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

ENT223

Resiliency in the cloud: Disaster recovery with VMware Cloud on AWS

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Worldwide VMware Strategic Alliance Solutions Architecture Leader
AWS

Tom Spalding

Chief Growth Officer
Effectual

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Agenda

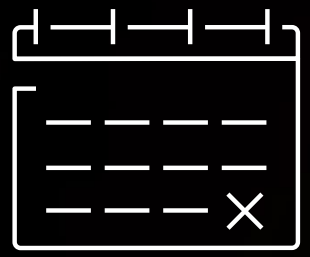
- Why VMware Cloud on AWS
- Disaster recovery – setting the scene
- Overview of VMware Cloud Disaster Recovery (VCDR)
- Introducing AWS Backup
- Continuous VMware Cloud on AWS: disaster recovery in nine easy steps

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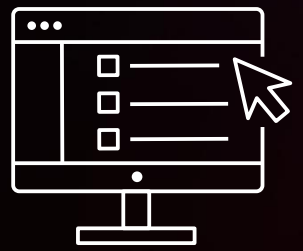
Why VMware Cloud on AWS

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Why VMware Cloud on AWS



Reseller since May 2019



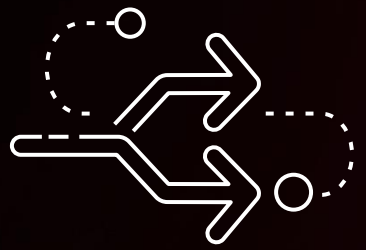
Resell multiple VMware Cloud services



Single bill



Potential volume discounts



Common integrations e.g., networking



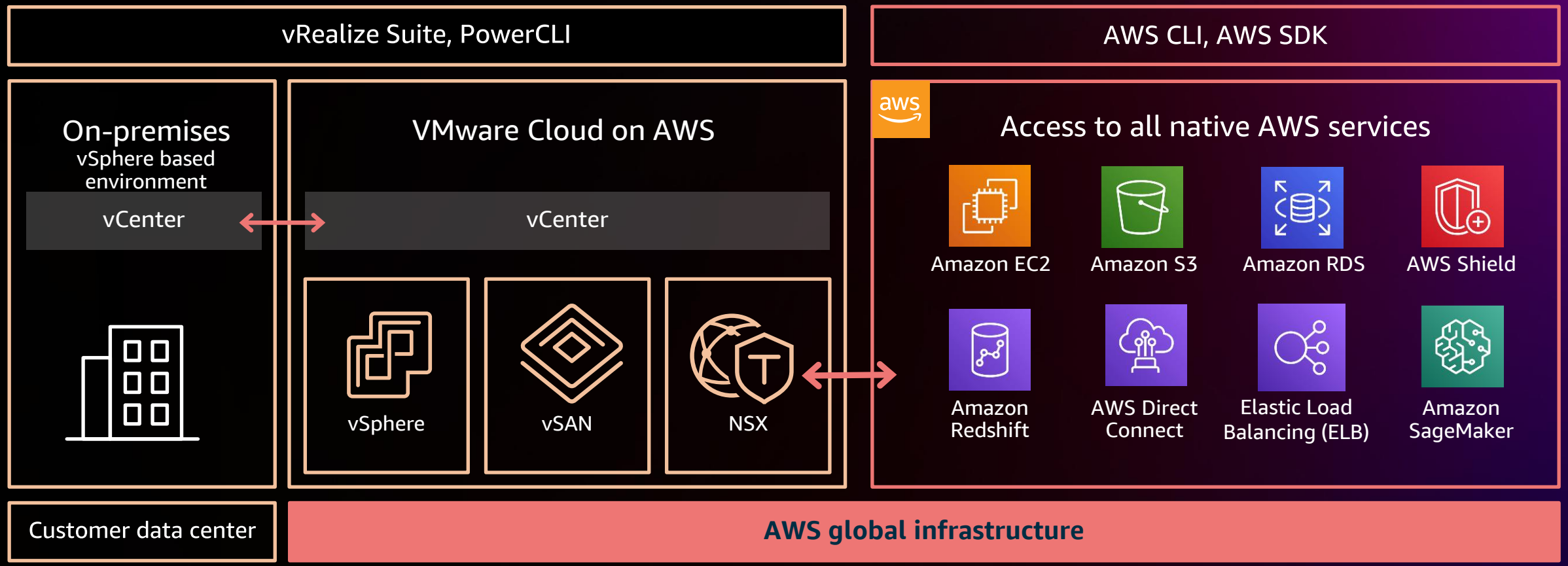
Future modernization possibilities

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VMware Cloud on AWS

INNOVATION JOINTLY ENGINEERED BY VMWARE AND AWS



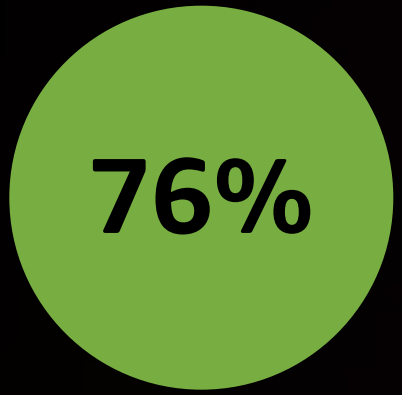
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Disaster recovery

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Disasters and cybersecurity events are prevalent – Preparedness varies

WHAT ANALYSTS ARE SAYING



Reported an incident during the past two years that required an IT DR plan, while more than 50% reported at least two incidents[1]



Experienced 1 or more sensitive data breaches in the past 12 months[2]



Test their DR implementations more than twice a year[3]

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1 Gartner, "Survey Analysis: IT Disaster Recovery Trends and Benchmarks," J. Rozeman, R. Blair, 30 April 2020
2 Forrester, "Top Cybersecurity Threats in 2020," January 24, 2020
3 Source: 451 Research, a part of S&P Global Market Intelligence, study: Voice of the Enterprise: Storage, Budgets and Outlook 2020

We all know DR is important, but it can be challenging

WHAT ORGANIZATIONS ARE FACING

"DR is very **complex** and **expensive** to manage, and I can't add IT headcount."

"We only **test** full DR once a year because it is **disruptive**. Any time there is a major change how can we know it still works? It's a **huge issue**."

"Our **data grows** 10–15% every year. With physical DR, it is **hard to accommodate** the growth in the DC to meet the needs."

Source: 2019 VMware Focus Groups

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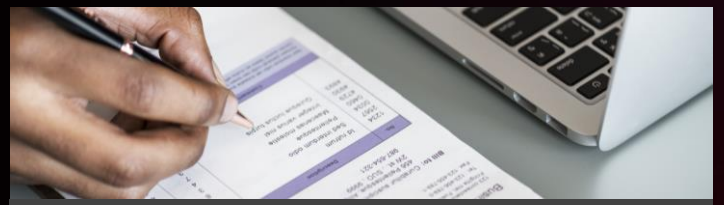
Challenges of many DR solutions

COMPLEX, COSTLY, NOT RELIABLE



Operational complexity

- Highly manual processes
- New processes to learn
- Patchwork of siloed solutions
- Infrastructure-centric setup



High cost

- DR site sized for worst case
- Inefficient storage of copies
- One-size-fits-all approach
- Excessive bandwidth usage
- Large time investment



Low reliability

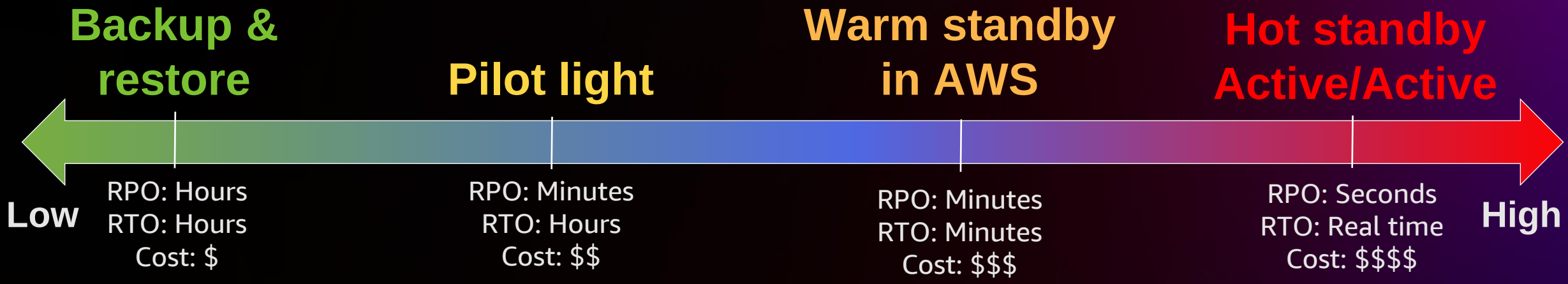
- Unpredictable recovery times
- Infrequent testing
- Reactive solutions
- Error-prone recovery
- Failback with caveats

