

Using vRealize Operations Tenant App as a Service Provider

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vRealize Operations Tenant App for a vCloud Director as a Service Provider

The *vRealize Operations Manager Tenant App for vCloud Director as a Service Provider* guide provides information about configuring tenant user for vcloud director.

Intended Audience

This information is intended for anyone who wants to use the tenant view of vCloud Director. The information is written primarily for service providers to create users for an organization in vCloud Director.

VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation, go to <http://www.vmware.com/support/pubs>.

Introduction

The vRealize Operations Manager Tenant App for vCloud Director as a service provider provides information about configuring a tenant app for vCloud Director.

The user who is a service provider can configure and create users for an organization to use the tenant application.

Compatibility Requirements

The vRealize Operations Manager Tenant App for vCloud Director has the following requirements.

- vRealize Operations Manager 6.6.1.
- vRealize Operations Management Pack for vCloud Director 4.5
- vCloud Director 5.5 and above.
- For the vRealize Operations Manager Tenant App for vCloud Director, vCloud Director 9.0 - For integration with vRealize Operations Manager Tenant App for vCloud Director only.

Install the Management Pack

The Management Pack for vCloud Director consists of a PAK file that contains out-of-the-box dashboards for the newer resource objects that are brought in from vCloud Director.

The solution that you downloaded includes a PAK file. Save that PAK file to a temporary folder on your local system.

Procedure

- 1 Log in to the vRealize Operations Manager user interface with administrator privileges.
- 2 In the left pane of vRealize Operations Manager, click the **Administration** icon and click **Solutions**.
- 3 On the **Solutions** tab, click the plus sign.
- 4 Browse to locate the temporary folder and select the PAK file.
- 5 Click **Upload**. The upload might take several minutes.
- 6 Read and accept the EULA, and click **Next**. Installation details appear in the window during the process.
- 7 When the installation is finished, click **Finish**.

What to do next

Configure an adapter instance for the management pack.

Configuring the Management Pack for vCloud Director

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To configure the Management Pack for vCloud Director, you must add an adapter instance and credential in vRealize Operations Manager. You can optionally modify adapter-level and instance-level properties.

Configure the Management Pack for vCloud Director

You must create an adapter instance for the Management Pack for vCloud Director. The adapter instance defines the adapter type and identifies the vCloud Director host system.

NOTE vRealize Operations Manager 6.6 supports vRealize Operations Manager Tenant App for vCloud Director.

You can optionally list the Provider vDCs or Organizations for which the adapter instance collects data.

Prerequisites

- Install the Management Pack for vCloud Director. See [Chapter 3, “Install the Management Pack,”](#) on page 11.
- Verify that your system meets the configuration requirements. For more information on configuration requirements, *VMware vRealize Operations Management Pack for vCloud Director 4.5 Guide*.

Procedure

- 1 In the left pane of vRealize Operations Manager, click the **Administration** icon and click **Solutions**.
- 2 Select Management Pack for vCloud Director and click the **Configure** icon.
- 3 Configure the instance settings.

Option	Description
Display Name	Name for the adapter instance.
Description	(Optional) Describe the instance.
vCloud Director Host	Type the host name or IP address of the vCloud Director host system. If a public REST API base URL is assigned in vCloud Director, type the public address. For example, if the VCD public REST API base URL is <code>https://vcloud.somehost.com</code> , type <code>vcloud.somehost.com</code> .

