
Deploying Actifio Sky in the Microsoft Azure Cloud

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Preface

The information presented in this guide is intended for users who are configuring Actifio Sky for the Azure Cloud. If you are installing Actifio Sky for the Azure Cloud in a production environment, before proceeding, consult with your Actifio representative to properly size your Actifio Sky appliance.

When you have finished configuring Actifio Sky for the Azure Cloud, consult ***Getting Started with Actifio Copy Data Management***. 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 your user name and password you were provided when you purchased your Actifio appliance.

The Doctifio Public Documentation Library

The Doctifio Public Documentation Library provides a limited number of Actifio documents and is open to the public.

To access the Doctifio Public Documentation Library, in a web browser enter the address: ***docs.actifio.com*** and the library is displayed.

1 Introduction

Actifio Sky allows an enterprise to leverage Microsoft Azure as a flexible hybrid cloud infrastructure to build higher quality applications faster and improve business resiliency and availability.

An Actifio Sky appliance for Microsoft Azure is a virtual server designed to capture and manage data. An Actifio Sky appliance can be installed in Microsoft Azure. Captured data can be replicated between Actifio appliances in your data center, between appliances in Azure, and between appliances in your data center and in Azure. Replicating to another Actifio appliance provides a disaster recovery solution.

Data in Microsoft Azure is instantly accessible and can be re-used for the following key use cases:

- **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 Microsoft Azure environment delivering business resilience for on-premises enterprise applications.
- **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.
- **Secure migration to the Microsoft Azure Cloud:** Securely migrating applications to Microsoft Azure. Using an Actifio appliance's instant access, users can create a sandbox environment in Microsoft Azure, conduct security, performance and scalability validation, before turning on the application in Microsoft Azure.
- **Global, standardized, Hybrid Cloud Data Management:** For Azure-resident applications, Actifio appliances can manage their data life cycle and deliver the same benefits as for on-premises applications: accelerate high quality application development, enhance business resilience, meet compliance requirements, and drive down infrastructure costs.

Actifio Sky for Microsoft Azure delivers the following benefits:

Build Higher Quality Apps Faster: Actifio appliance's database virtualization in Microsoft Azure enables Dev, QA and UAT teams to self-service provision on-demand virtual copies of production databases with secure data masking. This helps catch defects earlier in QA cycles, enabling the release of higher quality products, faster.

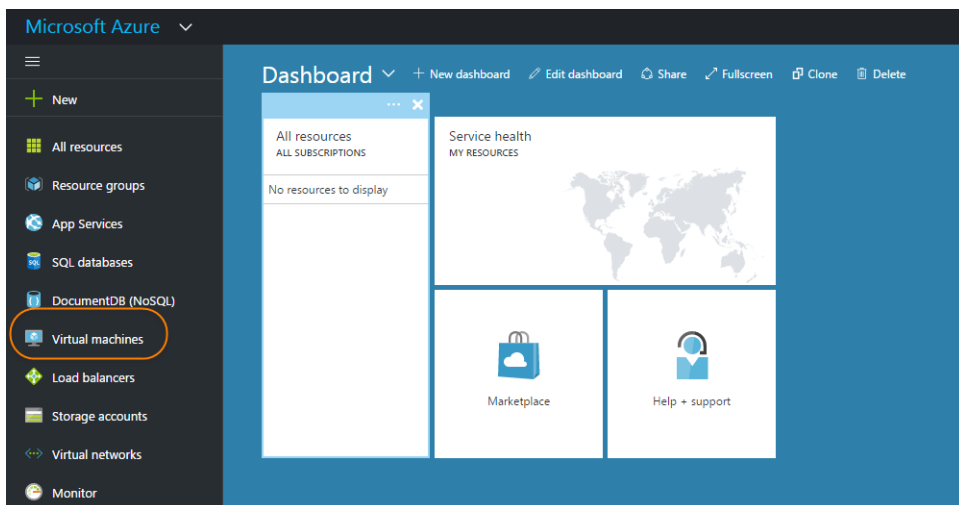
Improve Business Resiliency: By replicating on-premises and cloud-based data to any Microsoft Azure location for instant recovery of mission critical applications, Actifio appliances eliminate the fear of downtime for critical applications, thereby eliminating potential losses in revenue, reputation, and employee productivity.

Outsource Infrastructure: By delivering a modern data management platform in hybrid cloud environments, Actifio appliances help accelerate business transformation by making it easy for enterprises to leverage cloud technologies, allowing them to outsource costly infrastructure.

Data Warehouse, ETL, Analytics: Actifio appliances make it easy to provision virtual copies of production data in Microsoft Azure, while feeding data into on-demand data warehousing, ETL, or analytics solutions. This accelerates the speed at which business analytics can be achieved in the cloud, while eliminating the need to invest more in software tools and on premise infrastructure.

