Deploying Actifio Global Manager in a Google Cloud Platform

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Contents

Preface

The information presented in this guide is intended for users who are configuring Actifio Global Manager for the Google Cloud Platform.

When you have finished configuring Actifio Global Manager for the Google Cloud Platform, consult the AGM Online Help. It introduces basic concepts, processes, and procedures for an Actifio appliance.

The ActifioNOW Customer Portal

Actifio customers can access to the entire Actifio documentation set, as well as the portal's knowledge base.

To log into the ActifioNOW Customer Portal:

1. Go to: *https://now.actifio.com*

2. When prompted, enter the user name and password provided by your Actifio representative.

3. From the ActifioNOW customer portal you can access:

    o **Product Documentation** - View the user documentation for your Actifio products and releases.

    o **Knowledge Base** - Search across all of the available content for relevant articles.

Actifio Support and Service

Access these locations for help with your Actifio product suite:

Customer Support Phone	**From anywhere**: +1.315.261.7501 **US Toll Free**: +1.855.392.6810 **Australia**: 0011 80016165656 **Germany**: 00 80016165656 **New Zealand**: 00 80016165656 **UK**: 0 8000155019
Customer Support Email	support@actifio.com
Customer Support Portal	http://support.actifio.com/

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1 Introduction

Actifio Global Manager (AGM) provides centralized management capabilities in a virtual appliance. From one centralized AGM management system, you use the AGM browser-based UI to manage multiple Actifio CDS and Actifio Sky appliances and perform various day-to-day copy data operations.

Your Actifio solution may consist of Actifio CDS and Actifio Sky appliances interconnected and replicating data between each other.

Actifio CDS: An Actifio CDS appliance is a hardware and software solution. An Actifio CDS appliance captures and manages data locally, and can replicate captured data to other Actifio CDS and Sky appliances. Actifio CDS appliances are installed and configured by your Actifio representative.

Actifio Sky: An Actifio Sky appliance is a virtual machine (VM). Actifio Sky appliances can be installed at your location or in a cloud vendor's cloud. Actifio Sky appliances are licensed by capacity and may be used with other Actifio Sky appliances and Actifio CDS appliances.

Local and Remote Appliances: When two Actifio appliances are joined, local and remote is determined by the appliance you are logged in to. An exchange of certificates is required to join appliances.

We recommend that you read *Getting Started with Actifio Copy Data Management* to have a grasp of the basic concepts associated with an Actifio CDS and Sky appliance. It is included as part of the Actifio Documentation Library that comes with each appliance and is also available on the ActifioNOW Customer portal.

With AGM you can manage many Actifio CDS and Sky appliances. AGM communicates with each Actifio appliance by IP address or fully qualified domain name (FQDN) of the appliance. When you add an Actifio CDS or Sky appliance to AGM, all SLA templates, organizations, users, and roles are imported into the AGM database and become AGM-level objects. You can then utilize these objects across all managed Actifio appliances.

You can use AGM to perform tasks on the managed Actifio appliances, that:

- **Accelerates DevOps, CI/CD, and application dev/test processes:** Provision virtual copies of databases instantly, in self-service manner with secure, role-based access controls. This enables developers to perform development, test, QA and integrate with continuous integration and continuous deployment tools.

- **Leverages instant access to data:** Actifio appliances allows user to failover to their Google Cloud environment delivering business resilience for on-premises enterprise applications.

- **Provides On-Demand analytics:** The ability to capture, manage and re-use Microsoft SQL Server databases and other databases and file systems enables data warehousing and analytics applications.

- **Securely migrates to the Google Cloud:** Securely migrating applications to Google Cloud Platform. Using an Actifio appliance's instant access, users can create a sandbox environment in Google Cloud Platform, conduct security, performance and scalability validation, before turning on the application in Google Cloud Platform.

- **Provides Global, standardized, Hybrid Cloud Data Management:** For Google Cloud Platform-resident applications, Actifio appliances can manage their data life cycle and deliver the same benefits as for the on-premises applications; accelerate high quality application development, enhanced business resilience,

This guide assumes the reader has an Google account and is familiar with Google processes and procedures.

After you have completed deploying AGM for Google, consult the AGM on line help. It provides an overview of the basic Actifio concepts and procedures as well as an introduction to the AGM user interface.

