

# Programming with VMware Cloud Director Service API

VMware Cloud Director service

Draft

You can find the most up-to-date technical documentation on the VMware website at:

<https://docs.vmware.com/>

Draft

**VMware, Inc.**  
3401 Hillview Ave.  
Palo Alto, CA 94304  
[www.vmware.com](http://www.vmware.com)

Copyright © 2023 VMware, Inc. All rights reserved. [Copyright and trademark information.](#)

# Contents

Programming with VMware Cloud Director Service API	5
<b>1 About VMware Cloud Director Service APIs</b>	<b>6</b>
<b>2 VMware Cloud Director Service Roles</b>	<b>7</b>
<b>3 How Do I Generate an API Token</b>	<b>8</b>
<b>4 Managing My VMware Cloud Director Service Organization</b>	<b>11</b>
How Do I Retrieve the ID of My Organization	11
How Do I Retrieve the List of Environments in My Organization	12
How Do I Retrieve Details About a Specific Environment	14
How Do I Establish a Trust Relationship Between VMware Cloud services and VMware Cloud Director service	15
How Do I Retrieve Details About the OAuth App For My Organization	16
How Do I Update The OAuth App For My Organization	17
How Do I Delete an OAuth App	18
How Do I Retrieve the Free Trials for My Organization	18
How Do I Retrieve Details About a Specific Free Trial	20
<b>5 Managing VMware Cloud Director Instances</b>	<b>22</b>
How Do I Create a VMware Cloud Director Instance	22
How Do I Retrieve a List of All VMware Cloud Director Instances in Your Organization	24
How Do I Retrieve Information About a Specific VMware Cloud Director Instance	26
How Do I Associate a VMware Cloud on AWS SDDC	27
How Do I Use VMware Cloud Services as an Identity Provider for VMware Cloud Director Service	30
How Do I Delete a VMware Cloud Director Instance	32
<b>6 Managing VMware Cloud Director Service Tasks</b>	<b>34</b>
How Do I Retrieve Information About All Tasks	34
How Do I Retrieve Details About a Single Task	36
How Do I Retrieve a List of Support Bundle Files	37
How Do I Retrieve a Specific Support Bundle File	38
How Do I Download a Support Bundle File	39
<b>7 How Do I Migrate from On-premises VMware Cloud Director to VMware Cloud Director service</b>	<b>41</b>
Limitations to VMware Cloud Director to VMware Cloud Director service migration	42

[Check the Compatibility Between an On-premises VMware Cloud Director Installation and VMware Cloud Director service](#) 43

[Retrieve the Database Resources from Your On-premises VMware Cloud Director Installation](#) 45

[Upload On-premises VMware Cloud Director Resources to Your Cloud Environment](#) 47

[Create a VMware Cloud Director Instance by Using On-premises Resources](#) 49

Draft

# Programming with VMware Cloud Director Service API

*Programming with VMware Cloud Director service API* provides information about how to use the VMware Cloud Director service API to manage and monitor the existing environment and the deployed VMware Cloud Director instances.

VMware provides many different APIs and SDKs for applications and goals. This documentation provides information about the VMware Cloud Director service API for developers who are interested in automating tasks through RESTful clients.

## Intended Audience

This information is intended for software developers who have knowledge in the VMware Cloud Services Platform, are familiar with Representational State Transfer (REST) and RESTful programming convention, and other widely deployed technologies such as JSON, HTTP, and the Windows or Linux operating systems.

# About VMware Cloud Director Service APIs

1

With the VMware Cloud Director service APIs you can automate different tasks and retrieve information about the existing environments and organizations. You can also retrieve information about the deployed VMware Cloud Director instances, you can perform operations related to the VMware Cloud Director tasks, and you can download a support bundle.

---

**Important** All IDs that you use for the VMware Cloud Director service API management tasks are Uniform Resource Names (URNs).

---

Draft

# VMware Cloud Director Service Roles

# 2

VMware Cloud Director service has two roles that allow you to perform different tasks on the existing environments, organizations, VMware Cloud Director instances, tasks, and so on.

## VMware Cloud Director service API Roles

- **Provider administrator**
- **Provider support**

A particular provider is associated with a VMware Cloud services platform organization. A VMware Cloud services platform organization can view only the environments that are assigned to them. If there are existing environments, which are not assigned to a particular VMware Cloud services platform organization, the provider has no access to them.

Draft

# How Do I Generate an API Token

# 3

You use API tokens to authenticate yourself when you make authorized API connections. You also need an API token when you associate a VMware Cloud Director instance with a VMware Cloud on AWS SDDC.

You use a combination of an API token and an access token for calls to the VMware Cloud Director service API.

An API token has a time-to-live (TTL) period, which you define when you generate the API token. After this time, if you want to continue using the APIs that rely on a token, you must regenerate the token.

After generating an API token, save the token credentials to a safe place.

You can use the API token to obtain access tokens. You can use an access token only for a single operation and within a short period. After the access token expires, you can use the API token credentials to obtain a new access token.

If you feel that the API token has been compromised, you can revoke the token to prevent any unauthorized access. When you revoke an API token, you lose the ability to perform API calls. However, access tokens obtained from the revoked API token are still valid until their expiration time (30 minutes). You generate a new API token to renew the authorization.

You can regenerate a token at any time. If you regenerate a token, you revoke all instances of the previous token. If you have used the API token, for example in one of your scripts, you must replace it with the newly generated API token.

## Procedure

- 1 Log in to VMware Cloud Director service.
  - If you are an enterprise customer, log in at <https://console.cloud.vmware.com>.
  - If you are a Managed Service Provider (MSP) partner, log in at <https://navigator.vmware.com>.
- 2 Click your user name and click **My Account**.
- 3 On the **My Account** page, click the **API Tokens** tab.
- 4 Click **Generate a new API token**.
- 5 Enter a meaningful name of the token and in **Token TTL** define for how long the token is valid.





The relevant part is `access_token`, which always begins with "eyJ", and is a JSON Web Token (JWT).

- 3 Use the received access token in the `Authorization` header in your script's API calls.

You can make calls to VMware Cloud Director service by using this authentication token in the `Authorization` header. The exact form of the header that you create by using the access token from the example is the following:

```
Authorization:  
Bearer eyJhbGciOiJSUzI1NiIsInR5NDg4SI6I.....4dHnbU1RQ6Y9Yohgw
```

---

**Note** Because the bearer token expires in 30 minutes, you must regenerate it by running the same request as needed.

---

Draft

# Managing My VMware Cloud Director Service Organization

# 4

By using the VMware Cloud services API, you can fetch information about the organization associated with your token.

---

**Note** The first time you log in to the VMware Cloud Director service API, you must run a GET API call to retrieve the ID (URN) of the organization associated with your token. This way, you also get the environments that are marked as default environments assigned to you.

---

This chapter includes the following topics:

- [How Do I Retrieve the ID of My Organization](#)
- [How Do I Retrieve the List of Environments in My Organization](#)
- [How Do I Retrieve Details About a Specific Environment](#)
- [How Do I Establish a Trust Relationship Between VMware Cloud services and VMware Cloud Director service](#)
- [How Do I Retrieve Details About the OAuth App For My Organization](#)
- [How Do I Update The OAuth App For My Organization](#)
- [How Do I Delete an OAuth App](#)
- [How Do I Retrieve the Free Trials for My Organization](#)
- [How Do I Retrieve Details About a Specific Free Trial](#)

## How Do I Retrieve the ID of My Organization

You can retrieve the ID (URN) of your VMware Cloud services platform organization by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).

## Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/organization
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

## Results

The response returns the ID of the organization associated with your token. You need the ID of your organization, so that you can run requests against the organization. For example, to retrieve a list of the environments associated with it.

## Example: Retrieve the ID of Your Organization

This example retrieves the ID of the organization associated with your token. Run a GET request with the bearer token that you generated in the `Authorization` header of the request.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/organization/
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns the ID (URN) of the organization associated with your token.

```
{
  "id": "urn:vcdc:organization:12345678-1234-1234-1234-123456789abc"
}
```

## What to do next

[How Do I Retrieve the List of Environments in My Organization](#)

## How Do I Retrieve the List of Environments in My Organization

After you retrieve the ID (URN) of your organization, you can retrieve a list of the existing environments in your VMware Cloud services platform organization by using the VMware Cloud Director service API.

## Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).

- Obtain the organization ID (URN). See [How Do I Retrieve the ID of My Organization](#).

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/organizations/organization-Urn/environments
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Results

The response returns a list of the environments that are associated with your organization.

## Example: Retrieve the List of Environments in My Organization

This example retrieves the list of environments in your organization. Run a GET request with the bearer token that you generated in the `Authorization` header of the request.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/organization/urn:vcdc:organization:12345678-1234-1234-1234-123456789abc/environments
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...l1NiIs
```

The response returns the list of the environments associated with your organization.

```
{
  "resultTotal": 1,
  "pageCount": 1,
  "page": 1,
  "pageSize": 20,
  "valueType": "Environments",
  "values": [
    {
      "id": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
      "name": "California",
      "location": "us-west-2",
      "url": "https://vcdc-coordinator-prod-us-west-2.vdp.vmware.com",
      "service": "http://vcdc-coordinator-prod-us-west-2-rest-frontend.vcdc-prod-us-west-2",
      "enabled": true,
      "initial": true
    }
  ]
}
```

## How Do I Retrieve Details About a Specific Environment

You can retrieve details about a specific environment by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/environments/environmentUrn
```

Here `operatorUrl` is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Results

The response returns information about the selected environment.

## Example: Retrieve Details About a Single Environment

This example retrieves information about a single environment.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environments/urn:vcdc:environment:00000000-0000-0000-0000-000000000000
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...l1NiIs
```

The response returns information about the environment.

```
{
  "id": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
  "name": "California",
  "location": "us-west-2",
  "url": "https://vcdc-coordinator-prod-us-west-2.vdp.vmware.com",
  "service": "http://vcdc-coordinator-prod-us-west-rest-frontend.prod-us-west",
  "enabled": true,
  "initial": true
}
```

## How Do I Establish a Trust Relationship Between VMware Cloud services and VMware Cloud Director service

For users to be able to create VMware Cloud Director instances, an **organization owner** must first establish a trust relationship between VMware Cloud Director service and the VMware Cloud organization.

When you create a VMware Cloud Director instance, VMware Cloud Director service creates an OAuth app for this instance in the VMware Cloud organization and configures the VMware Cloud Director instance to point to this OAuth app. As a result, VMware Cloud services becomes the identity provider for the VMware Cloud Director instance.

Because only a VMware Cloud **organization owner** can create OAuth apps in VMware Cloud, when a user without this set of rights attempts to create a VMware Cloud Director instance, SSO cannot be configured for that instance.

When a VMware Cloud **organization owner** establishes a trust relationship between VMware Cloud Director service and the VMware Cloud organization, VMware Cloud Director service acquires the right to create OAuth apps on behalf of all users in the VMware Cloud organization.

As a result, all users can create a VMware Cloud Director instance that uses VMware Cloud services as its identity provider.

### Prerequisites

Verify that you are a VMware Cloud **organization owner**.

### Procedure

- ◆ Run a POST request.

```
POST https://operatorUrl/organizations/organization-Urn/configuration/cspCredentials
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Example: Create an OAuth App That Is Associated with Your Organization

This example creates an OAuth app that is associated with your VMware Cloud organization.

```
POST https://vcdc-operator-prod-us-west-2.vdp.vmware.com/organizations/urn:vdc:organization:12345678-1234-1234-1234-123456789abc/configuration/cspCredentials
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...l1NiIs
```

The response returns the ID of the newly created OAuth app.

```
{
  "appId": "aa1A1aaAaAa1AaA1Aa1aAaaaaAaaaaAAAAaa",
  "appSecret": "*****"
}
```

## How Do I Retrieve Details About the OAuth App For My Organization

You can retrieve the ID of the OAuth app that is associated with your your VMware Cloud services platform organization by using the VMware Cloud Director service API.

### Prerequisites

- Verify that a trust relationship has been established between VMware Cloud Director service and VMware Cloud services. See [How Do I Establish a Trust Relationship Between VMware Cloud services and VMware Cloud Director service](#).
- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the organization ID (URN). See [How Do I Retrieve the ID of My Organization](#).

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/organizations/organization-Urn/configuration/cspCredentials
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

## Example: View the OAuth App That Is Associated with Your Organization

This example retrieves information about the OAuth app that is associated with your VMware Cloud organization.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/organizations/urn:vcdc:organization:12345678-1234-1234-1234-123456789abc/configuration/cspCredentials
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```



The response returns the OAuth app ID.

```
{
  "appId": "aa1A1aaAaAa1AaA1Aa1aAaaaaAaaaaAAAAaA",
  "appSecret": "*****"
}
```

## How Do I Update The OAuth App For My Organization

You can update the ID or the secret of the OAuth app that is associated with your your VMware Cloud services platform organization by using the VMware Cloud Director service API.

- Verify that a trust relationship has been established between VMware Cloud Director service and VMware Cloud services. See [How Do I Establish a Trust Relationship Between VMware Cloud services and VMware Cloud Director service](#).
- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the organization ID (URN). See [How Do I Retrieve the ID of My Organization](#).

### Procedure

- 1 Prepare a JSON file with the update and enter it in the body of the request.
- 2 Run a PUT request.

```
PUT https://operatorUrl/organizations/organization-Urn/configuration/cspCredentials
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Example: Update an OAuth App

This example updates the app secret of a specific OAuth app.

```
PUT https://vcdc-operator-prod-us-west-2.vdp.vmware.com/organizations/urn:vcdc:organization:12345678-1234-1234-1234-123456789abc/configuration/cspCredentials
```

Enter the update information in the PUT request.

```
{
  "appId": "aa1A1aaAaAa1AaA1Aa1aAaaaaAaaaaAAAAaA",
  "appSecret": "*****"
}
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns the OAuth app ID and the updated app secret.

```
{
  "appId": "aalA1aaAaAalAaAlAalaAaaaaAaaaaAAAAaA",
  "appSecret": "*****"
}
```

## How Do I Delete an OAuth App

You can delete the OAuth app that is associated with your VMware Cloud services platform organization by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the organization ID (URN). See [How Do I Retrieve the ID of My Organization](#).

### Procedure

- ◆ Run a DELETE request.

```
DELETE https://operatorUrl/organizations/organization-Urn/configuration/cspCredentials
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Results

When you delete the OAuth app, the trust relationship between VMware Cloud Director service and the VMware Cloud organization ceases to exist. Attempts to create or delete a VMware Cloud Director instance, to associate a custom domain, or to configure VMware Cloud services as an identity provider for a VMware Cloud Director instance would result in failure until you create a new OAuth app.

## How Do I Retrieve the Free Trials for My Organization

You can retrieve information about the trials available to your organization.

VMware Cloud Director service offers a free trial that you can use to explore different customer use cases and proof-of-concept scenarios.

As part of your free trial, you can create two VMware Cloud Director trial instances within your VMware Cloud organization for a duration of 30 days with no billing applied to them. For details, see [About Free Trial](#).

You can use the VMware Cloud Director service API to retrieve information about the trials that are available to your organization.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/organizations/organizationUrn/trials
```

Here `operatorUrl` is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

The response returns results for the free trial tickets that are available to your organization.

