

Using On-Premises Tenant 'common' in Hybrid Cloud Environment

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Revised: June 26, 2026,

New and Changed Information

The following table provides an overview of the significant changes to the organization and features in this guide from the release the guide was first published to the current release. The table does not provide an exhaustive list of all changes made to the guide.

Table 1: Latest Updates

Release	New Feature or Update	Where Documented
4.3	First release of this document.	--

Summary

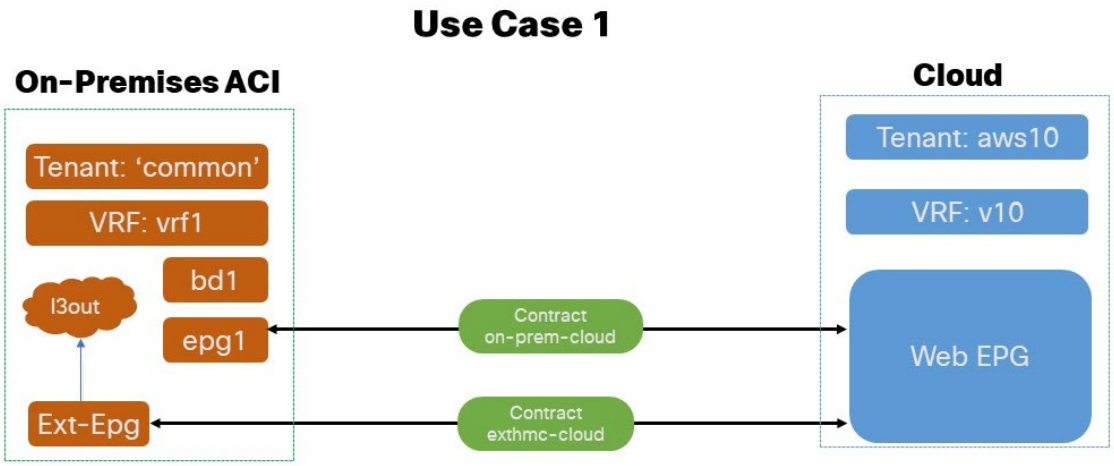
Prior to the Cisco Cloud Network Controller (CCNC) 26.0.3 release, endpoints belonging to the on-premises ACI tenant `common` couldn't communicate with endpoints in the cloud tenant. With CCNC release 26.0.3, it's now possible for endpoints in the tenant `common` of the on-premises ACI to communicate with the endpoints in the cloud. Additionally, external EPG prefixes in the on-premises ACI can also communicate with endpoints in the cloud. Implementation requires Cisco Nexus Dashboard Orchestrator (NDO) version 4.3 or higher deployed in your Cisco Nexus Dashboard (ND) cluster.

A tenant is a logical container for application policies that enables the administrator to exercise domain-based access control. A tenant represents a unit of isolation from a policy perspective, not a private network. Tenants can represent a customer in a service provider setting, an organization, or a domain in an enterprise setting, or just a convenient grouping of policies. A tenant can be local on-premises, in the cloud or, it can be stretched between on-premises ACI and the cloud.

The `common` tenant is however a special on-premises ACI tenant with the purpose of providing "**common services**" to other tenants in ACI fabrics, based on the principles of global reuse. Some examples of "**common services**" associated with the on-premises ACI tenant `common` include shared L3Out, DNS, DHCP, Active Directory, and shared private networks or Bridge Domains (BD)

Even though there's no `common` tenant providing "**common services**" on the cloud, a `common` tenant can still be seen in the CCNC policy model. The `common` tenant isn't associated with any cloud account, however it holds the policy objects such as **Filters** and **Contracts**. Below are some of the supported scenarios:

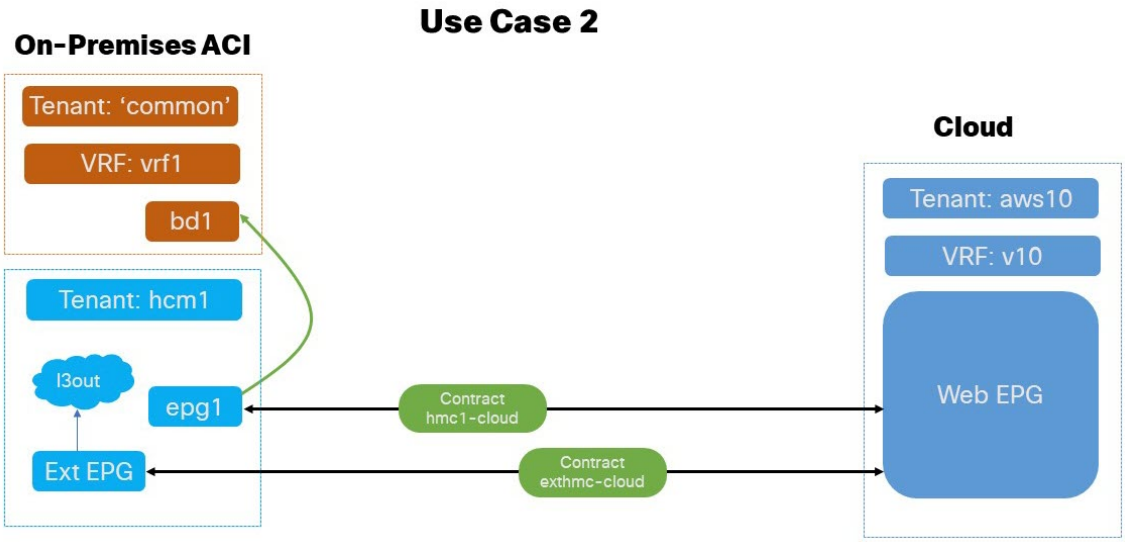
Use Cases:



-

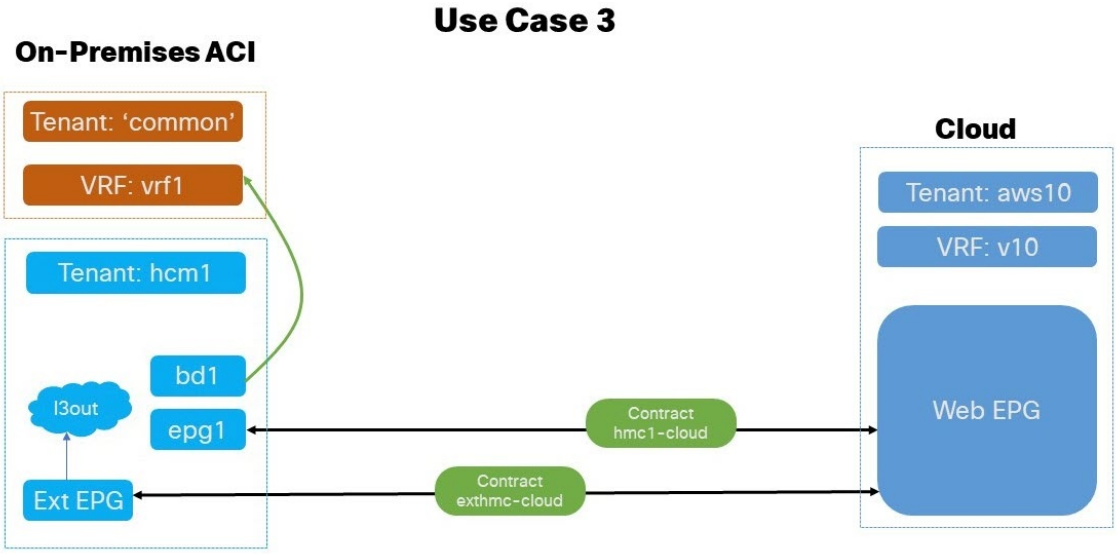
Application EPG (or external EPG) in On-Premises 'common' tenant to Cloud EPG: In this use case scenario we enable application EPG belonging to the `common` tenant in the on-premises ACI to communicate with the endpoints in the cloud. All the tenants are local and not stretched.

- The VRF, BD, application EPG, L3Out and, external EPG are all defined in the same `common` application tenant of the on-premises ACI EPG.
- Subnets can be defined under BD or application EPG.
- The `contracts` and `filters` are defined in the `common` tenant of the on-premises ACI and Cloud, though the `common` tenant isn't associated to any cloud account.



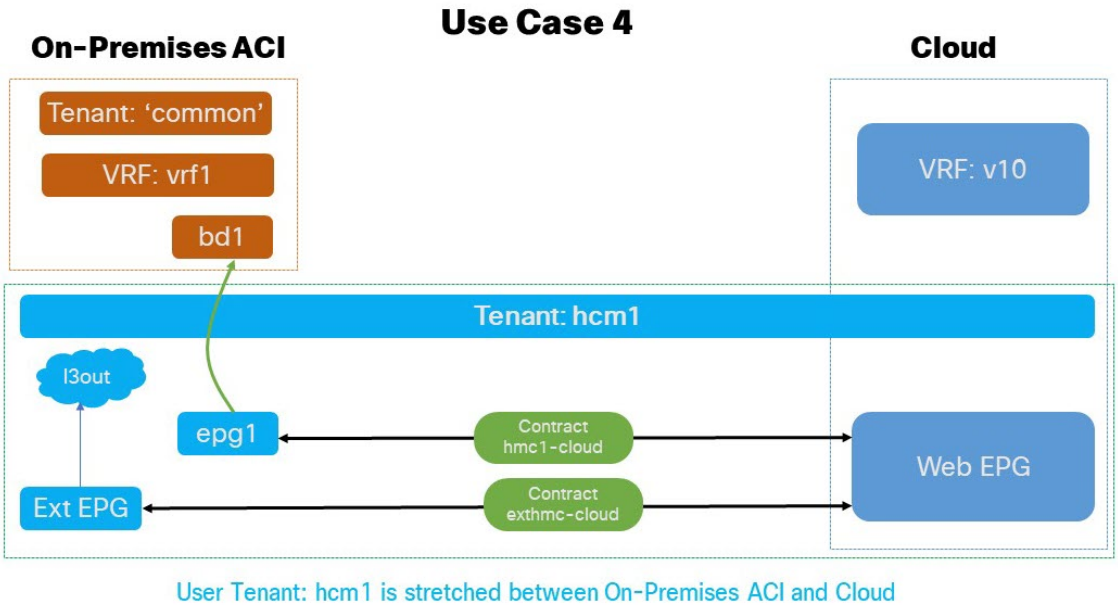
Application EPG (or external EPG) in On-Premises User Tenant to Cloud EPG (BD in 'common' tenant): In this use case scenario we enable application EPGs belonging to the tenant `common` on-premises ACI to communicate with endpoints in the cloud. All the tenants are local and not stretched.