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VMware on AWS

OFFERS MULTIPLE LEVELS OF DR SUPPORT ACROSS A SPECTRUM OF COMPLEXITY AND TIME



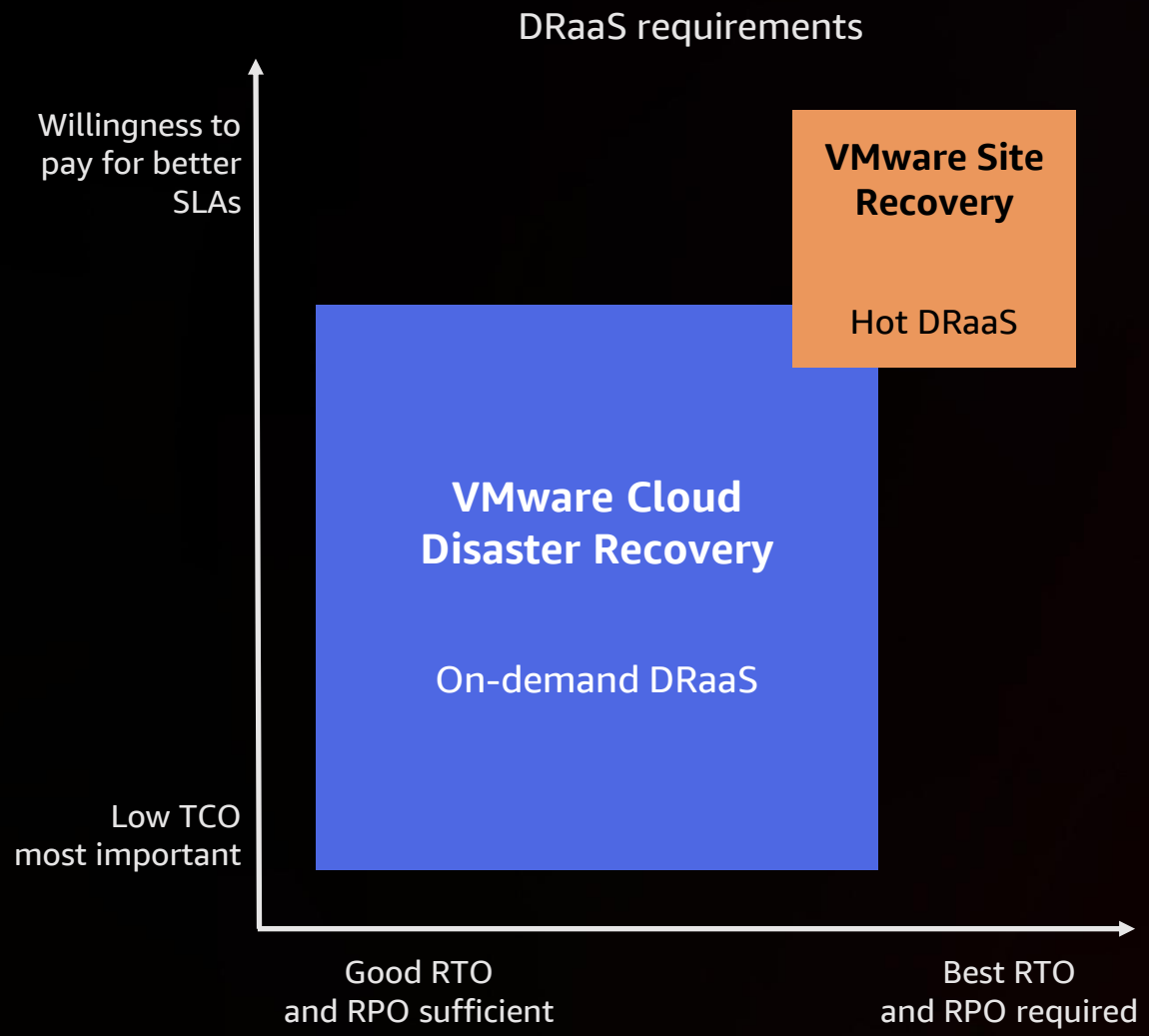
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Overview of VCDR

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VMware DRaaS solutions

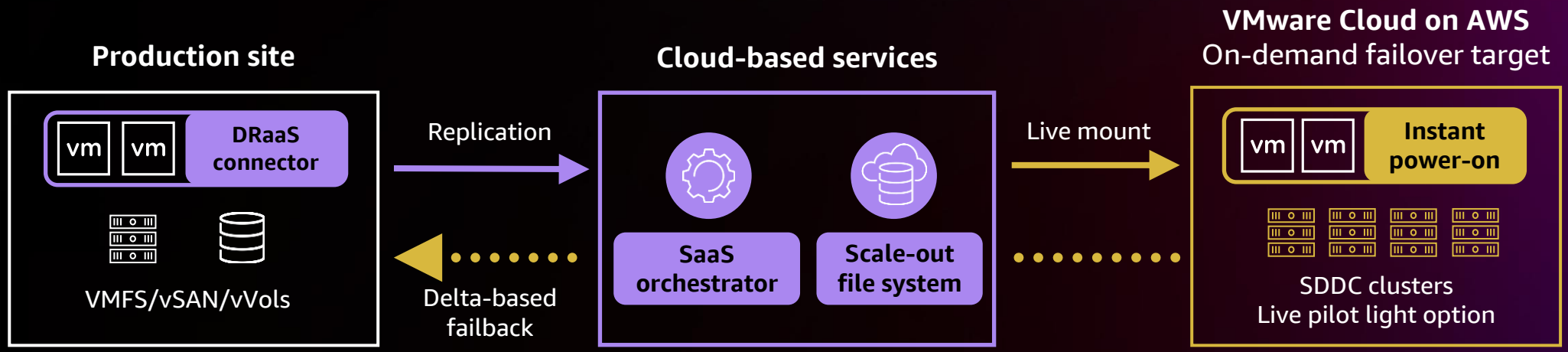
UTILIZE THE CLOUD FOR UNPREDICTABLE DISASTER EVENTS



VMware Cloud Disaster Recovery On-demand DRaaS	VMware Site Recovery Hot DRaaS
Consistent, familiar VMware environment	
DR orchestration: Failover + failback	
Replicate to cloud storage	Replicate directly to VMware Cloud on AWS failover capacity
Instant power-on with live mount to VMware Cloud on AWS SDDC (once capacity available)	Fast RTOs with preprovisioned failover capacity
Moderate RPOs (30 minutes to 4 hours)	Low RPOs (>5 minutes)
Up to 2,000 recovery points per protection group	Up to 24 multiple point in time instances per VM

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VCDR: On-demand DRaaS



On-demand

Simple to use

Cloud economics

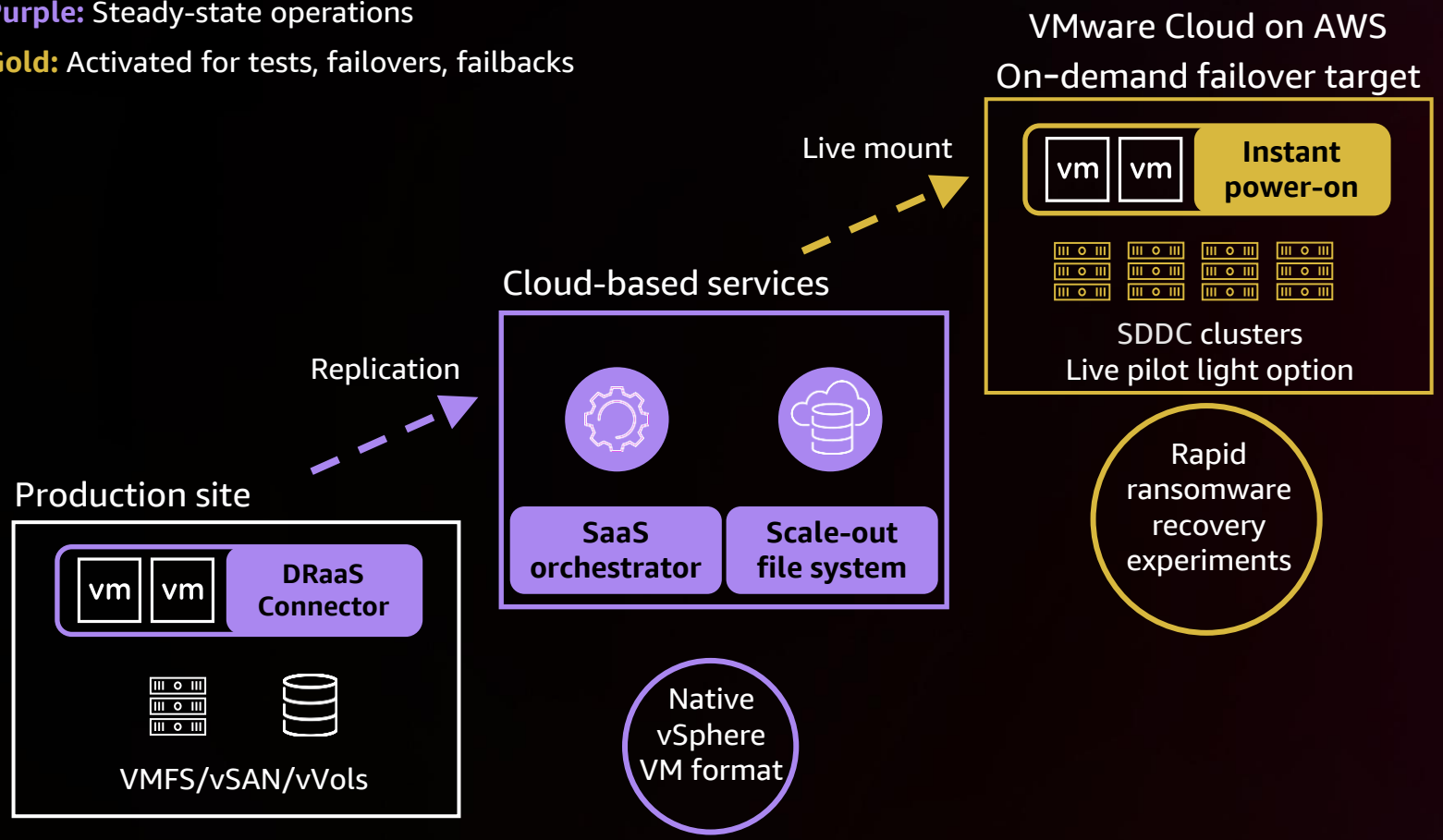
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On-demand

