oci Documentation

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Contents

This is the public Python SDK for Oracle Cloud Infrastructure. Python 2.7+ and 3.5+ are supported.

```
>>> import oci
>>> config = oci.config.from_file(
...     "~/.oci/config",
...     "integ-beta-profile")
>>> identity = oci.identity.IdentityClient(config)
>>> user = identity.get_user(config["user"]).data
>>> print(user)
{
  "compartment_id": "ocid1.tenancy.oc1...",
  "description": "Integration testing user [BETA]",
  "id": "ocid1.user.oc1...",
  "inactive_status": null,
  "lifecycle_state": "ACTIVE",
  "name": "testing+integ-beta@corp.com",
  "time_created": "2016-08-30T23:46:44.680000+00:00"
}
```

To get started, head over to the *installation instructions* or see more examples in the *quickstart* section.

Note: The `oraclebmc` package is deprecated and will no longer be maintained starting March 2018. Please check the *Backward Compatibility* section if you are using `oraclebmc`.

Installation

This topic describes how to install, configure, and use the Oracle Cloud Infrastructure Python SDK. The Python SDK supports operations for the following services:

- Identity and Access Management Service
- Core Services (Networking Service, Compute Service, and Block Volume Service)
- Object Storage Service

1.1 Prerequisites

Note: The Python SDK uses the cryptography.io library, which has its own additional build requirements. Ensure that you satisfy those requirements prior to installing the Python SDK.

- An Oracle Cloud Infrastructure account
- A user created in that account, in a group with a policy that grants the desired permissions. This can be a user for yourself, or another person/system that needs to call the API. For an example of how to set up a new user, group, compartment, and policy, see Adding Users in the Getting Started Guide. For a list of other typical Oracle Cloud Infrastructure policies, see Common Policies in the User Guide.
- Python version 2.7.5 or 3.5 or later, running on Mac, Windows, or Linux.
- A keypair used for signing API requests, with the public key uploaded to Oracle. Only the user calling the API should be in possession of the private key. (For more information, see *Configuring the SDK*.)

1.2 Downloading and Installing the SDK

You can install the Python SDK through the Python Package Index (PyPI), or alternatively through GitHub.

PyPi

To install from PyPI:

> Use the following command:

```
pip install oci
```

GitHub

To install from GitHub:

1. Download the SDK from GitHub. The download is a zip containing a whl file and documentation.

2. Extract the files from the zip.

3. Use the following command to install the SDK:

```
pip install oci-*-py2.py3-none-any.whl
```

Note: If you're unable to install the whl file, make sure pip is up to date. Use `pip install -U pip` and then try to install the whl file again.

Virtual environment (Optional)

Although optional, Oracle recommends that you run the SDK in a virtual environment with virtualenv.

> With Linux, it's usually in a separate package from the main Python package. If you need to install virtualenv, use pip install virtualenv. To create and activate a virtual environment:

```
virtualenv <environment name>
. <environment name>/bin/activate
```

> For example:

```
virtualenv oci_sdk_env
. oci_sdk_env/bin/activate
```

1.3 Configuring the SDK

Before using the SDK, you must set up your config file with the required credentials. For instructions, see SDK and Tool Configuration in the User Guide.

1.3.1 Verify OpenSSL Version

The supported version of OpenSSL for the Python SDK is version 1.0.1 or newer. Run the following command to find out the version of OpenSSL that you have:

```
python -c "import ssl; print(ssl.OPENSSL_VERSION)"
```

If the version is lower than `1.0.1`, run the following command to bypass the version issue:

```
pip install requests[security]==2.18.4
```

This command instructs the requests library used by the Python SDK to use the version of OpenSSL that is bundled with the cryptography library used by the SDK.

Note: If you don't want to use `requests[security]` you can update OpenSSL as you normally would. For example, on OS X, use Homebrew to update OpenSSL using the following commands:

```
brew update
brew install openssl
brew install python
```

1.4 Troubleshooting

You might encounter issues when installing Python or the SDK, or using the SDK itself.

1.4.1 Service Errors

Any operation resulting in a service error will cause an exception of type oci.exceptions.ServiceError to be thrown by the SDK. For information about common service errors returned by OCI, see API Errors .

1.4.2 SSL/TLS or Certificate Issues

When trying to use the SDK, if you get an exception related to SSL/TLS or certificates/certificate validation, see the command for installing requests[security] in *Verify OpenSSL Version*.

Configuration

oci uses a simple dict to build clients and other components. You can build these manually, or oci can parse and validate a config file.

Using the default configuration location `~/.oci/config` you can use *config.from_file()* to load any profile. By default, the DEFAULT profile is used:

```
>>> from oci.config import from_file
>>> config = from_file()

# Using a different profile from the default location
>>> config = from_file(profile_name="integ-beta")

# Using the default profile from a different file
>>> config = from_file(file_location="~/.oci/config.prod")
```

Since `config` is a dict, you can also build it manually and check it with *config.validate_config()*:

```
import os
from myproject import testrunner
user_ocid = os.environ["USER_OCID"]
key_file = key_for(user_ocid)

config = {
    "user": user_ocid,
    "key_file": key_file,
    "fingerprint": calc_fingerprint(key_file),
    "tenancy": testrunner.tenancy,
    "region": testrunner.region
}

from oci.config import validate_config
validate_config(config)
```

See also:

The SDK and Tool Configuration page has a full description of the required and supported options. These are supported across the SDKs, so if you've already set this file up for the Ruby or Java SDKs, you're all set.

Forward Compatibility

Some response fields are enum-typed. In the future, individual services may return values not covered by existing enums for that field. To address this possibility, every enum-type response field has an additional value named "UN-KNOWN_ENUM_VALUE". If a service returns a value that is not recognized by your version of the SDK, then the response field will be set to this value. Please ensure that your code handles the "UNKNOWN_ENUM_VALUE" case if you have conditional logic based on an enum-typed field.

Backward Compatibility

The top level namespace / package name for the Python SDK has been changed from `oraclebmc` to `oci`, so all of the documentation now references `oci`. If you are using the `oraclebmc` package you should continue to reference `oraclebmc` in your code and when interpreting the documentation you should replace `oci` with `oraclebmc` (i.e. if there is a class defined in the docs as `oci.base_client.BaseClient` in the oraclebmc package this class will be called `oraclebmc.base_client.BaseClient`).

Note: The `oraclebmc` package is deprecated and will no longer be maintained starting March 2018. Please upgrade to the `oci` package to avoid interruption at that time.

Quickstart

Clients only require a valid config object:

```
>>> from oci.identity import IdentityClient
>>> identity = IdentityClient(config)
```

5.1 CRUD operations and Pagination

5.1.1 Creating entities

Let's create a new user and group, and add the user to the group. Then we'll list all users in the tenancy, and finally clean up the user and group we created.

First, we'll need to create a valid config object and service client. If you haven't set up a config file, head over to the *Configuration* section to create one. We'll use the default location ~/.oci/config and default profile name DEFAULT to create an Identity client. Since we'll be using the root compartment (or tenancy) for most operations, let's also extract that from the config object:

```
>>> import oci
>>> config = oci.config.from_file()
>>> identity = oci.identity.IdentityClient(config)
>>> compartment_id = config["tenancy"]
```

Next we'll need to populate an instance of the CreateGroupDetails model with our request, and then send it:

```
>>> from oci.identity.models import CreateGroupDetails
>>> request = CreateGroupDetails()
>>> request.compartment_id = compartment_id
>>> request.name = "my-test-group"
>>> request.description = "Created with the Python SDK"

>>> group = identity.create_group(request)
```

```
>>> print(group.data.id)
"id": "ocid1.group.oc1..aaaaaaaaikib..."
```

Creating a user is very similar:

```
>>> from oci.identity.models import CreateUserDetails
>>> request = CreateUserDetails()
>>> request.compartment_id = compartment_id
>>> request.name = "my-test-user"
>>> request.description = "Created with the Python SDK"
>>> user = identity.create_user(request)
>>> print(user.data.id)
"ocid1.user.oc1..aaaaaaaamkym..."
```

Using the ids from the `group` and `user` above, we can add the user to the group:

```
>>> from oci.identity.models import AddUserToGroupDetails
>>> request = AddUserToGroupDetails()
>>> request.group_id = group.data.id
>>> request.user_id = user.data.id
>>> response = identity.add_user_to_group(request)
>>> print(response.status)
200
```

5.1.2 Listing with Pagination

List operations use pagination to limit the size of each response. The Python SDK exposes the pagination values through the `has_next_page` and `next_page` attributes on each response. For example, listing users in the root compartment:

```
>>> first_page = identity.list_users(compartment_id=compartment_id)
>>> len(first_page.data)
100
>>> first_page.has_next_page
True
>>> first_page.next_page
'AAAAAAAAAHNo_rjHo6xZPxHLZZ020jMio...'
```

Even though a response includes a next page, there may not be more results. The last page will return an empty list, and will not have a `next_page` token.

You can manually iterate through responses, providing the page from the previous response to the next request. For example:

```
response = identity.list_users(compartment_id)
users = response.data
while response.has_next_page:
    response = identity.list_users(compartment_id, page=response.next_page)
    users.extend(response.data)
```

As a convenience over manually writing pagination code, you can make use of the functions in the *pagination* module to:

- Eagerly load all possible results from a list call

- Eagerly load all results from a list call up to a given limit

---

- Lazily load results (either all results, or up to a given limit) from a list call via a generator. These generators can yield either values/models or the raw response from calling the list operation

For examples on pagination, please check GitHub.

5.1.3 Deleting entities

Now to clean up the entities we created. Users can't be deleted if they're still part of a group, and groups can't be deleted if they still have users. So we need to use `identity.remove_user_from_group`, which takes a `user_group_membership_id`. Because users and groups can have any number of relationships, we'll use `list_user_group_memberships` and provide **both** optional parameters `user_id` and `group_id` to constrain the result set:

```
>>> memberships = identity.list_user_group_memberships(
...     compartment_id=compartment_id,
...     user_id=user.data.id,
...     group_id=group.data.id)
# There can never be more than one membership for a unique user/group combination
>>> assert len(memberships.data) == 1
>>> membership_id = memberships.data[0].id
```

Finally, we can remove the user from the group, and delete both resources. Here we're using `response.status` to make sure the delete responded with 204:

```
>>> identity.remove_user_from_group(
...     user_group_membership_id=membership_id).status
204
>>> identity.delete_user(user_id=user.data.id).status
204
>>> identity.delete_group(group_id=group.data.id).status
204
```

5.2 Working with Bytes

When using object storage, you'll need to provide a namespace, in addition to your compartment id:

```
>>> object_storage = oci.object_storage.ObjectStorageClient(config)
>>> namespace = object_storage.get_namespace().data
```

To upload an object, we'll create a bucket:

```
>>> from oci.object_storage.models import CreateBucketDetails
>>> request = CreateBucketDetails()
>>> request.compartment_id = compartment_id
>>> request.name = "MyTestBucket"
>>> bucket = object_storage.create_bucket(namespace, request)
>>> bucket.data.etag
'5281759f-60bb-4b93-8676-f8d141b5f211'
```

Now we can upload arbitrary bytes:

```
>>> my_data = b"Hello, World!"
>>> obj = object_storage.put_object(
...     namespace,
```

```
...      bucket.data.name,
...      "my-object-name",
...      my_data)
```

And to get it back:

```
>>> same_obj = object_storage.get_object(
...      namespace,
...      bucket.data.name,
...      "my-object-name")
... same_obj.data
<Response [200]>
... same_obj.data.content
b'Hello, World!'
```

5.3 Next Steps

Next, head to the User Guides or jump right into the *API Reference* to explore the available operations for each service, and their parameters. Additional Python examples can be found on GitHub.

Note: The Python SDK uses `lowercase_with_underscores` for operations and parameters. For example, the ListApiKeys operation is called with `IdentityClient.list_api_keys` and its parameter `userId` is translated to `user_id`.

Logging

The Python SDK uses Python's logging module.

Loggers for the Python SDK are ordered hierarchically, with the top level being `oci` (or `oraclebmc` if you are using the legacy OracleBMC package).

Logger names are of the form `<hierarchy>.<id>` where the `<hierarchy>` is similar to `oci.base_client` and `<id>` is the result of Python's built-in `id()` function. The implication of this is that different instances of the same class have different loggers.

6.1 Request Logging

Logging of the requests which the Python SDK sends to OCI services can be enabled by setting the `log_requests` attribute to `True` in your configuration. This could be done in your configuration file, for example:

```
[DEFAULT]
user = <user OCID>
fingerprint = <fingerprint>
key_file = <key file>
tenancy = <tenancy OCID>
region = us-ashburn-1
log_requests = True
```

Or programmatically, for example:

```
config = {
    "user": user_ocid,
    "key_file": key_file,
    "fingerprint": calc_fingerprint(key_file),
    "tenancy": testrunner.tenancy,
    "region": testrunner.region,
    "log_requests": True
}
```

Once you have request logging in your config, you can create the appropriate logging handler(s) for your use case. For example to log to an output stream such as `stderr` you could do:

```python
import oci
import logging

config = oci.config.from_file()
config['log_requests'] = True

logging.basicConfig()

client = oci.identity.IdentityClient(config)

# This call will emit log information to stderr
client.list_regions()
```

Note that request logging occurs at the following levels:

- `INFO`: Request method and request URL
- `DEBUG`: Request headers and body, and response headers

The raw response body is not logged.

Exception handling

When using the Python SDK, you should be prepared to handle the following exceptions:

- Any response received by the SDK with a non-2xx HTTP status will be thrown as a *ServiceError*

- A `ValueError` will be thrown if you provide invalid parameters to a method call or when setting an attribute. For example:

  - When setting an attribute on a model and that attribute has a constrained set of values, such as *lifetime* on `CreatePublicIpDetails`

  - When passing a blank string as the identifier for a `get_` operation, such as passing a nil `instance_id` to *get_instance()*

- *ClientError* and its subclasses. These exceptions are raised when there is an error with your configuration file or when using the *wait_until()* function

  - *ConfigFileNotFound*

  - *InvalidConfig*

  - *InvalidPrivateKey*

  - *MissingPrivateKeyPassphrase*

  - *ProfileNotFound*

  - *WaitUntilNotSupported*

  - *MaximumWaitTimeExceeded*

- If you use the *UploadManager* then you should also catch *MultipartUploadError*

- The Python SDK uses the Requests library to make calls to OCI services but it does not mask or wrap any of the errors originating from this library, so you should also account for these in your code. The exception reference for Requests can be found here and here

7.1 Handling HTTP 3xx responses

As a result of the SDK treating responses with a non-2xx HTTP status as a *ServiceError* the SDK will throw a *ServiceError* on 3xx responses. This can impact operations which support conditional GETs, such as *get_object()* and *head_object()* methods as these can return responses with a HTTP status code of 304 if passed an `if_none_match` which corresponds to the curent etag of the object or bucket.

In order to account for this, you should catch *ServiceError* and check its `status` attribute for the HTTP status code. For example:

```python
import oci

config = oci.config.from_file()
client = oci.object_storage.ObjectStorageClient(config)

try:
    get_object_response = client.get_object('my_namespace', 'my_bucket', 'my_object',
→if_none_match='some_etag_value')
except oci.exceptions.ServiceError as e:
    if e.status == 304:
        # Object exists but has not been modified (based on the etag value)
        pass
    else:
        raise
```

Uploading Large Objects

The Object Storage service supports multipart uploads to make large object uploads easier by splitting the large object into parts. The Python SDK supports raw multipart upload operations for advanced use cases, as well as a higher-level upload class that uses the multipart upload APIs. Managing Multipart Uploads provides links to the APIs used for raw multipart upload operations. Higher-level uploads can be performed using the `UploadManager`. The `UploadManager` will: split a large object into parts for you, upload the parts in parallel, and then recombine and commit the parts as a single object in Object Storage.

The UploadObject example shows how `UploadManager` can be used to upload files to object storage.

Raw Requests

The Python SDK exposes a custom `requests.auth.AuthBase` which you can use to sign non-standard calls. This can be helpful if you need to make a OCI- authenticated request to an alternate endpoint or to a OCI API not yet supported in the SDK.

9.1 Creating a Signer

Constructing a Signer instance requires a few pieces of information. By default, the SDK uses the values in the config file at `~/.oci/config`. You can manually specify the required fields, or use a config loader to pull in the values from a file:

```python
from oci.signer import Signer
auth = Signer(
    tenancy='ocid1.tenancy.oc1..aaaaaaaa[...]',
    user='ocid1.user.oc1..aaaaaaaa[...]',
    fingerprint='20:3b:97:13:55:1c:[...]',
    private_key_file_location='~/.oci/oci_api_key.pem',
    pass_phrase='hunter2'  # optional
)


# Or load directly from a file
from oci.config import from_file
config = from_file('~/.oci/config')
auth = Signer(
    tenancy=config['tenancy'],
    user=config['user'],
    fingerprint=config['fingerprint'],
    private_key_file_location=config['key_file'],
    pass_phrase=config['pass_phrase']
)
```

9.2 Using the Signer

Once you have an instance of the auth handler, simply include it as the `auth=` param when using Requests.

```python
import requests

url = 'https://iaas.us-phoenix-1.oraclecloud.com/20160918/instances[...]'
response = requests.get(url, auth=auth)
```

Remember that the result will come back in its raw form and is not unpacked into a model instance. You will need to handle the (de)serialization yourself.

The following creates a new user by talking to the identity endpoint:

```python
endpoint = 'https://identity.us-phoenix-1.oraclecloud.com/20160918/users/'
body = {
    'compartmentId': config['tenancy'],  # root compartment
    'name': 'TestUser',
    'description': 'Created with a raw request'
}

response = requests.post(endpoint, json=body, auth=auth)

response.raise_for_status()
print(response.json()['id'])
```

Waiters

Sometimes you may need to wait until an attribute of a resource, such as an instance or a VCN, reaches a certain state. An example of this would be launching an instance and then waiting for the instance to become available, or waiting until a subnet in a VCN has been terminated. This waiting can be accomplished by using the *wait_until()* function. As an example:

```python
import oci

config = oci.config.from_file()
client = oci.core.ComputeClient(config)

response = client.launch_instance(...)
instance_ocid = response.data.id

# We will get returned the result of the last get_instance call (in this case the one
↪where the lifecycle state has moved to available).
# We can inspect the .data attribute of this (i.e. get_instance_response.data) to get
↪information about the instance
#
# Some items to note about the parameters provided:
#
#   - The first parameter is the client we'll use to call the service to retrieve data
#   - The second parameter is the result of a service call. The wait_until function
↪uses this to determine what service operation needs to be called. In the case below
#     it will keep calling client.get_instance(instance_ocid) until the instance
↪reaches the desired state
#   - The third parameter is the name of the attribute we will check. The object we
↪will check against is the result of calling .data on the result of the service call.
#     Please consult the API reference for available attribute names you can use
#   - The fourth parameter is the desired value. An equality (==) comparison is done
get_instance_response = oci.wait_until(client, client.get_instance(instance_ocid),
↪'lifecycle_state', 'RUNNING')
```

Instead of waiting for a single attribute to equal a given value, you can also provide a function reference (either a lambda or a reference to an already defined function) that can be used to evaluate the response received from the

service call. This function should return a truthy value if the waiter should stop waiting, and a falsey value if the waiter should continue waiting.

For example, to wait until a volume backup reaches either the "AVAILABLE" or "FAULTY" state :

```
oci.wait_until(client, client.get_volume_backup(vol_backup_id), evaluate_
↪response=lambda r: r.data.lifecycle_state in ['AVAILABLE', 'FAULTY'])
```

Instead of using a lambda, an already defined function can be used:

```
def should_stop_waiting_volume_backup(response):
    return response.data.lifecycle_state in ['AVAILABLE', 'FAULTY']

oci.wait_until(client, client.get_volume_backup(vol_backup_id), evaluate_
↪response=should_stop_waiting_volume_backup)
```

In addition to the base parameters shown above, the function can accept optional attributes to control the maximum amount of time it will wait for and the time between calls to the service. For more information on the optional parameters, see the documentation on the *wait_until()* function.

For a more comprehensive sample, please see our examples on GitHub.

CHAPTER 11

Pagination

When you call a list operation (for example *list_instances()*) will retrieve a page of results. In order to retrieve more data, you have to continue to make calls to the list operation, passing in the value of the most recent response's `next_page` attribute as a parameter to the next list operation call.

As a convenience over manually writing pagination code, you can make use of the functions in the *pagination* module to:

- Eagerly load all possible results from a list call

- Eagerly load all results from a list call up to a given limit

- Lazily load results (either all results, or up to a given limit) from a list call via a generator. These generators can yield either values/models or the raw response from calling the list operation

For an example on how to use these functions, please check GitHub.

API Reference

12.1 Audit

12.1.1 Client

class oci.audit.audit_client.**AuditClient**(*config*, ***kwargs*)

    get_configuration(*compartment_id*, ***kwargs*)
        GetConfiguration Get the configuration

            Parameters **compartment_id** (*str*) – (required) ID of the root compartment (tenancy)

            Returns A *Response* object with data of type *Configuration*

            Return type *Response*

    list_events(*compartment_id*, *start_time*, *end_time*, ***kwargs*)
        ListEvents Returns all audit events for the specified compartment that were processed within the specified time range.

        Parameters

            • **compartment_id** (*str*) – (required) The OCID of the compartment.

            • **start_time** (*datetime*) – (required) Returns events that were processed at or after this start date and time, expressed in RFC 3339 timestamp format. For example, a start value of *2017-01-15T11:30:00Z* will retrieve a list of all events processed since 30 minutes after the 11th hour of January 15, 2017, in Coordinated Universal Time (UTC). You can specify a value with granularity to the minute. Seconds (and milliseconds, if included) must be set to *0*.

            • **end_time** (*datetime*) – (required) Returns events that were processed before this end date and time, expressed in RFC 3339 timestamp format. For example, a start value of *2017-01-01T00:00:00Z* and an end value of *2017-01-02T00:00:00Z* will retrieve a list of all events processed on January 1, 2017. Similarly, a start value of *2017-01-01T00:00:00Z*

and an end value of *2017-02-01T00:00:00Z* will result in a list of all events processed between January 1, 2017 and January 31, 2017. You can specify a value with granularity to the minute. Seconds (and milliseconds, if included) must be set to *0*.

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous list query.

- **opc_request_id** (*str*) – (optional) Unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type list of *AuditEvent*

Return type *Response*

update_configuration(*compartment_id*, *update_configuration_details*, ***kwargs*)
UpdateConfiguration Update the configuration

Parameters

- **compartment_id** (*str*) – (required) ID of the root compartment (tenancy)

- **update_configuration_details** (*UpdateConfigurationDetails*) – (required) The configuration properties

Returns A *Response* object with data of type None

Return type *Response*

12.1.2 Models

class oci.audit.models.**AuditEvent**(***kwargs*)

__init__(***kwargs*)
Initializes a new AuditEvent object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **tenant_id** (*str*) – The value to assign to the tenant_id property of this AuditEvent.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this AuditEvent.

- **event_id** (*str*) – The value to assign to the event_id property of this AuditEvent.

- **event_source** (*str*) – The value to assign to the event_source property of this AuditEvent.

- **event_type** (*str*) – The value to assign to the event_type property of this AuditEvent.

- **event_time** (*datetime*) – The value to assign to the event_time property of this AuditEvent.

- **principal_id** (*str*) – The value to assign to the principal_id property of this AuditEvent.

- **credential_id** (*str*) – The value to assign to the credential_id property of this AuditEvent.

- **request_action** (*str*) – The value to assign to the request_action property of this AuditEvent.

- **request_id** (*str*) – The value to assign to the request_id property of this AuditEvent.

- **request_agent** (`str`) – The value to assign to the request_agent property of this AuditEvent.

- **request_headers** (`dict(str, list[str])`) – The value to assign to the request_headers property of this AuditEvent.

- **request_origin** (`str`) – The value to assign to the request_origin property of this AuditEvent.

- **request_parameters** (`dict(str, list[str])`) – The value to assign to the request_parameters property of this AuditEvent.

- **request_resource** (`str`) – The value to assign to the request_resource property of this AuditEvent.

- **response_headers** (`dict(str, list[str])`) – The value to assign to the response_headers property of this AuditEvent.

- **response_status** (`str`) – The value to assign to the response_status property of this AuditEvent.

- **response_time** (`datetime`) – The value to assign to the response_time property of this AuditEvent.

- **response_payload** (`dict(str, ` `object` `)`) – The value to assign to the response_payload property of this AuditEvent.

compartment_id
    Gets the compartment_id of this AuditEvent. The OCID of the compartment.

> **Returns** The compartment_id of this AuditEvent.

> **Return type** str

credential_id
    Gets the credential_id of this AuditEvent. The credential ID of the user. This value is extracted from the HTTP 'Authorization' request header. It consists of the tenantId, userId, and user fingerprint, all delimited by a slash (/).

> **Returns** The credential_id of this AuditEvent.

> **Return type** str

event_id
    Gets the event_id of this AuditEvent. The GUID of the event.

> **Returns** The event_id of this AuditEvent.

> **Return type** str

event_source
    Gets the event_source of this AuditEvent. The source of the event.

> **Returns** The event_source of this AuditEvent.

> **Return type** str

event_time
    Gets the event_time of this AuditEvent. The time the event occurred, expressed in RFC 3339 timestamp format.

> **Returns** The event_time of this AuditEvent.

> **Return type** datetime

event_type
> Gets the event_type of this AuditEvent. The type of the event.
>
> > **Returns** The event_type of this AuditEvent.
> >
> > **Return type** str

principal_id
> Gets the principal_id of this AuditEvent. The OCID of the user whose action triggered the event.
>
> > **Returns** The principal_id of this AuditEvent.
> >
> > **Return type** str

request_action
> Gets the request_action of this AuditEvent. The HTTP method of the request.
>
> > **Returns** The request_action of this AuditEvent.
> >
> > **Return type** str

request_agent
> Gets the request_agent of this AuditEvent. The user agent of the client that made the request.
>
> > **Returns** The request_agent of this AuditEvent.
> >
> > **Return type** str

request_headers
> Gets the request_headers of this AuditEvent. The HTTP header fields and values in the request.
>
> > **Returns** The request_headers of this AuditEvent.
> >
> > **Return type** dict(str, list[str])

request_id
> Gets the request_id of this AuditEvent. The opc-request-id of the request.
>
> > **Returns** The request_id of this AuditEvent.
> >
> > **Return type** str

request_origin
> Gets the request_origin of this AuditEvent. The IP address of the source of the request.
>
> > **Returns** The request_origin of this AuditEvent.
> >
> > **Return type** str

request_parameters
> Gets the request_parameters of this AuditEvent. The query parameter fields and values for the request.
>
> > **Returns** The request_parameters of this AuditEvent.
> >
> > **Return type** dict(str, list[str])

request_resource
> Gets the request_resource of this AuditEvent. The resource targeted by the request.
>
> > **Returns** The request_resource of this AuditEvent.
> >
> > **Return type** str

response_headers
> Gets the response_headers of this AuditEvent. The headers of the response.
>
> > **Returns** The response_headers of this AuditEvent.

Return type dict(str, list[str])

response_payload
    Gets the response_payload of this AuditEvent. Metadata of interest from the response payload. For example, the OCID of a resource.

    Returns The response_payload of this AuditEvent.

    Return type dict(str, *object*)

response_status
    Gets the response_status of this AuditEvent. The status code of the response.

    Returns The response_status of this AuditEvent.

    Return type str

response_time
    Gets the response_time of this AuditEvent. The time of the response to the audited request, expressed in RFC 3339 timestamp format.

    Returns The response_time of this AuditEvent.

    Return type datetime

tenant_id
    Gets the tenant_id of this AuditEvent. The OCID of the tenant.

    Returns The tenant_id of this AuditEvent.

    Return type str

class oci.audit.models.**Configuration**(***kwargs*)

__init__(***kwargs*)
    Initializes a new Configuration object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    Parameters retention_period_days (*int*) – The value to assign to the retention_period_days property of this Configuration.

retention_period_days
    Gets the retention_period_days of this Configuration. The retention period days

    Returns The retention_period_days of this Configuration.

    Return type int

class oci.audit.models.**UpdateConfigurationDetails**(***kwargs*)

__init__(***kwargs*)
    Initializes a new UpdateConfigurationDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    Parameters retention_period_days (*int*) – The value to assign to the retention_period_days property of this UpdateConfigurationDetails.

retention_period_days
    Gets the retention_period_days of this UpdateConfigurationDetails. The retention period days

    Returns The retention_period_days of this UpdateConfigurationDetails.

    Return type int

12.2 Core Services

12.2.1 Clients

Block Storage

class oci.core.blockstorage_client.**BlockstorageClient**(*config*, ***kwargs*)

create_volume(*create_volume_details*, ***kwargs*)
CreateVolume Creates a new volume in the specified compartment. Volumes can be created in sizes ranging from 50 GB (51200 MB) to 16 TB (16777216 MB), in 1 GB (1024 MB) increments. By default, volumes are 1 TB (1048576 MB). For general information about block volumes, see Overview of Block Volume Service.

A volume and instance can be in separate compartments but must be in the same Availability Domain. For information about access control and compartments, see Overview of the IAM Service. For information about Availability Domains, see Regions and Availability Domains. To get a list of Availability Domains, use the *ListAvailabilityDomains* operation in the Identity and Access Management Service API.

You may optionally specify a *display name* for the volume, which is simply a friendly name or description. It does not have to be unique, and you can change it. Avoid entering confidential information.

> **Parameters**
>
> - **create_volume_details** (*CreateVolumeDetails*) – (required) Request to create a new volume.
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *Volume*
>
> **Return type** *Response*

create_volume_backup(*create_volume_backup_details*, ***kwargs*)
CreateVolumeBackup Creates a new backup of the specified volume. For general information about volume backups, see Overview of Block Volume Service Backups

When the request is received, the backup object is in a REQUEST_RECEIVED state. When the data is imaged, it goes into a CREATING state. After the backup is fully uploaded to the cloud, it goes into an AVAILABLE state.

> **Parameters**
>
> - **create_volume_backup_details** (*CreateVolumeBackupDetails*) – (required) Request to create a new backup of given volume.
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *VolumeBackup*
>
> **Return type** *Response*

create_volume_backup_policy_assignment(*create_volume_backup_policy_assignment_details*, ***kwargs*)

    CreateVolumeBackupPolicyAssignment Assigns a policy to the specified asset, such as a volume. Note that a given asset can only have one policy assigned to it; if this method is called for an asset that previously has a different policy assigned, the prior assignment will be silently deleted.

> **Parameters create_volume_backup_policy_assignment_details**
> ([CreateVolumeBackupPolicyAssignmentDetails](#)) – (required) Request to assign a specified policy to a particular asset.
>
> **Returns** A [Response](#) object with data of type [VolumeBackupPolicyAssignment](#)
>
> **Return type** [Response](#)

delete_boot_volume(*boot_volume_id*, ***kwargs*)

    DeleteBootVolume Deletes the specified boot volume. The volume cannot have an active connection to an instance. To disconnect the boot volume from a connected instance, see [Disconnecting From a Boot Volume](#). **Warning:** All data on the boot volume will be permanently lost when the boot volume is deleted.

> **Parameters**
>
> - **boot_volume_id** (*str*) – (required) The OCID of the boot volume.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A [Response](#) object with data of type None
>
> **Return type** [Response](#)

delete_volume(*volume_id*, ***kwargs*)

    DeleteVolume Deletes the specified volume. The volume cannot have an active connection to an instance. To disconnect the volume from a connected instance, see [Disconnecting From a Volume](#). **Warning:** All data on the volume will be permanently lost when the volume is deleted.

> **Parameters**
>
> - **volume_id** (*str*) – (required) The OCID of the volume.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A [Response](#) object with data of type None
>
> **Return type** [Response](#)

delete_volume_backup(*volume_backup_id*, ***kwargs*)

    DeleteVolumeBackup Deletes a volume backup.

> **Parameters**
>
> - **volume_backup_id** (*str*) – (required) The OCID of the volume backup.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A [Response](#) object with data of type None
>
> **Return type** [Response](#)

delete_volume_backup_policy_assignment(*policy_assignment_id*, ***kwargs*)
  DeleteVolumeBackupPolicyAssignment Deletes a volume backup policy assignment (i.e. unassigns the policy from an asset).

  Parameters

  - **policy_assignment_id** (*str*) – (required) The OCID of the volume backup policy assignment.

  - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

  Returns A *Response* object with data of type None

  Return type *Response*

get_boot_volume(*boot_volume_id*, ***kwargs*)
  GetBootVolume Gets information for the specified boot volume.

  Parameters **boot_volume_id** (*str*) – (required) The OCID of the boot volume.

  Returns A *Response* object with data of type *BootVolume*

  Return type *Response*

get_volume(*volume_id*, ***kwargs*)
  GetVolume Gets information for the specified volume.

  Parameters **volume_id** (*str*) – (required) The OCID of the volume.

  Returns A *Response* object with data of type *Volume*

  Return type *Response*

get_volume_backup(*volume_backup_id*, ***kwargs*)
  GetVolumeBackup Gets information for the specified volume backup.

  Parameters **volume_backup_id** (*str*) – (required) The OCID of the volume backup.

  Returns A *Response* object with data of type *VolumeBackup*

  Return type *Response*

get_volume_backup_policy(*policy_id*, ***kwargs*)
  GetVolumeBackupPolicy Gets information for the specified volume backup policy.

  Parameters **policy_id** (*str*) – (required) The OCID of the volume backup policy.

  Returns A *Response* object with data of type *VolumeBackupPolicy*

  Return type *Response*

get_volume_backup_policy_asset_assignment(*asset_id*, ***kwargs*)
  GetVolumeBackupPolicyAssetAssignment Gets the volume backup policy assignment for the specified asset. Note that the assetId query parameter is required, and that the returned list will contain at most one item (since any given asset can only have one policy assigned to it).

  Parameters

  - **asset_id** (*str*) – (required) The OCID of an asset (e.g. a volume).

  - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> **Returns** A *Response* object with data of type list of *VolumeBackupPolicyAssignment*
>
> **Return type** *Response*

get_volume_backup_policy_assignment (*policy_assignment_id*, ***kwargs*)
> GetVolumeBackupPolicyAssignment Gets information for the specified volume backup policy assignment.
>
> **Parameters policy_assignment_id** (*str*) – (required) The OCID of the volume backup policy assignment.
>
> **Returns** A *Response* object with data of type *VolumeBackupPolicyAssignment*
>
> **Return type** *Response*

list_boot_volumes (*availability_domain*, *compartment_id*, ***kwargs*)
> ListBootVolumes Lists the boot volumes in the specified compartment and Availability Domain.
>
> **Parameters**
>
> - **availability_domain** (*str*) – (required) The name of the Availability Domain.
>
>   Example: *Uocm:PHX-AD-1*
>
> - **compartment_id** (*str*) – (required) The OCID of the compartment.
>
> - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> **Returns** A *Response* object with data of type list of *BootVolume*
>
> **Return type** *Response*

list_volume_backup_policies (***kwargs*)
> ListVolumeBackupPolicies Lists all volume backup policies available to the caller.
>
> **Parameters**
>
> - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> **Returns** A *Response* object with data of type list of *VolumeBackupPolicy*
>
> **Return type** *Response*

list_volume_backups (*compartment_id*, ***kwargs*)
> ListVolumeBackups Lists the volume backups in the specified compartment. You can filter the results by volume.
>
> **Parameters**
>
> - **compartment_id** (*str*) – (required) The OCID of the compartment.
>
> - **volume_id** (*str*) – (optional) The OCID of the volume.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "CREATING", "AVAILABLE", "TERMINATING", "TERMINATED", "FAULTY", "REQUEST_RECEIVED"

Returns A *Response* object with data of type list of *VolumeBackup*

Return type *Response*

list_volumes(*compartment_id*, ***kwargs*)

ListVolumes Lists the volumes in the specified compartment and Availability Domain.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **availability_domain** (*str*) – (optional) The name of the Availability Domain.

  Example: *Uocm:PHX-AD-1*

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability

Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "PROVISIONING", "RESTORING", "AVAILABLE", "TERMINATING", "TERMINATED", "FAULTY"

Returns A *Response* object with data of type list of *Volume*

Return type *Response*

update_boot_volume(*boot_volume_id*, *update_boot_volume_details*, ***kwargs*)
UpdateBootVolume Updates the specified boot volume's display name.

Parameters

- **boot_volume_id** (*str*) – (required) The OCID of the boot volume.

- **update_boot_volume_details** (*UpdateBootVolumeDetails*) – (required) Update boot volume's display name.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *BootVolume*

Return type *Response*

update_volume(*volume_id*, *update_volume_details*, ***kwargs*)
UpdateVolume Updates the specified volume's display name. Avoid entering confidential information.

Parameters

- **volume_id** (*str*) – (required) The OCID of the volume.

- **update_volume_details** (*UpdateVolumeDetails*) – (required) Update volume's display name. Avoid entering confidential information.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *Volume*

Return type *Response*

update_volume_backup(*volume_backup_id*, *update_volume_backup_details*, ***kwargs*)
UpdateVolumeBackup Updates the display name for the specified volume backup. Avoid entering confidential information.

Parameters

- **volume_backup_id** (*str*) – (required) The OCID of the volume backup.

- **update_volume_backup_details** (*UpdateVolumeBackupDetails*) – (required) Update volume backup fields

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *VolumeBackup*

> **Return type** *Response*

Compute

class oci.core.compute_client.**ComputeClient**(*config*, ***kwargs*)

attach_boot_volume(*attach_boot_volume_details*, ***kwargs*)
AttachBootVolume Attaches the specified boot volume to the specified instance.

> **Parameters**

> - **attach_boot_volume_details** (*AttachBootVolumeDetails*) – (required) Attach boot volume request

> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *BootVolumeAttachment*

> **Return type** *Response*

attach_vnic(*attach_vnic_details*, ***kwargs*)
AttachVnic Creates a secondary VNIC and attaches it to the specified instance. For more information about secondary VNICs, see Virtual Network Interface Cards (VNICs).

> **Parameters**

> - **attach_vnic_details** (*AttachVnicDetails*) – (required) Attach VNIC details.

> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *VnicAttachment*

> **Return type** *Response*

attach_volume(*attach_volume_details*, ***kwargs*)
AttachVolume Attaches the specified storage volume to the specified instance.

> **Parameters**

> - **attach_volume_details** (*AttachVolumeDetails*) – (required) Attach volume request

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *VolumeAttachment*

> **Return type** *Response*

capture_console_history (*capture_console_history_details*, ***kwargs*)
CaptureConsoleHistory Captures the most recent serial console data (up to a megabyte) for the specified instance.

The *CaptureConsoleHistory* operation works with the other console history operations as described below.

1. Use *CaptureConsoleHistory* to request the capture of up to a megabyte of the most recent console history. This call returns a *ConsoleHistory* object. The object will have a state of REQUESTED. 2. Wait for the capture operation to succeed by polling *GetConsoleHistory* with the identifier of the console history metadata. The state of the *ConsoleHistory* object will go from REQUESTED to GETTING-HISTORY and then SUCCEEDED (or FAILED). 3. Use *GetConsoleHistoryContent* to get the actual console history data (not the metadata). 4. Optionally, use *DeleteConsoleHistory* to delete the console history metadata and the console history data.

> **Parameters**
>
> - **capture_console_history_details** (*CaptureConsoleHistoryDetails*) – (required) Console history details
>
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *ConsoleHistory*

> **Return type** *Response*

create_image (*create_image_details*, ***kwargs*)
CreateImage Creates a boot disk image for the specified instance or imports an exported image from the Oracle Cloud Infrastructure Object Storage service.

When creating a new image, you must provide the OCID of the instance you want to use as the basis for the image, and the OCID of the compartment containing that instance. For more information about images, see Managing Custom Images.

When importing an exported image from Object Storage, you specify the source information in `image_source_details()`.

When importing an image based on the namespace, bucket name, and object name, use `image_source_via_object_storage_tuple_details()`.

When importing an image based on the Object Storage URL, use `image_source_via_object_storage_uri_details()`. See Object Storage URLs and pre-authenticated requests for constructing URLs for image import/export.

For more information about importing exported images, see Image Import/Export.

You may optionally specify a *display name* for the image, which is simply a friendly name or description. It does not have to be unique, and you can change it. See `update_image()`. Avoid entering confidential information.

Parameters

- **create_image_details** (`CreateImageDetails`) – (required) Image creation details

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A `Response` object with data of type `Image`

Return type `Response`

create_instance_console_connection(*create_instance_console_connection_details*, ***kwargs*)

CreateInstanceConsoleConnection Creates a new console connection to the specified instance. Once the console connection has been created and is available, you connect to the console using SSH.

For more information about console access, see Accessing the Console.

Parameters

- **create_instance_console_connection_details** (`CreateInstanceConsoleConnectionDetails`) – (required) Request object for creating an InstanceConsoleConnection

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A `Response` object with data of type `InstanceConsoleConnection`

Return type `Response`

delete_console_history(*instance_console_history_id*, ***kwargs*)

DeleteConsoleHistory Deletes the specified console history metadata and the console history data.

Parameters

- **instance_console_history_id** (`str`) – (required) The OCID of the console history.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type None

Return type `Response`

delete_image(*image_id*, ***kwargs*)

DeleteImage Deletes an image.

Parameters

- **image_id** (`str`) – (required) The OCID of the image.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a

previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_instance_console_connection(*instance_console_connection_id*, ***kwargs*)
DeleteInstanceConsoleConnection Deletes the specified instance console connection.

> **Parameters**
>
> - **instance_console_connection_id** (*str*) – (required) The OCID of the intance console connection
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

detach_boot_volume(*boot_volume_attachment_id*, ***kwargs*)
DetachBootVolume Detaches a boot volume from an instance. You must specify the OCID of the boot volume attachment.

This is an asynchronous operation. The attachment's *lifecycleState* will change to DETACHING temporarily until the attachment is completely removed.

> **Parameters**
>
> - **boot_volume_attachment_id** (*str*) – (required) The OCID of the boot volume attachment.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

detach_vnic(*vnic_attachment_id*, ***kwargs*)
DetachVnic Detaches and deletes the specified secondary VNIC. This operation cannot be used on the instance's primary VNIC. When you terminate an instance, all attached VNICs (primary and secondary) are automatically detached and deleted.

Important: If the VNIC has a `PrivateIp` that is the target of a route rule, deleting the VNIC causes that route rule to blackhole and the traffic will be dropped.

> **Parameters**
>
> - **vnic_attachment_id** (*str*) – (required) The OCID of the VNIC attachment.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

detach_volume(*volume_attachment_id*, ***kwargs*)

DetachVolume Detaches a storage volume from an instance. You must specify the OCID of the volume attachment.

This is an asynchronous operation. The attachment's *lifecycleState* will change to DETACHING temporarily until the attachment is completely removed.

Parameters

- **volume_attachment_id** (*str*) – (required) The OCID of the volume attachment.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

export_image(*image_id*, *export_image_details*, ***kwargs*)

ExportImage Exports the specified image to the Oracle Cloud Infrastructure Object Storage service. You can use the Object Storage URL, or the namespace, bucket name, and object name when specifying the location to export to.

For more information about exporting images, see Image Import/Export.

To perform an image export, you need write access to the Object Storage bucket for the image, see Let Users Write Objects to Object Storage Buckets.

See Object Storage URLs and pre-authenticated requests for constructing URLs for image import/export.

Parameters

- **image_id** (*str*) – (required) The OCID of the image.

- **export_image_details** (*ExportImageDetails*) – (required) Details for the image export.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *Image*

Return type *Response*

get_boot_volume_attachment(*boot_volume_attachment_id*, ***kwargs*)

GetBootVolumeAttachment Gets information about the specified boot volume attachment.

Parameters boot_volume_attachment_id (*str*) – (required) The OCID of the boot volume attachment.

Returns A *Response* object with data of type *BootVolumeAttachment*

Return type *Response*

get_console_history(*instance_console_history_id*, ***kwargs*)
> GetConsoleHistory Shows the metadata for the specified console history. See `capture_console_history()` for details about using the console history operations.

>> **Parameters instance_console_history_id**(`str`) – (required) The OCID of the console history.

>> **Returns** A `Response` object with data of type `ConsoleHistory`

>> **Return type** `Response`

get_console_history_content(*instance_console_history_id*, ***kwargs*)
> GetConsoleHistoryContent Gets the actual console history data (not the metadata). See `capture_console_history()` for details about using the console history operations.

>> **Parameters**

>>> • **instance_console_history_id**(`str`) – (required) The OCID of the console history.

>>> • **offset**(`int`) – (optional) Offset of the snapshot data to retrieve.

>>> • **length**(`int`) – (optional) Length of the snapshot data to retrieve.

>> **Returns** A `Response` object with data of type bytes

>> **Return type** `Response`

get_image(*image_id*, ***kwargs*)
> GetImage Gets the specified image.

>> **Parameters image_id**(`str`) – (required) The OCID of the image.

>> **Returns** A `Response` object with data of type `Image`

>> **Return type** `Response`

get_instance(*instance_id*, ***kwargs*)
> GetInstance Gets information about the specified instance.

>> **Parameters instance_id**(`str`) – (required) The OCID of the instance.

>> **Returns** A `Response` object with data of type `Instance`

>> **Return type** `Response`

get_instance_console_connection(*instance_console_connection_id*, ***kwargs*)
> GetInstanceConsoleConnection Gets the specified instance console connection's information.

>> **Parameters instance_console_connection_id**(`str`) – (required) The OCID of the intance console connection

>> **Returns** A `Response` object with data of type `InstanceConsoleConnection`

>> **Return type** `Response`

get_vnic_attachment(*vnic_attachment_id*, ***kwargs*)
> GetVnicAttachment Gets the information for the specified VNIC attachment.

>> **Parameters vnic_attachment_id**(`str`) – (required) The OCID of the VNIC attachment.

>> **Returns** A `Response` object with data of type `VnicAttachment`

>> **Return type** `Response`

get_volume_attachment(*volume_attachment_id*, ***kwargs*)
> GetVolumeAttachment Gets information about the specified volume attachment.

> **Parameters volume_attachment_id** (*str*) – (required) The OCID of the volume attachment.
>
> **Returns** A *Response* object with data of type *VolumeAttachment*
>
> **Return type** *Response*

get_windows_instance_initial_credentials(*instance_id*, ***kwargs*)
> GetWindowsInstanceInitialCredentials Gets the generated credentials for the instance. Only works for Windows instances. The returned credentials are only valid for the initial login.
>
> **Parameters instance_id** (*str*) – (required) The OCID of the instance.
>
> **Returns** A *Response* object with data of type *InstanceCredentials*
>
> **Return type** *Response*

instance_action(*instance_id*, *action*, ***kwargs*)
> InstanceAction Performs one of the power actions (start, stop, softreset, or reset) on the specified instance.
>
> **start** - power on
>
> **stop** - power off
>
> **softreset** - ACPI shutdown and power on
>
> **reset** - power off and power on
>
> Note that the **stop** state has no effect on the resources you consume. Billing continues for instances that you stop, and related resources continue to apply against any relevant quotas. You must terminate an instance (`terminate_instance()`) to remove its resources from billing and quotas.
>
> **Parameters**
>
> - **instance_id** (*str*) – (required) The OCID of the instance.
> - **action** (*str*) – (required) The action to perform on the instance.
>
>   Allowed values are: "STOP", "START", "SOFTRESET", "RESET"
>
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *Instance*
>
> **Return type** *Response*

launch_instance(*launch_instance_details*, ***kwargs*)
> LaunchInstance Creates a new instance in the specified compartment and the specified Availability Domain. For general information about instances, see Overview of the Compute Service.
>
> For information about access control and compartments, see Overview of the IAM Service.
>
> For information about Availability Domains, see Regions and Availability Domains. To get a list of Availability Domains, use the *ListAvailabilityDomains* operation in the Identity and Access Management Service API.

All Oracle Cloud Infrastructure resources, including instances, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console.

To launch an instance using an image or a boot volume use the *sourceDetails* parameter in `LaunchInstanceDetails`.

When you launch an instance, it is automatically attached to a virtual network interface card (VNIC), called the *primary VNIC*. The VNIC has a private IP address from the subnet's CIDR. You can either assign a private IP address of your choice or let Oracle automatically assign one. You can choose whether the instance has a public IP address. To retrieve the addresses, use the `list_vnic_attachments()` operation to get the VNIC ID for the instance, and then call `get_vnic()` with the VNIC ID.

You can later add secondary VNICs to an instance. For more information, see Virtual Network Interface Cards (VNICs).

> **Parameters**
>
> - **launch_instance_details** (`LaunchInstanceDetails`) – (required) Instance details
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A `Response` object with data of type `Instance`
>
> **Return type** `Response`

list_boot_volume_attachments(*availability_domain*, *compartment_id*, ***kwargs*)

ListBootVolumeAttachments Lists the boot volume attachments in the specified compartment. You can filter the list by specifying an instance OCID, boot volume OCID, or both.

> **Parameters**
>
> - **availability_domain** (`str`) – (required) The name of the Availability Domain.
>
>   Example: *Uocm:PHX-AD-1*
>
> - **compartment_id** (`str`) – (required) The OCID of the compartment.
>
> - **limit** (`int`) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> - **instance_id** (`str`) – (optional) The OCID of the instance.
>
> - **boot_volume_id** (`str`) – (optional) The OCID of the boot volume.
>
> **Returns** A `Response` object with data of type list of `BootVolumeAttachment`
>
> **Return type** `Response`

list_console_histories(*compartment_id*, ***kwargs*)

ListConsoleHistories Lists the console history metadata for the specified compartment or instance.

> **Parameters**

- **compartment_id** (`str`) – (required) The OCID of the compartment.

- **availability_domain** (`str`) – (optional) The name of the Availability Domain.

  Example: *Uocm:PHX-AD-1*

- **limit** (`int`) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **instance_id** (`str`) – (optional) The OCID of the instance.

- **sort_by** (`str`) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAYNAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (`str`) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (`str`) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "REQUESTED", "GETTING-HISTORY", "SUCCEEDED", "FAILED"

Returns A *Response* object with data of type list of *ConsoleHistory*

Return type *Response*

list_images(*compartment_id*, ***kwargs*)
ListImages Lists the available images in the specified compartment. If you specify a value for the *sortBy* parameter, Oracle-provided images appear first in the list, followed by custom images. For more information about images, see Managing Custom Images.

Parameters

- **compartment_id** (`str`) – (required) The OCID of the compartment.

- **display_name** (`str`) – (optional) A filter to return only resources that match the given display name exactly.

- **operating_system** (`str`) – (optional) The image's operating system.

  Example: *Oracle Linux*

- **operating_system_version** (`str`) – (optional) The image's operating system version.

  Example: *7.2*

- **shape** (`str`) – (optional) Shape name.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "PROVISIONING", "IMPORTING", "AVAILABLE", "EXPORTING", "DISABLED", "DELETED"

Returns A *Response* object with data of type list of *Image*

Return type *Response*

list_instance_console_connections(*compartment_id*, ***kwargs*)
ListInstanceConsoleConnections Lists the console connections for the specified compartment or instance.

For more information about console access, see Accessing the Instance Console.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **instance_id** (*str*) – (optional) The OCID of the instance.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

Returns A *Response* object with data of type list of *InstanceConsoleConnection*

Return type *Response*

list_instances(*compartment_id*, ***kwargs*)
ListInstances Lists the instances in the specified compartment and the specified Availability Domain. You can filter the results by specifying an instance name (the list will include all the identically-named instances in the compartment).

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **availability_domain** (*str*) – (optional) The name of the Availability Domain.

  Example: *Uocm:PHX-AD-1*

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "PROVISIONING", "RUNNING", "STARTING", "STOPPING", "STOPPED", "CREATING_IMAGE", "TERMINATING", "TERMINATED"

Returns A *Response* object with data of type list of *Instance*

Return type *Response*

list_shapes(*compartment_id*, ***kwargs*)
ListShapes Lists the shapes that can be used to launch an instance within the specified compartment. You can filter the list by compatibility with a specific image.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **availability_domain** (*str*) – (optional) The name of the Availability Domain.

  Example: *Uocm:PHX-AD-1*

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **image_id** (*str*) – (optional) The OCID of an image.

Returns A *Response* object with data of type list of *Shape*

Return type *Response*

list_vnic_attachments(*compartment_id*, ***kwargs*)

ListVnicAttachments Lists the VNIC attachments in the specified compartment. A VNIC attachment resides in the same compartment as the attached instance. The list can be filtered by instance, VNIC, or Availability Domain.

> **Parameters**
>
> - **compartment_id** (`str`) – (required) The OCID of the compartment.
>
> - **availability_domain** (`str`) – (optional) The name of the Availability Domain.
>
>   Example: *Uocm:PHX-AD-1*
>
> - **instance_id** (`str`) – (optional) The OCID of the instance.
>
> - **limit** (`int`) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> - **vnic_id** (`str`) – (optional) The OCID of the VNIC.
>
> **Returns** A *Response* object with data of type list of *VnicAttachment*
>
> **Return type** *Response*

list_volume_attachments(*compartment_id*, ***kwargs*)

ListVolumeAttachments Lists the volume attachments in the specified compartment. You can filter the list by specifying an instance OCID, volume OCID, or both.

Currently, the only supported volume attachment type are `IScsiVolumeAttachment` and `ParavirtualizedVolumeAttachment`.

> **Parameters**
>
> - **compartment_id** (`str`) – (required) The OCID of the compartment.
>
> - **availability_domain** (`str`) – (optional) The name of the Availability Domain.
>
>   Example: *Uocm:PHX-AD-1*
>
> - **limit** (`int`) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> - **instance_id** (`str`) – (optional) The OCID of the instance.
>
> - **volume_id** (`str`) – (optional) The OCID of the volume.
>
> **Returns** A *Response* object with data of type list of *VolumeAttachment*
>
> **Return type** *Response*

terminate_instance(*instance_id*, ***kwargs*)

TerminateInstance Terminates the specified instance. Any attached VNICs and volumes are automatically detached when the instance terminates.

To preserve the boot volume associated with the instance, specify *true* for *PreserveBootVolumeQueryParam*. To delete the boot volume when the instance is deleted, specify *false* or do not specify a value for *PreserveBootVolumeQueryParam*.

This is an asynchronous operation. The instance's *lifecycleState* will change to TERMINATING temporarily until the instance is completely removed.

> **Parameters**
>
> - **instance_id** (`str`) – (required) The OCID of the instance.
>
> - **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> - **preserve_boot_volume** (`bool`) – (optional) Specifies whether to delete or preserve the boot volume when terminating an instance. The default value is false.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

update_console_history(*instance_console_history_id*, *update_console_history_details*, ***kwargs*)
UpdateConsoleHistory Updates the specified console history metadata.

> **Parameters**
>
> - **instance_console_history_id** (`str`) – (required) The OCID of the console history.
>
> - **update_console_history_details** (*UpdateConsoleHistoryDetails*) – (required) Update instance fields
>
> - **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *ConsoleHistory*
>
> **Return type** *Response*

update_image(*image_id*, *update_image_details*, ***kwargs*)
UpdateImage Updates the display name of the image. Avoid entering confidential information.

> **Parameters**
>
> - **image_id** (`str`) – (required) The OCID of the image.
>
> - **update_image_details** (*UpdateImageDetails*) – (required) Updates the image display name field. Avoid entering confidential information.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> - **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *Image*
>
> **Return type** *Response*

update_instance(*instance_id*, *update_instance_details*, ***kwargs*)

> UpdateInstance Updates the display name of the specified instance. Avoid entering confidential information. The OCID of the instance remains the same.
>
> **Parameters**
>
> - **instance_id** (*str*) – (required) The OCID of the instance.
>
> - **update_instance_details** ([UpdateInstanceDetails](#)) – (required) Update instance fields
>
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A [Response](#) object with data of type [Instance](#)
>
> **Return type** [Response](#)

Virtual Network

class oci.core.virtual_network_client.**VirtualNetworkClient**(*config*, ***kwargs*)

bulk_add_virtual_circuit_public_prefixes(*virtual_circuit_id*, *bulk_add_virtual_circuit_public_prefixes_details*, ***kwargs*)

> BulkAddVirtualCircuitPublicPrefixes Adds one or more customer public IP prefixes to the specified public virtual circuit. Use this operation (and not update_virtual_circuit()) to add prefixes to the virtual circuit. Oracle must verify the customer's ownership of each prefix before traffic for that prefix will flow across the virtual circuit.
>
> **Parameters**
>
> - **virtual_circuit_id** (*str*) – (required) The OCID of the virtual circuit.
>
> - **bulk_add_virtual_circuit_public_prefixes_details** ([BulkAddVirtualCircuitPublicPrefixesDetails](#)) – (required) Request with publix prefixes to be added to the virtual circuit
>
> **Returns** A [Response](#) object with data of type None
>
> **Return type** [Response](#)

bulk_delete_virtual_circuit_public_prefixes(*virtual_circuit_id*, *bulk_delete_virtual_circuit_public_prefixes_details*, ***kwargs*)

> BulkDeleteVirtualCircuitPublicPrefixes Removes one or more customer public IP prefixes from the specified public virtual circuit. Use this operation (and not update_virtual_circuit()) to remove prefixes from the virtual circuit. When the virtual circuit's state switches back to PROVISIONED, Oracle stops advertising the specified prefixes across the connection.
>
> **Parameters**
>
> - **virtual_circuit_id** (*str*) – (required) The OCID of the virtual circuit.

- **bulk_delete_virtual_circuit_public_prefixes_details**
  ([BulkDeleteVirtualCircuitPublicPrefixesDetails](#)) – (required)
  Request with publix prefixes to be deleted from the virtual circuit

Returns A [Response](#) object with data of type None

Return type [Response](#)

connect_local_peering_gateways(*local_peering_gateway_id,* *con-*
nect_local_peering_gateways_details, ***kwargs*)
ConnectLocalPeeringGateways Connects this local peering gateway (LPG) to another one in the same
region.

This operation must be called by the VCN administrator who is designated as the *requestor* in the peering
relationship. The *acceptor* must implement an Identity and Access Management (IAM) policy that gives
the requestor permission to connect to LPGs in the acceptor's compartment. Without that permission, this
operation will fail. For more information, see VCN Peering.

> **Parameters**
>
> - **local_peering_gateway_id** (`str`) – (required) The OCID of the local peering
>   gateway.
>
> - **connect_local_peering_gateways_details**
>   ([ConnectLocalPeeringGatewaysDetails](#)) – (required) Details regarding
>   the local peering gateway to connect.

Returns A [Response](#) object with data of type None

Return type [Response](#)

connect_remote_peering_connections(*remote_peering_connection_id,* *con-*
nect_remote_peering_connections_details,
**kwargs)
ConnectRemotePeeringConnections Connects this RPC to another one in a different region.

This operation must be called by the VCN administrator who is designated as the *requestor* in the peering
relationship. The *acceptor* must implement an Identity and Access Management (IAM) policy that gives
the requestor permission to connect to RPCs in the acceptor's compartment. Without that permission, this
operation will fail. For more information, see VCN Peering.

> **Parameters**
>
> - **remote_peering_connection_id** (`str`) – (required) The OCID of the remote
>   peering connection (RPC).
>
> - **connect_remote_peering_connections_details**
>   ([ConnectRemotePeeringConnectionsDetails](#)) – (required) Details to
>   connect peering connection with peering connection from remote region

Returns A [Response](#) object with data of type None

Return type [Response](#)

create_cpe(*create_cpe_details*, ***kwargs*)
CreateCpe Creates a new virtual Customer-Premises Equipment (CPE) object in the specified compart-
ment. For more information, see IPSec VPNs.

For the purposes of access control, you must provide the OCID of the compartment where you want the
CPE to reside. Notice that the CPE doesn't have to be in the same compartment as the IPSec connection
or other Networking Service components. If you're not sure which compartment to use, put the CPE in
the same compartment as the DRG. For more information about compartments and access control, see
Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

You must provide the public IP address of your on-premises router. See Configuring Your On-Premises Router for an IPSec VPN.

You may optionally specify a *display name* for the CPE, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

> **Parameters**
>
> - **create_cpe_details** (`CreateCpeDetails`) – (required) Details for creating a CPE.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A `Response` object with data of type `Cpe`
>
> **Return type** `Response`

create_cross_connect(*create_cross_connect_details*, ***kwargs*)

> CreateCrossConnect Creates a new cross-connect. Oracle recommends you create each cross-connect in a `CrossConnectGroup` so you can use link aggregation with the connection.
>
> After creating the *CrossConnect* object, you need to go the FastConnect location and request to have the physical cable installed. For more information, see FastConnect Overview.
>
> For the purposes of access control, you must provide the OCID of the compartment where you want the cross-connect to reside. If you're not sure which compartment to use, put the cross-connect in the same compartment with your VCN. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.
>
> You may optionally specify a *display name* for the cross-connect. It does not have to be unique, and you can change it. Avoid entering confidential information.
>
> > **Parameters**
> >
> > - **create_cross_connect_details** (`CreateCrossConnectDetails`) – (required) Details to create a CrossConnect
> >
> > - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
> >
> > **Returns** A `Response` object with data of type `CrossConnect`
> >
> > **Return type** `Response`

create_cross_connect_group(*create_cross_connect_group_details*, ***kwargs*)

> CreateCrossConnectGroup Creates a new cross-connect group to use with Oracle Cloud Infrastructure FastConnect. For more information, see FastConnect Overview.
>
> For the purposes of access control, you must provide the OCID of the compartment where you want the cross-connect group to reside. If you're not sure which compartment to use, put the cross-connect group in the same compartment with your VCN. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.
>
> You may optionally specify a *display name* for the cross-connect group. It does not have to be unique, and you can change it. Avoid entering confidential information.

Parameters

- **create_cross_connect_group_details** (`CreateCrossConnectGroupDetails`) – (required) Details to create a CrossConnectGroup

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns   A `Response` object with data of type `CrossConnectGroup`

Return type `Response`

create_dhcp_options (*create_dhcp_details*, ***kwargs*)

CreateDhcpOptions Creates a new set of DHCP options for the specified VCN. For more information, see `DhcpOptions`.

For the purposes of access control, you must provide the OCID of the compartment where you want the set of DHCP options to reside. Notice that the set of options doesn't have to be in the same compartment as the VCN, subnets, or other Networking Service components. If you're not sure which compartment to use, put the set of DHCP options in the same compartment as the VCN. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

You may optionally specify a *display name* for the set of DHCP options, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Parameters

- **create_dhcp_details** (`CreateDhcpDetails`) – (required) Request object for creating a new set of DHCP options.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns   A `Response` object with data of type `DhcpOptions`

Return type `Response`

create_drg (*create_drg_details*, ***kwargs*)

CreateDrg Creates a new Dynamic Routing Gateway (DRG) in the specified compartment. For more information, see Dynamic Routing Gateways (DRGs).

For the purposes of access control, you must provide the OCID of the compartment where you want the DRG to reside. Notice that the DRG doesn't have to be in the same compartment as the VCN, the DRG attachment, or other Networking Service components. If you're not sure which compartment to use, put the DRG in the same compartment as the VCN. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

You may optionally specify a *display name* for the DRG, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Parameters

- **create_drg_details** (`CreateDrgDetails`) – (required) Details for creating a DRG.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *Drg*

> **Return type** *Response*

create_drg_attachment(*create_drg_attachment_details*, ***kwargs*)
> CreateDrgAttachment Attaches the specified DRG to the specified VCN. A VCN can be attached to only one DRG at a time, and vice versa. The response includes a *DrgAttachment* object with its own OCID. For more information about DRGs, see Dynamic Routing Gateways (DRGs).

> You may optionally specify a *display name* for the attachment, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

> For the purposes of access control, the DRG attachment is automatically placed into the same compartment as the VCN. For more information about compartments and access control, see Overview of the IAM Service.

> **Parameters**

> - **create_drg_attachment_details** (*CreateDrgAttachmentDetails*) – (required) Details for creating a *DrgAttachment*.

> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *DrgAttachment*

> **Return type** *Response*

create_internet_gateway(*create_internet_gateway_details*, ***kwargs*)
> CreateInternetGateway Creates a new Internet Gateway for the specified VCN. For more information, see Connectivity to the Internet.

> For the purposes of access control, you must provide the OCID of the compartment where you want the Internet Gateway to reside. Notice that the Internet Gateway doesn't have to be in the same compartment as the VCN or other Networking Service components. If you're not sure which compartment to use, put the Internet Gateway in the same compartment with the VCN. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

> You may optionally specify a *display name* for the Internet Gateway, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

> For traffic to flow between a subnet and an Internet Gateway, you must create a route rule accordingly in the subnet's route table (for example, 0.0.0.0/0 > Internet Gateway). See update_route_table().

> You must specify whether the Internet Gateway is enabled when you create it. If it's disabled, that means no traffic will flow to/from the internet even if there's a route rule that enables that traffic. You can later use update_internet_gateway() to easily disable/enable the gateway without changing the route rule.

> **Parameters**

> - **create_internet_gateway_details**(*CreateInternetGatewayDetails*) – (required) Details for creating a new Internet Gateway.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A `Response` object with data of type `InternetGateway`

> **Return type** `Response`

create_ip_sec_connection(*create_ip_sec_connection_details*, ***kwargs*)

> CreateIPSecConnection Creates a new IPSec connection between the specified DRG and CPE. For more information, see IPSec VPNs.

> In the request, you must include at least one static route to the CPE object (you're allowed a maximum of 10). For example: 10.0.8.0/16.

> For the purposes of access control, you must provide the OCID of the compartment where you want the IPSec connection to reside. Notice that the IPSec connection doesn't have to be in the same compartment as the DRG, CPE, or other Networking Service components. If you're not sure which compartment to use, put the IPSec connection in the same compartment as the DRG. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

> You may optionally specify a *display name* for the IPSec connection, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

> After creating the IPSec connection, you need to configure your on-premises router with tunnel-specific information returned by `get_ip_sec_connection_device_config()`. For each tunnel, that operation gives you the IP address of Oracle's VPN headend and the shared secret (that is, the pre-shared key). For more information, see Configuring Your On-Premises Router for an IPSec VPN.

> To get the status of the tunnels (whether they're up or down), use `get_ip_sec_connection_device_status()`.

> **Parameters**

> - **create_ip_sec_connection_details** (`CreateIPSecConnectionDetails`) – (required) Details for creating an *IPSecConnection*.

> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A `Response` object with data of type `IPSecConnection`

> **Return type** `Response`

create_local_peering_gateway(*create_local_peering_gateway_details*, ***kwargs*)

> CreateLocalPeeringGateway Creates a new local peering gateway (LPG) for the specified VCN.

> **Parameters**

> - **create_local_peering_gateway_details** (`CreateLocalPeeringGatewayDetails`) – (required) Details for creating a new local peering gateway.

> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A *Response* object with data of type *LocalPeeringGateway*

Return type *Response*

create_private_ip (*create_private_ip_details*, ***kwargs*)

CreatePrivateIp Creates a secondary private IP for the specified VNIC. For more information about secondary private IPs, see IP Addresses.

Parameters

- **create_private_ip_details** (CreatePrivateIpDetails) – (required) Create private IP details.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A *Response* object with data of type *PrivateIp*

Return type *Response*

create_public_ip (*create_public_ip_details*, ***kwargs*)

CreatePublicIp Creates a public IP. Use the *lifetime* property to specify whether it's an ephemeral or reserved public IP. For information about limits on how many you can create, see Public IP Addresses.

- **For an ephemeral public IP:** You must also specify a *privateIpId* with the OCID of

the primary private IP you want to assign the public IP to. The public IP is created in the same Availability Domain as the private IP. An ephemeral public IP must always be assigned to a private IP, and only to the *primary* private IP on a VNIC, not a secondary private IP.

- **For a reserved public IP:** You may also optionally assign the public IP to a private

IP by specifying *privateIpId*. Or you can later assign the public IP with update_public_ip().

Note: When assigning a public IP to a private IP, the private IP must not already have a public IP with *lifecycleState* = ASSIGNING or ASSIGNED. If it does, an error is returned.

Also, for reserved public IPs, the optional assignment part of this operation is asynchronous. Poll the public IP's *lifecycleState* to determine if the assignment succeeded.

Parameters

- **create_public_ip_details** (CreatePublicIpDetails) – (required) Create public IP details.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A *Response* object with data of type *PublicIp*

Return type *Response*

create_remote_peering_connection (*create_remote_peering_connection_details*, ***kwargs*)

CreateRemotePeeringConnection Creates a new remote peering connection (RPC) for the specified DRG.

Parameters

- **create_remote_peering_connection_details**
  (`CreateRemotePeeringConnectionDetails`) – (required) Request to create peering connection to remote region

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A `Response` object with data of type `RemotePeeringConnection`

Return type `Response`

create_route_table(*create_route_table_details*, ***kwargs*)

CreateRouteTable Creates a new route table for the specified VCN. In the request you must also include at least one route rule for the new route table. For information on the number of rules you can have in a route table, see Service Limits. For general information about route tables in your VCN and the types of targets you can use in route rules, see Route Tables.

