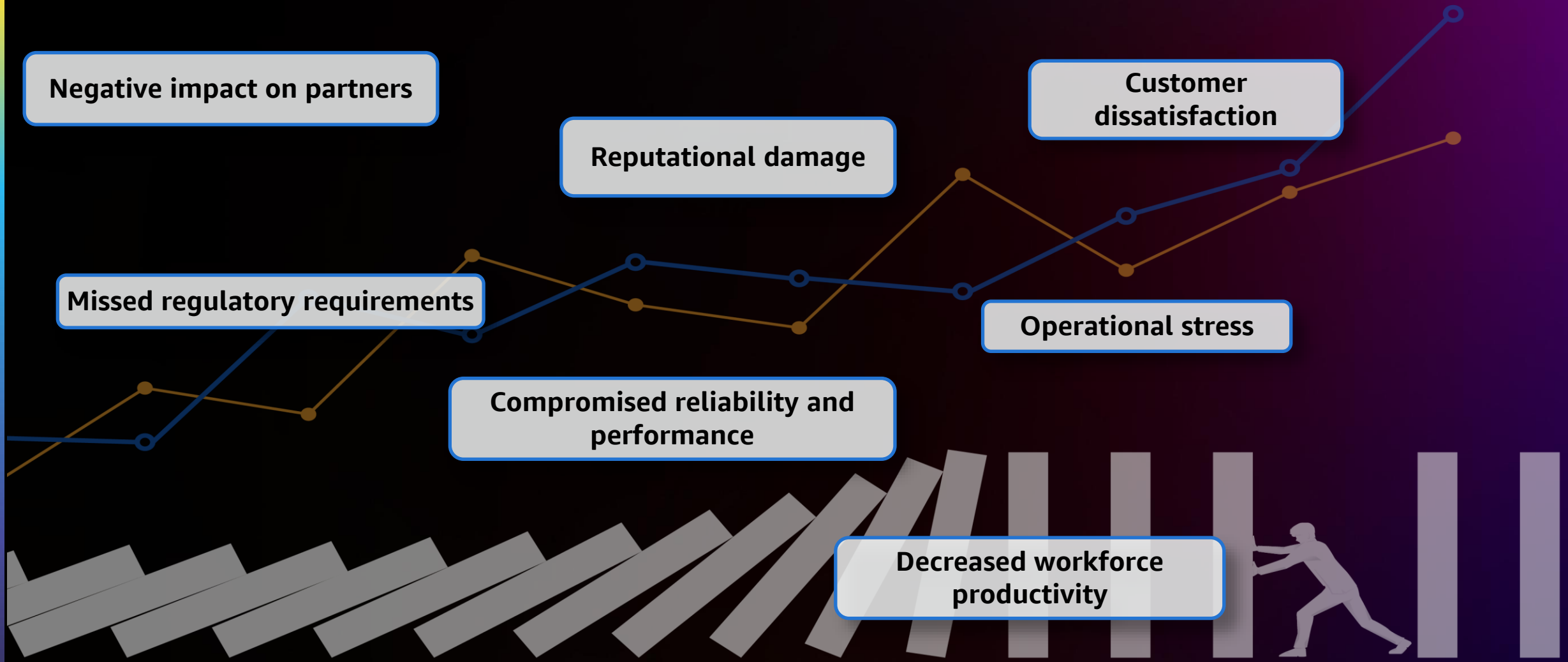


Total revenue loss
Organizations lose an average of $13.5 million as the result of unplanned outages

Source: IDC whitepaper (2022), "The Business Value of Amazon Web Services," 17.

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The impact is widespread



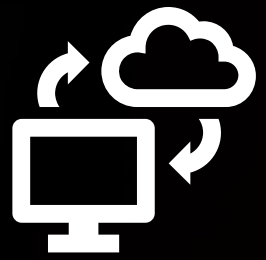
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AWS Incident Detection and Response (IDR)

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Onboarding to AWS Incident Detection and Response

1



Workload review to gain context of your workloads and their underlying AWS infrastructure and services

2



Set up observability to monitor the underlying AWS infrastructure and services employed by your workloads

3



Define critical alarms at the application layer to track the key outcomes of the workload

4



Define response plans and runbooks for managing critical incidents

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Benefits of AWS Incident Detection and Response