INSTANT POWER-ON WITHOUT NEED FOR VM CONVERSIONS FOR FASTER RECOVERY

Purple: Steady-state operations

Gold: Activated for tests, failovers, failbacks

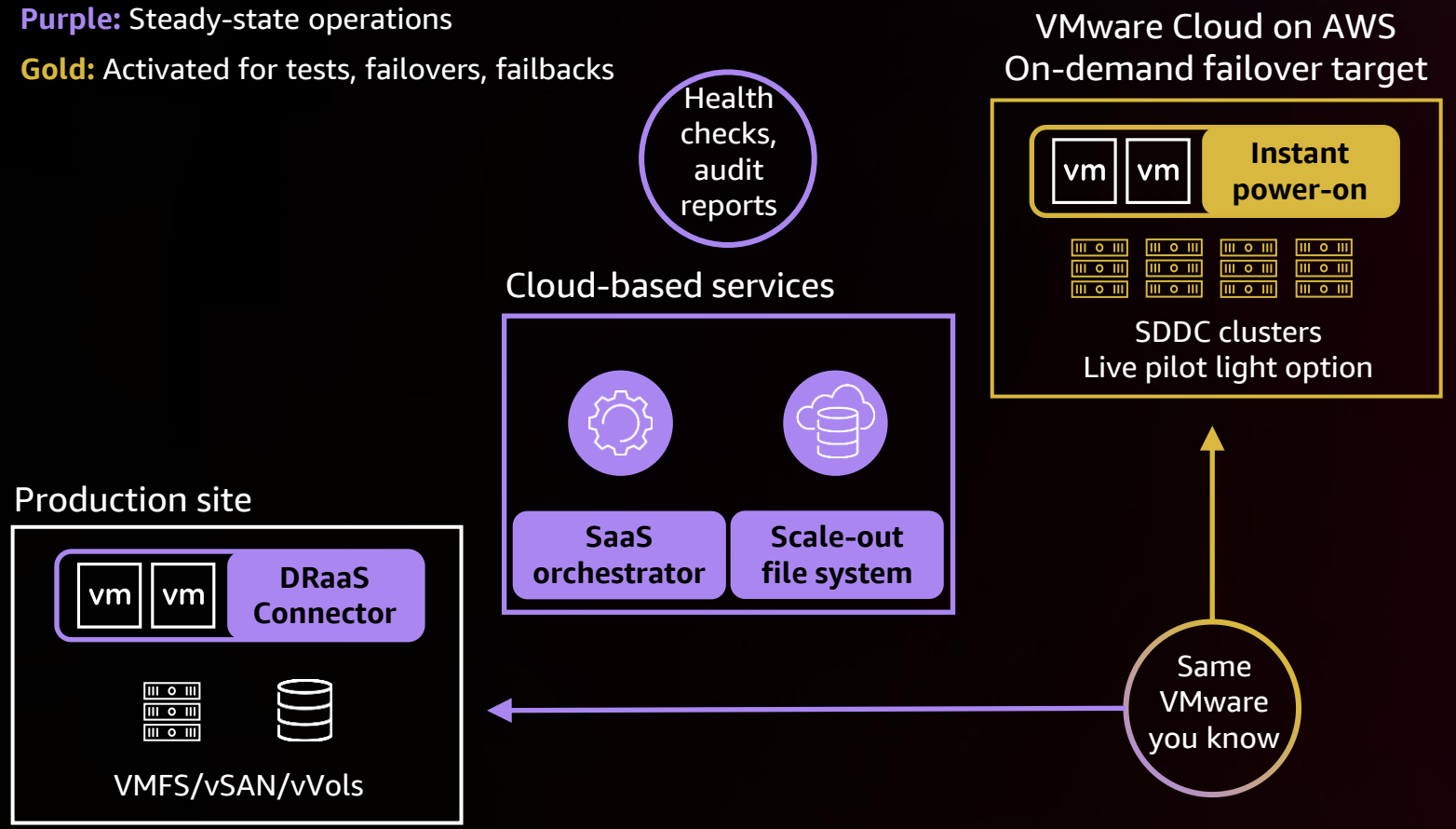


- Pilot light option
- Instant power-on with live mount
- No VM format conversion
- Ransomware recovery

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Simple to use

CONSISTENT OPERATIONS, CONTINUOUS HEALTH CHECKS, AUTOMATED AUDIT REPORTS



- Consistent, familiar operations
- SaaS-based management
- Continuous DR health checks
- Built-in audit reports

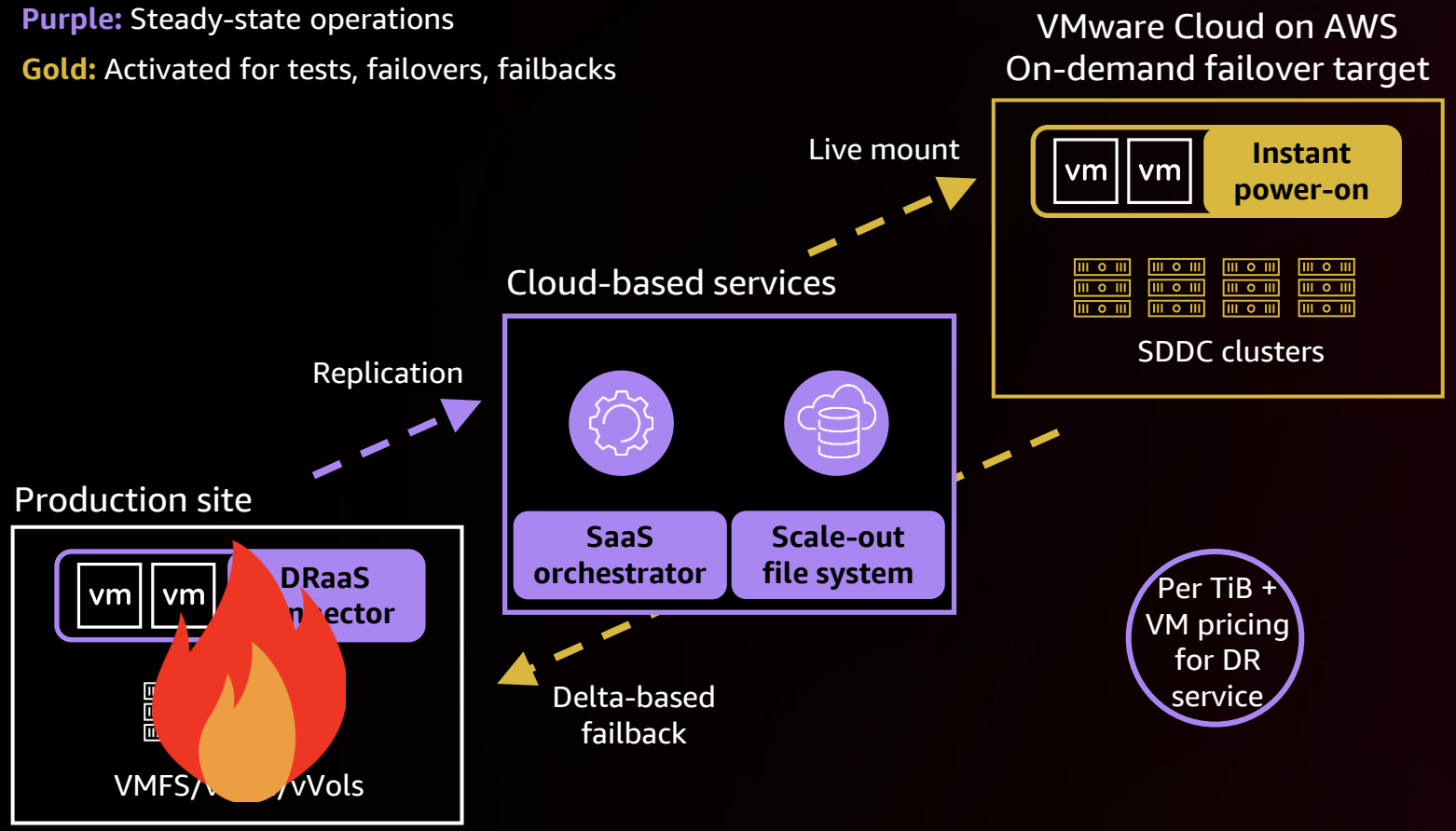
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Cloud economics

COST-EFFICIENT CLOUD STORAGE WITH "PAY WHEN CAPACITY NEEDED" MODEL

Purple: Steady-state operations

Gold: Activated for tests, failovers, failbacks



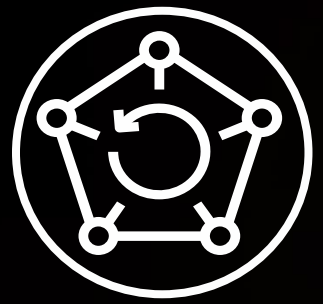
- Efficient cloud storage
- Pay when capacity needed
- Optimized failbacks
- Simplified pricing

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Introducing AWS Backup

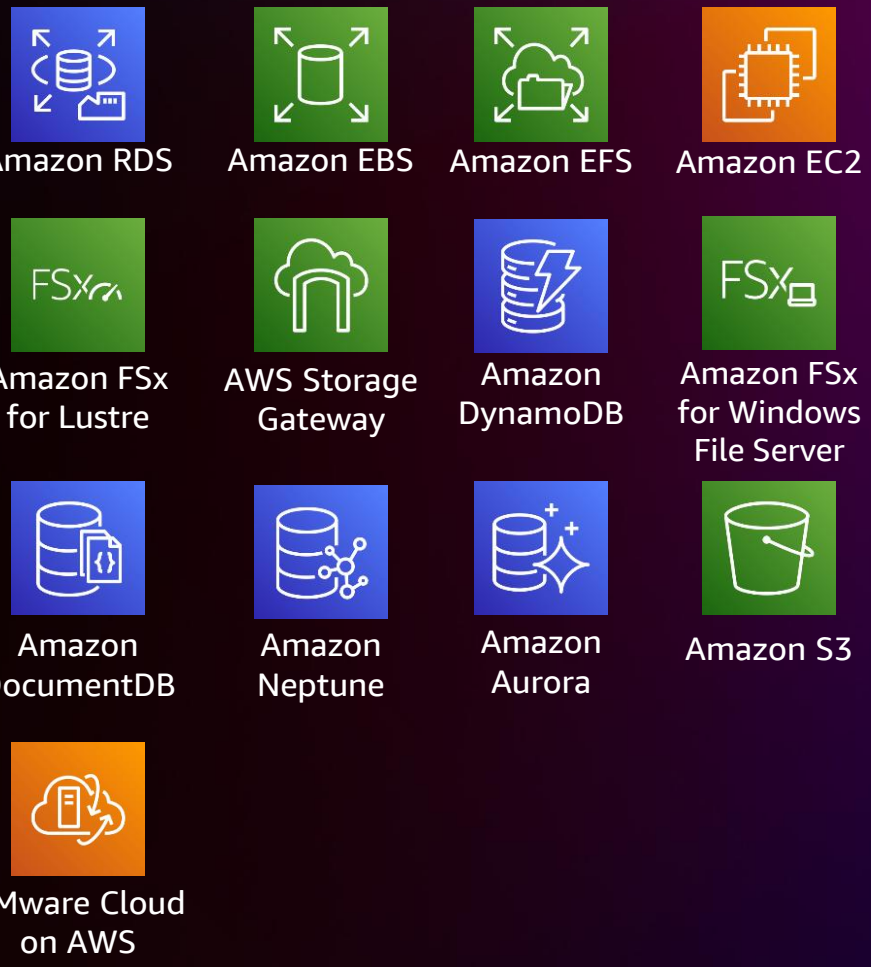
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Introducing AWS Backup



AWS Backup

A fully managed, policy-based backup service that makes it easy to centrally manage and automate the backup of data across AWS services



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Centralize data protection with AWS Backup



Automate data protection management

Centralize and scale with policy-driven protection

Create, monitor, and manage data protection



Improve data resiliency and continuity

Copy secondary data across Regions and accounts via AWS Organizations

Cross-account copy of backups



Ensure data protection compliance and governance

Real-time data protection management with auditor-ready reports

Immutable backup with WORM vaults

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Introducing AWS Backup for VMware