For the purposes of access control, you must provide the OCID of the compartment where you want the route table to reside. Notice that the route table doesn't have to be in the same compartment as the VCN, subnets, or other Networking Service components. If you're not sure which compartment to use, put the route table in the same compartment as the VCN. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

You may optionally specify a *display name* for the route table, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Parameters

- **create_route_table_details** (`CreateRouteTableDetails`) – (required) Details for creating a new route table.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A `Response` object with data of type `RouteTable`

Return type `Response`

create_security_list(*create_security_list_details*, ***kwargs*)

CreateSecurityList Creates a new security list for the specified VCN. For more information about security lists, see Security Lists. For information on the number of rules you can have in a security list, see Service Limits.

For the purposes of access control, you must provide the OCID of the compartment where you want the security list to reside. Notice that the security list doesn't have to be in the same compartment as the VCN, subnets, or other Networking Service components. If you're not sure which compartment to use, put the security list in the same compartment as the VCN. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

You may optionally specify a *display name* for the security list, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Parameters

- **create_security_list_details** (`CreateSecurityListDetails`) – (required) Details regarding the security list to create.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so
  it can be retried in case of a timeout or server error without risk of executing that same
  action again. Retry tokens expire after 24 hours, but can be invalidated before then due
  to conflicting operations (for example, if a resource has been deleted and purged from the
  system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *SecurityList*

> **Return type** *Response*

create_subnet (*create_subnet_details*, ***kwargs*)

> CreateSubnet Creates a new subnet in the specified VCN. You can't change the size of the subnet after
> creation, so it's important to think about the size of subnets you need before creating them. For more
> information, see VCNs and Subnets. For information on the number of subnets you can have in a VCN,
> see Service Limits.
>
> For the purposes of access control, you must provide the OCID of the compartment where you want
> the subnet to reside. Notice that the subnet doesn't have to be in the same compartment as the VCN,
> route tables, or other Networking Service components. If you're not sure which compartment to use, put
> the subnet in the same compartment as the VCN. For more information about compartments and access
> control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.
>
> You may optionally associate a route table with the subnet. If you don't, the subnet will use the VCN's
> default route table. For more information about route tables, see Route Tables.
>
> You may optionally associate a security list with the subnet. If you don't, the subnet will use the VCN's
> default security list. For more information about security lists, see Security Lists.
>
> You may optionally associate a set of DHCP options with the subnet. If you don't, the subnet will use the
> VCN's default set. For more information about DHCP options, see DHCP Options.
>
> You may optionally specify a *display name* for the subnet, otherwise a default is provided. It does not have
> to be unique, and you can change it. Avoid entering confidential information.
>
> You can also add a DNS label for the subnet, which is required if you want the Internet and VCN Resolver
> to resolve hostnames for instances in the subnet. For more information, see DNS in Your Virtual Cloud
> Network.

> > **Parameters**
> >
> > - **create_subnet_details** (*CreateSubnetDetails*) – (required) Details for
> >   creating a subnet.
> > - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so
> >   it can be retried in case of a timeout or server error without risk of executing that same
> >   action again. Retry tokens expire after 24 hours, but can be invalidated before then due
> >   to conflicting operations (for example, if a resource has been deleted and purged from the
> >   system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *Subnet*

> **Return type** *Response*

create_vcn (*create_vcn_details*, ***kwargs*)

> CreateVcn Creates a new Virtual Cloud Network (VCN). For more information, see VCNs and Subnets.
>
> For the VCN you must specify a single, contiguous IPv4 CIDR block. Oracle recommends using one of
> the private IP address ranges specified in RFC 1918 (10.0.0.0/8, 172.16/12, and 192.168/16). Example:
> 172.16.0.0/16. The CIDR block can range from /16 to /30, and it must not overlap with your on-premises
> network. You can't change the size of the VCN after creation.

For the purposes of access control, you must provide the OCID of the compartment where you want the VCN to reside. Consult an Oracle Cloud Infrastructure administrator in your organization if you're not sure which compartment to use. Notice that the VCN doesn't have to be in the same compartment as the subnets or other Networking Service components. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

You may optionally specify a *display name* for the VCN, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

You can also add a DNS label for the VCN, which is required if you want the instances to use the Interent and VCN Resolver option for DNS in the VCN. For more information, see DNS in Your Virtual Cloud Network.

The VCN automatically comes with a default route table, default security list, and default set of DHCP options. The OCID for each is returned in the response. You can't delete these default objects, but you can change their contents (that is, change the route rules, security list rules, and so on).

The VCN and subnets you create are not accessible until you attach an Internet Gateway or set up an IPSec VPN or FastConnect. For more information, see Overview of the Networking Service.

> **Parameters**
>
> - **create_vcn_details** (`CreateVcnDetails`) – (required) Details for creating a new VCN.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A `Response` object with data of type `Vcn`
>
> **Return type** `Response`

create_virtual_circuit(*create_virtual_circuit_details*, ***kwargs*)

CreateVirtualCircuit Creates a new virtual circuit to use with Oracle Cloud Infrastructure FastConnect. For more information, see FastConnect Overview.

For the purposes of access control, you must provide the OCID of the compartment where you want the virtual circuit to reside. If you're not sure which compartment to use, put the virtual circuit in the same compartment with the DRG it's using. For more information about compartments and access control, see Overview of the IAM Service. For information about OCIDs, see Resource Identifiers.

You may optionally specify a *display name* for the virtual circuit. It does not have to be unique, and you can change it. Avoid entering confidential information.

Important: When creating a virtual circuit, you specify a DRG for the traffic to flow through. Make sure you attach the DRG to your VCN and confirm the VCN's routing sends traffic to the DRG. Otherwise traffic will not flow. For more information, see Route Tables.

> **Parameters**
>
> - **create_virtual_circuit_details**(`CreateVirtualCircuitDetails`) – (required) Details to create a VirtualCircuit.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A [*Response*](#) object with data of type [*VirtualCircuit*](#)
>
> **Return type** [*Response*](#)

delete_cpe(*cpe_id*, ***kwargs*)

> DeleteCpe Deletes the specified CPE object. The CPE must not be connected to a DRG. This is an asynchronous operation. The CPE's *lifecycleState* will change to TERMINATING temporarily until the CPE is completely removed.
>
> > **Parameters**
> >
> > - **cpe_id** (*str*) – (required) The OCID of the CPE.
> >
> > - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
> >
> > **Returns** A [*Response*](#) object with data of type None
> >
> > **Return type** [*Response*](#)

delete_cross_connect(*cross_connect_id*, ***kwargs*)

> DeleteCrossConnect Deletes the specified cross-connect. It must not be mapped to a `VirtualCircuit`.
>
> > **Parameters**
> >
> > - **cross_connect_id** (*str*) – (required) The OCID of the cross-connect.
> >
> > - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
> >
> > **Returns** A [*Response*](#) object with data of type None
> >
> > **Return type** [*Response*](#)

delete_cross_connect_group(*cross_connect_group_id*, ***kwargs*)

> DeleteCrossConnectGroup Deletes the specified cross-connect group. It must not contain any cross-connects, and it cannot be mapped to a `VirtualCircuit`.
>
> > **Parameters**
> >
> > - **cross_connect_group_id** (*str*) – (required) The OCID of the cross-connect group.
> >
> > - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
> >
> > **Returns** A [*Response*](#) object with data of type None
> >
> > **Return type** [*Response*](#)

delete_dhcp_options(*dhcp_id*, ***kwargs*)

> DeleteDhcpOptions Deletes the specified set of DHCP options, but only if it's not associated with a subnet. You can't delete a VCN's default set of DHCP options.
>
> This is an asynchronous operation. The state of the set of options will switch to TERMINATING temporarily until the set is completely removed.
>
> > **Parameters**

- **dhcp_id** (*str*) – (required) The OCID for the set of DHCP options.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_drg(*drg_id*, ***kwargs*)

DeleteDrg Deletes the specified DRG. The DRG must not be attached to a VCN or be connected to your on-premise network. Also, there must not be a route table that lists the DRG as a target. This is an asynchronous operation. The DRG's *lifecycleState* will change to TERMINATING temporarily until the DRG is completely removed.

> **Parameters**
>
> - **drg_id** (*str*) – (required) The OCID of the DRG.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_drg_attachment(*drg_attachment_id*, ***kwargs*)

DeleteDrgAttachment Detaches a DRG from a VCN by deleting the corresponding *DrgAttachment*. This is an asynchronous operation. The attachment's *lifecycleState* will change to DETACHING temporarily until the attachment is completely removed.

> **Parameters**
>
> - **drg_attachment_id** (*str*) – (required) The OCID of the DRG attachment.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_internet_gateway(*ig_id*, ***kwargs*)

DeleteInternetGateway Deletes the specified Internet Gateway. The Internet Gateway does not have to be disabled, but there must not be a route table that lists it as a target.

This is an asynchronous operation. The gateway's *lifecycleState* will change to TERMINATING temporarily until the gateway is completely removed.

> **Parameters**
>
> - **ig_id** (*str*) – (required) The OCID of the Internet Gateway.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_ip_sec_connection(*ipsc_id*, ***kwargs*)

DeleteIPSecConnection Deletes the specified IPSec connection. If your goal is to disable the IPSec VPN between your VCN and on-premises network, it's easiest to simply detach the DRG but keep all the IPSec VPN components intact. If you were to delete all the components and then later need to create an IPSec VPN again, you would need to configure your on-premises router again with the new information returned from create_ip_sec_connection().

This is an asynchronous operation. The connection's *lifecycleState* will change to TERMINATING temporarily until the connection is completely removed.

> **Parameters**
>
> - **ipsc_id** (*str*) – (required) The OCID of the IPSec connection.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_local_peering_gateway(*local_peering_gateway_id*, ***kwargs*)

DeleteLocalPeeringGateway Deletes the specified local peering gateway (LPG).

This is an asynchronous operation; the local peering gateway's *lifecycleState* changes to TERMINATING temporarily until the local peering gateway is completely removed.

> **Parameters**
>
> - **local_peering_gateway_id** (*str*) – (required) The OCID of the local peering gateway.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_private_ip(*private_ip_id*, ***kwargs*)

DeletePrivateIp Unassigns and deletes the specified private IP. You must specify the object's OCID. The private IP address is returned to the subnet's pool of available addresses.

This operation cannot be used with primary private IPs, which are automatically unassigned and deleted when the VNIC is terminated.

Important: If a secondary private IP is the target of a route rule, unassigning it from the VNIC causes that route rule to blackhole and the traffic will be dropped.

> **Parameters**
>
> - **private_ip_id** (*str*) – (required) The OCID of the private IP.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a

previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_public_ip(*public_ip_id*, ***kwargs*)

DeletePublicIp Unassigns and deletes the specified public IP (either ephemeral or reserved). You must specify the object's OCID. The public IP address is returned to the Oracle Cloud Infrastructure public IP pool.

For an assigned reserved public IP, the initial unassignment portion of this operation is asynchronous. Poll the public IP's *lifecycleState* to determine if the operation succeeded.

If you want to simply unassign a reserved public IP and return it to your pool of reserved public IPs, instead use update_public_ip().

> **Parameters**
>
> - **public_ip_id** (*str*) – (required) The OCID of the public IP.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_remote_peering_connection(*remote_peering_connection_id*, ***kwargs*)

DeleteRemotePeeringConnection Deletes the remote peering connection (RPC).

This is an asynchronous operation; the RPC's *lifecycleState* changes to TERMINATING temporarily until the RPC is completely removed.

> **Parameters**
>
> - **remote_peering_connection_id** (*str*) – (required) The OCID of the remote peering connection (RPC).
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_route_table(*rt_id*, ***kwargs*)

DeleteRouteTable Deletes the specified route table, but only if it's not associated with a subnet. You can't delete a VCN's default route table.

This is an asynchronous operation. The route table's *lifecycleState* will change to TERMINATING temporarily until the route table is completely removed.

> **Parameters**
>
> - **rt_id** (*str*) – (required) The OCID of the route table.
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a

previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_security_list(*security_list_id*, ***kwargs*)

DeleteSecurityList Deletes the specified security list, but only if it's not associated with a subnet. You can't delete a VCN's default security list.

This is an asynchronous operation. The security list's *lifecycleState* will change to TERMINATING temporarily until the security list is completely removed.

Parameters

- **security_list_id** (*str*) – (required) The OCID of the security list.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_subnet(*subnet_id*, ***kwargs*)

DeleteSubnet Deletes the specified subnet, but only if there are no instances in the subnet. This is an asynchronous operation. The subnet's *lifecycleState* will change to TERMINATING temporarily. If there are any instances in the subnet, the state will instead change back to AVAILABLE.

Parameters

- **subnet_id** (*str*) – (required) The OCID of the subnet.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_vcn(*vcn_id*, ***kwargs*)

DeleteVcn Deletes the specified VCN. The VCN must be empty and have no attached gateways. This is an asynchronous operation. The VCN's *lifecycleState* will change to TERMINATING temporarily until the VCN is completely removed.

Parameters

- **vcn_id** (*str*) – (required) The OCID of the VCN.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_virtual_circuit(*virtual_circuit_id*, ***kwargs*)
   DeleteVirtualCircuit Deletes the specified virtual circuit.

   Important: If you're using FastConnect via a provider, make sure to also terminate the connection with the provider, or else the provider may continue to bill you.

   Parameters

   - **virtual_circuit_id** (*str*) – (required) The OCID of the virtual circuit.

   - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

   Returns A *Response* object with data of type None

   Return type *Response*

get_cpe(*cpe_id*, ***kwargs*)
   GetCpe Gets the specified CPE's information.

   Parameters cpe_id(*str*) – (required) The OCID of the CPE.

   Returns A *Response* object with data of type *Cpe*

   Return type *Response*

get_cross_connect(*cross_connect_id*, ***kwargs*)
   GetCrossConnect Gets the specified cross-connect's information.

   Parameters cross_connect_id(*str*) – (required) The OCID of the cross-connect.

   Returns A *Response* object with data of type *CrossConnect*

   Return type *Response*

get_cross_connect_group(*cross_connect_group_id*, ***kwargs*)
   GetCrossConnectGroups Gets the specified cross-connect group's information.

   Parameters cross_connect_group_id (*str*) – (required) The OCID of the cross-connect group.

   Returns A *Response* object with data of type *CrossConnectGroup*

   Return type *Response*

get_cross_connect_letter_of_authority(*cross_connect_id*, ***kwargs*)
   GetCrossConnectLetterOfAuthority Gets the Letter of Authority for the specified cross-connect.

   Parameters cross_connect_id (*str*) – (required) The OCID of the cross-connect.

   Returns A *Response* object with data of type *LetterOfAuthority*

   Return type *Response*

get_cross_connect_status(*cross_connect_id*, ***kwargs*)
   GetCrossConnectStatus Gets the status of the specified cross-connect.

   Parameters cross_connect_id (*str*) – (required) The OCID of the cross-connect.

   Returns A *Response* object with data of type *CrossConnectStatus*

   Return type *Response*

get_dhcp_options(*dhcp_id*, ***kwargs*)
   GetDhcpOptions Gets the specified set of DHCP options.

> **Parameters dhcp_id** (*str*) – (required) The OCID for the set of DHCP options.
>
> **Returns** A *Response* object with data of type *DhcpOptions*
>
> **Return type** *Response*

get_drg(*drg_id*, ***kwargs*)

GetDrg Gets the specified DRG's information.

> **Parameters drg_id** (*str*) – (required) The OCID of the DRG.
>
> **Returns** A *Response* object with data of type *Drg*
>
> **Return type** *Response*

get_drg_attachment(*drg_attachment_id*, ***kwargs*)

GetDrgAttachment Gets the information for the specified *DrgAttachment*.

> **Parameters drg_attachment_id** (*str*) – (required) The OCID of the DRG attachment.
>
> **Returns** A *Response* object with data of type *DrgAttachment*
>
> **Return type** *Response*

get_fast_connect_provider_service(*provider_service_id*, ***kwargs*)

GetFastConnectProviderService Gets the specified provider service. For more information, see FastConnect Overview.

> **Parameters provider_service_id** (*str*) – (required) The OCID of the provider service.
>
> **Returns** A *Response* object with data of type *FastConnectProviderService*
>
> **Return type** *Response*

get_internet_gateway(*ig_id*, ***kwargs*)

GetInternetGateway Gets the specified Internet Gateway's information.

> **Parameters ig_id** (*str*) – (required) The OCID of the Internet Gateway.
>
> **Returns** A *Response* object with data of type *InternetGateway*
>
> **Return type** *Response*

get_ip_sec_connection(*ipsc_id*, ***kwargs*)

GetIPSecConnection Gets the specified IPSec connection's basic information, including the static routes for the on-premises router. If you want the status of the connection (whether it's up or down), use `get_ip_sec_connection_device_status()`.

> **Parameters ipsc_id** (*str*) – (required) The OCID of the IPSec connection.
>
> **Returns** A *Response* object with data of type *IPSecConnection*
>
> **Return type** *Response*

get_ip_sec_connection_device_config(*ipsc_id*, ***kwargs*)

GetIPSecConnectionDeviceConfig Gets the configuration information for the specified IPSec connection. For each tunnel, the response includes the IP address of Oracle's VPN headend and the shared secret.

> **Parameters ipsc_id** (*str*) – (required) The OCID of the IPSec connection.
>
> **Returns** A *Response* object with data of type *IPSecConnectionDeviceConfig*
>
> **Return type** *Response*

get_ip_sec_connection_device_status(*ipsc_id*, ***kwargs*)

GetIPSecConnectionDeviceStatus Gets the status of the specified IPSec connection (whether it's up or down).

> **Parameters ipsc_id** (*str*) – (required) The OCID of the IPSec connection.
>
> **Returns** A *Response* object with data of type *IPSecConnectionDeviceStatus*
>
> **Return type** *Response*

get_local_peering_gateway (*local_peering_gateway_id*, ***kwargs*)
    GetLocalPeeringGateway Gets the specified local peering gateway's information.

> **Parameters local_peering_gateway_id** (*str*) – (required) The OCID of the local peering gateway.
>
> **Returns** A *Response* object with data of type *LocalPeeringGateway*
>
> **Return type** *Response*

get_private_ip (*private_ip_id*, ***kwargs*)
    GetPrivateIp Gets the specified private IP. You must specify the object's OCID. Alternatively, you can get the object by using `list_private_ips()` with the private IP address (for example, 10.0.3.3) and subnet OCID.

> **Parameters private_ip_id** (*str*) – (required) The OCID of the private IP.
>
> **Returns** A *Response* object with data of type *PrivateIp*
>
> **Return type** *Response*

get_public_ip (*public_ip_id*, ***kwargs*)
    GetPublicIp Gets the specified public IP. You must specify the object's OCID.

    Alternatively, you can get the object by using `get_public_ip_by_ip_address()` with the public IP address (for example, 129.146.2.1).

    Or you can use `get_public_ip_by_private_ip_id()` with the OCID of the private IP that the public IP is assigned to.

    Note: If you're fetching a reserved public IP that is in the process of being moved to a different private IP, the service returns the public IP object with *lifecycleState* = ASSIGNING and *privateIpId* = OCID of the target private IP.

> **Parameters public_ip_id** (*str*) – (required) The OCID of the public IP.
>
> **Returns** A *Response* object with data of type *PublicIp*
>
> **Return type** *Response*

get_public_ip_by_ip_address (*get_public_ip_by_ip_address_details*, ***kwargs*)
    GetPublicIpByIpAddress Gets the public IP based on the public IP address (for example, 129.146.2.1).

    Note: If you're fetching a reserved public IP that is in the process of being moved to a different private IP, the service returns the public IP object with *lifecycleState* = ASSIGNING and *privateIpId* = OCID of the target private IP.

> **Parameters get_public_ip_by_ip_address_details**
>   (*GetPublicIpByIpAddressDetails*) – (required) IP address details for fetching the public IP.
>
> **Returns** A *Response* object with data of type *PublicIp*
>
> **Return type** *Response*

get_public_ip_by_private_ip_id (*get_public_ip_by_private_ip_id_details*, ***kwargs*)
    GetPublicIpByPrivateIpId Gets the public IP assigned to the specified private IP. You must specify the OCID of the private IP. If no public IP is assigned, a 404 is returned.

Note: If you're fetching a reserved public IP that is in the process of being moved to a different private IP, and you provide the OCID of the original private IP, this operation returns a 404. If you instead provide the OCID of the target private IP, or if you instead call get_public_ip() or get_public_ip_by_ip_address(), the service returns the public IP object with *lifecycleState* = ASSIGNING and *privateIpId* = OCID of the target private IP.

> **Parameters get_public_ip_by_private_ip_id_details**
> > (GetPublicIpByPrivateIpIdDetails) – (required) Private IP details for fetching the public IP.
>
> **Returns** A *Response* object with data of type *PublicIp*
>
> **Return type** *Response*

get_remote_peering_connection(*remote_peering_connection_id*, ***kwargs*)
> GetRemotePeeringConnection Get the specified remote peering connection's information.
>
> > **Parameters remote_peering_connection_id** (*str*) – (required) The OCID of the remote peering connection (RPC).
> >
> > **Returns** A *Response* object with data of type *RemotePeeringConnection*
> >
> > **Return type** *Response*

get_route_table(*rt_id*, ***kwargs*)
> GetRouteTable Gets the specified route table's information.
>
> > **Parameters rt_id** (*str*) – (required) The OCID of the route table.
> >
> > **Returns** A *Response* object with data of type *RouteTable*
> >
> > **Return type** *Response*

get_security_list(*security_list_id*, ***kwargs*)
> GetSecurityList Gets the specified security list's information.
>
> > **Parameters security_list_id** (*str*) – (required) The OCID of the security list.
> >
> > **Returns** A *Response* object with data of type *SecurityList*
> >
> > **Return type** *Response*

get_subnet(*subnet_id*, ***kwargs*)
> GetSubnet Gets the specified subnet's information.
>
> > **Parameters subnet_id** (*str*) – (required) The OCID of the subnet.
> >
> > **Returns** A *Response* object with data of type *Subnet*
> >
> > **Return type** *Response*

get_vcn(*vcn_id*, ***kwargs*)
> GetVcn Gets the specified VCN's information.
>
> > **Parameters vcn_id** (*str*) – (required) The OCID of the VCN.
> >
> > **Returns** A *Response* object with data of type *Vcn*
> >
> > **Return type** *Response*

get_virtual_circuit(*virtual_circuit_id*, ***kwargs*)
> GetVirtualCircuit Gets the specified virtual circuit's information.
>
> > **Parameters virtual_circuit_id** (*str*) – (required) The OCID of the virtual circuit.
> >
> > **Returns** A *Response* object with data of type *VirtualCircuit*

> **Return type** *Response*

get_vnic(*vnic_id*, ***kwargs*)

> GetVnic Gets the information for the specified virtual network interface card (VNIC). You can get the VNIC OCID from the `list_vnic_attachments()` operation.
>
> > **Parameters vnic_id** (*str*) – (required) The OCID of the VNIC.
> >
> > **Returns** A *Response* object with data of type *Vnic*
> >
> > **Return type** *Response*

list_allowed_peer_regions_for_remote_peering(***kwargs*)

> ListAllowedPeerRegionsForRemotePeering Lists the regions that support remote VCN peering (which is peering across regions). For more information, see VCN Peering.
>
> > **Returns** A *Response* object with data of type list of *PeerRegionForRemotePeering*
> >
> > **Return type** *Response*

list_cpes(*compartment_id*, ***kwargs*)

> ListCpes Lists the Customer-Premises Equipment objects (CPEs) in the specified compartment.
>
> > **Parameters**
> >
> > - **compartment_id** (*str*) – (required) The OCID of the compartment.
> > - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
> >
> >   Example: *500*
> > - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
> >
> > **Returns** A *Response* object with data of type list of *Cpe*
> >
> > **Return type** *Response*

list_cross_connect_groups(*compartment_id*, ***kwargs*)

> ListCrossConnectGroups Lists the cross-connect groups in the specified compartment.
>
> > **Parameters**
> >
> > - **compartment_id** (*str*) – (required) The OCID of the compartment.
> > - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
> >
> >   Example: *500*
> > - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
> > - **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.
> > - **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAYNAME is ascending. The DISPLAYNAME sort order is case sensitive.
> >
> >   **Note:** In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

> Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.

  Allowed values are: "PROVISIONING", "PROVISIONED", "INACTIVE", "TERMINATING", "TERMINATED"

> **Returns** A *Response* object with data of type list of *CrossConnectGroup*

> **Return type** *Response*

list_cross_connect_locations(*compartment_id*, ***kwargs*)

> ListCrossConnectLocations Lists the available FastConnect locations for cross-connect installation. You need this information so you can specify your desired location when you create a cross-connect.

> **Parameters**

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

> **Returns** A *Response* object with data of type list of *CrossConnectLocation*

> **Return type** *Response*

list_cross_connects(*compartment_id*, ***kwargs*)

> ListCrossConnects Lists the cross-connects in the specified compartment. You can filter the list by specifying the OCID of a cross-connect group.

> **Parameters**

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **cross_connect_group_id** (*str*) – (optional) The OCID of the cross-connect group.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAYNAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability

Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

    Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.

    Allowed values are: "PENDING_CUSTOMER", "PROVISIONING", "PROVISIONED", "INACTIVE", "TERMINATING", "TERMINATED"

    Returns A *Response* object with data of type list of *CrossConnect*

    Return type *Response*

list_crossconnect_port_speed_shapes(*compartment_id*, ***kwargs*)

ListCrossConnectPortSpeedShapes Lists the available port speeds for cross-connects. You need this information so you can specify your desired port speed (that is, shape) when you create a cross-connect.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

    Returns A *Response* object with data of type list of *CrossConnectPortSpeedShape*

    Return type *Response*

list_dhcp_options(*compartment_id*, *vcn_id*, ***kwargs*)

ListDhcpOptions Lists the sets of DHCP options in the specified VCN and specified compartment. The response includes the default set of options that automatically comes with each VCN, plus any other sets you've created.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **vcn_id** (*str*) – (required) The OCID of the VCN.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAYNAME is ascending. The DISPLAYNAME sort order is case sensitive.

> **Note:** In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.
>
> Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED"

Returns A *Response* object with data of type list of *DhcpOptions*

Return type *Response*

list_drg_attachments(*compartment_id*, ***kwargs*)

ListDrgAttachments Lists the *DrgAttachment* objects for the specified compartment. You can filter the results by VCN or DRG.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **vcn_id** (*str*) – (optional) The OCID of the VCN.

- **drg_id** (*str*) – (optional) The OCID of the DRG.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

Returns A *Response* object with data of type list of *DrgAttachment*

Return type *Response*

list_drgs(*compartment_id*, ***kwargs*)

ListDrgs Lists the DRGs in the specified compartment.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

Returns A *Response* object with data of type list of *Drg*

Return type *Response*

list_fast_connect_provider_services(*compartment_id*, ***kwargs*)
    ListFastConnectProviderServices Lists the service offerings from supported providers. You need this information so you can specify your desired provider and service offering when you create a virtual circuit.

    For the compartment ID, provide the OCID of your tenancy (the root compartment).

    For more information, see FastConnect Overview.

    Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.
- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*
- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

    Returns A *Response* object with data of type list of *FastConnectProviderService*

    Return type *Response*

list_fast_connect_provider_virtual_circuit_bandwidth_shapes(*provider_service_id*, ***kwargs*)
    ListFastConnectProviderVirtualCircuitBandwidthShapes Gets the list of available virtual circuit bandwidth levels for a provider. You need this information so you can specify your desired bandwidth level (shape) when you create a virtual circuit.

    For more information about virtual circuits, see FastConnect Overview.

    Parameters

- **provider_service_id** (*str*) – (required) The OCID of the provider service.
- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*
- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

    Returns A *Response* object with data of type list of *VirtualCircuitBandwidthShape*

    Return type *Response*

list_internet_gateways(*compartment_id*, *vcn_id*, ***kwargs*)
    ListInternetGateways Lists the Internet Gateways in the specified VCN and the specified compartment.

    Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.
- **vcn_id** (*str*) – (required) The OCID of the VCN.
- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*
- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAYNAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED"

  Returns A *Response* object with data of type list of *InternetGateway*

  Return type *Response*

list_ip_sec_connections(*compartment_id*, ***kwargs*)
  ListIPSecConnections Lists the IPSec connections for the specified compartment. You can filter the results by DRG or CPE.

  Parameters

  - **compartment_id** (*str*) – (required) The OCID of the compartment.

  - **drg_id** (*str*) – (optional) The OCID of the DRG.

  - **cpe_id** (*str*) – (optional) The OCID of the CPE.

  - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

  - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

  Returns A *Response* object with data of type list of *IPSecConnection*

  Return type *Response*

list_local_peering_gateways(*compartment_id*, *vcn_id*, ***kwargs*)
  ListLocalPeeringGateways Lists the local peering gateways (LPGs) for the specified VCN and compartment (the LPG's compartment).

  Parameters

  - **compartment_id** (*str*) – (required) The OCID of the compartment.

  - **vcn_id** (*str*) – (required) The OCID of the VCN.

  - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

> • **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previ-
> ous "List" call.

> **Returns** A *Response* object with data of type list of *LocalPeeringGateway*

> **Return type** *Response*

list_private_ips(***kwargs*)
> ListPrivateIps Lists the `PrivateIp` objects based on one of these filters:

> > • Subnet OCID.

> > • VNIC OCID.

> > • Both private IP address and subnet OCID: This lets

> you get a *privateIP* object based on its private IP address (for example, 10.0.3.3) and not its
> OCID. For comparison, `get_private_ip()` requires the OCID.

> If you're listing all the private IPs associated with a given subnet or VNIC, the response includes both
> primary and secondary private IPs.

> > **Parameters**

> > > • **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List"
> > > call.

> > > Example: *500*

> > > • **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previ-
> > > ous "List" call.

> > > • **ip_address** (*str*) – (optional) An IP address.

> > > Example: *10.0.3.3*

> > > • **subnet_id** (*str*) – (optional) The OCID of the subnet.

> > > • **vnic_id** (*str*) – (optional) The OCID of the VNIC.

> > **Returns** A *Response* object with data of type list of *PrivateIp*

> > **Return type** *Response*

list_public_ips(*scope*, *compartment_id*, ***kwargs*)
> ListPublicIps Lists either the ephemeral or reserved `PublicIp` objects in the specified compartment.

> To list your reserved public IPs, set *scope = REGION*, and leave the *availabilityDomain* parameter empty.

> To list your ephemeral public IPs, set *scope = AVAILABILITY_DOMAIN*, and set the *availabilityDomain*
> parameter to the desired Availability Domain. An ephemeral public IP is always in the same Availability
> Domain and compartment as the private IP it's assigned to.

> > **Parameters**

> > > • **scope** (*str*) – (required) Whether the public IP is regional or specific to a particular
> > > Availability Domain.

> > > > – *REGION*: The public IP exists within a region and can be assigned to a private IP

> > > > in any Availability Domain in the region. Reserved public IPs have *scope = REGION*.

> > > > – *AVAILABILITY_DOMAIN*: The public IP exists within the Availability Domain of the
> > > > private IP

it's assigned to, which is specified by the *availabilityDomain* property of the public IP object. Ephemeral public IPs have *scope = AVAILABILITY_DOMAIN*.

Allowed values are: "REGION", "AVAILABILITY_DOMAIN"

- **compartment_id** (*str*) – (required) The OCID of the compartment.
- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
- **availability_domain** (*str*) – (optional) The name of the Availability Domain.

    Example: *Uocm:PHX-AD-1*

Returns A *Response* object with data of type list of *PublicIp*

Return type *Response*

list_remote_peering_connections (*compartment_id*, ***kwargs*)

ListRemotePeeringConnections Lists the remote peering connections (RPCs) for the specified DRG and compartment (the RPC's compartment).

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.
- **drg_id** (*str*) – (optional) The OCID of the DRG.
- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

Returns A *Response* object with data of type list of *RemotePeeringConnection*

Return type *Response*

list_route_tables (*compartment_id*, *vcn_id*, ***kwargs*)

ListRouteTables Lists the route tables in the specified VCN and specified compartment. The response includes the default route table that automatically comes with each VCN, plus any route tables you've created.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.
- **vcn_id** (*str*) – (required) The OCID of the VCN.
- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED"

  Returns A *Response* object with data of type list of *RouteTable*

  Return type *Response*

list_security_lists(*compartment_id*, *vcn_id*, ***kwargs*)

ListSecurityLists Lists the security lists in the specified VCN and compartment.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **vcn_id** (*str*) – (required) The OCID of the VCN.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

> Allowed values are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMI-NATED"

> **Returns** A *Response* object with data of type list of *SecurityList*

> **Return type** *Response*

list_subnets (*compartment_id*, *vcn_id*, ***kwargs*)
  ListSubnets Lists the subnets in the specified VCN and the specified compartment.

  Parameters

  - **compartment_id** (*str*) – (required) The OCID of the compartment.

  - **vcn_id** (*str*) – (required) The OCID of the VCN.

  - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

  - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

  - **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

  - **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

    Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

    Allowed values are: "TIMECREATED", "DISPLAYNAME"

  - **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

    Allowed values are: "ASC", "DESC"

  - **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

    Allowed values are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMI-NATED"

  Returns A *Response* object with data of type list of *Subnet*

  Return type *Response*

list_vcns (*compartment_id*, ***kwargs*)
  ListVcns Lists the Virtual Cloud Networks (VCNs) in the specified compartment.

  Parameters

  - **compartment_id** (*str*) – (required) The OCID of the compartment.

  - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

    Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAYNAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

  Allowed values are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED"

Returns A [*Response*](#) object with data of type list of [*Vcn*](#)

Return type [*Response*](#)

list_virtual_circuit_bandwidth_shapes(*compartment_id*, ***kwargs*)
　　ListVirtualCircuitBandwidthShapes The deprecated operation lists available bandwidth levels for virtual circuits. For the compartment ID, provide the OCID of your tenancy (the root compartment).

　　Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

Returns A [*Response*](#) object with data of type list of [*VirtualCircuitBandwidthShape*](#)

Return type [*Response*](#)

list_virtual_circuit_public_prefixes(*virtual_circuit_id*, ***kwargs*)
　　ListVirtualCircuitPublicPrefixes Lists the public IP prefixes and their details for the specified public virtual circuit.

　　Parameters

- **virtual_circuit_id** (*str*) – (required) The OCID of the virtual circuit.

- **verification_state** (*str*) – (optional) A filter to only return resources that match the given verification state. The state value is case-insensitive.

  Allowed values are: "IN_PROGRESS", "COMPLETED", "FAILED"

Returns A [*Response*](#) object with data of type list of [*VirtualCircuitPublicPrefix*](#)

Return type *Response*

list_virtual_circuits(*compartment_id*, ***kwargs*)

ListVirtualCircuits Lists the virtual circuits in the specified compartment.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAY-NAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Note: In general, some "List" operations (for example, *ListInstances*) let you optionally filter by Availability Domain if the scope of the resource type is within a single Availability Domain. If you call one of these "List" operations without specifying an Availability Domain, the resources are grouped by Availability Domain, then sorted.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.

