
Creating OnVault Pools

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1 Introduction

OnVault policies support IBM InfoSphere's incremental forever data capture model, where the first time a policy runs, it captures an entire image, then subsequent data captures are only the changes to the image. This allows you to perform more frequent uploads of IBM InfoSpheres (typically daily) to an object storage target.

IBM InfoSphere OnVault with incremental forever data capture is a cost-effective solution that allows you to replace your offsite vault infrastructure with on-demand and object storage to store your daily, weekly, monthly, and yearly backup images. To review the types of data capture and storage, see [Types of Incremental Forever Data Capture to OnVault Pools](#) on page 2.

Storage Pools

InfoSphere VDP Appliances retain data in pools:

- Snapshot Pools provide local, short-term data retention i.e. a few days. Snapshot data ensures instant access to the latest production data. Snapshot pools also serve as a source for OnVault policies.
- Dedup Pools provide local and remote, medium-term data retention i.e. three to six months. Dedup data is incrementally rehydrated before it is accessed.
- OnVault Pools define access to object stores. Data can be accessed directly from the object store without first copying it back to a local storage device.

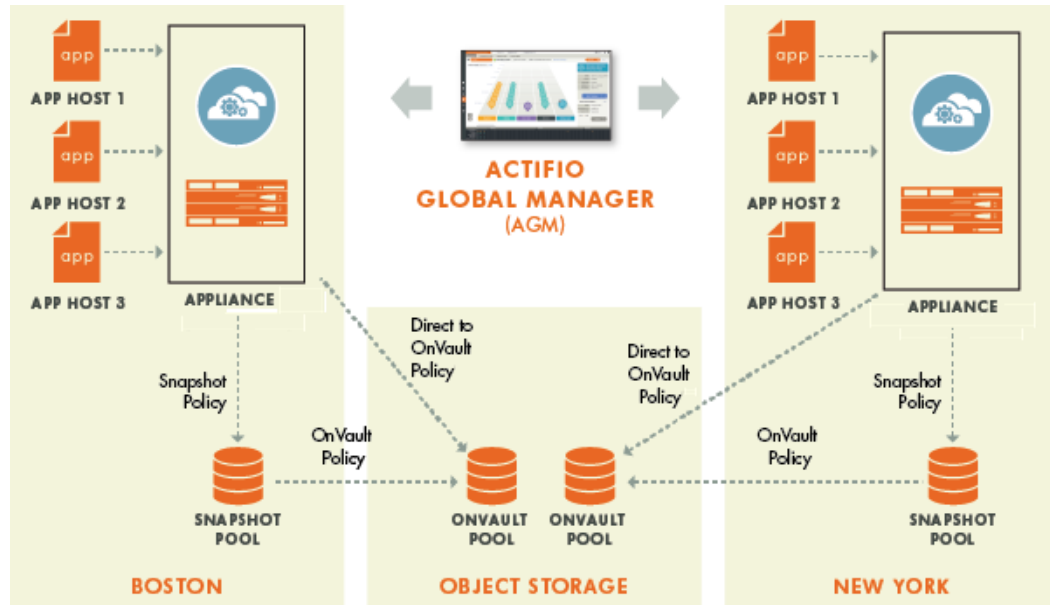
Import OnVault Images

IVGM users can import OnVault images from one managed InfoSphere VDP Appliance to another. An image that has been imported to another InfoSphere VDP Appliance can be mounted to that appliance's application hosts. This is especially useful in a disaster scenario where an InfoSphere VDP Appliance is no longer available. Data from the lost site can be mounted almost instantly to the other InfoSphere VDP Appliance's application hosts.

Ownership of an application's OnVault images can be taken by the InfoSphere VDP Appliance to which it was imported. InfoSphere VDP Appliances can only expire the OnVault images it owns. If an image is mistakenly imported, the IVGM Forget option undoes the import operation. Importing OnVault images is detailed in [Importing OnVault Images](#) on page 27.

Types of Incremental Forever Data Capture to OnVault Pools

Any data type captured in an IBM InfoSphere Snapshot Pool can be written to an IBM InfoSphere OnVault pool. In addition, VMware VMs can be captured directly from your production environment to an OnVault pool. For details on how to create the policies associated with these capture operations, see [Creating OnVault Policies](#) on page 23.



OnVault in a Multi-Appliance Environment - Managed by IVGM

Note: Direct to OnVault supported for VMware VMs only

2 Creating an OnVault Pool

This chapter assumes that you have an existing account with an object storage vendor and you are an experienced user of the object storage. Object storage vendors provide detailed instructions on the use of their object storage.

OnVault Pools are created from an InfoSphere VDP Appliance. The InfoSphere VDP Appliance from which the OnVault Pool was created or the IVGM that manages that appliance (if applicable), can use the pool as the destination for a Resource Profile.

A best practice for customers using IVGM is to use the same object storage for all OnVault Pools. This includes having the same access credentials. This makes the import operation and disaster recovery operations seamless.

This chapter consists of two sections:

- [Before You Begin](#) on page 3
- [Creating an OnVault Pool](#) on page 18

Before You Begin

OnVault Pools require access to your object storage. Before you can create an OnVault pool, you must gather some basic access related information from your object storage account. This information varies by object storage vendor. Use the following sections to determine what information is required from your object storage account.

The following sections detail the information that you need to configure:

- [Cloud - Alibaba Cloud Object Storage Service \(OSS\)](#) on page 4
- [Cloud - Amazon S3 Standard and Cloud - Amazon S3 IA](#) on page 5
- [Cloud - Google Nearline and Google Coldline Storage](#) on page 7
- [Cloud - Microsoft Azure and Microsoft Azure US Government](#) on page 8
- [Cloud - NIFCLOUD Object Storage](#) on page 9
- [Cloud - Oracle](#) on page 10
- [Self Managed - Hitachi Content Platform](#) on page 12
- [Self Managed - IBM Cloud Object Storage \(Cleversafe\)](#) on page 13
- [Self Managed - NetApp StorageGRID](#) on page 15
- [Self Managed - Other Amazon S3 Compatible Object Storage](#) on page 16

Note: IBM InfoSphere is continually qualifying new object storage vendors. If you do not see your object storage vendor listed here, contact your IBM InfoSphere representative for the latest list of supported vendors.

