

AWS re:Invent

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Secrets to a successful migration at scale

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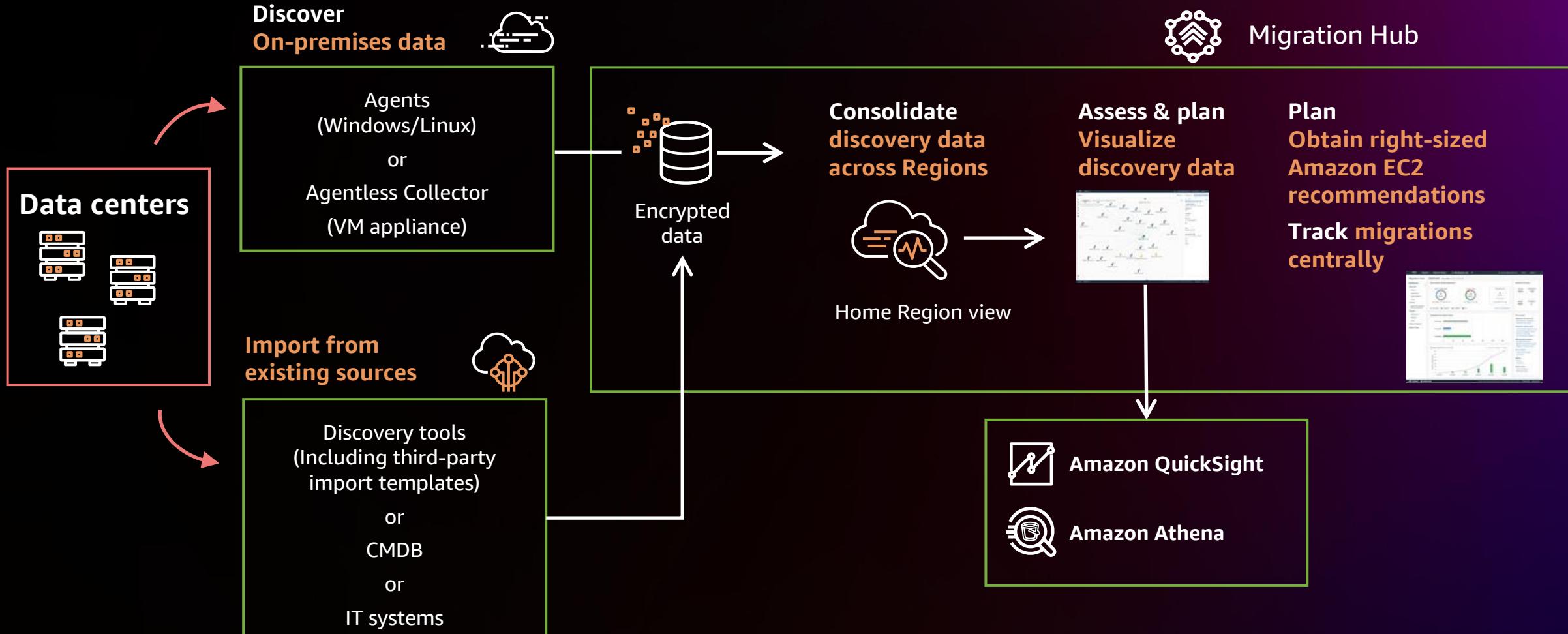
Software Development Manager
AWS

Workshop agenda

1. Discover your on-premises workloads with the AWS Application Discovery Service
2. Create a business case with Migration Evaluator
3. Plan your migration with AWS Migration Hub
4. Execute your migration with the AWS Application Migration Service (AWS MGN)

