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

WPS307

Proactively protect critical applications

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Agenda

Resilience services at AWS

The role of AWS Resilience Hub

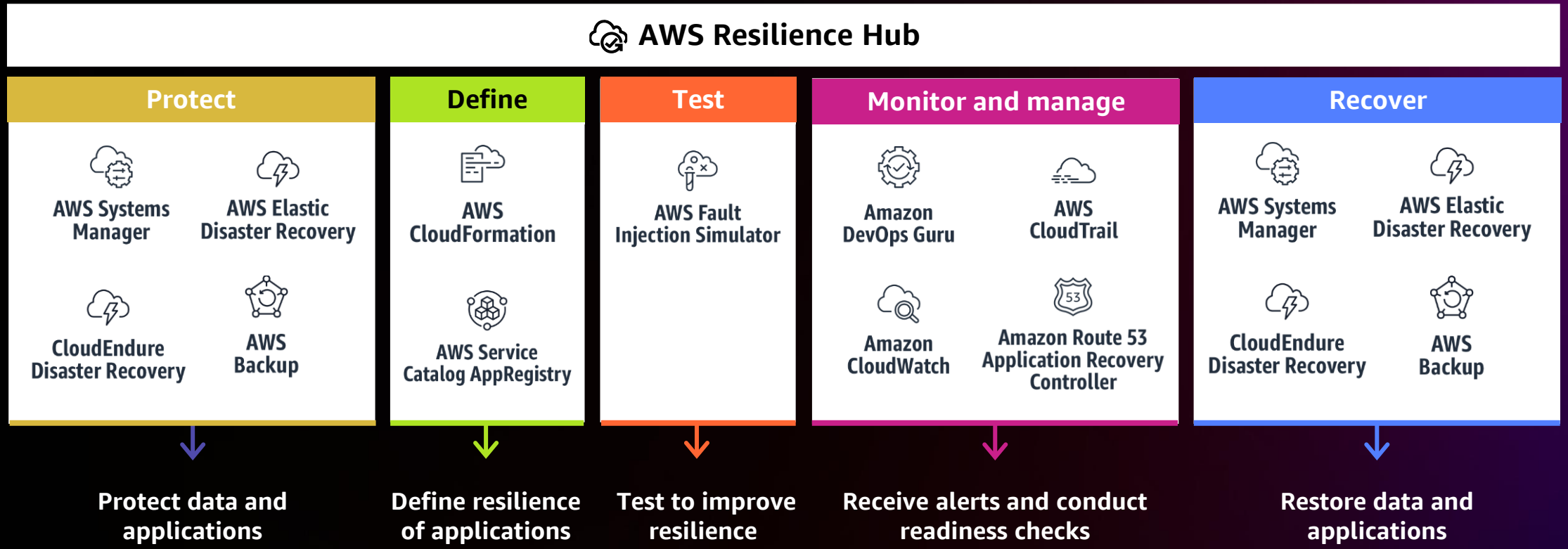
AWS Elastic Disaster Recovery & why use the AWS Cloud as a DR target

How AWS DRS works

Q&A

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AWS resilience services



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AWS Resilience Hub – Use cases



Protect mission-critical applications



Reduce costs



Help meet contractual and regulatory requirements

AWS Resilience Hub is an application resilience service that provides customers a central place to define, validate, and track the resilience of their applications on AWS on meeting their Recovery Time Objective (RTO) and Recovery Point Objective (RPO)

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AWS Resilience Hub – Key capabilities

- Application capabilities
  - Define application RTO and RPO in a resilience policy
  - Assessment to uncover resilience weaknesses
  - Recommendations on SOPs and alarms
  - Resilience testing and verification

- Enterprise capabilities
  - Dashboard to view application portfolio resilience posture
  - CI/CD integrations
  - Resilience Score indicates likelihood of meeting RTO and RPO
  - Audit trail for compliance

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AWS Resilience Hub – Key benefits



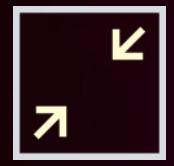
Continuously validate and track application resilience



Consistently meet resilience targets (RTO and RPO)



Identify and resolve resilience-related issues before they occur in production



Reduce application-related outages

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Introduction to AWS Elastic Disaster Recovery (DRS)

- DRS recently launched, in November 2021
- DRS is the successor service for CloudEndure DR (CEDR)
  - CloudEndure was founded in 2012 and acquired by AWS in 2019
  - CEDR was previously integrated as metered service on AWS Marketplace, price reduced by ~80%
  - CEDR underlying technology was used to build DRS into the AWS console
- Service objective: Scalable, cost-effective application recovery to AWS
  - Leverage the elasticity of the AWS Cloud as a DR target
  - Low-cost staging environment during ongoing operation (replication)
  - Pay only for fully provisioned environment during test or recovery
  - Easily test failover and failback with rapid recovery objectives

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Strategies for disaster recovery



AWS DRS

Backup & restore | Pilot light | Warm standby | active/active



AWS Backup



High availability

RPO/RTO:
Hours

- Data backed up
- No services deployed
- Cost $

RPO/RTO:
10s of minutes

- Data live
- Services idle
- Cost: $$

RPO/RTO:
Minutes

- Data live
- Services run reduced capacity
- Cost $$$

RPO/RTO:
Near real time

- Data live
- Live services
- Cost $$$$

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Why use the cloud for disaster recovery?