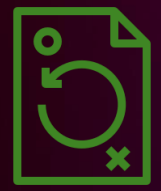
THREE MAIN PILLARS OF AWS BACKUP FOR VMWARE



Single, centralized data protection solution for hybrid VMware workloads



Flexible restore options – on premises and VMware Cloud on AWS

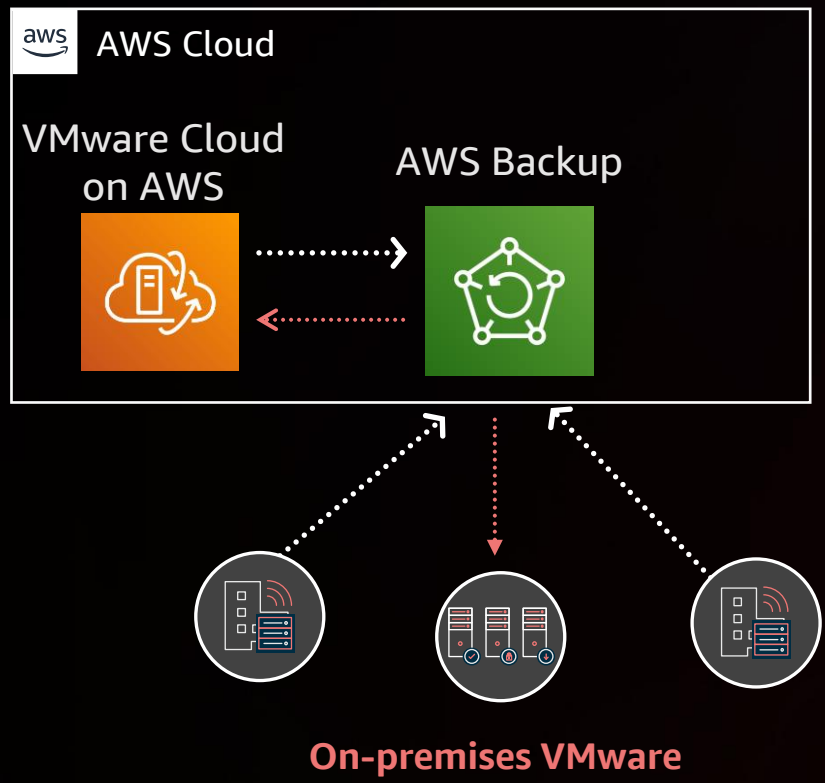


Ability to use same backup policy across AWS native services and VMware workloads

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AWS Backup for VMware Cloud on AWS: Capabilities



- Create immutable backups of virtual machines running on VMware Cloud on AWS
- Restore to VMware Cloud on AWS or on premises
- Use lifecycle policies to cold tier your backups
- Create separable, protected cross-account and cross-Region backups to meet compliance needs
- Centrally manage data protection across AWS Organizations accounts

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Getting started with AWS Backup for VMware



AWS Backup

1

Download Backup gateway, deploy it on SDDC vCenter, add the hypervisor, which automatically discovers VMs

2

Define a backup plan with your organizational data-protection policies

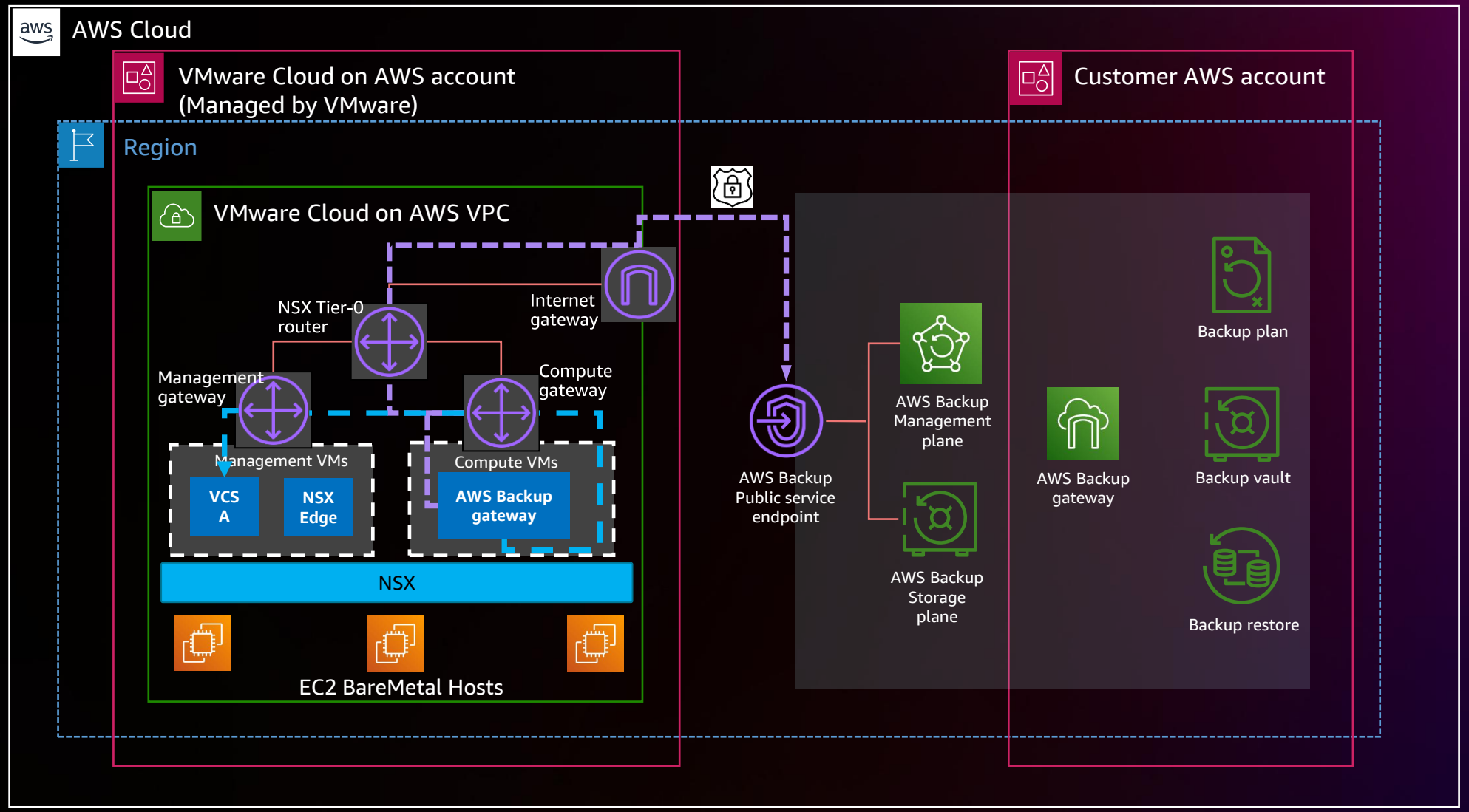
3

Assign VMs to backup plan to govern your backups and maintain compliance of your policies

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Reference architecture

PROTECTING VMWARE CLOUD ON AWS WORKLOADS USING AWS BACKUP



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Continuous VMware Cloud on AWS: Disaster recovery in nine easy steps

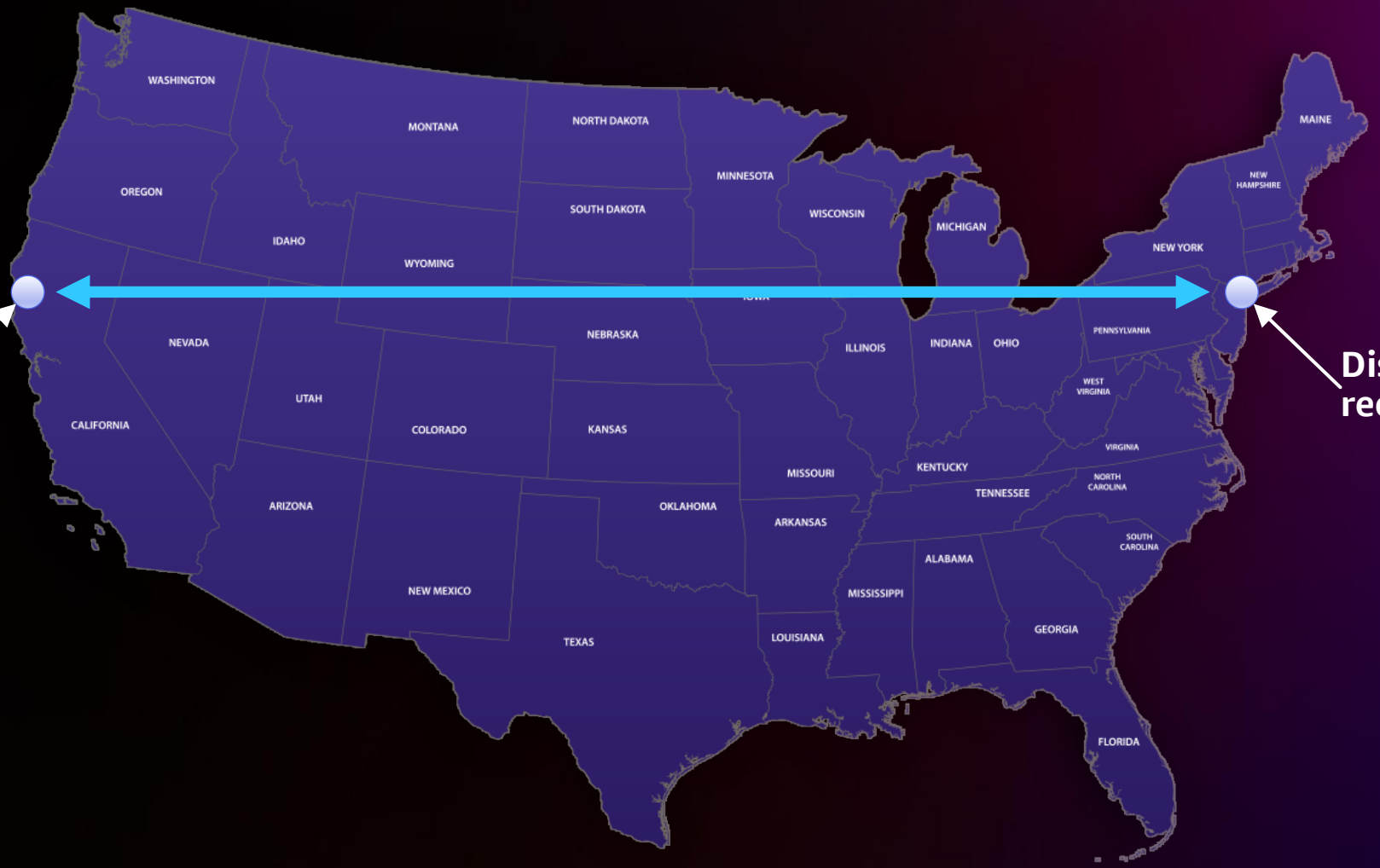
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Continuous DR using VMware Cloud on AWS