Cloud - Alibaba Cloud Object Storage Service (OSS)

Alibaba Cloud Object Storage Service (OSS)

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool	IBM InfoSphere
PoolType	Required	Cloud - Alibaba Cloud Object Storage Service (OSS)	IBM InfoSphere
Access Key ID	Required	The access key for ObjectStore access	Cloud Vendor
SecretAccess Key	Required	The secret key for ObjectStore access	Cloud Vendor
Bucket	Required	A name for the ObjectStore bucket	Customer
Aliresources region	Required	Select one of the Cloud - Aliresources regions from the drop-down list. Regions are physical geographic locations which contain one or more zones.	Cloud Vendor
Compression	Optional	Specify if data in the OnVault pool should be stored in compressed or uncompressed format. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress the data before transmitting.	Cloud Vendor
Proxy server (address:port)	Required if access to the ObjectStore needs a proxy server.	Enter both the address and port number.	Customer
Member of Organization(s)	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IBM InfoSphere
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

Cloud - Amazon S3 Standard and Cloud - Amazon S3 IA

Amazon S3 Standard and Amazon S3 IA

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool.	IBM InfoSphere
PoolType	Required	Select: Cloud - Amazon S3 Standard or Cloud - Amazon S3 Standard - IA (InfrequentAccess)	IBM InfoSphere
Access Key ID	Required	The access key for ObjectStore access	Cloud Vendor
SecretAccess Key	Required	The secret key for ObjectStore access	Cloud Vendor
Bucket	Required	A name for the ObjectStore bucket	Customer
AW S resources region	Required	Select one of the AW S resources regions from the drop-down list. Regions are physical geographic locations which contain one or more zones.	Cloud Vendor
Compression	Optional	Specify if data in the OnVault pool should be stored in compressed or uncompressed format. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress the data before transmitting.	Cloud Vendor
Proxy server (address:port)	Required if access to the ObjectStore needs a proxy server.	Enter both the address and port number.	Customer
Member of Organization(s)	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IBM InfoSphere
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

Cloud - Google Nearline and Google Coldline Storage

Google Nearline and Google Coldline

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool.	IVGM
PoolType	Required	Select: Cloud - Google Nearline Storage or Cloud - Google Coldline Storage	IBM InfoSphere
Access ID	Required	The access ID for ObjectStore access	Cloud Vendor - Management Console
Path to private key file in PKCS12 format	Required	Upload a valid private key file.	IVGM - File Upload OnVault Configuration Form
Bucket	Required	A name for the ObjectStore bucket	Customer
Compression	Optional	Specify if data in the OnVault pool should be stored in compressed or uncompressed format. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress the data before transmitting.	IVGM
Proxy server (address:port)	Required if access to the ObjectStore needs a proxy server.	Enter both the address and port number.	Customer
Member of Organization(s)	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IVGM
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault.	IVGM Note: Change this only under the guidance of IBM InfoSphere Support.

Cloud - Microsoft Azure and Microsoft Azure US Government

Note: When creating the pool, you must select a Standard storage account. Premium storage accounts are not supported.

Microsoft Azure and Microsoft Azure US Government

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool.	IBM InfoSphere
PoolType	Required	Select: Cloud - Microsoft Azure or Cloud - Microsoft Azure US Government	IBM InfoSphere
Storage AccountName	Required	Name of the Storage Account	Customer
Access Key	Required	The access key for ObjectStore access	Cloud Vendor
Container Name	Required	A name for the ObjectStore bucket	Customer
Compression	Optional	Specify if data in the OnVault pool should be stored in compressed or uncompressed format. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress the data before transmitting.	Cloud Vendor
Proxy server (address:port)	Required if access to the ObjectStore needs a proxy server.	Enter both the address and port number.	Customer
Member of Organization(s)	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IBM InfoSphere
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

NIFCLOUD ObjectStorage

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool.	IBM InfoSphere
PoolType	Required	Select: Cloud - NIFCLOUD ObjectStorage	IBM InfoSphere
EndpointURL	Required	Top level URL to access the ObjectStorage. Can contain multiple folders and/or objects. Must be globally unique.	NIFCLOUD-created, customer-specific
Access Key	Required	The access key for ObjectStore access	Cloud Vendor
SecretAccess Key	Required	The secret key for ObjectStore access	Cloud Vendor
Bucket	Required	A name for the ObjectStore bucket	Customer
Compression	Optional	Specify if data in the OnVault pool should be stored in compressed or uncompressed format. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress the data before transmitting.	Cloud Vendor
Proxy server (address:port)	Required if access to the ObjectStore needs a proxy server.	Enter both the address and port number.	Customer
Member of Organization(s)	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IBM InfoSphere
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

Oracle Cloud

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool	IBM InfoSphere
PoolType	Required	Select: Cloud - Oracle	IBM InfoSphere
Access Key ID	Required	The access key ID for ObjectStore access	Cloud Vendor
SecretAccess Key	Required	The secret key for ObjectStore access	Cloud Vendor
Storage namespace	Required	This is a unique, uneditable system - generated string assigned during account creation. It applies to all regions. The object storage namespace serves as a container for all user buckets and objects.	Cloud Vendor
Bucket	Required	A name for the ObjectStore bucket	Customer
Oracle Cloud Region	Required	Select one of the Oracle Cloud regions from the drop-down list. Regions are physical geographic locations which contain one or more zones.	Cloud Vendor
Compression	Optional	Specify if data in the OnVault pool should be stored in compressed or uncompressed format. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress the data before transmitting.	Cloud Vendor
Proxy server (address:port)	Required if access to ObjectStore needs a proxy server.	Enter both the address and port number.	Customer
Member of Organization(s)	Optional	Organizations and roles work together to enforce rules set up by IVGM administrators for user access to IVGM features.	IBM InfoSphere

