



Identity and access

Cloud Manager Automation

NetApp
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Identity and access

Create user token

You must generate a bearer token to authenticate and access the Cloud Manager REST API. There are two workflows available depending on the type of authentication. You need to select the correct workflow:

- [Federated](#)
- [Nonfederated](#)

Create a user token with federated authentication

This workflow describes how to create an access token when using federated authentication.

Before you begin

Review the parameters in the **JSON input example** for the second workflow step. In particular, you must have the client identifier.

1. Generate a NetApp refresh token

Navigate to [Refresh Token Generator](#) and generate a long-lived token. You need to provide this in the `refresh_token` JSON input parameter in the next step.

2. Generate the user token

This API call uses the *Auth0* authentication service and not the NetApp Cloud Manager service. See the URL in the curl example below and adjust for your environment as needed.

HTTP method	Resource path
POST	/oauth/token

curl example

```
curl --location --request POST 'https://netapp-cloud-account.auth0.com/oauth/token' --header 'Content-Type: application/json' --d @JSONinput
```

Input parameters

The JSON input example includes the list of input parameters.

JSON input example

```
{
  "grant_type": "refresh_token",
  "refresh_token": "<REFRESH_TOKEN>",
  "client_id": "<CLIENT_ID>"
}
```

Output

The JSON output example includes the list of returned values. The `expires_in` value is expressed in seconds.

JSON output example

```
{
  "access_token": "<USER_TOKEN>",
  "id_token": "<ID_TOKEN>",
  "scope": "openid profile cc:update-password",
  "expires_in": 86400,
  "token_type": "Bearer"
}
```

Create a user token with nonfederated authentication

This workflow describes how to create an access token when using non-federated authentication.

Before you begin

Review the parameters in the **JSON input example** for the first workflow step. In particular, you must have the account credentials and the client identifier.

1. Generate the user token

This API call uses the *Auth0* authentication service and not the NetApp Cloud Manager service. See the URL in the curl example below and adjust for your environment as needed.

HTTP method	Resource path
POST	/oauth/token

curl example

```
curl --location --request POST 'https://netapp-cloud-account.auth0.com/oauth/token' --header 'Content-Type: application/json' --d @JSONinput
```

Input parameters

The JSON input example includes the list of input parameters.

JSON input example

```
{
  "username": "user@my-company-demo.com",
  "scope": "openid profile",
  "audience": "https://api.cloud.netapp.com",
  "client_id": "<CLIENT_ID>",
  "grant_type": "password",
  "password": "userpassword",
  "Realm": "Username-Password-Authentication"
}
```

Output

The JSON output example includes the list of returned values. The `expires_in` value is expressed in seconds.

JSON output example

```
{
  "access_token": "<USER_TOKEN>",
  "id_token": "<ID_TOKEN>",
  "scope": "openid profile cc:update-password",
  "expires_in": 86400,
  "token_type": "Bearer"
}
```

Get supported services

You can use this workflow to retrieve information about the Cloud Manager supported services including the *client id* and *account id* values.



This workflow describes how to use the REST API to retrieve the two ID values. You can also use the Cloud Manager web UI to get these values. See [Get the client and account identifiers](#) for more information.

1. Get the supported services

This API returns information about the supported services.

HTTP method	Resource path
GET	/occm/api/occm/system/support-services

curl example

```
curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/occm/system/support-
services' --header 'Content-Type: application/json' --header 'x-agent-Id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'
```

Input parameters

None

Output

The JSON output example includes the supported services information. You can locate the `clientId` value under `auth0Information` and the `accountId` value under `tenancyServiceInformation`.

JSON output example

```
{
  "asupEnabled": true,
  "cognitoEnabled": true,
  "kinesisEnabled": true,
  "intercomEnabled": true,
  "liveChatEnabled": true,
  "volumeViewEnabled": true,
  "portalService": {
    "usePortalAuthentication": true,
    "auth0Information": {
      "domain": "netapp-cloud-account.auth0.com",
      "audience": "https://api.cloud.netapp.com",
      "clientId": "WsefXFuCJJvMKCMppR65jCktHAQBWFs4"
    },
    "portalInformation": {
      "edit_user_url":
"https://services.cloud.netapp.com/?userMenuOpen",
      "portalBackEnd":
"https://api.staging.services.cloud.netapp.com",
      "portalFrontEnd": "https://services.cloud.netapp.com"
    },
    "saasFrontEnd": "https://cloudmanager.netapp.com"
  },
  "intercomAppId": "brf2h510",
  "tenancyServiceInformation": {
    "accountId": "account-xxx1234",
    "url": "https://cloudmanager.cloud.netapp.com/tenancy",
    "accountWidgetUrl":
"https://services.cloud.netapp.com/accountWidgetLoader.js",
    "agentsMgmtUrl": "https://cloudmanager.cloud.netapp.com/agents-
mgmt",
    "forwarderUrlOverride": "https://cloudmanager.cloud.netapp.com"
  }
}
```

```

    },
    "saasMpServiceInformation": {
      "productUrlAws":
"http://aws.amazon.com/marketplace/pp/B086BQCW8P",
      "productUrlGcp":
"http://console.cloud.google.com/marketplace/details/netapp-
cloudmanager/cloud-manager",
      "url": "https://staging.cloudmanager.cloud.netapp.com/saas-mp",
      "productUrlAzure": "https://portal.azure.com/#create/netapp.test-
cloud-manager"
    },
    "cvssInformation": "https://staging.services.cloud.netapp.com",
    "backupToS3Information": {
      "enabled": true,
      "disableReason": null,
      "notSubscribedReason": false,
      "cbsEnabled": true,
      "onpremSupported": true
    },
    "complianceEnabled": false,
    "ipaServiceInformation": {
      "url": "https://staging.cloudmanager.cloud.netapp.com/ipa"
    },
    "servicesInformation": {
      "compliance": {
        "enabled": false,
        "govSupported": true,
        "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_compliance/index.html"
      },
      "cloudSync": {
        "iframeUrl": "https://dev.cloudsync.netapp.com",
        "url": "https://dev.cloudsync.netapp.com",
        "enabled": false,
        "apiUrl": "https://api.dev.cloudsync.netapp.com",
        "govSupported": false
      },
      "monitoring": {
        "enabled": false,
        "govSupported": true,
        "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/monitoring/index.html",
        "apiUrl": "https://staging.cloudmanager.cloud.netapp.com"
      },
      "astra": {
        "enabled": true,