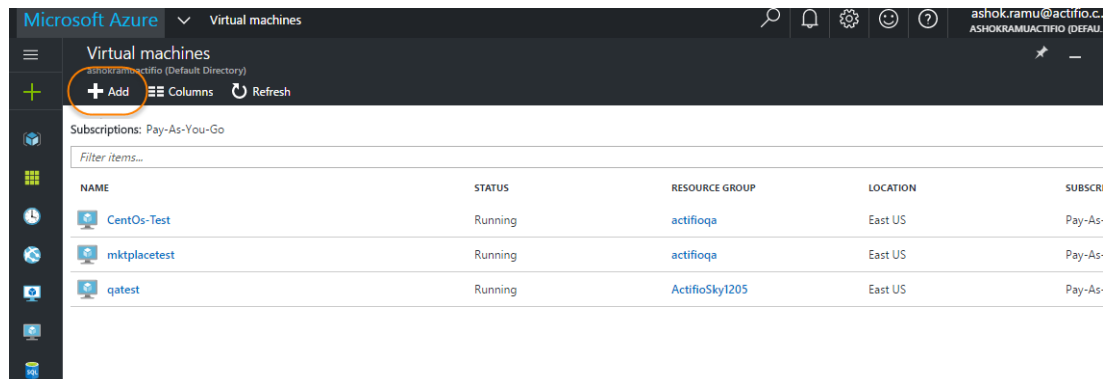
2 Obtaining the Actifio Sky VM Image

Actifio provides an Actifio Sky VM for the Azure Cloud. To obtain an Actifio Sky for Azure Cloud image from the Microsoft Cloud Marketplace, from your Azure account:



Azure Dashboard

1. Click **Virtual Machines** in the left-hand menu and the Virtual Machines page is displayed:



VMs Available

2. From the top menu, click **Add** and the Azure market Place is displayed.

3. In the Search space provided, enter **Actifio**.
4. Click Search and the Actifio Sky VM image is displayed:

Products > Actifio Sky

actifio

Actifio Sky

Actifio

[Overview](#) [Plans + Pricing](#) [Reviews](#)

The cost of running this product is a combination of the selected software plan charges plus the Azure infrastructure costs for the virtual machines on which you will be running this software. Your Azure infrastructure price might vary if you have enterprise agreements or other discounts.

To view pricing in a different currency, [change the billing country/region](#). Costs might vary by deployment region.

GET IT NOW

Pricing information
Bring your own license
+ Azure infrastructure costs

Categories
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Support
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Select a software plan

Actifio Sky Virtual Appliance BYOL
Data Virtualization for Hybrid Cloud - Rapid Data Access for DevOps, Instant Recovery & Cloud Backup

Pricing by virtual machine instance [Download table as CSV](#)

Show: Publisher recommendations All virtual machine instances

Region: Central US
The publisher recommends the following 4 virtual machine instances for use with this software plan.

Virtual Machine	Configuration	Cost per hour	Total cost
-----------------	---------------	---------------	------------

Select the Actifio Sky VM Image

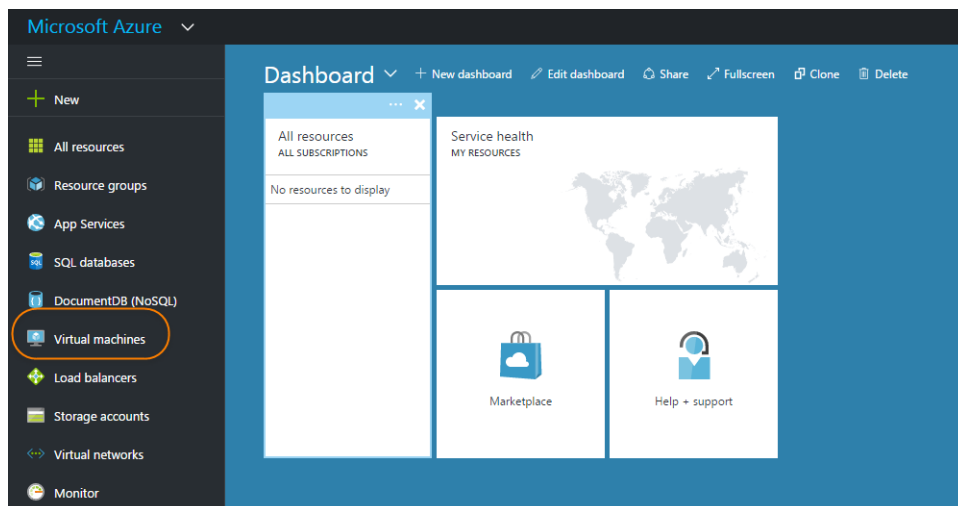
5. Click **Get it Now** and follow the Microsoft Azure instructions to add the Actifio image to your account.

Next step: Configure the Actifio Sky VM. See [Configuring the Actifio Sky VM](#) on page 5 for details.