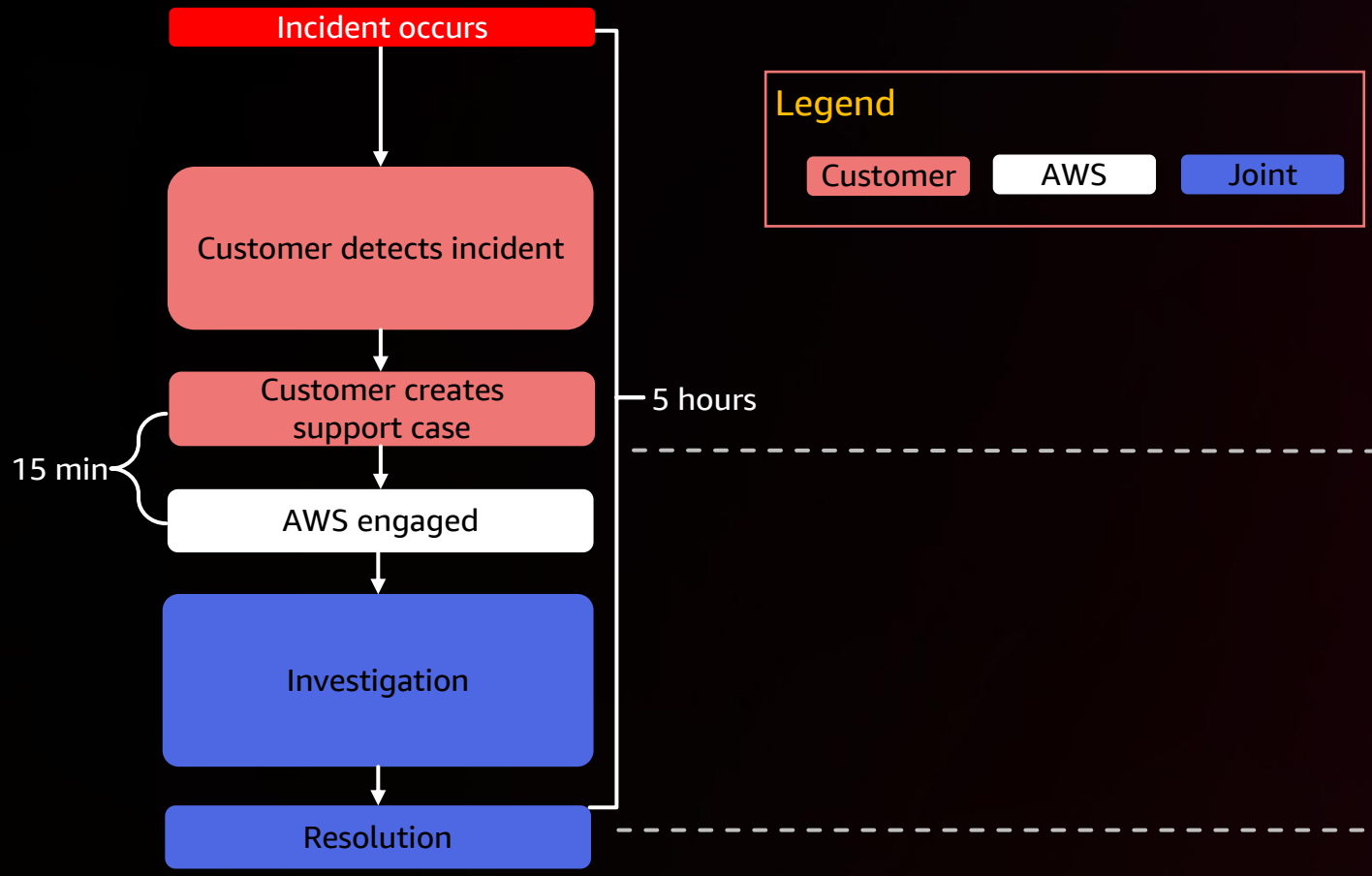


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Accelerated recovery path

Or “Why does incident resolution take so long?”