Migration Hub: Discover, assess, plan & track

CAPTURE AND VISUALIZE SERVER INVENTORY, PERFORMANCE, AND DEPENDENCIES



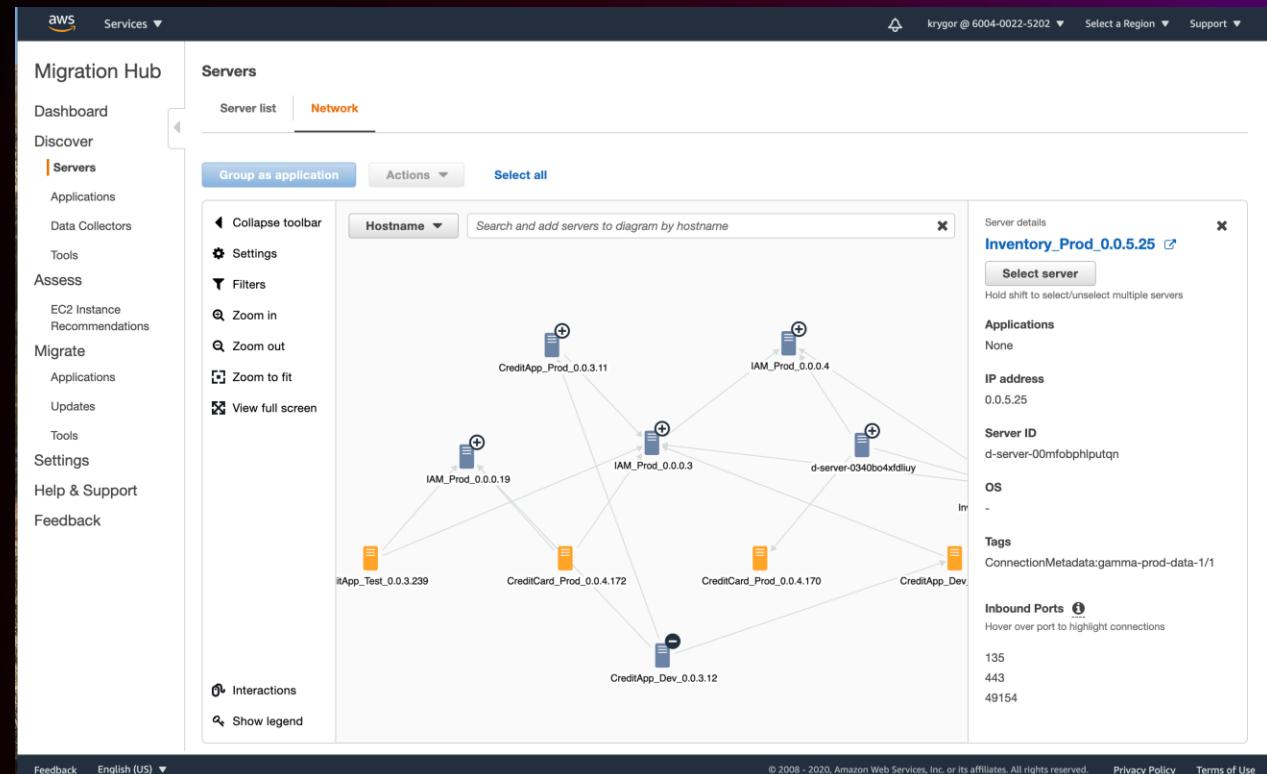
Visualize on-premises discovery data in Migration Hub



Migration Hub Network Visualization

Accelerate planning by making server discovery data planning-ready

- Visually identify server dependencies
- Identify the role of a server
- Use a data-driven approach to grouping servers as applications
- Use output to plan migration strategies, build migration waves
- Free to use, reducing migration tooling costs



Migrate and modernize using AWS MGN

Starting with migration is a fast, cost-effective, and minimally disruptive way to move to the cloud

- Migrate applications to AWS with or without changes to applications or workflows
- AWS MGN automates migration to AWS
- You can start modernizing using AWS MGN post-launch actions during cutover
- Access the full range of AWS capabilities to modernize applications running on AWS