- The VRF and BD are defined in the `common` tenant of on-premises ACI.
- Subnets can be defined under BD or application EPG.
- External EPG and L3Out are defined in a separate User Tenant of on-premises ACI application EPG.
- The `contracts` and `filters` are defined in the `common` tenant of the on-premises ACI and Cloud, though the `common` tenant isn't associated to any cloud account.



Application EPG (or external EPG) in On-Premises User Tenant to Cloud EPG (BD in user tenant): In this use case scenario we enable external EPG tenant defined under the user tenant of the on-premises ACI to communicate with the endpoints in the cloud. All the tenants are local and not stretched.

- The application EPG and BD can be alternatively defined in `common` or user tenant external EPG of on-premises ACI EPG.
- Subnets can be defined under BD or application EPG.
- External EPG and L3Out are defined in the user tenant external EPG of the on-premises ACI.
- The `contracts` and `filters` are defined in the `common` tenant of the on-premises ACI and Cloud, though the `common` tenant isn't associated to any cloud account.



Application EPG (or external EPG) in stretched user tenant to cloud EPG (BD in '`common`' tenant): In this use case scenario we enable the external EPG defined in the stretched user tenant to communicate with the endpoints in the cloud.

- The VRF and BD are defined in tenant `common` of the on-premises ACI EPG.
- External EPG, L3Out and, application EPG are defined under a user tenant external EPG that is stretched between on-premises ACI site and Cloud.
- Subnets can be defined under BD or application EPG.
- The `contracts` and `filters` are defined in the `common` tenant of the on-premises ACI and Cloud, though the `common` tenant isn't associated to any cloud account.

Guidelines and Limitations

Before you follow the procedures described in this document, you must complete the following basic configuration tasks:

- Deploy and have ready a Cisco Nexus Dashboard cluster.

  This is described in detail in the *Cisco Nexus Dashboard Deployment Guide* for your release.
- Onboard one or more cloud sites in the Cisco Nexus Dashboard.

  This is described in detail in the *Cisco Nexus Dashboard User Guide* for your release.
- Install and enable Cisco Nexus Dashboard Orchestrator, Release 4.3 or later.

  This is described in detail in the *Cisco Nexus Dashboard Orchestrator Deployment Guide* for your release.
- Enable the cloud sites for management in the orchestrator service and complete the basic infra configuration.

  This is described in detail in the *Cisco Nexus Dashboard Orchestrator Configuration Guide for ACI Fabrics* for your release.
- Add sites to the schema and provide configuration for the subnets.

Default Configurations: Cloud and On-Premises Tenant 'common'

The following guidelines apply while verifying the `common` tenant on Cloud using the CCNC and tenant `common` using the Cisco Nexus Dashboard Orchestrator:

Before you begin

- You must have a user with either the `Power User` or `Site Manager` read/write role to create and manage tenants.
- Cisco Nexus Dashboard Orchestrator (NDO) version 4.3 or higher deployed in your Cisco Nexus Dashboard (ND) cluster
- You must have at least one available tenant that you want to incorporate into your site.

  For more information, see *Cisco Nexus Dashboard Orchestrator Configuration Guide for ACI Fabrics*.

Procedure

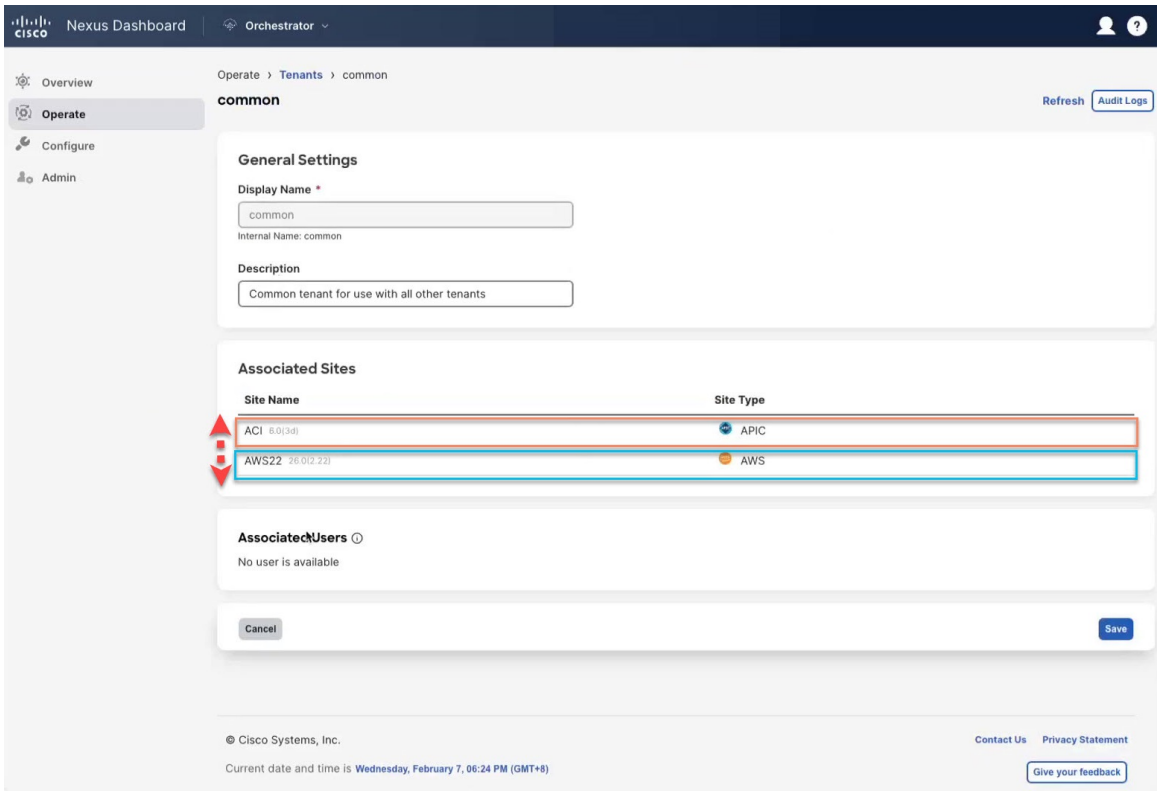
Step 1 Log in to your Cisco Nexus Dashboard and open the Cisco Nexus Dashboard Orchestrator service.