Option	Description
Autodiscovery	Discover vCloud Director objects automatically. <ul style="list-style-type: none"> ■ To set automatic discovery for objects, select True. ■ To set the automatic discovery off, select False. You must use manual discovery to import vCloud Director entities.
Filter By Provider vDCs List	List the names of the Provider vDCs to import. You can limit the vCloud Director entities that the adapter instance imports. Use a semicolon (;) to separate multiple names. For example, pvdc1; pvdc2; pvdc3. Refer to the Note for more information.
Filter By Organizations List	List the names of the Organizations to import. Use a semicolon (;) to separate multiple names. For example, org1; org2; org3. Refer to the Note for more information.
Credentials	Select the credential to use to sign on to the data source from the drop-down menu, or click the plus sign to add a new credential. You can select one of the following credentials: <ul style="list-style-type: none"> ■ SSO Credentials ■ vCloud Director Credentials ■ vCloud Director Tenant Credentials <hr/> SSO Credentials <ul style="list-style-type: none"> ■ Credential Name. Enter a name for the credential. ■ SSO Host. Enter the SSO host details. ■ SSO Port. Enter the SSO port number. ■ User Name. Enter the name of the user. ■ Password. Enter the password. <hr/> vCloud Director Credentials <ul style="list-style-type: none"> ■ Credential Name. Enter a name for the credential. ■ User Name. Enter the name of a vCloud Director user. ■ Password. Enter the password of a vCloud Director user. <hr/> vCloud Director Tenant Credentials <ul style="list-style-type: none"> ■ Credential Name. Enter a name for the credential. ■ User Name. Enter the name of the tenant user in the following format: <username>@org ■ Password. Enter the password of the tenant user.
Organization	To discover the vCloud Director object belonging to an organization, enter the organization name if it is not a tenant. The default value of organization is System if you are using vCloud credentials. Otherwise it is the name of your organization if you are using tenant credentials.

NOTE

- If you leave the Filter By Provider vDCs List and the Filter By Organizations List lists blank, the adapter instance imports all of the supported entities from the vCloud Director hierarchy.
- If you list Organizations and leave the Provider vDC list blank, the Management Pack for vCloud Director imports only the Organizations that you list and the entities that are related to those Organizations.

- If you list Provider vDCs and leave the Organizations list blank, the Management Pack for vCloud Director imports only the Provider vDCs that you list and the entities that are related to those vDCs.
 - If you list Provider vDCs and Organizations, the Management Pack for vCloud Director imports the union of the two sets.
- 4 Click **Test** to test the connection to the vCloud Director host system.
 - 5 Click **OK** to save your configuration.

What to do next

If you disabled autodiscovery for the Management Pack for vCloud Director, use manual discovery to import vCloud Director entities. For information about using the manual discovery process, see the online help.

Integration with vRealize Operations Manager

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You can integrate vRealize Operations Manager Tenant App for vCloud Director with vRealize Operations Manager to deploy the tenant view.

This chapter includes the following topics:

- [“Deploy an OVF File for a Tenant App,”](#) on page 17
- [“Changing Default SSL Certificates,”](#) on page 19
- [“Log in to the Web Console,”](#) on page 19
- [“vRealize Operations Manager Tenant App for vCloud Director as a plug-in,”](#) on page 19
- [“Architecture and Port Requirements,”](#) on page 20

Deploy an OVF File for a Tenant App

To deploy a vRealize Operations Manager Tenant App for vCloud Director, you have to download and install the OVF file from the Solution Exchange website. Installation of Tenant App OVF file is done through vSphere Web Client.

NOTE Upgrade of vRealize Operations Manager Tenant App for vCloud Director is not supported from earlier version.

Prerequisites

- Verify that you are connected to a vCenter Server system with a vSphere Web Client, and log in to the vSphere client.
- Verify that you have a data center created and a host system already added to it.

Procedure

- 1 From the vSphere Web Client navigator, select the host system in the management vCenter that you want deploy the OVF file.
- 2 Click the **Actions** drop-down menu and select **Deploy OVF Template**.
- 3 From the Deploy OVF Template dialog box, select **Local File** and browse to the OVA file that is downloaded from the Product download page and click **Next**.
- 4 Re-name the OVA file and location at which the OVF is deployed and click **Next**.
- 5 Verify the resource where you want to run the deployed OVF template and click **Next**.
- 6 Review the template details and click **Next**.
- 7 Scroll through the License Agreement.

- 8 Click **Accept** and **Next**.
- 9 Select a virtual disk format to store the files for the deployed template and click **Next**.
- 10 You can choose **Browse** to select a Destination Network or retain the default destination and click **Next**.
- 11 Customize the template by providing the following information.