Oracle Cloud

Attribute	Required?	Description	Information Source
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default (1 MB) is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

HitachiContentPlatform

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool.	IBM InfoSphere
PoolType	Required	Select: Cloud - Oracle	IBM InfoSphere
ObjectStorage URL	Required	A container for all user buckets and objects.	HCP created, custom er-specific
Access Key ID	Required	The access key ID for ObjectStore access	Cloud Vendor
SecretAccess Key	Required	The secret key for ObjectStore access	Cloud Vendor
Path to SSL certificate file in PEM format	Required	Upload a valid SSL certificate file in PEM format.	Cloud Vendor generated but user must upload it while adding a new HCP OnVault Pool.
Bucket	Required	A name for the ObjectStore bucket	Custom er
Authentication Scheme	Required	Select either AWS Signature Version 2 (S3 backward compatible authentication) or AWS Signature Version 4.	Authentication schemes supported by HCP
Proxy server (address:port)	Required if access to the ObjectStore needs a proxy server.	Enter both the address and port number.	Custom er
Member of Organizations	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IBM InfoSphere
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

SelfManaged - IBM Cloud ObjectStorage (Cleversafe)

IBM Cloud ObjectStorage (Cleversafe)

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool	IBM InfoSphere
PoolType	Required	Select: SelfManaged - IBM Cloud ObjectStorage (Cleversafe)	IBM InfoSphere
Path to SSL certificate file in PEM format	Required	Upload a valid SSL certificate file in PEM format.	Cloud Vendor
ObjectStorage URL	Required	Top level URL to access the ObjectStorage. Can contain multiple folders and/or objects. Must be globally unique.	IBM-created, user-specific
Access ID	Required	The access ID for ObjectStore access	Cloud Vendor
Access Key	Required	The access key for ObjectStore access	Cloud Vendor
Bucket	Required	A name for the ObjectStore bucket	Customer
Compression	Optional	Specify if data in the OnVault pool should be stored in compressed or uncompressed format. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress the data before transmitting.	Cloud Vendor
Integrate with IBM COS Retention feature	Optional	Enable the checkbox for selecting the IBM COS Retention feature. See Integration with IBM COS Retention , below	Cloud Vendor
Authentication Scheme	Required	Select either AWS Signature Version 2 (S3 backward compatible authentication) or AWS Signature Version 4.	Supported IBM auth. schemes
Proxy server (address:port)	Required if object store access needs a proxy server.	Enter both the address and port number.	Customer
Member of Organization(s)	Optional	Organizations and roles work together to enforce rules by IVGM administrators for access to IVGM features.	IBM InfoSphere

IBM Cloud Object Storage (Cleversafe)

Attribute	Required?	Description	Information Source
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

Integration with IBM COS Retention

When integration with IBM COS Retention is enabled, in ages put into this OnVault pool from policies with Enforced Retention will have the retention set on all objects related to that in age. This prevents accidental or deliberate deletion of the in age before its enforced retention date. For this integration to work, the IBM COS configuration must meet the following requirements:

- IBM COS Retention must be licensed and enabled on the bucket being used.
- Minimum and Default retention on the bucket must be set to 0 (zero).
- Maximum retention on the bucket must be large enough for the longest enforced retention period.

NetApp StorageGRID

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the ObjectStore (OnVault) pool.	IBM InfoSphere
PoolType	Required	Select: SelfManaged - NetApp StorageGRID	IBM InfoSphere
ObjectStorage URL	Required	Top level URL to access ObjectStorage. Can contain multiple folders and/or objects. Must be globally unique.	NetApp-created, custom er-specific
Access Key ID	Required	The access key ID for ObjectStore access	Cloud Vendor
SecretAccess Key	Required	The secret key for ObjectStore access	Cloud Vendor
Bucket	Required	A name for the ObjectStore bucket	Custom er
Proxy server (address:port)	Required if access to the ObjectStore needs a proxy server.	Enter both the address and port number.	Custom er
Member of Organizations	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IBM InfoSphere
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

SelfManaged - OtherAmazon S3 Compatible ObjectStorage

OtherAmazon S3 Compatible ObjectStorage

Attribute	Required?	Description	Information Source
PoolName	Required	A descriptive name for the OnVault pool	IBM InfoSphere
PoolType	Required	Select: SelfManaged - OtherAmazon S3 Compatible ObjectStorage	IBM InfoSphere
ObjectStorage URL	Required	Top level URL to access the ObjectStorage. Can contain multiple folders and/or objects. Must be globally unique	Cloud Vendor
Access Key ID	Required	The access key ID for ObjectStore access	Cloud Vendor
SecretAccess Key	Required	The secret key for ObjectStore access	Cloud Vendor
Path to SSL certificate file in PEM format	Required	Upload a valid SSL certificate in PEM format.	Cloud Vendor
Bucket	Required	A name for the ObjectStore bucket	Customer
Compression	Optional	Specify if data in the OnVault pool should be stored compressed or uncompressed. Compressing data reduces storage costs but requires additional compute capacity for the InfoSphere VDP Appliance to compress data before transmitting.	Cloud Vendor
Authentication Scheme	Required	Select either AWS Signature Version 2 (S3 backward compatible authentication) or AWS Signature Version 4.	Cloud Vendor supported authentication schemes
Proxy server (address port)	Required if object store access needs a proxy server.	Enter both the address and port number.	Customer
Member of Organizations	Optional	Organizations and roles work together to enforce rules setup by IVGM administrators for user access to IVGM features.	IBM InfoSphere