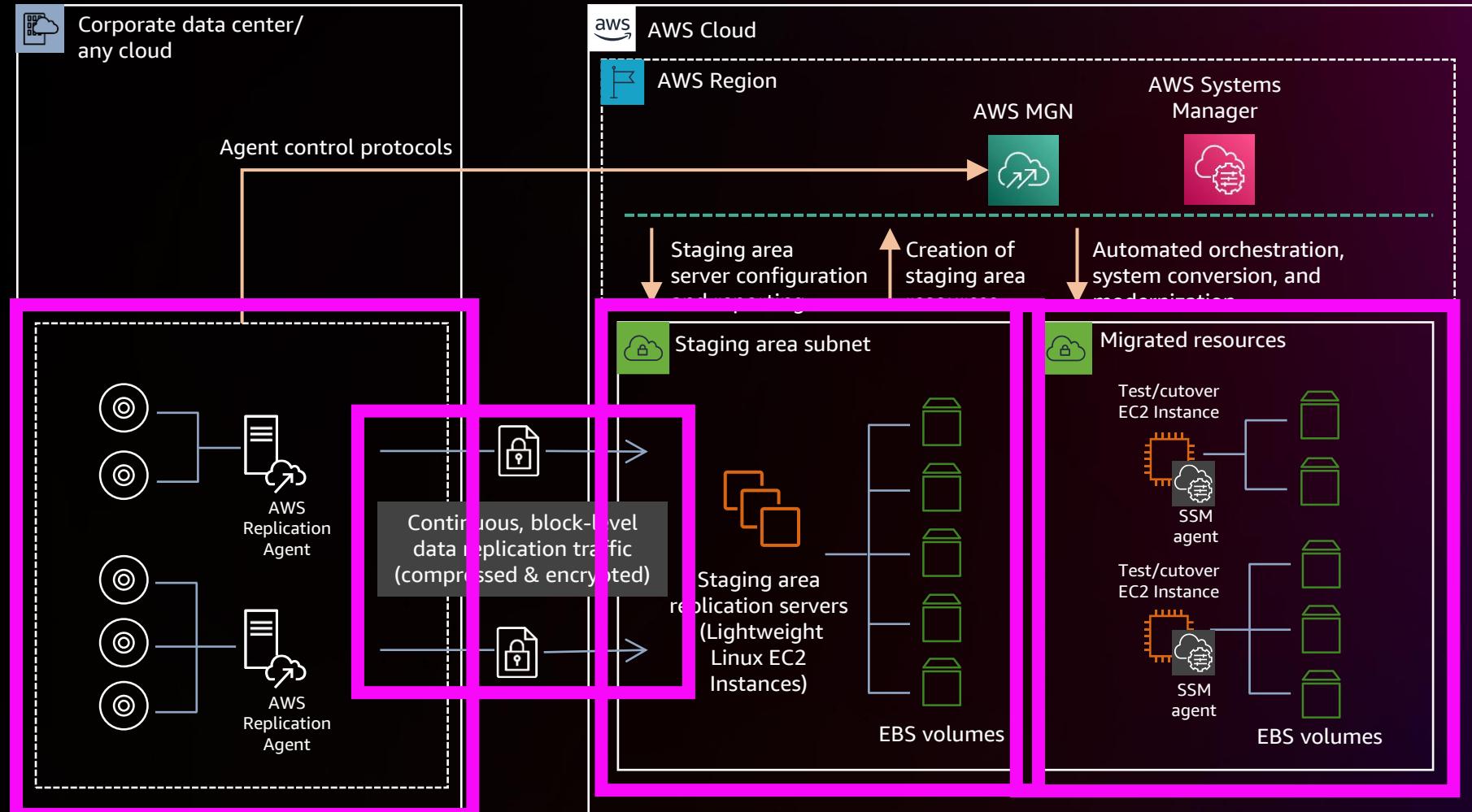


AWS MGN wide platform support*

Any application	ORACLE E-BUSINESS SUITE	ORACLE PEOPLESOFT	 SAP CRM	 SAP Hybris (x)	 SAP ERP	 Apache			
	 SUGARCRM	Microsoft IIS	Microsoft SharePoint	Microsoft Active Directory	Microsoft Exchange	Microsoft Dynamics CRM			
Any database	Microsoft SQL Server	ORACLE DATABASE	 SAP HANA	 MySQL™	 cassandra	 mongoDB®			