Option	Description
AMQP Host	Provide the AMQP Host name or IP address information. The host information should be same as AMQP host that is configured in vCloud Director extensibility settings.
AMQP Password	Provide the AMQP password.
AMQP Port	Default is 5672. Provide the AMQP port number.
AMQP vHost	Provide the virtual host. Retain the AMQP Port / as is. The host information should be similar to the host that is configured in vCloud Director.
AMQP Username	Provide the AMQP username.
Enable Plugin	Select this check box to enable vCloud Director Tenant UI plugin option.
AMQP Use SSL	Select this option to make AMQP connection over SSL.
Tenant App Host	The IP address of the vRealize Operations Manager tenant App for vCloud Director is allocated automatically. If Tenant App is deployed in private network, you can configure Load Balancer or a proxy to provide public access to Tenant App. In such cases public address can be mentioned in this field.
vCloud Host	This field is required if you have enabled the plug-in. Provide the Host name or public IP address of vCloud Director.
vRealize Operations Manager Hostname or IP Address	This is a mandatory field. Enter the IP address or the host name of vRealize Operations Manager as a backend. NOTE If you have provided the host name, ensure that it is resolvable through DNS.

- a To modify an existing vRealize Operations Manager tenant App for vCloud Director settings in vSphere Web Client, login to the console using the root credentials.
 - b Execute the command: `#docker stop vvtv && docker rm vvtv`
 - c Power off the vRealize Operations Manager tenant App for vCloud Director VM.
 - d Modify the tenant app settings.
 - e Power on the vRealize Operations Manager tenant App for vCloud Director VM.
- 12 Click **Next**.
 - 13 Review the settings and click **Finish**.

Changing Default SSL Certificates

By default, vRealize Operations Manager Tenant App for vCloud Director has a self-signed certificate, that needs to be replaced. When you attempt to use vRealize Operations Manager Tenant App for vCloud Director over a trusted SSL Internet connection, and you open the vRealize Operations Manager Tenant App for vCloud Director interface in a Web browser. You receive warnings that the connection is untrusted (in Mozilla Firefox) or that problems have been detected with the Web site's security certificate (in Internet Explorer).

Change the SSL certificate

You can resolve the problem by installing a certificate signed.

Procedure

- 1 Get the certificate signed by a commercial certificate authority (CA).
- 2 Copy the private key file to any location within the tenant app.
- 3 Run the following command:

```
#docker cp <path to your crt file> vvtv:/etc/ssl/certs/app.crt
#docker cp <path to your key file> vvtv:/etc/ssl/certs/app.key
#docker restart vvtv
```

Log in to the Web Console

To access the tenant view UI, use the IP address of the deployed OVF file.

Prerequisites

Verify that you have deployed the OVF file.

Procedure

- 1 Open a Web browser and enter the IP address of the deployed OVF file.
- 2 Type the vRealize Operations Manager administrator user name and password.
- 3 Click **Login**.

vRealize Operations Manager Tenant App for vCloud Director as a plug-in

The vRealize Operations Manager tenant app for vCloud Director can also be accessed through the vCloud Director as a separate plug-in.

You can login to the tenant app through vCloud Director user interface. You can view a separate Welcome page from where you can access the tenant app features in the same user interface. This feature provides easy accessibility without having to open the tenant app in a separate browser with no change in the functionality of the tenant app. This is an optional feature, however, you can still continue to use the tenant app as a stand alone UI.

You can deploy the plug-in to vCloud Director from vSphere Web Client. After you have deployed the OVF template in the vSphere Web Client, log in to the tenant app console and execute the following command:

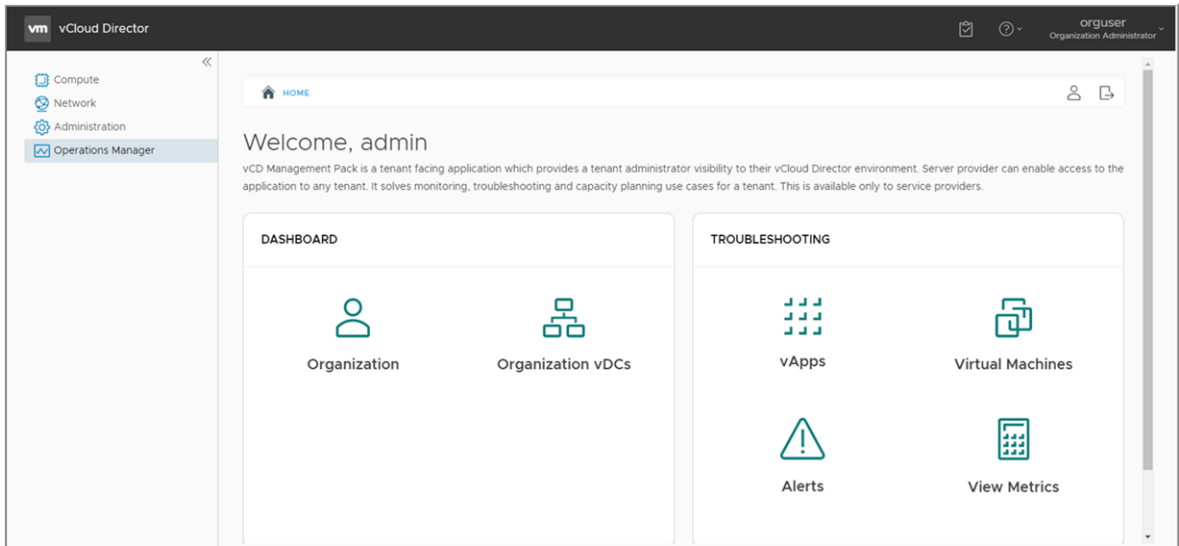
```
#cd to /opt/vmware/plugin/
#python publish.py -H <VCD_HOST> -u <SYSTEM_USER> -p <SYSTEM_PASSWORD>
```

For example: #python publish.py -H vcd.vmware.com -u 'administrator@system' -p 'admin password'

After executing the command, open the vCloud Director user interface with the following browser URL to access the Operations Manager plug-in.

`https://IPAddress/ID/tenant/Org_name/...`

Figure 5-1. Welcome Page for vRealize Operations Manager Tenant App for vCloud Director