3 Configuring the Actifio Sky VM

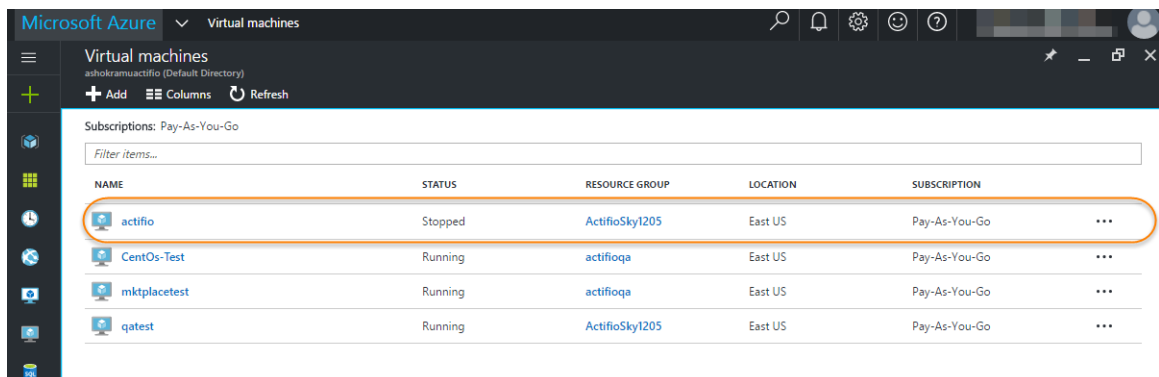
Note: Before you begin setting up your Actifio VM, you must obtain sizing information from your Actifio representative.

To configure a new Actifio Sky VM, from your Azure account:



Azure Dashboard

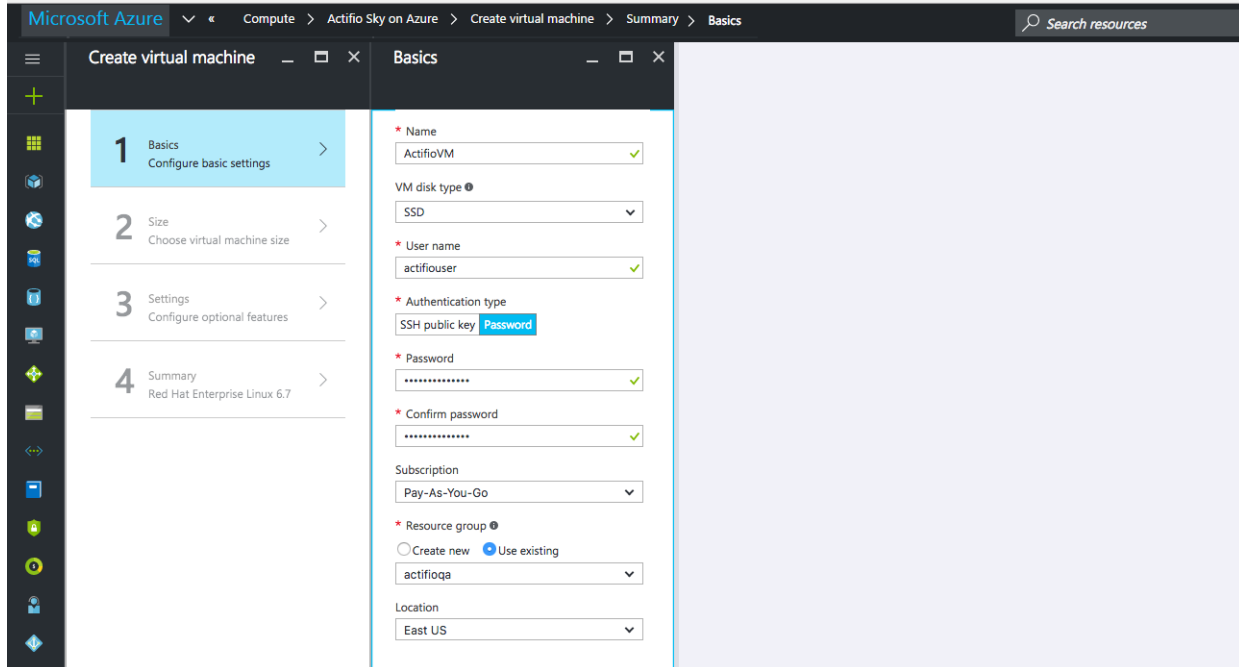
1. Click **Virtual Machines** in the left-hand menu and the Virtual Machines page is displayed:



Select the Actifio Sky VM to be Configured

2. The list of available VMs is displayed.
3. Click the Actifio image and the configuration wizard will start:

Note: If you have a lot of VMs available, you can use the filter to display the Actifio VM.