## Example: Retrieve the Free Trials for My Organization

This example retrieves information about all the trial tickets available in your organization.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/organizations/urn:vcdc:organization:12345678-1234-1234-1234-123456789abc/trials
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns results for the free trial tickets that are available to your organization.

```
{
  "resultTotal": 3,
  "pageCount": 1,
  "page": 1,
  "pageSize": 30,
  "valueType": "Trials",
  "values": [
    {
      "id": "urn:vcdc:trial:00000000-0000-0000-0000-000000000000",
      "organizationId": "urn:vcdc:organization:11111111-2222-3333-4444-555555555555",
      "expiry": "2022-11-28T01:01:06.385861Z",
      "claimed": "urn:vcdc:vcdInstance:c55c55cc-1111-2222-3333-cc5c55c55cc5",
      "regions": null
    }
  ]
}
```

```

    },
    {
      "id": "urn:vcdc:trial:11111111-1111-1111-1111-111111111111",
      "organizationId": "urn:vcdc:organization:11111111-2222-3333-4444-555555555555",
      "expiry": "2022-11-25T01:01:03.763245Z",
      "claimed": "urn:vcdc:vcdInstance:a0aa00aa-1111-2222-3333-bb4b44b44bb4",
      "regions": null
    },
    {
      "id": "urn:vcdc:trial:22222222-2222-2222-2222-222222222222",
      "organizationId": "urn:vcdc:organization:11111111-2222-3333-4444-555555555555",
      "expiry": "2022-11-25T01:01:03.763245Z",
      "claimed": "urn:vcdc:vcdInstance:b11b11bb-1111-2222-3333-bb4b44b44bb4",
      "regions": null
    }
  }
}

```

## How Do I Retrieve Details About a Specific Free Trial

You can retrieve details about a specific trial that was created for your organization by using the VMware Cloud Director service API.

VMware Cloud Director service offers a free trial that you can use to explore different customer use cases and proof-of-concept scenarios. For details, see [About Free Trial](#).

You can use the trial details to create a VMware Cloud Director instance as part of your organization's free trial.

### Prerequisites

- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the organization ID (URN). See [How Do I Retrieve the ID of My Organization](#).
- Retrieve the trial ID (URN). See [How Do I Retrieve the Free Trials for My Organization](#).

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/organizations/organizationUrn/trials/trialURN
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Results

The response returns details about the specified free trial that is available to your organization.

## Example: Retrieve Details About a Specific Trial

This example retrieves information about a specific trial.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/organizations/  
urn:vcdc:organization:12345678-1234-1234-1234-123456789abc/trials/  
urn:vcdc:trial:00000000-0000-0000-0000-000000000000
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:  
Bearer eyJh...I1NiIs
```

The response returns information about the specified free trial.

```
{  
  "id": "urn:vcdc:trial:00000000-0000-0000-0000-000000000000",  
  "organizationId": "urn:vcdc:organization:11111111-2222-3333-4444-555555555555",  
  "expiry": "2022-10-17T01:01:02.680948Z",  
  "claimed": null,  
  "regions": null  
}
```

Draft

# Managing VMware Cloud Director Instances

# 5

By using the VMware Cloud services API, you can fetch information about the VMware Cloud Director instances deployed in your organization.

This chapter includes the following topics:

- [How Do I Create a VMware Cloud Director Instance](#)
- [How Do I Retrieve a List of All VMware Cloud Director Instances in Your Organization](#)
- [How Do I Retrieve Information About a Specific VMware Cloud Director Instance](#)
- [How Do I Associate a VMware Cloud on AWS SDDC](#)
- [How Do I Use VMware Cloud Services as an Identity Provider for VMware Cloud Director Service](#)
- [How Do I Delete a VMware Cloud Director Instance](#)

## How Do I Create a VMware Cloud Director Instance

As a **Provider Administrator**, you can create a VMware Cloud Director instance by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).

## Procedure

- 1 Prepare a JSON template with the required information for your VMware Cloud Director instance.

The template must contain a name, an upgrade path, the environment ID (URN), and a password that you set.

```
{ "name": "name-of-your-instance",
  "upgradeCategory": "upgrade-path",
  "environmentId": "environmentUrn",
  "password": "cloud-director-instance-password",
  "instanceParams": {
    }
}
```

- 2 Run a POST request with the contents of the JSON template in the body of the request.

```
POST https://operatorUrl/environment/environmentUrn/instances
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

## Results

The response creates a VMware Cloud Director instance in the environment that you specified.

## Example: Create a VMware Cloud Director Instance

This example creates a VMware Cloud Director instance in the environment with ID (URN) `urn:vcdc:environment:00000000-0000-0000-0000-000000000000`.

```
POST https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environment/urn:vcdc:environment:00000000-0000-0000-0000-000000000000/instances
```

Enter the required information in the POST request.

```
{ "name": "VMware-Cloud-Director-test",
  "upgradeCategory": "sp-release:production",
  "environmentId": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
  "password": "testPa$$w0rd",
  "instanceParams": {
    }
}
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns the following information about the newly created VMware Cloud Director instance.

```
{
  "id": "urn:vcdd:task:22222222-2222-2222-2222-222222222222",
  "name": "Creating instance VMware-Cloud-Director-test",
  "entityId": "urn:vcdd:vcdInstance:33333333-3333-3333-3333-333333333333",
  "entityName": "VMware-Cloud-Director-test",
  "ownerId": "urn:vcdd:organization:12345678-1234-1234-1234-123456789abc",
  "userId": "your-account@domain-name.com",
  "steps": null,
  "status": "IN_PROGRESS",
  "startTime": null,
  "endTime": null,
  "queuedTime": "2020-06-09T12:52:03.311063Z",
  "message": "Instance creation starting",
  "output": {}
}
```

## How Do I Retrieve a List of All VMware Cloud Director Instances in Your Organization

You can fetch a list of all VMware Cloud Director instances deployed in your organization by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the organization ID (URN). See [How Do I Retrieve the ID of My Organization](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/environment/environmentUrn/organization/organizationUrn/instances
```

Here *operatorUrl* is the operator URL, for example `vcdd-operator-prod-us-west-2.vdp.vmware.com`.

### Results

The response returns a list of all VMware Cloud Director instances deployed in the organization.



## Example: Retrieve a List of the VMware Cloud Director Instances

This example retrieves a list of all VMware Cloud Director instances deployed in a specific environment.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environment/
urn:vcdc:environment:00000000-0000-0000-0000-000000000000/organization/
urn:vcdc:organization:12345678-1234-1234-1234-123456789abc/instances
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...l1NiIs
```

The response returns a list of the VMware Cloud Director instances.

```
{
  "resultTotal": 2,
  "pageCount": 1,
  "page": 1,
  "pageSize": 10,
  "values": [
    {
      "id": "urn:vcdc:vcdInstance:33333333-3333-3333-3333-333333333333",
      "name": "vcdInstance4",
      "environmentId": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
      "domain": "defiant.us-west-2.vdp-prod-us-west-2.vmware.com",
      "instanceParams": {
        "parameter1": "value1",
        "parameter2": "value2",
        "parameter3": "value3"
      },
      "activeTask": null,
      "environment": {
        "id": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
        "name": "test-environment",
        "location": "us-west-2",
        "url": ""
      },
      "environmentResources": []
    },
    {
      "id": "urn:vcdc:vcdInstance:44444444-4444-4444-4444-444444444444",
      "name": "st1",
      "environmentId": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
      "domain": "st1.us-west-2.vdp-prod-us-west-2.vmware.com",
      "instanceParams": {
        "parameter4": "value4",
        "parameter5": "value5",
      },
      "activeTask": null,
      "environment": {
        "id": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
        "name": "test-environment",
      }
    }
  ]
}
```

```

        "location": "us-west-2",
        "url": ""
    },
    "environmentResources": []
}
]
}

```

## How Do I Retrieve Information About a Specific VMware Cloud Director Instance

You can retrieve information about a specific VMware Cloud Director instance by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).
- Obtain the instance ID (URN). See [How Do I Retrieve a List of All VMware Cloud Director Instances in Your Organization](#).

### Disposition: / Status:

Need to revisit this when the API for the upgrade paths is implemented.

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/environment/environmentUrn/instances/vcdInstanceUrn
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Results

The response returns information about the VMware Cloud Director instance deployed in the environment.

## Example: Retrieve Information About a VMware Cloud Director Instance

This example retrieves information about a VMware Cloud Director instance deployed in the environment.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environments/
urn:vcdc:environment:00000000-0000-0000-0000-000000000000/instances/
urn:vcdc:vcdInstance:fd57f4e-e8a8-4b47-8820-70945db21aac
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...l1NiIs
```