A STEP-BY-STEP GUIDE

Step 1

Have a data center
(or two)



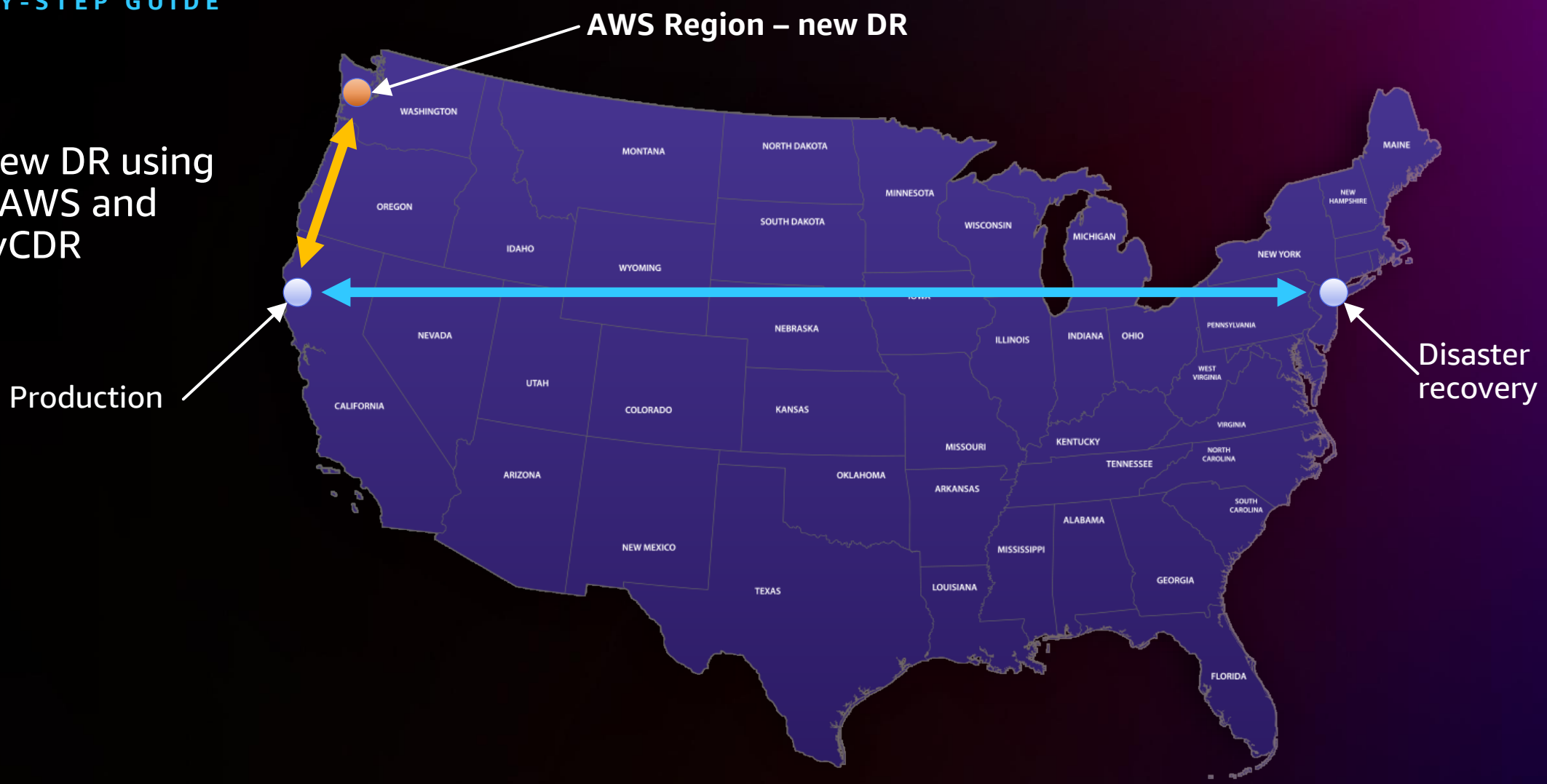
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Step 2

Create new DR using VMC on AWS and SRM or vCDR



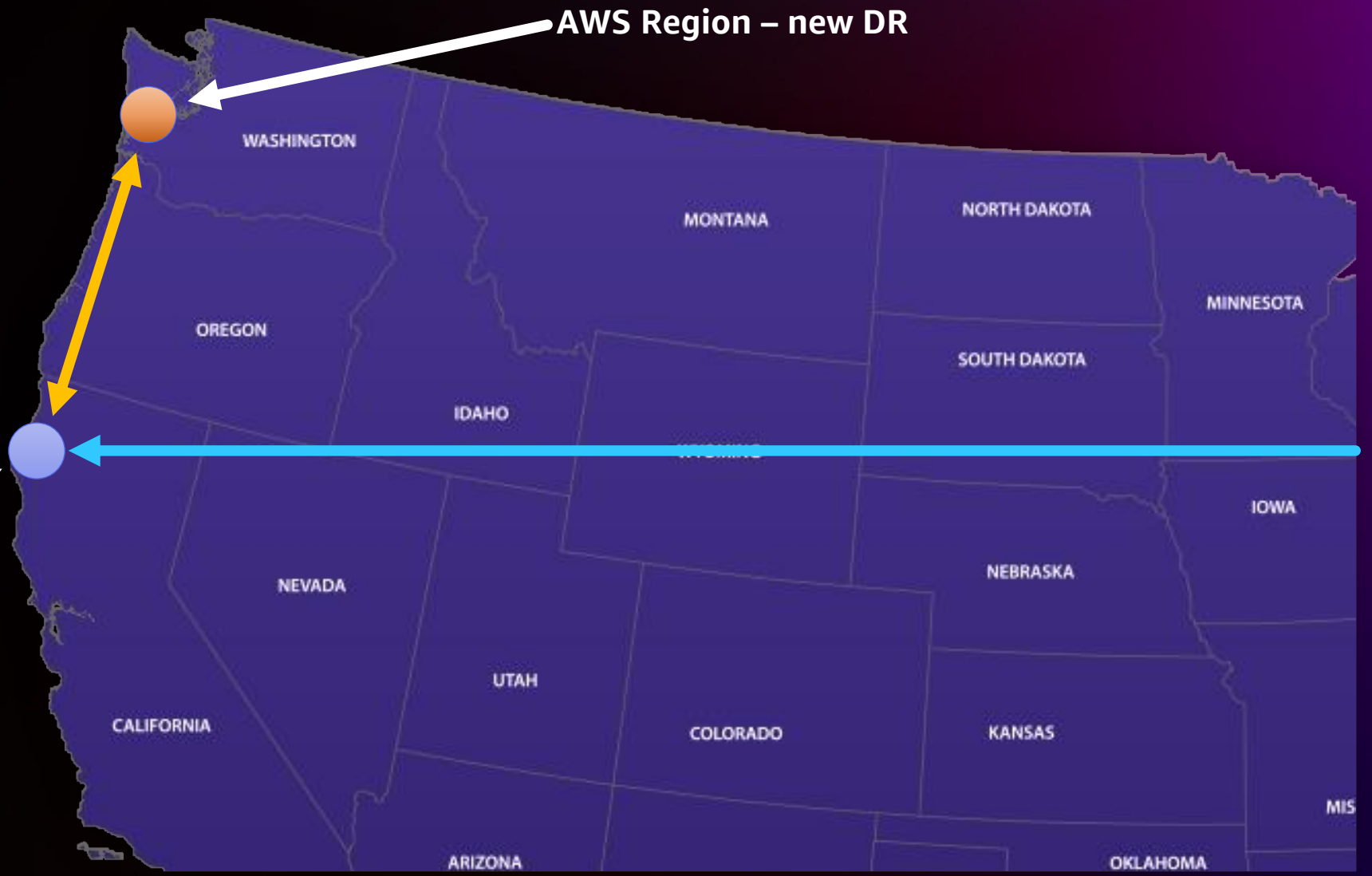
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Continuous DR using VMware Cloud on AWS

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Step 2

Create new DR using VMC on AWS and SRM or vCDR

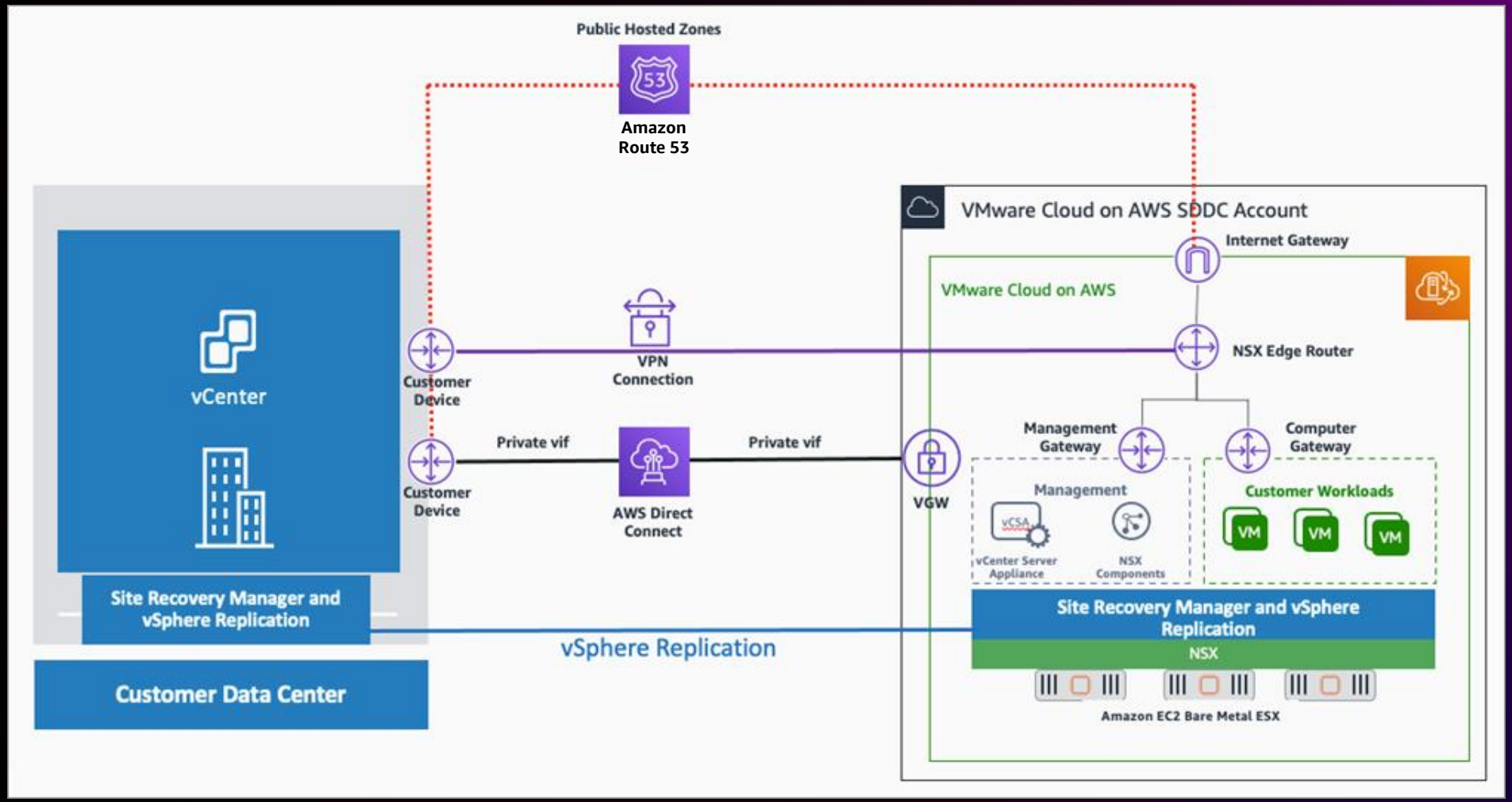


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Continuous DR using VMware Cloud on AWS