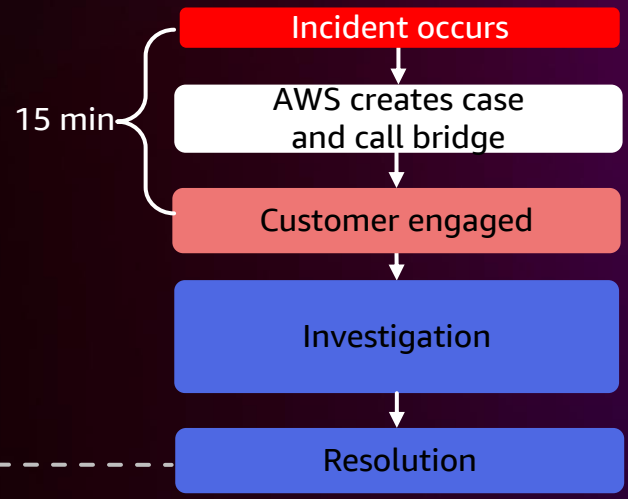
Without AWS Incident Detection and Response



Legend

Customer | AWS | Joint

With AWS Incident Detection and Response



Significantly reduces time from incident generation to resolution

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Chase.com migration and IDR onboarding experience



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Operational excellence across JPMorgan Chase

Devoted to building and maintaining the best and most respected financial services company in the world

CCB: Consumer and Community Banking

- Relationships with 66M US households and 5M small businesses
- 4.8K branches in 48 states and DC, 16K ATMs, mobile, online & phone

CIB: Corporate and Investment Bank

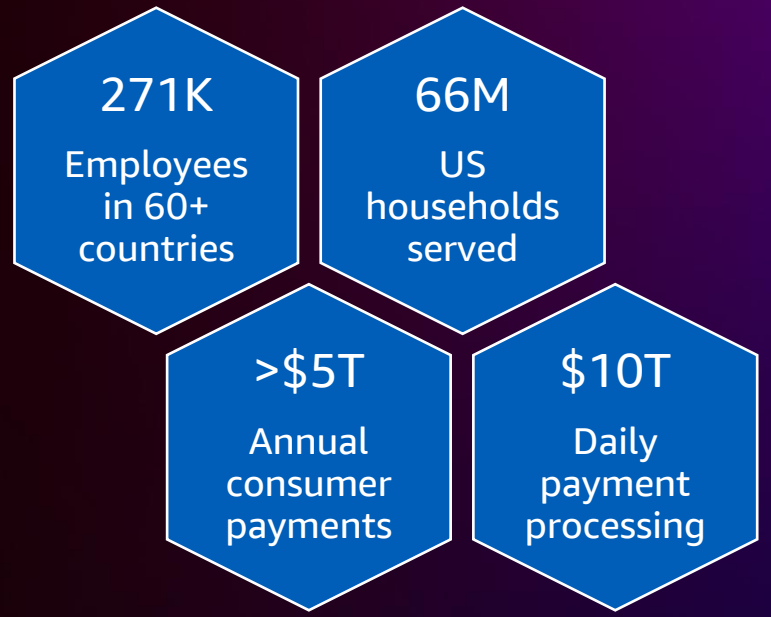
- Provides strategic advice, raises capital, manages risk, and extends liquidity in over 100 countries

AWM: Asset and Wealth Management

- Serves institutional, high net worth, and individual clients

CB: Commercial Banking

- Providing businesses access to capital, strategic advice, and tailored solutions in 20 countries



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Source: JPMorgan Chase Investor Relations: 2022 Investor Day Presentation

Global Technology enables JPMorgan Chase

Relentless focus on integrating and upgrading technology to give customers more

Products, platforms, experiences

- Differentiated experiences
- Rapidly release high-quality products

Software development and infrastructure

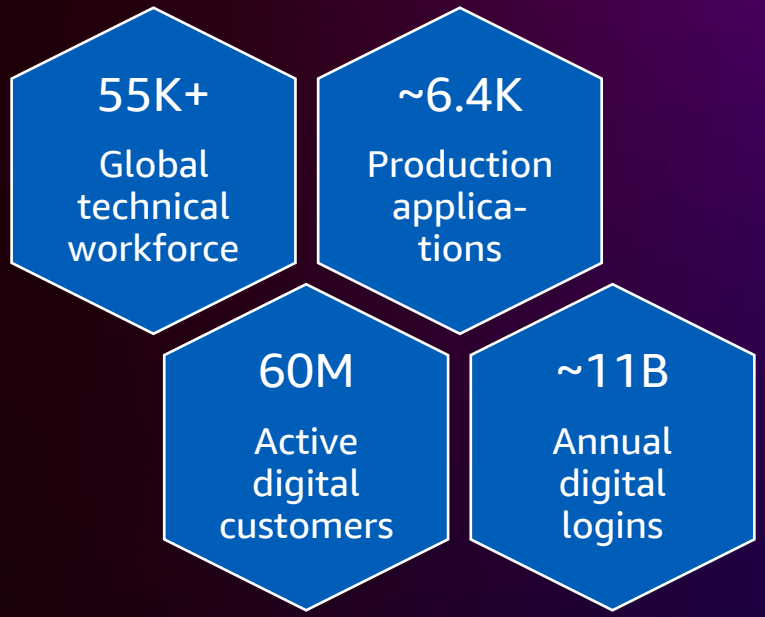
- Accelerate adoption of elastic compute in the cloud
- Bring engineering closer to the customer