The response returns information about the VMware Cloud Director instance.

```
{
  "id": "urn:vcdc:vcdInstance:33333333-3333-3333-3333-333333333333",
  "name": "VMware-Cloud-Director-test",
  "templateId": "urn:vcdc:deploymentTemplate:11111111-1111-1111-1111-111111111111",
  "environmentId": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
  "password": null,
  "domain": "vcd-33333333-3333-3333-3333-333333333333.vdp-prod-us-west-2.vmware.com",
  "instanceParams": null,
  "activeTask": {
    "id": "urn:vcdc:task:22222222-2222-2222-2222-22222222",
    "name": "Creating instance VMware-Cloud-Director-test",
    "entityId": "urn:vcdc:vcdInstance:33333333-3333-3333-3333-333333333333",
    "entityName": "VMware-Cloud-Director-test",
    "ownerId": "urn:vcdc:organization:12345678-1234-1234-1234-123456789abc",
    "userId": "your-email@domain-name.com",
    "steps": "16/16",
    "status": "SUCCESS",
    "startTime": "2020-06-09T12:56:25.319742Z",
    "endTime": "2020-06-09T13:04:32.248292Z",
    "queuedTime": "2020-06-09T12:56:25.083499Z",
    "message": "",
    "output": {}
  },
  "environment": null,
  "environmentSettings": null,
  "statistics": []
}
```

## How Do I Associate a VMware Cloud on AWS SDDC

VMware Cloud Director service relies on an underlying VMware Cloud on AWS infrastructure for its CPU, memory, and storage resources. To start using these resources, you must associate your newly deployed VMware Cloud Director instance with a VMware Cloud on AWS SDDC.

## Prerequisites

- Verify that you are assigned the **Provider Administrator** role.
- Obtain an API token from the organization you want to manage. The scope of the API token must contain the **Administrator** and **NSX Cloud Admin** service roles, as well as the **Developer** or the **Organization Owner** organization role. See [Chapter 3 How Do I Generate an API Token](#). Note the API token.
- Use the API token to generate an access bearer token. Use the bearer token in the `Authorization` header when you run API calls.
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).
- Obtain the VMware Cloud Director instance ID (URN). See [How Do I Retrieve a List of All VMware Cloud Director Instances in Your Organization](#).

## Procedure

- 1 Log in to VMware Cloud Director service.
  - If you are an enterprise customer, log in at <https://console.cloud.vmware.com>.
  - If you are a Managed Service Provider (MSP) partner, log in at <https://navigator.vmware.com>.
- 2 Note the long organization ID for the VMware Cloud organization that contains your VMware Cloud on AWS SDDC.
  - a Click your user name.
  - b To display the full organization ID, click **View Organization**.
- 3 Prepare a JSON template with the required information for associating your VMware Cloud Director instance with a VMware Cloud on AWS SDDC.

```
{ "operationType": "associateVmc",
  "arguments": {
    "apiToken": "API-token",
    "vmcCspOrgId": "long-organization-ID-of-VMware-Cloud-Services-organization",
    "vmcName": "name-of-your-VMware-Cloud-on-AWS-SDDC" }
}
```

Here, `"vmcCspOrgId"` is the long organization ID for the VMware Cloud services organization that contains your VMware Cloud on AWS SDDC instances. It must be in a Universally unique identifier (UUID) format. This means that the ID must be represented as a 128-bit value formatted into blocks of hexadecimal digits separated by a hyphen. The `"apiToken"` is the API token that you obtained from your organization.

- 4 Run a POST request with the contents of the JSON template in the body of the request.

```
POST https://operatorUrl/environment/environmentUrn/instances/vcdInstanceUrn/operations/
invoke
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

## Results

You associated the VMware Cloud Director instance with a VMware Cloud on AWS SDDC.

## Example: Associate a VMware Cloud on AWS SDDC

This example associates your VMware Cloud Director instance with a VMware Cloud on AWS SDDC.

```
POST https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environments/
urn:vcdc:environment:00000000-0000-0000-0000-000000000000/instances/
urn:vcdc:vcdInstance:22222222-2222-2222-2222-222222222222/operations/invoke
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

Enter the required information in the POST request.

```
{ "operationType": "associateVmc",
  "arguments": {
    "apiToken": "123456789012345678901234567890123456789012345678901234567890",
    "vmcCspOrgId": "12345678-1234-1234-1234-123456789abc",
    "vmcName": "myVmcSddc" }
}
```

The response is a confirmation that the association task is in progress.

```
{
  "id": "urn:vcdc:task:33333333-3333-3333-3333-333333333333",
  "name": "associateVmc",
  "entityId": "urn:vcdc:vcdInstance:22222222-2222-2222-2222-222222222222",
  "entityName": "myentity1-name",
  "ownerId": "urn:vcdc:organization:11111111-1111-1111-1111-111111111111",
  "userId": "username@vmware.com",
  "steps": null,
  "status": "IN_PROGRESS",
  "startTime": null,
  "endTime": null,
  "queuedTime": "2020-12-07T13:54:03.268466Z",
  "message": "Invoking operation on instance",
  "isolation": "ENTITY_EXCLUSIVE",
  "output": null,
  "activity": "activity://AssociateVmcWithVcdActivity/
00000000-0000-0000-0000-000000000000/111111111111"
}
```

# How Do I Use VMware Cloud Services as an Identity Provider for VMware Cloud Director Service

You can use your VMware Cloud organization's single sign-on (SSO) to access your VMware Cloud Director instance.

## Prerequisites

Verify that a trust relationship has been established between VMware Cloud Director service and VMware Cloud services. When you log in to VMware Cloud Director service console, if trust has not been established already, you are prompted to either establish an OAuth trust relationship or to contact your system administrator. See [How Do I Establish a Trust Relationship Between VMware Cloud services and VMware Cloud Director service](#).

## Procedure

- 1 Log in to VMware Cloud Director service.
  - If you are an enterprise customer, log in at <https://console.cloud.vmware.com>.
  - If you are a Managed Service Provider (MSP) partner, log in at <https://navigator.vmware.com>.
- 2 Click **Cloud Director Instances**.
- 3 In the card of the VMware Cloud Director instance, click **Actions > Configure VMware Cloud Services as instance IDP**.
- 4 Click **Configure IDP**.
- 5 To verify that you configured VMware Cloud Director to use VMware Cloud services as an identity provider, run a GET request.

```
GET https://operatorUrl/environment/environmentUrn/instances/vcdInstanceUrn
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

This example retrieves information about the VMware Cloud Director instance deployed in the environment.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/
environments/urn:vcdc:environment:00000000-0000-0000-0000-000000000000/instances/
urn:vcdc:vcdInstance:00000000-0000-0000-0000-000000000000
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns information about the VMware Cloud Director instance. If the `OAuthClientId` parameter is populated with a specific value, that means that the configuration was successful and an OAuth app was created in your VMware Cloud organization .

```
{
  "id": "urn:vcdc:vcdInstance:00000000-0000-0000-0000-000000000000",
  "name": "johnsmith-test1",
  "ownerId": "urn:vcdc:organization:00000000-0000-0000-0000-000000000000",
  "templateId": null,
  "environmentId": "urn:vcdc:environment:00000000-0000-0000-0000-000000000000",
  ...
  "environmentSettings": null,
  "statistics": [],
  "upgradeAfter": "2020-10-15T13:50:21.720159Z",
  "upgradeCategory": "sp-main:alpha",
  "oauthClientId": "123ALLeShqk1BmU4Kc4sFDM0LuqVSX4LmHf"
}
```

- 6 To log in to VMware Cloud Director by using the API, run a POST request.

```
POST https://VMware-Cloud-Director-instance-URL/api/sessions
```

Use the bearer token in the `Authorization` header of the request and add `;org=system` at the end of the token.