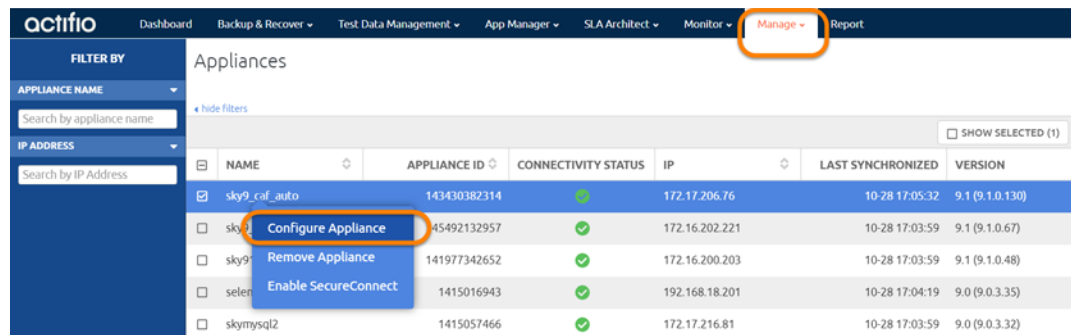
Other Amazon S3 Compatible Object Storage

Attribute	Required?	Description	Information Source
Advanced Settings: Object size	Required	Values can be from 64 KB to 8 MB. The default value of 1 MB is suitable in most cases. Changing the object size can adversely affect the performance of the InfoSphere VDP Appliance and the cost of object storage service used for OnVault. Change this only under the guidance of IBM InfoSphere Support.	IBM InfoSphere Support

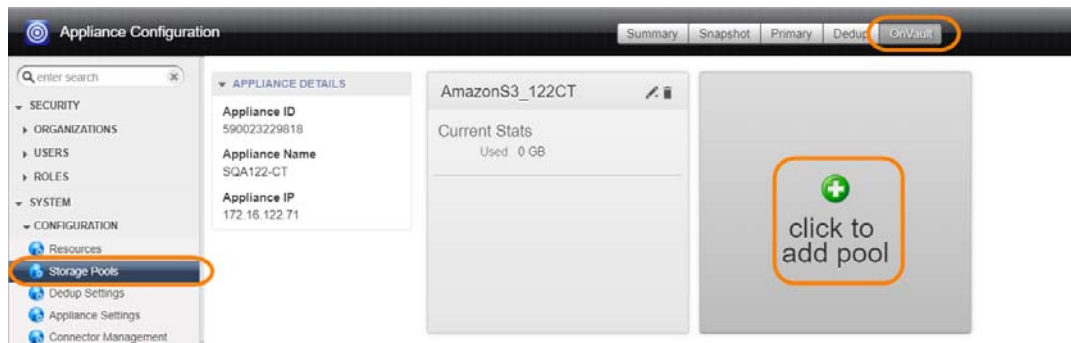
Creating an OnVault Pool

Once you have gathered your object storage specific information as detailed in [Before You Begin](#) on page 3, create an OnVault Pool as follows:

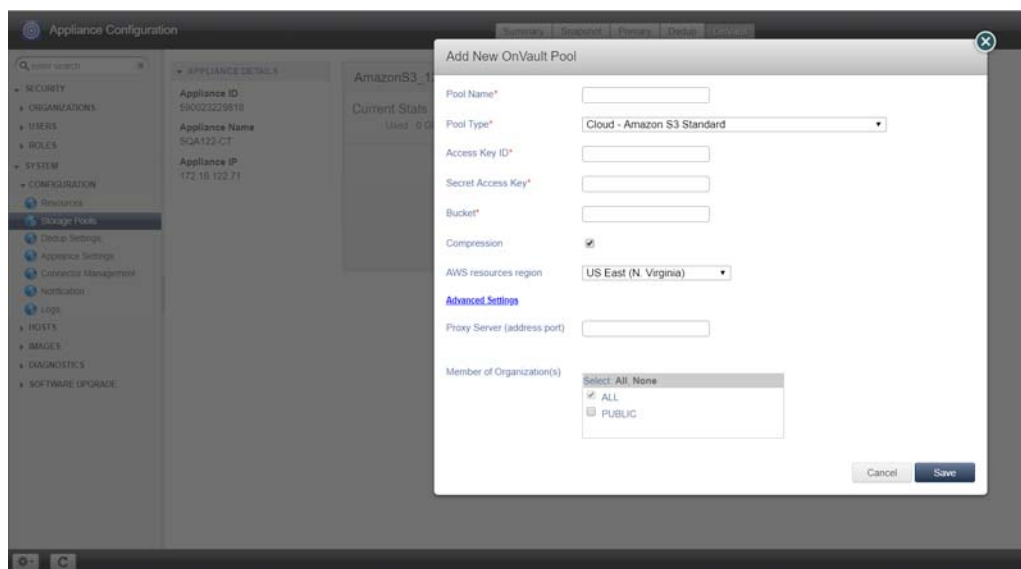
1. From the IVGM Management menu, select Appliances. Select the appliance that will have the OnVault Pool and click Configure Appliance.



2. From Storage Pools, select the OnVault tab and then click to add pool. You may have to scroll down to see the Add Pool option.



3. A dialog box opens that will allow you to select the storage pool. Select your object storage vendor from the dropdown menu and the OnVault Pool options for your vendor are displayed. For example, for Amazon S3 Storage:



4. In the spaces provided enter a name for the OnVault pool.
5. In the spaces provided, enter the vendor-specific access information described in [Before You Begin](#) on page 3.
6. In most cases you will want to keep the compression checked. Compression reduces network traffic.
7. Advanced Settings should only be changed from the default block size at the direction of IBM InfoSphere Support.
8. Select the organization memberships for the OnVault Pool as needed.
9. Click Save and the OnVault Pool is created and can be added to a Resource Profile.

3 Creating Resource Profiles

Resource Profiles define which storage pools will be used to retain application data.

Resource Profiles are created in the Service Level Architect (SLA) service. To create a Resource Profile:

1. From the SLA Architect select the Profiles tab at the top of the page.
2. Either select and edit existing Resource Profile or click Create Profile to create a new profile. The Create New Profile page is displayed.