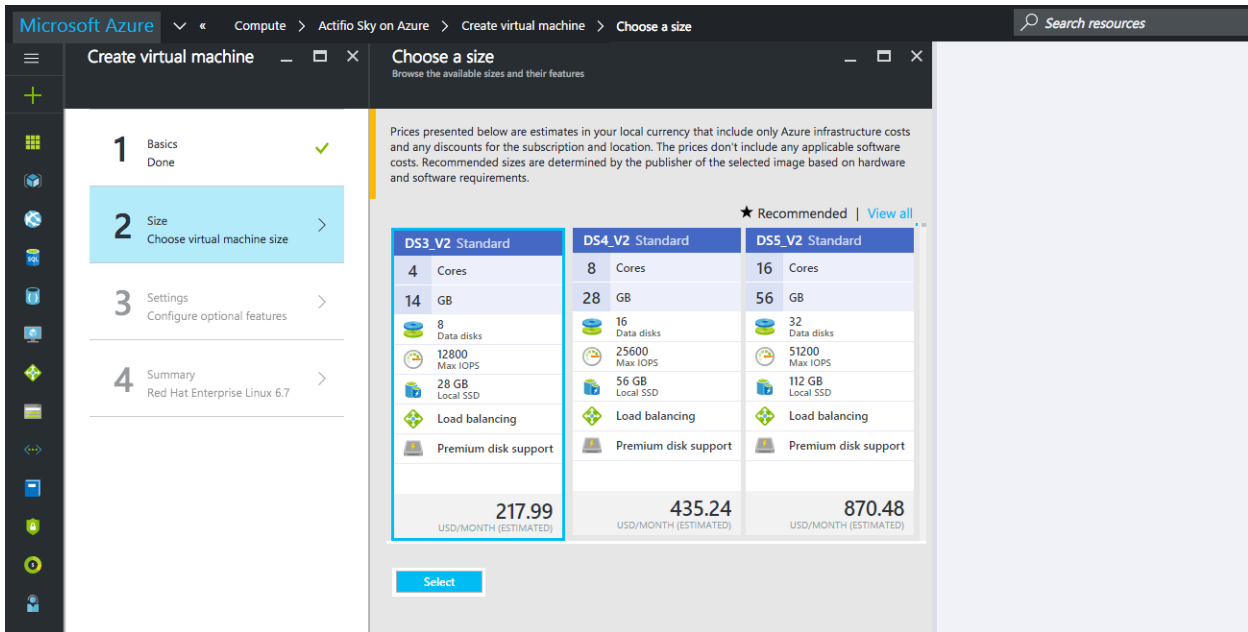


The screenshot shows the Microsoft Azure portal interface for creating a virtual machine. The breadcrumb navigation at the top reads: Microsoft Azure > Compute > Actifio Sky on Azure > Create virtual machine > Summary > Basics. The left sidebar shows a navigation menu with icons for Home, Resources, Monitor, Alerts, and Settings. The main content area is titled 'Create virtual machine' and 'Basics'. On the left, there are four steps: 1. Basics (Configure basic settings), 2. Size (Choose virtual machine size), 3. Settings (Configure optional features), and 4. Summary (Red Hat Enterprise Linux 6.7). The 'Basics' step is active. The form fields are: Name (ActifioVM), VM disk type (SSD), User name (actifiouser), Authentication type (SSH public key / Password), Password (masked), Confirm password (masked), Subscription (Pay-As-You-Go), Resource group (actifioqa), and Location (East US).

Step 1 – Basic Settings

4. For Step 1, There are no settings required by Actifio. However Azure requires that you:
 - o Enter a **Name** for the Actifio Sky VM.
 - o Select a **VM disk type** for the VM.
 - o Enter a **User Name** in the space provided. The user name is required by Microsoft Azure but is not used by the Actifio Sky appliance.
 - o Select an **Authentication Type**. The Authentication Type is required by Microsoft Azure but is not used by the Actifio appliance. If you select **SSH Public Key**, then in the space provided enter a public key generated by Linux ssh-keygen or Windows PuttyGen. If you select **Password**, in the fields displayed, enter a password and then re-enter it to confirm.
 - o Select a **Subscription** type.
 - o Under **Resource group**, select either **Create New** and enter a name for a new resource Group or select **Use Existing** to select an existing Resource Group.
 - o From the drop-down menu, select the **Location** for this Actifio VM.

- Click **OK** and **Step 2 Size** page is displayed:



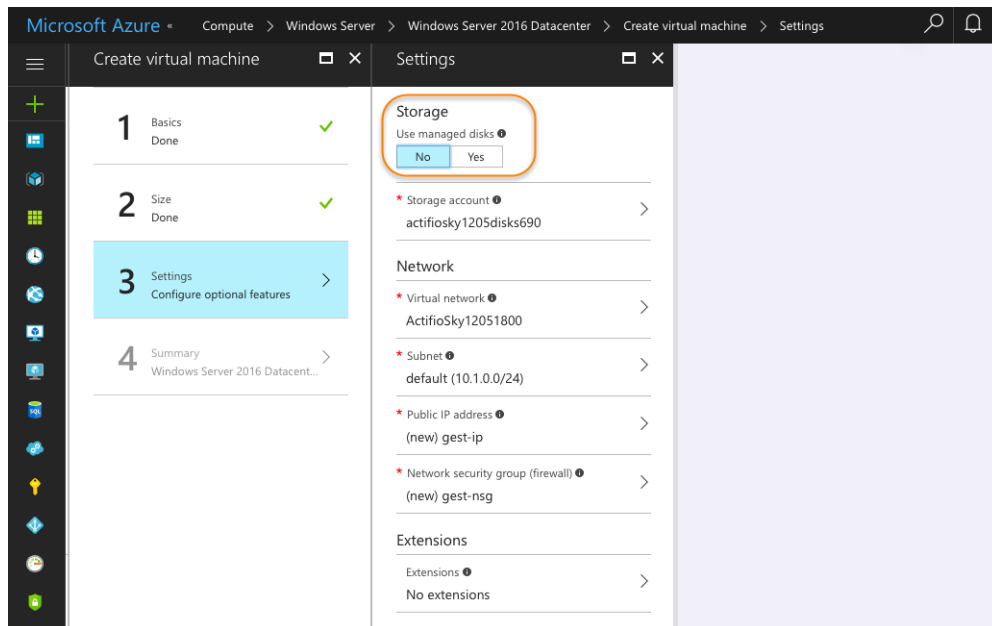
Step 2 – Select Size

- Select the VM size that corresponds to your Actifio Sky license.