```
Authorization:
Bearer eyJh...l1NiIs;org=system
```

Depending on the version of the VMware Cloud Director instance, use either **`application/*;version=34.0`** or **`application/*;version=35.0`** in the `Accept` header of the request.

The request establishes an API session. The response header contains `X-VMWARE-VCLOUD-ACCESS-TOKEN`, which you can use as a bearer token in the `Authorization` header of further API calls to the VMware Cloud Director instance.

- 7 (Optional) To retrieve information about the API session that you established, run a GET request.

```
GET https://VMware_Cloud_Director_instance_URL/api/sessions
```

Depending on the version of the VMware Cloud Director instance, use either **`application/*;version=34.0`** or **`application/*;version=35.0`** in the `Accept` header of the request.

Use **`application/*+xml`**; in the `Content-Type` header.

Use the value of the token `X-VMWARE-VCLOUD-ACCESS-TOKEN` that you acquired in the previous step as a bearer token in the `Authorization` header.

```
Authorization:
Bearer eyAi...J2LiTi
```

## How Do I Delete a VMware Cloud Director Instance

As a **Provider Administrator**, if you no longer need a VMware Cloud Director instance and you want to free up resources, you can delete the VMware Cloud Director instance from your environment.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).
- Obtain the VMware Cloud Director instance ID (URN). See [How Do I Retrieve a List of All VMware Cloud Director Instances in Your Organization](#).

### Procedure

- ◆ Run a DELETE request.

```
DELETE https://operatorUrl/environment/environmentUrn/instances/vcdInstanceUrn
```

Here `operatorUrl` is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Results

You deleted the specified VMware Cloud Director instance.

## Example: Delete a VMware Cloud Director Instance

This example deletes the VMware Cloud Director with ID (URN)

`urn:vcdc:task:22222222-2222-2222-2222-222222222222` from the environment with ID (URN)

`urn:vcdc:environment:00000000-0000-0000-0000-000000000000`.

```
DELETE https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environment/urn:vcdc:environment:3fccbd2a-003c-4303-8f1a-8569853236ac/instances/urn:vcdc:task:fadce89f-fef9-430b-bbdc-bfd3482c3796
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns the following information.

```
{
  "id": "urn:vcdc:task:22222222-2222-2222-2222-222222222222",
```



```
"name": "Deleting instance VMware-Cloud-Director-test",
"entityId": "urn:vcdc:vcdInstance:33333333-3333-3333-3333-333333333333",
"entityName": "VMware-Cloud-Director-test",
"ownerId": "urn:vcdc:organization:12345678-1234-1234-1234-123456789abc",
"userId": "your-account@domain-name.com",
"steps": null,
"status": "IN_PROGRESS",
"startTime": null,
"endTime": null,
"queuedTime": "2020-06-10T10:06:22.068303Z",
"message": "Instance delete started",
"output": {}
}
```

Draft

# Managing VMware Cloud Director Service Tasks

# 6

By using the VMware Cloud Director service API, you can fetch information about the tasks running in the VMware Cloud Director service console. You can also get and download task files.

This chapter includes the following topics:

- [How Do I Retrieve Information About All Tasks](#)
- [How Do I Retrieve Details About a Single Task](#)
- [How Do I Retrieve a List of Support Bundle Files](#)
- [How Do I Retrieve a Specific Support Bundle File](#)
- [How Do I Download a Support Bundle File](#)

## How Do I Retrieve Information About All Tasks

You can retrieve details about all tasks in an environment of your organization by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the organization ID (URN). See [How Do I Retrieve the ID of My Organization](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).

### Procedure

- ◆ Run a GET request.

```
GET https://operatorUrl/environment/environmentUrn/organization/organizationUrn/tasks
```

Here *operatorUrl* is the operator URL, for example `vcddc-operator-prod-us-west-2.vdp.vmware.com`.

## Results

The response returns information about the tasks in the environment.

### Example: Retrieve Details About All Tasks

This example retrieves information about all tasks in an environment.

```
GET https://vcdc-operator-prod-
us-west-2.vdp.vmware.com/environments/urn:vcdc:environment:00000000-0000-0000-0000-0000000000/
organization/urn:vcdc:organization:12345678-1234-1234-1234-123456789abc/tasks
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...l1NiIs
```

The response returns information about the tasks in the environment.

```
{
  "resultTotal": 14225,
  "pageCount": 475,
  "page": 1,
  "pageSize": 30,
  "valueType": "Tasks",
  "values": [
    {
      "id": "urn:vcdc:task:22222222-2222-2222-2222-222222222222",
      "entityId": "urn:vcdc:entity:5100ac23-6de7-4baf-97c4-4be53def8210",
      "entityName": null,
      "percentComplete": 0,
      "status": "IN_PROGRESS",
      "startTime": null,
      "endTime": null,
      "message": "Reset provider admin password",
      "output": {}
    },
    {
      "id": "urn:vcdc:task:44444444-4444-4444-4444-444444444444",
      "entityId": "urn:vcdc:entity:5100ac23-6de7-4baf-97c4-4be53def8210",
      "entityName": null,
      "percentComplete": 0,
      "status": "FAILED",
      "startTime": "2019-10-11T10:25:12.680109-04:00",
      "endTime": "2019-10-11T00:00:00-04:00",
      "message": "java.lang.IllegalStateException: System setup encountered an error",
      "output": {}
    },
    {
      "id": "urn:vcdc:task:55555555-5555-5555-5555-555555555555",
      "entityId": "urn:vcdc:entity:5100ac23-6de7-4baf-97c4-4be53def8210",
      "entityName": null,
      "percentComplete": 100,
      "status": "SUCCESS",
```

```
"startTime": "2019-09-26T13:47:30.656977-04:00",
"endTime": "2019-09-26T00:00:00-04:00",
"message": "",
"output": {}
```

## How Do I Retrieve Details About a Single Task

You can retrieve details about a single task by using the VMware Cloud Director service API.

### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).
- Obtain the task ID (URN). See [How Do I Retrieve Information About All Tasks](#).

### Procedure

- ◆ Run a GET request by using the ID of the task you want to retrieve details about.

```
GET https://operatorUrl/environment/environmentUrn/tasks/taskUrn
```

Here `operatorUrl` is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

### Results

The response returns information about the selected task.

## Example: Retrieve Details About a Single Task

This example retrieves information about a single task.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environments/urn:vcdc:environment:00000000-0000-0000-0000-0000000000/tasks/urn:vcdc:task:22222222-2222-2222-2222-222222222222
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns information about the task.

```
{
  "id": "urn:vcdd:task:22222222-2222-2222-2222-222222222222",
  "entityId": "urn:vcdd:entity:33333333-3333-3333-3333-333333333333",
  "entityName": null,
  "percentComplete": 0,
  "status": "FAILED",
  "startTime": "2020-10-11T10:25:12.680109-04:00",
  "endTime": "2020-10-11T00:00:00-04:00",
  "message": "java.lang.IllegalStateException: System setup encountered an error",
  "output": {}
}
```

## How Do I Retrieve a List of Support Bundle Files

You can use the VMware Cloud Director service API to retrieve a list of the files in a support bundle that you created for a specific VMware Cloud Director instance.

### Prerequisites

- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).
- Create a support bundle. See [How Do I Generate and Download a Support Bundle](#).

### Procedure

- 1 Run a GET request to retrieve the ID (URN) of the task that resulted in the creation of a support bundle.

```
GET https://operatorUrl/environment/environmentUrn/organization/organizationUrn/tasks?
filter=name==createSupportBundle
```

- 2 Run a GET request to retrieve the files of the support bundle that you created.

```
GET https://operatorUrl/environment/environmentUrn/tasks/taskUrn/files
```

### Results

The response returns information about the support bundle files.

## Example: Retrieve a List of Support Bundle Files

This example retrieves the IDs (URNs) of the tasks that resulted in the creation of support bundles and then retrieves information about the files generated by a specific task.

Run a GET request to retrieve the IDs (URNs) of the tasks that resulted in the creation of support bundles.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environments/
urn:vcdc:environment:00000000-0000-0000-0000-000000000000/organization/
urn:vcdc:organization:11111111-1111-1111-1111-111111111111/tasks?
filter=name==createSupportBundle
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...I1NiIs
```

The response returns information about all tasks in your organization that resulted in the creation of support bundle.

Run a GET request to retrieve information about the files generated by a specific task.