Step 2 Navigate to the tenant `common` properties:

a) From the left navigation pane, choose **Operate** > **Tenants**.

b) From the list of **Tenants**, locate the tenant `common` and click on it.

c) Under **Associated Sites** you should see both the on-premises ACI and the Cloud site associated with the tenant `common`.

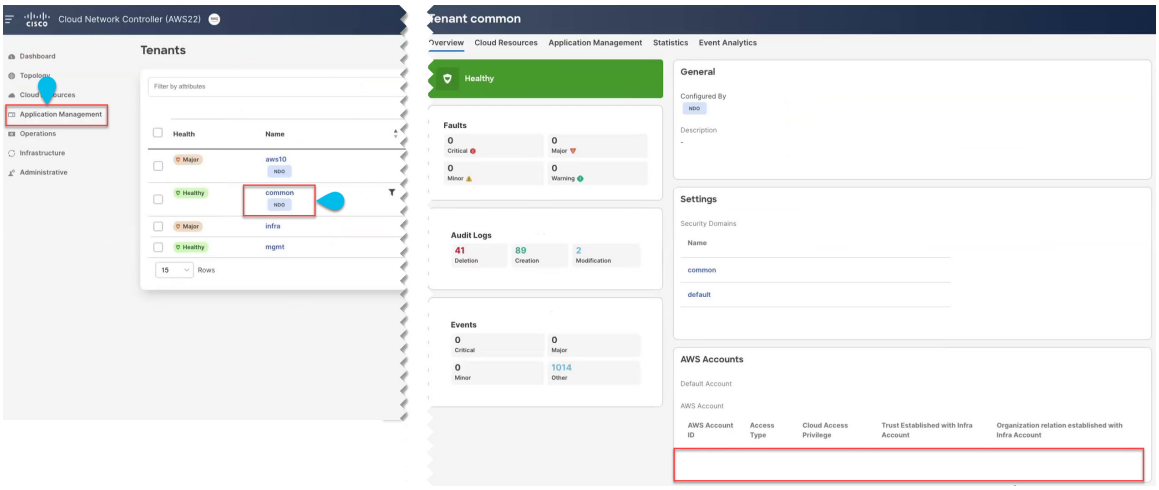


Step 3 Log in to your Cisco Cloud Network Controller GUI.

a) Navigate to **Application Management** > **Tenants**.

b) From the list of **Tenants**, select the tenant `common`.

c) Under the **Overview** tab the tenant `common` shouldn't be associated with any Cloud account or have a Cloud ID.



Configuring Cloud Infrastructure

Configure User Tenant on Cloud

Before you begin

The following guidelines apply when configuring the cloud user tenant on the Nexus Dashboard Orchestrator and associate it with the cloud site.

If you want to import an existing tenant from your fabrics, follow the steps that are described in Importing Existing Tenants instead.

Procedure

Step 1 Create User Tenant:

a) From the left navigation pane, choose **Operate** > **Tenants**.

b) In the top right of the main pane, click **Create Tenant**.

The **Create Tenant** screen opens.

Step 2 Configure cloud user tenant.

a) Provide the **Display Name** and optional **Description**.

b) In the **Associated Sites** section, check the Cloud site that you want to associate.

c) (Optional) For each selected site, click the **Edit** button next to its name and choose one or more security domains.

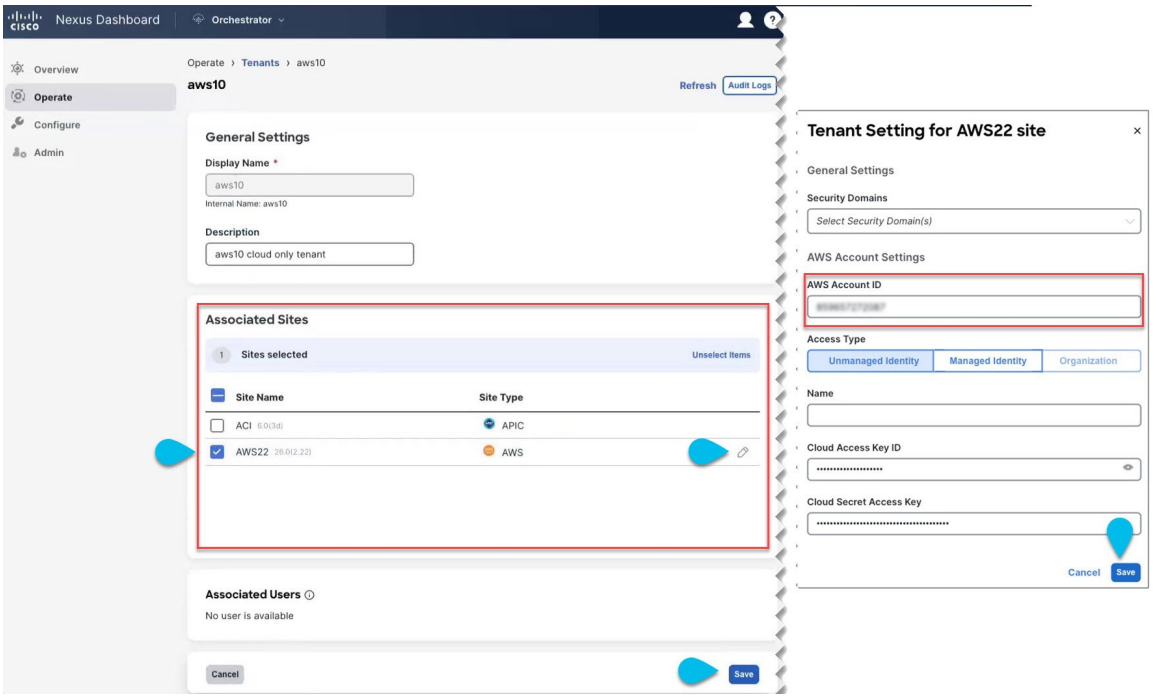
Security domains are created using the APIC GUI and can be assigned to various APIC policies and user accounts to control their access. For more information, see the *Cisco APIC Basic Configuration Guide*.