```

```

    "govSupported": false,
    "iframeUrl": "https://engint.astra.netapp.io"
  },
  "gfc": {
    "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_gfc/index.html",
    "dashboardUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_gfc/index.html",
    "enabled": false,
    "apiUrl": "https://staging.cloudmanager.cloud.netapp.com",
    "govSupported": false
  },
  "cloudTiering": {
    "iframeUrl": "https://staging.tiering.cloud.netapp.com",
    "url": "https://staging.tiering.cloud.netapp.com",
    "enabled": false,
    "apiUrl": "https://staging.tiering.cloud.netapp.com",
    "govSupported": false
  },
  "snapCenter": {
    "enabled": false,
    "govSupported": false,
    "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_snapcenter/index.html",
    "apiUrl": "https://staging.cloudmanager.cloud.netapp.com"
  },
  "k8s": {
    "enabled": false,
    "govSupported": false,
    "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_k8s/index.html",
    "apiUrl": "https://staging.cloudmanager.cloud.netapp.com"
  },
  "spot": {
    "enabled": true,
    "govSupported": false,
    "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_spot/index.html",
    "apiUrl": "https://staging.cloudmanager.cloud.netapp.com"
  },
  "sfr": {
    "enabled": false,
    "govSupported": true,
    "iframeUrl": "https://dev-
components.cloudmanager.netapp.com/cloudmanager_sfr/index.html",
    "dashboardUrl": "https://dev-

```



```

components.cloudmanager.netapp.com/cloudmanager_sfr/index.html"
    },
    "activeIq": {
      "enabled": true,
      "govSupported": false,
      "iframeUrl": "https://digitaladvisor.aws.techteam.netapp.com"
    }
  },
  "setupInfo": {
    "isSetup": true,
    "isPendingConnectivitySet": false,
    "needCertificate": false,
    "runningInDocker": false
  },
  "useCompliancePrivateIpContainerMode": false
}

```

Get cloud provider accounts

You can retrieve a list of the Cloud Manager accounts available for the supported cloud platforms.

1. Get the cloud provider accounts

HTTP method	Resource path
GET	/occm/api/accounts/cloud-providers

curl example

```

curl --location --request GET
'https://cloudmanager.cloud.netapp.com/occm/api/accounts/cloud-providers'
--header 'Content-Type: application/json' --header 'x-agent-id:
<AGENT_ID>' --header 'Authorization: Bearer <ACCESS_TOKEN>'

```

Input parameters

None

Output

The JSON output example shows the cloud provider accounts returned in separate named arrays.

JSON output example

```

{
  "awsAccounts": [
    {
      "publicId": "InstanceProfile",
      "accountName": "Instance Profile",
      "accountType": "INSTANCE_PROFILE",
      "accountId": "733004784675",
      "accessKey": "",
      "assumeRole": null,
      "occmRole": "occm",
      "vsaList": [
        {
          "publicId": "VsaWorkingEnvironment-N6BPfglr",
          "name": "ziv04we01ha",
          "workingEnvironmentType": "AWSHA"
        }
      ],
      "subscriptionId": "aws-a0s9zvu5ghepz0j9yamr2wsjk-jFyX7UNDTjB"
    }
  ],
  "azureAccounts": [],
  "gcpStorageAccounts": [],
  "nssAccounts": []
}

```

Get tenants

You can retrieve a list of tenants visible to the user currently signed in through the account workspace.

1. Get the account identifier

Perform the workflow [Get supported services](#) to retrieve the account ID.



You can also get the account identifier through the Cloud Manager web UI. See [Get the client and account identifiers](#) for more information.

2. Get the account workspace

HTTP method	Resource path
GET	/tenancy/account/{account_id}/workspace

curl example

```
curl --location --request GET
"https://cloudmanager.cloud.netapp.com/tenancy/account/<ACCOUNT_ID>/worksp
ace" --header 'Content-Type: application/json' --header 'Authorization:
Bearer <ACCESS_TOKEN>'
```

Input parameters

Path parameter with the account ID.

Output

The JSON output example shows the list of tenants.

JSON output example

```
[
  {
    "workspacePublicId": "workspace-ced4x9X4",
    "workspaceName": "Workspace-1",
    "associatedAgents": []
  }
]
```

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