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2 Configuring an Actifio Global Manager Instance

This chapter assumes that you have a valid Google Cloud Platform account, obtained an Actifio Global Manager image from your Actifio representative, and you are familiar with basic Google Cloud Platform processes and procedures.

This section has the following topics:

AGM Requirements

You have the option of deploying AGM with or without the Catalog feature. Whether or not you can enable RM is determined by the resources assigned to the VM.

Use the VMware vSphere 6.7, 6.5, 6.0, 5.5 or 5.1 Web Client to assign minimum system requirements to the following supported configurations. As a best practice, Actifio recommends that the AGM virtual disks do not share the same datastore as the production virtual machines:

Note: The deployment and installation of the AGM-RM OVA using a standalone ESXi host is not supported.

AGM with Catalog and RM:

AGM with Catalog requires the following CPUs, memory, and storage:

- Reserved 10 virtual CPUs
- Reserved 28 GB of memory
- Four (4) separate virtual disks for storage:
    - o   One 50 GB disk for the operating system and AGM repository
    - o   One 250 GB disk for Report Manager data
    - o   One 250 GB disk for the catalog index
    - o   400 GB disk to store backups of the catalog data

    As a best practice, Actifio recommends that the AGM virtual disks do not share the same datastore as the production virtual machines

AGM with Catalog:

AGM with Catalog requires the following CPUs, memory, and storage:

- Reserved 8 virtual CPUs*

- Reserved 20 GB of memory

- Three (3) separate virtual disks for storage:

    o One 50 GB disk for the operating system and AGM repository

    o One 250 GB disk for the catalog index

    o 400 GB disk to store backups of the catalog data

    As a best practice, Actifio recommends that the AGM virtual disks do not share the same datastore as the production virtual machines

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Note: Any RM requirements for an AGM deployment with Catalog and RM will be in addition to the above.

AGM with RM:

AGM with RM and no Catalog requires the following CPUs, memory, and storage:

- Reserved 6 virtual CPUs

- Reserved 16 GB of memory

- Two (2) separate virtual disks for storage:

    o One 50 GB disk for the operating system and AGM repository

    o One 250 GB disk for Report Manager data

    As a best practice, Actifio recommends that the AGM virtual disks do not share the same datastore as the production virtual machines.

Note: Any Catalog requirements for an AGM deployment with RM and Catalog will be in addition to the above.

AGM (without Catalog or RM):

AGM requires the following CPUs, memory, and storage:

- 4 CPUs

- 8 GB of memory

- One 50 GB disk for the AGM operating system

    As a best practice, Actifio recommends that the AGM virtual disks do not share the same datastore as the production virtual machines.

Web Browser Requirements

The AGM UI supports the following minimum web browsers:

- Google Chrome version 74.0 and higher

- Microsoft Internet Explorer version 11.0 and higher

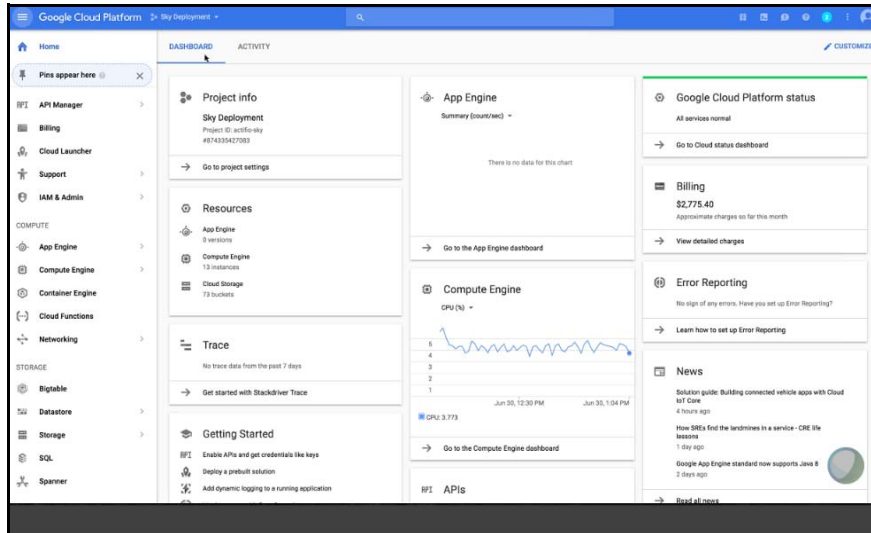- Mozilla Firefox version 68 and higher

The recommended minimum display screen resolution is 1280 x 1024 to run the AGM UI in a web browser.