d) In the **Associated Users** section, select the Cisco Nexus Dashboard Orchestrator users that are allowed to access the tenant.

Note

Only the selected users are able to use this tenant when creating templates.

Step 3 Click **Save** to finish adding the tenant.



Configure Cloud Schema and Templates

The following guidelines apply when configuring the schemas and templates for the cloud tenant using the Cisco Nexus Dashboard Orchestrator:

Before you begin

- You must have at least one available tenant that you want to incorporate into your site.

  For more information, see *Tenants and Tenant Policies Templates*.

Procedure

Step 1 Create a schema.

a) From the left navigation pane, choose **Configure** > **Tenant Template**.
b) On the Schemas page, click **Add Schema**.
c) In the schema creation dialog, provide the **Name** and optional description for the schema and click **Add**.

Step 2 Create a template.

a) In the schema page, click **Create New Template**.
b) In the **Select a Template type** window, choose `ACI Multi-Cloud` and click **Add**.

c) In the right sidebar, provide the **Display Name** for the template.
d) (Optional) Provide a **Description**.
e) From the **Select a Tenant** drop-down, select the Tenant `common` for this template.
f) In the template view page, click **Save** to finish adding the Template to the schema.

Step 3 Set site associations.

You deploy fabric configuration by deploying one template at a time to one or more sites. So you must associate the template with at least one site where you want to deploy the configuration.

a) In the template view page, click **Actions** and choose **Add/Remove Sites**.
b) In the **Add/Remove Sites <template>** dialog, select the **Cloud Site** to deploy the template and click **Ok**.

Step 4 Deploy the template.

Configure 'common' Policies in the Cloud

The following guidelines apply when creating the VRF and application EPG in the cloud user template and configuring the various policy objects in the EPG.

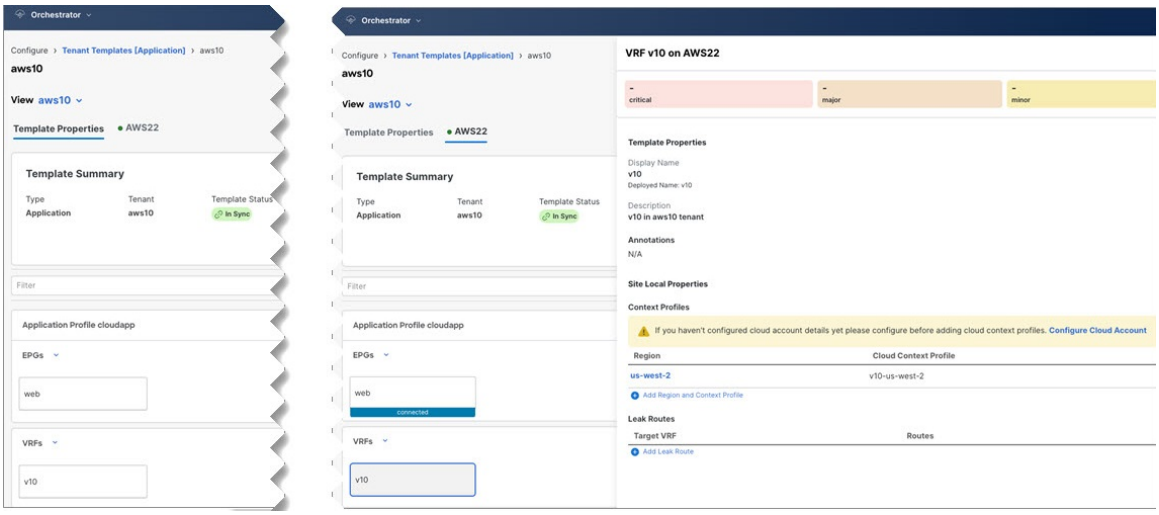
Before you begin

- Configure User Tenant on Cloud, on page 7
- Configure Cloud Schema and Templates, on page 8