  Allowed values are: "PENDING_PROVIDER", "VERIFYING", "PROVISIONING", "PROVISIONED", "FAILED", "INACTIVE", "TERMINATING", "TERMINATED"

Returns A *Response* object with data of type list of *VirtualCircuit*

Return type *Response*

update_cpe(*cpe_id*, *update_cpe_details*, ***kwargs*)

UpdateCpe Updates the specified CPE's display name. Avoid entering confidential information.

Parameters

- **cpe_id** (*str*) – (required) The OCID of the CPE.

- **update_cpe_details** (*UpdateCpeDetails*) – (required) Details object for updating a CPE.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *Cpe*

Return type *Response*

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update_cross_connect(*cross_connect_id*, *update_cross_connect_details*, ***kwargs*)
UpdateCrossConnect Updates the specified cross-connect.

> **Parameters**
>
> * **cross_connect_id** (*str*) – (required) The OCID of the cross-connect.
>
> * **update_cross_connect_details** (*UpdateCrossConnectDetails*) – (required) Update CrossConnect fields.
>
> * **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *CrossConnect*
>
> **Return type** *Response*

update_cross_connect_group(*cross_connect_group_id*, *update_cross_connect_group_details*, ***kwargs*)
UpdateCrossConnectGroup Updates the specified cross-connect group's display name. Avoid entering confidential information.

> **Parameters**
>
> * **cross_connect_group_id** (*str*) – (required) The OCID of the cross-connect group.
>
> * **update_cross_connect_group_details** (*UpdateCrossConnectGroupDetails*) – (required) Update CrossConnectGroup fields
>
> * **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *CrossConnectGroup*
>
> **Return type** *Response*

update_dhcp_options(*dhcp_id*, *update_dhcp_details*, ***kwargs*)
UpdateDhcpOptions Updates the specified set of DHCP options. You can update the display name or the options themselves. Avoid entering confidential information.

> Note that the *options* object you provide replaces the entire existing set of options.
>
> **Parameters**
>
> * **dhcp_id** (*str*) – (required) The OCID for the set of DHCP options.
>
> * **update_dhcp_details** (*UpdateDhcpDetails*) – (required) Request object for updating a set of DHCP options.
>
> * **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *DhcpOptions*
>
> **Return type** *Response*

update_drg(*drg_id*, *update_drg_details*, ***kwargs*)
UpdateDrg Updates the specified DRG's display name. Avoid entering confidential information.

Parameters

- **drg_id** (`str`) – (required) The OCID of the DRG.

- **update_drg_details** (`UpdateDrgDetails`) – (required) Details object for up-dating a DRG.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `Drg`

Return type `Response`

update_drg_attachment (*drg_attachment_id*, *update_drg_attachment_details*, ***kwargs*)
UpdateDrgAttachment Updates the display name for the specified *DrgAttachment*. Avoid entering confi-dential information.

Parameters

- **drg_attachment_id** (`str`) – (required) The OCID of the DRG attachment.

- **update_drg_attachment_details** (`UpdateDrgAttachmentDetails`) – (required) Details object for updating a *DrgAttachment*.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `DrgAttachment`

Return type `Response`

update_internet_gateway (*ig_id*, *update_internet_gateway_details*, ***kwargs*)
UpdateInternetGateway Updates the specified Internet Gateway. You can disable/enable it, or change its display name. Avoid entering confidential information.

If the gateway is disabled, that means no traffic will flow to/from the internet even if there's a route rule that enables that traffic.

Parameters

- **ig_id** (`str`) – (required) The OCID of the Internet Gateway.

- **update_internet_gateway_details** (`UpdateInternetGatewayDetails`) – (required) Details for updating the Internet Gateway.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `InternetGateway`

Return type `Response`

update_ip_sec_connection (*ipsc_id*, *update_ip_sec_connection_details*, ***kwargs*)
UpdateIPSecConnection Updates the display name for the specified IPSec connection. Avoid entering confidential information.

Parameters

- **ipsc_id** (*str*) – (required) The OCID of the IPSec connection.

- **update_ip_sec_connection_details** (*UpdateIPSecConnectionDetails*)
  – (required) Details object for updating a IPSec connection.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
  DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
  previous GET or POST response for that resource. The resource will be updated or deleted
  only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *IPSecConnection*

Return type *Response*

update_local_peering_gateway (*local_peering_gateway_id*, *update_local_peering_gateway_details*, ***kwargs*)
UpdateLocalPeeringGateway Updates the specified local peering gateway (LPG).

Parameters

- **local_peering_gateway_id** (*str*) – (required) The OCID of the local peering
  gateway.

- **update_local_peering_gateway_details** (*UpdateLocalPeeringGatewayDetails*)
  – (required) Details object for updating a local peering gateway.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
  DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
  previous GET or POST response for that resource. The resource will be updated or deleted
  only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *LocalPeeringGateway*

Return type *Response*

update_private_ip (*private_ip_id*, *update_private_ip_details*, ***kwargs*)
UpdatePrivateIp Updates the specified private IP. You must specify the object's OCID. Use this operation
if you want to:

- Move a secondary private IP to a different VNIC in the same subnet.

- Change the display name for a secondary private IP.

- Change the hostname for a secondary private IP.

This operation cannot be used with primary private IPs. To update the hostname for the primary IP on a
VNIC, use update_vnic().

Parameters

- **private_ip_id** (*str*) – (required) The OCID of the private IP.

- **update_private_ip_details** (*UpdatePrivateIpDetails*) – (required) Private IP details.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
  DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
  previous GET or POST response for that resource. The resource will be updated or deleted
  only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *PrivateIp*

Return type *Response*

update_public_ip(*public_ip_id*, *update_public_ip_details*, ***kwargs*)
    UpdatePublicIp Updates the specified public IP. You must specify the object's OCID. Use this operation if
    you want to:

> • Assign a reserved public IP in your pool to a private IP.
>
> • Move a reserved public IP to a different private IP.
>
> • Unassign a reserved public IP from a private IP (which returns it to your pool

of reserved public IPs). * Change the display name for a public IP (either ephemeral or reserved).

Assigning, moving, and unassigning a reserved public IP are asynchronous operations. Poll the public IP's
lifecycleState to determine if the operation succeeded.

Note: When moving a reserved public IP, the target private IP must not already have a public IP with
lifecycleState = ASSIGNING or ASSIGNED. If it does, an error is returned. Also, the initial unassignment
from the original private IP always succeeds, but the assignment to the target private IP is asynchronous
and could fail silently (for example, if the target private IP is deleted or has a different public IP assigned
to it in the interim). If that occurs, the public IP remains unassigned and its *lifecycleState* switches to
AVAILABLE (it is not reassigned to its original private IP). You must poll the public IP's *lifecycleState* to
determine if the move succeeded.

Regarding ephemeral public IPs:

> • If you want to assign an ephemeral public IP to a primary private IP, use

`create_public_ip()`. * You can't move an ephemeral public IP to a different private IP. * If you want
to unassign an ephemeral public IP from its private IP, use `delete_public_ip()`, which unassigns
and deletes the ephemeral public IP.

Note: If a public IP (either ephemeral or reserved) is assigned to a secondary private IP (see `PrivateIp`),
and you move that secondary private IP to another VNIC, the public IP moves with it.

Note: There's a limit to the number of `PublicIp` a VNIC or instance can have. If you try to move a
reserved public IP to a VNIC or instance that has already reached its public IP limit, an error is returned.
For information about the public IP limits, see Public IP Addresses.

> **Parameters**
>
> > • **public_ip_id** (*str*) – (required) The OCID of the public IP.
> >
> > • **update_public_ip_details** (*UpdatePublicIpDetails*) – (required) Public
> >   IP details.
> >
> > • **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
> >   DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
> >   previous GET or POST response for that resource. The resource will be updated or deleted
> >   only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *PublicIp*
>
> **Return type** *Response*

update_remote_peering_connection(*remote_peering_connection_id*, *update_remote_peering_connection_details*, ***kwargs*)
    UpdateRemotePeeringConnection Updates the specified remote peering connection (RPC).

> **Parameters**
>
> > • **remote_peering_connection_id** (*str*) – (required) The OCID of the remote
> >   peering connection (RPC).

- **update_remote_peering_connection_details**
    (*UpdateRemotePeeringConnectionDetails*) – (required) Request to the
    update the peering connection to remote region

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
    DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
    previous GET or POST response for that resource. The resource will be updated or deleted
    only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *RemotePeeringConnection*

Return type *Response*

update_route_table(*rt_id*, *update_route_table_details*, ***kwargs*)

UpdateRouteTable Updates the specified route table's display name or route rules. Avoid entering confi-
dential information.

Note that the *routeRules* object you provide replaces the entire existing set of rules.

Parameters

- **rt_id** (*str*) – (required) The OCID of the route table.

- **update_route_table_details** (*UpdateRouteTableDetails*) – (required)
    Details object for updating a route table.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
    DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
    previous GET or POST response for that resource. The resource will be updated or deleted
    only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *RouteTable*

Return type *Response*

update_security_list(*security_list_id*, *update_security_list_details*, ***kwargs*)

UpdateSecurityList Updates the specified security list's display name or rules. Avoid entering confidential
information.

Note that the *egressSecurityRules* or *ingressSecurityRules* objects you provide replace the entire existing
objects.

Parameters

- **security_list_id** (*str*) – (required) The OCID of the security list.

- **update_security_list_details** (*UpdateSecurityListDetails*) – (re-
    quired) Updated details for the security list.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
    DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
    previous GET or POST response for that resource. The resource will be updated or deleted
    only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *SecurityList*

Return type *Response*

update_subnet(*subnet_id*, *update_subnet_details*, ***kwargs*)

UpdateSubnet Updates the specified subnet's display name. Avoid entering confidential information.

Parameters

- **subnet_id** (*str*) – (required) The OCID of the subnet.

- **update_subnet_details** (`UpdateSubnetDetails`) – (required) Details object
  for updating a subnet.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or
  DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
  previous GET or POST response for that resource. The resource will be updated or deleted
  only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `Subnet`

Return type `Response`

update_vcn (*vcn_id*, *update_vcn_details*, ***kwargs*)

UpdateVcn Updates the specified VCN's display name. Avoid entering confidential information.

Parameters

- **vcn_id** (`str`) – (required) The OCID of the VCN.

- **update_vcn_details** (`UpdateVcnDetails`) – (required) Details object for up-
  dating a VCN.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or
  DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
  previous GET or POST response for that resource. The resource will be updated or deleted
  only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `Vcn`

Return type `Response`

update_virtual_circuit (*virtual_circuit_id*, *update_virtual_circuit_details*, ***kwargs*)

UpdateVirtualCircuit Updates the specified virtual circuit. This can be called by either the customer who
owns the virtual circuit, or the provider (when provisioning or de-provisioning the virtual circuit from their
end). The documentation for `update_virtual_circuit_details()` indicates who can update
each property of the virtual circuit.

Important: If the virtual circuit is working and in the PROVISIONED state, updating any of the network-
related properties (such as the DRG being used, the BGP ASN, and so on) will cause the virtual circuit's
state to switch to PROVISIONING and the related BGP session to go down. After Oracle re-provisions
the virtual circuit, its state will return to PROVISIONED. Make sure you confirm that the associated
BGP session is back up. For more information about the various states and how to test connectivity, see
FastConnect Overview.

To change the list of public IP prefixes for a public virtual cir-
cuit, use `bulk_add_virtual_circuit_public_prefixes()` and
`bulk_delete_virtual_circuit_public_prefixes()`. Updating the list of prefixes
does NOT cause the BGP session to go down. However, Oracle must verify the customer's ownership of
each added prefix before traffic for that prefix will flow across the virtual circuit.

Parameters

- **virtual_circuit_id** (`str`) – (required) The OCID of the virtual circuit.

- **update_virtual_circuit_details** (`UpdateVirtualCircuitDetails`) –
  (required) Update VirtualCircuit fields.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or
  DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
  previous GET or POST response for that resource. The resource will be updated or deleted
  only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `VirtualCircuit`

Return type *Response*

update_vnic(*vnic_id*, *update_vnic_details*, ***kwargs*)

UpdateVnic Updates the specified VNIC.

Parameters

- **vnic_id** (*str*) – (required) The OCID of the VNIC.

- **update_vnic_details** (*UpdateVnicDetails*) – (required) Details object for updating a VNIC.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *Vnic*

Return type *Response*

12.2.2 Models

class oci.core.models.**AttachBootVolumeDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new AttachBootVolumeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **boot_volume_id** (*str*) – The value to assign to the boot_volume_id property of this AttachBootVolumeDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this AttachBootVolumeDetails.

- **instance_id** (*str*) – The value to assign to the instance_id property of this AttachBootVolumeDetails.

boot_volume_id

[Required] Gets the boot_volume_id of this AttachBootVolumeDetails. The OCID of the boot volume.

Returns The boot_volume_id of this AttachBootVolumeDetails.

Return type str

display_name

Gets the display_name of this AttachBootVolumeDetails. A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.

Returns The display_name of this AttachBootVolumeDetails.

Return type str

instance_id

[Required] Gets the instance_id of this AttachBootVolumeDetails. The OCID of the instance.

Returns The instance_id of this AttachBootVolumeDetails.

Return type str

class oci.core.models.**AttachIScsiVolumeDetails**(***kwargs*)

>   __init__(***kwargs*)
>   Initializes a new AttachIScsiVolumeDetails object with values from keyword arguments. The default value
>   of the *type* attribute of this class is iscsi and it should not be changed. The following keyword argu-
>   ments are supported (corresponding to the getters/setters of this class):
>
>   **Parameters**
>
>   * **display_name** (*str*) – The value to assign to the display_name property of this At-
>   tachIScsiVolumeDetails.
>
>   * **instance_id** (*str*) – The value to assign to the instance_id property of this AttachISc-
>   siVolumeDetails.
>
>   * **is_read_only** (*bool*) – The value to assign to the is_read_only property of this At-
>   tachIScsiVolumeDetails.
>
>   * **type** (*str*) – The value to assign to the type property of this AttachIScsiVolumeDetails.
>
>   * **volume_id** (*str*) – The value to assign to the volume_id property of this AttachISc-
>   siVolumeDetails.
>
>   * **use_chap** (*bool*) – The value to assign to the use_chap property of this AttachIScsiVol-
>   umeDetails.

>   **display_name**
>   Gets the display_name of this AttachVolumeDetails. A user-friendly name. Does not have to be unique,
>   and it cannot be changed. Avoid entering confidential information.
>
>   **Returns** The display_name of this AttachVolumeDetails.
>
>   **Return type** str

>   **get_subtype**(*object_dictionary*)
>   Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
>   subtype.

>   **instance_id**
>   **[Required]** Gets the instance_id of this AttachVolumeDetails. The OCID of the instance.
>
>   **Returns** The instance_id of this AttachVolumeDetails.
>
>   **Return type** str

>   **is_read_only**
>   Gets the is_read_only of this AttachVolumeDetails. Whether the attachment was created in read-only
>   mode.
>
>   **Returns** The is_read_only of this AttachVolumeDetails.
>
>   **Return type** bool

>   **type**
>   **[Required]** Gets the type of this AttachVolumeDetails. The type of volume. The only supported value are
>   "iscsi" and "paravirtualized".
>
>   **Returns** The type of this AttachVolumeDetails.
>
>   **Return type** str

>   **use_chap**
>   Gets the use_chap of this AttachIScsiVolumeDetails. Whether to use CHAP authentication for the volume
>   attachment. Defaults to false.

> > **Returns** The use_chap of this AttachIScsiVolumeDetails.

> > **Return type** bool

> **volume_id**
> > [Required] Gets the volume_id of this AttachVolumeDetails. The OCID of the volume.

> > **Returns** The volume_id of this AttachVolumeDetails.

> > **Return type** str

class oci.core.models.**AttachParavirtualizedVolumeDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new AttachParavirtualizedVolumeDetails object with values from keyword arguments. The default value of the *type* attribute of this class is `paravirtualized` and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > • **display_name** (*str*) – The value to assign to the display_name property of this AttachParavirtualizedVolumeDetails.

> > > • **instance_id** (*str*) – The value to assign to the instance_id property of this AttachParavirtualizedVolumeDetails.

> > > • **is_read_only** (*bool*) – The value to assign to the is_read_only property of this AttachParavirtualizedVolumeDetails.

> > > • **type** (*str*) – The value to assign to the type property of this AttachParavirtualizedVolumeDetails.

> > > • **volume_id** (*str*) – The value to assign to the volume_id property of this AttachParavirtualizedVolumeDetails.

> **display_name**
> > Gets the display_name of this AttachVolumeDetails. A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.

> > **Returns** The display_name of this AttachVolumeDetails.

> > **Return type** str

> **get_subtype**(*object_dictionary*)
> > Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

> **instance_id**
> > [Required] Gets the instance_id of this AttachVolumeDetails. The OCID of the instance.

> > **Returns** The instance_id of this AttachVolumeDetails.

> > **Return type** str

> **is_read_only**
> > Gets the is_read_only of this AttachVolumeDetails. Whether the attachment was created in read-only mode.

> > **Returns** The is_read_only of this AttachVolumeDetails.

> > **Return type** bool

type
> [Required] Gets the type of this AttachVolumeDetails. The type of volume. The only supported value are "iscsi" and "paravirtualized".
>
> > **Returns** The type of this AttachVolumeDetails.
> >
> > **Return type** str

volume_id
> [Required] Gets the volume_id of this AttachVolumeDetails. The OCID of the volume.
>
> > **Returns** The volume_id of this AttachVolumeDetails.
> >
> > **Return type** str

class oci.core.models.**AttachVnicDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new AttachVnicDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **create_vnic_details** ([CreateVnicDetails](#)) – The value to assign to the create_vnic_details property of this AttachVnicDetails.
> >
> > * **display_name** (*str*) – The value to assign to the display_name property of this AttachVnicDetails.
> >
> > * **instance_id** (*str*) – The value to assign to the instance_id property of this AttachVnicDetails.
> >
> > * **nic_index** (*int*) – The value to assign to the nic_index property of this AttachVnicDetails.

create_vnic_details
> [Required] Gets the create_vnic_details of this AttachVnicDetails. Details for creating a new VNIC.
>
> > **Returns** The create_vnic_details of this AttachVnicDetails.
> >
> > **Return type** *[CreateVnicDetails](#)*

display_name
> Gets the display_name of this AttachVnicDetails. A user-friendly name for the attachment. Does not have to be unique, and it cannot be changed.
>
> > **Returns** The display_name of this AttachVnicDetails.
> >
> > **Return type** str

instance_id
> [Required] Gets the instance_id of this AttachVnicDetails. The OCID of the instance.
>
> > **Returns** The instance_id of this AttachVnicDetails.
> >
> > **Return type** str

nic_index
> Gets the nic_index of this AttachVnicDetails. Which physical network interface card (NIC) the VNIC will use. Defaults to 0. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see Virtual Network Interface Cards (VNICs).
>
> > **Returns** The nic_index of this AttachVnicDetails.

Return type int

class oci.core.models.**AttachVolumeDetails**(***kwargs*)

    __init__(***kwargs*)
        Initializes a new AttachVolumeDetails object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:

            • *AttachIScsiVolumeDetails*

            • *AttachParavirtualizedVolumeDetails*

        The following keyword arguments are supported (corresponding to the getters/setters of this class):

        Parameters

            • **display_name** (*str*) – The value to assign to the display_name property of this AttachVolumeDetails.

            • **instance_id** (*str*) – The value to assign to the instance_id property of this AttachVolumeDetails.

            • **is_read_only** (*bool*) – The value to assign to the is_read_only property of this AttachVolumeDetails.

            • **type** (*str*) – The value to assign to the type property of this AttachVolumeDetails.

            • **volume_id** (*str*) – The value to assign to the volume_id property of this AttachVolumeDetails.

    display_name
        Gets the display_name of this AttachVolumeDetails. A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.

        Returns The display_name of this AttachVolumeDetails.

        Return type str

    static get_subtype(*object_dictionary*)
        Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

    instance_id
        [Required] Gets the instance_id of this AttachVolumeDetails. The OCID of the instance.

        Returns The instance_id of this AttachVolumeDetails.

        Return type str

    is_read_only
        Gets the is_read_only of this AttachVolumeDetails. Whether the attachment was created in read-only mode.

        Returns The is_read_only of this AttachVolumeDetails.

        Return type bool

    type
        [Required] Gets the type of this AttachVolumeDetails. The type of volume. The only supported value are "iscsi" and "paravirtualized".

        Returns The type of this AttachVolumeDetails.

        Return type str

volume_id
: [Required] Gets the volume_id of this AttachVolumeDetails. The OCID of the volume.

    Returns   The volume_id of this AttachVolumeDetails.

    Return type   str

class oci.core.models.**BootVolume**(***kwargs*)

__init__(***kwargs*)
: Initializes a new BootVolume object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    Parameters

    - **availability_domain** (*str*) – The value to assign to the availability_domain property of this BootVolume.

    - **compartment_id** (*str*) – The value to assign to the compartment_id property of this BootVolume.

    - **display_name** (*str*) – The value to assign to the display_name property of this BootVolume.

    - **id** (*str*) – The value to assign to the id property of this BootVolume.

    - **image_id** (*str*) – The value to assign to the image_id property of this BootVolume.

    - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this BootVolume. Allowed values for this property are: "PROVISIONING", "RESTORING", "AVAILABLE", "TERMINATING", "TERMINATED", "FAULTY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

    - **size_in_gbs** (*int*) – The value to assign to the size_in_gbs property of this BootVolume.

    - **size_in_mbs** (*int*) – The value to assign to the size_in_mbs property of this BootVolume.

    - **time_created** (*datetime*) – The value to assign to the time_created property of this BootVolume.

availability_domain
: [Required] Gets the availability_domain of this BootVolume. The Availability Domain of the boot volume.

    Example: *Uocm:PHX-AD-1*

    Returns   The availability_domain of this BootVolume.

    Return type   str

compartment_id
: [Required] Gets the compartment_id of this BootVolume. The OCID of the compartment that contains the boot volume.

    Returns   The compartment_id of this BootVolume.

    Return type   str

display_name
: Gets the display_name of this BootVolume. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this BootVolume.

> **Return type** str

id
>   [**Required**] Gets the id of this BootVolume. The boot volume's Oracle ID (OCID).

> **Returns** The id of this BootVolume.

> **Return type** str

image_id
>   Gets the image_id of this BootVolume. The image OCID used to create the boot volume.

> **Returns** The image_id of this BootVolume.

> **Return type** str

lifecycle_state
>   [**Required**] Gets the lifecycle_state of this BootVolume. The current state of a boot volume.

>   Allowed values for this property are: "PROVISIONING", "RESTORING", "AVAILABLE", "TERMI-NATING", "TERMINATED", "FAULTY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this BootVolume.

> **Return type** str

size_in_gbs
>   Gets the size_in_gbs of this BootVolume. The size of the boot volume in GBs.

> **Returns** The size_in_gbs of this BootVolume.

> **Return type** int

size_in_mbs
>   [**Required**] Gets the size_in_mbs of this BootVolume. The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Please use sizeInGBs.

> **Returns** The size_in_mbs of this BootVolume.

> **Return type** int

time_created
>   [**Required**] Gets the time_created of this BootVolume. The date and time the boot volume was created. Format defined by RFC3339.

> **Returns** The time_created of this BootVolume.

> **Return type** datetime

class oci.core.models.**BootVolumeAttachment**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new BootVolumeAttachment object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

>   - **availability_domain** (*str*) – The value to assign to the availability_domain property of this BootVolumeAttachment.

>   - **boot_volume_id** (*str*) – The value to assign to the boot_volume_id property of this BootVolumeAttachment.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this BootVolumeAttachment.

- **display_name** (*str*) – The value to assign to the display_name property of this BootVolumeAttachment.

- **id** (*str*) – The value to assign to the id property of this BootVolumeAttachment.

- **instance_id** (*str*) – The value to assign to the instance_id property of this BootVolumeAttachment.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this BootVolumeAttachment. Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this BootVolumeAttachment.

availability_domain

[**Required**] Gets the availability_domain of this BootVolumeAttachment. The Availability Domain of an instance.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this BootVolumeAttachment.

> **Return type** str

boot_volume_id

[**Required**] Gets the boot_volume_id of this BootVolumeAttachment. The OCID of the boot volume.

> **Returns** The boot_volume_id of this BootVolumeAttachment.

> **Return type** str

compartment_id

[**Required**] Gets the compartment_id of this BootVolumeAttachment. The OCID of the compartment.

> **Returns** The compartment_id of this BootVolumeAttachment.

> **Return type** str

display_name

Gets the display_name of this BootVolumeAttachment. A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.

Example: *My boot volume*

> **Returns** The display_name of this BootVolumeAttachment.

> **Return type** str

id

[**Required**] Gets the id of this BootVolumeAttachment. The OCID of the boot volume attachment.

> **Returns** The id of this BootVolumeAttachment.

> **Return type** str

instance_id

[**Required**] Gets the instance_id of this BootVolumeAttachment. The OCID of the instance the boot volume is attached to.

> **Returns** The instance_id of this BootVolumeAttachment.

Return type str

lifecycle_state
> [**Required**] Gets the lifecycle_state of this BootVolumeAttachment. The current state of the boot volume attachment.
>
> Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this BootVolumeAttachment.
> >
> > **Return type** str

time_created
> [**Required**] Gets the time_created of this BootVolumeAttachment. The date and time the boot volume was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this BootVolumeAttachment.
> >
> > **Return type** datetime

class oci.core.models.**BulkAddVirtualCircuitPublicPrefixesDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new BulkAddVirtualCircuitPublicPrefixesDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters public_prefixes**(*list[*CreateVirtualCircuitPublicPrefixDetails*]*) – The value to assign to the public_prefixes property of this BulkAddVirtualCircuitPublicPrefixesDetails.

public_prefixes
> [**Required**] Gets the public_prefixes of this BulkAddVirtualCircuitPublicPrefixesDetails. The public IP prefixes (CIDRs) to add to the public virtual circuit.
>
> > **Returns** The public_prefixes of this BulkAddVirtualCircuitPublicPrefixesDetails.
> >
> > **Return type** list[*CreateVirtualCircuitPublicPrefixDetails*]

class oci.core.models.**BulkDeleteVirtualCircuitPublicPrefixesDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new BulkDeleteVirtualCircuitPublicPrefixesDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters public_prefixes**(*list[*DeleteVirtualCircuitPublicPrefixDetails*]*) – The value to assign to the public_prefixes property of this BulkDeleteVirtualCircuitPublicPrefixesDetails.

public_prefixes
> [**Required**] Gets the public_prefixes of this BulkDeleteVirtualCircuitPublicPrefixesDetails. The public IP prefixes (CIDRs) to remove from the public virtual circuit.
>
> > **Returns** The public_prefixes of this BulkDeleteVirtualCircuitPublicPrefixesDetails.
> >
> > **Return type** list[*DeleteVirtualCircuitPublicPrefixDetails*]

class oci.core.models.**CaptureConsoleHistoryDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new CaptureConsoleHistoryDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **defined_tags** (*dict(str, dict(str,* object*)))* – The value to assign to the defined_tags property of this CaptureConsoleHistoryDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this CaptureConsoleHistoryDetails.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CaptureConsoleHistoryDetails.

- **instance_id** (*str*) – The value to assign to the instance_id property of this CaptureConsoleHistoryDetails.

defined_tags

Gets the defined_tags of this CaptureConsoleHistoryDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this CaptureConsoleHistoryDetails.

> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this CaptureConsoleHistoryDetails. A user-friendly name. Does not have to be unique, and it's changeable.

> **Returns** The display_name of this CaptureConsoleHistoryDetails.

> **Return type** str

freeform_tags

Gets the freeform_tags of this CaptureConsoleHistoryDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CaptureConsoleHistoryDetails.

> **Return type** dict(str, str)

instance_id

[Required] Gets the instance_id of this CaptureConsoleHistoryDetails. The OCID of the instance to get the console history from.

> **Returns** The instance_id of this CaptureConsoleHistoryDetails.

> **Return type** str

class oci.core.models.**ConnectLocalPeeringGatewaysDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new ConnectLocalPeeringGatewaysDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters peer_id (*str*) – The value to assign to the peer_id property of this ConnectLocalPeeringGatewaysDetails.

> **peer_id**
>> **[Required]** Gets the peer_id of this ConnectLocalPeeringGatewaysDetails. The OCID of the LPG you want to peer with.
>>
>>> **Returns** The peer_id of this ConnectLocalPeeringGatewaysDetails.
>>>
>>> **Return type** str

class oci.core.models.**ConnectRemotePeeringConnectionsDetails**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new ConnectRemotePeeringConnectionsDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> **Parameters**
>>>
>>> - **peer_id** (*str*) – The value to assign to the peer_id property of this ConnectRemote-PeeringConnectionsDetails.
>>>
>>> - **peer_region_name** (*str*) – The value to assign to the peer_region_name property of this ConnectRemotePeeringConnectionsDetails.
>
> **peer_id**
>> **[Required]** Gets the peer_id of this ConnectRemotePeeringConnectionsDetails. The OCID of the RPC you want to peer with.
>>
>>> **Returns** The peer_id of this ConnectRemotePeeringConnectionsDetails.
>>>
>>> **Return type** str
>
> **peer_region_name**
>> **[Required]** Gets the peer_region_name of this ConnectRemotePeeringConnectionsDetails. The name of the region that contains the RPC you want to peer with.
>>
>> Example: *us-ashburn-1*
>>
>>> **Returns** The peer_region_name of this ConnectRemotePeeringConnectionsDetails.
>>>
>>> **Return type** str

class oci.core.models.**ConsoleHistory**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new ConsoleHistory object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> **Parameters**
>>>
>>> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this ConsoleHistory.
>>>
>>> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this ConsoleHistory.
>>>
>>> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this ConsoleHistory.
>>>
>>> - **display_name** (*str*) – The value to assign to the display_name property of this ConsoleHistory.
>>>
>>> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this ConsoleHistory.

- **id** (`str`) – The value to assign to the id property of this ConsoleHistory.

- **instance_id** (`str`) – The value to assign to the instance_id property of this Console-History.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this ConsoleHistory. Allowed values for this property are: "REQUESTED", "GETTING-HISTORY", "SUCCEEDED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (`datetime`) – The value to assign to the time_created property of this ConsoleHistory.

availability_domain

[**Required**] Gets the availability_domain of this ConsoleHistory. The Availability Domain of an instance.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this ConsoleHistory.
>
> **Return type** str

compartment_id

[**Required**] Gets the compartment_id of this ConsoleHistory. The OCID of the compartment.

> **Returns** The compartment_id of this ConsoleHistory.
>
> **Return type** str

defined_tags

Gets the defined_tags of this ConsoleHistory. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this ConsoleHistory.
>
> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this ConsoleHistory. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

Example: *My console history metadata*

> **Returns** The display_name of this ConsoleHistory.
>
> **Return type** str

freeform_tags

Gets the freeform_tags of this ConsoleHistory. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this ConsoleHistory.
>
> **Return type** dict(str, str)

id

[**Required**] Gets the id of this ConsoleHistory. The OCID of the console history metadata object.

> **Returns** The id of this ConsoleHistory.
>
> **Return type** str

instance_id
    [Required] Gets the instance_id of this ConsoleHistory. The OCID of the instance this console history was fetched from.

        Returns The instance_id of this ConsoleHistory.

        Return type str

lifecycle_state
    [Required] Gets the lifecycle_state of this ConsoleHistory. The current state of the console history.

    Allowed values for this property are: "REQUESTED", "GETTING-HISTORY", "SUCCEEDED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

        Returns The lifecycle_state of this ConsoleHistory.

        Return type str

time_created
    [Required] Gets the time_created of this ConsoleHistory. The date and time the history was created, in the format defined by RFC3339. Example: *2016-08-25T21:10:29.600Z*

        Returns The time_created of this ConsoleHistory.

        Return type datetime

class oci.core.models.**Cpe**(***kwargs*)

__init__(***kwargs*)
    Initializes a new Cpe object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

        Parameters

        • **compartment_id** (*str*) – The value to assign to the compartment_id property of this Cpe.

        • **display_name** (*str*) – The value to assign to the display_name property of this Cpe.

        • **id** (*str*) – The value to assign to the id property of this Cpe.

        • **ip_address** (*str*) – The value to assign to the ip_address property of this Cpe.

        • **time_created** (*datetime*) – The value to assign to the time_created property of this Cpe.

compartment_id
    [Required] Gets the compartment_id of this Cpe. The OCID of the compartment containing the CPE.

        Returns The compartment_id of this Cpe.

        Return type str

display_name
    Gets the display_name of this Cpe. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

        Returns The display_name of this Cpe.

        Return type str

id
    [Required] Gets the id of this Cpe. The CPE's Oracle ID (OCID).

>>> **Returns** The id of this Cpe.

>>> **Return type** str

> **ip_address**
>> [Required] Gets the ip_address of this Cpe. The public IP address of the on-premises router.

>>> **Returns** The ip_address of this Cpe.

>>> **Return type** str

> **time_created**
>> Gets the time_created of this Cpe. The date and time the CPE was created, in the format defined by RFC3339.

>> Example: *2016-08-25T21:10:29.600Z*

>>> **Returns** The time_created of this Cpe.

>>> **Return type** datetime

class `oci.core.models.`**`CreateCpeDetails`**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new CreateCpeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters**

>>> - **compartment_id** (`str`) – The value to assign to the compartment_id property of this CreateCpeDetails.

>>> - **display_name** (`str`) – The value to assign to the display_name property of this CreateCpeDetails.

>>> - **ip_address** (`str`) – The value to assign to the ip_address property of this CreateCpeDetails.

> **compartment_id**
>> [Required] Gets the compartment_id of this CreateCpeDetails. The OCID of the compartment to contain the CPE.

>>> **Returns** The compartment_id of this CreateCpeDetails.

>>> **Return type** str

> **display_name**
>> Gets the display_name of this CreateCpeDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

>>> **Returns** The display_name of this CreateCpeDetails.

>>> **Return type** str

> **ip_address**
>> [Required] Gets the ip_address of this CreateCpeDetails. The public IP address of the on-premises router.

>> Example: *143.19.23.16*

>>> **Returns** The ip_address of this CreateCpeDetails.

>>> **Return type** str

class `oci.core.models.`**`CreateCrossConnectDetails`**(***kwargs*)

__init__ (***kwargs*)

Initializes a new CreateCrossConnectDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateCrossConnectDetails.

- **cross_connect_group_id** (*str*) – The value to assign to the cross_connect_group_id property of this CreateCrossConnectDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this CreateCrossConnectDetails.

- **far_cross_connect_or_cross_connect_group_id** (*str*) – The value to assign to the far_cross_connect_or_cross_connect_group_id property of this CreateCrossConnectDetails.

