



## CHAIRMAN'S NOTE

Dear Friends,

As the Fall Season is upon us, we start with the human element with ActioNet's Hawaii Wildfires campaign with the America Red Cross to help Maui and the Big island Ohana recover from the devastation and loss of human life. ActioNet will match 100% of employee donations.

Impact Lives. Donate Now.

In order to streamline Cloud costs and availability, we leverage Multi-Region Migration using AWS Application Migration Service (MGN). We share the best practices To implement this capability.

We also participated in a Veteran's Virtual Job Fair hosted by Intellectual Point and are committed to hiring and supporting our Veterans and will be hosting our Wear Pink Event in support of Breast Cancer Awareness Month.

Please take care of yourselves and each other!

## Ashley W. Chen

Founder & CEO

## IN THIS ISSUE

Supporting Our Communities ′	1
Multi-Region Migration . :	3
Navy Gold Coast	4
DHITS in NOLA 4	4

## Turning VISION into ACTION®

## Take Action, Give Back & Move Forward

By Jeffrey D. Abish, President & CAO

ctioNet was recently named a Top Workplace for the tenth year in a row in the Technology Area. During the submission process, we were asked about the most important aspects of our Corporate Culture. Supporting our Customers, Employees, Each Other and our Communities is central to who we are as an organization. In the past few years, we have collectively dealt with the challenges of COVID and the impact it has had on the world, as well as natural- and man-made disasters. During times like this, we all must band together and help those in need.

ActioNet is sponsoring a fund drive from now until September 30, 2023. The goal is

\$5,000 in donations. ActioNet will make a 100% corporate matching donation. Please reach out to family and friends and ask them to join us in supporting the American Red Cross endeavors in Hawaii.

The wildfires that have raged across the islands of Hawaii are the deadliest the U.S. has seen in the last century. An estimated 2,200 homes and businesses have been destroyed, and thousands of residents have been displaced. As of 8/22, at least 115 people have lost their lives, around 850 people are still missing, and many more are in hospitals for their injuries. Destructive wildfires have spread across Hawaii, flooding has swept through parts of Alaska and dangerous storms have struck the Northeast. Red Cross disaster workers are responding to these increasingly devastating

Impact Lives. Donate Now.

Hawaii Wildfires Fund Drive ActioNet

In light of the recent devastating wildfires that have affected the beautiful region of Maul, we feel compelled to extend our assistance. We are eager to collaborate with American Red Cross Disaster Relief by hosting a corporate fundraiser from now until Section 18, 2000. The objective is to raise \$5,000 in donations, and we are honored to commit to a corporate matching donation. We kindly urge you to reach out to your family and friends, inviting them to join us in supporting this mission.

Point of Contact: Michelle Barnes | mbarnes@actionet.com | 571.259.6723

emergencies, and it is only possible with your generous support. **Impact Lives. Donate Now.** 

How to donate: https://www.redcross.org/donate/cm/actionet-emp.html/

\*Note - Contributions to the American National Red Cross are fully tax-deductible to the extent permitted by law.

We hope that you will find it in your heart to support this important humanitarian effort. Please contact Michelle Barnes at 571-259-6723 or MBarnes@actionet.com if you have any questions.



ActioNews, the newsletter of ActioNet, Inc. is published to provide examples and applications of cutting edge IT topics and practices.

ActioNews is published quarterly (March, June, September, and December) as a service to its staff, customers, and potential customers.

#### ActioNews Staff

Lead Designer

Karen Tepera

Contributing Authors

### Jeff Abish Samuel Adjei

ActioNet grants permission to educators and academic libraries to use ActioNews for classroom purposes. There is no charge to these institutions provided they give credit to the author, ActioNews, and ActioNet. All others must request permission at actionews@actionet.com.

Copyright @ 2023 by ActioNet, Inc.

"AWS MGN simplifies, expedites, and reduces the cost of migrating Amazon EC2-hosted workloads from one AWS Region to another."

## Multi-Region Migration using AWS Application Migration Service

## by Samuel Adjei, Solution Architect

WS customers are in various stages of their cloud journey. Frequently, enterprises begin that journey by rehosting (lift-and-shift migrating) their on-premises workloads into AWS and running Amazon Elastic Compute Cloud (Amazon EC2) instances. You can rehost using AWS Application Migration Service (MGN), a cloud-native migration tool.