Procedure

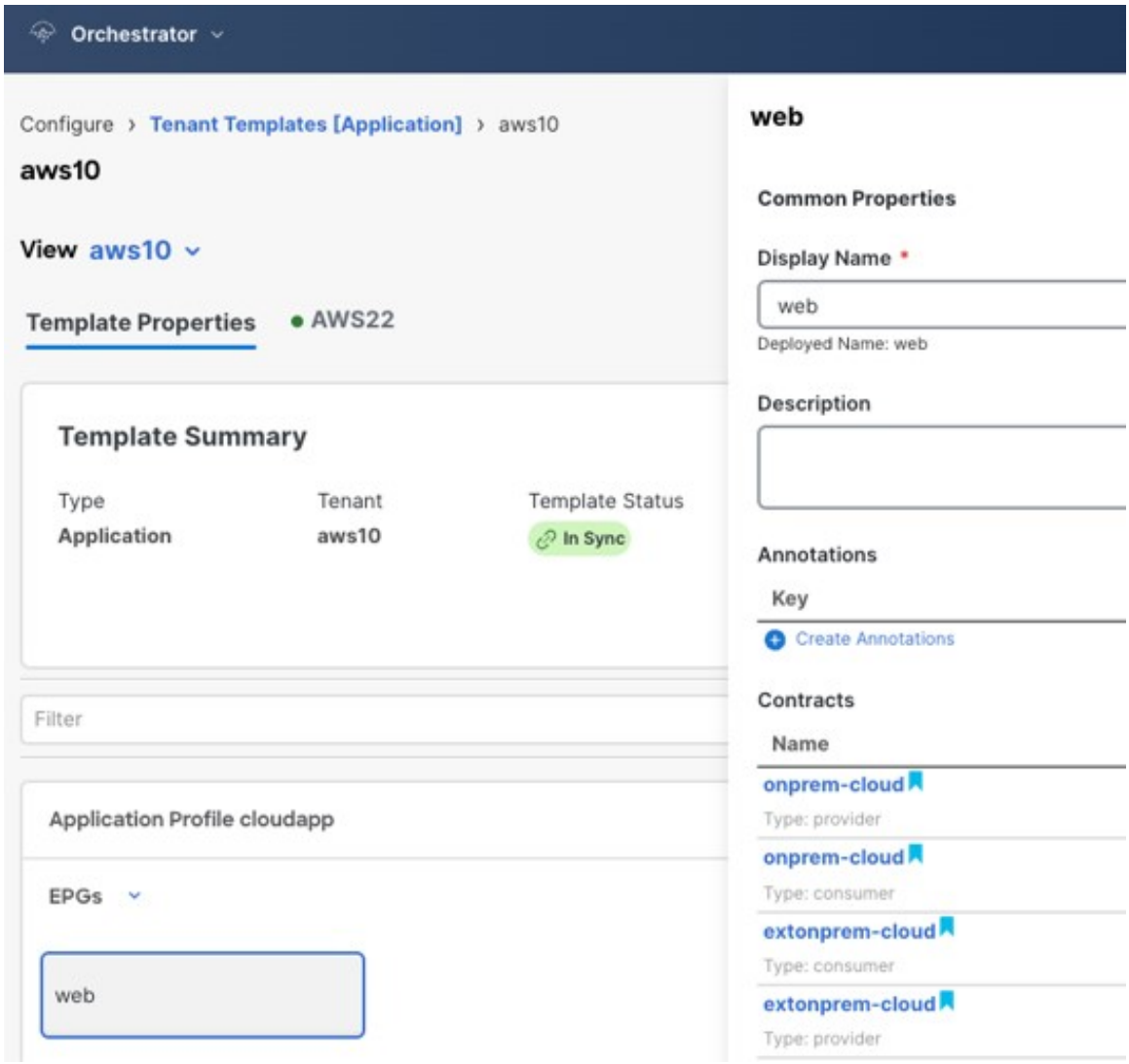
Step 1 Configure the **VRF** and application **EPG** in the template.
a) In the template view main pane, add a VRF to the template, for more information see *Configuring VRFs*.

Step 2 In the template view main pane, create an application EPG to the template, for more information see *Configuring Application Profiles and EPGs*.



Step 3 Associate `contracts` with the application EPG, for more information see *Configuring Contracts and Filters*.

a) Select the application **EPG**.
b) Click **Add Contract**.
c) On the **Add Contract** dialog, enter the contract name and type.
d) Click **SAVE**.



What to do next

Configure on-premises tenant `common` on Nexus Dashboard Orchestrator.

Configuring On-Premises Infrastructure

Configure On-Premises 'common' schema and Templates

The following guidelines apply when configuring the schemas and templates for the on-premises `common` tenant using the Cisco Nexus Dashboard Orchestrator:

Before you begin

- You must have at least one available tenant that you want to incorporate into your site.

  For more information, see *Tenants and Tenant Policies Templates*.