Size of VM in Azure	Actifio Sky License	
	Dedup Policies Used	Dedup Policies Not Used
DS3_V2	Sky 5	Sky 60
DS4_V2	Sky 10	Sky 120
DS5_V2	Sky 30	Sky 200
D32s V3	Sky 128	---

Note: The sizing definitions are subject to change by Microsoft.

7. Click **Select**, and **Step 3, Configure Optional Features** page is displayed:



Step 3 – Configure Optional Settings

8. Under Storage, select **YES** to use **managed disks**.
9. Make other selections in Step 3 as needed.
10. Click **OK** and the Step 4 Purchase page is displayed:
11. Click **Purchase** to purchase the configured Actifio VM.

Next step – Add disks to the Actifio VM. See [Adding Disks to the Actifio Sky VM](#) on page 9.

4 Adding Disks to the Actifio Sky VM

You must define disk space to accommodate the Actifio Sky VM's operating needs as well as to accommodate the data the Actifio Sky appliance will capture.

The amount of disk required is based on your Actifio Sky license and recommendations from your Actifio representative.

During the Actifio Sky appliance installation, each disk defined will be assigned to one of three Actifio storage pools:

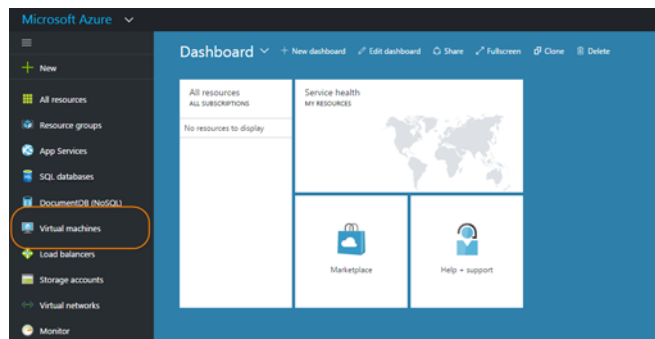
- **Primary Pool:** Contains Actifio Sky system data. One 200 GB disk is required.
- **Snapshot Pool:** Contains the retained Snapshots (full copies). The actual size required for this disk will be calculated by your Actifio representative. It will define enough disk storage to accommodate the number of full snapshots of data you plan to retain. You can at a later date add additional disk storage to accommodate growth. A minimum of 10 GB is required.
- **Dedup Pool:** Contains the retained deduplicated data. The actual size required for this disk will be calculated by your Actifio representative. It will contain enough disk storage to accommodate the number of deduped copies of data you plan to retain. A minimum of 100 GB is required.

If your Actifio appliance will not use deduplication policies, then you must create a 100 GB disk for the Dedup Pool.

Note: If your Actifio Sky appliance will use dedup policies, the disks used for the Dedup Pool must be added as SSDs.

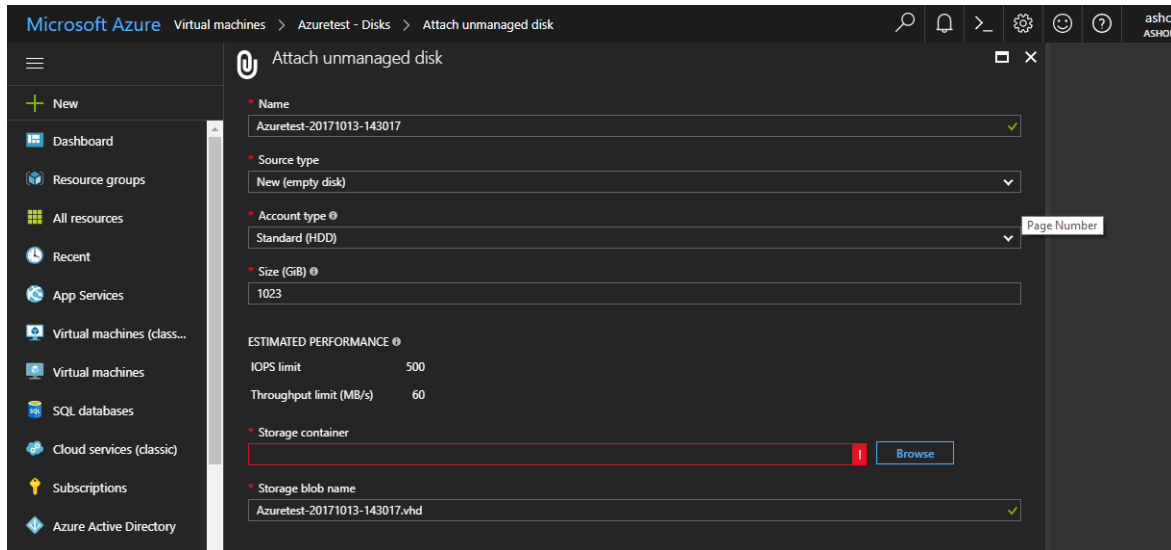
To add disks to an Actifio Sky appliance's pools:

1. Log in to your Microsoft Azure dashboard.



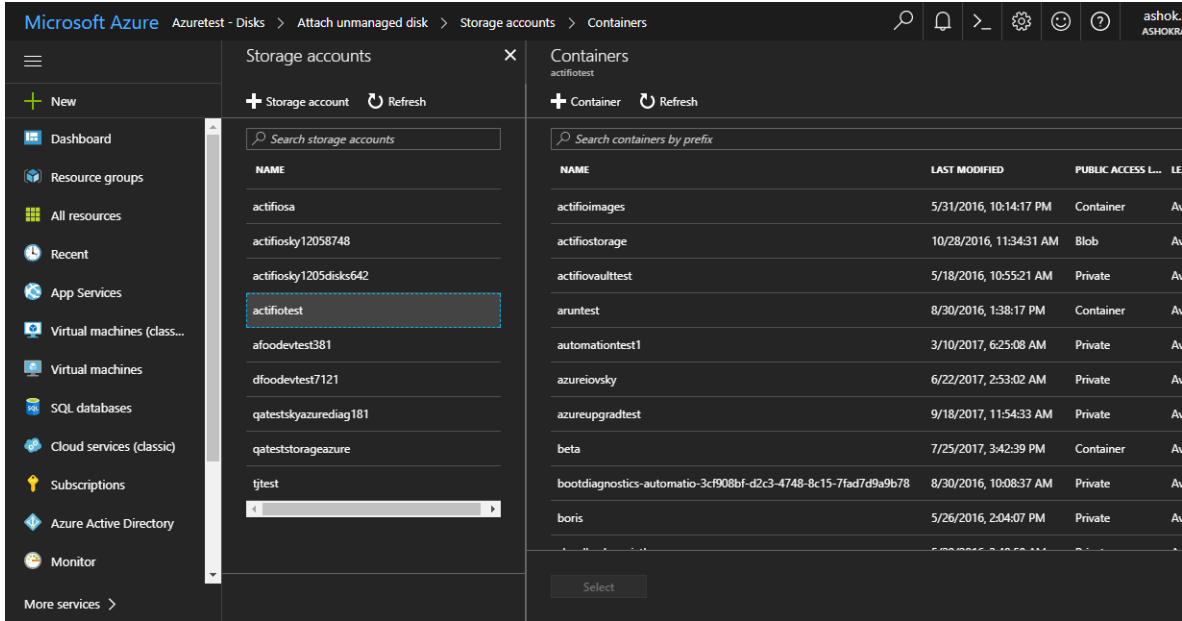
Select Virtual Machines

2. From your Azure dashboard's left-hand menu, select **Virtual Machines** and a list of available VMs are displayed.
3. Select the Actifio Sky appliance VM to which you will add the disks.
4. From the list of VM options click **Disks** and the disks attached to the VM are displayed.
5. To add a disk to the VM, click the **Add Data Disk** tab and the options for attaching a new disk are displayed:



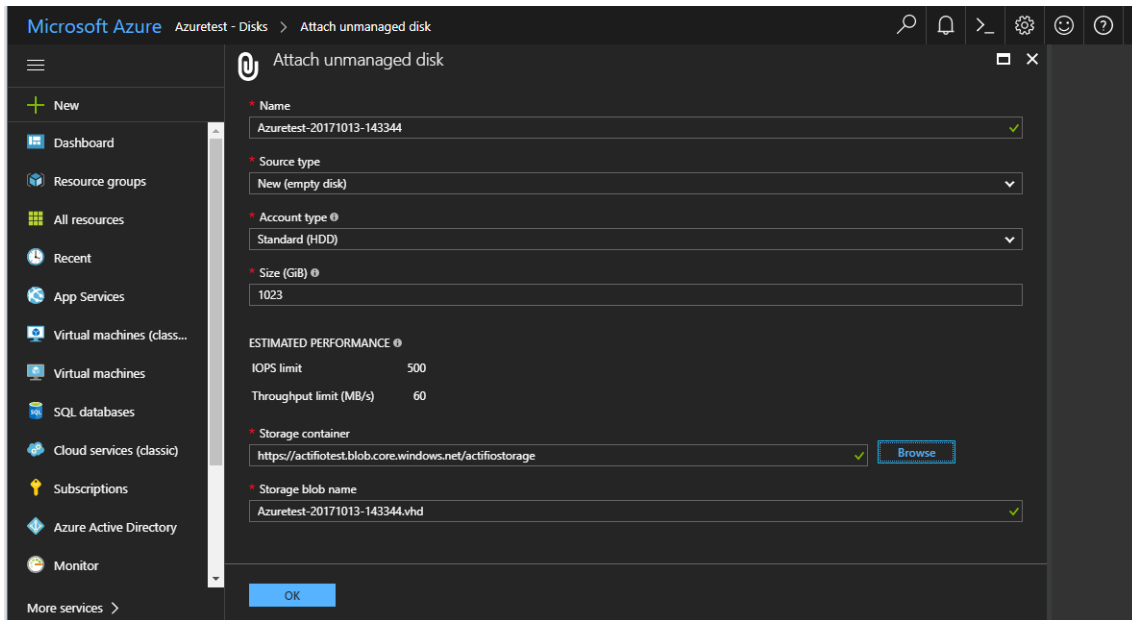
Add Data Disk

6. Use a **Name** that clearly identifies in which pool the disk will reside. Doing so will make the Actifio Sky appliance installation easier to follow.
7. For **Type**, You can use either HDD or SSD for the Primary and Snapshot pools. If your Actifio Sky appliance will use dedup policies, then use SSD disks for the dedup pool.
8. Make other settings as needed.
9. Browse to a storage container by first selecting an account that owns the container.
10. Select an account and the available containers are displayed:



Available Containers

11. Select a container as needed.
12. Click **Submit** and the disk is created.

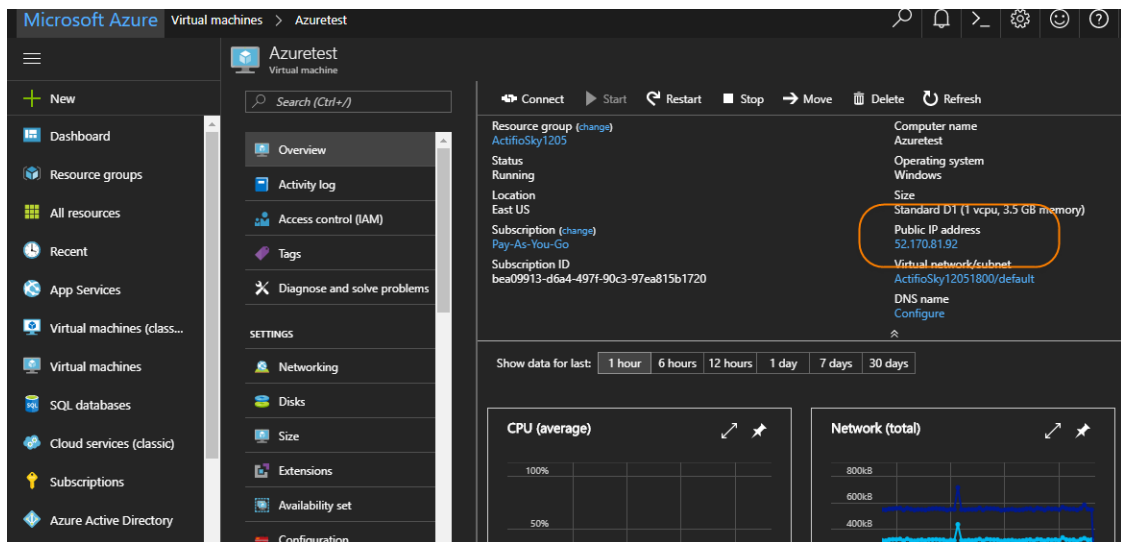


Disk Created

13. Repeat the process to populate each Actifio pool with the required storage. Storage requirements for each pool are defined at the beginning of this chapter.
14. Once you have created all of the required disks, you are ready to install the Actifio Sky appliance. See [Installing the Actifio Sky Appliance](#) on page 13 for details.

5 Installing the Actifio Sky Appliance

When the Microsoft Azure instance is ready, you can enter the instance's Public IP in a browser and begin installing the Actifio Sky appliance in the instance. To obtain the Public IP, select the VM from the list of available VMs, click **Overview** and the Public IP will be displayed under Essentials:



Display Public IP

Once you have the Public IP, you are ready to install the Actifio Sky appliance:

1. Enter the Azure Cloud **Public IP** address in a browser's address space and the Actifio Appliance Installer is displayed:

STEP 1: Setup Network Configuration | **STEP 2: Setup Storage Configuration** | **STEP 3: Review and Complete Installation**

All Items marked with (*) are required.

Public IP: 141 . 144 . 40 . 171

IPv4 address for cloud configuration.

Appliance IP (*): 10 . 196 . 220 . 34

IPv4 address on port 1 for Actifio Desktop and CLI clients. Also used for joining this appliance with other PAS appliances.

Appliance Name (*): ActifioSkyforAzure

DNS Server: 10 . 196 . 220 . 33

Subnet Mask: 255 . 255 . 255 . 252

Gateway: 10 . 196 . 220 . 33

NTP Server:

Infrastructure: Azure

Timezone: US/Eastern

System uuid (*): 1415087994:9d6d63fb-a8bb-3911-817e-10e18619c32f:432db74f

License: Evaluation license: Dedup pool size is set to 5TB with no encryption for 30 days from the start of installation. Please note that you will not be able to expand dedup capacity in the future. Contact Actifio to upgrade to production license.