Unlock the power of data

- Embed data and insights into everything

Protect customers and the firm

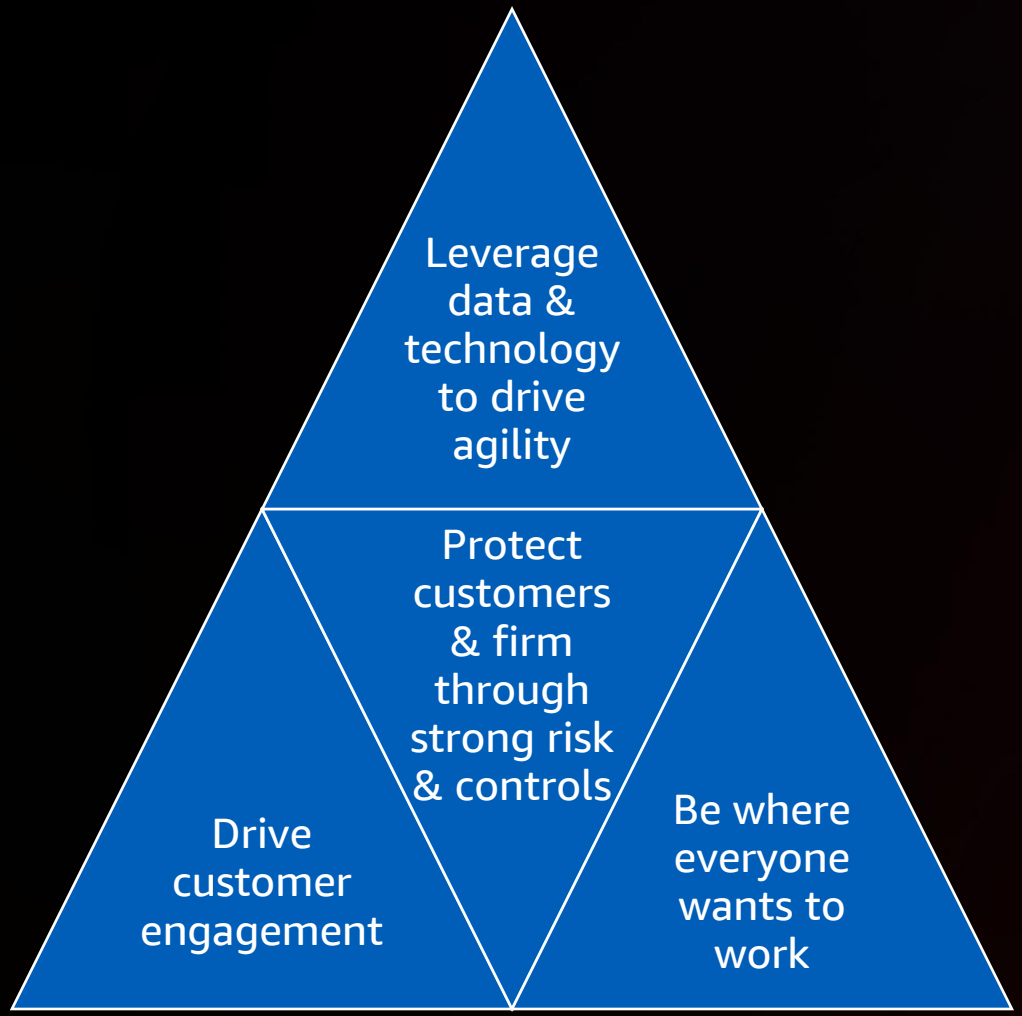
- Embed security and privacy into all products and platforms



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Chase.com migrates to the cloud

Chase has a consistent set of strategic priorities exemplified by the Chase.com migration to AWS



CHASE

The Chase.com migration had demanding objectives

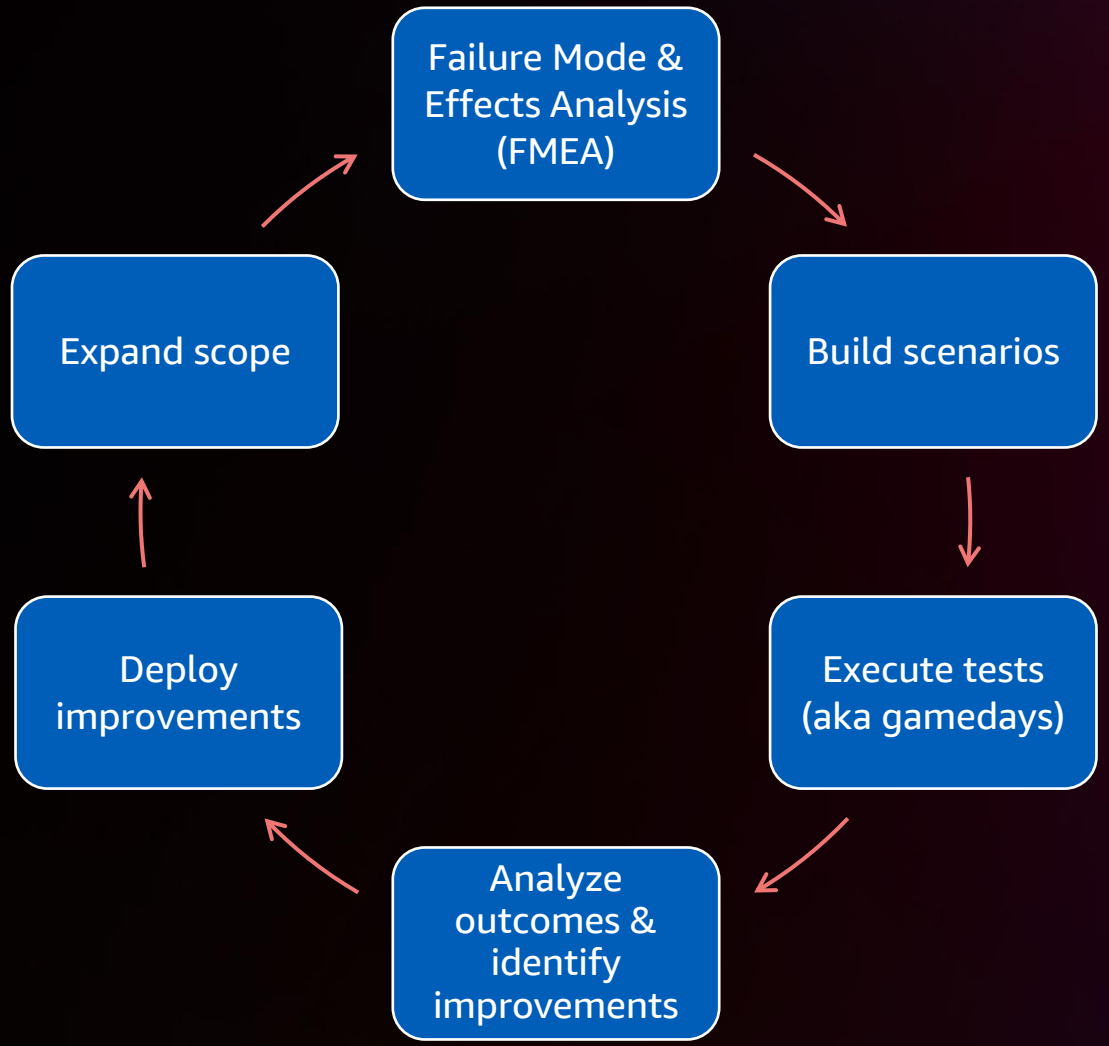
- Deliver >99.99% availability
- Reduce runtime costs by >50%
- Engineer the end-to-end solution, e.g. automation:
  - deployments & component refreshes
  - self-healing & mitigation
  - testing, validation & certification
- Complete migration by YE 2022 (completed late October 2022)

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Predictable and proven resiliency is key

