
AWS
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ARC002

Improve Resilience with Amazon Route 53 Application Recovery Controller

Stanley Su

Principal Product Manager
AWS Resilience Infrastructure & Solutions

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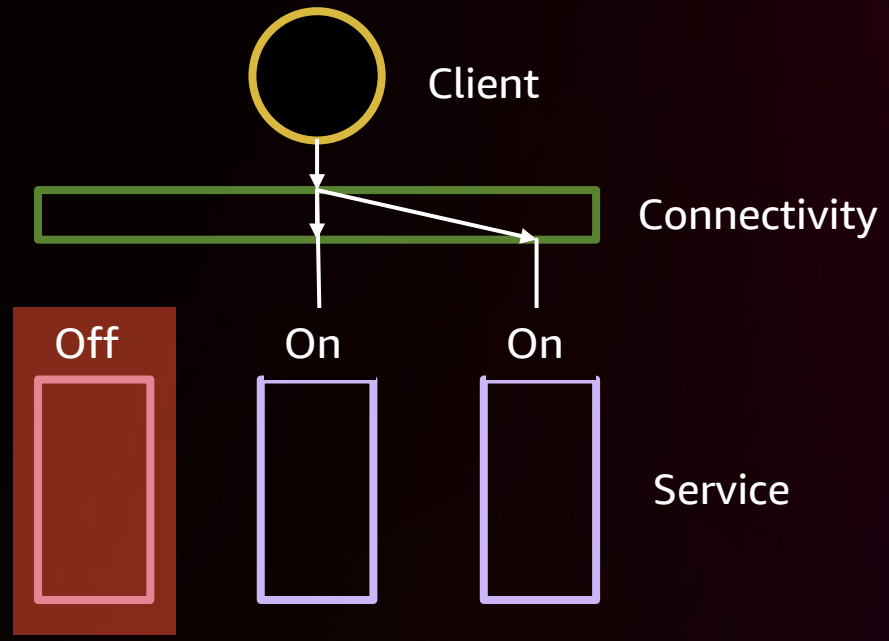
Agenda

1. What is Amazon Route 53 Application Recovery Controller (ARC)?
2. Demo of Amazon Route 53 ARC

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Design for application failures

- Anticipate application failures
- Apply cellular architecture – isolate and contain failures
- Build and leverage robust failure recovery mechanisms



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Amazon Route 53 Application Recovery Controller



Centralized, safe, and reliable way to manage cross-AZ and cross-region recovery

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Amazon Route 53 Application Recovery Controller







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ARC multi-AZ recovery



Zonal shift
(in preview)

Enables customer to shift application traffic away from using an AZ with a single action for multi-AZ resources with support of Application Load Balancer and Network Load Balancer

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ARC zonal shift

- Grant access and go – Zonal shift is built into cross-zone off ALB and NLB with no cost
- Built-in safety rule – Zonal shift prevents you from accidentally moving application traffic away from more than 1 AZ

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Best practice of zonal shift

- Turn off cross-zone load balancing for your ALB and NLB
- Provision sufficient capacity in each AZ to withstand the loss of capacity in one AZ
- Ensure all zonal replicas are healthy and taking traffic
- Test in advance
- Practice using the API/CLI

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ARC multi-Region recovery

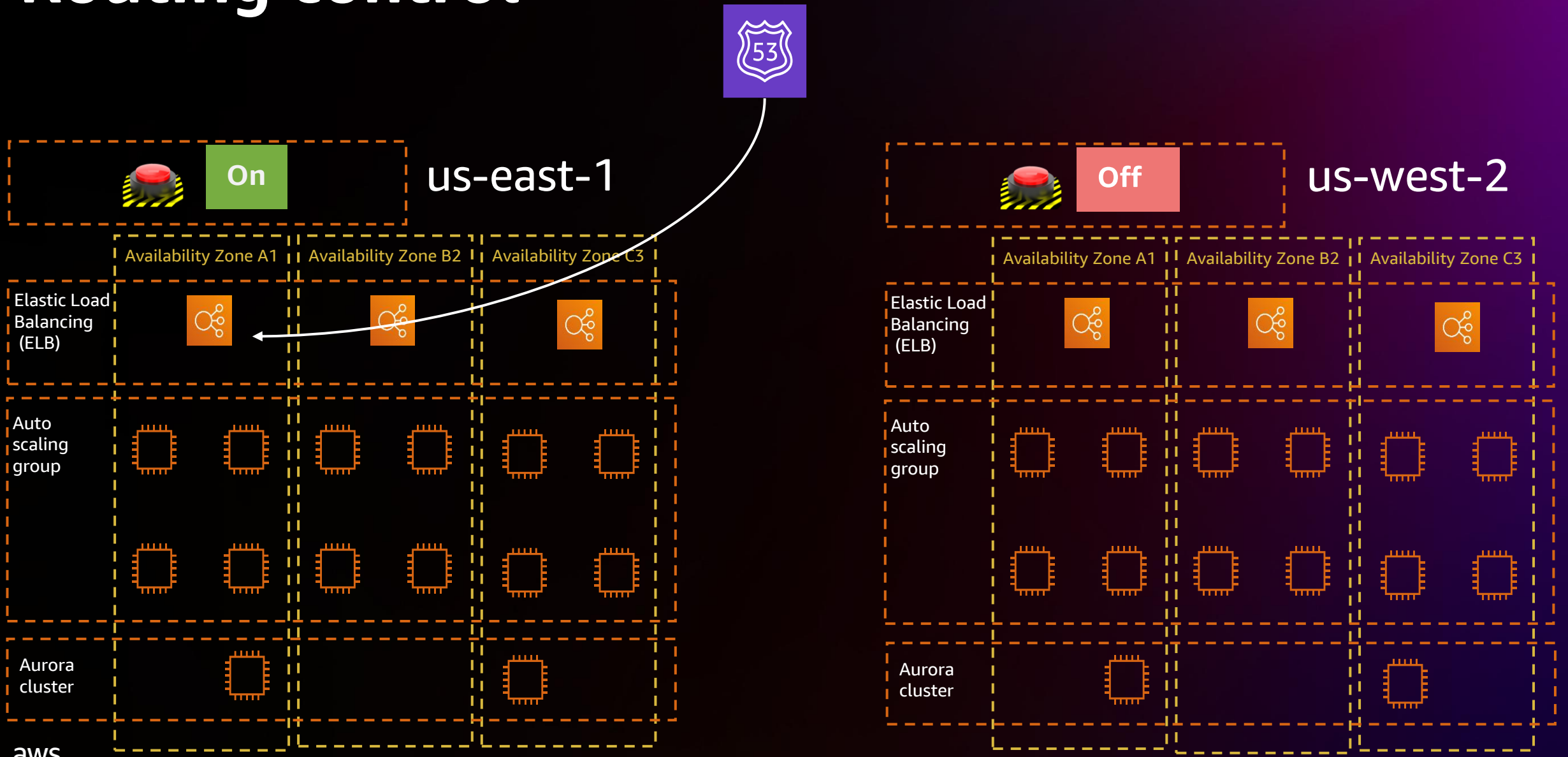


Routing control

Reliably recover an application failure in an AWS region by routing traffic away from the region with 100% SLA.

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Routing control



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ARC multi-Region recovery



Readiness check

Continually monitors resource quotas, capacity, and network routing policies, suggesting remediation when changes are made that would affect your ability to fail over to a standby replica

Readiness check shouldn't be used to indicate whether your production replica is healthy, nor should you rely on readiness checks as a primary trigger for failover during a disaster event

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