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Configuring an Instance

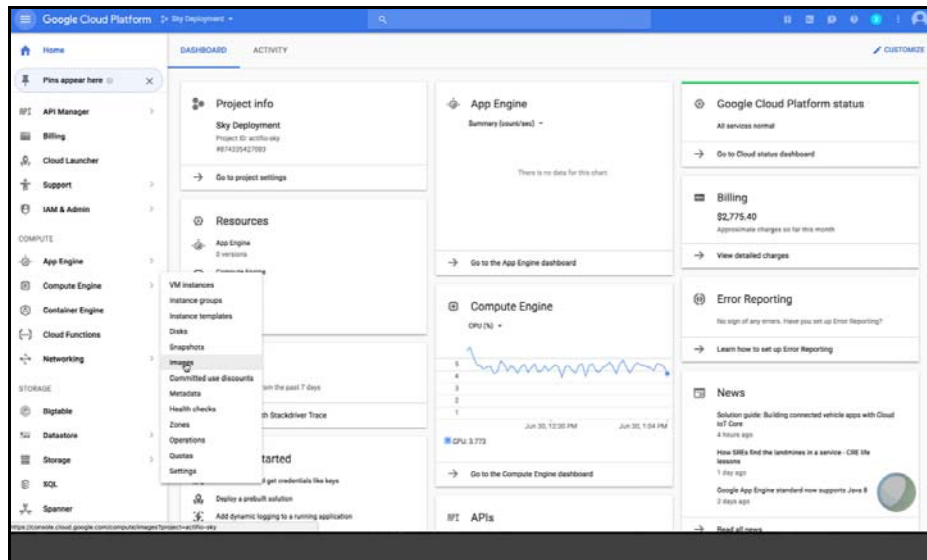Before you begin, check AGM Requirements on page 3.

To configure a new Actifio Global Manager VM instance:

1. Log into your Google Cloud Platform account. The Dashboard opens.

Google Cloud Platform Dashboard

2. In the left-hand navigation menu, mouse over **Compute Engine** and a pop-up menu opens.
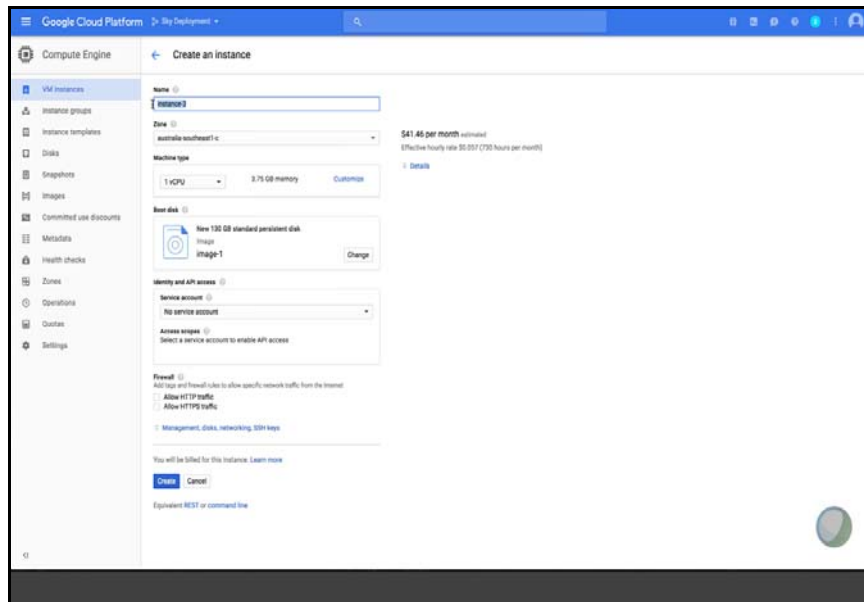