Traditional disaster recovery

- Upfront CapEx investment
- Tough and expensive to scale
- Operational overhead for globally distributed businesses

Cloud disaster recovery

- Pay for provisioned resources only when needed
- Lower IT management overhead
- Elastic scalability
- Non-disruptive repeatable drills
- Simple onboarding

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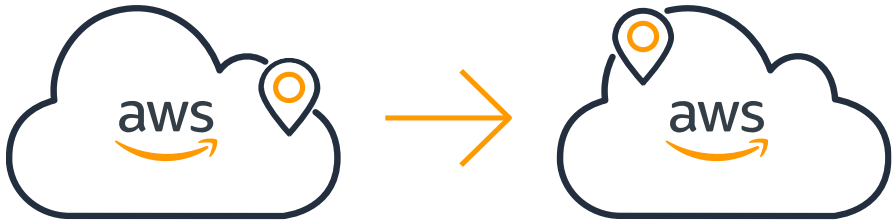
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AWS Elastic Disaster Recovery (DRS)

AWS console–integrated version of CloudEndure Disaster Recovery



Disaster recovery to AWS



Cross-Region recovery

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Technology that powers AWS Elastic Disaster Recovery

- Agent-based continuous block-level replication
- Automated resource provisioning during replication, failover, and failback

Flexible



Replicate from any source



Supports a wide range of OS, applications, and databases



Remove idle recovery site resources and pay only for what you need

Reliable



Robust, non-disruptive continuous replication



RPO: seconds
RTO: minutes



Recover from ransomware, corruptions, and human errors

Highly automated



Minimal skill set required to operate



Easy, non-disruptive drills

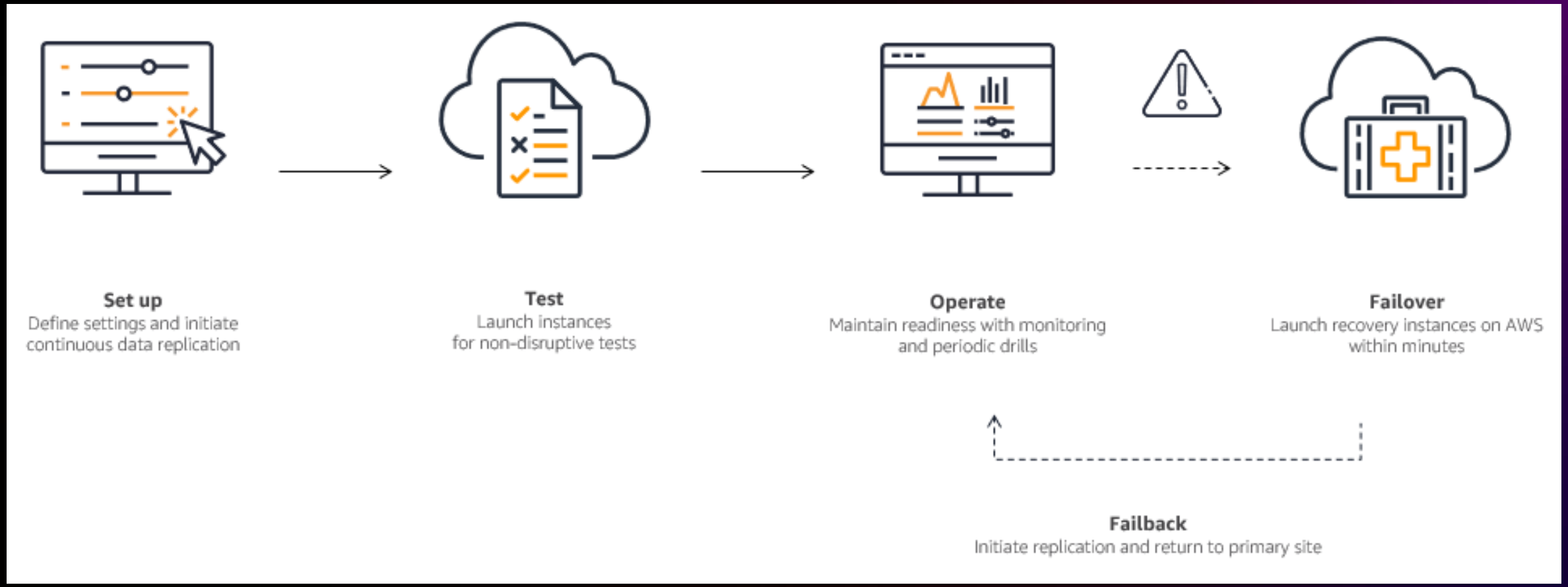


Unified process to test, recover, and failback

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How it works

- Simple setup, followed by auto-provisioning of low-cost replication resources
- Customers can perform DR drills, monitor the replication, and recover applications
- Simple failback
- Point-in-time recovery



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Chalk talk discussion

Areas we will cover:

- AWS Resilience Hub and AWS Elastic Disaster Recovery functionality
- Use cases and practices

Areas not part of this discussion:

- Deep dive on Well-Architected
- AWS Trusted Advisor and resilience check
- Deep dive on Fault Injection Simulator

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Thank you!

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