```
GET https://vcdc-operator-prod-
us-west-2.vdp.vmware.com/environment/urn:vcdc:environment:00000000-0000-0000-0000-000000000000/
tasks/urn:vcdc:task:11111111-1111-1111-1111-111111111111/files
```

The response returns information about the support bundle files created by the task.

```
[
  {
    "id": "urn:vcdc:clusterFile:11111111-1111-1111-1111-1111111111",
    "name": "support-bundle-vcd-22222222-2222-2222-2222-222222222222-2.tgz",
    "description": "Generated support bundle for vcd-22222222-2222-2222-2222-222222222222-2",
    "type": "SUPPORT_BUNDLE",
    "timestamp": "2020-11-11T06:21:29.913995Z"
  },
  {
    "id": "urn:vcdc:clusterFile:33333333-3333-3333-3333-333333333333",
    "name": "support-bundle-vcd-44444444-4444-4444-4444-444444444444-4.tgz",
    "description": "Generated support bundle for vcd-44444444-4444-4444-4444-444444444444-4",
    "type": "SUPPORT_BUNDLE",
    "timestamp": "2020-11-11T06:21:29.787532Z"
  }
]
```

## How Do I Retrieve a Specific Support Bundle File

You can use the VMware Cloud Director service API to retrieve information about a specific support bundle file that you created.

### Prerequisites

- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).

- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).
- Obtain the task ID (URN). See [How Do I Retrieve Information About All Tasks](#).
- Retrieve the ID (URN) of the file. See [How Do I Retrieve a List of Support Bundle Files](#).

#### Procedure

- ◆ Run a GET request.

```
GET operatorURL/environment/environmentUrn/tasks/taskUrn/files/fileUrn
```

Here *operatorUrl* is the operator URL, for example `vcddc-operator-prod-us-west-2.vdp.vmware.com`.

#### Results

The response returns information about the task files.

### Example: Retrieve Details About a Specific Task File

This example retrieves information about a specific task file.

```
GET https://vcddc-operator-prod-us-west-2.vdp.vmware.com/environments/urn:vcddc:environment:00000000-0000-0000-0000-000000000000/tasks/urn:vcddc:task:22222222-2222-2222-2222-222222222222/files/urn:vcddc:clusterFile:33333333-3333-3333-3333-333333333333
```

The response returns information about the task file that you specified.

```
{
  "id": "urn:vcddc:clusterFile:33333333-3333-3333-3333-333333333333",
  "name": "support-bundle-vcd-55555555-5555-5555-5555-555555555555-5.tgz",
  "description": "Generated support bundle for vcd-55555555-5555-5555-5555-555555555555-5",
  "type": "SUPPORT_BUNDLE",
  "timestamp": "2020-11-11T06:21:29.787532Z"
}
```

## How Do I Download a Support Bundle File

You can download a specific support bundle file by using the VMware Cloud Director service API.

#### Prerequisites

- Verify that you are assigned the **Provider Administrator** or the **Provider Support** role.
- Obtain an API token from the organization you want to manage and exchange it for an access bearer token. Use the bearer token in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).

- Obtain the support bundle creation task ID (URN) and the file ID (URN). See [How Do I Retrieve a List of Support Bundle Files](#).

### Procedure

- 1 Run a GET request.

```
GET operatorURL/environment/environmentUrn/tasks/taskUrn/files/fileUrn/download
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

- 2 When prompted to either save or preview the file, save the support bundle as a `.tgz` file.

The support bundle is downloaded and saved in your default browser download directory.

### Example: Download Details About a Specific Task File

This example downloads information about a task file that you specify.

```
GET https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environments/  
urn:vcdc:environment:00000000-0000-0000-0000-000000000000/tasks/  
urn:vcdc:task:22222222-2222-2222-2222-222222222222/files/  
urn:vcdc:clusterFile:33333333-3333-3333-3333-333333333333/download
```

The response prompts you to either save or preview the archived support bundle file.

Draft



# How Do I Migrate from On-premises VMware Cloud Director to VMware Cloud Director service

# 7

You can use the VMware Cloud Director service API to migrate your on-premises VMware Cloud Director installation to VMware Cloud Director service.

## Prerequisites

- To be able to check the compatibility between your on-premises VMware Cloud Director environment and VMware Cloud Director service, verify that the load balancer that is in front of your on-premises installation is publicly accessible.
- Verify that you have set up your VMware Cloud account. See [Before You Begin with VMware Cloud Director service](#).
- Verify that you have activated VMware Cloud Director service and that you completed setting it up.
- Verify that you have access to VMware Cloud Director service environments.
  - a Log in to the VMware Cloud Director service console.
  - b Click **Cloud Director Instances**.
  - c Click **Create Instance**.
  - d In the **Select an environment** drop-down menu, view the environments available to you, make note of the one that is nearest to your on-premises environment, and cancel the instance creation wizard.
- Reach out to VMware support to verify that your VMware Cloud organization supports the migration. See [How Do I Report a Problem](#).
- Generate a VMware Cloud API token and save the token credentials. The scope of the token must contain the **Administrator** and **NSX Cloud Admin** service roles, as well as the **Developer** or the **Organization Owner** organization role. Exchange the API for an access bearer token to use in the `Authorization` header when you run API calls. See [Chapter 3 How Do I Generate an API Token](#).
- If you are using RabbitMQ, LDAP or similar solutions, verify that they are accessible from VMware Cloud Director service.
- Verify that migration is supported for the VMware Cloud Director configuration that you are using. See [Limitations to VMware Cloud Director to VMware Cloud Director service migration](#).

- Verify that your on-premises configuration matches the scale maximums supported by VMware Cloud Director service. See [Configuration Maximums for VMware Cloud Director Service](#).

### Procedure

- 1 Verify that your on-premises VMware Cloud Director installation and VMware Cloud Director service are compatible. See [Check the Compatibility Between an On-premises VMware Cloud Director Installation and VMware Cloud Director service](#).
- 2 Retrieve the database dump and the `responses.properties` file from your on-premises VMware Cloud Director installation. See [Retrieve the Database Resources from Your On-premises VMware Cloud Director Installation](#).
- 3 Upload the on-premises resources to the cloud environment that is nearest to your on-premises infrastructure resources. See [Upload On-premises VMware Cloud Director Resources to Your Cloud Environment](#).
- 4 Run the `/cell-management-tool cell -m true -u` command to put the on-premises VMware Cloud Director cells in maintenance mode. For more details, see [Managing a Cell](#).
- 5 Create a VMware Cloud Director instance in your cloud environment by using the on-premises resources that you uploaded. See [Create a VMware Cloud Director Instance by Using On-premises Resources](#).
- 6 Associate your VMware Cloud Director instance with your on-premises SDDC via proxy. See [Associate a VMware Cloud Director Instance with an SDDC via VMware Reverse Proxy](#).
- 7 (Optional) If you want to use the same URL that you used for your on-premises installation, customize the DNS settings for your VMware Cloud Director instance. See [How Do I Customize the DNS and Certificate Settings of VMware Cloud Director Instance](#).

## Limitations to VMware Cloud Director to VMware Cloud Director service migration

There are some VMware Cloud Director configurations for which migration to VMware Cloud Director service is not supported.

- Migration of on-premises VMware Cloud Director that is using NSX Data Center for vSphere for its networking resources is not supported.
- Migration of on-premises VMware Cloud Director with multisite association is not supported.
- Migration of on-premises VMware Cloud Director with a build number that is not available in VMware Cloud Director service standard access track is not supported. Check if your on-premises database schema version is available by [Check the Compatibility Between an On-premises VMware Cloud Director API Installation and VMware Cloud Director service](#).
- Migration of on-premises VMware Cloud Director that has plug-ins and extensions, such as the CPOM extension, enabled, is not supported.