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The SRM way

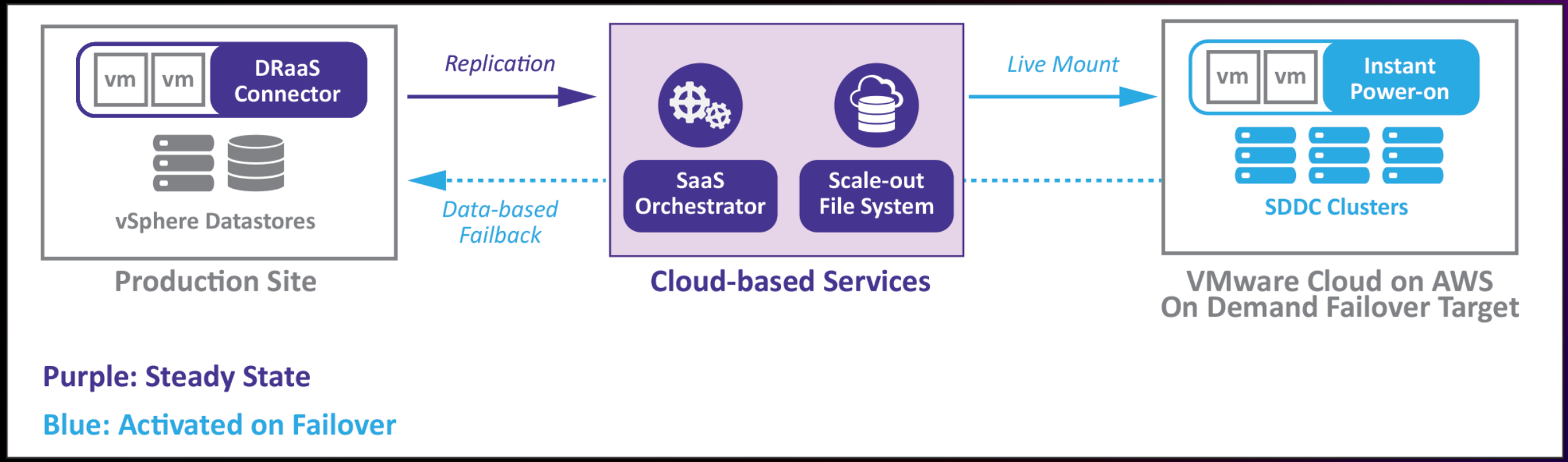


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The vCDR way



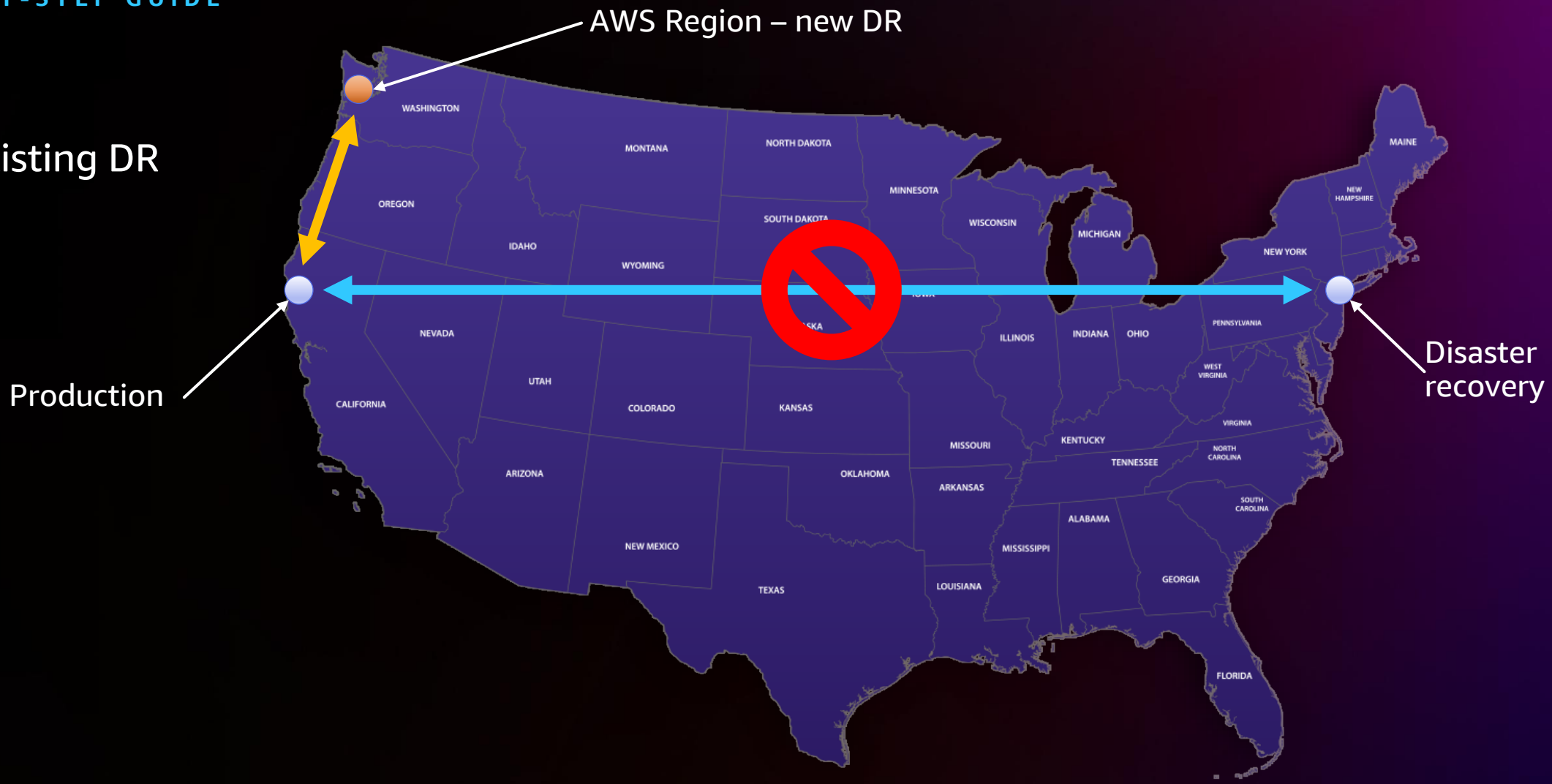
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Step 3

Break existing DR



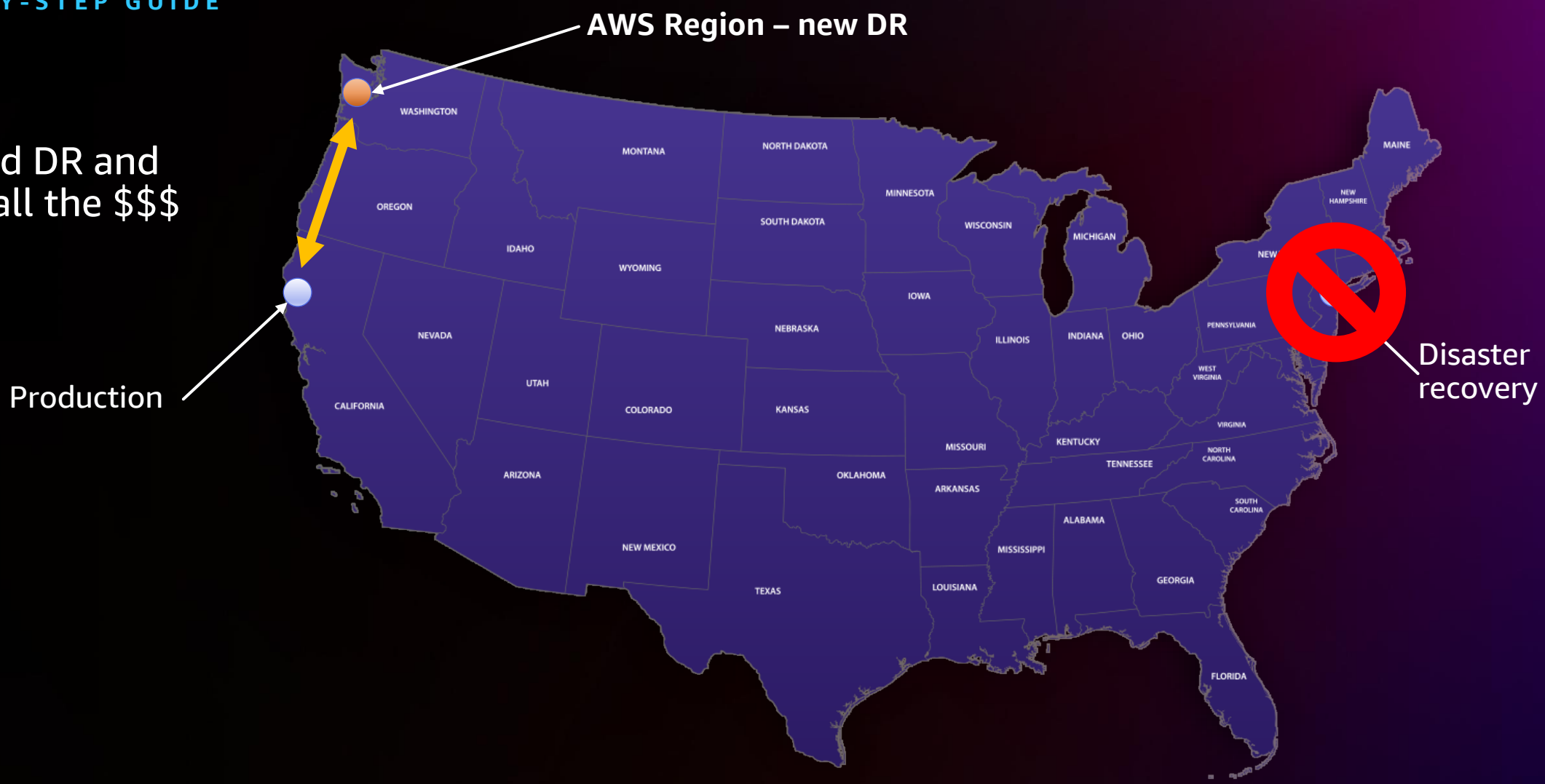
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Step 4