Caution! If you select an existing Resource Profile, ALL applications on that appliance to which the profile is applied will be impacted by changes to the profile.

The screenshot shows the 'Create New Profile' page in the SLA Architect interface. The page has a header with 'SLA ARCHITECT' and navigation tabs for 'Templates' and 'Profiles'. Below the header, there's a section titled 'Create New Profile' with a description: 'A resource profile defines the storage for snapshot, deduplicated, or replicated images of data from protected applications. Select the primary (local) appliance for where the data images will reside and a remote appliance if applicable. Once saved, the primary appliance can not be changed within the current profile.' The form includes a 'PROFILE*' field with the value 'ProfileWithOnVaultPool', a 'DESCRIPTION' field with the value 'This profile uses an OnVault Pool', and a 'Save Profile' button. Below these fields, there are two main sections: 'Primary Appliance' and 'Remote Appliance'. The 'Primary Appliance' section has three dropdown menus: 'Sky Source' for the Primary Appliance, 'act_per_pool000' for the Snapshot Pool, and 'OnVaultPool' for the OnVault Pool. The 'Remote Appliance' section has a dropdown menu set to 'None'.

3. In the spaces provided, enter a name and description for the profile.
4. Select the Primary Appliance from the drop-down list. This is the appliance on which the profile was or will be created.
5. From the Snapshot Pool menu select the Snapshot Pool that the OnVault Pool will use as its source.
6. From the OnVault Pool drop down menu, select the OnVault Pool to which production data in the Snapshot Pool will be sent. You can select this option only if the selected InfoSphere VDP Appliance has defined an OnVault Storage Pool.
7. If this Profile will be used in an SLA Template that contains policies that will replicate data to another InfoSphere VDP Appliance, then from the drop down list under Remote Appliance, select the InfoSphere VDP Appliance to which data will be replicated. The remote InfoSphere VDP Appliance selected is not used with OnVault.
8. Click Save Profile.
- 9.

4 Creating OnVault Policies

An OnVault policy defines when data is captured, the frequency with which it will be captured, and how long it will be retained.

VDP allows you to create two types of OnVault policies:

- Snapshot to OnVault policies capture data in a Snapshot Pool and further protect that data in an OnVault Pool. To create a Snapshot to OnVault policy, see [IVGM Snapshot to OnVault Policy](#) on page 23.
- Direct to OnVault policies capture VMs in their production environment and protect them directly to an OnVault Pool. To create a Direct to OnVault policy, see [IVGM Direct to OnVault Policy](#) on page 24.

An OnVault policy can be created in an existing SLA Template that has a Production to Snapshot policy, or created as part of a new SLA Template.

Caution! If you add an OnVault Policy to an existing SLA Policy Template, ALL applications on this appliance to which the SLA Policy Template is applied will be impacted by the changes.

Note: Best practices for creating SLA Policy Templates and Policies can be found in the IVGM Online Help.

IVGM Snapshot to OnVault Policy

SLA Policy Templates are defined in the SLA Architect service. Before you can create an OnVault policy, you must use an existing SLA Template that has a Production to Snapshot policy, or create a new SLA Template with a Production to Snapshot policy. Images captured by Production to Snapshot policies are used as the source for OnVault policies.

To create a Snapshot to OnVault Policy from IVGM :

1. From an existing SLA Template or from a new SLA Template with a Production to Snapshot policy, click the plus sign + between Snapshot and OnVault.



The Snap to OnVault page is displayed :

The screenshot shows the 'Snapshot To OnVault' policy configuration interface. On the left, a sidebar lists various policies: Snapshot (1), Direct to Dedup (0), Direct to OnVault (0), Dedup (0), Dedup DR (0), Mirror (0), and OnVault (0). The main area is titled 'Create/Edit Policy' and contains the following settings:

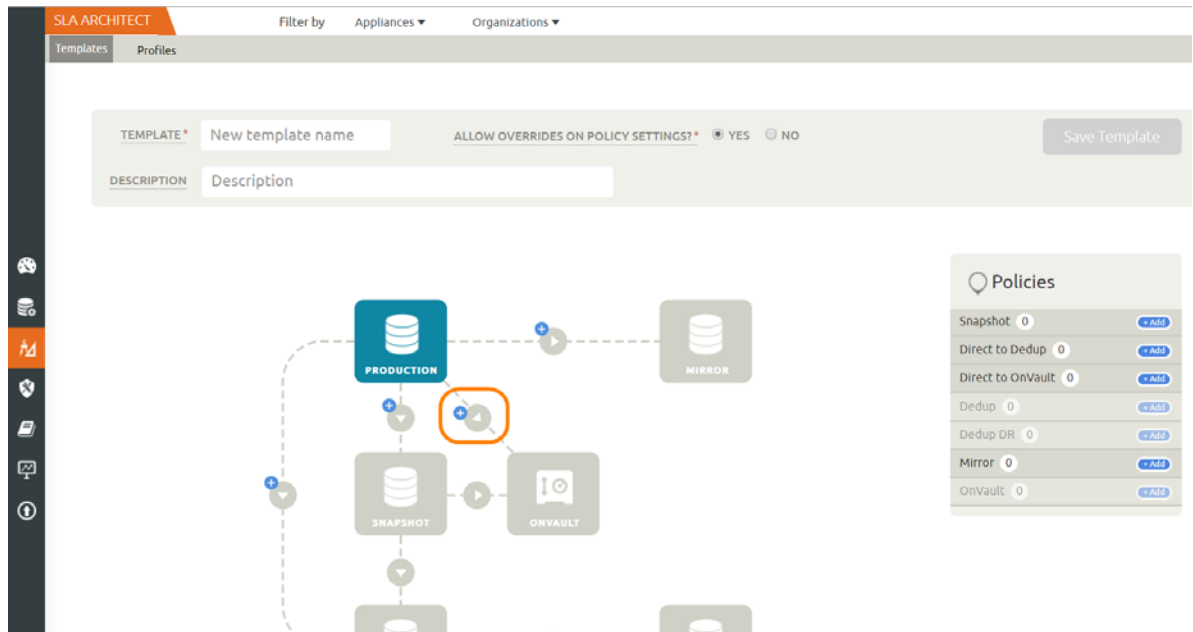
- POLICY NAME**: (Empty text field)
- SCHEDULING**: Windowed (dropdown)
- ON THESE DAYS**: Everyday (dropdown)
- EXCEPT**: Never (dropdown)
- WITHIN THIS WINDOW**: 19:00 TO 18:50 (time range)
- RUN ONCE PER WINDOW**: Checked (toggle)
- EVERY**: 24 (frequency in hours)
- RETAIN FOR**: 14 (days)
- PRIORITY**: Medium (dropdown)
- Buttons**: Cancel, Update Policy, and Advanced Policy Settings.

2. Set the policy according to your needs. For example, an OnVault policy could be defined as:
 - o Within a window
 - o Run Everyday, with No Exceptions
 - o Between 19:00 to 18:50
 - o Once per window
 - o Retain for 3 Years
3. Click Update Policy and the policy is created.

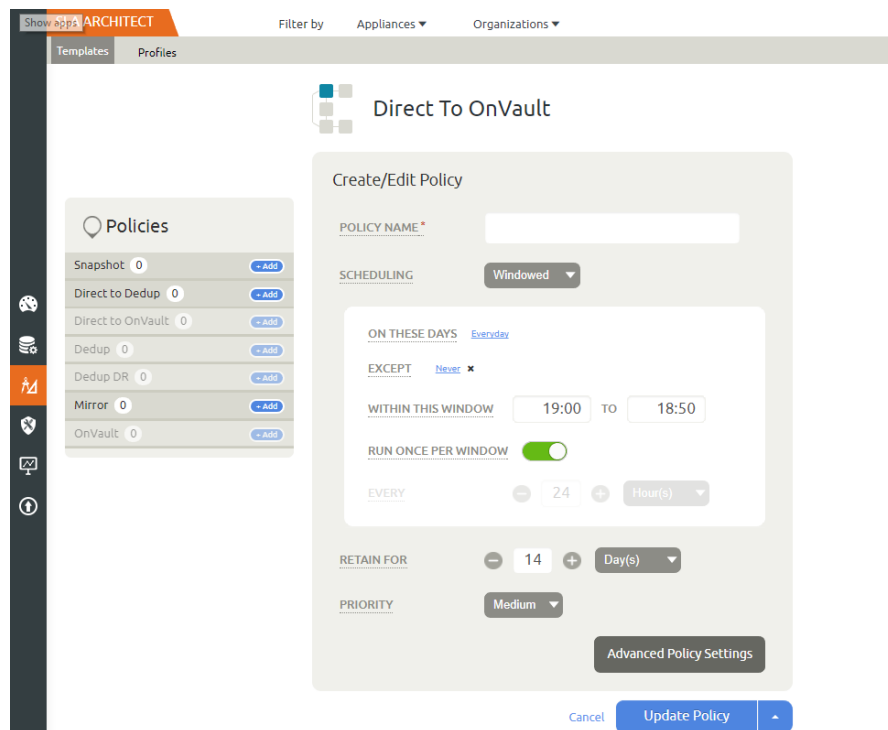
IVGM Direct to OnVault Policy

Direct to OnVault policies are used to capture VMware VMs and can only be created in IVGM. To create a Snapshot to OnVault Policy from IVGM :

1. From an existing SLA Template or from a new SLA Template with NO Production to Snapshot policy and NO Production to Mirror policy, click the plus sign + between Production and OnVault.



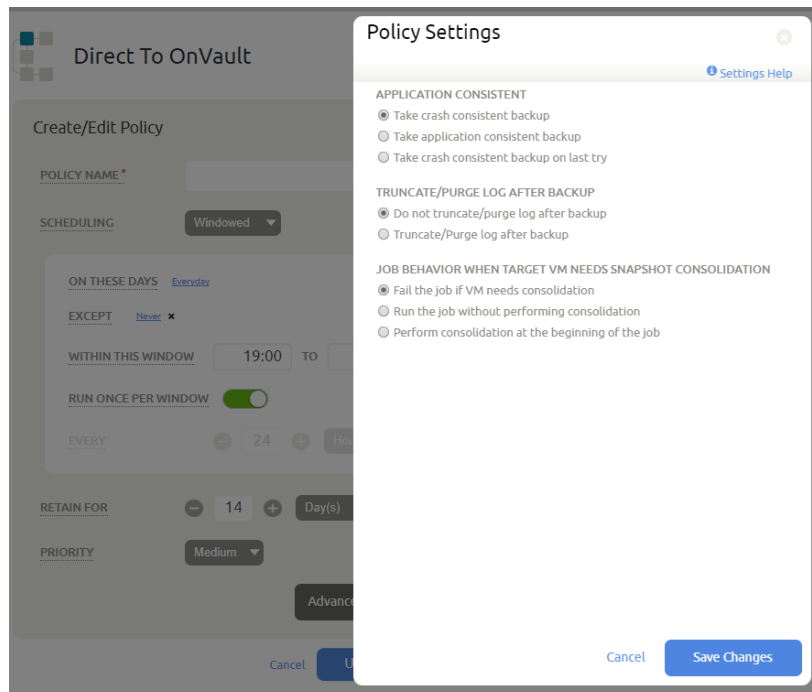
2. The Direct to OnVault page is displayed.



3. Set the policy according to your needs. For example, an OnVault policy could be defined as:

- Within a window
- Run Everyday, with No Exceptions
- Between 19:00 to 18:50
- Once per window
- Retain for 3 Years

4. Click Advanced Policy Settings and the Policy Settings dialog box is displayed. This dialog box allows you to set VM specific advanced policy settings:



5. From the Policy settings dialog box select:

- Application Consistent

Take crash consistent backup: Crash-consistent backup is a fast backup of application data in storage as if power were lost at that moment. It does not pause application data I/O. All data on disk are saved, and data in memory is lost. Incomplete transactions may be saved. The recovery of a crash consistent backup may take longer time and introduce exceptions. Typically recovery from crash has to be made manually. Crash consistent backups are easy and fast for virtual machines.