- **location_name** (*str*) – The value to assign to the location_name property of this CreateCrossConnectDetails.

- **near_cross_connect_or_cross_connect_group_id** (*str*) – The value to assign to the near_cross_connect_or_cross_connect_group_id property of this CreateCrossConnectDetails.

- **port_speed_shape_name** (*str*) – The value to assign to the port_speed_shape_name property of this CreateCrossConnectDetails.

compartment_id

[**Required**] Gets the compartment_id of this CreateCrossConnectDetails. The OCID of the compartment to contain the cross-connect.

> **Returns** The compartment_id of this CreateCrossConnectDetails.

> **Return type** str

cross_connect_group_id

Gets the cross_connect_group_id of this CreateCrossConnectDetails. The OCID of the cross-connect group to put this cross-connect in.

> **Returns** The cross_connect_group_id of this CreateCrossConnectDetails.

> **Return type** str

display_name

Gets the display_name of this CreateCrossConnectDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this CreateCrossConnectDetails.

> **Return type** str

far_cross_connect_or_cross_connect_group_id

Gets the far_cross_connect_or_cross_connect_group_id of this CreateCrossConnectDetails. If you already have an existing cross-connect or cross-connect group at this FastConnect location, and you want this new cross-connect to be on a different router (for the purposes of redundancy), provide the OCID of that existing cross-connect or cross-connect group.

> **Returns** The far_cross_connect_or_cross_connect_group_id of this CreateCrossConnectDetails.

> **Return type** str

location_name

> [Required] Gets the location_name of this CreateCrossConnectDetails. The name of the FastConnect location where this cross-connect will be installed. To get a list of the available locations, see `list_cross_connect_locations()`.
>
> Example: *CyrusOne, Chandler, AZ*
>
> > **Returns** The location_name of this CreateCrossConnectDetails.
> >
> > **Return type** str

near_cross_connect_or_cross_connect_group_id

> Gets the near_cross_connect_or_cross_connect_group_id of this CreateCrossConnectDetails. If you already have an existing cross-connect or cross-connect group at this FastConnect location, and you want this new cross-connect to be on the same router, provide the OCID of that existing cross-connect or cross-connect group.
>
> > **Returns** The near_cross_connect_or_cross_connect_group_id of this CreateCrossConnectDetails.
> >
> > **Return type** str

port_speed_shape_name

> [Required] Gets the port_speed_shape_name of this CreateCrossConnectDetails. The port speed for this cross-connect. To get a list of the available port speeds, see `list_crossconnect_port_speed_shapes()`.
>
> Example: *10 Gbps*
>
> > **Returns** The port_speed_shape_name of this CreateCrossConnectDetails.
> >
> > **Return type** str

class oci.core.models.**CreateCrossConnectGroupDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new CreateCrossConnectGroupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateCrossConnectGroupDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this CreateCrossConnectGroupDetails.

compartment_id

> [Required] Gets the compartment_id of this CreateCrossConnectGroupDetails. The OCID of the compartment to contain the cross-connect group.
>
> > **Returns** The compartment_id of this CreateCrossConnectGroupDetails.
> >
> > **Return type** str

display_name

> Gets the display_name of this CreateCrossConnectGroupDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateCrossConnectGroupDetails.
> >
> > **Return type** str

class oci.core.models.**CreateDhcpDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CreateDhcpDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateDhcpDetails.
> >
> > - **defined_tags** (*dict(str, dict(str,* object*)))* – The value to assign to the defined_tags property of this CreateDhcpDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateDhcpDetails.
> >
> > - **freeform_tags** (*dict(str, str))* – The value to assign to the freeform_tags property of this CreateDhcpDetails.
> >
> > - **options** (*list[*DhcpOption*]*) – The value to assign to the options property of this CreateDhcpDetails.
> >
> > - **vcn_id** (*str*) – The value to assign to the vcn_id property of this CreateDhcpDetails.

> **compartment_id**
> [**Required**] Gets the compartment_id of this CreateDhcpDetails. The OCID of the compartment to contain the set of DHCP options.
>
> > **Returns** The compartment_id of this CreateDhcpDetails.
> >
> > **Return type** str

> **defined_tags**
> Gets the defined_tags of this CreateDhcpDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this CreateDhcpDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

> **display_name**
> Gets the display_name of this CreateDhcpDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateDhcpDetails.
> >
> > **Return type** str

> **freeform_tags**
> Gets the freeform_tags of this CreateDhcpDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this CreateDhcpDetails.
> >
> > **Return type** dict(str, str)

> **options**
> [**Required**] Gets the options of this CreateDhcpDetails. A set of DHCP options.
>
> > **Returns** The options of this CreateDhcpDetails.

> **Return type** list[*DhcpOption*]

vcn_id
> [Required] Gets the vcn_id of this CreateDhcpDetails. The OCID of the VCN the set of DHCP options belongs to.
>
> > **Returns** The vcn_id of this CreateDhcpDetails.
> >
> > **Return type** str

class oci.core.models.**CreateDrgAttachmentDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CreateDrgAttachmentDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateDrgAttachmentDetails.
> >
> > - **drg_id** (*str*) – The value to assign to the drg_id property of this CreateDrgAttachmentDetails.
> >
> > - **vcn_id** (*str*) – The value to assign to the vcn_id property of this CreateDrgAttachmentDetails.

display_name
> Gets the display_name of this CreateDrgAttachmentDetails. A user-friendly name. Does not have to be unique. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateDrgAttachmentDetails.
> >
> > **Return type** str

drg_id
> [Required] Gets the drg_id of this CreateDrgAttachmentDetails. The OCID of the DRG.
>
> > **Returns** The drg_id of this CreateDrgAttachmentDetails.
> >
> > **Return type** str

vcn_id
> [Required] Gets the vcn_id of this CreateDrgAttachmentDetails. The OCID of the VCN.
>
> > **Returns** The vcn_id of this CreateDrgAttachmentDetails.
> >
> > **Return type** str

class oci.core.models.**CreateDrgDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CreateDrgDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateDrgDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateDrgDetails.

compartment_id
> [**Required**] Gets the compartment_id of this CreateDrgDetails. The OCID of the compartment to contain the DRG.

> > **Returns** The compartment_id of this CreateDrgDetails.

> > **Return type** str

display_name
> Gets the display_name of this CreateDrgDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> > **Returns** The display_name of this CreateDrgDetails.

> > **Return type** str

class oci.core.models.**CreateIPSecConnectionDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new CreateIPSecConnectionDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateIPSecConnectionDetails.

> > - **cpe_id** (*str*) – The value to assign to the cpe_id property of this CreateIPSecConnectionDetails.

> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateIPSecConnectionDetails.

> > - **drg_id** (*str*) – The value to assign to the drg_id property of this CreateIPSecConnectionDetails.

> > - **static_routes** (*list[str]*) – The value to assign to the static_routes property of this CreateIPSecConnectionDetails.

compartment_id
> [**Required**] Gets the compartment_id of this CreateIPSecConnectionDetails. The OCID of the compartment to contain the IPSec connection.

> > **Returns** The compartment_id of this CreateIPSecConnectionDetails.

> > **Return type** str

cpe_id
> [**Required**] Gets the cpe_id of this CreateIPSecConnectionDetails. The OCID of the CPE.

> > **Returns** The cpe_id of this CreateIPSecConnectionDetails.

> > **Return type** str

display_name
> Gets the display_name of this CreateIPSecConnectionDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> > **Returns** The display_name of this CreateIPSecConnectionDetails.

> > **Return type** str

drg_id
> [**Required**] Gets the drg_id of this CreateIPSecConnectionDetails. The OCID of the DRG.

> **Returns** The drg_id of this CreateIPSecConnectionDetails.

> **Return type** str

static_routes

> [**Required**] Gets the static_routes of this CreateIPSecConnectionDetails. Static routes to the CPE. At least one route must be included. The CIDR must not be a multicast address or class E address.

> Example: *10.0.1.0/24*

> > **Returns** The static_routes of this CreateIPSecConnectionDetails.

> > **Return type** list[str]

class oci.core.models.**CreateImageDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new CreateImageDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateImageDetails.

> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateImageDetails.

> - **display_name** (*str*) – The value to assign to the display_name property of this CreateImageDetails.

> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateImageDetails.

> - **image_source_details** (*ImageSourceDetails*) – The value to assign to the image_source_details property of this CreateImageDetails.

> - **instance_id** (*str*) – The value to assign to the instance_id property of this CreateImageDetails.

> - **launch_mode** (*str*) – The value to assign to the launch_mode property of this CreateImageDetails. Allowed values for this property are: "NATIVE", "EMULATED", "CUSTOM"

compartment_id

> [**Required**] Gets the compartment_id of this CreateImageDetails. The OCID of the compartment containing the instance you want to use as the basis for the image.

> > **Returns** The compartment_id of this CreateImageDetails.

> > **Return type** str

defined_tags

> Gets the defined_tags of this CreateImageDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

> Example: *{"Operations": {"CostCenter": "42"}}*

> > **Returns** The defined_tags of this CreateImageDetails.

> **Return type** dict(str, dict(str, *object*))

display_name

> Gets the display_name of this CreateImageDetails. A user-friendly name for the image. It does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> You cannot use an Oracle-provided image name as a custom image name.
>
> Example: *My Oracle Linux image*
>
> > **Returns** The display_name of this CreateImageDetails.
> >
> > **Return type** str

freeform_tags

> Gets the freeform_tags of this CreateImageDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this CreateImageDetails.
> >
> > **Return type** dict(str, str)

image_source_details

> Gets the image_source_details of this CreateImageDetails. Details for creating an image through import
>
> > **Returns** The image_source_details of this CreateImageDetails.
> >
> > **Return type** *ImageSourceDetails*

instance_id

> Gets the instance_id of this CreateImageDetails. The OCID of the instance you want to use as the basis for the image.
>
> > **Returns** The instance_id of this CreateImageDetails.
> >
> > **Return type** str

launch_mode

> Gets the launch_mode of this CreateImageDetails. Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are: * *NATIVE* - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images. * *EMULATED* - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller. * *CUSTOM* - VM instances launch with custom configuration settings specified in the *LaunchOptions* parameter.
>
> Allowed values for this property are: "NATIVE", "EMULATED", "CUSTOM"
>
> > **Returns** The launch_mode of this CreateImageDetails.
> >
> > **Return type** str

class oci.core.models.**CreateInstanceConsoleConnectionDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new CreateInstanceConsoleConnectionDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this CreateInstanceConsoleConnectionDetails.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateInstanceConsoleConnectionDetails.

- **instance_id** (`str`) – The value to assign to the instance_id property of this CreateInstanceConsoleConnectionDetails.

- **public_key** (`str`) – The value to assign to the public_key property of this CreateInstanceConsoleConnectionDetails.

defined_tags

Gets the defined_tags of this CreateInstanceConsoleConnectionDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this CreateInstanceConsoleConnectionDetails.

> **Return type** dict(str, dict(str, *object*))

freeform_tags

Gets the freeform_tags of this CreateInstanceConsoleConnectionDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CreateInstanceConsoleConnectionDetails.

> **Return type** dict(str, str)

instance_id

[**Required**] Gets the instance_id of this CreateInstanceConsoleConnectionDetails. The OCID of the instance to create the console connection to.

> **Returns** The instance_id of this CreateInstanceConsoleConnectionDetails.

> **Return type** str

public_key

[**Required**] Gets the public_key of this CreateInstanceConsoleConnectionDetails. The SSH public key used to authenticate the console connection.

> **Returns** The public_key of this CreateInstanceConsoleConnectionDetails.

> **Return type** str

class oci.core.models.**CreateInternetGatewayDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new CreateInternetGatewayDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **compartment_id** (`str`) – The value to assign to the compartment_id property of this CreateInternetGatewayDetails.

- **display_name** (`str`) – The value to assign to the display_name property of this CreateInternetGatewayDetails.

- **is_enabled** (`bool`) – The value to assign to the is_enabled property of this CreateInternetGatewayDetails.

- **vcn_id** (`str`) – The value to assign to the vcn_id property of this CreateInternetGatewayDetails.

compartment_id
> [Required] Gets the compartment_id of this CreateInternetGatewayDetails. The OCID of the compartment to contain the Internet Gateway.
>
> > **Returns** The compartment_id of this CreateInternetGatewayDetails.
>
> > **Return type** str

display_name
> Gets the display_name of this CreateInternetGatewayDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateInternetGatewayDetails.
>
> > **Return type** str

is_enabled
> [Required] Gets the is_enabled of this CreateInternetGatewayDetails. Whether the gateway is enabled upon creation.
>
> > **Returns** The is_enabled of this CreateInternetGatewayDetails.
>
> > **Return type** bool

vcn_id
> [Required] Gets the vcn_id of this CreateInternetGatewayDetails. The OCID of the VCN the Internet Gateway is attached to.
>
> > **Returns** The vcn_id of this CreateInternetGatewayDetails.
>
> > **Return type** str

class oci.core.models.**CreateLocalPeeringGatewayDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateLocalPeeringGatewayDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateLocalPeeringGatewayDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateLocalPeeringGatewayDetails.
> >
> > - **vcn_id** (*str*) – The value to assign to the vcn_id property of this CreateLocalPeeringGatewayDetails.

compartment_id
> [Required] Gets the compartment_id of this CreateLocalPeeringGatewayDetails. The OCID of the compartment containing the local peering gateway (LPG).
>
> > **Returns** The compartment_id of this CreateLocalPeeringGatewayDetails.
>
> > **Return type** str

display_name
> Gets the display_name of this CreateLocalPeeringGatewayDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateLocalPeeringGatewayDetails.
>
> > **Return type** str

vcn_id
>   **[Required]** Gets the vcn_id of this CreateLocalPeeringGatewayDetails. The OCID of the VCN the LPG belongs to.
>
>> **Returns** The vcn_id of this CreateLocalPeeringGatewayDetails.
>>
>> **Return type** str

class oci.core.models.**CreatePrivateIpDetails**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new CreatePrivateIpDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>> **Parameters**
>>
>> * **defined_tags** (*dict(str, dict(str,* object*)))* – The value to assign to the defined_tags property of this CreatePrivateIpDetails.
>>
>> * **display_name** (*str*) – The value to assign to the display_name property of this CreatePrivateIpDetails.
>>
>> * **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreatePrivateIpDetails.
>>
>> * **hostname_label** (*str*) – The value to assign to the hostname_label property of this CreatePrivateIpDetails.
>>
>> * **ip_address** (*str*) – The value to assign to the ip_address property of this CreatePrivateIpDetails.
>>
>> * **vnic_id** (*str*) – The value to assign to the vnic_id property of this CreatePrivateIpDetails.

defined_tags
>   Gets the defined_tags of this CreatePrivateIpDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
>   Example: *{"Operations": {"CostCenter": "42"}}*
>
>> **Returns** The defined_tags of this CreatePrivateIpDetails.
>>
>> **Return type** dict(str, dict(str, *object*))

display_name
>   Gets the display_name of this CreatePrivateIpDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
>> **Returns** The display_name of this CreatePrivateIpDetails.
>>
>> **Return type** str

freeform_tags
>   Gets the freeform_tags of this CreatePrivateIpDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
>   Example: *{"Department": "Finance"}*
>
>> **Returns** The freeform_tags of this CreatePrivateIpDetails.
>>
>> **Return type** dict(str, str)

hostname_label
>   Gets the hostname_label of this CreatePrivateIpDetails. The hostname for the private IP. Used for DNS. The value is the hostname portion of the private IP's fully qualified domain name (FQDN) (for example, *bminstance-1* in FQDN *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must be unique across all VNICs in the subnet and comply with RFC 952 and RFC 1123.
>
>   For more information, see DNS in Your Virtual Cloud Network.
>
>   Example: *bminstance-1*
>
>   >   **Returns**   The hostname_label of this CreatePrivateIpDetails.
>   >
>   >   **Return type**   str

ip_address
>   Gets the ip_address of this CreatePrivateIpDetails. A private IP address of your choice. Must be an available IP address within the subnet's CIDR. If you don't specify a value, Oracle automatically assigns a private IP address from the subnet.
>
>   Example: *10.0.3.3*
>
>   >   **Returns**   The ip_address of this CreatePrivateIpDetails.
>   >
>   >   **Return type**   str

vnic_id
>   [**Required**] Gets the vnic_id of this CreatePrivateIpDetails. The OCID of the VNIC to assign the private IP to. The VNIC and private IP must be in the same subnet.
>
>   >   **Returns**   The vnic_id of this CreatePrivateIpDetails.
>   >
>   >   **Return type**   str

class oci.core.models.**CreatePublicIpDetails**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new CreatePublicIpDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>   **Parameters**
>
>   >   • **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreatePublicIpDetails.
>   >
>   >   • **display_name** (*str*) – The value to assign to the display_name property of this CreatePublicIpDetails.
>   >
>   >   • **lifetime** (*str*) – The value to assign to the lifetime property of this CreatePublicIpDetails. Allowed values for this property are: "EPHEMERAL", "RESERVED"
>   >
>   >   • **private_ip_id** (*str*) – The value to assign to the private_ip_id property of this CreatePublicIpDetails.

compartment_id
>   [**Required**] Gets the compartment_id of this CreatePublicIpDetails. The OCID of the compartment to contain the public IP. For ephemeral public IPs, you must set this to the private IP's compartment OCID.
>
>   >   **Returns**   The compartment_id of this CreatePublicIpDetails.
>   >
>   >   **Return type**   str

display_name
>   Gets the display_name of this CreatePublicIpDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this CreatePublicIpDetails.
>
> **Return type** str

lifetime

> [**Required**] Gets the lifetime of this CreatePublicIpDetails. Defines when the public IP is deleted and released back to the Oracle Cloud Infrastructure public IP pool. For more information, see Public IP Addresses.
>
> Allowed values for this property are: "EPHEMERAL", "RESERVED"
>
> > **Returns** The lifetime of this CreatePublicIpDetails.
> >
> > **Return type** str

private_ip_id

> Gets the private_ip_id of this CreatePublicIpDetails. The OCID of the private IP to assign the public IP to.
>
> Required for an ephemeral public IP because it must always be assigned to a private IP (specifically a *primary* private IP).
>
> Optional for a reserved public IP. If you don't provide it, the public IP is created but not assigned to a private IP. You can later assign the public IP with `update_public_ip()`.
>
> > **Returns** The private_ip_id of this CreatePublicIpDetails.
> >
> > **Return type** str

class oci.core.models.**CreateRemotePeeringConnectionDetails**(***kwargs*)

> **__init__**(***kwargs*)
>
> Initializes a new CreateRemotePeeringConnectionDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateRemotePeeringConnectionDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateRemotePeeringConnectionDetails.
> >
> > - **drg_id** (*str*) – The value to assign to the drg_id property of this CreateRemotePeeringConnectionDetails.
>
> **compartment_id**
>
> > [**Required**] Gets the compartment_id of this CreateRemotePeeringConnectionDetails. The OCID of the compartment to contain the RPC.
> >
> > > **Returns** The compartment_id of this CreateRemotePeeringConnectionDetails.
> > >
> > > **Return type** str
>
> **display_name**
>
> > Gets the display_name of this CreateRemotePeeringConnectionDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
> >
> > > **Returns** The display_name of this CreateRemotePeeringConnectionDetails.
> > >
> > > **Return type** str
>
> **drg_id**
>
> > [**Required**] Gets the drg_id of this CreateRemotePeeringConnectionDetails. The OCID of the DRG the RPC belongs to.

> **Returns** The drg_id of this CreateRemotePeeringConnectionDetails.
>
> **Return type** str

class oci.core.models.**CreateRouteTableDetails**(***kwargs*)

> **__init__**(***kwargs*)
>
> Initializes a new CreateRouteTableDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateRouteTableDetails.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateRouteTableDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this CreateRouteTableDetails.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateRouteTableDetails.
>
> - **route_rules** (*list[RouteRule]*) – The value to assign to the route_rules property of this CreateRouteTableDetails.
>
> - **vcn_id** (*str*) – The value to assign to the vcn_id property of this CreateRouteTableDetails.

> **compartment_id**
>
> **[Required]** Gets the compartment_id of this CreateRouteTableDetails. The OCID of the compartment to contain the route table.
>
> **Returns** The compartment_id of this CreateRouteTableDetails.
>
> **Return type** str

> **defined_tags**
>
> Gets the defined_tags of this CreateRouteTableDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> **Returns** The defined_tags of this CreateRouteTableDetails.
>
> **Return type** dict(str, dict(str, *object*))

> **display_name**
>
> Gets the display_name of this CreateRouteTableDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> **Returns** The display_name of this CreateRouteTableDetails.
>
> **Return type** str

> **freeform_tags**
>
> Gets the freeform_tags of this CreateRouteTableDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> **Returns** The freeform_tags of this CreateRouteTableDetails.

> **Return type** dict(str, str)

route_rules

> [**Required**] Gets the route_rules of this CreateRouteTableDetails. The collection of rules used for routing destination IPs to network devices.
>
> > **Returns** The route_rules of this CreateRouteTableDetails.
> >
> > **Return type** list[*RouteRule*]

vcn_id

> [**Required**] Gets the vcn_id of this CreateRouteTableDetails. The OCID of the VCN the route table belongs to.
>
> > **Returns** The vcn_id of this CreateRouteTableDetails.
> >
> > **Return type** str

class oci.core.models.**CreateSecurityListDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new CreateSecurityListDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateSecurityListDetails.
>
> - **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this CreateSecurityListDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this CreateSecurityListDetails.
>
> - **egress_security_rules** (*list[EgressSecurityRule]*) – The value to assign to the egress_security_rules property of this CreateSecurityListDetails.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateSecurityListDetails.
>
> - **ingress_security_rules** (*list[IngressSecurityRule]*) – The value to assign to the ingress_security_rules property of this CreateSecurityListDetails.
>
> - **vcn_id** (*str*) – The value to assign to the vcn_id property of this CreateSecurityListDetails.

compartment_id

> [**Required**] Gets the compartment_id of this CreateSecurityListDetails. The OCID of the compartment to contain the security list.
>
> > **Returns** The compartment_id of this CreateSecurityListDetails.
> >
> > **Return type** str

defined_tags

> Gets the defined_tags of this CreateSecurityListDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this CreateSecurityListDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name
> Gets the display_name of this CreateSecurityListDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateSecurityListDetails.
> >
> > **Return type** str

egress_security_rules
> **[Required]** Gets the egress_security_rules of this CreateSecurityListDetails. Rules for allowing egress IP packets.
>
> > **Returns** The egress_security_rules of this CreateSecurityListDetails.
> >
> > **Return type** list[*EgressSecurityRule*]

freeform_tags
> Gets the freeform_tags of this CreateSecurityListDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this CreateSecurityListDetails.
> >
> > **Return type** dict(str, str)

ingress_security_rules
> **[Required]** Gets the ingress_security_rules of this CreateSecurityListDetails. Rules for allowing ingress IP packets.
>
> > **Returns** The ingress_security_rules of this CreateSecurityListDetails.
> >
> > **Return type** list[*IngressSecurityRule*]

vcn_id
> **[Required]** Gets the vcn_id of this CreateSecurityListDetails. The OCID of the VCN the security list belongs to.
>
> > **Returns** The vcn_id of this CreateSecurityListDetails.
> >
> > **Return type** str

class oci.core.models.**CreateSubnetDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateSubnetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this CreateSubnetDetails.
>
> - **cidr_block** (*str*) – The value to assign to the cidr_block property of this CreateSubnetDetails.
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateSubnetDetails.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateSubnetDetails.

- **dhcp_options_id** (`str`) – The value to assign to the dhcp_options_id property of this CreateSubnetDetails.

- **display_name** (`str`) – The value to assign to the display_name property of this CreateSubnetDetails.

- **dns_label** (`str`) – The value to assign to the dns_label property of this CreateSubnetDetails.

- **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this CreateSubnetDetails.

- **prohibit_public_ip_on_vnic** (`bool`) – The value to assign to the prohibit_public_ip_on_vnic property of this CreateSubnetDetails.

- **route_table_id** (`str`) – The value to assign to the route_table_id property of this CreateSubnetDetails.

- **security_list_ids** (`list[str]`) – The value to assign to the security_list_ids property of this CreateSubnetDetails.

- **vcn_id** (`str`) – The value to assign to the vcn_id property of this CreateSubnetDetails.

availability_domain
> [**Required**] Gets the availability_domain of this CreateSubnetDetails. The Availability Domain to contain the subnet.
>
> Example: *Uocm:PHX-AD-1*
>
> > **Returns** The availability_domain of this CreateSubnetDetails.
> >
> > **Return type** str

cidr_block
> [**Required**] Gets the cidr_block of this CreateSubnetDetails. The CIDR IP address range of the subnet.
>
> Example: *172.16.1.0/24*
>
> > **Returns** The cidr_block of this CreateSubnetDetails.
> >
> > **Return type** str

compartment_id
> [**Required**] Gets the compartment_id of this CreateSubnetDetails. The OCID of the compartment to contain the subnet.
>
> > **Returns** The compartment_id of this CreateSubnetDetails.
> >
> > **Return type** str

defined_tags
> Gets the defined_tags of this CreateSubnetDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this CreateSubnetDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

dhcp_options_id
> Gets the dhcp_options_id of this CreateSubnetDetails. The OCID of the set of DHCP options the subnet will use. If you don't provide a value, the subnet will use the VCN's default set of DHCP options.
>
> > **Returns** The dhcp_options_id of this CreateSubnetDetails.

> > **Return type** str

display_name

> Gets the display_name of this CreateSubnetDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateSubnetDetails.
> >
> > **Return type** str

dns_label

> Gets the dns_label of this CreateSubnetDetails. A DNS label for the subnet, used in conjunction with the VNIC's hostname and VCN's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must be an alphanumeric string that begins with a letter and is unique within the VCN. The value cannot be changed.
>
> This value must be set if you want to use the Internet and VCN Resolver to resolve the hostnames of instances in the subnet. It can only be set if the VCN itself was created with a DNS label.
>
> For more information, see DNS in Your Virtual Cloud Network.
>
> Example: *subnet123*
>
> > **Returns** The dns_label of this CreateSubnetDetails.
> >
> > **Return type** str

freeform_tags

> Gets the freeform_tags of this CreateSubnetDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this CreateSubnetDetails.
> >
> > **Return type** dict(str, str)

prohibit_public_ip_on_vnic

> Gets the prohibit_public_ip_on_vnic of this CreateSubnetDetails. Whether VNICs within this subnet can have public IP addresses. Defaults to false, which means VNICs created in this subnet will automatically be assigned public IP addresses unless specified otherwise during instance launch or VNIC creation (with the *assignPublicIp* flag in `CreateVnicDetails`). If *prohibitPublicIpOnVnic* is set to true, VNICs created in this subnet cannot have public IP addresses (that is, it's a private subnet).
>
> Example: *true*
>
> > **Returns** The prohibit_public_ip_on_vnic of this CreateSubnetDetails.
> >
> > **Return type** bool

route_table_id

> Gets the route_table_id of this CreateSubnetDetails. The OCID of the route table the subnet will use. If you don't provide a value, the subnet will use the VCN's default route table.
>
> > **Returns** The route_table_id of this CreateSubnetDetails.
> >
> > **Return type** str

security_list_ids

> Gets the security_list_ids of this CreateSubnetDetails. OCIDs for the security lists to associate with the subnet. If you don't provide a value, the VCN's default security list will be associated with the subnet. Remember that security lists are associated at the subnet level, but the rules are applied to the individual VNICs in the subnet.
>
> > **Returns** The security_list_ids of this CreateSubnetDetails.

> **Return type** list[str]

vcn_id
> [Required] Gets the vcn_id of this CreateSubnetDetails. The OCID of the VCN to contain the subnet.
>
> > **Returns** The vcn_id of this CreateSubnetDetails.
> >
> > **Return type** str

class oci.core.models.**CreateVcnDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateVcnDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **cidr_block** (*str*) – The value to assign to the cidr_block property of this CreateVcnDetails.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateVcnDetails.
> >
> > - **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this CreateVcnDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateVcnDetails.
> >
> > - **dns_label** (*str*) – The value to assign to the dns_label property of this CreateVcnDetails.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateVcnDetails.

cidr_block
> [Required] Gets the cidr_block of this CreateVcnDetails. The CIDR IP address block of the VCN.
>
> Example: *172.16.0.0/16*
>
> > **Returns** The cidr_block of this CreateVcnDetails.
> >
> > **Return type** str

compartment_id
> [Required] Gets the compartment_id of this CreateVcnDetails. The OCID of the compartment to contain the VCN.
>
> > **Returns** The compartment_id of this CreateVcnDetails.
> >
> > **Return type** str

defined_tags
> Gets the defined_tags of this CreateVcnDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this CreateVcnDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name
> Gets the display_name of this CreateVcnDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this CreateVcnDetails.

> **Return type** str

dns_label

Gets the dns_label of this CreateVcnDetails. A DNS label for the VCN, used in conjunction with the VNIC's hostname and subnet's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, *bminstance-1.subnet123.vcn1.oraclevcn.com*). Not required to be unique, but it's a best practice to set unique DNS labels for VCNs in your tenancy. Must be an alphanumeric string that begins with a letter. The value cannot be changed.

You must set this value if you want instances to be able to use hostnames to resolve other instances in the VCN. Otherwise the Internet and VCN Resolver will not work.

For more information, see DNS in Your Virtual Cloud Network.

Example: *vcn1*

> **Returns** The dns_label of this CreateVcnDetails.

> **Return type** str

freeform_tags

Gets the freeform_tags of this CreateVcnDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CreateVcnDetails.

> **Return type** dict(str, str)

class oci.core.models.**CreateVirtualCircuitDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new CreateVirtualCircuitDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **bandwidth_shape_name** (*str*) – The value to assign to the bandwidth_shape_name property of this CreateVirtualCircuitDetails.
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateVirtualCircuitDetails.
>
> - **cross_connect_mappings** (*list[CrossConnectMapping]*) – The value to assign to the cross_connect_mappings property of this CreateVirtualCircuitDetails.
>
> - **customer_bgp_asn** (*int*) – The value to assign to the customer_bgp_asn property of this CreateVirtualCircuitDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this CreateVirtualCircuitDetails.
>
> - **gateway_id** (*str*) – The value to assign to the gateway_id property of this CreateVirtualCircuitDetails.
>
> - **provider_name** (*str*) – The value to assign to the provider_name property of this CreateVirtualCircuitDetails.
>
> - **provider_service_id** (*str*) – The value to assign to the provider_service_id property of this CreateVirtualCircuitDetails.

- **provider_service_name** (*str*) – The value to assign to the provider_service_name property of this CreateVirtualCircuitDetails.

- **public_prefixes** (*list[*`CreateVirtualCircuitPublicPrefixDetails`*]*) – The value to assign to the public_prefixes property of this CreateVirtualCircuitDetails.

- **region** (*str*) – The value to assign to the region property of this CreateVirtualCircuit-Details.

- **type** (*str*) – The value to assign to the type property of this CreateVirtualCircuitDetails. Allowed values for this property are: "PUBLIC", "PRIVATE"

bandwidth_shape_name
> Gets the bandwidth_shape_name of this CreateVirtualCircuitDetails. The provisioned data rate of the connection. To get a list of the available bandwidth levels (that is, shapes), see `list_fast_connect_provider_virtual_circuit_bandwidth_shapes()`.
>
> Example: *10 Gbps*
>
> > **Returns** The bandwidth_shape_name of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

compartment_id
> **[Required]** Gets the compartment_id of this CreateVirtualCircuitDetails. The OCID of the compartment to contain the virtual circuit.
>
> > **Returns** The compartment_id of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

cross_connect_mappings
> Gets the cross_connect_mappings of this CreateVirtualCircuitDetails. Create a *CrossConnectMapping* for each cross-connect or cross-connect group this virtual circuit will run on.
>
> > **Returns** The cross_connect_mappings of this CreateVirtualCircuitDetails.
> >
> > **Return type** list[*CrossConnectMapping*]

customer_bgp_asn
> Gets the customer_bgp_asn of this CreateVirtualCircuitDetails. Your BGP ASN (either public or private). Provide this value only if there's a BGP session that goes from your edge router to Oracle. Otherwise, leave this empty or null.
>
> > **Returns** The customer_bgp_asn of this CreateVirtualCircuitDetails.
> >
> > **Return type** int

display_name
> Gets the display_name of this CreateVirtualCircuitDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

gateway_id
> Gets the gateway_id of this CreateVirtualCircuitDetails. For private virtual circuits only. The OCID of the *Drg* that this virtual circuit uses.
>
> > **Returns** The gateway_id of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

provider_name
> Gets the provider_name of this CreateVirtualCircuitDetails. Deprecated. Instead use *providerServiceId*. To get a list of the provider names, see `list_fast_connect_provider_services()`.
>
> > **Returns** The provider_name of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

provider_service_id
> Gets the provider_service_id of this CreateVirtualCircuitDetails. The OCID of the service offered by the provider (if you're connecting via a provider). To get a list of the available service offerings, see `list_fast_connect_provider_services()`.
>
> > **Returns** The provider_service_id of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

provider_service_name
> Gets the provider_service_name of this CreateVirtualCircuitDetails. Deprecated. Instead use *providerServiceId*. To get a list of the provider names, see `list_fast_connect_provider_services()`.
>
> > **Returns** The provider_service_name of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

public_prefixes
> Gets the public_prefixes of this CreateVirtualCircuitDetails. For a public virtual circuit. The public IP prefixes (CIDRs) the customer wants to advertise across the connection.
>
> > **Returns** The public_prefixes of this CreateVirtualCircuitDetails.
> >
> > **Return type** list[*CreateVirtualCircuitPublicPrefixDetails*]

region
> Gets the region of this CreateVirtualCircuitDetails. The Oracle Cloud Infrastructure region where this virtual circuit is located. Example: *phx*
>
> > **Returns** The region of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

type
> [**Required**] Gets the type of this CreateVirtualCircuitDetails. The type of IP addresses used in this virtual circuit. PRIVATE means RFC 1918 addresses (10.0.0.0/8, 172.16/12, and 192.168/16). Only PRIVATE is supported.
>
> Allowed values for this property are: "PUBLIC", "PRIVATE"
>
> > **Returns** The type of this CreateVirtualCircuitDetails.
> >
> > **Return type** str

class oci.core.models.**CreateVirtualCircuitPublicPrefixDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateVirtualCircuitPublicPrefixDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters cidr_block** (`str`) – The value to assign to the cidr_block property of this CreateVirtualCircuitPublicPrefixDetails.

cidr_block
> [**Required**] Gets the cidr_block of this CreateVirtualCircuitPublicPrefixDetails. An individual public IP prefix (CIDR) to add to the public virtual circuit. Must be /24 or less specific.