Retire old DR and reclaim all the $$$



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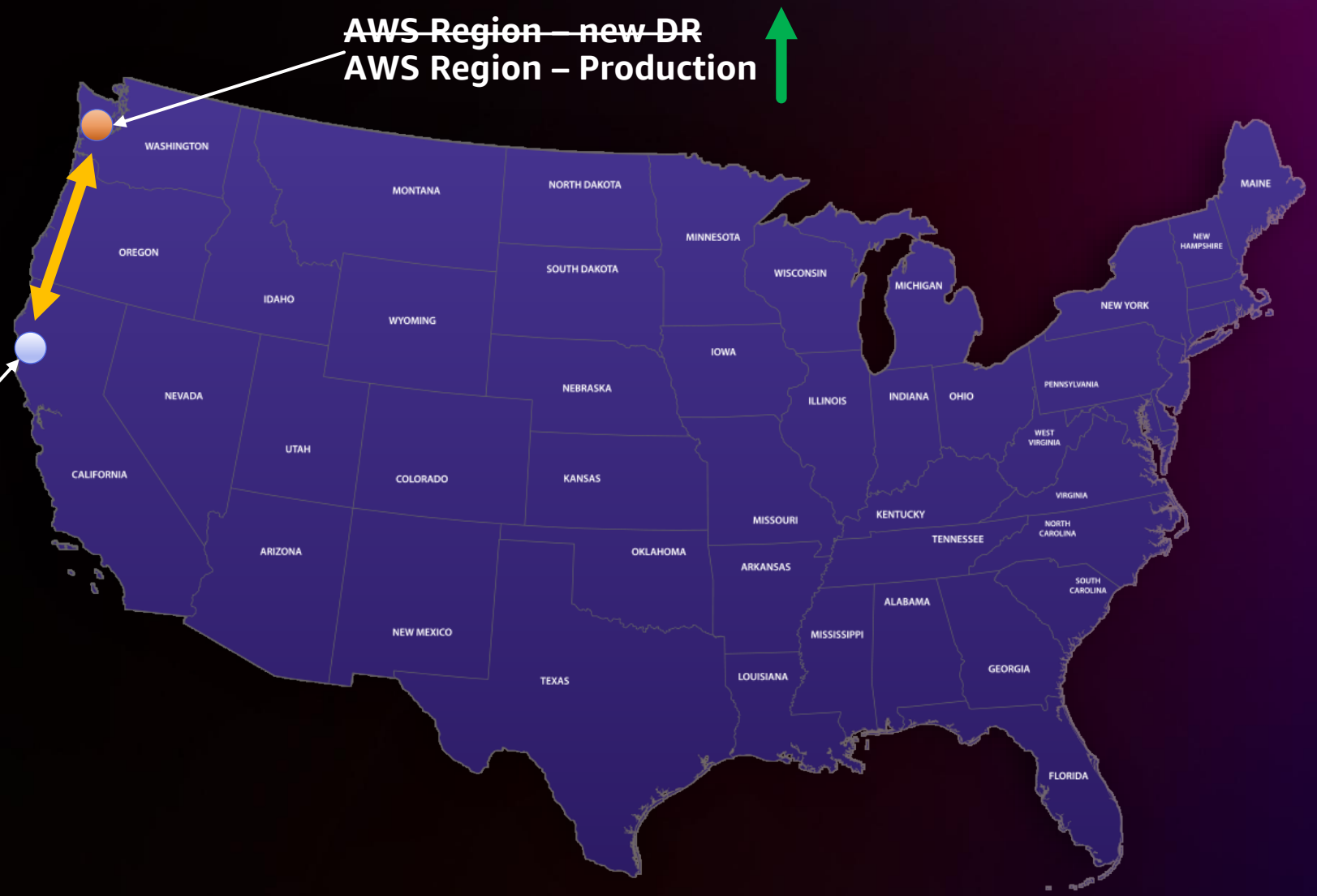
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Step 5

Promote new DR to Production

. . . and demote Production to DR

~~Production~~
Disaster recovery



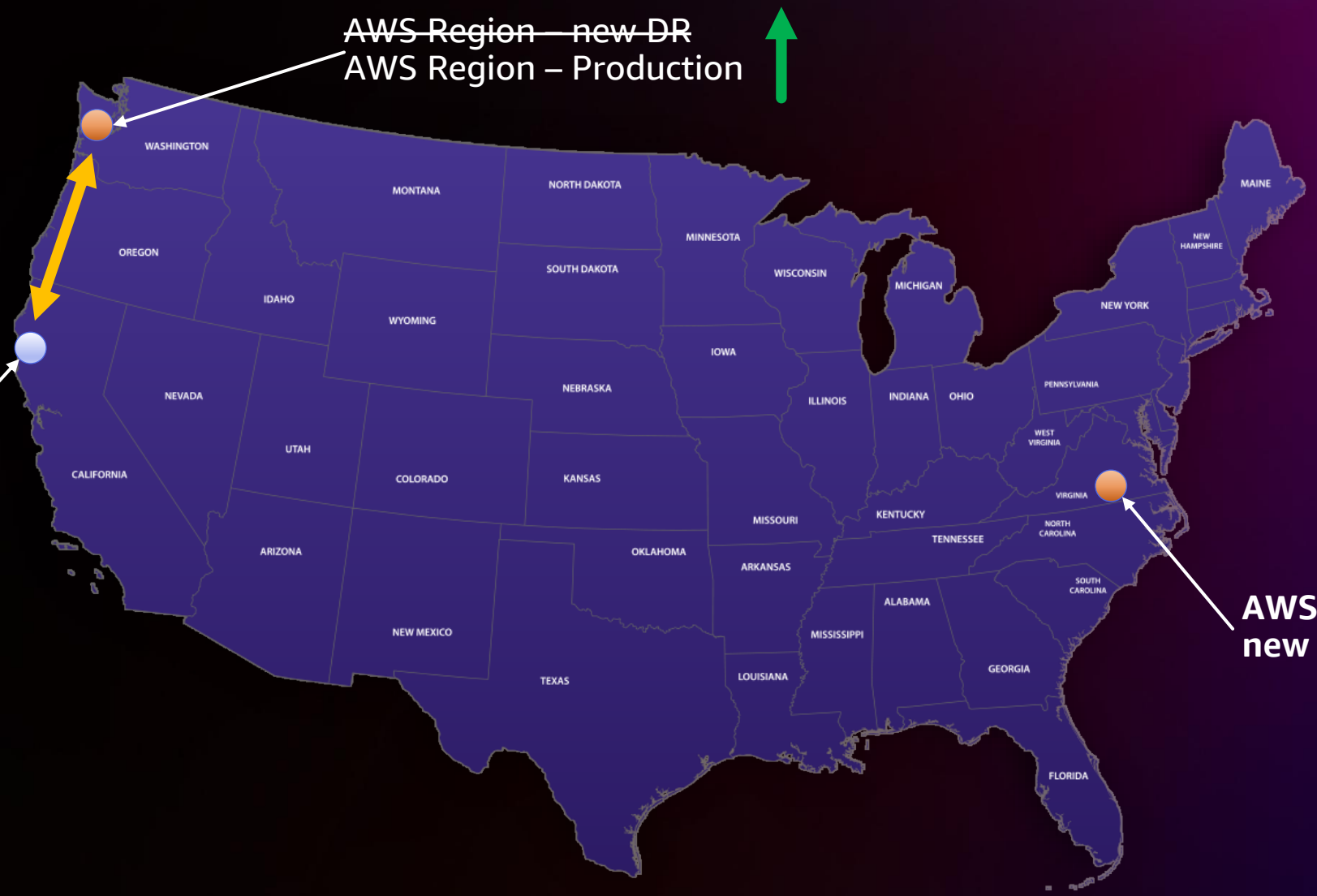
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Step 6

