

NetBackup™ Asset Service APIs Getting Started Guide

Release 8.3 and later

Document Version 2

VERITAS™

NetBackup™ Asset Services APIs Getting Started Guide

Last updated: 2021-06-07

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NetBackup Asset Service API overview

This chapter includes the following topics:

- [About the NetBackup Asset Service API](#)
- [Named Queries](#)
- [Migrating NetBackup 8.2 Asset DB to NetBackup 8.3 Asset Service](#)

About the NetBackup Asset Service API

The NetBackup Asset Service API provides access to NetBackup asset information from supported workloads.

The Asset Service is a plug-able architecture consisting of workload providers serving user requests. Workload providers are responsible for managing their assets and capabilities. The Asset Service is responsible for fetching and interacting with different workload providers based on the user request. Workload providers expose capabilities in terms of Named Queries.

Named Queries

A Named Query is a capability exposed by workload providers in the Asset Service. The Asset Service provides generic REST endpoints/APIs to allow the execution of the provider's Named Query.

The execution of a Named Query is a two step process:

1. Initiate a query by POSTing to Asset Service with a request payload.

```
POST /asset-service/queries
```

The request payload includes the query name, workloads, and workload/query specific parameters. If the workloads field is empty, the query will be executed by all supported workloads

For the JSON schema definition of the request payload for a specified workload, refer to `data.attributes.requestSchema` of the response of the following API:

```
GET /asset-service/workloads/{workload}/schemas/{queryName}
```

Query Id{*queryId*} is returned as a response.

The query ID of this Named Query execution is a short-lived resource. It expires after 30 minutes of inactivity. If the Asset Service is under heavy load, the result set could expire earlier.

2. A GET on the query ID should fetch the results of the initiated query.

```
GET /asset-service/queries/{queryId}
```

For a complete JSON schema definition of the results of a specified Named Query for a specified workload, refer to `data.attributes.responseSchema` of the response of the following API:

```
GET /asset-service/workloads/{workload}/schemas/{queryName}
```

Required Named Queries

It is recommended that all workload providers implement some basic capabilities through Named Queries.

The following Named Queries are required:

- `assets`
Get all available assets.
- `assets-count`
Get assets count.
- `asset-by-id`
Get an asset by ID.

Optional Common Named Queries

The following common Named Queries are recommended but not required for workload providers to implement:

- `related-assets`
Get all related assets

- `create-assets`
Create specified assets.
- `update-assets`
Update specified assets
- `delete-assets`
Delete specified assets
- `create-or-update-assets`
Create specified asset or update if it is already present.
- `add-assets-protection`
Add protection plan to the specified asset
- `remove-assets-protection`
Remove protection plan from the specified asset
- `validate-assets-credentials`
Validate the associated credentials for an asset
- `cleanup-assets`
Cleanup the assets which satisfies the cleanup criteria defined by workload.

Migrating NetBackup 8.2 Asset DB to NetBackup 8.3 Asset Service

Several NetBackup 8.2 Asset DB endpoints are discontinued or deprecated with the introduction of Asset Service in NetBackup 8.3.

The following table provides the mapping functionality in NetBackup 8.3 for the discontinued or deprecated APIs.

Table 1-1 Migrating NetBackup 8.2 Asset DB endpoints to NetBackup 8.3 Asset Service endpoints

Serial number / NetBackup 8.2 Asset DB endpoint / State in NetBackup 8.3	Similar NetBackup 8.3 Asset Service endpoint
<p>1</p> <p>GET /assets</p> <p>Discontinued</p>	<p>Execution of Named Query <code>assets</code> with workloads <code>vmware</code>, <code>rhv</code>, <code>cloud</code> should give the similar behavior. This also can be achieved with workload context <code>GET</code></p> <p><code>/asset-service/workloads/{workload}/assets</code> Where the <code>{workload}</code> should be <code>vmware</code>, <code>rhv</code>, <code>cloud</code>.</p> <p>The following example requests a payload for Named Query <code>assets</code> with multiple workloads.</p> <p><i>assets Named Query request payload</i></p> <pre>{ "data": { "type": "query", "attributes": { "queryName": "assets", "workloads": ["vmware", "rhv", "cloud"] } } }</pre>

Table 1-1 Migrating NetBackup 8.2 Asset DB endpoints to NetBackup 8.3 Asset Service endpoints (*continued*)