> **Returns** The cidr_block of this CreateVirtualCircuitPublicPrefixDetails.

> **Return type** str

class oci.core.models.**CreateVnicDetails**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new CreateVnicDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>> **Parameters**
>>
>> - **assign_public_ip** (*bool*) – The value to assign to the assign_public_ip property of this CreateVnicDetails.
>>
>> - **display_name** (*str*) – The value to assign to the display_name property of this CreateVnicDetails.
>>
>> - **hostname_label** (*str*) – The value to assign to the hostname_label property of this CreateVnicDetails.
>>
>> - **private_ip** (*str*) – The value to assign to the private_ip property of this CreateVnicDetails.
>>
>> - **skip_source_dest_check** (*bool*) – The value to assign to the skip_source_dest_check property of this CreateVnicDetails.
>>
>> - **subnet_id** (*str*) – The value to assign to the subnet_id property of this CreateVnicDetails.

> **assign_public_ip**
>> Gets the assign_public_ip of this CreateVnicDetails. Whether the VNIC should be assigned a public IP address. Defaults to whether the subnet is public or private. If not set and the VNIC is being created in a private subnet (that is, where *prohibitPublicIpOnVnic* = true in the [*Subnet*]), then no public IP address is assigned. If not set and the subnet is public (*prohibitPublicIpOnVnic* = false), then a public IP address is assigned. If set to true and *prohibitPublicIpOnVnic* = true, an error is returned.
>>
>> **Note:** This public IP address is associated with the primary private IP on the VNIC. For more information, see IP Addresses.
>>
>> **Note:** There's a limit to the number of [*PublicIp*] a VNIC or instance can have. If you try to create a secondary VNIC with an assigned public IP for an instance that has already reached its public IP limit, an error is returned. For information about the public IP limits, see Public IP Addresses.
>>
>> Example: *false*
>>
>> **Returns** The assign_public_ip of this CreateVnicDetails.
>>
>> **Return type** bool

> **display_name**
>> Gets the display_name of this CreateVnicDetails. A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
>>
>> **Returns** The display_name of this CreateVnicDetails.
>>
>> **Return type** str

> **hostname_label**
>> Gets the hostname_label of this CreateVnicDetails. The hostname for the VNIC's primary private IP. Used for DNS. The value is the hostname portion of the primary private IP's fully qualified domain name (FQDN) (for example, *bminstance-1* in FQDN *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must

be unique across all VNICs in the subnet and comply with RFC 952 and RFC 1123. The value appears in the *Vnic* object and also the *PrivateIp* object returned by list_private_ips() and get_private_ip().

For more information, see DNS in Your Virtual Cloud Network.

When launching an instance, use this *hostnameLabel* instead of the deprecated *hostnameLabel* in launch_instance_details(). If you provide both, the values must match.

Example: *bminstance-1*

> **Returns** The hostname_label of this CreateVnicDetails.

> **Return type** str

private_ip
> Gets the private_ip of this CreateVnicDetails. A private IP address of your choice to assign to the VNIC. Must be an available IP address within the subnet's CIDR. If you don't specify a value, Oracle automatically assigns a private IP address from the subnet. This is the VNIC's *primary* private IP address. The value appears in the *Vnic* object and also the *PrivateIp* object returned by list_private_ips() and get_private_ip().
>
> Example: *10.0.3.3*
>
> > **Returns** The private_ip of this CreateVnicDetails.
> >
> > **Return type** str

skip_source_dest_check
> Gets the skip_source_dest_check of this CreateVnicDetails. Whether the source/destination check is disabled on the VNIC. Defaults to *false*, which means the check is performed. For information about why you would skip the source/destination check, see Using a Private IP as a Route Target.
>
> Example: *true*
>
> > **Returns** The skip_source_dest_check of this CreateVnicDetails.
> >
> > **Return type** bool

subnet_id
> [**Required**] Gets the subnet_id of this CreateVnicDetails. The OCID of the subnet to create the VNIC in. When launching an instance, use this *subnetId* instead of the deprecated *subnetId* in launch_instance_details(). At least one of them is required; if you provide both, the values must match.
>
> > **Returns** The subnet_id of this CreateVnicDetails.
> >
> > **Return type** str

class oci.core.models.**CreateVolumeBackupDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateVolumeBackupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateVolumeBackupDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this CreateVolumeBackupDetails.

- **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this CreateVolumeBackupDetails.

- **type** (`str`) – The value to assign to the type property of this CreateVolumeBackupDetails. Allowed values for this property are: "FULL", "INCREMENTAL"

- **volume_id** (`str`) – The value to assign to the volume_id property of this CreateVolumeBackupDetails.

defined_tags

Gets the defined_tags of this CreateVolumeBackupDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this CreateVolumeBackupDetails.

> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this CreateVolumeBackupDetails. A user-friendly name for the volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this CreateVolumeBackupDetails.

> **Return type** str

freeform_tags

Gets the freeform_tags of this CreateVolumeBackupDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CreateVolumeBackupDetails.

> **Return type** dict(str, str)

type

Gets the type of this CreateVolumeBackupDetails. The type of backup to create. If omitted, defaults to INCREMENTAL.

Allowed values for this property are: "FULL", "INCREMENTAL"

> **Returns** The type of this CreateVolumeBackupDetails.

> **Return type** str

volume_id

[**Required**] Gets the volume_id of this CreateVolumeBackupDetails. The OCID of the volume that needs to be backed up.

> **Returns** The volume_id of this CreateVolumeBackupDetails.

> **Return type** str

class oci.core.models.**CreateVolumeBackupPolicyAssignmentDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new CreateVolumeBackupPolicyAssignmentDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

- **asset_id** (*str*) – The value to assign to the asset_id property of this CreateVolume-BackupPolicyAssignmentDetails.

- **policy_id** (*str*) – The value to assign to the policy_id property of this CreateVolume-BackupPolicyAssignmentDetails.

asset_id
> [Required] Gets the asset_id of this CreateVolumeBackupPolicyAssignmentDetails. The OCID of the asset (e.g. a volume) to which to assign the policy.
>
> > **Returns** The asset_id of this CreateVolumeBackupPolicyAssignmentDetails.
> >
> > **Return type** str

policy_id
> [Required] Gets the policy_id of this CreateVolumeBackupPolicyAssignmentDetails. The OCID of the volume backup policy to assign to an asset.
>
> > **Returns** The policy_id of this CreateVolumeBackupPolicyAssignmentDetails.
> >
> > **Return type** str

class oci.core.models.**CreateVolumeDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateVolumeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this CreateVolumeDetails.
>
> - **backup_policy_id** (*str*) – The value to assign to the backup_policy_id property of this CreateVolumeDetails.
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateVolumeDetails.
>
> - **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this CreateVolumeDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this CreateVolumeDetails.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateVolumeDetails.
>
> - **size_in_gbs** (*int*) – The value to assign to the size_in_gbs property of this CreateVolumeDetails.
>
> - **size_in_mbs** (*int*) – The value to assign to the size_in_mbs property of this CreateVolumeDetails.
>
> - **source_details** (*VolumeSourceDetails*) – The value to assign to the source_details property of this CreateVolumeDetails.
>
> - **volume_backup_id** (*str*) – The value to assign to the volume_backup_id property of this CreateVolumeDetails.

availability_domain
> [Required] Gets the availability_domain of this CreateVolumeDetails. The Availability Domain of the volume.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this CreateVolumeDetails.

> **Return type** str

backup_policy_id
Gets the backup_policy_id of this CreateVolumeDetails. If provided, specifies the ID of the volume backup policy to assign to the newly created volume. If omitted, no policy will be assigned.

> **Returns** The backup_policy_id of this CreateVolumeDetails.

> **Return type** str

compartment_id
[**Required**] Gets the compartment_id of this CreateVolumeDetails. The OCID of the compartment that contains the volume.

> **Returns** The compartment_id of this CreateVolumeDetails.

> **Return type** str

defined_tags
Gets the defined_tags of this CreateVolumeDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this CreateVolumeDetails.

> **Return type** dict(str, dict(str, *object*))

display_name
Gets the display_name of this CreateVolumeDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this CreateVolumeDetails.

> **Return type** str

freeform_tags
Gets the freeform_tags of this CreateVolumeDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CreateVolumeDetails.

> **Return type** dict(str, str)

size_in_gbs
Gets the size_in_gbs of this CreateVolumeDetails. The size of the volume in GBs.

> **Returns** The size_in_gbs of this CreateVolumeDetails.

> **Return type** int

size_in_mbs
Gets the size_in_mbs of this CreateVolumeDetails. The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Use sizeInGBs instead.

> **Returns** The size_in_mbs of this CreateVolumeDetails.

> **Return type** int

source_details
Gets the source_details of this CreateVolumeDetails. Specifies the volume source details for a new Block volume. The volume source is either another Block volume in the same Availability Domain or a Block volume backup. This is an optional field. If not specified or set to null, the new Block volume will be empty. When specified, the new Block volume will contain data from the source volume or backup.

>   **Returns** The source_details of this CreateVolumeDetails.

>   **Return type** *VolumeSourceDetails*

volume_backup_id
Gets the volume_backup_id of this CreateVolumeDetails. The OCID of the volume backup from which the data should be restored on the newly created volume. This field is deprecated. Use the sourceDetails field instead to specify the backup for the volume.

>   **Returns** The volume_backup_id of this CreateVolumeDetails.

>   **Return type** str

class oci.core.models.**CrossConnect**(***kwargs*)

__init__(***kwargs*)
Initializes a new CrossConnect object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this CrossConnect.

- **cross_connect_group_id** (*str*) – The value to assign to the cross_connect_group_id property of this CrossConnect.

- **display_name** (*str*) – The value to assign to the display_name property of this CrossConnect.

- **id** (*str*) – The value to assign to the id property of this CrossConnect.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this CrossConnect. Allowed values for this property are: "PENDING_CUSTOMER", "PROVISIONING", "PROVISIONED", "INACTIVE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **location_name** (*str*) – The value to assign to the location_name property of this CrossConnect.

- **port_name** (*str*) – The value to assign to the port_name property of this CrossConnect.

- **port_speed_shape_name** (*str*) – The value to assign to the port_speed_shape_name property of this CrossConnect.

- **time_created** (*datetime*) – The value to assign to the time_created property of this CrossConnect.

compartment_id
Gets the compartment_id of this CrossConnect. The OCID of the compartment containing the cross-connect group.

>   **Returns** The compartment_id of this CrossConnect.

>   **Return type** str

cross_connect_group_id
> Gets the cross_connect_group_id of this CrossConnect. The OCID of the cross-connect group this cross-connect belongs to (if any).
>
> > **Returns** The cross_connect_group_id of this CrossConnect.
> >
> > **Return type** str

display_name
> Gets the display_name of this CrossConnect. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this CrossConnect.
> >
> > **Return type** str

id
> Gets the id of this CrossConnect. The cross-connect's Oracle ID (OCID).
>
> > **Returns** The id of this CrossConnect.
> >
> > **Return type** str

lifecycle_state
> Gets the lifecycle_state of this CrossConnect. The cross-connect's current state.
>
> Allowed values for this property are: "PENDING_CUSTOMER", "PROVISIONING", "PROVISIONED", "INACTIVE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this CrossConnect.
> >
> > **Return type** str

location_name
> Gets the location_name of this CrossConnect. The name of the FastConnect location where this cross-connect is installed.
>
> > **Returns** The location_name of this CrossConnect.
> >
> > **Return type** str

port_name
> Gets the port_name of this CrossConnect. A string identifying the meet-me room port for this cross-connect.
>
> > **Returns** The port_name of this CrossConnect.
> >
> > **Return type** str

port_speed_shape_name
> Gets the port_speed_shape_name of this CrossConnect. The port speed for this cross-connect.
>
> Example: *10 Gbps*
>
> > **Returns** The port_speed_shape_name of this CrossConnect.
> >
> > **Return type** str

time_created
> Gets the time_created of this CrossConnect. The date and time the cross-connect was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this CrossConnect.

> **Return type** datetime

class oci.core.models.**CrossConnectGroup**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new CrossConnectGroup object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>> **Parameters**
>>
>> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CrossConnectGroup.
>>
>> - **display_name** (*str*) – The value to assign to the display_name property of this CrossConnectGroup.
>>
>> - **id** (*str*) – The value to assign to the id property of this CrossConnectGroup.
>>
>> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this CrossConnectGroup. Allowed values for this property are: "PROVISIONING", "PROVISIONED", "INACTIVE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>> - **time_created** (*datetime*) – The value to assign to the time_created property of this CrossConnectGroup.
>
> **compartment_id**
>> Gets the compartment_id of this CrossConnectGroup. The OCID of the compartment containing the cross-connect group.
>>
>> **Returns** The compartment_id of this CrossConnectGroup.
>>
>> **Return type** str
>
> **display_name**
>> Gets the display_name of this CrossConnectGroup. The display name of A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>>
>> **Returns** The display_name of this CrossConnectGroup.
>>
>> **Return type** str
>
> **id**
>> Gets the id of this CrossConnectGroup. The cross-connect group's Oracle ID (OCID).
>>
>> **Returns** The id of this CrossConnectGroup.
>>
>> **Return type** str
>
> **lifecycle_state**
>> Gets the lifecycle_state of this CrossConnectGroup. The cross-connect group's current state.
>>
>> Allowed values for this property are: "PROVISIONING", "PROVISIONED", "INACTIVE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>> **Returns** The lifecycle_state of this CrossConnectGroup.
>>
>> **Return type** str
>
> **time_created**
>> Gets the time_created of this CrossConnectGroup. The date and time the cross-connect group was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

>> **Returns** The time_created of this CrossConnectGroup.

>> **Return type** datetime

class oci.core.models.**CrossConnectLocation**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CrossConnectLocation object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters**

>>> • **description** (*str*) – The value to assign to the description property of this CrossConnectLocation.

>>> • **name** (*str*) – The value to assign to the name property of this CrossConnectLocation.

> **description**
> [Required] Gets the description of this CrossConnectLocation. A description of the location.

>> **Returns** The description of this CrossConnectLocation.

>> **Return type** str

> **name**
> [Required] Gets the name of this CrossConnectLocation. The name of the location.

> Example: *CyrusOne, Chandler, AZ*

>> **Returns** The name of this CrossConnectLocation.

>> **Return type** str

class oci.core.models.**CrossConnectMapping**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CrossConnectMapping object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters**

>>> • **bgp_md5_auth_key** (*str*) – The value to assign to the bgp_md5_auth_key property of this CrossConnectMapping.

>>> • **cross_connect_or_cross_connect_group_id** (*str*) – The value to assign to the cross_connect_or_cross_connect_group_id property of this CrossConnectMapping.

>>> • **customer_bgp_peering_ip** (*str*) – The value to assign to the customer_bgp_peering_ip property of this CrossConnectMapping.

>>> • **oracle_bgp_peering_ip** (*str*) – The value to assign to the oracle_bgp_peering_ip property of this CrossConnectMapping.

>>> • **vlan** (*int*) – The value to assign to the vlan property of this CrossConnectMapping.

> **bgp_md5_auth_key**
> Gets the bgp_md5_auth_key of this CrossConnectMapping. The key for BGP MD5 authentication. Only applicable if your system requires MD5 authentication. If empty or not set (null), that means you don't use BGP MD5 authentication.

>> **Returns** The bgp_md5_auth_key of this CrossConnectMapping.

> > **Return type** str

cross_connect_or_cross_connect_group_id
> Gets the cross_connect_or_cross_connect_group_id of this CrossConnectMapping. The OCID of the cross-connect or cross-connect group for this mapping. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider).
>
> > **Returns** The cross_connect_or_cross_connect_group_id of this CrossConnectMapping.
>
> > **Return type** str

customer_bgp_peering_ip
> Gets the customer_bgp_peering_ip of this CrossConnectMapping. The BGP IP address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IP address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IP address of the provider's edge router. Must use a /30 or /31 subnet mask.
>
> There's one exception: for a public virtual circuit, Oracle specifies the BGP IP addresses.
>
> Example: *10.0.0.18/31*
>
> > **Returns** The customer_bgp_peering_ip of this CrossConnectMapping.
>
> > **Return type** str

oracle_bgp_peering_ip
> Gets the oracle_bgp_peering_ip of this CrossConnectMapping. The IP address for Oracle's end of the BGP session. Must use a /30 or /31 subnet mask. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.
>
> There's one exception: for a public virtual circuit, Oracle specifies the BGP IP addresses.
>
> Example: *10.0.0.19/31*
>
> > **Returns** The oracle_bgp_peering_ip of this CrossConnectMapping.
>
> > **Return type** str

vlan
> Gets the vlan of this CrossConnectMapping. The number of the specific VLAN (on the cross-connect or cross-connect group) that is assigned to this virtual circuit. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider).
>
> Example: *200*
>
> > **Returns** The vlan of this CrossConnectMapping.
>
> > **Return type** int

class oci.core.models.**CrossConnectPortSpeedShape**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new CrossConnectPortSpeedShape object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > > • **name** (*str*) – The value to assign to the name property of this CrossConnectPortSpeed-Shape.

> - **port_speed_in_gbps** (*int*) – The value to assign to the port_speed_in_gbps property of this CrossConnectPortSpeedShape.

name

> **[Required]** Gets the name of this CrossConnectPortSpeedShape. The name of the port speed shape.
>
> Example: *10 Gbps*
>
> > **Returns** The name of this CrossConnectPortSpeedShape.
> >
> > **Return type** str

port_speed_in_gbps

> **[Required]** Gets the port_speed_in_gbps of this CrossConnectPortSpeedShape. The port speed in Gbps.
>
> Example: *10*
>
> > **Returns** The port_speed_in_gbps of this CrossConnectPortSpeedShape.
> >
> > **Return type** int

class oci.core.models.**CrossConnectStatus**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new CrossConnectStatus object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **cross_connect_id** (*str*) – The value to assign to the cross_connect_id property of this CrossConnectStatus.
> > - **interface_state** (*str*) – The value to assign to the interface_state property of this CrossConnectStatus. Allowed values for this property are: "UP", "DOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > - **light_level_ind_bm** (*float*) – The value to assign to the light_level_ind_bm property of this CrossConnectStatus.
> > - **light_level_indicator** (*str*) – The value to assign to the light_level_indicator property of this CrossConnectStatus. Allowed values for this property are: "NO_LIGHT", "LOW_WARN", "HIGH_WARN", "BAD", "GOOD", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

cross_connect_id

> **[Required]** Gets the cross_connect_id of this CrossConnectStatus. The OCID of the cross-connect.
>
> > **Returns** The cross_connect_id of this CrossConnectStatus.
> >
> > **Return type** str

interface_state

> Gets the interface_state of this CrossConnectStatus. Whether Oracle's side of the interface is up or down.
>
> Allowed values for this property are: "UP", "DOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The interface_state of this CrossConnectStatus.
> >
> > **Return type** str

light_level_ind_bm
:   Gets the light_level_ind_bm of this CrossConnectStatus. The light level of the cross-connect (in dBm).

    Example: *14.0*

    > **Returns** The light_level_ind_bm of this CrossConnectStatus.

    > **Return type** float

light_level_indicator
:   Gets the light_level_indicator of this CrossConnectStatus. Status indicator corresponding to the light level.

    - **NO_LIGHT:** No measurable light

    - **LOW_WARN:** There's measurable light but it's too low

    - **HIGH_WARN:** Light level is too high

    - **BAD:** There's measurable light but the signal-to-noise ratio is bad

    - **GOOD:** Good light level

    Allowed values for this property are: "NO_LIGHT", "LOW_WARN", "HIGH_WARN", "BAD", "GOOD", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

    > **Returns** The light_level_indicator of this CrossConnectStatus.

    > **Return type** str

class oci.core.models.**DeleteVirtualCircuitPublicPrefixDetails**(***kwargs*)

__init__(***kwargs*)
:   Initializes a new DeleteVirtualCircuitPublicPrefixDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    > **Parameters cidr_block** (*str*) – The value to assign to the cidr_block property of this DeleteVirtualCircuitPublicPrefixDetails.

cidr_block
:   [**Required**] Gets the cidr_block of this DeleteVirtualCircuitPublicPrefixDetails. An individual public IP prefix (CIDR) to remove from the public virtual circuit.

    > **Returns** The cidr_block of this DeleteVirtualCircuitPublicPrefixDetails.

    > **Return type** str

class oci.core.models.**DhcpDnsOption**(***kwargs*)

__init__(***kwargs*)
:   Initializes a new DhcpDnsOption object with values from keyword arguments. The default value of the *type* attribute of this class is DomainNameServer and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    > **Parameters**
    >
    > - **type** (*str*) – The value to assign to the type property of this DhcpDnsOption.
    >
    > - **custom_dns_servers** (*list[str]*) – The value to assign to the custom_dns_servers property of this DhcpDnsOption.

- **server_type** (`str`) – The value to assign to the server_type property of this DhcpDnsOption. Allowed values for this property are: "VcnLocal", "VcnLocalPlusInternet", "CustomDnsServer", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

custom_dns_servers
> Gets the custom_dns_servers of this DhcpDnsOption. If you set *serverType* to *CustomDnsServer*, specify the IP address of at least one DNS server of your choice (three maximum).

> > **Returns** The custom_dns_servers of this DhcpDnsOption.

> > **Return type** list[str]

get_subtype(*object_dictionary*)
> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

server_type
> [Required] Gets the server_type of this DhcpDnsOption. - **VcnLocal:** Reserved for future use.

> > - **VcnLocalPlusInternet:** Also referred to as "Internet and VCN Resolver".

> Instances can resolve internet hostnames (no Internet Gateway is required), and can resolve hostnames of instances in the VCN. This is the default value in the default set of DHCP options in the VCN. For the Internet and VCN Resolver to work across the VCN, there must also be a DNS label set for the VCN, a DNS label set for each subnet, and a hostname for each instance. The Internet and VCN Resolver also enables reverse DNS lookup, which lets you determine the hostname corresponding to the private IP address. For more information, see DNS in Your Virtual Cloud Network.

> > - **CustomDnsServer:** Instances use a DNS server of your choice (three maximum).

> Allowed values for this property are: "VcnLocal", "VcnLocalPlusInternet", "CustomDnsServer", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The server_type of this DhcpDnsOption.

> > **Return type** str

type
> [Required] Gets the type of this DhcpOption. The specific DHCP option. Either *DomainNameServer* (for `DhcpDnsOption`) or *SearchDomain* (for `DhcpSearchDomainOption`).

> > **Returns** The type of this DhcpOption.

> > **Return type** str

class oci.core.models.**DhcpOption**(***kwargs*)

__init__(***kwargs*)
> Initializes a new DhcpOption object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:

> > - `DhcpDnsOption`

> > - `DhcpSearchDomainOption`

> The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters** **type** (`str`) – The value to assign to the type property of this DhcpOption.

static get_subtype(*object_dictionary*)

> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

type

> [Required] Gets the type of this DhcpOption. The specific DHCP option. Either *DomainNameServer* (for *DhcpDnsOption*) or *SearchDomain* (for *DhcpSearchDomainOption*).
>
> > **Returns** The type of this DhcpOption.
> >
> > **Return type** str

class oci.core.models.**DhcpOptions**(***kwargs*)

__init__(***kwargs*)

> Initializes a new DhcpOptions object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this DhcpOptions.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this DhcpOptions.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this DhcpOptions.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this DhcpOptions.
>
> - **id** (*str*) – The value to assign to the id property of this DhcpOptions.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DhcpOptions. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **options** (*list[DhcpOption]*) – The value to assign to the options property of this DhcpOptions.
>
> - **time_created** (*datetime*) – The value to assign to the time_created property of this DhcpOptions.
>
> - **vcn_id** (*str*) – The value to assign to the vcn_id property of this DhcpOptions.

compartment_id

> [Required] Gets the compartment_id of this DhcpOptions. The OCID of the compartment containing the set of DHCP options.
>
> > **Returns** The compartment_id of this DhcpOptions.
> >
> > **Return type** str

defined_tags

> Gets the defined_tags of this DhcpOptions. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this DhcpOptions.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name
Gets the display_name of this DhcpOptions. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this DhcpOptions.

> **Return type** str

freeform_tags
Gets the freeform_tags of this DhcpOptions. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this DhcpOptions.

> **Return type** dict(str, str)

id
[**Required**] Gets the id of this DhcpOptions. Oracle ID (OCID) for the set of DHCP options.

> **Returns** The id of this DhcpOptions.

> **Return type** str

lifecycle_state
[**Required**] Gets the lifecycle_state of this DhcpOptions. The current state of the set of DHCP options.

Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMI-NATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this DhcpOptions.

> **Return type** str

options
[**Required**] Gets the options of this DhcpOptions. The collection of individual DHCP options.

> **Returns** The options of this DhcpOptions.

> **Return type** list[*DhcpOption*]

time_created
[**Required**] Gets the time_created of this DhcpOptions. Date and time the set of DHCP options was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this DhcpOptions.

> **Return type** datetime

vcn_id
[**Required**] Gets the vcn_id of this DhcpOptions. The OCID of the VCN the set of DHCP options belongs to.

> **Returns** The vcn_id of this DhcpOptions.

> **Return type** str

class oci.core.models.**DhcpSearchDomainOption**(***kwargs*)

__init__(***kwargs*)
Initializes a new DhcpSearchDomainOption object with values from keyword arguments. The default

value of the *type* attribute of this class is `SearchDomain` and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **type** (`str`) – The value to assign to the type property of this DhcpSearchDomainOption.
>
> - **search_domain_names** (`list[str]`) – The value to assign to the search_domain_names property of this DhcpSearchDomainOption.

get_subtype(*object_dictionary*)

> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

search_domain_names

> [**Required**] Gets the search_domain_names of this DhcpSearchDomainOption. A single search domain name according to [RFC 952](#) and [RFC 1123](#). During a DNS query, the OS will append this search domain name to the value being queried.
>
> If you set *DhcpDnsOption* to *VcnLocalPlusInternet*, and you assign a DNS label to the VCN during creation, the search domain name in the VCN's default set of DHCP options is automatically set to the VCN domain (for example, *vcn1.oraclevcn.com*).
>
> If you don't want to use a search domain name, omit this option from the set of DHCP options. Do not include this option with an empty list of search domain names, or with an empty string as the value for any search domain name.
>
> > **Returns** The search_domain_names of this DhcpSearchDomainOption.
> >
> > **Return type** list[str]

type

> [**Required**] Gets the type of this DhcpOption. The specific DHCP option. Either *DomainNameServer* (for *DhcpDnsOption*) or *SearchDomain* (for *DhcpSearchDomainOption*).
>
> > **Returns** The type of this DhcpOption.
> >
> > **Return type** str

class oci.core.models.**Drg**(***kwargs*)

__init__(***kwargs*)

> Initializes a new Drg object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **compartment_id** (`str`) – The value to assign to the compartment_id property of this Drg.
> >
> > - **display_name** (`str`) – The value to assign to the display_name property of this Drg.
> >
> > - **id** (`str`) – The value to assign to the id property of this Drg.
> >
> > - **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this Drg. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **time_created** (`datetime`) – The value to assign to the time_created property of this Drg.

compartment_id
> [Required] Gets the compartment_id of this Drg. The OCID of the compartment containing the DRG.
>
> > **Returns** The compartment_id of this Drg.
> >
> > **Return type** str

display_name
> Gets the display_name of this Drg. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this Drg.
> >
> > **Return type** str

id
> [Required] Gets the id of this Drg. The DRG's Oracle ID (OCID).
>
> > **Returns** The id of this Drg.
> >
> > **Return type** str

lifecycle_state
> [Required] Gets the lifecycle_state of this Drg. The DRG's current state.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this Drg.
> >
> > **Return type** str

time_created
> Gets the time_created of this Drg. The date and time the DRG was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this Drg.
> >
> > **Return type** datetime

class oci.core.models.**DrgAttachment**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new DrgAttachment object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this DrgAttachment.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this DrgAttachment.
> >
> > - **drg_id** (*str*) – The value to assign to the drg_id property of this DrgAttachment.
> >
> > - **id** (*str*) – The value to assign to the id property of this DrgAttachment.
> >
> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DrgAttachment. Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> - **time_created** (*datetime*) – The value to assign to the time_created property of this DrgAttachment.
>
> - **vcn_id** (*str*) – The value to assign to the vcn_id property of this DrgAttachment.

compartment_id
> [**Required**] Gets the compartment_id of this DrgAttachment. The OCID of the compartment containing the DRG attachment.
>
> > **Returns** The compartment_id of this DrgAttachment.
> >
> > **Return type** str

display_name
> Gets the display_name of this DrgAttachment. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this DrgAttachment.
> >
> > **Return type** str

drg_id
> [**Required**] Gets the drg_id of this DrgAttachment. The OCID of the DRG.
>
> > **Returns** The drg_id of this DrgAttachment.
> >
> > **Return type** str

id
> [**Required**] Gets the id of this DrgAttachment. The DRG attachment's Oracle ID (OCID).
>
> > **Returns** The id of this DrgAttachment.
> >
> > **Return type** str

lifecycle_state
> [**Required**] Gets the lifecycle_state of this DrgAttachment. The DRG attachment's current state.
>
> Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this DrgAttachment.
> >
> > **Return type** str

time_created
> Gets the time_created of this DrgAttachment. The date and time the DRG attachment was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this DrgAttachment.
> >
> > **Return type** datetime

vcn_id
> [**Required**] Gets the vcn_id of this DrgAttachment. The OCID of the VCN.
>
> > **Returns** The vcn_id of this DrgAttachment.
> >
> > **Return type** str

class oci.core.models.**EgressSecurityRule**(***kwargs*)

__init__ (***kwargs*)

Initializes a new EgressSecurityRule object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **destination** (*str*) – The value to assign to the destination property of this EgressSecurityRule.
>
> - **icmp_options** (*IcmpOptions*) – The value to assign to the icmp_options property of this EgressSecurityRule.
>
> - **is_stateless** (*bool*) – The value to assign to the is_stateless property of this EgressSecurityRule.
>
> - **protocol** (*str*) – The value to assign to the protocol property of this EgressSecurityRule.
>
> - **tcp_options** (*TcpOptions*) – The value to assign to the tcp_options property of this EgressSecurityRule.
>
> - **udp_options** (*UdpOptions*) – The value to assign to the udp_options property of this EgressSecurityRule.

destination

[**Required**] Gets the destination of this EgressSecurityRule. The destination CIDR block for the egress rule. This is the range of IP addresses that a packet originating from the instance can go to.

> **Returns** The destination of this EgressSecurityRule.
>
> **Return type** str

icmp_options

Gets the icmp_options of this EgressSecurityRule. Optional and valid only for ICMP. Use to specify a particular ICMP type and code as defined in ICMP Parameters. If you specify ICMP as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each.

> **Returns** The icmp_options of this EgressSecurityRule.
>
> **Return type** *IcmpOptions*

is_stateless

Gets the is_stateless of this EgressSecurityRule. A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if egress traffic allows TCP destination port 80, there should be an ingress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.

> **Returns** The is_stateless of this EgressSecurityRule.
>
> **Return type** bool

protocol

[**Required**] Gets the protocol of this EgressSecurityRule. The transport protocol. Specify either *all* or an IPv4 protocol number as defined in Protocol Numbers. Options are supported only for ICMP ("1"), TCP ("6"), and UDP ("17").

> **Returns** The protocol of this EgressSecurityRule.
>
> **Return type** str

tcp_options
Gets the tcp_options of this EgressSecurityRule. Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.

> **Returns** The tcp_options of this EgressSecurityRule.

> **Return type** *TcpOptions*

udp_options
Gets the udp_options of this EgressSecurityRule. Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.

> **Returns** The udp_options of this EgressSecurityRule.

> **Return type** *UdpOptions*

class oci.core.models.**ExportImageDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new ExportImageDetails object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:

> - *ExportImageViaObjectStorageUriDetails*

> - *ExportImageViaObjectStorageTupleDetails*

The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters destination_type** (*str*) – The value to assign to the destination_type property of this ExportImageDetails.

destination_type
[Required] Gets the destination_type of this ExportImageDetails. The destination type. Use *objectStorageTuple* when specifying the namespace, bucket name, and object name. Use *objectStorageUri* when specifying the Object Storage URL.

> **Returns** The destination_type of this ExportImageDetails.

> **Return type** str

static get_subtype(*object_dictionary*)
Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

class oci.core.models.**ExportImageViaObjectStorageTupleDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new ExportImageViaObjectStorageTupleDetails object with values from keyword arguments. The default value of the *destination_type* attribute of this class is objectStorageTuple and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > - **destination_type** (*str*) – The value to assign to the destination_type property of this ExportImageViaObjectStorageTupleDetails.

> > - **bucket_name** (*str*) – The value to assign to the bucket_name property of this ExportImageViaObjectStorageTupleDetails.

- **namespace_name** (*str*) – The value to assign to the namespace_name property of this
  ExportImageViaObjectStorageTupleDetails.

- **object_name** (*str*) – The value to assign to the object_name property of this Export-
  tImageViaObjectStorageTupleDetails.

bucket_name
> Gets the bucket_name of this ExportImageViaObjectStorageTupleDetails. The Object Storage bucket to
> export the image to.
>
> > **Returns** The bucket_name of this ExportImageViaObjectStorageTupleDetails.
> >
> > **Return type** str

destination_type
> [**Required**] Gets the destination_type of this ExportImageDetails. The destination type. Use *objectStor-
> ageTuple* when specifying the namespace, bucket name, and object name. Use *objectStorageUri* when
> specifying the Object Storage URL.
>
> > **Returns** The destination_type of this ExportImageDetails.
> >
> > **Return type** str

get_subtype(*object_dictionary*)
> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
> subtype.

namespace_name
> Gets the namespace_name of this ExportImageViaObjectStorageTupleDetails. The Object Storage names-
> pace to export the image to.
>
> > **Returns** The namespace_name of this ExportImageViaObjectStorageTupleDetails.
> >
> > **Return type** str

object_name
> Gets the object_name of this ExportImageViaObjectStorageTupleDetails. The Object Storage object name
> for the exported image.
>
> > **Returns** The object_name of this ExportImageViaObjectStorageTupleDetails.
> >
> > **Return type** str

class oci.core.models.**ExportImageViaObjectStorageUriDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new ExportImageViaObjectStorageUriDetails object with values from keyword arguments.
> The default value of the *destination_type* attribute of this class is objectStorageUri and
> it should not be changed. The following keyword arguments are supported (corresponding to the get-
> ters/setters of this class):
>
> > **Parameters**
> >
> > - **destination_type** (*str*) – The value to assign to the destination_type property of
> >   this ExportImageViaObjectStorageUriDetails.
> >
> > - **destination_uri** (*str*) – The value to assign to the destination_uri property of this
> >   ExportImageViaObjectStorageUriDetails.

destination_type
> [**Required**] Gets the destination_type of this ExportImageDetails. The destination type. Use *objectStor-
> ageTuple* when specifying the namespace, bucket name, and object name. Use *objectStorageUri* when
> specifying the Object Storage URL.

>   **Returns** The destination_type of this ExportImageDetails.

>   **Return type** str

destination_uri

>   [**Required**] Gets the destination_uri of this ExportImageViaObjectStorageUriDetails. The Object Storage
>   URL to export the image to. See Object Storage URLs and pre-authenticated requests for constructing
>   URLs for image import/export.

>   **Returns** The destination_uri of this ExportImageViaObjectStorageUriDetails.

>   **Return type** str

get_subtype(*object_dictionary*)

>   Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
>   subtype.

class oci.core.models.**FastConnectProviderService**(***kwargs*)

>   **__init__**(***kwargs*)

>   Initializes a new FastConnectProviderService object with values from keyword arguments. The following
>   keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters**

>   • **description** (*str*) – The value to assign to the description property of this FastCon-
>   nectProviderService.

>   • **id** (*str*) – The value to assign to the id property of this FastConnectProviderService.

>   • **private_peering_bgp_management** (*str*) – The value to assign to the pri-
>   vate_peering_bgp_management property of this FastConnectProviderService. Allowed
>   values for this property are: "CUSTOMER_MANAGED", "PROVIDER_MANAGED",
>   "ORACLE_MANAGED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values re-
>   turned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   • **provider_name** (*str*) – The value to assign to the provider_name property of this
>   FastConnectProviderService.

>   • **provider_service_name** (*str*) – The value to assign to the provider_service_name
>   property of this FastConnectProviderService.

>   • **public_peering_bgp_management** (*str*) – The value to assign to the pub-
>   lic_peering_bgp_management property of this FastConnectProviderService. Allowed
>   values for this property are: "CUSTOMER_MANAGED", "PROVIDER_MANAGED",
>   "ORACLE_MANAGED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values re-
>   turned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   • **supported_virtual_circuit_types** (*list[str]*) – The value to as-
>   sign to the supported_virtual_circuit_types property of this FastConnectProviderSer-
>   vice. Allowed values for items in this list are: "PUBLIC", "PRIVATE", 'UN-
>   KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
>   mapped to 'UNKNOWN_ENUM_VALUE'.

>   • **type** (*str*) – The value to assign to the type property of this FastConnectProvider-
>   Service. Allowed values for this property are: "LAYER2", "LAYER3", 'UN-
>   KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
>   mapped to 'UNKNOWN_ENUM_VALUE'.

description
Gets the description of this FastConnectProviderService. A description of the service offered by the provider.

>   **Returns** The description of this FastConnectProviderService.

>   **Return type** str

id
[**Required**] Gets the id of this FastConnectProviderService. The OCID of the service offered by the provider.

>   **Returns** The id of this FastConnectProviderService.

>   **Return type** str

private_peering_bgp_management
[**Required**] Gets the private_peering_bgp_management of this FastConnectProviderService. Private peering BGP management.

Allowed values for this property are: "CUSTOMER_MANAGED", "PROVIDER_MANAGED", "ORACLE_MANAGED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The private_peering_bgp_management of this FastConnectProviderService.

>   **Return type** str

provider_name
[**Required**] Gets the provider_name of this FastConnectProviderService. The name of the provider.

>   **Returns** The provider_name of this FastConnectProviderService.

>   **Return type** str

provider_service_name
[**Required**] Gets the provider_service_name of this FastConnectProviderService. The name of the service offered by the provider.

>   **Returns** The provider_service_name of this FastConnectProviderService.

>   **Return type** str

public_peering_bgp_management
[**Required**] Gets the public_peering_bgp_management of this FastConnectProviderService. Public peering BGP management.

Allowed values for this property are: "CUSTOMER_MANAGED", "PROVIDER_MANAGED", "ORACLE_MANAGED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The public_peering_bgp_management of this FastConnectProviderService.

>   **Return type** str

supported_virtual_circuit_types
Gets the supported_virtual_circuit_types of this FastConnectProviderService. An array of virtual circuit types supported by this service.

Allowed values for items in this list are: "PUBLIC", "PRIVATE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The supported_virtual_circuit_types of this FastConnectProviderService.

>   **Return type** list[str]

---

type
[Required] Gets the type of this FastConnectProviderService. Provider service type.

Allowed values for this property are: "LAYER2", "LAYER3", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The type of this FastConnectProviderService.

> **Return type** str

class oci.core.models.**GetPublicIpByIpAddressDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new GetPublicIpByIpAddressDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters ip_address** (*str*) – The value to assign to the ip_address property of this GetPublicIpByIpAddressDetails.

ip_address
[Required] Gets the ip_address of this GetPublicIpByIpAddressDetails. The public IP address. Example: 129.146.2.1

> **Returns** The ip_address of this GetPublicIpByIpAddressDetails.

> **Return type** str

class oci.core.models.**GetPublicIpByPrivateIpIdDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new GetPublicIpByPrivateIpIdDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters private_ip_id** (*str*) – The value to assign to the private_ip_id property of this GetPublicIpByPrivateIpIdDetails.

private_ip_id
[Required] Gets the private_ip_id of this GetPublicIpByPrivateIpIdDetails. OCID of the private IP.

> **Returns** The private_ip_id of this GetPublicIpByPrivateIpIdDetails.

> **Return type** str

class oci.core.models.**IPSecConnection**(***kwargs*)

__init__(***kwargs*)
Initializes a new IPSecConnection object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this IPSecConnection.
> - **cpe_id** (*str*) – The value to assign to the cpe_id property of this IPSecConnection.
> - **display_name** (*str*) – The value to assign to the display_name property of this IPSecConnection.
> - **drg_id** (*str*) – The value to assign to the drg_id property of this IPSecConnection.
> - **id** (*str*) – The value to assign to the id property of this IPSecConnection.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this IPSecConnection. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **static_routes** (*list[str]*) – The value to assign to the static_routes property of this IPSecConnection.

- **time_created** (*datetime*) – The value to assign to the time_created property of this IPSecConnection.

compartment_id

> [**Required**] Gets the compartment_id of this IPSecConnection. The OCID of the compartment containing the IPSec connection.
>
> > **Returns** The compartment_id of this IPSecConnection.
> >
> > **Return type** str

cpe_id

> [**Required**] Gets the cpe_id of this IPSecConnection. The OCID of the CPE.
>
> > **Returns** The cpe_id of this IPSecConnection.
> >
> > **Return type** str

display_name

> Gets the display_name of this IPSecConnection. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this IPSecConnection.
> >
> > **Return type** str

drg_id

> [**Required**] Gets the drg_id of this IPSecConnection. The OCID of the DRG.
>
> > **Returns** The drg_id of this IPSecConnection.
> >
> > **Return type** str

id

> [**Required**] Gets the id of this IPSecConnection. The IPSec connection's Oracle ID (OCID).
>
> > **Returns** The id of this IPSecConnection.
> >
> > **Return type** str

lifecycle_state

> [**Required**] Gets the lifecycle_state of this IPSecConnection. The IPSec connection's current state.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this IPSecConnection.
> >
> > **Return type** str

static_routes

> [**Required**] Gets the static_routes of this IPSecConnection. Static routes to the CPE. At least one route must be included. The CIDR must not be a multicast address or class E address.
>
> Example: *10.0.1.0/24*

> **Returns** The static_routes of this IPSecConnection.

> **Return type** list[str]

time_created
> Gets the time_created of this IPSecConnection. The date and time the IPSec connection was created, in the format defined by RFC3339.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this IPSecConnection.

> > **Return type** datetime

class oci.core.models.**IPSecConnectionDeviceConfig**(***kwargs*)

__init__(***kwargs*)
> Initializes a new IPSecConnectionDeviceConfig object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > • **compartment_id** (*str*) – The value to assign to the compartment_id property of this IPSecConnectionDeviceConfig.

> > • **id** (*str*) – The value to assign to the id property of this IPSecConnectionDeviceConfig.

> > • **time_created** (*datetime*) – The value to assign to the time_created property of this IPSecConnectionDeviceConfig.

> > • **tunnels** (*list[*TunnelConfig*]*) – The value to assign to the tunnels property of this IPSecConnectionDeviceConfig.

compartment_id
> **[Required]** Gets the compartment_id of this IPSecConnectionDeviceConfig. The OCID of the compartment containing the IPSec connection.

> > **Returns** The compartment_id of this IPSecConnectionDeviceConfig.

> > **Return type** str

id
> **[Required]** Gets the id of this IPSecConnectionDeviceConfig. The IPSec connection's Oracle ID (OCID).

> > **Returns** The id of this IPSecConnectionDeviceConfig.

> > **Return type** str

time_created
> Gets the time_created of this IPSecConnectionDeviceConfig. The date and time the IPSec connection was created.

> > **Returns** The time_created of this IPSecConnectionDeviceConfig.

> > **Return type** datetime

tunnels
> Gets the tunnels of this IPSecConnectionDeviceConfig. Two *TunnelConfig* objects.

> > **Returns** The tunnels of this IPSecConnectionDeviceConfig.

> > **Return type** list[*TunnelConfig*]

class oci.core.models.**IPSecConnectionDeviceStatus**(***kwargs*)

__init__(***kwargs*)
> Initializes a new IPSecConnectionDeviceStatus object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>> • **compartment_id** (*str*) – The value to assign to the compartment_id property of this IPSecConnectionDeviceStatus.
>>
>> • **id** (*str*) – The value to assign to the id property of this IPSecConnectionDeviceStatus.
>>
>> • **time_created** (*datetime*) – The value to assign to the time_created property of this IPSecConnectionDeviceStatus.
>>
>> • **tunnels** (*list[TunnelStatus]*) – The value to assign to the tunnels property of this IPSecConnectionDeviceStatus.

compartment_id
> **[Required]** Gets the compartment_id of this IPSecConnectionDeviceStatus. The OCID of the compartment containing the IPSec connection.

>> **Returns** The compartment_id of this IPSecConnectionDeviceStatus.

>> **Return type** str

id
> **[Required]** Gets the id of this IPSecConnectionDeviceStatus. The IPSec connection's Oracle ID (OCID).

>> **Returns** The id of this IPSecConnectionDeviceStatus.

>> **Return type** str

time_created
> Gets the time_created of this IPSecConnectionDeviceStatus. The date and time the IPSec connection was created, in the format defined by RFC3339.

> Example: *2016-08-25T21:10:29.600Z*

>> **Returns** The time_created of this IPSecConnectionDeviceStatus.

>> **Return type** datetime

tunnels
> Gets the tunnels of this IPSecConnectionDeviceStatus. Two *TunnelStatus* objects.

>> **Returns** The tunnels of this IPSecConnectionDeviceStatus.

>> **Return type** list[*TunnelStatus*]

class oci.core.models.**IScsiVolumeAttachment**(***kwargs*)

__init__(***kwargs*)
> Initializes a new IScsiVolumeAttachment object with values from keyword arguments. The default value of the *attachment_type* attribute of this class is iscsi and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>> • **attachment_type** (*str*) – The value to assign to the attachment_type property of this IScsiVolumeAttachment.
>>
>> • **availability_domain** (*str*) – The value to assign to the availability_domain property of this IScsiVolumeAttachment.

- **compartment_id** (`str`) – The value to assign to the compartment_id property of this IScsiVolumeAttachment.

- **display_name** (`str`) – The value to assign to the display_name property of this IScsiVolumeAttachment.

- **id** (`str`) – The value to assign to the id property of this IScsiVolumeAttachment.

- **instance_id** (`str`) – The value to assign to the instance_id property of this IScsiVolumeAttachment.

- **is_read_only** (`bool`) – The value to assign to the is_read_only property of this IScsiVolumeAttachment.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this IScsiVolumeAttachment. Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED"

- **time_created** (`datetime`) – The value to assign to the time_created property of this IScsiVolumeAttachment.

- **volume_id** (`str`) – The value to assign to the volume_id property of this IScsiVolumeAttachment.

- **chap_secret** (`str`) – The value to assign to the chap_secret property of this IScsiVolumeAttachment.

- **chap_username** (`str`) – The value to assign to the chap_username property of this IScsiVolumeAttachment.

- **ipv4** (`str`) – The value to assign to the ipv4 property of this IScsiVolumeAttachment.

- **iqn** (`str`) – The value to assign to the iqn property of this IScsiVolumeAttachment.

- **port** (`int`) – The value to assign to the port property of this IScsiVolumeAttachment.

attachment_type
> [Required] Gets the attachment_type of this VolumeAttachment. The type of volume attachment.
>
>> **Returns** The attachment_type of this VolumeAttachment.
>>
>> **Return type** str

availability_domain
> [Required] Gets the availability_domain of this VolumeAttachment. The Availability Domain of an instance.
>
> Example: *Uocm:PHX-AD-1*
>
>> **Returns** The availability_domain of this VolumeAttachment.
>>
>> **Return type** str

chap_secret
> Gets the chap_secret of this IScsiVolumeAttachment. The Challenge-Handshake-Authentication-Protocol (CHAP) secret valid for the associated CHAP user name. (Also called the "CHAP password".)
>
> Example: *d6866c0d-298b-48ba-95af-309b4faux45e*
>
>> **Returns** The chap_secret of this IScsiVolumeAttachment.
>>
>> **Return type** str

chap_username
> Gets the chap_username of this IScsiVolumeAttachment. The volume's system-generated Challenge-Handshake-Authentication-Protocol (CHAP) user name.

Example: *ocid1.volume.oc1.phx.abyhqljrgvttnlx73nmrwfaux7kcvzfs3s66izvxf2h4lgvyndsdsnoiwr5q*

> **Returns** The chap_username of this IScsiVolumeAttachment.
>
> **Return type** str

compartment_id
: [Required] Gets the compartment_id of this VolumeAttachment. The OCID of the compartment.

> **Returns** The compartment_id of this VolumeAttachment.
>
> **Return type** str

display_name
: Gets the display_name of this VolumeAttachment. A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.

Example: *My volume attachment*

> **Returns** The display_name of this VolumeAttachment.
>
> **Return type** str

get_subtype(*object_dictionary*)
: Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

id
: [Required] Gets the id of this VolumeAttachment. The OCID of the volume attachment.

> **Returns** The id of this VolumeAttachment.
>
> **Return type** str

instance_id
: [Required] Gets the instance_id of this VolumeAttachment. The OCID of the instance the volume is attached to.

> **Returns** The instance_id of this VolumeAttachment.
>
> **Return type** str

ipv4
: [Required] Gets the ipv4 of this IScsiVolumeAttachment. The volume's iSCSI IP address.

Example: *169.254.0.2*

> **Returns** The ipv4 of this IScsiVolumeAttachment.
>
> **Return type** str

iqn
: [Required] Gets the iqn of this IScsiVolumeAttachment. The target volume's iSCSI Qualified Name in the format defined by RFC 3720.

Example: *iqn.2015-12.us.oracle.com:456b0391-17b8-4122-bbf1-f85fc0bb97d9*

> **Returns** The iqn of this IScsiVolumeAttachment.
>
> **Return type** str

is_read_only
: Gets the is_read_only of this VolumeAttachment. Whether the attachment was created in read-only mode.

> **Returns** The is_read_only of this VolumeAttachment.
>
> **Return type** bool

lifecycle_state
> [Required] Gets the lifecycle_state of this VolumeAttachment. The current state of the volume attachment.
>
> Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this VolumeAttachment.
> >
> > **Return type** str

port
> [Required] Gets the port of this IScsiVolumeAttachment. The volume's iSCSI port.
>
> Example: *3260*
>
> > **Returns** The port of this IScsiVolumeAttachment.
> >
> > **Return type** int

time_created
> [Required] Gets the time_created of this VolumeAttachment. The date and time the volume was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this VolumeAttachment.
> >
> > **Return type** datetime

volume_id
> [Required] Gets the volume_id of this VolumeAttachment. The OCID of the volume.
>
> > **Returns** The volume_id of this VolumeAttachment.
> >
> > **Return type** str

class oci.core.models.**IcmpOptions**(***kwargs*)

__init__(***kwargs*)
> Initializes a new IcmpOptions object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **code** (*int*) – The value to assign to the code property of this IcmpOptions.
> >
> > - **type** (*int*) – The value to assign to the type property of this IcmpOptions.

code
> Gets the code of this IcmpOptions. The ICMP code (optional).
>
> > **Returns** The code of this IcmpOptions.
> >
> > **Return type** int

type
> [Required] Gets the type of this IcmpOptions. The ICMP type.
>
> > **Returns** The type of this IcmpOptions.
> >
> > **Return type** int

class oci.core.models.**Image**(***kwargs*)

__init__ (***kwargs*)

Initializes a new Image object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **base_image_id** (*str*) – The value to assign to the base_image_id property of this Image.
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Image.
>
> - **create_image_allowed** (*bool*) – The value to assign to the create_image_allowed property of this Image.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Image.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this Image.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Image.
>
> - **id** (*str*) – The value to assign to the id property of this Image.
>
> - **launch_mode** (*str*) – The value to assign to the launch_mode property of this Image. Allowed values for this property are: "NATIVE", "EMULATED", "CUSTOM", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **launch_options** (*LaunchOptions*) – The value to assign to the launch_options property of this Image.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Image. Allowed values for this property are: "PROVISIONING", "IMPORTING", "AVAILABLE", "EXPORTING", "DISABLED", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **operating_system** (*str*) – The value to assign to the operating_system property of this Image.
>
> - **operating_system_version** (*str*) – The value to assign to the operating_system_version property of this Image.
>
> - **size_in_mbs** (*int*) – The value to assign to the size_in_mbs property of this Image.
>
> - **time_created** (*datetime*) – The value to assign to the time_created property of this Image.

base_image_id

Gets the base_image_id of this Image. The OCID of the image originally used to launch the instance.

> **Returns** The base_image_id of this Image.
>
> **Return type** str

compartment_id

[Required] Gets the compartment_id of this Image. The OCID of the compartment containing the instance you want to use as the basis for the image.

> **Returns** The compartment_id of this Image.
>
> **Return type** str

create_image_allowed

> [**Required**] Gets the create_image_allowed of this Image. Whether instances launched with this image can be used to create new images. For example, you cannot create an image of an Oracle Database instance. Example: *true*
>
> > **Returns** The create_image_allowed of this Image.
> >
> > **Return type** bool

defined_tags

> Gets the defined_tags of this Image. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this Image.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name

> Gets the display_name of this Image. A user-friendly name for the image. It does not have to be unique, and it's changeable. Avoid entering confidential information. You cannot use an Oracle-provided image name as a custom image name.
>
> Example: *My custom Oracle Linux image*
>
> > **Returns** The display_name of this Image.
> >
> > **Return type** str

freeform_tags

> Gets the freeform_tags of this Image. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this Image.
> >
> > **Return type** dict(str, str)

id

> [**Required**] Gets the id of this Image. The OCID of the image.
>
> > **Returns** The id of this Image.
> >
> > **Return type** str

launch_mode

> Gets the launch_mode of this Image. Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are: * *NATIVE* - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images. * *EMULATED* - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller. * *CUSTOM* - VM instances launch with custom configuration settings specified in the *LaunchOptions* parameter.
>
> Allowed values for this property are: "NATIVE", "EMULATED", "CUSTOM", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The launch_mode of this Image.
> >
> > **Return type** str

launch_options

> Gets the launch_options of this Image.

> > **Returns** The launch_options of this Image.

> > **Return type** *LaunchOptions*

> **lifecycle_state**
> > [**Required**] Gets the lifecycle_state of this Image. Allowed values for this property are: "PRO-VISIONING", "IMPORTING", "AVAILABLE", "EXPORTING", "DISABLED", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> > **Returns** The lifecycle_state of this Image.

> > **Return type** str

> **operating_system**
> > [**Required**] Gets the operating_system of this Image. The image's operating system.

> > Example: *Oracle Linux*

> > **Returns** The operating_system of this Image.

> > **Return type** str

> **operating_system_version**
> > [**Required**] Gets the operating_system_version of this Image. The image's operating system version.

> > Example: *7.2*

> > **Returns** The operating_system_version of this Image.

> > **Return type** str

> **size_in_mbs**
> > Gets the size_in_mbs of this Image. Image size (1 MB = 1048576 bytes)

> > Example: *47694*

> > **Returns** The size_in_mbs of this Image.

> > **Return type** int

> **time_created**
> > [**Required**] Gets the time_created of this Image. The date and time the image was created, in the format defined by RFC3339.

> > Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this Image.

> > **Return type** datetime

class oci.core.models.**ImageSourceDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new ImageSourceDetails object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:

> > - *ImageSourceViaObjectStorageTupleDetails*

> > - *ImageSourceViaObjectStorageUriDetails*

> > The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

- **source_image_type** (*str*) – The value to assign to the source_image_type property of this ImageSourceDetails. Allowed values for this property are: "QCOW2", "VMDK"

- **source_type** (*str*) – The value to assign to the source_type property of this Image-SourceDetails.

static get_subtype(*object_dictionary*)

Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

source_image_type

Gets the source_image_type of this ImageSourceDetails. The format of the image to be imported. Exported Oracle images are QCOW2. Only monolithic images are supported.

Allowed values for this property are: "QCOW2", "VMDK"

> **Returns** The source_image_type of this ImageSourceDetails.
>
> **Return type** str

source_type

[**Required**] Gets the source_type of this ImageSourceDetails. The source type for the image. Use *objectStorageTuple* when specifying the namespace, bucket name, and object name. Use *objectStorageUri* when specifying the Object Storage URL.

> **Returns** The source_type of this ImageSourceDetails.
>
> **Return type** str

class oci.core.models.**ImageSourceViaObjectStorageTupleDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new ImageSourceViaObjectStorageTupleDetails object with values from keyword arguments. The default value of the [*source_type*](#) attribute of this class is objectStorageTuple and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **source_image_type** (*str*) – The value to assign to the source_image_type property of this ImageSourceViaObjectStorageTupleDetails. Allowed values for this property are: "QCOW2", "VMDK"

- **source_type** (*str*) – The value to assign to the source_type property of this ImageSourceViaObjectStorageTupleDetails.

- **bucket_name** (*str*) – The value to assign to the bucket_name property of this ImageSourceViaObjectStorageTupleDetails.

- **namespace_name** (*str*) – The value to assign to the namespace_name property of this ImageSourceViaObjectStorageTupleDetails.

- **object_name** (*str*) – The value to assign to the object_name property of this ImageSourceViaObjectStorageTupleDetails.

bucket_name

[**Required**] Gets the bucket_name of this ImageSourceViaObjectStorageTupleDetails. The Object Storage bucket for the image.

> **Returns** The bucket_name of this ImageSourceViaObjectStorageTupleDetails.
>
> **Return type** str

get_subtype(*object_dictionary*)

> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

namespace_name

> **[Required]** Gets the namespace_name of this ImageSourceViaObjectStorageTupleDetails. The Object Storage namespace for the image.
>
> > **Returns** The namespace_name of this ImageSourceViaObjectStorageTupleDetails.
> >
> > **Return type** str

object_name

> **[Required]** Gets the object_name of this ImageSourceViaObjectStorageTupleDetails. The Object Storage name for the image.
>
> > **Returns** The object_name of this ImageSourceViaObjectStorageTupleDetails.
> >
> > **Return type** str

source_image_type

> Gets the source_image_type of this ImageSourceDetails. The format of the image to be imported. Exported Oracle images are QCOW2. Only monolithic images are supported.
>
> Allowed values for this property are: "QCOW2", "VMDK"
>
> > **Returns** The source_image_type of this ImageSourceDetails.
> >
> > **Return type** str

source_type

> **[Required]** Gets the source_type of this ImageSourceDetails. The source type for the image. Use *objectStorageTuple* when specifying the namespace, bucket name, and object name. Use *objectStorageUri* when specifying the Object Storage URL.
>
> > **Returns** The source_type of this ImageSourceDetails.
> >
> > **Return type** str

class oci.core.models.**ImageSourceViaObjectStorageUriDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new ImageSourceViaObjectStorageUriDetails object with values from keyword arguments. The default value of the *source_type* attribute of this class is objectStorageUri and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **source_image_type** (*str*) – The value to assign to the source_image_type property of this ImageSourceViaObjectStorageUriDetails. Allowed values for this property are: "QCOW2", "VMDK"
> >
> > - **source_type** (*str*) – The value to assign to the source_type property of this ImageSourceViaObjectStorageUriDetails.
> >
> > - **source_uri** (*str*) – The value to assign to the source_uri property of this ImageSourceViaObjectStorageUriDetails.

get_subtype(*object_dictionary*)

> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

source_image_type
> Gets the source_image_type of this ImageSourceDetails. The format of the image to be imported. Exported Oracle images are QCOW2. Only monolithic images are supported.
>
> Allowed values for this property are: "QCOW2", "VMDK"
>
> > **Returns** The source_image_type of this ImageSourceDetails.
> >
> > **Return type** str

source_type
> **[Required]** Gets the source_type of this ImageSourceDetails. The source type for the image. Use *objectStorageTuple* when specifying the namespace, bucket name, and object name. Use *objectStorageUri* when specifying the Object Storage URL.
>
> > **Returns** The source_type of this ImageSourceDetails.
> >
> > **Return type** str

source_uri
> **[Required]** Gets the source_uri of this ImageSourceViaObjectStorageUriDetails. The Object Storage URL for the image.
>
> > **Returns** The source_uri of this ImageSourceViaObjectStorageUriDetails.
> >
> > **Return type** str

class oci.core.models.**IngressSecurityRule**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new IngressSecurityRule object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **icmp_options** (`IcmpOptions`) – The value to assign to the icmp_options property of this IngressSecurityRule.
> >
> > - **is_stateless** (`bool`) – The value to assign to the is_stateless property of this IngressSecurityRule.
> >
> > - **protocol** (`str`) – The value to assign to the protocol property of this IngressSecurityRule.
> >
> > - **source** (`str`) – The value to assign to the source property of this IngressSecurityRule.
> >
> > - **tcp_options** (`TcpOptions`) – The value to assign to the tcp_options property of this IngressSecurityRule.
> >
> > - **udp_options** (`UdpOptions`) – The value to assign to the udp_options property of this IngressSecurityRule.

icmp_options
> Gets the icmp_options of this IngressSecurityRule. Optional and valid only for ICMP. Use to specify a particular ICMP type and code as defined in ICMP Parameters. If you specify ICMP as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each.
>
> > **Returns** The icmp_options of this IngressSecurityRule.
> >
> > **Return type** *IcmpOptions*

is_stateless
> Gets the is_stateless of this IngressSecurityRule. A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if ingress traffic allows TCP destination port 80, there should be an egress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
>
> > **Returns** The is_stateless of this IngressSecurityRule.
> >
> > **Return type** bool

protocol
> **[Required]** Gets the protocol of this IngressSecurityRule. The transport protocol. Specify either *all* or an IPv4 protocol number as defined in Protocol Numbers. Options are supported only for ICMP ("1"), TCP ("6"), and UDP ("17").
>
> > **Returns** The protocol of this IngressSecurityRule.
> >
> > **Return type** str

source
> **[Required]** Gets the source of this IngressSecurityRule. The source CIDR block for the ingress rule. This is the range of IP addresses that a packet coming into the instance can come from.
>
> > **Returns** The source of this IngressSecurityRule.
> >
> > **Return type** str

tcp_options
> Gets the tcp_options of this IngressSecurityRule. Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
>
> > **Returns** The tcp_options of this IngressSecurityRule.
> >
> > **Return type** *TcpOptions*

udp_options
> Gets the udp_options of this IngressSecurityRule. Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
>
> > **Returns** The udp_options of this IngressSecurityRule.
> >
> > **Return type** *UdpOptions*

class oci.core.models.**Instance**(***kwargs*)

__init__(***kwargs*)
> Initializes a new Instance object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **availability_domain** (*str*) – The value to assign to the availability_domain property of this Instance.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Instance.
> >
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Instance.

- **display_name** (*str*) – The value to assign to the display_name property of this Instance.

- **extended_metadata** (*dict(str,* object)) – The value to assign to the extended_metadata property of this Instance.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Instance.

- **id** (*str*) – The value to assign to the id property of this Instance.

- **image_id** (*str*) – The value to assign to the image_id property of this Instance.

- **ipxe_script** (*str*) – The value to assign to the ipxe_script property of this Instance.

- **launch_mode** (*str*) – The value to assign to the launch_mode property of this Instance. Allowed values for this property are: "NATIVE", "EMULATED", "CUSTOM", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **launch_options** (LaunchOptions) – The value to assign to the launch_options property of this Instance.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Instance. Allowed values for this property are: "PROVISIONING", "RUNNING", "STARTING", "STOPPING", "STOPPED", "CREATING_IMAGE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **metadata** (*dict(str, str)*) – The value to assign to the metadata property of this Instance.

- **region** (*str*) – The value to assign to the region property of this Instance.

- **shape** (*str*) – The value to assign to the shape property of this Instance.

- **source_details** (InstanceSourceDetails) – The value to assign to the source_details property of this Instance.

- **time_created** (*datetime*) – The value to assign to the time_created property of this Instance.

availability_domain
> [**Required**] Gets the availability_domain of this Instance. The Availability Domain the instance is running in.
>
> Example: *Uocm:PHX-AD-1*
>
>> **Returns** The availability_domain of this Instance.
>>
>> **Return type** str

compartment_id
> [**Required**] Gets the compartment_id of this Instance. The OCID of the compartment that contains the instance.
>
>> **Returns** The compartment_id of this Instance.
>>
>> **Return type** str

defined_tags
> Gets the defined_tags of this Instance. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*

Returns The defined_tags of this Instance.

Return type dict(str, dict(str, *object*))

display_name
Gets the display_name of this Instance. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

Example: *My bare metal instance*

Returns The display_name of this Instance.

Return type str

extended_metadata
Gets the extended_metadata of this Instance. Additional metadata key/value pairs that you provide. They serve a similar purpose and functionality from fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

If you don't need nested metadata values, it is strongly advised to avoid using this object and use the Metadata object instead.

Returns The extended_metadata of this Instance.

Return type dict(str, *object*)

freeform_tags
Gets the freeform_tags of this Instance. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

Returns The freeform_tags of this Instance.

Return type dict(str, str)

id
[**Required**] Gets the id of this Instance. The OCID of the instance.

Returns The id of this Instance.

Return type str

image_id
Gets the image_id of this Instance. Deprecated. Use *sourceDetails* instead.

Returns The image_id of this Instance.

Return type str

ipxe_script
Gets the ipxe_script of this Instance. When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial LaunchInstance call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: 169.254.0.2, and boot volume IQN: iqn.2015-02.oracle.boot.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see Bring Your Own Image.

For more information about iPXE, see http://ipxe.org.

> **Returns** The ipxe_script of this Instance.

> **Return type** str

launch_mode
Gets the launch_mode of this Instance. Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are: * *NATIVE* - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images. * *EMULATED* - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller. * *CUSTOM* - VM instances launch with custom configuration settings specified in the *LaunchOptions* parameter.

Allowed values for this property are: "NATIVE", "EMULATED", "CUSTOM", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The launch_mode of this Instance.

> **Return type** str

launch_options
Gets the launch_options of this Instance.

> **Returns** The launch_options of this Instance.

> **Return type** *LaunchOptions*

lifecycle_state
[Required] Gets the lifecycle_state of this Instance. The current state of the instance.

Allowed values for this property are: "PROVISIONING", "RUNNING", "STARTING", "STOP-PING", "STOPPED", "CREATING_IMAGE", "TERMINATING", "TERMINATED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this Instance.

> **Return type** str

metadata
Gets the metadata of this Instance. Custom metadata that you provide.

> **Returns** The metadata of this Instance.

> **Return type** dict(str, str)

region
[Required] Gets the region of this Instance. The region that contains the Availability Domain the instance is running in.

Example: *phx*

> **Returns** The region of this Instance.

> **Return type** str

shape
[Required] Gets the shape of this Instance. The shape of the instance. The shape determines the number of CPUs and the amount of memory allocated to the instance. You can enumerate all available shapes by calling `list_shapes()`.

> **Returns** The shape of this Instance.
>
> **Return type** str

source_details

Gets the source_details of this Instance. Details for creating an instance

> **Returns** The source_details of this Instance.
>
> **Return type** *InstanceSourceDetails*

time_created

[Required] Gets the time_created of this Instance. The date and time the instance was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this Instance.
>
> **Return type** datetime

class oci.core.models.**InstanceConsoleConnection**(***kwargs*)

__init__(***kwargs*)

Initializes a new InstanceConsoleConnection object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this InstanceConsoleConnection.

- **connection_string** (*str*) – The value to assign to the connection_string property of this InstanceConsoleConnection.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this InstanceConsoleConnection.

- **fingerprint** (*str*) – The value to assign to the fingerprint property of this InstanceConsoleConnection.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this InstanceConsoleConnection.

- **id** (*str*) – The value to assign to the id property of this InstanceConsoleConnection.

- **instance_id** (*str*) – The value to assign to the instance_id property of this InstanceConsoleConnection.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this InstanceConsoleConnection. Allowed values for this property are: "ACTIVE", "CREATING", "DELETED", "DELETING", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **vnc_connection_string** (*str*) – The value to assign to the vnc_connection_string property of this InstanceConsoleConnection.

compartment_id

Gets the compartment_id of this InstanceConsoleConnection. The OCID of the compartment to contain the console connection.

> **Returns** The compartment_id of this InstanceConsoleConnection.