Select Images From Compute Engine Menu

3. From the pop-up menu, select **Images** to see all available images. If you have a lot of images, use the filter to narrow the display to the Actifio image.
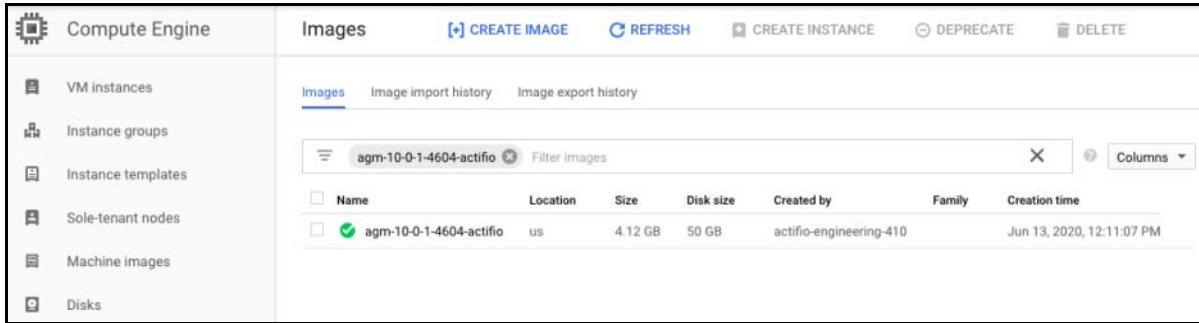
Available Images

4.   Select the image from which you will create the Actifio Global Manager instance.

5.   In the top menu bar, click **Create Instance** and the Create Instance page opens.
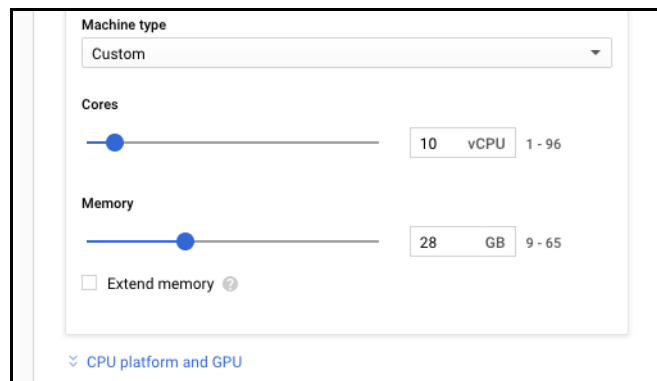

Create Instance Page

6.   In Name, enter a name for the instance - this should be lower case only.

7.   From the **Zone** drop down menu select the region to be used.

8.   Select the **Machine Type** from the drop-down list.

Or Customize the CPU and Memory options as per your requirement with the **Custom** option in the Machine type drop-down.

Select CPU and Memory

9.   To enable AGM with Catalog and RM, select:

   o   10 CPUs

   o   28 GB of memory

Note: If you are enabling Catalog and RM, you must define 4 separate disks: 50GB, 250GB, another 250GB and 400GB.

10.   To enable AGM with Catalog, select:

   o   8 CPUs

   o   20 GB of memory

Note: If you are enabling the Catalog feature, you must define 3 separate disks: 50GB, 250GM, and 400GB.

11.   To enable AGM with RM, select:

   o   6 CPUs

   o   16 GB of memory

Note: If you are enabling the RM feature, you must define 2 separate disks: 50GB and 250GB.