Take application consistent backup: Application-consistent backup notifies the application to prepare for a backup. This option loses no data. It pauses application data I/O, completes in-flight transactions, and flushes memory to disk. On recovery, data is easily accessible. For virtual clients, usually an agent is needed to get notification of a backup at host, and then notify applications, and may need to wait for an approval from applications. Not all applications support application-consistent backups.

Take crash consistent backup on last try: This option initially takes application consistent backups, but if an application consistent backup fails for any reason, it will then take a crash consistent backup.

- Truncate/Purge Log After Backup: Select whether to truncate the logs after every backup. When this is selected, application-related logs are truncated up to the most recent backup.
- Job Behavior When Target VM Needs Snapshot Consolidation

Fail the job: Fails the job.

Run the job without performing consolidation: All jobs run normally even if consolidation is pending.

Perform consolidation at the beginning of the job: Backup jobs try to perform consolidation at the beginning of the job. If consolidation fails, the job fails.

6. Click Save Changes or Cancel and the dialog box closes.
7. Click Update Policy and the policy is created.

5 Accessing and Importing Images

Once you have a Resource Profile that uses an OnVault Pool and an SLA Policy Template that contains an OnVault Policy, you can, from the Application Manager, apply the Resource Profile and SLA Policy Template to applications and VMs. The OnVault policy will run according to its schedule and the captured image will be written to the OnVault Pool specified in the Resource Profile.

Accessing Data in OnVault

After the first capture operation has completed, data in an OnVault Pool's object storage location can be accessed according to the following rules:

- IBM InfoSphere VDP can create clones from OnVault data on any InfoSphere VDP Appliance.
- IBM InfoSphere VDP cannot create LiveClones from OnVault data.
- IBM InfoSphere VDP can perform Application Aware mounts of data in an OnVault Pool on any InfoSphere VDP Appliance.

Importing OnVault Images

When an image is imported to an InfoSphere VDP Appliance, that InfoSphere VDP Appliance can instantly mount the imported data to its managed hosts.

Ownership of imported data is maintained by the source appliance. The Import function allows ownership to be transferred to the appliance to which the data is imported. Ownership gives full control over the image, including the ability to expire the image.

In case an image is accidentally imported, IVGM provides a Forget Imported Image function that will remove an imported image from an InfoSphere VDP Appliance.

To import images see:

[Importing Images From the IVGM Domain Manager Storage Pool Page on page 28](#)

[Importing Images From the IVGM Application Manager Application Page on page 29](#)

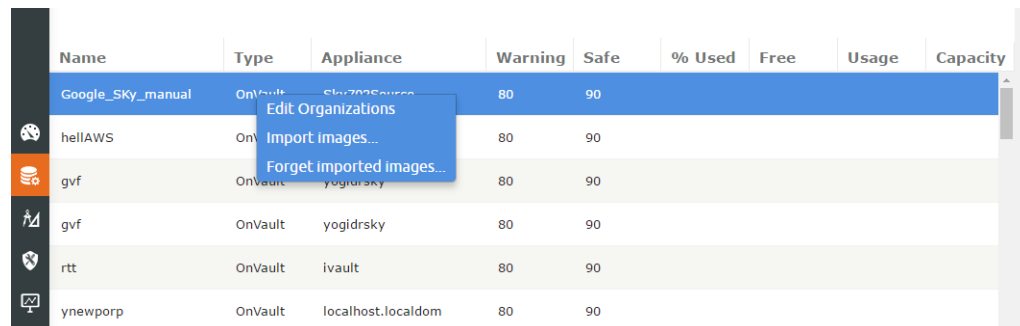
To facilitate importing images, when defining a OnVault Pool, use the same object store and object store credentials.

Importing Images From the IVGM Domain Manager Storage Pool Page

Importing images from the Domain Manager's Storage Pool page has the advantage of allowing you to select multiple applications in ages.

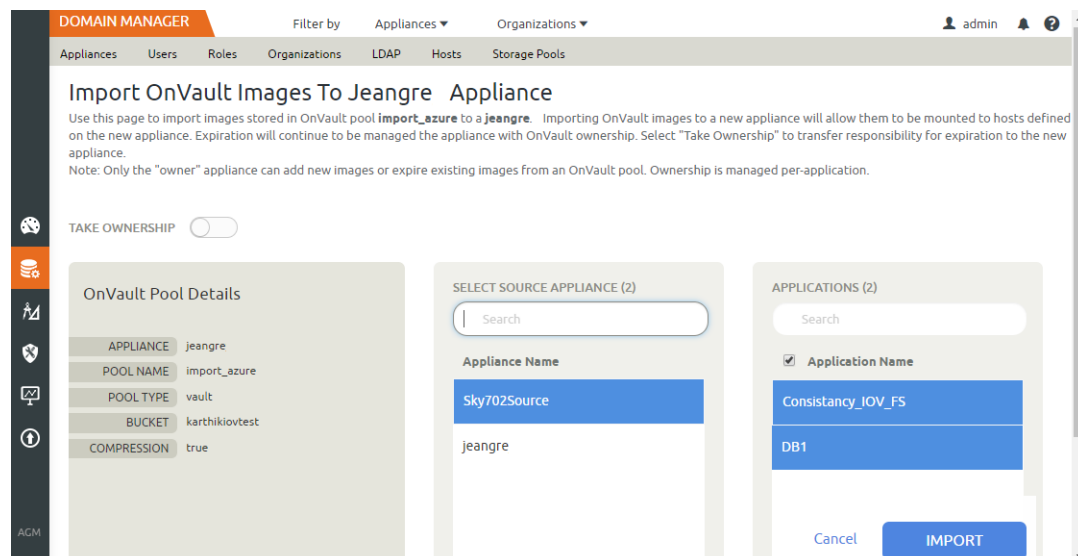
To import images from the Domain Manager's Storage Pool page:

1. Right click on an OnVault Storage Pool and from the drop down menu select Import Images. The Import OnVault Images page is displayed:



Name	Type	Appliance	Warning	Safe	% Used	Free	Usage	Capacity
Google_Sky_manual	OnVault	Sky702Source	80	90				
hellAWS	OnVault		80	90				
gvf	OnVault	yogidrsky	80	90				
gvf	OnVault	yogidrsky	80	90				
rtt	OnVault	ivault	80	90				
ynewporp	OnVault	localhost.localdom	80	90				

2. Select the InfoSphere VDP Appliance to which the application(s) will be imported.



DOMAIN MANAGER Filter by Appliances Organizations admin

Appliances Users Roles Organizations LDAP Hosts Storage Pools

Import OnVault Images To Jeangre Appliance

Use this page to import images stored in OnVault pool **import_azure** to a **jeangre**. Importing OnVault images to a new appliance will allow them to be mounted to hosts defined on the new appliance. Expiration will continue to be managed the appliance with OnVault ownership. Select "Take Ownership" to transfer responsibility for expiration to the new appliance.

Note: Only the "owner" appliance can add new images or expire existing images from an OnVault pool. Ownership is managed per-application.

TAKE OWNERSHIP ☐

OnVault Pool Details

APPLIANCE jeangre

POOL NAME import_azure

POOL TYPE vault

BUCKET karthikiotest

COMPRESSION true

SELECT SOURCE APPLIANCE (2)

Search

Appliance Name

Sky702Source

jeangre

APPLICATIONS (2)

Search

☒ Application Name

Consistency_IOV_FS

DB1

Cancel IMPORT

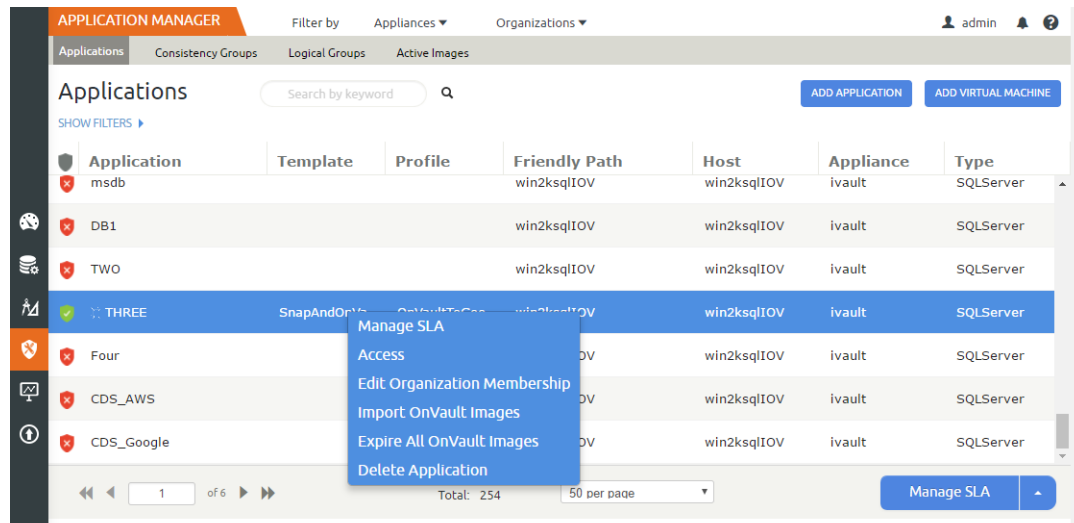
3. Select the application(s) to import.
4. Click Import and the import operation will begin. A message will be displayed when the operation completes.

Importing Images From the IVGM Application Manager Application Page

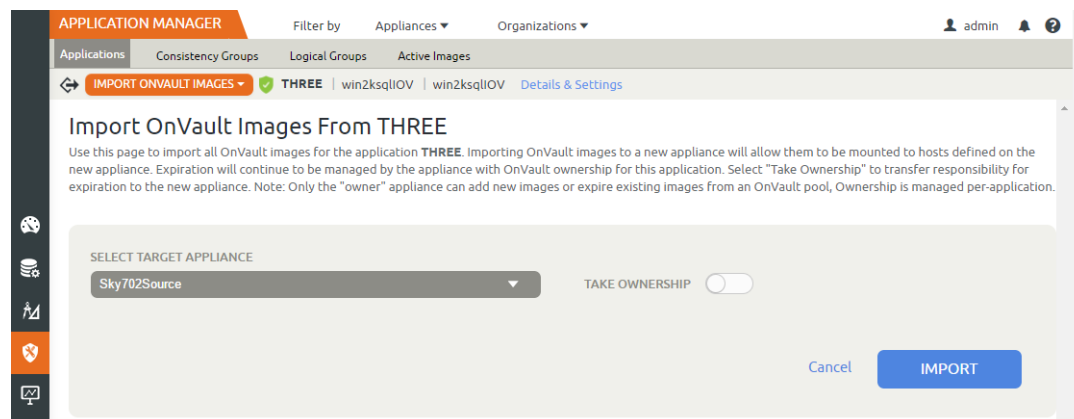
Importing images from the Application Manager Application page has the advantage of allowing you to quickly select a single, specific application image to be imported. To import multiple images, see [Importing Images From the IVGM Domain Manager Storage Pool Page](#) on page 28.

To import an image from the Application Manager Application page:

1. Right-click an application that is protected in an OnVault Pool.



2. From the drop down menu select Import OnVault Images. The Import OnVault Images page is displayed:



3. From the Select Target Appliance drop down menu, select the appliance to which the image will be imported.
4. Click Import and the import operation will begin. A message will be displayed when the operation is finished.