x86 operating systems	 Red Hat	 CentOS	ORACLE LINUX	 ubuntu	 debian	 SUSE	Windows Workstations	Windows Server 2003	Windows 10
	Windows Server 2008	Windows Server 2012	Windows Server 2016	Windows Server 2019	Windows Server 2022				
Source infrastructure	 vmware®	 aws	 vmware aws	Cloud provider					
	 Physical data centers		Microsoft Hyper-V	 openstack					

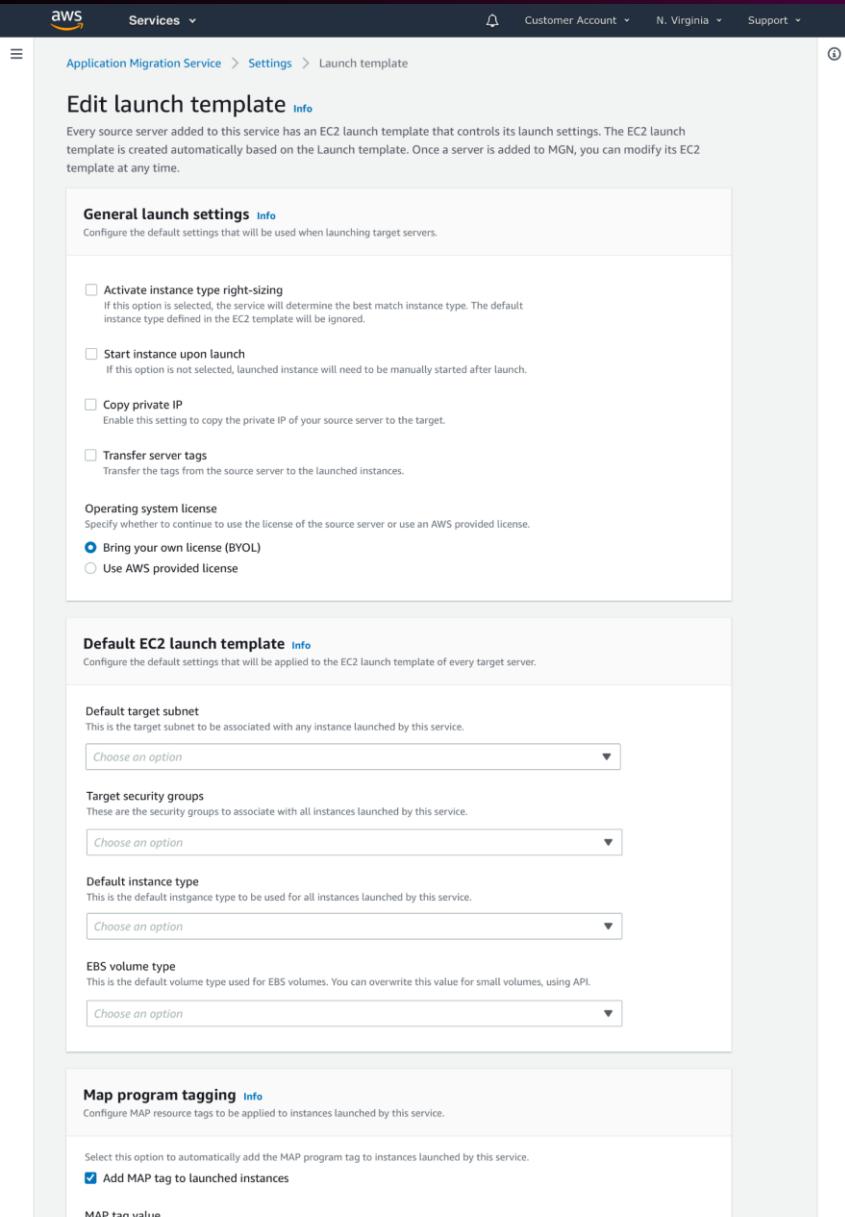
*See documentation for a complete list and supported versions

How does AWS MGN work?