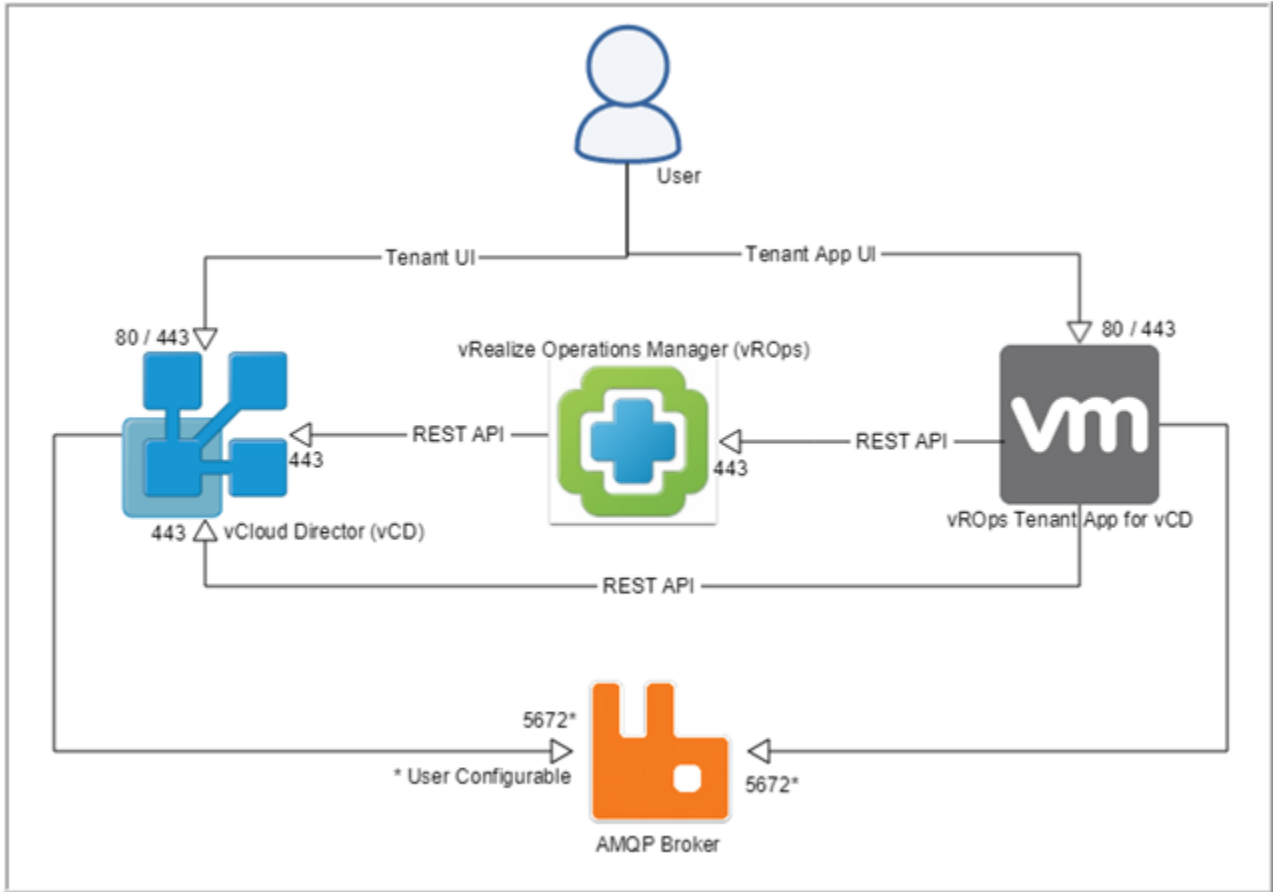
Architecture and Port Requirements

The vRealize Operations Manager Tenant App for vCloud Director as a plug-in is an optional feature that can be used to access through vCloud Director UI. Each of the components within the architecture has different ports that are communicating with each other.

NOTE vRealize Operations Manager Tenant App for vCloud Director, vRealize Operations Manager, and AMQP are communicating with each other.

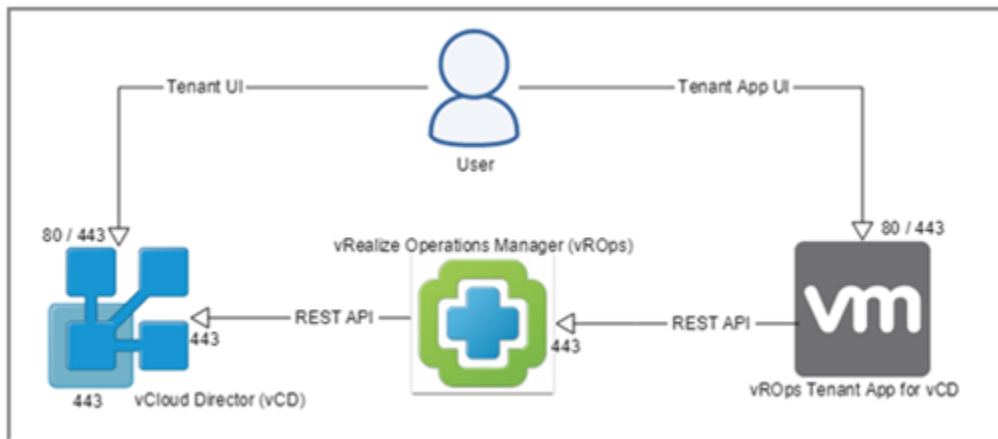
The following architecture provides the port requirement for the integration of vRealize Operations Manager Tenant App for vCloud Director as a plug-in.

Figure 5-2. Integration of vRealize Operations Manager Tenant App for vCloud Director as a plug-in



The following architecture provides the port requirement of the vRealize Operations Manager Tenant App for vCloud Director as a stand alone app.