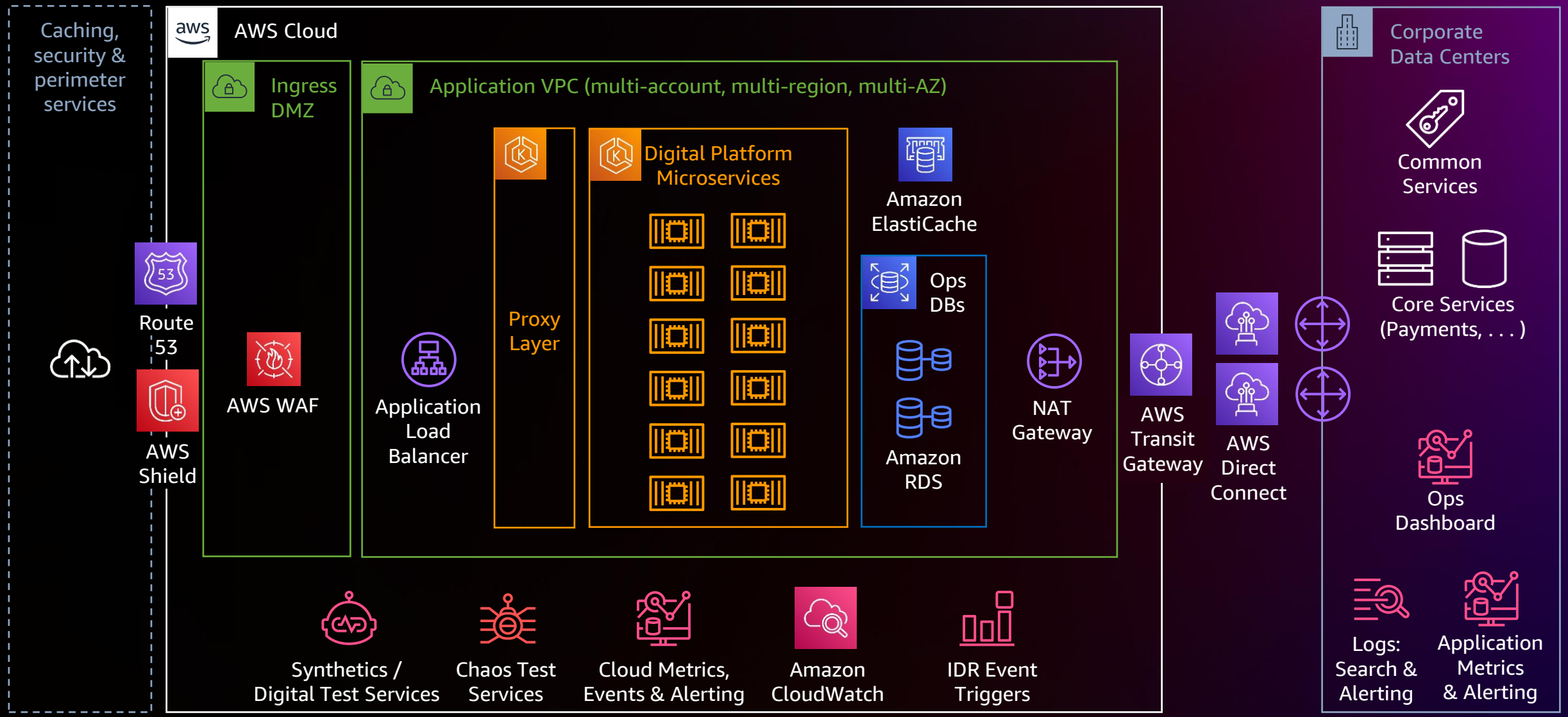
Teams worked backward from identified failure modes to implement preventative monitoring and testing



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Chase.com architecture on AWS

CHASE



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Best practices and call to action

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Monitoring and alerting best practices

1. Look for **key measures** that indicate **business impact**
2. Alarm to customer teams and IDR **in parallel**
3. Alarm at **multiple layers** to quickly isolate failure modes
4. Validate **runbooks** and communication paths through **gamedays**
5. Leave time for **alarm tuning**

See **AWS Well-Architected Framework** operational excellence pillar for additional workload health guidelines

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Call to action

Including IDR in your incident management process

1. Identify **critical workloads** that require the higher service levels IDR provides
2. **Start somewhere, don’t delay**
3. Perform architectural/operational **reviews to assess readiness**
4. Inspect monitoring/alarming mechanisms for reliability
5. Engage with your TAMs and your account team to discuss requirements
6. **Be prepared! – don’t gamble with availability**

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Additional IDR resources

- IDR product launch page
  https://aws.amazon.com/premiumsupport/aws-incident-detection-response/
- IDR Support plan pricing page
  https://aws.amazon.com/premiumsupport/pricing/
- IDR What's New post
  https://aws.amazon.com/about-aws/whats-new/2022/09/aws-enterprise-support-aws-incident-detection-response/
- IDR FAQs
  https://aws.amazon.com/premiumsupport/faqs/?nc=sn&loc=6#AWS_Incident_Detection_and_Response

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Thank you!

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