Set up global launch templates

- Configure launch template defaults that suit your needs: right-sizing, instance type, subnet, and more
- Fine-tune settings for each server, in its Amazon EC2 launch template



The screenshot shows the 'Edit launch template' page in the AWS Application Migration Service. The top navigation bar includes 'Customer Account', 'N. Virginia', and 'Support'. The main content area is titled 'Edit launch template' with a 'General launch settings' section. It contains four checkboxes: 'Activate instance type right-sizing', 'Start instance upon launch', 'Copy private IP', and 'Transfer server tags'. Below this is an 'Operating system license' section with two radio buttons: 'Bring your own license (BYOL)' (selected) and 'Use AWS provided license'. The page is divided into three main sections: 'General launch settings', 'Default EC2 launch template', and 'Map program tagging'. Each section contains configuration options like 'Default target subnet', 'Target security groups', 'Default instance type', 'EBS volume type', and 'MAP tag value'.

Plan and monitor your migration process

- Group related servers into applications
- Plan your migration waves
- Perform bulk actions across applications and waves: launch test and cutover instances
- Monitor your migration process

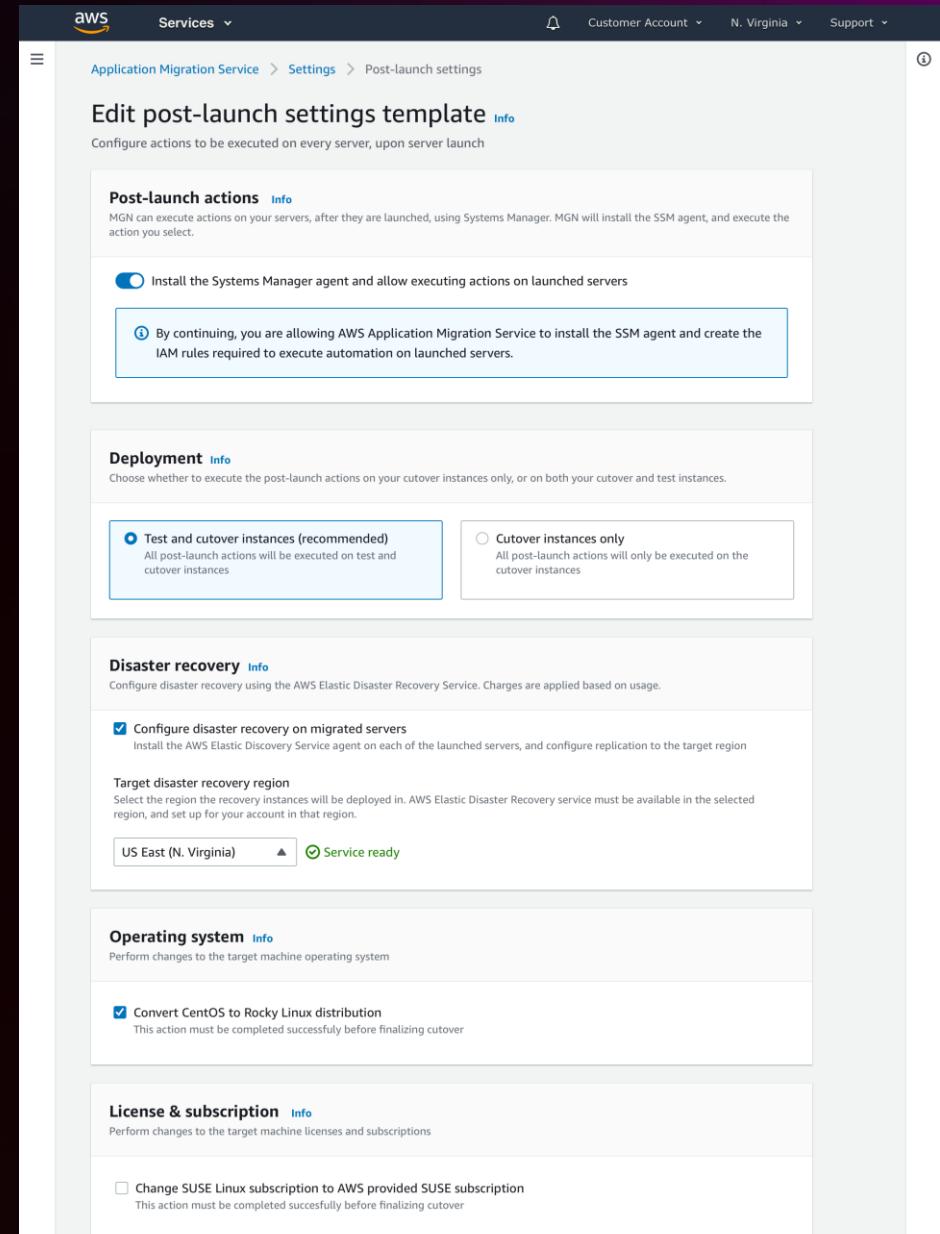
The screenshot shows the AWS Application Migration Service (AMS) Waves interface. At the top, a navigation bar includes the AWS logo, 'Services' dropdown, 'Customer Account', 'N. Virginia', and 'Support'. The main title is 'Wave: My wave 1'. The interface is divided into several sections:

- Overview**: Shows a summary table with 'Description' (This is a description of my wave.), 'Wave start time' (June 3, 2022, 14:32 (UTC+3:00)), 'Current duration' (4 weeks 2 days), and 'State' (Active). A 'Actions' menu on the right includes 'Testing', 'Cutover', and 'Archive wave'.
- Alerts**: A pie chart showing server status: Launched (54%), Healthy (36%), Lagging (6%), and Stalled (4%).
- Data replication status**: A pie chart showing server status: Healthy (57%), Launched (29%), Lagging (5%), and Stalled (10%).
- Migration lifecycle**: A pie chart showing migration progress: Ready for testing (39%), Test in progress (15%), Cutover in progress (11%), Ready for cutover (5%), Cutover complete (13%), and Not ready (20%).
- Applications (45)**: A table listing 45 applications with columns for 'Application name', 'Alerts', 'Migration lifecycle', 'Data replication status', 'Next step', and 'Archived'. Examples include App1 (Healthy, Ready for testing, -), App2 (Healthy, Test in progress, -), App3 (Healthy, Cutover complete, Disconnected), App4 (Stalled, Cutover in progress, Stalled), App5 (Lagging, Continuous Data Protection, Successful, 2w ago), and App6 (Stalled, Cutover in progress, Stalled).
- Tags (1)**: A table showing a single tag 'WaveType' with value 'Priority_1'.

Post-migration modernization framework

4 pre-configured actions now available:

- Install AWS Systems Manager agent – prerequisite for all other actions
- Configure disaster recovery, using AWS Elastic Disaster Recovery Service
- Convert CentOS to Rocky Linux distribution
- Convert SUSE BYOS to AWS license

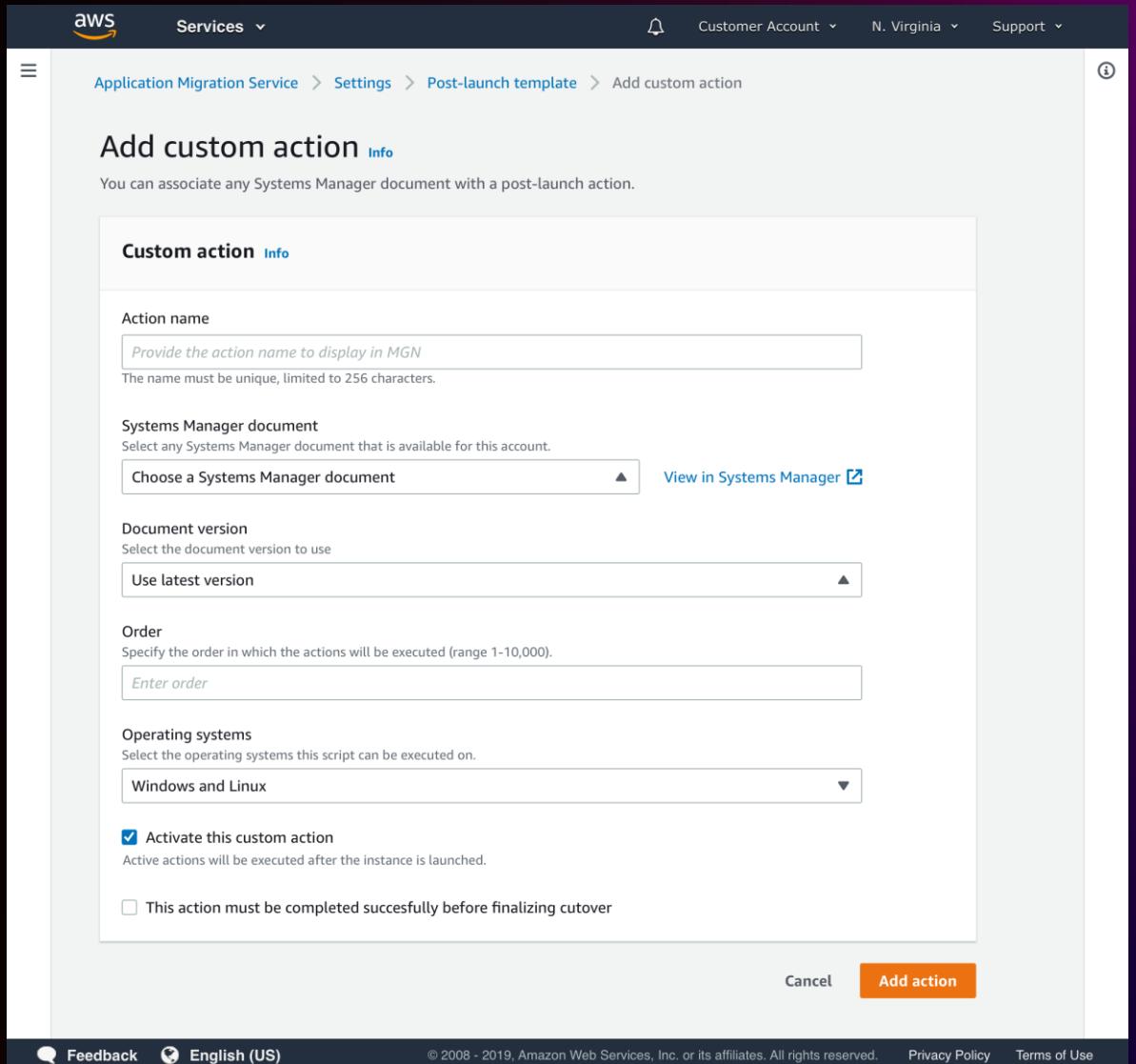


The screenshot shows the 'Edit post-launch settings template' page in the AWS Application Migration Service. The page is divided into several sections:

- Post-launch actions**: A toggle switch is turned on for "Install the Systems Manager agent and allow executing actions on launched servers". A note below states: "By continuing, you are allowing AWS Application Migration Service to install the SSM agent and create the IAM rules required to execute automation on launched servers."
- Deployment**: A radio button is selected for "Test and cutover instances (recommended)". A note below states: "All post-launch actions will be executed on test and cutover instances." Another option, "Cutover instances only", is also available.
- Disaster recovery**: A checked checkbox for "Configure disaster recovery on migrated servers". A note below states: "Install the AWS Elastic Discovery Service agent on each of the launched servers, and configure replication to the target region." A "Target disaster recovery region" dropdown is set to "US East (N. Virginia)" with "Service ready" status.
- Operating system**: A checked checkbox for "Convert CentOS to Rocky Linux distribution". A note below states: "This action must be completed successfully before finalizing cutover."
- License & subscription**: An unchecked checkbox for "Change SUSE Linux subscription to AWS provided SUSE subscription". A note below states: "This action must be completed successfully before finalizing cutover."