# Check the Compatibility Between an On-premises VMware Cloud Director Installation and VMware Cloud Director service

To migrate your on-premises VMware Cloud Director installation to VMware Cloud Director service, you need to verify that they are compatible.

Before migrating your on-premises VMware Cloud Director environment to VMware Cloud Director service

## Prerequisites

- Obtain the VMware Cloud Director hostname, the administrator user name for it, and the password.
- Verify that you installed `curl`, `jq`, `zip`, `ssh`, `scp`, `sshpass` and `md5sum` support packages in your on-premises environment.
- Retrieve the database schema version of your on-premises VMware Cloud Director instance.
  - a Log in or SSH as **root** to the OS of the VMware Cloud Director cell.
  - b Run the command to retrieve the database schema version.

```
/opt/vmware/vcloud-director/bin/cell-management-tool manage-config -n
database.schema.version -l
```

- Exchange the API token that you generated for an access bearer token. Use the bearer token in the `Authorization` header for the API call. See [How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).

## Procedure

- 1 Prepare a JSON template with the required information for the compatibility check. In the body of the request, include the on-premises VMware Cloud Director host name, administrator user name and password, the VMware Cloud Director service upgrade track and the database schema version.

```
{
  "sourceParams": {
    "vcdHostname": "on-prem-vcd-host-URL",
    "vcdPrincipal": "on-prem-sys-admin-user-name",
    "vcdAuthentication": "on-prem-sys-admin-password",
    "vcdAuthenticationType": "BASIC_AUTH",
    "databaseSchemaVersion": ["1.0", "2.0", "3.0", ["3.1", "3.2"]]
  }
}
```

If you leave the value for the VMware Cloud Director service upgrade track blank, the compatibility check runs against the latest major VMware Cloud Director version that is available in VMware Cloud Director service.

- 2 Run a POST request with the contents of the JSON template in the body of the request.

```
POST https://operatorUrl/environment/environmentUrn/migration/check-compatibility
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

The response returns information about the compatibility between the on-premises installation and VMware Cloud Director service.

- 3 If the on-premises build and VMware Cloud Director service are compatible, make note of the value of the `"cdsBuildCategory"` parameter of the API response.

## Example: Check the compatibility between VMware Cloud Director and VMware Cloud Director service

- 1 Run a POST request to the operator URL to check the compatibility between the on-premises VMware Cloud Director build and VMware Cloud Director service.

For example:

```
curl -X POST https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environment/urn:vcdc:environment:12345678-1234-1234-1234-123456789abc/migration/check-compatibility -H 'Content-Type: application/json' -H 'Accept: application/json' -H 'Authorization: Bearer token' --data-raw '{
  "sourceParams": {
    "vcdHostname": "on-prem-vcd-host-URL",
    "vcdPrincipal": "administrator",
    "vcdAuthentication": "password",
    "vcdAuthenticationType": "BASIC_AUTH",
    "databaseSchemaVersion": ["1.0", "2.0", "3.0", ["3.1", "3.2"]]
  }
}' | jq
```

If the on-premises build is compatible with VMware Cloud Director service, the request returns a response such as:

```
{
  "build" : {
    "compatible" : "true",
    "onpremBuild": "ob-123456",
    "cdsBuildCategory" : "release-10.3:production",
    "cdsBuild" : "ob-123456",
  }
}
```

If the on-premises build is not compatible with VMware Cloud Director service, the request returns a response such as:

```
{
  "build" : {
    "compatible" : "false",
    "onpremBuild": "ob-654321",
    "cdsBuildCategory" : "release-10.3:production",
    "cdsBuild" : "ob-123456",
  }
}
```

If you have entered an invalid upgrade track value for VMware Cloud Director service, the request returns an error message response such as `Error: Invalid track or station`.

If the *on-prem-sys-admin-password* that you entered for your on-premises VMware Cloud Director instance is incorrect, the request results in a `401 Unauthorized` error message.

### What to do next

- If the on-premises build and VMware Cloud Director service are compatible, retrieve the on-premises database dump and `responses.properties` file. See [Retrieve the Database Resources from Your On-premises VMware Cloud Director Installation](#).
- If the on-premises build and the VMware Cloud Director service are incompatible, make note of the VMware Cloud Director build in the "cdsBuild" parameter of the API response. Upgrade your on-premises VMware Cloud Director instance to this build and run the compatibility check again. For more information on VMware Cloud Director upgrade, see *VMware Cloud Director Installation, Configuration, and Upgrade Guide*.

## Retrieve the Database Resources from Your On-premises VMware Cloud Director Installation

You can retrieve the on-premises database and configuration resources that you need for the migration to your cloud environment.

In the commands below, the following variables are used.

- `CELL_USERNAME` represents the OS **root** user name for a VMware Cloud Director cell.
- `CELL_PASSWORD` represents the OS **root** user password for a VMware Cloud Director cell.
- `DBHOST_USERNAME` represents the user name for the database host.
- `DBHOST_PASSWORD` represents the database password.
- `CELL_HOST_NAME` represents the FQDN of a VMware Cloud Director cell.
- `DBHOST_NAME` represents the FQDN of the database host.

## Prerequisites

- Obtain the on-premises VMware Cloud Director cell name, cell OS **root** user name and password. If you are using an appliance installation, obtain the cell name and credentials for the primary cell.
- Obtain the host name, user name and password for the VMware Cloud Director database. If you are using an appliance installation, obtain the credentials for the primary cell.

## Procedure

- 1 Copy the `responses.properties` file.

```
sshpass -p CELL_PASSWORD scp -o StrictHostKeyChecking=no
CELL_USERNAME@$CELL_HOST_NAME:/opt/vmware/vcloud-director/etc/responses.properties
responses.properties
```

- 2 Depending on your on-premises environment, choose one of the following.

- If you are using an appliance deployment with an embedded database, log in directly or by using an SSH client to the primary VMware Cloud Director appliance console.
- If you are using a Linux installation with an external PostgreSQL database, log in to the database server.

- 3 To create the database dump file, choose one of the following options depending on your environment.

- If you are using an appliance deployment with an embedded database, run the following command.

```
sshpass -p DBHOST_PASSWORD ssh -o StrictHostKeyChecking=no DBHOST_USERNAME@DBHOST_NAME
"su - postgres -c \"pg_dump -a -Fc DB_NAME -f /tmp/vcloud_db_data.dump"
```

- If you are using a Linux installation with an external PostgreSQL database, run the following command.

```
sshpass -p DBHOST_PASSWORD ssh -o StrictHostKeyChecking=no DBHOST_USERNAME@DBHOST_NAME
"pg_dump -a -h DBHOST_NAME -d DB_NAME -U postgres -Fc -f /tmp/vcloud_db_data.dump"
```

- 4 Copy the database dump file.

```
sshpass -p DBHOST_PASSWORD scp -o StrictHostKeyChecking=no
DBHOST_USERNAME@DBHOST_NAME:/tmp/vcloud_db_data.dump vcloud_db_data.dump
```

- 5 Run the command to create a `resources.zip` file that includes the `responses.properties` file and the data dump file.

```
zip resources.zip vcloud_db_data.dump responses.properties
```

- Run the command to calculate the MD5 checksum of the `resources.zip` file and make a note of it.

```
md5sum resources.zip
```

### What to do next

Upload the `resources.zip` file to your cloud environment.

## Upload On-premises VMware Cloud Director Resources to Your Cloud Environment

To migrate an on-premises VMware Cloud Director instance to VMware Cloud Director service, you must first upload its resources to your cloud environment.

### Prerequisites

- Verify that you downloaded the database dump and the `responses.properties` file from your on-premises VMware Cloud Director instance in a single `resources.zip` file and that you obtained the checksum for the `resources.zip` file.
- Exchange the API token that you generated for an access bearer token. Use the bearer token in the `Authorization` header for the API call. See [How Do I Generate an API Token](#).
- Obtain the ID (URN) for the environment that is nearest to your on-premises SDDC. See [How Do I Retrieve the List of Environments in My Organization](#).

### Procedure

- To upload the resources file to the environment where you want to migrate your VMware Cloud Director instance, run a multipart POST request that includes the `resources.zip` file.

