Cloud Sync APIs

Cloud Manager

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Cloud Sync APIs

The Cloud Sync capabilities that are available through the web UI are also available through the RESTful API.

Getting started

To get started with the Cloud Sync API, you need to obtain a user token and your Cloud Central account ID. You'll need to add the token and account ID to the Authorization header when making API calls.

Steps

1. Obtain a user token from NetApp Cloud Central.

```
POST https://netapp-cloud-account.auth0.com/oauth/token
Header: Content-Type: application/json
Body:
{
                "username": "<user_email>",
                "scope": "profile",
                "audience": "https://api.cloud.netapp.com",
                "client_id": "UaVhOIXMWQs5i1WdDxauXe5Mqkb34NJQ",
                "grant_type": "password",
                "password": "<user_password>"
}
```

2. Obtain your Cloud Central account ID.

```
GET https://api.cloudsync.netapp.com/api/accounts
Headers: Authorization: Bearer <user_token>
Content-Type: application/json
```

This API will return a response like the following:

```
[
  {
    "accountId": "account-JeL97Ry3",
    "name": "Test"
  }
]
```

3. Add the user token and account ID in the Authorization header of each API call.

Example

The following example shows an API call to create a data broker in Microsoft Azure. You would simply replace <user_token> and <accountId> with the token and ID that you obtained in the previous steps.

```
POST https://api.cloudsync.netapp.com/api/data-brokers
Headers: Authorization: Bearer <user_token>
Content-Type: application/json
x-account-id: <accountId>
Body: { "name": "databroker1", "type": "AZURE" }
```

What should I do when the token expires?

The user token from NetApp Cloud Central has an expiration date. To refresh the token, you need to call the API from step 1 again.

The API response includes an "expires_in" field that states when the token expires.

API reference

Documentation for each Cloud Sync API is available from https://api.cloudsync.netapp.com/docs.

Using list APIs

List APIs are asynchronous APIs, so the result does not return immediately (for example: `GET /data-brokers/{id}/list-nfs-export-folders` and `GET /data-brokers/{id}/list-s3-buckets`). The only response from the server is HTTP status 202. To get the actual result, you must use the `GET /messages/client` API.

Steps

1. Call the list API that you want to use.
2. Use the `GET /messages/client` API to view the result of the operation.
3. Use the same API by appending it with the ID that you just received: `GET http://api.cloudsync.netapp.com/api/messages/client?last=<id_from_step_2>`

   Note that the ID changes each time that you call the `GET /messages/client` API.

Example

When you call the `list-s3-buckets` API, a result is not immediately returned:

```
GET http://api.cloudsync.netapp.com/api/data-brokers/<data-broker-id>/list-s3-buckets
Headers: Authorization: Bearer <user_token>
Content-Type: application/json
x-account-id: <accountId>
```

The result is HTTP status code 202, which means the message was accepted, but was not processed yet.

To get the result of the operation, you need to use the following API:

```
GET http://api.cloudsync.netapp.com/api/messages/client
Headers: Authorization: Bearer <user_token>
Content-Type: application/json
x-account-id: <accountId>
```

The result is an array with one object that includes an ID field. The ID field represents the last message that the server sent. For example:

```
[
    {
        "header": {
            "requestId": "init",
            "clientId": "init",
            "agentId": "init"
        },
        "payload": {
            "init": {}
        },
        "id": "5801"
    }
]
```

You would now make the following API call using the ID that you just received:

```
GET
http://api.cloudsync.netapp.com/api/messages/client?last=<id_from_step_2>
Headers: Authorization: Bearer <user_token>
Content-Type: application/json
x-account-id: <accountId>
```

The result is an array of messages. Inside each message is a payload object, which consists of the name of the operation (as key) and its result (as value). For example:

```
[
    {
        "payload": {
            "list-s3-buckets": [
                {
                    "tags": [
                        {
                            "Value": "100$",
                            "Key": "price"
                        }
                    ],
                    "region": {
                        "displayName": "US West (Oregon)",
                        "name": "us-west-2"
                    },
                    "name": "small"
                }
            ]
        },
        "header": {
            "requestId": "f687ac55-2f0c-40e3-9fa6-57fb8c4094a3",
            "clientId": "5beb032f548e6e35f4ed1ba9",
            "agentId": "5bed61f4489fb04e34a9aac6"
        },
        "id": "5802"
    }
]
```


Using the API to create a sync relationship from Box

Cloud Sync supports Box as the source in a sync relationship when using the Cloud Sync API. View supported sync relationships for Box.

In order to copy from Box, you'll need to provide the following credentials:

- clientId
- cliendSecret
- publicKeyId
- privateKey
- passphrase
- enterpriseId

Steps

1. Create a private key configuration file on the Box dev console.

The json file should look like this:

```
{
  "boxAppSettings": {
    "clientID": "<clientId>",
    "clientSecret": "<clientSecret>",
    "appAuth": {
      "publicKeyID": "<publicKeyID>",
      "privateKey": "<privatkey>",
      "passphrase": "<passphrase>"
    }
  },
  "enterpriseID": "<enterpriseId>"
}
```

2. Use the Cloud Sync API to create a sync relationship from Box to a supported target.

   Here's an example for creating a sync relationship from Box to Amazons S3.

```
{
  "dataBrokerId": "60ede6f862e3cf7d31325037",
  "source": {
    "protocol": "box",
    "box": {
      "folderId": "0",
      "credentials": {
        "clientId": "<clientId>",
        "clientSecret": "<clientSecret>",
        "publicKeyId": "<publicKeyId>",
        "privateKey": "<privateKey>",
        "passphrase": "<passphrase>",
        "enterpriseId": "<enterpriseId>"
      }
    }
  },
  "target": {
    "protocol": "s3",
    "s3": {
      "bucket": "chen02",
      "prefix": "fromBox20",
      "region": "us-east-1",
"provider":"s3"
    }
  },
  "settings": {
```

```
    "gracePeriod": 0,
    "deleteOnSource": false,
    "deleteOnTarget": false,
    "objectTagging": false,
    "copyAcl": false,
    "retries": 3,
    "fileTypes": {
      "files": true,
      "directories": true,
      "symlinks": true
    },
    "copyProperties": {
      "metadata": false,
      "tags": false
    },
    "schedule": {
      "syncInDays": 1,
      "syncInHours": 0,
      "syncInMinutes": 0,
      "isEnabled": true,
      "syncWhenCreated": true
    }
  }
}
```

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