Post-migration modernization framework – Custom actions

- Automate process for any AWS Systems Manager document on migrated servers
- Create your own AWS Systems Manager documents, to handle your unique needs
- Supported via account post-launch template and via server settings



The screenshot shows the 'Add custom action' page in the AWS Application Migration Service. The top navigation bar includes the AWS logo, 'Services' dropdown, a bell icon, 'Customer Account', 'N. Virginia', and 'Support' dropdowns. The breadcrumb navigation shows: Application Migration Service > Settings > Post-launch template > Add custom action. The main content area is titled 'Add custom action' with an 'Info' link. A sub-section titled 'Custom action' with an 'Info' link follows. The form fields are as follows:

- Action name:** A text input field with placeholder text 'Provide the action name to display in MGN' and a note 'The name must be unique, limited to 256 characters.'
- Systems Manager document:** A dropdown menu labeled 'Choose a Systems Manager document' with a 'View in Systems Manager' link.
- Document version:** A dropdown menu labeled 'Use latest version'.
- Order:** A text input field with placeholder text 'Enter order'.
- Operating systems:** A dropdown menu labeled 'Windows and Linux'.
- Activation:** A checkbox labeled 'Activate this custom action' with a note 'Active actions will be executed after the instance is launched.'
- Completion requirement:** A checkbox labeled 'This action must be completed successfully before finalizing cutover'.

At the bottom right are 'Cancel' and 'Add action' buttons.

AWS Windows Migration Accelerator

Accelerate migrations of Windows workloads and earn AWS Promotional Credits

How does it work?

Qualify for \$200 credit per migrated Windows server

Migrate 40 or more servers per month – including at least 15 Windows servers – with AWS MGN

Qualify for \$250 credit per migrated Windows server

Migrate 80 or more servers per month – including at least 25 Windows servers – with AWS MGN

Benefits

Decrease migration costs

Help offset costs of simultaneously running two environments during migration

Complete migration on time and within budget

- Set a more predictable migration schedule
- Better plan for costs



<https://s12d.com/PZVZdDpm>

<https://catalog.us-east-1.prod.workshops.aws/join?access-code=6117-0de186-a2>



Summary

- In this session you learned techniques that can help you execute a large-scale migration, including:
 - Discovering On-premises servers with ADS
 - Using Migration Hub to analyze on-premises inventory data and perform dependency mapping, and group on-premises servers into applications.
 - Use AWS Application Migration Service (MGN) to:
 - Configure a custom modernization action.
 - Launch a migrated instance in AWS, in the process executing the modernization action.
 - Create an application and a wave (optional steps).
 - Monitor the migration process.

Resources

Learn more about AWS Application Migration Service (MGN)

- Visit the MGN product page: <https://aws.amazon.com/application-migration-service/>
- Take the free MGN training: <https://docs.aws.amazon.com/mgn/latest/ug/mgn-training.html>
- Schedule a Migration Immersion Day: <https://migration-immersionday.workshop.aws/>
- View Windows Migration Accelerator (WMA) terms: <https://aws.amazon.com/application-migration-service/windows/>

Learn more about Migration Evaluator and AWS Migration Hub

- Request a migration evaluator assessment: <https://aws.amazon.com/migration-evaluator/getting-started/>
- Migration Hub Product Page: <https://aws.amazon.com/migration-hub/>
- Auction.com case study: <https://aws.amazon.com/solutions/case-studies/auction-case-study/>

Thank you!



Please complete the session
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