Procedure

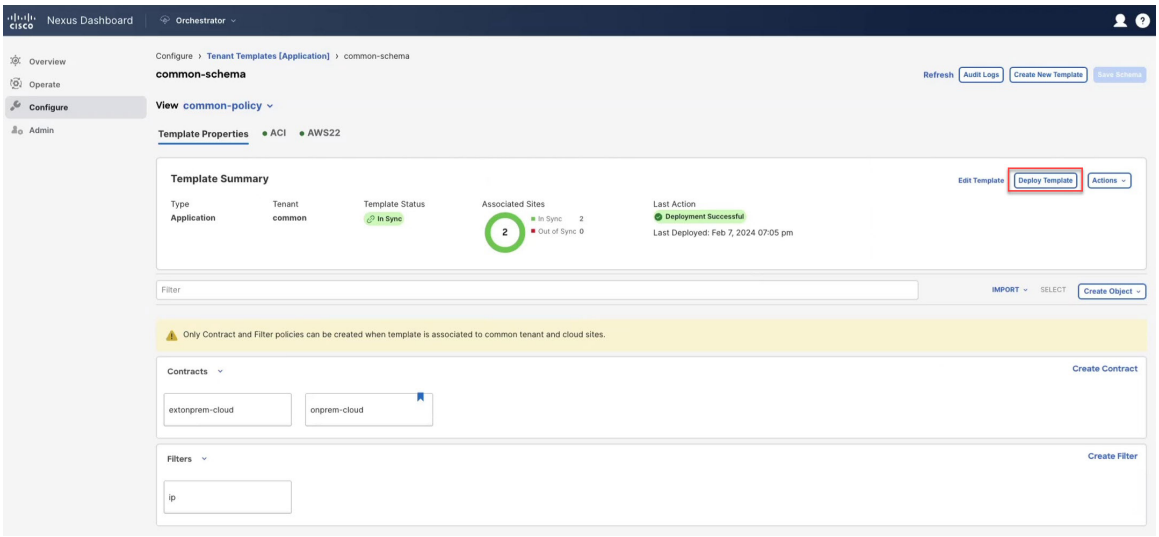
Step 1 Create a schema.

a) From the left navigation pane, choose **Configure** > **Tenant Template**.
b) On the Schemas page, under the **Application Template** tab click on the **Add Schema** button.
c) In the schema creation dialog, provide the **Name** and optional description for the schema and click **Add**.

Step 2 Create a template.

a) In the schema page, click **Create New Template**.
b) In the **Select a Template type** window, choose `ACI Multi-Cloud` and click **Add**.
c) In the right sidebar, provide the **Display Name** for the template.
d) (Optional) Provide a **Description**.
e) From the **Select a Tenant** drop-down, select the Tenant `common` for this template.
f) In the template view page, click **Actions** and choose **Add/Remove Sites**.
g) In the **Add/Remove Sites <template>** dialog, select both On-Premises and Cloud site to deploy the template and click **Ok**.
h) In the template view page, click **Save** to finish adding the Template to the schema.

Step 3 Deploy the template.



What to do next

Configure 'common' Stretched Policies, on page 12

Configure 'common' Stretched Policies

The following guidelines apply when configuring the on-premises `common` policy objects using the Cisco Nexus Dashboard Orchestrator:

Before you begin

- You must have at least one available tenant that you want to incorporate into your site.

  For more information, see *Tenants and Tenant Policies Templates*.

Procedure

Step 1 Configure the VRF.

a) Navigate to the `common` template described in Configure 'common' Stretched Policies, on page 12.

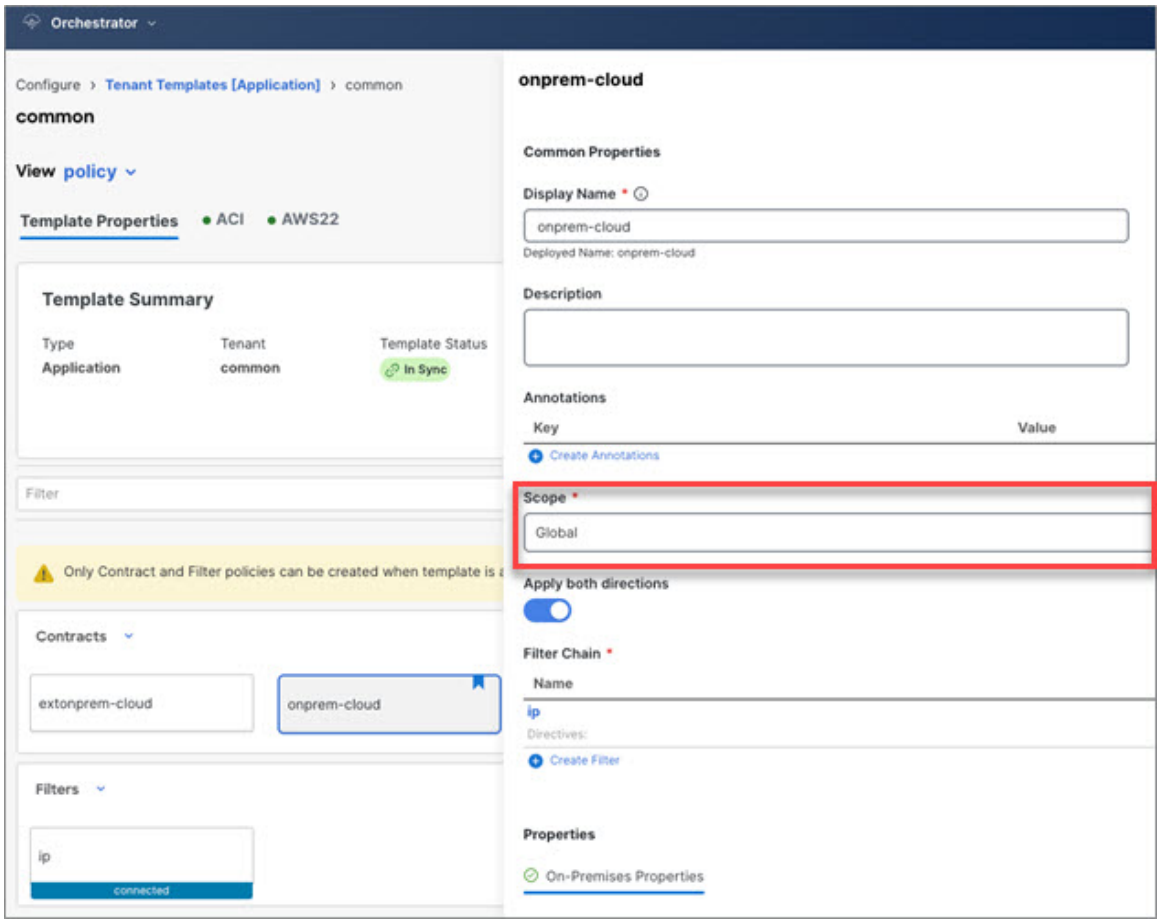
b) In the template view main pane, add the VRF to the `common` template, for more information see *Configuring VRFs*.