Validate License

Create Admin Password (*):

Confirm Admin Password (*):

Next >

REBOOT OF THE ACTIFIO SKY APPLIANCE WILL OCCUR UPON COMPLETING INSTALLATION

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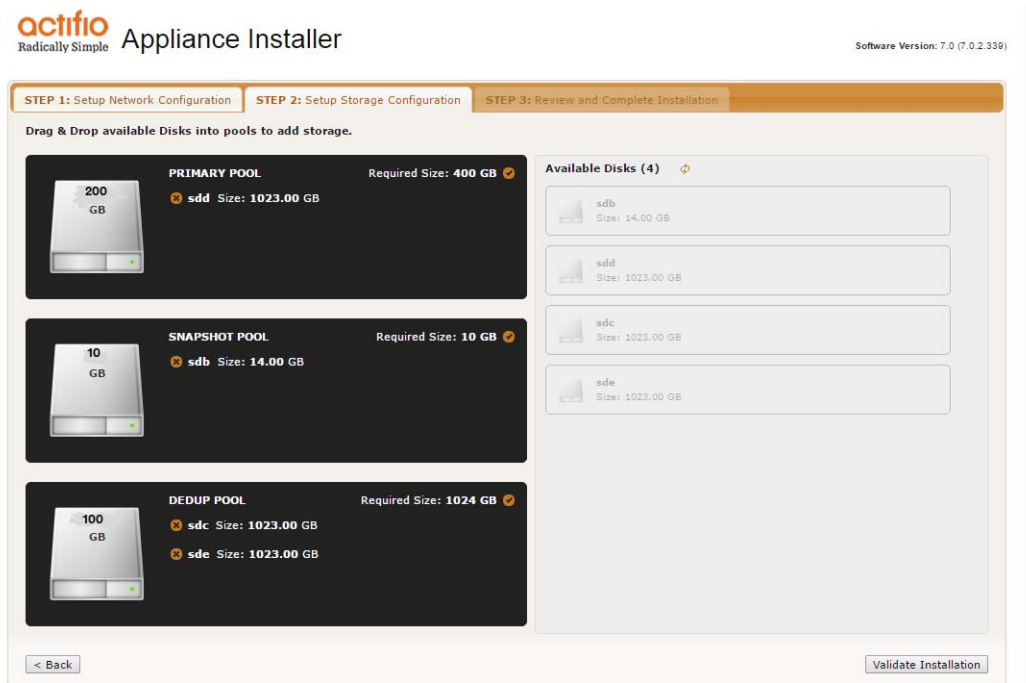
Actifio Sky Appliance Installer Step One

2. In the spaces provided enter the instance's Public IP.
3. Ensure that the auto discovered Actifio Sky appliance IP address is correct.
4. In the space provided, enter a name for the Actifio Sky appliance.
5. Ensure that the auto discovered network IP addresses are correct.
6. From the Infrastructure drop down menu, select **Azure**.
7. Set the time zone as needed.
8. If you are installing the Actifio Sky appliance as an evaluation, leave the **License Number** field set to the default setting.:

Note: The 5TB license is used for evaluations. If you decide to purchase a Actifio Sky appliance you will either keep the current 5TB appliance or your Actifio representative can work with you to increase the size of your Actifio Sky configuration.

9. If you are NOT installing this Actifio Sky appliance as an evaluation:
 - o Capture the System UUID and pass it on to the Actifio representative. The Actifio representative will use the UUID to generate the Actifio Sky appliance license key.

- o In the space provided, paste a copy of the license key you obtained from the Actifio representative.
 - o Click **Validate License** to ensure the validity of the license entered.
 - o If the license is valid, the Managed Data License (MDL) size will be displayed in a popup window. If there are any optional add-ons included in the license they will also be shown here.
 - o If you are using an encryption license, a pass phrase field is displayed. Enter a pass phrase, record the pass phrase and keep it in a secure location.
10. In the spaces provided, create a password for the first Admin user of the Actifio Sky appliance. Record the password.
11. Click **Next** and the Step 2 tab contents are displayed:



Actifio Sky Appliance Installer Step Two

12. Select and drag the Available Disks to their associated pools. These are the disks you created when you configured the Actifio VM in Azure. Drag them to their corresponding pool.
- o **Primary Pool:** Contains Actifio Sky system data. One 200 GB disk is required.
 - o **Snapshot Pool:** Contains the retained Snapshots (full copies). The actual size required for this disk will be calculated by your Actifio representative. It will define enough disk storage to accommodate the number of full snapshots of data you plan to retain. You can at a later date add additional disk storage to accommodate growth. A minimum of 10 GB is required.
 - o **Dedup Pool:** Contains the retained deduplicated data. The actual size required for this disk will be calculated by your Actifio representative. It will define enough disk storage to accommodate the number of deduped copies of data you plan to retain. A minimum of 100 GB is required.
13. Click **Validate Installation**. The Actifio Sky installer validates the settings. Any issues will appear in a yellow field at the top of the page 2. If no issues are encountered, the third tab is displayed:

