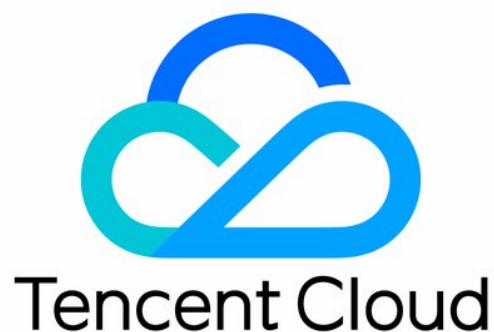


Tencent Cloud Infrastructure as Code Operation Guide Product Documentation



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Last updated : 2020-01-06 19:59:13

Operation Guide

1. Creating a Stack

You need to create a stack when you first use TIC. Stacks can also be created as needed according to business requirements. Before creating a stack, you need to configure API credentials on the **Settings** page in the TIC console.

Directions

Step 1. Log in to [Tencent Cloud Console](#). On the top navigation bar, select TIC Platform under Products to go to the TIC console ([Stacks](#)). Click [New Stack](#).

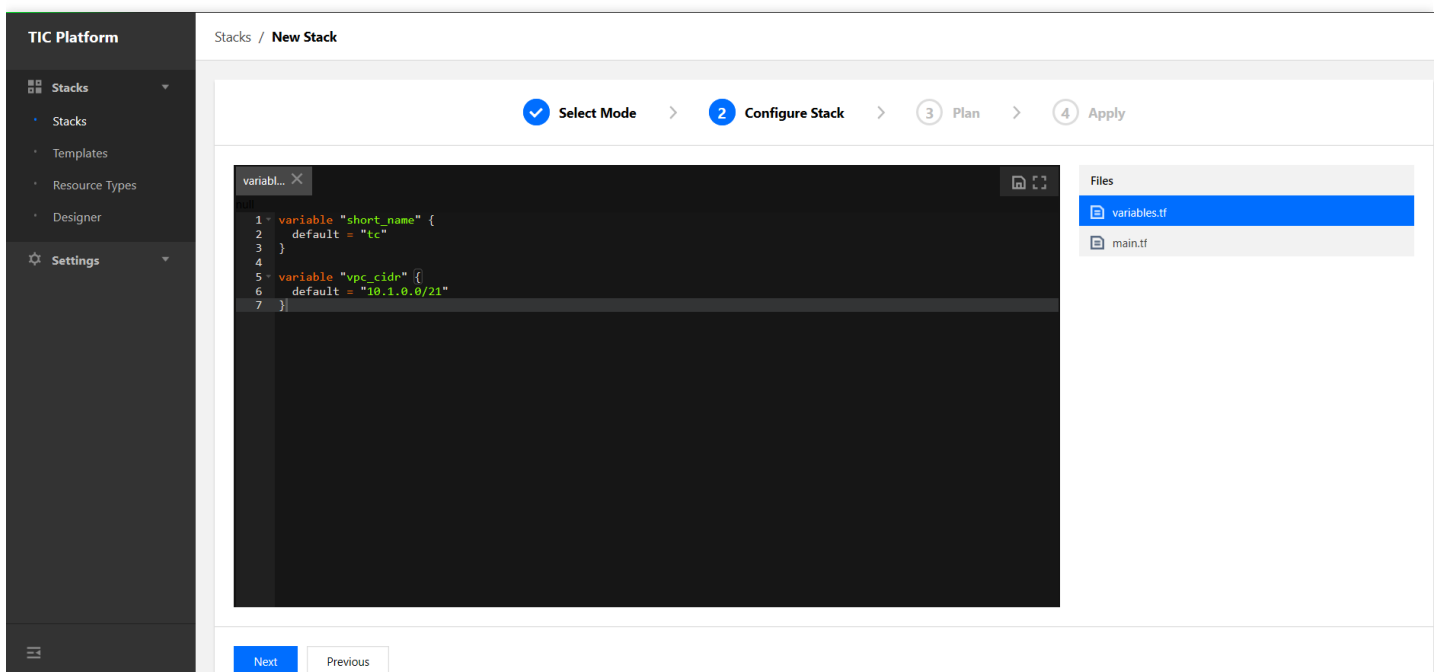
The screenshot displays the 'New Stack' interface in the Tencent Cloud TIC Platform. The left sidebar contains a 'Stacks' menu with sub-items 'Stacks', 'Templates', 'Resource Types', and 'Designer', along with a 'Settings' menu. The main area features a progress bar with steps: 1. Select Mode (active), 2. Configure Stack, 3. Plan, and 4. Apply. Below the progress bar, the 'Cloud Environment' section shows 'Provider' as 'Tencent Cloud' and 'Region' as a dropdown menu. The 'Specify Template' section offers four radio button options: 'URL' (selected), 'Private templates', 'Public templates', and 'Enter template content'. The 'URL' option includes a text input field and a 'Get' button. The 'Private templates' and 'Public templates' options have dropdown menus.

On the **New Stack** page, take the following steps:

1. Select a provider. The default value is **Tencent Cloud**. Currently, only **Tencent Cloud** is available.

2. Select a region to which resources in the stack belong.
3. In the **Specify Template** area, specify how you want to create the stack. **URL**: currently only supports Tencent Cloud COS and GitHub; only one file can be obtained at a time. **Private templates**: use a private template. **Public templates**: use a public template. **Enter template content**: directly enter the infrastructure code; multi-file compiling and common shortcuts (**Ctrl+S**, **Ctrl+Z**, and **Ctrl+X**) are supported.
4. Click **Next**.

Step 2. Configure the stack. Modify resource parameters in the template as needed. A stack draft named "draft-XXX" will be created automatically on the backend to save your code. Click **Next**.



Step 3. Plan. TIC will check the syntax, simulate a stack creation, and return the plan results. Check whether the plan results are consistent with your own. If so, click **Next**.

TIC Platform

Stacks / New Stack

✓ Select Mode > ✓ Configure Stack > 3 Plan > 4 Apply

```
[std] }
[std] }
[std] Plan: 1 to add, 0 to change, 0 to destroy.
[std] Warning: Interpolation-only expressions are deprecated
[std] on main.tf line 2, in resource "tencentcloud_vpc" "main":
[std]   2:   name      = "${var.short_name}"
[std] Terraform 0.11 and earlier required all non-constant expressions to be
[std] provided via interpolation syntax, but this pattern is now deprecated. To
[std] silence this warning, remove the "${ sequence from the start and the )"
[std] sequence from the end of this expression, leaving just the inner expression.
[std] Template interpolation syntax is still used to construct strings from
[std] expressions when the template includes multiple interpolation sequences or a
[std] mixture of literal strings and interpolations. This deprecation applies only
[std] to templates that consist entirely of a single interpolation sequence.
[std] (and one more similar warning elsewhere)
[system] start analyze plan result
[system] save files
[system] save files finish
[finish]
```

Next Previous

Step 4. Apply for the creation. Enter the stack name and description, and verify that the API credentials are correct. Click **Confirm**. In the confirmation dialog box, click **Confirm**. Then TIC will submit a creation request and you will be redirected to the stack creation event list.

TIC Platform

Stacks / New Stack

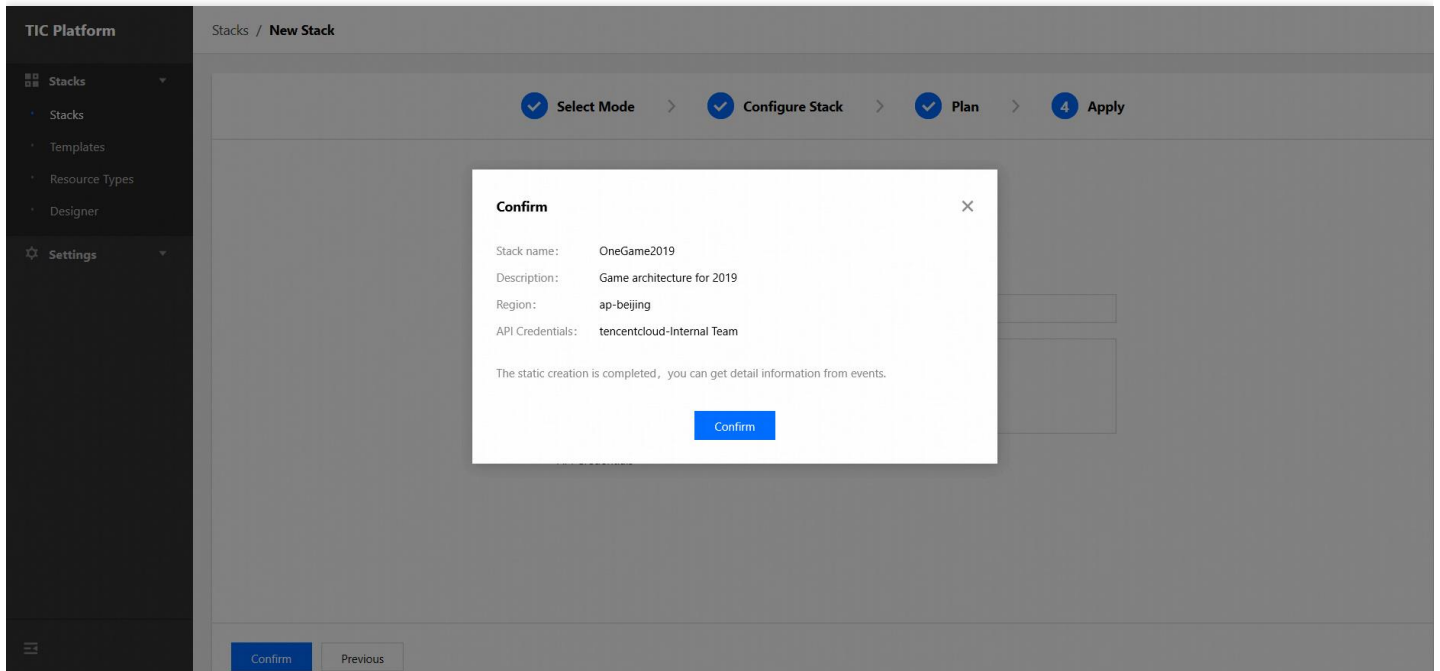
✓ Select Mode > ✓ Configure Stack > ✓ Plan > 4 Apply

Stack name

Description

API Credentials

Confirm Previous



2. Stack Management

1. Stacks

Log in to [TIC Console](#) to go to the **Stacks** page. On this page you can find the following information on the stacks:

- (1) Region to which the stack belongs
- (2) Creation time (GMT +0:00)
- (3) Status
- (4) Current version
- (5) Cloud provider

TIC Platform

Stacks

Stacks

Templates

Resource Types

Designer

Settings

Stacks management

New stack

Destroy

Delete

Filter by key words of stack name or description

	Stack name	Description	Region	Created time	Status	Version	Operation
<input type="radio"/>	OneGame2019	Game architecture for 2019	ap-beijing	2019-12-26 21:42:50	APPLY_COMPLETED	20191226214250	Details
<input type="radio"/>	draft-1577354989		ap-guangzhou	2019-12-26 18:09:49	VERSION_EDITING	20191226180949	Details
<input type="radio"/>	OneGame	OneGame architecture	ap-beijing	2019-12-25 20:57:37	DESTROY_COMPLETED	20191225215817	Details
<input type="radio"/>	hello	hello	ap-chengdu	2019-12-25 17:25:18	DESTROY_COMPLETED	20191226151418	Details

Total items: 4

Records per page: 10

1 / 1 page

This page allows you to perform the following operations on stacks:

(1) Destroy a stack to release resources in the stack. After a stack is destroyed, its status will change from "APPLY_COMPLETED" to "DESTROY_COMPLETED".

(2) Delete a stack. You can only delete a stack after you destroy the stack.

2. Click **Details** to the right of the target stack to view the stack details, including:

(1) **Property** tab: basic information page

(2) **Version** tab: version management page where you can view and manage the historical versions of the stack. You can create, export, and compare versions, and save a version as a template, etc. Each stack can only have one version draft. If you do not specify a version when you create a new version, the new version will be created on the basis of the version in the "VERSION_EDITING" state. If no version in the "VERSION_EDITING" state exists, the current version will be used as the basis. If you do specify a version, the specified version will be used as the basis.

(3) **Resource** tab: list of resources in the stack

(4) **Event** tab: version-related events

TIC Platform

Stacks

Stacks

Templates

Resource Types

Designer

Settings

Stacks / OneGame2019

Property

Version

Resource

Event

Basic info

Name	OneGame2019	Current version	20191226214250	Description	Game architecture for 2019
Region info	ap-beijing	Update time	2019-12-26 21:42:50		
Create time	2019-12-26 21:42:50				
Status	APPLY_COMPLETED				

TIC Platform

Stacks / OneGame2019

Property Version Resource Event

New version Export Save as template More operation

Filter by key words of version name or description

Version name	Created time	Status	Description	Operation
2019122622041	2019-12-26 22:20:41	VERSION_EDITING		Details
20191226214250	2019-12-26 21:42:50	APPLY_COMPLETED		Details

Total items: 2

Records per page 10 1 / 1 page

TIC Platform

Stacks / OneGame2019

Property Version Resource Event

Filter by key words of version name

Version name	Status	Content	Time	Operation
20191226214250	APPLY_COMPLETED	Apply complete! Resources: 1 added, 0 ...	2019-12-26 22:05:14	Details
20191226214250	PLAN_COMPLETED	Plan: 1 to add, 0 to change, 0 to destroy.	2019-12-26 21:51:10	Details

Total items: 2

Records per page 10 1 / 1 page

3. Template Management

Log in to [TIC Console](#). Select **Templates** in the left sidebar to go to the [Template management](#) page. On this page you can manage private and public templates.

- On the **Private** tab, you can create, use, copy, and delete private templates. If you want to use a private template to create a stack, select the template and click **Deploy**.

TIC Platform

Template management

Private Public

New template Deploy Delete

Filter by key words of version name or description

Template name	Description	Created time	Update time	Operation
TC_VPC	Public template used to create a VPC in...	2019-12-26 22:28:50	2019-12-26 22:29:24	Edit Copy
test	few	2019-12-26 15:15:10	2019-12-26 15:15:10	Edit Copy

Total items: 2

Records per page 10 1 / 1 page

2. On the **Public** tab, you can view, save, and deploy public templates. If you want to use a public template to create a stack, select the template and click **Deploy**.

The screenshot shows the 'Template management' section of the TIC Platform. The 'Public' tab is selected. There are buttons for 'New template', 'Deploy', and 'Save'. A search bar is present with the placeholder text 'Filter by key words of version name or description'. Below the search bar is a table with the following columns: Template name, Description, Created time, Update time, and Operation. The table contains two rows: TC_VPC and TC_CVM. The bottom of the interface shows 'Total items: 2' and a pagination control for 'Records per page: 10' with a page number of 1.

Template name	Description	Created time	Update time	Operation
TC_VPC	Public template used to create a VPC in...	2019-12-17 21:06:46	2019-12-17 21:07:54	View
TC_CVM	Public template used to create a CVM i...	2019-12-17 21:04:10	2019-12-17 21:05:23	View

4. Resource Types

Resource Types provides references for you to use Tencent Cloud resources. Click **Details** to the right of the target resource to view the parameter information, use cases, and references.

The screenshot shows the 'Resource Types' section of the TIC Platform. The 'Resource Types' tab is selected. There is a search bar with the placeholder text 'Filter by key words of resource name or description'. Below the search bar is a table with the following columns: Resource name, Product, Description, and Details. The table contains 10 rows of resource types. The bottom of the interface shows 'Total items: 180' and a pagination control for 'Records per page: 10' with a page number of 1.

Resource name	Product	Description	Details
tencentcloud_as_scaling_configs	Auto Scaling(AS)	[Data source] Use this data source to query scaling configuration information.	Details
tencentcloud_as_scaling_policies	Auto Scaling(AS)	[Data source] Use this data source to query detailed information of scaling policy.	Details
tencentcloud_as_scaling_groups	Auto Scaling(AS)	[Data source] Use this data source to query the detail information of an existing autoscaling group.	Details
tencentcloud_as_lifecycle_hook	Auto Scaling(AS)	Provides a resource for an AS (Auto scaling) lifecycle hook.	Details
tencentcloud_as_schedule	Auto Scaling(AS)	Provides a resource for an AS (Auto scaling) schedule.	Details
tencentcloud_as_scaling_config	Auto Scaling(AS)	Provides a resource to create a configuration for an AS (Auto scaling) instance.	Details
tencentcloud_as_scaling_policy	Auto Scaling(AS)	Provides a resource for an AS (Auto scaling) policy.	Details
tencentcloud_as_scaling_group	Auto Scaling(AS)	Provides a resource to create a group of AS (Auto scaling) instances.	Details
tencentcloud_as_attachment	Auto Scaling(AS)	Provides a resource to attach or detach CVM instances to a specified scaling group.	Details
tencentcloud_as_notification	Auto Scaling(AS)	Provides a resource for an AS (Auto scaling) notification.	Details

The screenshot shows the 'TIC Platform' interface. On the left is a dark sidebar with a menu containing 'Stacks', 'Templates', 'Resource Types', 'Designer', and 'Settings'. The main area is titled 'Resource Types / tencentcloud_as_scaling_configs'. It is divided into three sections: 'Overview' with a description '[Data source] Use this data source to query scaling configuration information.', 'Reference' with links to the Product API overview and Terraform resources, and 'Argument' which contains a table of arguments.

Argument	Required	Type	Updatable	Description	value range
result_output_file	false	string	true	Used to save results.	
configuration_name	false	string	true	Launch configuration na...	
configuration_id	false	string	true	Launch configuration ID.	

On the right side of the 'Argument' section, there is an 'Examples' section with a code editor showing a Terraform configuration snippet:

```
data "tencentcloud_as_scaling_configs" "as_configs" {
  configuration_id = "asc-oqio4yyj"
  result_output_file = "my_test_path"
}
```

5. Designer

The TIC Designer enables you to create reusable custom templates for stack creation.

The screenshot shows the 'TIC Platform' interface with the 'Designer' tab selected. The sidebar menu is the same as in the previous screenshot. The main area is titled 'Designer'. It features a form with 'Name:' and 'Description:' labels and input fields. To the right of the 'Description' field are 'Submit' and 'Cancel' buttons. Below the form is a large code editor window titled 'main.tf' with a line number '1' visible. To the right of the code editor is a 'Files' panel showing a file named 'main.tf'. At the bottom right of the code editor, there are icons for file operations: download, upload, save, and delete.

Currently the TIC Designer supports code compiling only. It supports multi-file structure, and allows file upload and download. You can easily switch between local and online code compilation.

6. Settings

You can configure API credentials, SecretID and SecretKey, on the **API Credentials** page. Note that each provider has and can only have one key in the "Active" state. When you create a stack, TIC automatically uses the key in the "Active" state to call the API.

Name	Provider	Create Time ↑	Description	Status ↓	Details
Project01	tencentcloud	2019-12-23 15:16:18	Overseas projects	Ready	Details
Internal Team	tencentcloud	2019-12-19 16:22:54	Backup Key	Active	Details

Total items: 2

Records per page: 10 | 1 / 1 page

Note: API credentials in the "Active" state cannot be deleted. If you want to delete an API credential that is being used by a stack, you need to destroy the stack first, even when the API credential is in the "Ready" state.

References

This operation guide will be updated with more details along with follow-up product iterations. For more information on TIC, see the following links:

1. Terraform documentation:

<https://www.terraform.io/docs/providers/tencentcloud/index.html>

<https://www.terraform.io/docs/configuration/index.html>

2. GitHub: <https://github.com/terraform-providers/terraform-provider-tencentcloud>

Platform Settings

Last updated : 2020-08-07 16:52:01

Upon first use of Tencent Cloud Infrastructure as Code (TIC), you must authorize the service to access cloud resources under your Tencent Cloud account for orchestration. Without the authorization, TIC is unable to orchestrate Tencent cloud resources.

TIC supports the following authorization methods:

1. TIC authorization (recommended): based on the built-in service-related role assignment mechanism of Cloud Access Management (CAM), you can orchestrate Tencent Cloud resources through TIC with no need to manage API credentials in TIC. This method is more efficient and secure and meets audit compliance requirements.
2. Managed API credentials (deprecated): you must manage [API credentials](#) (SecretID and SecretKey) in TIC. After TIC encrypts and stores an API credential, it signs requests with the managed API credential to orchestrate cloud resources. This method is available only for existing users who have API credentials managed in TIC.

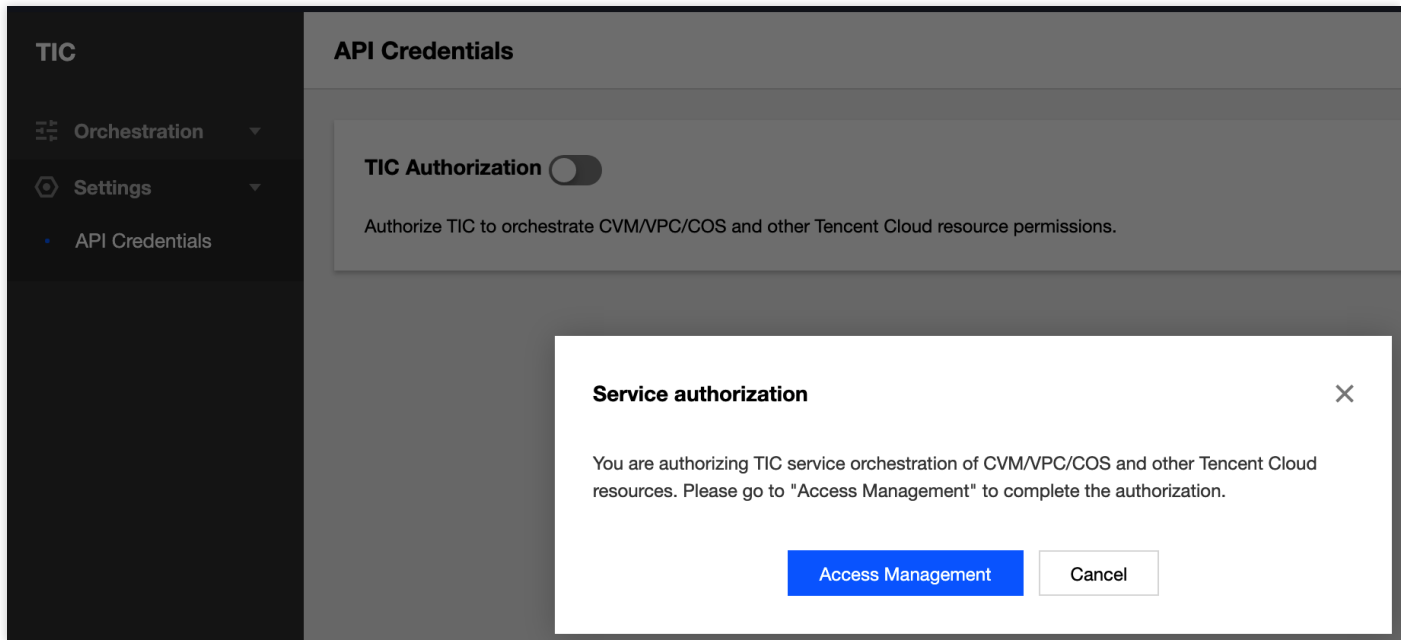
The TIC authorization method provides a more efficient and secure permission management mechanism. It is recommended that you switch to the TIC authorization method at the earliest possible time and clear the managed API credentials from TIC.

Directions

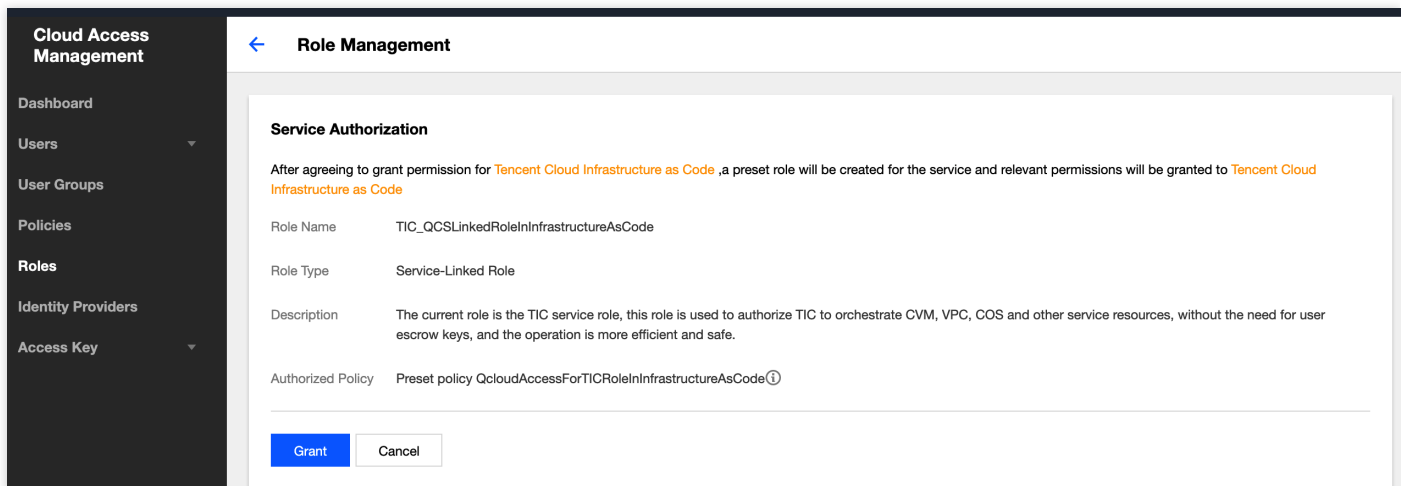
TIC authorization

Enabling TIC authorization

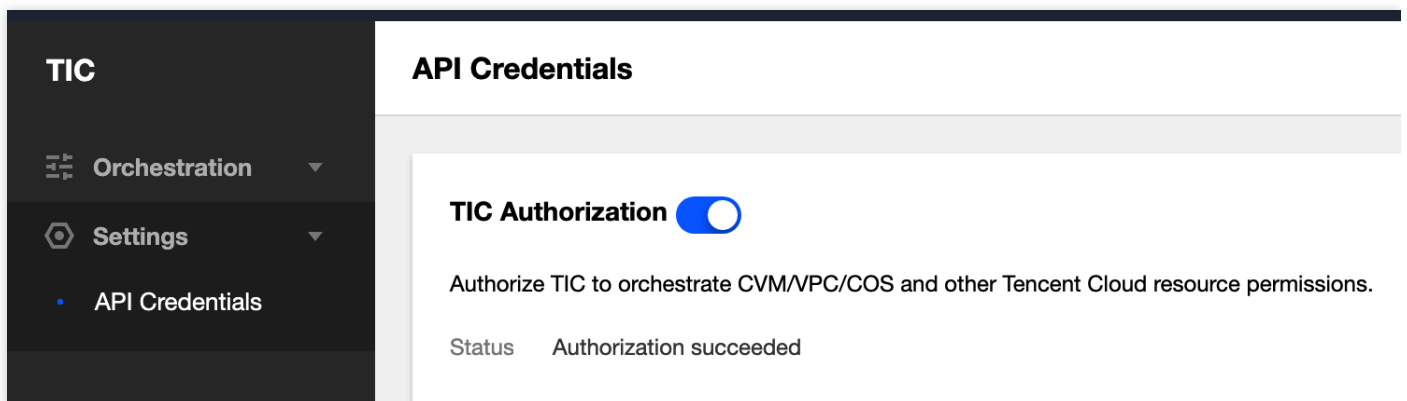
1. Log in to the [TIC console](#).
2. In the left sidebar, choose **Settings** -> **API Credentials** to go to the **API Credentials** page.
3. Click the **TIC Authorization** switch to enable the feature. A message appears prompting you to redirect to the CAM console for authorization.



4. Go to the CAM console to complete authorization.



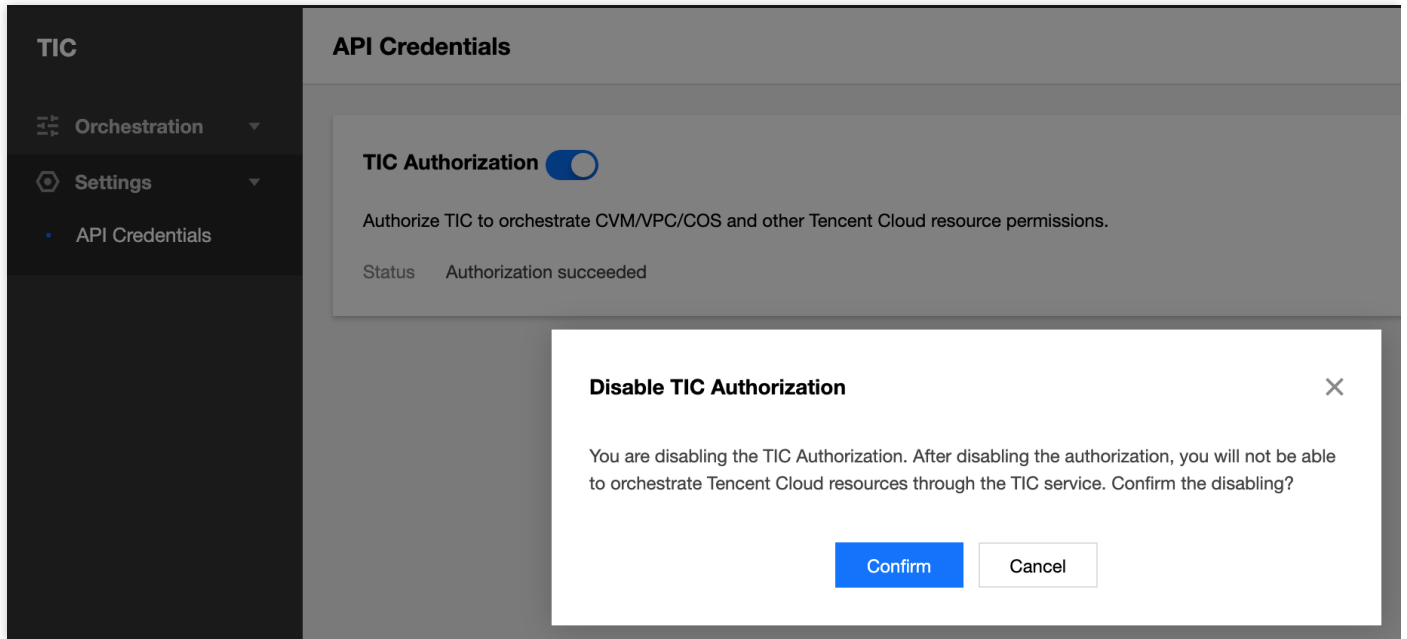
5. Go back to the **API Credentials** page after the authorization is complete. The TIC authorization feature is enabled.