Serial number / NetBackup 8.2 Asset DB endpoint / State in NetBackup 8.3	Similar NetBackup 8.3 Asset Service endpoint
2 POST /assets Discontinued	<p>Assets can be created by using the Named Query <code>create-assets</code> for workloads <code>vmware</code>, <code>rhv</code>, <code>cloud</code>.</p> <p>Assets can be updated by using the Named Query <code>update-assets</code> for workloads <code>vmware</code>, <code>rhv</code>, <code>cloud</code>.</p> <p>Assets can also be created or updated (if not present) by using the Named Query <code>create-or-update-assets</code> for workloads <code>vmware</code>, <code>rhv</code>, <code>cloud</code>.</p> <p>Note: These Named Queries are allowed to be executed only with one workload. Therefore you can not create/update assets across the workloads in single Named Query execution.</p> <p>Refer to the request payload schemas for the specific workload and availability of the Named Query.</p> <p>For example, to get the schema for "create-assets" Named Query for workload <code>rhv</code>:</p> <pre>GET /asset-service/workloads/rhv/schemas?filter=schemaName eq 'create-assets'</pre>
3 GET /assets/{GUID} Discontinued	<pre>GET /asset-service/workloads/{workload}/assets/{assetId}</pre> <p>Where the <code>{workload}</code> should be <code>vmware</code>, <code>rhv</code>, <code>cloud</code>.</p>
4 GET /assets/{GUID}/asset-groups Discontinued	<p>Asset group information for an asset can be fetched by executing:</p> <pre>GET /asset-service/workloads/{workload}/assets/{assetId}/asset-groups</pre> <p>Where the <code>{workload}</code> should be <code>vmware</code>, <code>rhv</code></p>
5 POST /assets/asset-cleanup Discontinued	<p>Execution of Named Query <code>delete-assets</code> for workloads <code>vmware</code>, <code>rhv</code>, <code>cloud</code> should clean the assets.</p> <p>Note: Please review the workload specific schemas for more details.</p>

Table 1-1 Migrating NetBackup 8.2 Asset DB endpoints to NetBackup 8.3 Asset Service endpoints (*continued*)

Serial number / NetBackup 8.2 Asset DB endpoint / State in NetBackup 8.3	Similar NetBackup 8.3 Asset Service endpoint
6 POST /asset-groups Discontinued	Assets can be created by using the Named Query <code>create-assets</code> for workloads <code>vmware</code> , <code>rhv</code> . Assets can be updated by using the Named Query <code>update-assets</code> for workloads <code>vmware</code> , <code>rhv</code> .
7 POST /preview-asset-group Discontinued	GET /asset-service/workloads/{workload}/assets?filter=assetType eq 'vmGroup') Where the {workload} should be <code>vmware</code> , <code>rhv</code> .
8 PATCH /asset-groups/{assetGroupGuid} Discontinued	Assets can be updated by using Named Query <code>update-assets</code> for workloads <code>vmware</code> , <code>rhv</code> .
9 DELETE /asset-groups/{assetGroupGuid} Discontinued	Execution of Named Query <code>delete-assets</code> should give the similar behavior.
10 GET /asset-groups Deprecated	This end point will continue functioning in NetBackup 8.3. In NetBackup 8.3, this also can achieved by new endpoint GET /asset-service/workloads/{workload}/assets?filter=assetType eq 'vmGroup') Where the {workload} should be <code>vmware</code> , <code>rhv</code> .
11 GET /asset-groups/{assetGroupGuid} Deprecated	This end point will continue functioning in NetBackup 8.3. In NetBackup 8.3, Asset group information for an asset can also be fetched by executing: GET /asset-service/workloads/{workload}/assets/{assetId} Where the {workload} should be <code>vmware</code> , <code>rhv</code>

VMware Named Queries

This chapter includes the following topics:

- [VMware Named Queries in NetBackup 8.3](#)

VMware Named Queries in NetBackup 8.3

The following Named Queries are supported for VMware assets in NetBackup 8.3.

Table 2-1 Named Queries supported for VMware assets in NetBackup 8.3

Query	Description
assets	Get a list of all VMware assets. Includes all VMware asset types: VMs and Intelligent Groups
asset-by-id	Get a particular asset by its ID.
assets-count	Get a count of assets.
create-or-update -assets	Create or update VMware assets or Intelligent Group. If the asset or group does not exist, this query creates it. If the asset or group exists, this query updates it
update-assets	Patch update the Intelligent Group only.
delete-assets	Delete VMware asset or Intelligent Group.
add-assets -protection	Add a protection plan to the given asset.

Table 2-1 Named Queries supported for VMware assets in NetBackup 8.3
(continued)

Query	Description
remove-assets -protection	Remove a protection plan from the given asset.
cleanup-assets	Clean up the assets which satisfy the cleanup criteria .
related-assets	Get information about related assets.
register-servers	Register the VM server with RBAC. This query is called when the VM server is added to NetBackup.
unregister -servers	Unregister the VM server with RBAC. This query is called when the VM servers is removed from NetBackup.