You may need to relocate instances and workloads to a Region closer in proximity to one of your offices or data centers. Or you may have a resilience requirement to balance your workloads across multiple Regions. This rehosting migration pattern with AWS MGN can also be used to migrate Amazon EC2-hosted workloads from one AWS Region to another.

We will show you how to configure AWS MGN for migrating your workloads from one AWS Region to another.



#### Overview of AWS MGN migration

AWS MGN, an AWS native service, minimizes time-intensive, error-prone, manual processes by automatically converting your source servers from physical, virtual, or cloud infrastructure to run natively on AWS. It reduces overall migration costs, such as investment in multiple migration solutions, specialized cloud development, or application-specific skills. With AWS MGN, you can migrate your applications from physical infrastructure, VMware vSphere, Microsoft Hyper-V, Amazon EC2, and Amazon Virtual Private Cloud (Amazon VPC) to AWS.

To migrate to AWS, install the AWS MGN Replication Agent on your source servers and define replication settings in the AWS MGN console. Replication servers receive data from an agent running on source servers and write this data to the Amazon

Elastic Block Store (EBS) volumes. Your replicated data is compressed and encrypted in transit and at rest using EBS encryption.

AWS MGN keeps your source servers up to date on AWS using nearly continuous, block-level data replication. It uses your defined launch settings to launch instances when you conduct non-disruptive tests or perform a cutover. After confirming that your launched instances are operating properly on AWS, you can decommission your source servers.

### **Steps for Migration with AWS MGN**

This tutorial assumes that you already have your source AWS Region set up with Amazon EC2-hosted workloads running and a target AWS Region defined.

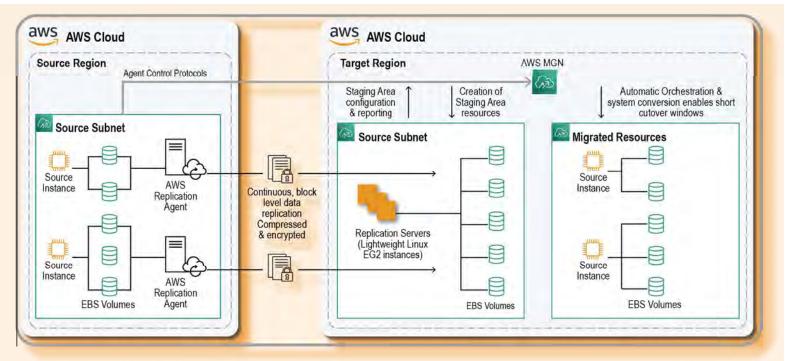
Migrating Amazon EC2 workload across AWS Regions include the following steps:

- 1. Create the Replication Settings template. These settings are used to create and manage your staging area subnet with lightweight Amazon EC2 instances. These instances act as replication servers used to replicate data between your source servers and AWS.
- Install the AWS Replication Agent on your source instances to add them to the AWS MGN console.
- 3. Configure the launch settings for each source server. These are a set of instructions that determine how a Test or Cutover instance will be launched for each source server on AWS.
- 4. Initiate the test/cutover to the target Region.

#### **Prerequisites**

The following are the prerequisites:

- AWS Identity and Access Management (IAM) user with required credentials, as defined in the AWS MGN documentation
- A staging area subnet created in the target Region, as defined in the AWS MGN documentation
- A VPC and subnet in the target Region where target instances will be launched
- Security groups that will be attached to



migrated instances.

 Network preparations in both Regions as defined in the AWS MGN documentation.

### **Setting up AWS MGN for Multi-Region Migration**

This section will guide you through AWS MGN configuration setup for multi-Region migration.