12. To enable AGM without the Catalog feature, select:

    o   4 CPUs

    o   8 GB of RAM

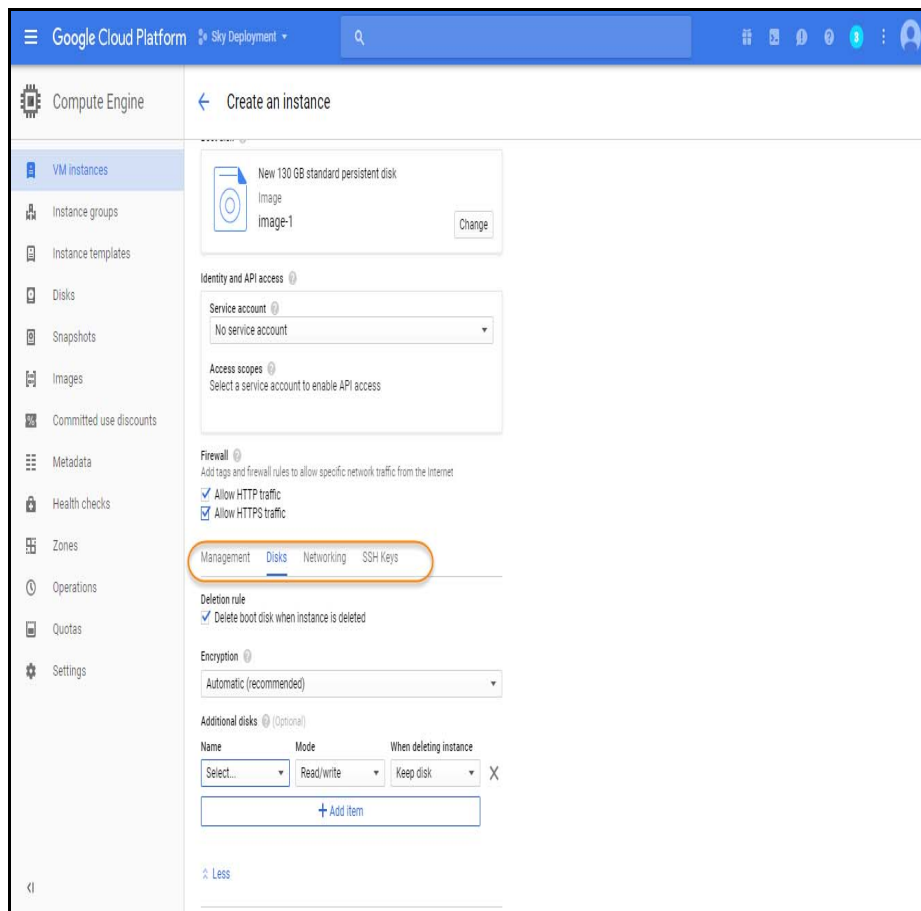*Note: If you are not enabling the Catalog feature, then you will only need to define one 50 GB disk.*

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13. Scroll down to Firewall and enable HTTP and HTTPS

14. From Management, Disks, Networking, SSH keys and click **disks**:

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*Note: Under **Firewall**, be sure to select both **Allow HTTP traffic** and **Allow HTTPS traffic**.*

Add Disks

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15. Click **+Add new disk**. The New disk information page appears.

16. Choose the name for the new disk in the **Name** field.

17. Select the source type as **Blank disk** from the **Source type** field**.**

18. Enter the size of the disk as required in the **Size (GB)** field.

   If you **are enabling Catalog and RM** and have define 10 CPUs and 28 GB of RAM, then create the following 4 disks:

   o   50 GB for the operating system

   o   250 GB for RM data store. Do not share the datastore with your production load.

   o   250 GB for index store. Do not share the datastore with your production load.

   o   400 GB for backup catalog data. Do not share the datastore with the production load.

If you **are enabling Catalog** and have define 8 CPUs and 20 GB of RAM, then create the following 3 disks:

- o 50 GB for the operating system

- o 250 GB for index store. Do not share the datastore with your production load.

- o 400 GB for backup catalog data. Do not share the datastore with the production load.

If you **are enabling RM** and have define 6 CPUs and 16 GB of RAM, then create the following 2 disks:

- o 50 GB for the operating system

- o 250 GB for RM data store. Do not share the datastore with your production load.

If you **are not enabling the Catalog feature** and have define 4 CPUs and 8 GB of RAM, then create one 50 GB disk.