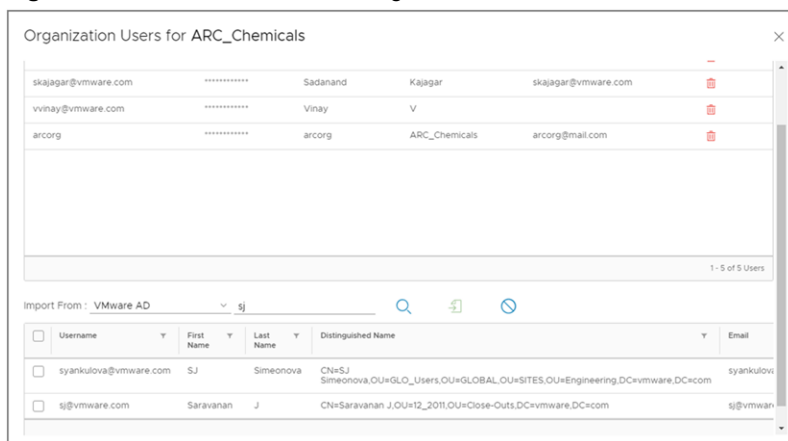
Figure 5-3. Integration of vRealize Operations Manager Tenant App for vCloud Director as a stand alone App



Create Users for an Organization

Service providers can create users and give them access to an organization. Service providers have access to components like Provider Dashboard, Organization, Resource Pools, and Provider VDCs only. You can also import user account information that resides on another machine, you must define the criteria used to import the user accounts from the source machine as an Active Directory user or an OpenLDAP user.

Figure 6-1. Create a User for an Organization



Prerequisites

- Verify that the Management Pack for vCloud Director is installed and configured in vRealize Operations Manager.
- Verify that vCloud Director is integrated with vRealize Operations Manager.
- To integrate with OpenLDAP or Active directory, verify that you have added authentication sources in vRealize Operations Manager and the user names are present in Active Directory or OpenLDAP. For more information on adding authentication sources, see *vRealize Operations Manager* information center.

Procedure

- 1 From the vRealize Operations Manager Tenant App for vCloud Director page, click **Organizations**.
- 2 From the **List of Organizations**, click the **Users** icon under the **Users** column.
- 3 To add a user, click **+User**.
- 4 Enter the user details and click **Save**.
- 5 Click **Done**.
- 6 To import, click **Import**, select Active Directory or OpenLDAP from the **Import From** drop-down menu.

- 7 To search a active directory user or openLDAP user, enter a keyword and click search.
- 8 Select the username from the list and click **Import**.
- 9 Login to vRealize Operations Manager Tenant App for vCloud Director with your active directory or OpenLDAP user credentials.

You have created a user with permissions to access an organization.

Viewing Tenant App Components

A service provider can view four components of the tenant app.

This chapter includes the following topics:

- [“Organizations,”](#) on page 25
- [“Provider Virtual Data Center,”](#) on page 25

Organizations

Organizations contain a list of organizations in which it can contain multiple organization VDCs.

Provider Dashboard

The dashboard provides an overview of the Provider Virtual Data Center, which combines the compute and memory resources of a single vCenter Server resource pool with the storage resources of one or more datastores available to that resource pool. For more information, see the *VMware vCloud Director Documentation Center*.

Table 7-1. Provider Dashboard

Field	Description
Organization Summary	This section provides the number of (objects) Organizations, Virtual Datacenters, vApps and virtual machines that are available in a data center.
Provider VDC Capacity Overview	This section provides the capacity of CPU usage, memory, and Storage for each provider.
System Status	This section provides a list of all the alerts and alert definitions for a list of objects.
Organizations Overview	This section provides a list of Organizations and including user and CPU, VMs, vApp information.

Provider Virtual Data Center

Provider Virtual Data Center (PVDC) combines the compute and memory resources of a single vCenter Server resource pool with the storage resources of one or more datastores available to that resource pool. This page provides a list of all the PVDCs that are available in your data centers.

Resource Pools

You can configure resource pools to provider VDCs to allocate resources to the provider VDC. This page provides a list of resource pools that are configured for provider VDCs in your data center.

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