```
POST https://operatorUrl/environment/environmentUrn/migration/upload-resources
```

Table 7-1. Headers

Name	Value
Authorization	Bearer <i>your-bearer-token</i>
Content-Type	application/octet-stream
Transfer-Encoding	chunked
Accept	application/json
X-MD5-Checksum	<i>md5_checksum_of_resources.zip_file</i>

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

The resource file uploads to the cloud.

- 2 Make note of the task ID (URN) in the first line of the API response body.

## Example: Upload On-premises VMware Cloud Director Resources to the Cloud

This cURL example uploads the `resources.zip` file to the cloud environment where you want to migrate your VMware Cloud Director environment.

- 1 Run a cURL POST request with the following parameters.

```
POST -X https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environment/
urn:vcdc:environment:12345678-1234-1234-1234-123456789abc/migration/upload-resources
-H 'accept: application/json'
-H 'Content-Type: application/octet-stream'
-H 'x-md5-checksum: md5_checksum_of_resources.zip'
-T resources.zip -H "Transfer-Encoding: chunked"
--progress-bar -v | tee response.out
```

Use the bearer token in the `Authorization` header of the request.

```
Authorization:
Bearer eyJh...l1NiIs
```

The request returns a 200 OK response such as:

```
Response: HTTP/1.1 200
Body:
{
  "id": "urn:vcdc:task:22222222-2222-2222-2222-222222222222",
  "name": "UPLOAD_RESOURCES_TO_S3",
  "entityId": null,
  "entityName": null,
  "ownerId": "urn:vcdc:organization:12345678-1234-1234-1234-123456789abc",
  "userId": "vmware.com:12a1234b-1234-5678-abcd-12a1aa0123a4",
  "cspUserId": "vmware.com:12a1234b-1234-5678-abcd-12a1aa0123a4",
  "steps": null,
  "status": "SUCCESS",
  "startTime": "2022-07-19T10:05:49.890773Z",
  "endTime": "2022-07-19T10:06:31.008071Z",
  "queuedTime": "2022-07-19T10:05:49.890744Z",
  "message": "UPLOAD_RESOURCES_TO_S3",
  "isolation": "ENTITY_EXCLUSIVE",
  "output": null,
  "activity": ""
}
```

If the task status in the response is `Failed`, analyze the information provided in the error message for the reason. After fixing it, retry uploading the `resources.zip` file.



## What to do next

Run the `/cell-management-tool cell -m true -u` command to put the on-premises VMware Cloud Director cells in maintenance mode. For more details, see [Managing a Cell](#).

# Create a VMware Cloud Director Instance by Using On-premises Resources

Use the resources that you retrieved from your on-premises VMware Cloud Director installation to create a VMware Cloud Director instance in your cloud environment.

## Prerequisites

- Retrieve the database schema version of your on-premises VMware Cloud Director instance.
  - a Log in or SSH as **root** to the OS of the VMware Cloud Director cell.
  - b Run the command to retrieve the database schema version.

```
/opt/vmware/vcloud-director/bin/cell-management-tool manage-config -n
database.schema.version -1
```

- Put your on-premises VMware Cloud Director instance in maintenance mode.
- Exchange the API token that you generated for an access bearer token. Use the bearer token in the `Authorization` header for the API call. See [How Do I Generate an API Token](#).
- Obtain the environment ID (URN). See [How Do I Retrieve the List of Environments in My Organization](#).
- Obtain the value of the `"cdsBuildCategory"` parameter from the compatibility check API response. See [Check the Compatibility Between an On-premises VMware Cloud Director Installation and VMware Cloud Director service](#).
- Obtain the host name, **administrator** user name and password for the on-premises VMware Cloud Director instance.
- Verify that you uploaded `resources.zip` to your cloud environment and that you noted the task ID (URN) from the API response body that you received. See [Upload On-premises VMware Cloud Director Resources to Your Cloud Environment](#).

## Procedure

- 1 Prepare a JSON template with the necessary information to create the VMware Cloud Director instance.

The template must include a name for the new instance, the upgrade build category for VMware Cloud Director service, as well as the VMware Cloud Director host name, **administrator** user name and password.

If you don't have an active VMware Cloud Director service subscription, you can create the instance as a part of a free trial by including the trial details in the template. See [How Do I Retrieve Details About a Specific Free Trial](#)

```
{
  "name": "Cloud_Director_Service_Instance_Name",
  "upgradeCategory": "cds-Build-Category",
  "migrationType": "ONPREM-TO-CDS",
  "uploadResourcesId": "taskURN"
  sourceParams": {
    "vcdHostname": "onprem-vcd-hostname.eng.vmware.com",
    "vcdPrincipal": "vcd-administrator-user-name",
    "vcdAuthentication": "vcd-password",
    "vcdAuthenticationType": "BASIC_AUTH",
    "databaseSchemaVersion": ["1.0", "2.0", "3.0", ["3.1", "3.2"]]
  },
  "trial": {
    "id": "trialURN",
    "expiry": "free-trial-expiry-date-and-time"
  }
}
```

- 2 Run a POST request with the contents of the JSON template in the body of the request and with the necessary headers.

```
POST https://operatorUrl/environment/environmentUrn/migration/migrate
```

Here *operatorUrl* is the operator URL, for example `vcdc-operator-prod-us-west-2.vdp.vmware.com`.

**Table 7-2. Headers**

Name	Value
Authorization	Bearer <i>your-bearer-token</i>
Content-Type	application/octet-stream
Accept	application/json

The response creates a VMware Cloud Director instance in the environment that you specified.

## Example: Create a VMware Cloud Director Instance by Using On-premises Resources

This example creates a VMware Cloud Director instance by using the on-premises resources that you provide.

```
POST https://vcdc-operator-prod-us-west-2.vdp.vmware.com/environment/
urn:vcdc:environment:12345678-1234-1234-1234-123456789abc/migration/migrate -H 'accept:
application/json' \
  -H 'Content-Type: application/json'
  -H 'Accept: application/json'
  -H 'Authorization: Bearer token' \ \
```

```

--data-raw '{
  "name": "onprem-to-cds",
  "upgradeCategory": "release-10.3:production",
  "migrationType" : "ONPREM-TO-CDS",
  "uploadResourcesId": "dba3d683-400a-41fb-81d8-fb58fc0990a7"
  sourceParams": {
    "vcdHostname": "aall-bbb-ccc.eng.vmware.com",
    "vcdPrincipal": "administrator",
    "vcdAuthentication": "*****",
    "vcdAuthenticationType": "BASIC_AUTH",
    "databaseSchemaVersion": ["1.0", "2.0", "3.0", ["3.1", "3.2"]]
  }
}'

```

The 200 OK response returns the following information about the newly created VMware Cloud Director instance.

```

{
  "id": "urn:vcdc:task:22222222-2222-2222-2222-222222222222",
  "name": "Creating instance",
  "entityId": "urn:vcdc:vcdInstance:a0af00aa-1111-2222-3333-bb4b44b44bb4",
  "entityName": "onprem-to-cds-test-2",
  "ownerId": "urn:vcdc:organization:12345678-1234-1234-1234-123456789abc",
  "userId": "vmware.com:aaa1111-1111-2222-aaaa-1111aaaa",
  "cspUserId": "vmware.com:22b222b-2222-3333-bbbb-bbbb22223333",
  "steps": null,
  "status": "IN_PROGRESS",
  "startTime": null,
  "endTime": null,
  "queuedTime": "2022-07-26T07:57:59.409056Z",
  "message": "Instance creation starting",
  "isolation": "ENTITY_EXCLUSIVE",
  "output": null,
  "activity": "activity://DeployVcdInstanceOnK8sActivity/f0fa10fa-3834-4910-9b57-bb2b34a03be9"
}

```

### What to do next

- 1 Check if the instance creation was successful. See [How Do I Retrieve Details About a Single Task](#).
- 2 Associate the newly created VMware Cloud Director Instance with an SDDC via [VMware Reverse Proxy](#).