19. For Encryption, keep the default Automatic (recommended).

20. Click **Done**.
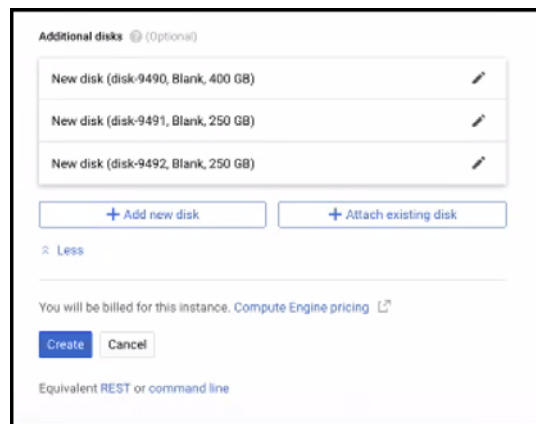
Three Standard Disks are Created

21. Click **Create** and the disk is created.

22. Repeat this process until you have created all disks.

23. Once all disks are created, review the settings for the instance.

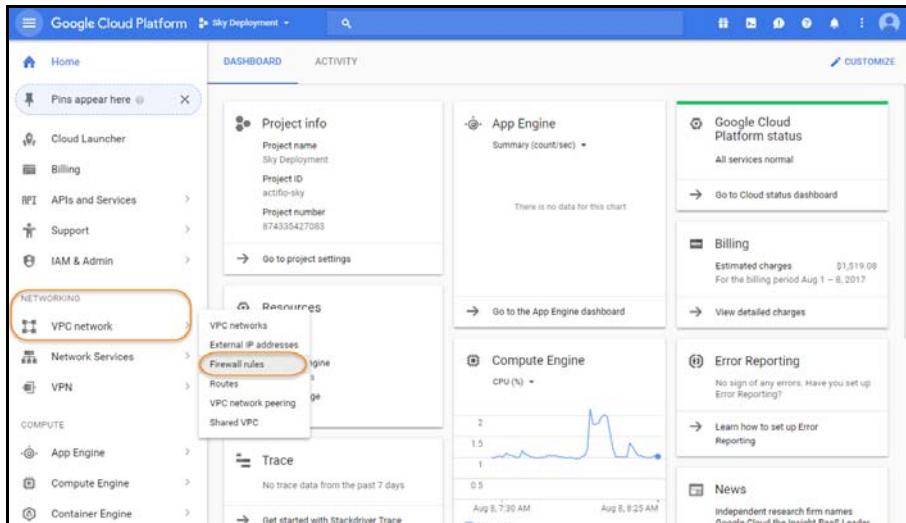24. If all of your settings are correct, click **Create** and the Actifio instance is created.

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Verify Ports

Once the instance is created, verify that ports are set correctly for your Actifio Global Manager instance.

To Verify ports:

1. Return to the Google Cloud Platform Dashboard.

Select VPC Network

2. In the left-hand navigation menu, mouse over **VPC network**.

3. From the pop-up menu, select **Firewall rules**. The Firewall rules page show Ingress related port settings.

4. Ensure that your port settings matches the following required port settings.

Name	Targets	Source filters	Protocols / ports	Action	Priority	Network
adhd	Apply to all	IP ranges: 0.0.0.0/0	tcp:5107	Allow	1000	default
connector	Apply to all	IP ranges: 0.0.0.0/0	tcp:5106	Allow	1000	default
default-allow-http	Apply to all	IP ranges: 0.0.0.0/0	tcp:80	Allow	1000	default
default-allow-https	Apply to all	IP ranges: 0.0.0.0/0	tcp:443	Allow	1000	default
iscsi	Apply to all	IP ranges: 10.240.0.0/16	tcp:3260	Allow	1000	default
rdp	Apply to all	IP ranges: 0.0.0.0/0	tcp:3389, udp:3389	Allow	1000	default
service-root	Apply to all	IP ranges: 0.0.0.0/0	tcp:26	Allow	1000	default
streamsnap	Apply to all	IP ranges: 0.0.0.0/0	tcp:5103	Allow	1000	default
default-allow-internal	Apply to all	IP ranges: 10.240.0.0/16	tcp:0-65535, udp:0-65535, 1 more ▾	Allow	65534	default
default-allow-ssh	Apply to all	IP ranges: 0.0.0.0/0	tcp:22	Allow	65534	default

Required Port Settings

5. Make changes to the port settings as needed.ss

3 Accessing Actifio Global Manager

When the AGM instance is ready, enter the instance's Public IP in a browser and log in to the Actifio Global Manager.