Log into your AWS account, select the target AWS Region, and complete the prerequisites. Then you are ready to configure AWS MGN:

- 1. Choose Get started on the AWS MGN landing page.
- 2. Create the Replication Settings template.
- 3. Add source servers to AWS MGN. After successful agent installation, the source server is listed on the Source Servers page. Data replication begins after completion of the Initial Sync steps.
- 4. Monitor the Initial Sync Status.
- 5. Configure Launch Settings for each server.
- Provide values for Launch Template.
- 7. Every time you modify the Launch template, a new version is created. Set the launch template that you want to use with MGN as the default.
- 8. Launch a test instance and perform a Test prior to Cutover to identify potential problems and solve them before the actual Cutover takes place.
- Validate launch of test instance.
- 10. SSH/ RDP into Test instance (view from EC2 console) and validate connectivity. Perform acceptance tests for your application as required. Revert the test if you encounter any issues.

- 11. Terminate Test instances after successful testing.
- 12. Validate the status of termination job and cutover readiness.
- 13. Perform the final cutover at a set date and time.
- 14. Monitor the indicators to validate the success of the launch of your Cutover instance.
- Test Cutover Instance.
- 16. Finalize the cutover after successful validation.
- 17. The cutover is now complete, and the migration has been performed successfully. Data replication has also stopped, and all replicated data will now be discarded.
- 18. Archive your source servers that have launched Cutover instances to clean up your Source Servers page.

#### Summary

AWS MGN simplifies, expedites, and reduces the cost of migrating Amazon EC2-hosted workloads from one AWS Region to another. It integrates with AWS Migration Hub, enabling you to organize your servers into applications. You can track the progress of all your MGN at the server and app level, even as you move servers into multiple AWS Regions. Choose a Migration Hub Home Region for MGN to work with the Migration Hub.

The supported AWS Regions are listed online in the AWS User Guide. If your preferred AWS Region isn't currently supported or you cannot install agents on your source servers, consider using AWS Server Migration Service.

For more information on AWS Migration Services, please contact aic@actionet.com.









- SBA Certified WOSB under NAICS 517111, 517121
- GWAC and IDIQ Contract Vehicles.
  - GSA Alliant 2
  - GSA MAS
  - GSA OASIS Pool 1
  - CIO-SP3 SB/WOSB OTSB
  - DHA MHS GŚP
  - DISA Encore III
  - ARMY ITES-3S
  - NAVY Seaport-NxG
  - FAA eFast
  - HHS SPARC
  - NRC GLINDA
  - SEC OneIT
- Past Performance on Large Contracts
  - DOE ITSS, \$1.2B
  - DOT COE, \$350M+
  - FAA ATO, \$300M+
  - CMS CICDIM, \$200M+
  - DOS CA DEDM, \$150M+
  - DISA CORENet, \$78M
- CMMI®-DEV V2.0 Level 4 with SAM
- CMMI®-SVC V2.0 Level 4 with SAM
- HDI Certified Support Center
- ISO 20000/27001/9001
- Approved Accounting System
- Approved EVM System
- Approved Purchasing System
- Approved Cost Estimating System
- DoD Top Secret Facility Clearance
- Top Workplace 2014 2023



# ActioNet Celebrating Wear Pink in October

ActioNet will
be showing
its support
and wearing
pink on October 18 for
Breast Cancer
Awareness Month



## DecisiveInstincts, an ActioNet NHO-Owned 8(a) JV, Exhibited at 2023 Navy Gold Coast and DHITS

DecisiveInstincts, ActioNet NHO-Owned 8(a) JV, exhibited at Navy Gold Coast 2023 on Jul 26-28, 2023, demonstrating our Innovation with cutting edge tools for Cyber Defense and Rapid High-Resolution imagery mapping technologies with broad use cases across all major business sectors.





On 8/8, DecisiveInstincts exhibited at DHITS 2023. It was great to have Dr. Lester Martinez-Lopez, the Assistant Secretary of Defense for Health Affairs, stop by and say Aloha.







ActioNeters in NOLA got together for dinner at Muriel's at Jackson Square. We also celebrated the 14-year anniversary with Kenny & 10-year anniversary with Kim.





(L-R, Eddie, Kim, Ashley, Holly, Kenny, Jose & Mel)

NOLA is a special place for ActioNet going back to 2005, when we were a protégé company. Eighteen years later, we come full circle and were proud to return to NOLA as a Mentor to Akamai Intelligence, our Native Hawaiian Organization-Owned 8(a) protégé company, whose Mission includes giving back to the Native Hawaiian Communities. Imua ActioNet, Imua Hawaii!