Step 2 Configure `contracts` and `filters`.

a) In the template view main pane, click **Create Object**

b) Add `Contracts` and `Filters` policy objects, for more information on `contracts` and `filters` see *Configuring Contracts and Filters*.

Note
While configuring the `Contracts` object ensure the option for the **Scope** field is set as **Global** because this `contract` is used between two tenants.



Step 3 Deploy the template.

Deploy On-Premises Tenant and Policies

This section describes how to configure the tenant templates based on the four use cases scenarios and assigns the filter to the contract

Before you begin

You must have completed all the preceding procedures:

1. Configure User Tenant on Cloud, on page 7
2. Configure Cloud Schema and Templates, on page 8
3. Configure 'common' Policies in the Cloud, on page 9
4. Configure On-Premises 'common' schema and Templates , on page 11
5. Configure 'common' Stretched Policies, on page 12

Procedure

Step 1 To implement the four Use-Cases:

a) **Use Case 1: Application EPG (or external EPG) in On-Premises '`common`' tenant to Cloud EPG**:

- Add the BD to the `common` tenant, for more information see *Bridge Domains*.
- Add the application EPGs to the `common` tenant, for more information see *Configuring Application Profiles and EPGs*.

.

b) **Application EPG (or external EPG) in On-Premises User Tenant to Cloud EPG (BD in '`common`' tenant):**:

- Add the BD to the `common` tenant, for more information see *Bridge Domains*.
- Create a new user template as described in *Creating Schemas and Templates* and associate the tenant template to the **On-Premises ACI** site.
- Add the application EPGs to the User Template, for more information see *Configuring Application Profiles and EPGs*.

.

c) **Application EPG (or external EPG) in On-Premises User Tenant to Cloud EPG (BD in user tenant):**

- Create a new user tenant as described in *Creating Schemas and Templates* and associate the user tenant template to the **On-Premises ACI** site.
- Add the BD to the user tenant, for more information see *Bridge Domains*.
- Add the application EPGs to the user tenant, for more information see *Configuring Application Profiles and EPGs*

.

d) **Application EPG (or external EPG) in stretched user tenant to cloud EPG (BD in '`common`' tenant):**

- Create a new user template as described in *Creating Schemas and Templates* and associate the user tenant template to both the **On-Premises ACI** and **Cloud** sites (stretched).
- Add the BD to the user tenant, for more information see *Bridge Domains*.
- Add the application EPGs to the user tenant, for more information see *Configuring Application Profiles and EPGs*

.

Step 2 Associate the application EPG with the `contracts` in the `common` tenant, for more information see Configure 'common' Stretched Policies, on page 12.

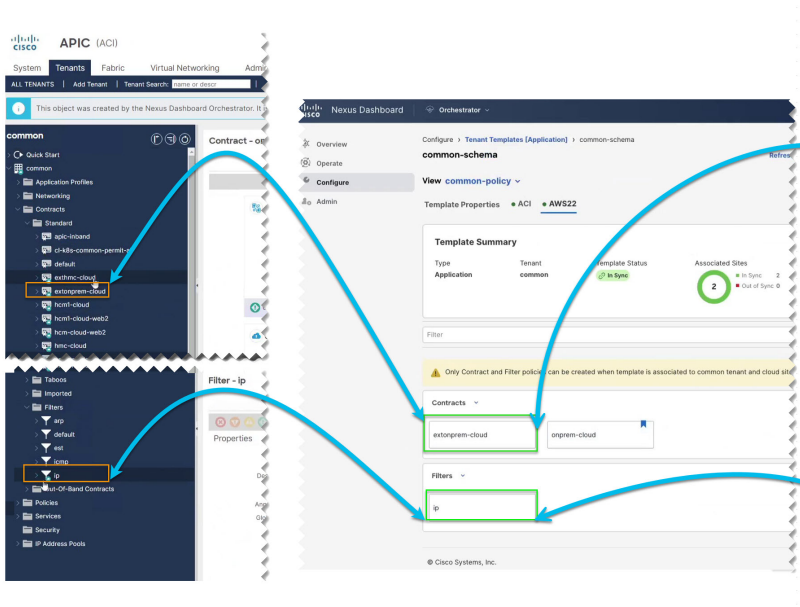
a) Click **Add Contract**.
b) On the **Add Contract** dialog, enter the contract name and type.
c) Click **SAVE**.

Step 3 Deploy the templates.

What to do next

Login to your On-Premises ACI and CCNC to verify the availability of `common` `Contracts` and `Filters` under relevant section.

Table 2: Tenant 'common' shared between On On-Premises ACI and Cloud

On-Premises ACI	Nexus Dashboard Orchestrator	CCNC
		

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