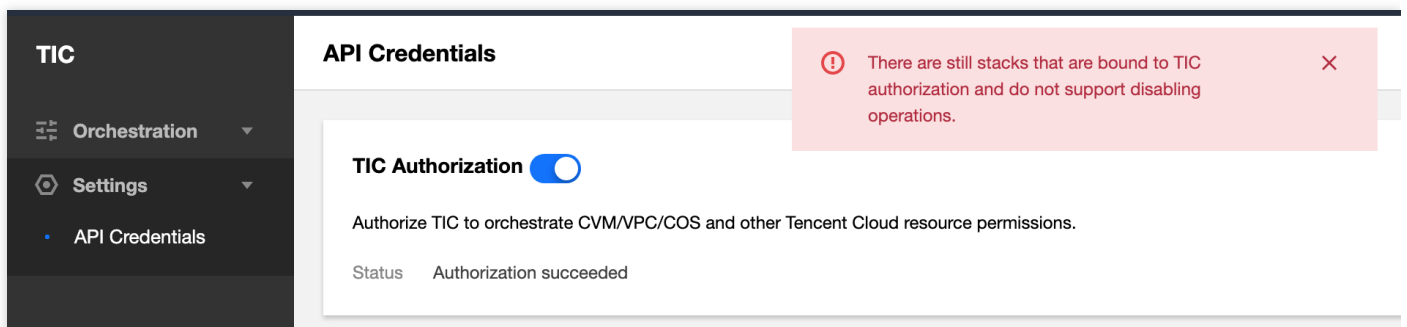
After TIC authorization is enabled, you can [create a stack](#).

Disabling TIC authorization

1. Log in to the [TIC console](#).
2. In the left sidebar, choose **Settings** -> **API Credentials** to go to the **API Credentials** page.
3. Click the **TIC Authorization** switch to disable the feature.



4. This operation cannot be performed if the TIC authorization feature is still being used by a stack. Before you disable TIC authorization, you must manually destroy the stack.



Disabling TIC authorization does not delete the TIC-related role assignment configuration in the CAM console. To delete the TIC-related role assignment configuration in the CAM console, go to the [Roles](#) page, find the

TIC_QCSLinkedRole role, and then click **Delete** in the **Operation** column.

Cloud Access Management

Role

[Why are there new roles in my account?](#)
When you perform a specific operation in a service, such as authorizing to create service roles, the service may create service-related roles for you. Or, if you have been using a service before it supports service-related roles, the service may automatically create roles in your account.

[Create Role](#)

Role Name	Role Entity	Description	Operation
TIC_QCSLinkedRoleInInfrastructureAsCode	Product Service - infrastructureascode.tic.cloud.tencent.com (Service-Linked Role)	The current role is the TIC service role, this r...	Delete

1 in total

10 / page

1 / 1 page

Handling authorization failures

If you delete the TIC_QCSLinkedRole role in the CAM console but do not disable TIC authorization in the TIC console,



the **Authorization failed** message appears on the **API Credentials** page. Hover over the icon. The system prompts you to reauthorize TIC.

TIC

API Credentials

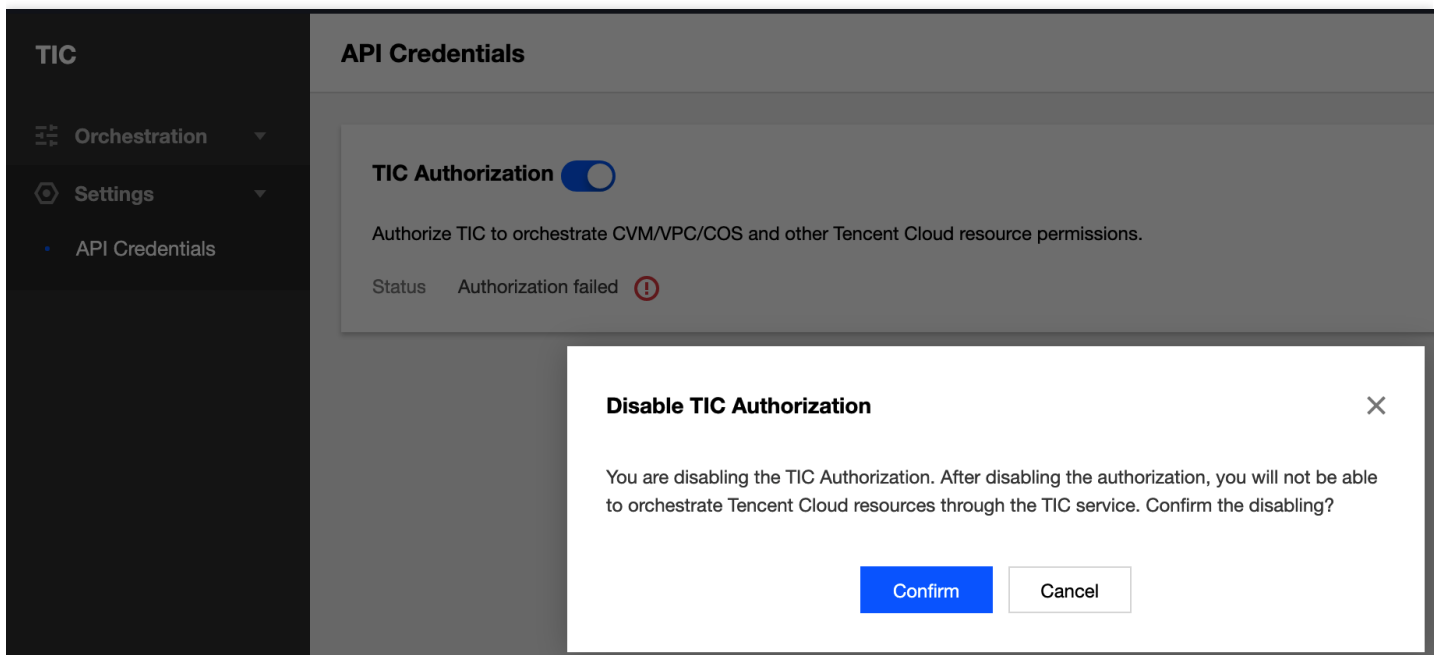
TIC

Authorization failed

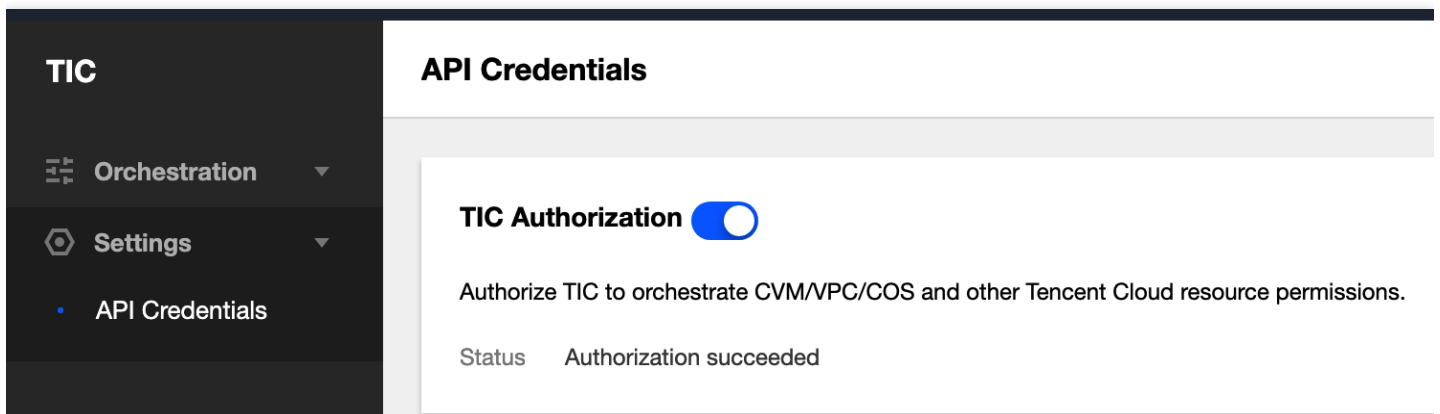
Authorization configuration does not exist, please [reauthorize](#)

Authorization failed

Click **Reauthorize** to redirect to the CAM console.



After the authorization is complete, the status restores to normal state.



Permitted services

TIC is authorized to access the following Tencent Cloud services for orchestration:

This list is continuously updated. If you want to include a Tencent Cloud service in TIC for orchestration, [submit a ticket](#) to inform the TIC team.

Managed API credentials (deprecated)

This method is available only for existing users (with managed API credentials in TIC).

Clearing API credentials

After you enable TIC authorization, the **Clear** button is displayed. Click this button to delete configuration of all API credentials managed in TIC.

After the API credentials are deleted, existing stacks associated with the API credentials use the TIC authorization method to complete subsequent orchestration operations by default.

The TIC authorization method does not support cross-account resource orchestration in Tencent Cloud. If you need resource orchestration for other Tencent Cloud root accounts, it is recommended that you retain the managed API credentials to ensure service continuity.

Deleting an API credential

Select an API credential and click **Delete**.

If TIC authorization is enabled, existing stacks associated with the API credential use the TIC authorization method to complete subsequent orchestration operations by default.

If TIC authorization is disabled, API credentials in the Active state cannot be deleted. When a credential is being used by a stack, it cannot be deleted even if it is in the Ready state. To delete such an API credential, you must first destroy the associated stack.

Creating an API credential

Click **New**. In the dialog box that appears, complete the following settings:

- **Name**: enter the name of the API credential.
- **Provider**: the default provider is Tencent Cloud (only option available).
- **SecretID** and **SecretKey**: enter the corresponding SecretID and SecretKey. Obtain the SecretID and SecretKey on the [API Keys](#) page.

A provider allows only one credential that is in the Active state. When a stack is created, TIC automatically selects the credential in the Active state for API calls.

If TIC authorization is enabled, no additional API credentials cannot be created.

Click **OK** to add the API credential.

Creating a Stack

Last updated : 2020-08-13 09:31:59

You need to create a stack when you use TIC for the first time. Stacks can also be created based on your business requirements.

Prerequisites

Before creating a stack, you must [authorize TIC](#) on the **Settings** page in the TIC console.

Directions

1. Log in to the [TIC console](#).
2. In the left sidebar, choose **Orchestration** -> **Stacks** to go to the **Stacks** page.
3. Click **New stack**. On the **New Stack** page, perform the following steps.

Step 1: Select Mode


1. **Provider**: the default value is **Tencent Cloud**. Currently, only **Tencent Cloud** is available.
2. **Region**: select a region where all resources in the stack will reside.
3. **Specify Template**: specify how you want to create the stack.
 - **URL**: only Tencent Cloud COS and GitHub are supported. Only one file can be obtained at a time.
 - **Private templates**: select a private template. For more information, see [Template Management](#).
 - **Public templates**: select a public template. For more information, see [Template Management](#).
 - **Enter template content**: enter infrastructure code. Multi-file compiling and common shortcuts (such as **Ctrl+S**, **Ctrl+Z**, and **Ctrl+X**) are supported.

Stacks / **New Stack**

1 **Select Mode** > 2 **Configure Stack** > 3 **Plan** > 4 **Apply**

Cloud Environment

Provider

Region 

Specify Template

☐ **URL**
Please enter the URL of the template file with .tf and .zip suffixes. For security reasons, we only supports template files hosted on Tencent Cloud Object Storage (COS) or Github.

☐ **Private templates**
Please select private template which saved in the "Resource Orchestration" "Template Management" page.

☒ **Public templates**
Please select the sample public template built by the system in the "Resource Arrangement" "Template Management" page.

4. Click **Next** to go to Step 2.

Step 2: Configure Stack

1. Modify resource parameters in the template as needed. A stack draft named "draft-xxx" is automatically created on the backend to save your code.

2. Click **Next** to go to Step 3.

✓ Select Mode

2 Configure Stack

3 Plan

4 Apply

Files

main.tf

variables.tf

```
15
16 data "tencentcloud_availability_zones" "my_favorite_zones" {}
17
18 resource "tencentcloud_key_pair" "random_key" {
19   key_name = "tf_example_key6"
20   public_key = "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQgQDjd8fTnp7Dcu4mLaQxf9Zs
    /ORgUL9FQxRCNKkPgP1paTy1I513maMX126i36Lxxl3+FUB52oVbo/Fgw1IfX8hyCnv8MCxqnuSDozf1CD0
    /wRYHcTWAtdgHQHPCC2nJtod6cVC3kB18KeV4U7zsxmWFeBIxojM00mcOBuh7+trRw=="
21 }
22
23 resource "tencentcloud_instance" "foo" {
24   instance_name = var.instance_name
25   availability_zone = data.tencentcloud_availability_zones.my_favorite_zones.zones.0.name
26   image_id = data.tencentcloud_images.my_favorite_image.images.0.image_id
27   instance_type = data.tencentcloud_instance_types.my_favorite_instance_types
    .instance_types.0.instance_type
28   key_name = tencentcloud_key_pair.random_key.id
29   system_disk_type = "CLOUD_PREMIUM"
30
31   disable_monitor_service = true
32   internet_max_bandwidth_out = 2
33   count = 1
34 }
35
```

Previous

Next

Step 3: Plan

TIC will verify the syntax, simulate a stack creation, and return the plan result. If the result meets your requirements, click **Next** to go to Step 4.

✓ Select Mode > ✓ Configure Stack > 3 Plan > 4 Apply

```
[std] + data_disk_id = (known after apply)
[std] + data_disk_size = (known after apply)
[std] + data_disk_type = (known after apply)
[std] + delete_with_instance = (known after apply)
[std] }
[std] }
[std] # tencentcloud_key_pair.random_key will be created
[std] + resource "tencentcloud_key_pair" "random_key" {
[std] + id = (known after apply)
[std] + key_name = "tf_example_key6"
[std] + project_id = 0
[std] + public_key = "ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQGD8fTnp7DcuJ4mLaQxf9Zs/ORgUL9fQxRCNKkPgP1paTy1l513maMX126i36Lx13+FUB52oVbo/FgwllfX8hyCnv8MCxqnuSDozf1CD0/wRYHeTW
[std] }
[std] Plan: 2 to add, 0 to change, 0 to destroy.
[system] -----planned-----

[system] start analyzing the results of iac engine execution
[system] save the generated state files
[system] save the generated state files finish
[finish]
```

Previous

Next

Step 4: Apply

1. Enter the stack name and description.
2. Click **Confirm**.
3. In the confirmation dialog box, click **Confirm**. TIC will then submit a creation request, and you will be redirected to the **Event** tab of the new stack.

Stack Management

Last updated : 2020-08-13 09:31:38

This document describes how to query and manage stacks.

Directions

1. Log in to the [TIC console](#).
2. In the left sidebar, choose **Orchestration** -> **Stacks** to go to the **Stacks** page. You can view existing stacks and the following information about each stack:
 - **Region**: region where a stack resides.
 - **Created time**: time when the stack was created. UTC is used.
 - **Status**: status of a stack.
 - **Version**: current version of a stack.

Stacks					
New stack		Filter by key words of stack name or description <input type="text"/>			
ID/Name	Region ▾	Version	Status ▾	Created time ⬆	Operation ⓘ
stk-1fian2r1 import-cdn-test	ap-beijing	20200812185150	APPLY_COMPLETED	2020-08-12 18:51:50	Destroy Delete
stk-66byn2qy tic-demo	ap-chengdu	20200812181945	DESTROY_COMPLETED	2020-08-12 18:19:45	Destroy Delete

3. On this page, you can perform the following stack operations:
 - **Destroy a stack**: release all resources under the stack. Its status will change from **APPLY_COMPLETED** to **DESTROY_COMPLETED**.
 - **Delete a stack**: delete a stack only after the stack is destroyed.
4. Click on the **ID/Name** of any stacks to query the following details:
 - **Property** displays basic information about the stack.
 - **Version** allows you to query and manage the version history of the stack. You can create, export and compare versions, and save a version as a template.