Create new **NEW** DR



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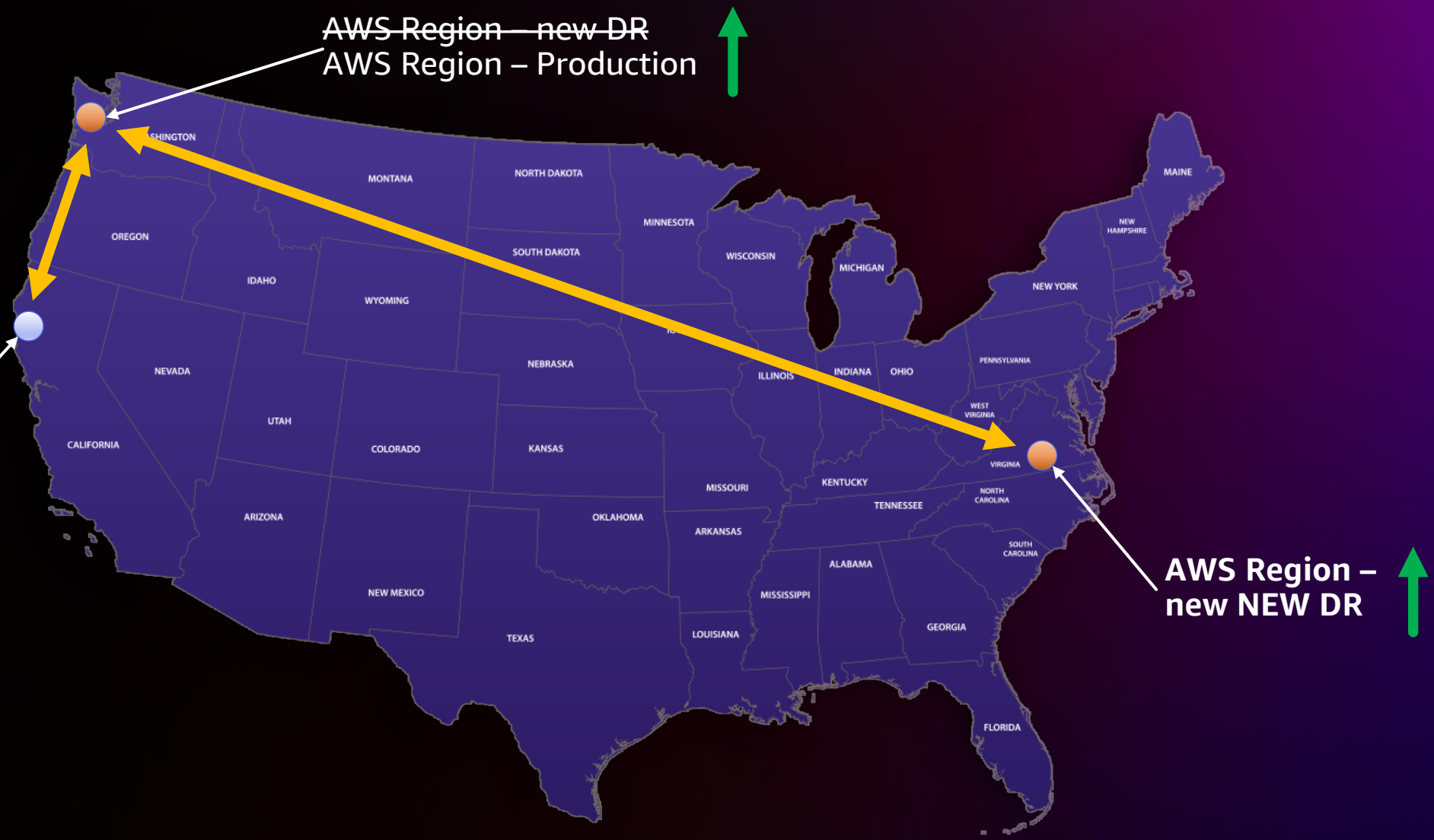
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Step 7

Establish Sync between new Production and new **NEW** DR
(See step 2 for some wonderful options)

~~Production~~
Disaster recovery



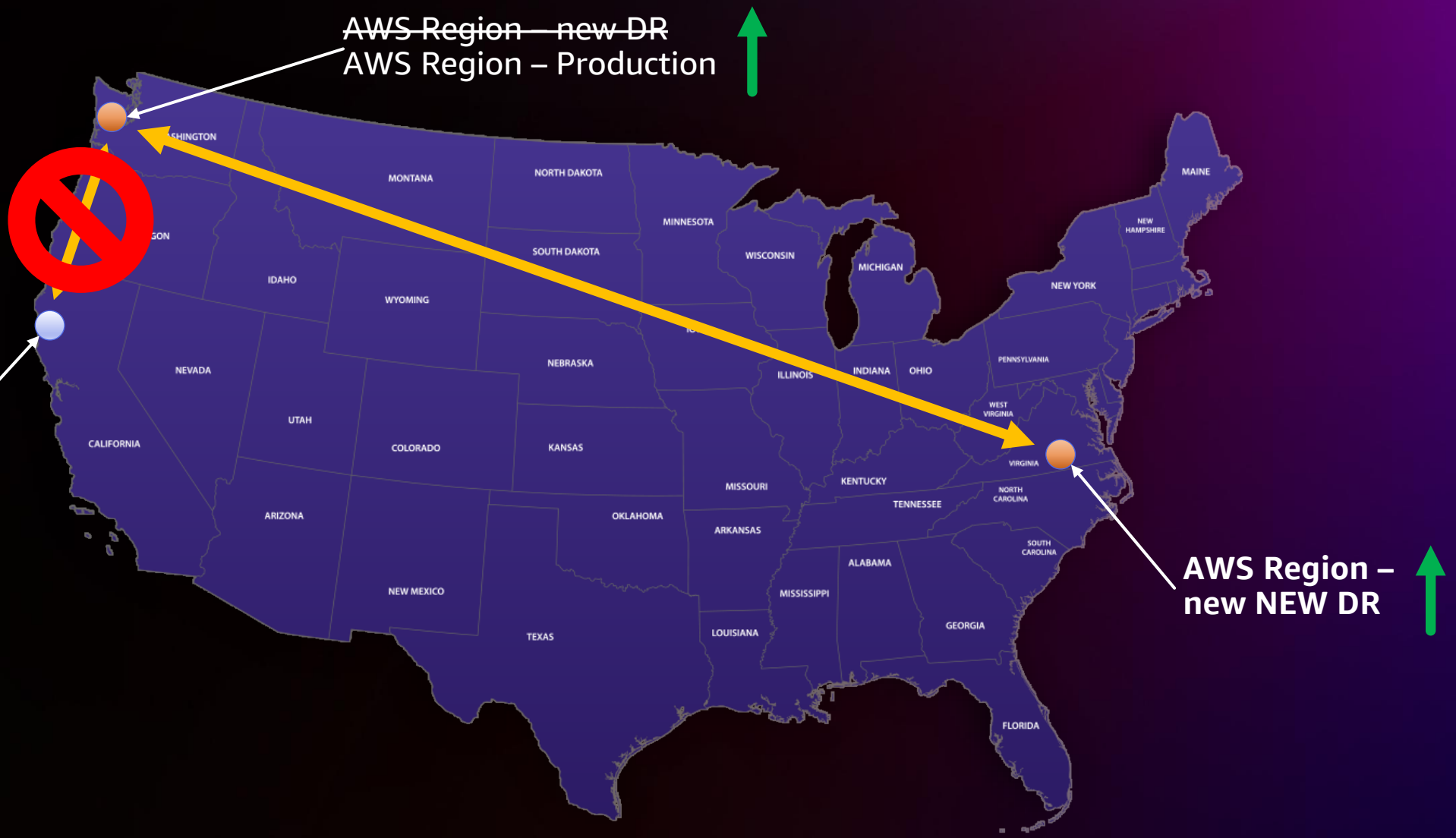
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Step 8

Sever connection with old DR



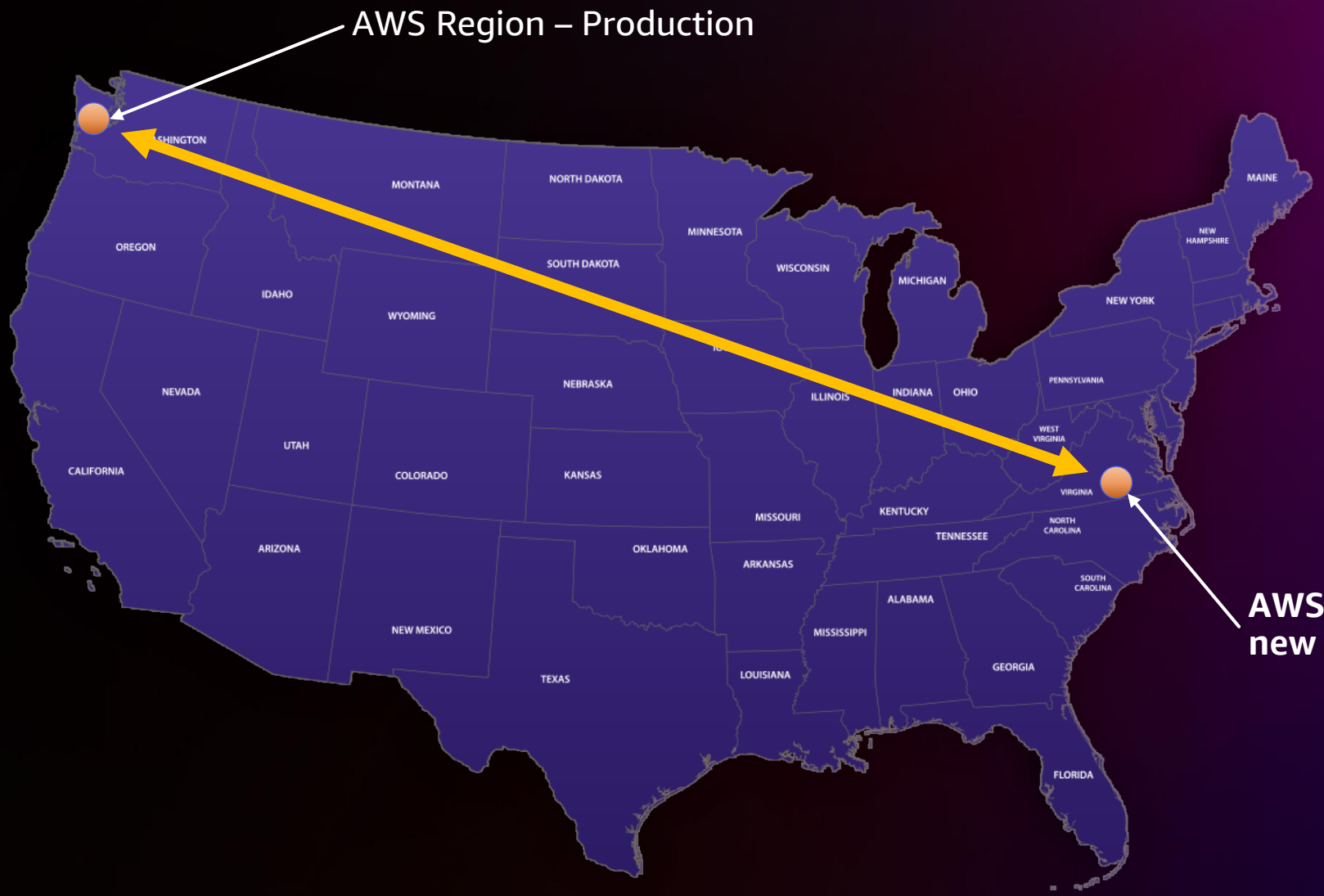
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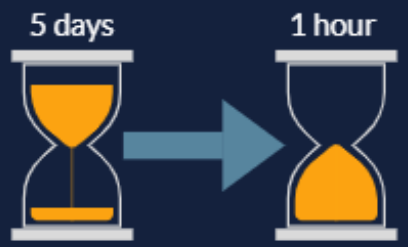




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Why? Business value

1 RTO Time to Full Restore



2 RPO Age of Restored Data



3 Restore Location Requirements



4 Application Availability



5 3rd Party Dependencies



6 Contracts Cancelled



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