RHV Named Queries

This chapter includes the following topics:

- [RHV Named Queries in NetBackup 8.3](#)

RHV Named Queries in NetBackup 8.3

The following Named Queries are supported for RHV assets in NetBackup 8.3.

Table 3-1 Named Queries supported for RHV assets in NetBackup 8.3

Query	Description
<code>create-assets</code>	Post the list of assets: VM or Intelligent VM Group End user may not need to invoke this for RHV VMs. Its main use case is to create intelligent VM group.
<code>update-assets</code>	Update the attributes of VM or Intelligent VM Group This is applicable to VM group.
<code>assets</code>	Get the list of all assets: VM or/and Intelligent VM Group.
<code>asset-by-id</code>	Get the information of a particular VM or Intelligent VM Group .
<code>assets-count</code>	Get the count of assets.
<code>related-assets</code>	Get the information of related assets.
<code>delete-assets</code>	Delete asset VM or Intelligent VM Group.

AHV Named Queries

This chapter includes the following topics:

- [AHV Named Queries in NetBackup 9.1](#)

AHV Named Queries in NetBackup 9.1

The following Named Queries are supported for AHV assets in NetBackup 9.1.

Table 4-1 Named Queries supported for AHV assets in NetBackup 9.1

Query	Description
<code>create-assets</code>	Get a list of all AHV assets. Includes all AHV asset types: Cluster, VM, Container and Intelligent VM group.
<code>asset-by-id</code>	Get a particular asset by its ID.
<code>assets-count</code>	Get a count of assets.
<code>create-or-update-assets</code>	Create or update AHV assets. Includes all AHV asset types: Cluster, VM, Container and Intelligent VM group. If the asset does not exist, this query creates it. If the asset exists, this query updates it.
<code>delete-assets</code>	Delete AHV assets. Includes all AHV asset types: Cluster, VM, Container and Intelligent VM group.
<code>cleanup-assets</code>	Clean up the assets which satisfy the respective clean-up criteria. Applicable for AHV asset types: VM and Container.
<code>related-assets</code>	Get the information of related assets.

Table 4-1 Named Queries supported for AHV assets in NetBackup 9.1
(continued)

Query	Description
validate-assets-credentials	Validates AHV asset credentials. Applicable AHV asset type: Cluster
topology	Retrieves the topology for AHV.

Cloud Named Queries

This chapter includes the following topics:

- [Cloud Named Queries in NetBackup 8.3](#)

Cloud Named Queries in NetBackup 8.3

The following Named Queries are supported for Cloud assets in NetBackup 8.3.

Table 5-1 Named Queries supported for Cloud assets in NetBackup 8.3

Query	Description
<code>create-or-update-assets</code>	Create the list of Cloud assets. It updates the same asset if it is already present. You may not need to invoke this query. It is called during Cloud discovery.
<code>assets</code>	Get the list of all assets. Cloud asset types are host, disk, application, region, and location.
<code>asset-by-id</code>	Get the information of a particular asset.
<code>assets-count</code>	Get the count of assets.
<code>delete-assets</code>	Delete asset.
<code>cleanup-assets</code>	Delete the assets which are no longer required in our database.

Microsoft SQL Named Queries

This chapter includes the following topics:

- [Microsoft SQL Named Queries in NetBackup 8.3](#)

Microsoft SQL Named Queries in NetBackup 8.3

The following Named Queries are supported for Microsoft SQL assets in NetBackup 8.3.

Table 6-1 Named Queries supported for Microsoft SQL assets in NetBackup 8.3

Query	Description
<code>create-assets</code>	Post the list of assets: Instance, Database, Availability_Group.
<code>update-assets</code>	Update the attributes of Instance or Database. This query is not supported for Availability Groups. The update call is also used to associate credentials and to set active/inactive state for an instance.
<code>assets</code>	Get the list of all assets: Instance, Database, Availability Groups
<code>asset-by-id</code>	Get the information of a particular assets Instance, Database, Availability Groups
<code>assets-count</code>	Get the count of assets
<code>related-assets</code>	Get the information of related assets

Table 6-1 Named Queries supported for Microsoft SQL assets in NetBackup 8.3 (*continued*)

Query	Description
delete-assets	Delete asset Instance or Availability Groups. Not supported for Database.
cleanup-assets	Delete the Instance assets which are not registered. Not supported for availability groups or Database.
mssql-discover -database	Manually discover Database on a specific instance.
mssql-discover -availabilitygroups	Manually discover Availability Groups on a specific instance. Not supported for instances.
validate-assets -credentials	Validate instance credentials.