Note :

Each stack can have only one version draft. If you have selected a version when creating a new one, the specified version will be used as the basis. If you do not specify a version, the new version will be created

based on the version in **VERSION_EDITING** status by default. If no version is in the **VERSION_EDITING** status, the current running version will be used as the basis.

- **Resource** displays all resources in the stack.
- **Event** displays all events related to the stack version.

Template Management

Last updated : 2020-08-13 09:31:38

This document describes how to manage private and public templates.

Directions

Log in to the TIC console and go to the [Templates](#) page. On this page, you can manage private and public templates.

Private templates

You can create, use, copy, and delete private templates.

1. Click the **Private** tab.
2. To create a stack from a private template, select a private template and click **Deploy**.

Templates				
Private Public				
New template Deploy Delete		Filter by key words of version name or description <input type="text"/>		
Template name	Description	Created time	Update time	Operation
<input type="radio"/> TC_VPC.copy	Public template used to create a VPC instance	2020-07-08 21:17:57	2020-07-08 22:12:46	Edit Copy

Public templates

You can query, save, and deploy public templates.

1. Click the **Public** tab.

2. To create a stack from a public template, select a public template and click **Deploy**.

Templates

PrivatePublic

DeploySave

Filter by key words of version name or description

Template name	Description	Created time ↕	Update time ↕	Operation
<input type="radio"/> TC_VPC	Public template used to create a VPC instance	2019-12-17 21:06:46	2019-12-30 20:28:54	View
<input type="radio"/> TC_CVM	Public template used to create a CVM instance	2019-12-17 21:04:10	2019-12-30 20:14:03	View

Total items: 2

10 / page

1

/ 1 page

Resource Types

Last updated : 2020-12-29 11:19:23

The **Resource Types** page provides references to help you use Tencent Cloud resources. This document describes how to query resource information.

Directions

1. Log in to the [TIC console](#).
2. In the left sidebar, choose **Orchestration** > **Resource Types** to go to the **Resource Types** page.
3. Click **Details** on the right side of any resource to view the parameter information, use cases, and references as shown in the following figure.

Resource Types / **tencentcloud_instances**

Overview

[Data source] Use this data source to query cvm instances.

Reference

Product API overview: <https://intl.cloud.tencent.com/document/product/213/15689>
Terraform resources: <https://www.terraform.io/docs/providers/tencentcloud/d/instances.html>

Examples

```
data "tencentcloud_instances" "foo" {
  instance_id = "ins-da412f5a"
}
```

Argument

Argument	Required	Type	Updatable	Description	value range
vpc_id	false	string	true	ID of the vpc to be...	
availability_zone	false	string	true	The available zone...	
instance_name	false	string	true	Name of the instan...	
instance_id	false	string	true	ID of the instances...	
result_output_file	false	string	true	Used to save results.	
subnet_id	false	string	true	ID of a vpc subnet...	

Total items: 7

Using the Designer

Last updated : 2020-08-13 09:31:39

TIC Designer allows you to create reusable custom templates for stack creation.

Directions

1. Log in to the [TIC console](#).
2. In the left sidebar, choose **Orchestration** -> **Designer**.
3. On the **Designer** page, enter a name, description and related code. Currently, TIC Designer only supports code compiling. It supports the multi-file structure and file uploads as well as downloads. You can easily switch between on-premise and cloud-based code compilation.

Designer

Name :

Description :

Files

main.tf

main.tf

main.tf

1 |

Validate

4. Click **Submit** to create the template.

Resource Import

Last updated : 2020-09-04 10:55:37

Introduction

You can use the resource import feature of Tencent Infrastructure as Code (TIC) to import Tencent Cloud resources created using the console or Cloud APIs into a TIC stack for unified orchestration without having to delete or re-create Tencent Cloud resources.

Note :

You can only import existing Tencent Cloud resources into a new stack, not into an existing stack.

The following table lists the Tencent Cloud services that can be imported into TIC.

Tencent Cloud Service	Resource Type	Remarks
CDN	tencentcloud_cdn_domain	HTTPS certificates cannot be imported

Directions

Importing resources

1. Log in to the [TIC console](#). In the left sidebar, choose **Orchestration** -> **Stacks** to go to the **Stacks** page.
2. On the **Stacks** page, click **New stack**.
3. In the **Select Mode** step, select a region, specify a template for importing resources, and select the resources to be imported.

Stacks / **New Stack**

1 **Select Mode**

>

2 **Configure Stack**

>

3 **Plan**

>

4 **Apply**

Cloud Environment

ProviderTencent Cloud

Regionap-beijing

Specify Template

☐ URL

Please enter the URL of the template file with .tf and .zip suffixes. For security reasons, we only supports template files hosted on Tencent Cloud Object Storage (COS) or Github.

☐ Private templates

Please select private template which saved in the "Resource Orchestration" "Template Management" page.

☐ Public templates

Please select the sample public template built by the system in the "Resource Arrangement" "Template Management" page.

☒ **Import resources**

Import the cloud resources of the Tencent Cloud console into the TIC, and automatically generate configuration templates.

Please select the resources to be imported

Choose cloud products:CDNSelect all resources

Filter by key words of Domain

<input checked="" type="checkbox"/>	Domain	Area	Status	ServiceType
<input checked="" type="checkbox"/>	qchali-cdn.talebook.org	mainland	processing	web

Chosen (Product 1/Resources 1)