Accessing AGM

After the AGM is configured and powered up, launch AGM in a web browser:

1. Obtain the AGM VM's Public IP from Google Cloud Platform's Compute Engine VM Instances page:
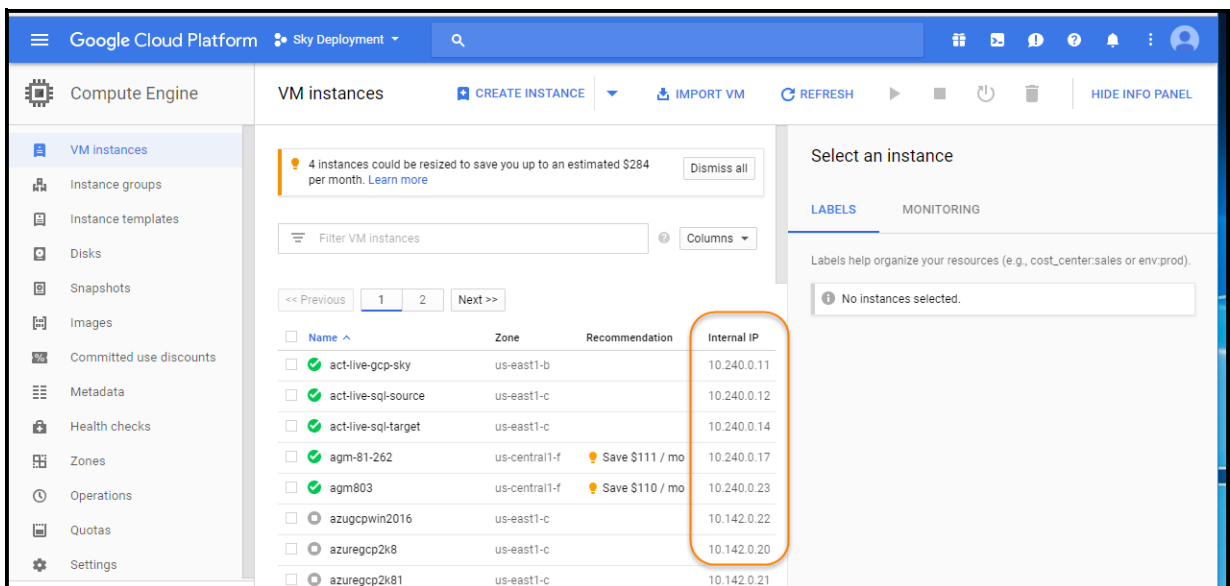
Actifio Global Manager Instance's Public IP

2.   Open a browser and in the address space, enter the Public IP address of the AGM VM.

Actifio Global Manager Login Screen

3.   In the AGM login page, enter the default login credentials.

The default login for AGM server is: username = `<admin>` and password = `<password>`. **For AGM installation from the GCP marketplace image only**, the default login is: username = `admin` and password = `<agm server instance id>`.

If you are using a Microsoft Internet Explorer browser to log in to AGM and the Username and Password fields are disabled in the Login window, access the Compatibility View Settings dialog box (select **Tools > Compatibility View settings**) and ensure that the **Display intranet site in Compatibility View** check box is checked.

The AGM application opens and prompts you to change your password as part of security enhancement.

4.   Enter a new password of at least six (6) characters, it can be the same as your old password as well.

5.   To save the new password, click **Save**. You are taken back to the login screen.

6.   Enter your user name and new password.

7.   Click **Login**. The AGM application opens and shows the EULA.

8.   Read the license agreement in its entirety, and click **Agree**. You are prompted to add an appliance.
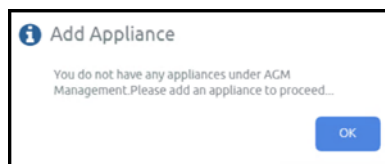
9.   Click **OK** to open the Add Appliance page. Add the first appliance and subsequently add more appliances following guidelines Adding Actifio Appliances in AGM.

10.   Click the **?** in the upper right corner of the AGM browser to launch the AGM Online Help system. You can read up about the Dashboard, Domain Manager, SLA Architect, Application Manager, Catalog, System Monitor, and Upgrade services in the Help.

11.   To logout of AGM or to change users, click the active user listed at the top of AGM and select **Logout**.

Adding Actifio Appliances in AGM

Actifio appliances must be added to AGM before they can be managed. Appliances are added through AGM's Domain Manager service. Adding each Actifio appliance imports into AGM its hosts, applications, organizations, users, and roles. The first Actifio appliance that you plan to import into AGM should contain policy and security objects (Templates, Organizations, Roles, and Users) with names and configurations that are most representative of the typical operating environment of your organization. The first Actifio appliance that you add into AGM serves as the baseline appliance used by AGM as the standard for comparison with all subsequent imported Actifio appliances for object consolidation.