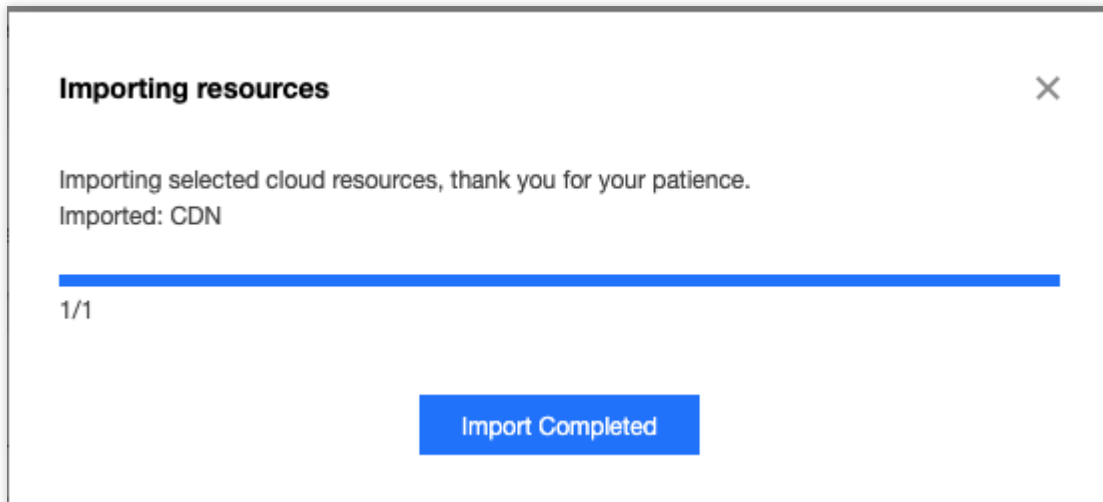
CDN

Domain	Area	Status	ServiceType
qchali-cdn.talebook.org	mainland	processing	web

Next

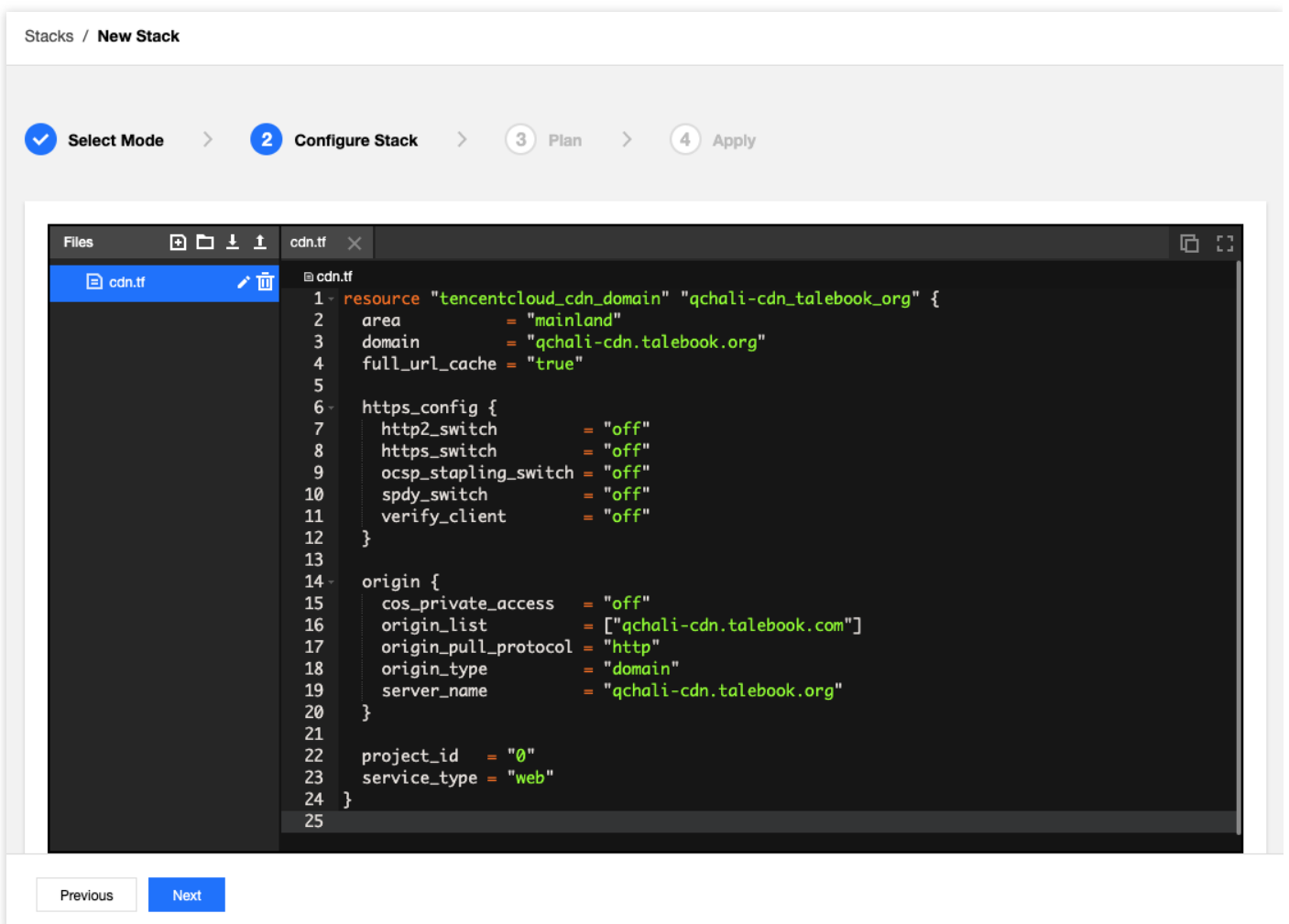
4. Click **Next** to import the selected resources.

5. The more resources you select to import, the longer it will take to import them. After the resources are imported, click **Import Completed** to go to the **Configure the Stack** step.



Configuring the stack

1. After the resources are imported, the stack configurations will be generated automatically.



2. After you confirm that the stack configurations are correct, click **Next** to go to the **Plan** step.

Note :

To ensure that the import operation does not affect resource configurations on the live network, follow these rules when you confirm the stack configurations:

- i. Do not modify parameters of the `ForceNew` type. For example, in the configuration parameters of CDN `tencentcloud_cdn_domain`, the `domain` and `service_type` parameters are of the `ForceNew` type. If these 2 parameters are modified, resources on the live network will be destroyed and re-created, which may affect businesses on the live network.
- ii. You must manually configure parameters that cannot be automatically imported. For example, to import domain name certificates of CDN into TIC, manually configure the certificates and add them into the stack configuration file for resource orchestration and management.
- iii. If you have any questions about the generated configuration parameters, [submit a ticket](#) to contact the TIC team before you perform subsequent operations.

3. Check whether the plan results meet your requirements, especially whether any resources have been added, changed, or destroyed. If the plan results meet your requirements, click **Next**.

Stacks / **New Stack**

✓ Select Mode

>

✓ Configure Stack

>

3 Plan

>

4 Apply

```
[system] get the assignment plan task(event id:8371) and start
[system] the task passed the validity and completeness test
[system] prepare the files needed for the task
[system] prepare the files needed for the task finish
[system] assign the task to the iac engine and start iac engine
[system] begin preparing the environment required for iac engine execution
[system] iac engine begins to perform the plan operation
[system] -----planning-----

[std] tencentcloud_cdn_domain.qchall-cdn_talebook_org: Refreshing state... [Id=qchall-cdn.talebook.org]
[std] No changes. Infrastructure is up-to-date.
[system] -----planned-----

[system] start analyzing the results of iac engine execution
[system] save the generated state files
[system] save the generated state files finish
[finish]
```

Previous

Next

Note :

TIC supports importing existing resources that have been created on Tencent Cloud. Normally, no resource is added, changed, or destroyed in the import process. If the number of added, changed, or destroyed resources is not 0 in the plan results, do not perform subsequent operations. Instead, check whether you have modified any parameters of the `ForceNew` type. If you have any questions, [submit a ticket](#) to contact the TIC team before you perform subsequent operations.

4. Set the stack name and the description and click **Confirm** to create the stack.

Confirm ×

Stack name: import-cdn-test

Description: testing

Region: ap-beijing

API Credentials: TIC authorization

The static creation is completed, you can get detail information from events.

Confirm

Cancel

Viewing the stack status

1. Go to the [Stacks](#) page. Click the name of the created stack to go to the stack details page.
2. Click the **Events** tab and view the stack status. **APPLY_IN_PROGRESS** indicates that the resource information is being synchronized.

Stacks / **import-cdn-test**

Property Version Resource **Event**

Filter by key words of version name

Version name	Status	Content	Time	Operation
20200812185150	APPLY_IN_PROGRESS		2020-08-12 18:53:23	Details
20200812185150	PLAN_COMPLETED	No changes. Infrastructure is up-t...	2020-08-12 18:51:51	Details
20200812185150	IMPORT_COMPLETED		2020-08-12 18:50:21	Details

Total items: 3

10 / page

3. Wait 10 seconds or more for the resource information synchronization to complete. Then, the stack status will change to **APPLY_COMPLETED**.

Stacks / **import-cdn-test**

Property Version Resource **Event**

Filter by key words of version name

Version name	Status	Content	Time	Operation
20200812185150	APPLY_COMPLETED	Apply complete! Resources: 0 add...	2020-08-12 18:53:23	Details
20200812185150	PLAN_COMPLETED	No changes. Infrastructure is up-t...	2020-08-12 18:51:51	Details
20200812185150	IMPORT_COMPLETED		2020-08-12 18:50:21	Details

Total items: 3

10 / page

4. Verify that the resources have been imported into the created stack. On the **Resources** tab of the **Stacks** page, you can view the imported Tencent Cloud resources. To manage these resources, you only need to modify the configurations of the stack.

Stacks / **import-cdn-test**

Property Version **Resource** Event

Filter by key words of resource name

Instance ID	Name	Status	Type	Resource name	Operation
qchali-cdn.talebook.org		Running	tencentcloud_cdn_domain	qchali-cdn_talebook_org	Details

Total items: 1

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