Return type str

connection_string

> Gets the connection_string of this InstanceConsoleConnection. The SSH connection string for the console connection.
>
> > **Returns** The connection_string of this InstanceConsoleConnection.
> >
> > **Return type** str

defined_tags

> Gets the defined_tags of this InstanceConsoleConnection. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this InstanceConsoleConnection.
> >
> > **Return type** dict(str, dict(str, *object*))

fingerprint

> Gets the fingerprint of this InstanceConsoleConnection. The SSH public key fingerprint for the console connection.
>
> > **Returns** The fingerprint of this InstanceConsoleConnection.
> >
> > **Return type** str

freeform_tags

> Gets the freeform_tags of this InstanceConsoleConnection. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this InstanceConsoleConnection.
> >
> > **Return type** dict(str, str)

id

> Gets the id of this InstanceConsoleConnection. The OCID of the console connection.
>
> > **Returns** The id of this InstanceConsoleConnection.
> >
> > **Return type** str

instance_id

> Gets the instance_id of this InstanceConsoleConnection. The OCID of the instance the console connection connects to.
>
> > **Returns** The instance_id of this InstanceConsoleConnection.
> >
> > **Return type** str

lifecycle_state

> Gets the lifecycle_state of this InstanceConsoleConnection. The current state of the console connection.
>
> Allowed values for this property are: "ACTIVE", "CREATING", "DELETED", "DELETING", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this InstanceConsoleConnection.
> >
> > **Return type** str

vnc_connection_string
> Gets the vnc_connection_string of this InstanceConsoleConnection. The SSH connection string for the SSH tunnel used to connect to the console connection over VNC.
>
> > **Returns** The vnc_connection_string of this InstanceConsoleConnection.
> >
> > **Return type** str

class oci.core.models.**InstanceCredentials**(***kwargs*)

__init__(***kwargs*)
> Initializes a new InstanceCredentials object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **password** (*str*) – The value to assign to the password property of this InstanceCredentials.
> > - **username** (*str*) – The value to assign to the username property of this InstanceCredentials.

password
> **[Required]** Gets the password of this InstanceCredentials. The password for the username.
>
> > **Returns** The password of this InstanceCredentials.
> >
> > **Return type** str

username
> **[Required]** Gets the username of this InstanceCredentials. The username.
>
> > **Returns** The username of this InstanceCredentials.
> >
> > **Return type** str

class oci.core.models.**InstanceSourceDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new InstanceSourceDetails object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:
>
> - *InstanceSourceViaImageDetails*
> - *InstanceSourceViaBootVolumeDetails*
>
> The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters source_type** (*str*) – The value to assign to the source_type property of this InstanceSourceDetails.

static get_subtype(*object_dictionary*)
> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

source_type
> **[Required]** Gets the source_type of this InstanceSourceDetails. The source type for the instance. Use *image* when specifying the image OCID. Use *bootVolume* when specifying the boot volume OCID.
>
> > **Returns** The source_type of this InstanceSourceDetails.
> >
> > **Return type** str

class oci.core.models.**InstanceSourceViaBootVolumeDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new InstanceSourceViaBootVolumeDetails object with values from keyword arguments. The default value of the *source_type* attribute of this class is bootVolume and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **source_type** (*str*) – The value to assign to the source_type property of this Instance-SourceViaBootVolumeDetails.
> >
> > - **boot_volume_id** (*str*) – The value to assign to the boot_volume_id property of this InstanceSourceViaBootVolumeDetails.
>
> **boot_volume_id**
> > **[Required]** Gets the boot_volume_id of this InstanceSourceViaBootVolumeDetails. The OCID of the boot volume used to boot the instance.
> >
> > **Returns** The boot_volume_id of this InstanceSourceViaBootVolumeDetails.
> >
> > **Return type** str
>
> **get_subtype**(*object_dictionary*)
> > Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.
>
> **source_type**
> > **[Required]** Gets the source_type of this InstanceSourceDetails. The source type for the instance. Use *image* when specifying the image OCID. Use *bootVolume* when specifying the boot volume OCID.
> >
> > **Returns** The source_type of this InstanceSourceDetails.
> >
> > **Return type** str

class oci.core.models.**InstanceSourceViaImageDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new InstanceSourceViaImageDetails object with values from keyword arguments. The default value of the *source_type* attribute of this class is image and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **source_type** (*str*) – The value to assign to the source_type property of this Instance-SourceViaImageDetails.
> >
> > - **boot_volume_size_in_gbs** (*int*) – The value to assign to the boot_volume_size_in_gbs property of this InstanceSourceViaImageDetails.
> >
> > - **image_id** (*str*) – The value to assign to the image_id property of this InstanceSource-ViaImageDetails.
>
> **boot_volume_size_in_gbs**
> > Gets the boot_volume_size_in_gbs of this InstanceSourceViaImageDetails. The size of the boot volume in GBs. Minimum value is 50 GB and maximum value is 16384 GB (16TB).
> >
> > **Returns** The boot_volume_size_in_gbs of this InstanceSourceViaImageDetails.
> >
> > **Return type** int

get_subtype(*object_dictionary*)

Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

image_id

[**Required**] Gets the image_id of this InstanceSourceViaImageDetails. The OCID of the image used to boot the instance.

> **Returns** The image_id of this InstanceSourceViaImageDetails.

> **Return type** str

source_type

[**Required**] Gets the source_type of this InstanceSourceDetails. The source type for the instance. Use *image* when specifying the image OCID. Use *bootVolume* when specifying the boot volume OCID.

> **Returns** The source_type of this InstanceSourceDetails.

> **Return type** str

class oci.core.models.**InternetGateway**(***kwargs*)

__init__(***kwargs*)

Initializes a new InternetGateway object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
> - **compartment_id** (`str`) – The value to assign to the compartment_id property of this InternetGateway.
> - **display_name** (`str`) – The value to assign to the display_name property of this InternetGateway.
> - **id** (`str`) – The value to assign to the id property of this InternetGateway.
> - **is_enabled** (`bool`) – The value to assign to the is_enabled property of this InternetGateway.
> - **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this InternetGateway. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> - **time_created** (`datetime`) – The value to assign to the time_created property of this InternetGateway.
> - **vcn_id** (`str`) – The value to assign to the vcn_id property of this InternetGateway.

compartment_id

[**Required**] Gets the compartment_id of this InternetGateway. The OCID of the compartment containing the Internet Gateway.

> **Returns** The compartment_id of this InternetGateway.

> **Return type** str

display_name

Gets the display_name of this InternetGateway. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this InternetGateway.

Return type str

id

[**Required**] Gets the id of this InternetGateway. The Internet Gateway's Oracle ID (OCID).

Returns The id of this InternetGateway.

Return type str

is_enabled

Gets the is_enabled of this InternetGateway. Whether the gateway is enabled. When the gateway is disabled, traffic is not routed to/from the Internet, regardless of route rules.

Returns The is_enabled of this InternetGateway.

Return type bool

lifecycle_state

[**Required**] Gets the lifecycle_state of this InternetGateway. The Internet Gateway's current state.

Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMI-NATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

Returns The lifecycle_state of this InternetGateway.

Return type str

time_created

Gets the time_created of this InternetGateway. The date and time the Internet Gateway was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

Returns The time_created of this InternetGateway.

Return type datetime

vcn_id

[**Required**] Gets the vcn_id of this InternetGateway. The OCID of the VCN the Internet Gateway belongs to.

Returns The vcn_id of this InternetGateway.

Return type str

class oci.core.models.**LaunchInstanceDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new LaunchInstanceDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **availability_domain** (*str*) – The value to assign to the availability_domain property of this LaunchInstanceDetails.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this LaunchInstanceDetails.

- **create_vnic_details** (*CreateVnicDetails*) – The value to assign to the create_vnic_details property of this LaunchInstanceDetails.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this LaunchInstanceDetails.

- **display_name** (`str`) – The value to assign to the display_name property of this LaunchInstanceDetails.

- **extended_metadata** (`dict(str,` `object`)) – The value to assign to the extended_metadata property of this LaunchInstanceDetails.

- **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this LaunchInstanceDetails.

- **hostname_label** (`str`) – The value to assign to the hostname_label property of this LaunchInstanceDetails.

- **image_id** (`str`) – The value to assign to the image_id property of this LaunchInstanceDetails.

- **ipxe_script** (`str`) – The value to assign to the ipxe_script property of this LaunchInstanceDetails.

- **metadata** (`dict(str, str)`) – The value to assign to the metadata property of this LaunchInstanceDetails.

- **shape** (`str`) – The value to assign to the shape property of this LaunchInstanceDetails.

- **source_details** (`InstanceSourceDetails`) – The value to assign to the source_details property of this LaunchInstanceDetails.

- **subnet_id** (`str`) – The value to assign to the subnet_id property of this LaunchInstanceDetails.

availability_domain

[**Required**] Gets the availability_domain of this LaunchInstanceDetails. The Availability Domain of the instance.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this LaunchInstanceDetails.

> **Return type** str

compartment_id

[**Required**] Gets the compartment_id of this LaunchInstanceDetails. The OCID of the compartment.

> **Returns** The compartment_id of this LaunchInstanceDetails.

> **Return type** str

create_vnic_details

Gets the create_vnic_details of this LaunchInstanceDetails. Details for the primary VNIC, which is automatically created and attached when the instance is launched.

> **Returns** The create_vnic_details of this LaunchInstanceDetails.

> **Return type** *CreateVnicDetails*

defined_tags

Gets the defined_tags of this LaunchInstanceDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this LaunchInstanceDetails.

> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this LaunchInstanceDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

Example: *My bare metal instance*

>   **Returns** The display_name of this LaunchInstanceDetails.

>   **Return type** str

extended_metadata

Gets the extended_metadata of this LaunchInstanceDetails. Additional metadata key/value pairs that you provide. They serve a similar purpose and functionality from fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

If you don't need nested metadata values, it is strongly advised to avoid using this object and use the Metadata object instead.

>   **Returns** The extended_metadata of this LaunchInstanceDetails.

>   **Return type** dict(str, *object*)

freeform_tags

Gets the freeform_tags of this LaunchInstanceDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

>   **Returns** The freeform_tags of this LaunchInstanceDetails.

>   **Return type** dict(str, str)

hostname_label

Gets the hostname_label of this LaunchInstanceDetails. Deprecated. Instead use *hostnameLabel* in `CreateVnicDetails`. If you provide both, the values must match.

>   **Returns** The hostname_label of this LaunchInstanceDetails.

>   **Return type** str

image_id

Gets the image_id of this LaunchInstanceDetails. Deprecated. Use *sourceDetails* with `instance_source_via_image_details()` source type instead. If you specify values for both, the values must match.

>   **Returns** The image_id of this LaunchInstanceDetails.

>   **Return type** str

ipxe_script

Gets the ipxe_script of this LaunchInstanceDetails. This is an advanced option.

When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial LaunchInstance call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume

over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: 169.254.0.2, and boot volume IQN: iqn.2015-02.oracle.boot.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see Bring Your Own Image.

For more information about iPXE, see http://ipxe.org.

> **Returns** The ipxe_script of this LaunchInstanceDetails.

> **Return type** str

metadata

Gets the metadata of this LaunchInstanceDetails. Custom metadata key/value pairs that you provide, such as the SSH public key required to connect to the instance.

A metadata service runs on every launched instance. The service is an HTTP endpoint listening on 169.254.169.254. You can use the service to:

- Provide information to Cloud-Init to be used for various system initialization tasks.

- Get information about the instance, including the custom metadata that you provide when you launch the instance.

  Providing Cloud-Init Metadata

  You can use the following metadata key names to provide information to Cloud-Init:

  "ssh_authorized_keys" - Provide one or more public SSH keys to be included in the *~/.ssh/authorized_keys* file for the default user on the instance. Use a newline character to separate multiple keys. The SSH keys must be in the format necessary for the *authorized_keys* file, as shown in the example below.

  "user_data" - Provide your own base64-encoded data to be used by Cloud-Init to run custom scripts or provide custom Cloud-Init configuration. For information about how to take advantage of user data, see the Cloud-Init Documentation.

  Note: Cloud-Init does not pull this data from the *http://169.254.169.254/opc/v1/instance/metadata/* path. When the instance launches and either of these keys are provided, the key values are formatted as OpenStack metadata and copied to the following locations, which are recognized by Cloud-Init:

  http://169.254.169.254/openstack/latest/meta_data.json - This JSON blob contains, among other things, the SSH keys that you provided for

  > **"ssh_authorized_keys"**.

  http://169.254.169.254/openstack/latest/user_data - Contains the base64-decoded data that you provided for **"user_data"**.

  Metadata Example

  > **"metadata"** [{} "quake_bot_level" : "Severe", "ssh_authorized_keys" : "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAAACAQCZ06fccNTQfq+xubFlJ5ZR3kt+uzspdH9tXL+lAejSM1NXM+ ryan.smith@company.com ssh-rsa AAAAB3NzaC1yc2EAAAABJQAAAQEAzJSAtwEPoB3Jmr58IXrDGzLuD rsa-key-20160227", "user_data" : "SWYgeW91IGNhbiBzZWUgdGhpcywgdGhlbiBpdCB3b3JrZWQgbWF5Ym

  > }

  Getting Metadata on the Instance

  To get information about your instance, connect to the instance using SSH and issue any of the following GET requests:

curl   http://169.254.169.254/opc/v1/instance/   curl   http://169.254.169.254/opc/v1/
instance/metadata/   curl   http://169.254.169.254/opc/v1/instance/metadata/<any-key-
name>

You'll get back a response that includes all the instance information; only the metadata informa-
tion; or the metadata information for the specified key name, respectively.

> **Returns** The metadata of this LaunchInstanceDetails.

> **Return type** dict(str, str)

shape
> [**Required**] Gets the shape of this LaunchInstanceDetails. The shape of an instance. The shape determines
> the number of CPUs, amount of memory, and other resources allocated to the instance.
>
> You can enumerate all available shapes by calling `list_shapes()`.
>
> > **Returns** The shape of this LaunchInstanceDetails.
>
> > **Return type** str

source_details
> Gets the source_details of this LaunchInstanceDetails. Details for creating an instance. Use this parameter
> to specify whether a boot volume or an image should be used to launch a new instance.
>
> > **Returns** The source_details of this LaunchInstanceDetails.
>
> > **Return type** *InstanceSourceDetails*

subnet_id
> Gets the subnet_id of this LaunchInstanceDetails. Deprecated. Instead use *subnetId* in
> *CreateVnicDetails*. At least one of them is required; if you provide both, the values must match.
>
> > **Returns** The subnet_id of this LaunchInstanceDetails.
>
> > **Return type** str

class oci.core.models.**LaunchOptions**(***kwargs*)

__init__(***kwargs*)
> Initializes a new LaunchOptions object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
> > - **boot_volume_type** (*str*) – The value to assign to the boot_volume_type property
> >   of this LaunchOptions. Allowed values for this property are: "ISCSI", "SCSI", "IDE",
> >   "VFIO", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service
> >   will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **firmware** (*str*) – The value to assign to the firmware property of this Laun-
> >   chOptions. Allowed values for this property are: "BIOS", "UEFI_64", 'UN-
> >   KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
> >   mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **network_type** (*str*) – The value to assign to the network_type property of this
> >   LaunchOptions. Allowed values for this property are: "E1000", "VFIO", 'UN-
> >   KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
> >   mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **remote_data_volume_type** (*str*) – The value to assign to the re-
> >   mote_data_volume_type property of this LaunchOptions. Allowed values for this property

are: "ISCSI", "SCSI", "IDE", "VFIO", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

boot_volume_type

[Required] Gets the boot_volume_type of this LaunchOptions. Emulation type for volume. * *ISCSI* - ISCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images. * *SCSI* - Emulated SCSI disk. * *IDE* - Emulated IDE disk. * *VFIO* - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.

Allowed values for this property are: "ISCSI", "SCSI", "IDE", "VFIO", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The boot_volume_type of this LaunchOptions.

> **Return type** str

firmware

[Required] Gets the firmware of this LaunchOptions. Firmware used to boot VM. Select the option that matches your operating system. * *BIOS* - Boot VM using BIOS style firmware. This is compatible with both 32 bit and 64 bit operating systems that boot using MBR style bootloaders. * *UEFI_64* - Boot VM using UEFI style firmware compatible with 64 bit operating systems. This is the default for Oracle provided images.

Allowed values for this property are: "BIOS", "UEFI_64", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The firmware of this LaunchOptions.

> **Return type** str

network_type

[Required] Gets the network_type of this LaunchOptions. Emulation type for NIC. * *E1000* - Emulated Gigabit ethernet controller. Compatible with Linux e1000 network driver. * *VFIO* - Direct attached Virtual Function network controller. Default for Oracle provided images.

Allowed values for this property are: "E1000", "VFIO", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The network_type of this LaunchOptions.

> **Return type** str

remote_data_volume_type

[Required] Gets the remote_data_volume_type of this LaunchOptions. Emulation type for volume. * *ISCSI* - ISCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images. * *SCSI* - Emulated SCSI disk. * *IDE* - Emulated IDE disk. * *VFIO* - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.

Allowed values for this property are: "ISCSI", "SCSI", "IDE", "VFIO", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The remote_data_volume_type of this LaunchOptions.

> **Return type** str

class oci.core.models.**LetterOfAuthority**(***kwargs*)

__init__(***kwargs*)
Initializes a new LetterOfAuthority object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **authorized_entity_name** (*str*) – The value to assign to the authorized_entity_name property of this LetterOfAuthority.

- **circuit_type** (*str*) – The value to assign to the circuit_type property of this LetterOfAuthority. Allowed values for this property are: "Single_mode_LC", "Single_mode_SC", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **cross_connect_id** (*str*) – The value to assign to the cross_connect_id property of this LetterOfAuthority.

- **facility_location** (*str*) – The value to assign to the facility_location property of this LetterOfAuthority.

- **port_name** (*str*) – The value to assign to the port_name property of this LetterOfAuthority.

- **time_expires** (*datetime*) – The value to assign to the time_expires property of this LetterOfAuthority.

- **time_issued** (*datetime*) – The value to assign to the time_issued property of this LetterOfAuthority.

authorized_entity_name

Gets the authorized_entity_name of this LetterOfAuthority. The name of the entity authorized by this Letter of Authority.

> **Returns** The authorized_entity_name of this LetterOfAuthority.

> **Return type** str

circuit_type

Gets the circuit_type of this LetterOfAuthority. The type of cross-connect fiber, termination, and optical specification.

Allowed values for this property are: "Single_mode_LC", "Single_mode_SC", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The circuit_type of this LetterOfAuthority.

> **Return type** str

cross_connect_id

Gets the cross_connect_id of this LetterOfAuthority. The OCID of the cross-connect.

> **Returns** The cross_connect_id of this LetterOfAuthority.

> **Return type** str

facility_location

Gets the facility_location of this LetterOfAuthority. The address of the FastConnect location.

> **Returns** The facility_location of this LetterOfAuthority.

> **Return type** str

port_name

Gets the port_name of this LetterOfAuthority. The meet-me room port for this cross-connect.

> **Returns** The port_name of this LetterOfAuthority.

> **Return type** str

time_expires
> Gets the time_expires of this LetterOfAuthority. The date and time when the Letter of Authority expires, in the format defined by RFC3339.
>
> > **Returns** The time_expires of this LetterOfAuthority.
> >
> > **Return type** datetime

time_issued
> Gets the time_issued of this LetterOfAuthority. The date and time the Letter of Authority was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_issued of this LetterOfAuthority.
> >
> > **Return type** datetime

class oci.core.models.**LocalPeeringGateway**(***kwargs*)

__init__(***kwargs*)
> Initializes a new LocalPeeringGateway object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (`str`) – The value to assign to the compartment_id property of this LocalPeeringGateway.
>
> - **display_name** (`str`) – The value to assign to the display_name property of this LocalPeeringGateway.
>
> - **id** (`str`) – The value to assign to the id property of this LocalPeeringGateway.
>
> - **is_cross_tenancy_peering** (`bool`) – The value to assign to the is_cross_tenancy_peering property of this LocalPeeringGateway.
>
> - **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this LocalPeeringGateway. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **peer_advertised_cidr** (`str`) – The value to assign to the peer_advertised_cidr property of this LocalPeeringGateway.
>
> - **peering_status** (`str`) – The value to assign to the peering_status property of this LocalPeeringGateway. Allowed values for this property are: "INVALID", "NEW", "PEERED", "PENDING", "REVOKED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **peering_status_details** (`str`) – The value to assign to the peering_status_details property of this LocalPeeringGateway.
>
> - **time_created** (`datetime`) – The value to assign to the time_created property of this LocalPeeringGateway.
>
> - **vcn_id** (`str`) – The value to assign to the vcn_id property of this LocalPeeringGateway.

compartment_id
> **[Required]** Gets the compartment_id of this LocalPeeringGateway. The OCID of the compartment containing the LPG.

> **Returns** The compartment_id of this LocalPeeringGateway.

> **Return type** str

display_name
> [Required] Gets the display_name of this LocalPeeringGateway. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> > **Returns** The display_name of this LocalPeeringGateway.

> > **Return type** str

id
> [Required] Gets the id of this LocalPeeringGateway. The LPG's Oracle ID (OCID).

> > **Returns** The id of this LocalPeeringGateway.

> > **Return type** str

is_cross_tenancy_peering
> [Required] Gets the is_cross_tenancy_peering of this LocalPeeringGateway. Whether the VCN at the other end of the peering is in a different tenancy.

> Example: *false*

> > **Returns** The is_cross_tenancy_peering of this LocalPeeringGateway.

> > **Return type** bool

lifecycle_state
> [Required] Gets the lifecycle_state of this LocalPeeringGateway. The LPG's current lifecycle state.

> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The lifecycle_state of this LocalPeeringGateway.

> > **Return type** str

peer_advertised_cidr
> Gets the peer_advertised_cidr of this LocalPeeringGateway. The range of IP addresses available on the VCN at the other end of the peering from this LPG. The value is *null* if the LPG is not peered. You can use this as the destination CIDR for a route rule to route a subnet's traffic to this LPG.

> Example: *192.168.0.0/16*

> > **Returns** The peer_advertised_cidr of this LocalPeeringGateway.

> > **Return type** str

peering_status
> [Required] Gets the peering_status of this LocalPeeringGateway. Whether the LPG is peered with another LPG. *NEW* means the LPG has not yet been peered. *PENDING* means the peering is being established. *REVOKED* means the LPG at the other end of the peering has been deleted.

> Allowed values for this property are: "INVALID", "NEW", "PEERED", "PENDING", "REVOKED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The peering_status of this LocalPeeringGateway.

> > **Return type** str

peering_status_details
> Gets the peering_status_details of this LocalPeeringGateway. Additional information regarding the peering status, if applicable.
>
> > **Returns** The peering_status_details of this LocalPeeringGateway.
> >
> > **Return type** str

time_created
> **[Required]** Gets the time_created of this LocalPeeringGateway. The date and time the LPG was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this LocalPeeringGateway.
> >
> > **Return type** datetime

vcn_id
> **[Required]** Gets the vcn_id of this LocalPeeringGateway. The OCID of the VCN the LPG belongs to.
>
> > **Returns** The vcn_id of this LocalPeeringGateway.
> >
> > **Return type** str

class oci.core.models.**ParavirtualizedVolumeAttachment**(***kwargs*)

__init__(***kwargs*)
> Initializes a new ParavirtualizedVolumeAttachment object with values from keyword arguments. The default value of the *attachment_type* attribute of this class is `paravirtualized` and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **attachment_type** (*str*) – The value to assign to the attachment_type property of this ParavirtualizedVolumeAttachment.
>
> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this ParavirtualizedVolumeAttachment.
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this ParavirtualizedVolumeAttachment.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this ParavirtualizedVolumeAttachment.
>
> - **id** (*str*) – The value to assign to the id property of this ParavirtualizedVolumeAttachment.
>
> - **instance_id** (*str*) – The value to assign to the instance_id property of this ParavirtualizedVolumeAttachment.
>
> - **is_read_only** (*bool*) – The value to assign to the is_read_only property of this ParavirtualizedVolumeAttachment.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this ParavirtualizedVolumeAttachment. Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED"
>
> - **time_created** (*datetime*) – The value to assign to the time_created property of this ParavirtualizedVolumeAttachment.

> • **volume_id** (`str`) – The value to assign to the volume_id property of this Paravirtual-
> izedVolumeAttachment.

attachment_type
    [Required] Gets the attachment_type of this VolumeAttachment. The type of volume attachment.

    Returns The attachment_type of this VolumeAttachment.

    Return type str

availability_domain
    [Required] Gets the availability_domain of this VolumeAttachment. The Availability Domain of an in-
    stance.

    Example: *Uocm:PHX-AD-1*

    Returns The availability_domain of this VolumeAttachment.

    Return type str

compartment_id
    [Required] Gets the compartment_id of this VolumeAttachment. The OCID of the compartment.

    Returns The compartment_id of this VolumeAttachment.

    Return type str

display_name
    Gets the display_name of this VolumeAttachment. A user-friendly name. Does not have to be unique, and
    it cannot be changed. Avoid entering confidential information.

    Example: *My volume attachment*

    Returns The display_name of this VolumeAttachment.

    Return type str

get_subtype(*object_dictionary*)
    Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
    subtype.

id
    [Required] Gets the id of this VolumeAttachment. The OCID of the volume attachment.

    Returns The id of this VolumeAttachment.

    Return type str

instance_id
    [Required] Gets the instance_id of this VolumeAttachment. The OCID of the instance the volume is
    attached to.

    Returns The instance_id of this VolumeAttachment.

    Return type str

is_read_only
    Gets the is_read_only of this VolumeAttachment. Whether the attachment was created in read-only mode.

    Returns The is_read_only of this VolumeAttachment.

    Return type bool

lifecycle_state
    [Required] Gets the lifecycle_state of this VolumeAttachment. The current state of the volume attachment.

Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this VolumeAttachment.

> **Return type** str

time_created
[Required] Gets the time_created of this VolumeAttachment. The date and time the volume was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this VolumeAttachment.

> **Return type** datetime

volume_id
[Required] Gets the volume_id of this VolumeAttachment. The OCID of the volume.

> **Returns** The volume_id of this VolumeAttachment.

> **Return type** str

class oci.core.models.**PeerRegionForRemotePeering**(***kwargs*)

__init__(***kwargs*)
Initializes a new PeerRegionForRemotePeering object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters** **name** (*str*) – The value to assign to the name property of this PeerRegionForRemotePeering.

name
[Required] Gets the name of this PeerRegionForRemotePeering. The region's name.

Example: *us-phoenix-1*

> **Returns** The name of this PeerRegionForRemotePeering.

> **Return type** str

class oci.core.models.**PortRange**(***kwargs*)

__init__(***kwargs*)
Initializes a new PortRange object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **max** (*int*) – The value to assign to the max property of this PortRange.
> - **min** (*int*) – The value to assign to the min property of this PortRange.

max
[Required] Gets the max of this PortRange. The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.

> **Returns** The max of this PortRange.

> **Return type** int

min
> [Required] Gets the min of this PortRange. The minimum port number. Must not be greater than the maximum port number.
>
>> **Returns** The min of this PortRange.
>>
>> **Return type** int

class oci.core.models.**PrivateIp**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new PrivateIp object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>> **Parameters**
>>
>> * **availability_domain** (*str*) – The value to assign to the availability_domain property of this PrivateIp.
>> * **compartment_id** (*str*) – The value to assign to the compartment_id property of this PrivateIp.
>> * **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this PrivateIp.
>> * **display_name** (*str*) – The value to assign to the display_name property of this PrivateIp.
>> * **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this PrivateIp.
>> * **hostname_label** (*str*) – The value to assign to the hostname_label property of this PrivateIp.
>> * **id** (*str*) – The value to assign to the id property of this PrivateIp.
>> * **ip_address** (*str*) – The value to assign to the ip_address property of this PrivateIp.
>> * **is_primary** (*bool*) – The value to assign to the is_primary property of this PrivateIp.
>> * **subnet_id** (*str*) – The value to assign to the subnet_id property of this PrivateIp.
>> * **time_created** (*datetime*) – The value to assign to the time_created property of this PrivateIp.
>> * **vnic_id** (*str*) – The value to assign to the vnic_id property of this PrivateIp.

availability_domain
> Gets the availability_domain of this PrivateIp. The private IP's Availability Domain.
>
> Example: *Uocm:PHX-AD-1*
>
>> **Returns** The availability_domain of this PrivateIp.
>>
>> **Return type** str

compartment_id
> Gets the compartment_id of this PrivateIp. The OCID of the compartment containing the private IP.
>
>> **Returns** The compartment_id of this PrivateIp.
>>
>> **Return type** str

---

defined_tags

Gets the defined_tags of this PrivateIp. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this PrivateIp.

> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this PrivateIp. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this PrivateIp.

> **Return type** str

freeform_tags

Gets the freeform_tags of this PrivateIp. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this PrivateIp.

> **Return type** dict(str, str)

hostname_label

Gets the hostname_label of this PrivateIp. The hostname for the private IP. Used for DNS. The value is the hostname portion of the private IP's fully qualified domain name (FQDN) (for example, *bminstance-1* in FQDN *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must be unique across all VNICs in the subnet and comply with RFC 952 and RFC 1123.

For more information, see DNS in Your Virtual Cloud Network.

Example: *bminstance-1*

> **Returns** The hostname_label of this PrivateIp.

> **Return type** str

id

Gets the id of this PrivateIp. The private IP's Oracle ID (OCID).

> **Returns** The id of this PrivateIp.

> **Return type** str

ip_address

Gets the ip_address of this PrivateIp. The private IP address of the *privateIp* object. The address is within the CIDR of the VNIC's subnet.

Example: *10.0.3.3*

> **Returns** The ip_address of this PrivateIp.

> **Return type** str

is_primary

Gets the is_primary of this PrivateIp. Whether this private IP is the primary one on the VNIC. Primary private IPs are unassigned and deleted automatically when the VNIC is terminated.

Example: *true*

> **Returns** The is_primary of this PrivateIp.

> **Return type** bool

subnet_id
> Gets the subnet_id of this PrivateIp. The OCID of the subnet the VNIC is in.

>> **Returns** The subnet_id of this PrivateIp.

>> **Return type** str

time_created
> Gets the time_created of this PrivateIp. The date and time the private IP was created, in the format defined by RFC3339.

> Example: *2016-08-25T21:10:29.600Z*

>> **Returns** The time_created of this PrivateIp.

>> **Return type** datetime

vnic_id
> Gets the vnic_id of this PrivateIp. The OCID of the VNIC the private IP is assigned to. The VNIC and private IP must be in the same subnet.

>> **Returns** The vnic_id of this PrivateIp.

>> **Return type** str

class oci.core.models.**PublicIp**(***kwargs*)

__init__(***kwargs*)
> Initializes a new PublicIp object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

>> • **availability_domain** (*str*) – The value to assign to the availability_domain property of this PublicIp.

>> • **compartment_id** (*str*) – The value to assign to the compartment_id property of this PublicIp.

>> • **display_name** (*str*) – The value to assign to the display_name property of this PublicIp.

>> • **id** (*str*) – The value to assign to the id property of this PublicIp.

>> • **ip_address** (*str*) – The value to assign to the ip_address property of this PublicIp.

>> • **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this PublicIp. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "AS-SIGNING", "ASSIGNED", "UNASSIGNING", "UNASSIGNED", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>> • **lifetime** (*str*) – The value to assign to the lifetime property of this PublicIp. Allowed values for this property are: "EPHEMERAL", "RESERVED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>> • **private_ip_id** (*str*) – The value to assign to the private_ip_id property of this PublicIp.

- **scope** (`str`) – The value to assign to the scope property of this PublicIp. Allowed values for this property are: "REGION", "AVAILABILITY_DOMAIN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (`datetime`) – The value to assign to the time_created property of this PublicIp.

availability_domain

Gets the availability_domain of this PublicIp. The public IP's Availability Domain. This property is set only for ephemeral public IPs (that is, when the *scope* of the public IP is set to AVAILABILITY_DOMAIN). The value is the Availability Domain of the assigned private IP.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this PublicIp.
>
> **Return type** str

compartment_id

Gets the compartment_id of this PublicIp. The OCID of the compartment containing the public IP. For an ephemeral public IP, this is the same compartment as the private IP's. For a reserved public IP that is currently assigned, this can be a different compartment than the assigned private IP's.

> **Returns** The compartment_id of this PublicIp.
>
> **Return type** str

display_name

Gets the display_name of this PublicIp. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this PublicIp.
>
> **Return type** str

id

Gets the id of this PublicIp. The public IP's Oracle ID (OCID).

> **Returns** The id of this PublicIp.
>
> **Return type** str

ip_address

Gets the ip_address of this PublicIp. The public IP address of the *publicIp* object.

Example: *129.146.2.1*

> **Returns** The ip_address of this PublicIp.
>
> **Return type** str

lifecycle_state

Gets the lifecycle_state of this PublicIp. The public IP's current state.

Allowed values for this property are: "PROVISIONING", "AVAILABLE", "ASSIGNING", "ASSIGNED", "UNASSIGNING", "UNASSIGNED", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this PublicIp.
>
> **Return type** str

lifetime
> Gets the lifetime of this PublicIp. Defines when the public IP is deleted and released back to Oracle's public IP pool.
>
> > • *EPHEMERAL*: The lifetime is tied to the lifetime of its assigned private IP. The
>
> ephemeral public IP is automatically deleted when its private IP is deleted, when the VNIC is terminated, or when the instance is terminated. An ephemeral public IP must always be assigned to a private IP.
>
> > • *RESERVED*: You control the public IP's lifetime. You can delete a reserved public IP
>
> whenever you like. It does not need to be assigned to a private IP at all times.
>
> For more information and comparison of the two types, see Public IP Addresses.
>
> Allowed values for this property are: "EPHEMERAL", "RESERVED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifetime of this PublicIp.
> >
> > **Return type** str

private_ip_id
> Gets the private_ip_id of this PublicIp. The OCID of the private IP that the public IP is currently assigned to, or in the process of being assigned to.
>
> > **Returns** The private_ip_id of this PublicIp.
> >
> > **Return type** str

scope
> Gets the scope of this PublicIp. Whether the public IP is regional or specific to a particular Availability Domain.
>
> > • *REGION*: The public IP exists within a region and can be assigned to a private IP
>
> in any Availability Domain in the region. Reserved public IPs have *scope = REGION*.
>
> > • *AVAILABILITY_DOMAIN*: The public IP exists within the Availability Domain of the private IP
>
> it's assigned to, which is specified by the *availabilityDomain* property of the public IP object. Ephemeral public IPs have *scope = AVAILABILITY_DOMAIN*.
>
> Allowed values for this property are: "REGION", "AVAILABILITY_DOMAIN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The scope of this PublicIp.
> >
> > **Return type** str

time_created
> Gets the time_created of this PublicIp. The date and time the public IP was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this PublicIp.
> >
> > **Return type** datetime

class oci.core.models.**RemotePeeringConnection**(***kwargs*)

__init__(***kwargs*)

Initializes a new RemotePeeringConnection object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this RemotePeeringConnection.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this RemotePeeringConnection.
>
> - **drg_id** (*str*) – The value to assign to the drg_id property of this RemotePeeringConnection.
>
> - **id** (*str*) – The value to assign to the id property of this RemotePeeringConnection.
>
> - **is_cross_tenancy_peering** (*bool*) – The value to assign to the is_cross_tenancy_peering property of this RemotePeeringConnection.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this RemotePeeringConnection. Allowed values for this property are: "AVAILABLE", "PROVISIONING", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **peer_id** (*str*) – The value to assign to the peer_id property of this RemotePeeringConnection.
>
> - **peer_region_name** (*str*) – The value to assign to the peer_region_name property of this RemotePeeringConnection.
>
> - **peer_tenancy_id** (*str*) – The value to assign to the peer_tenancy_id property of this RemotePeeringConnection.
>
> - **peering_status** (*str*) – The value to assign to the peering_status property of this RemotePeeringConnection. Allowed values for this property are: "INVALID", "NEW", "PENDING", "PEERED", "REVOKED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **time_created** (*datetime*) – The value to assign to the time_created property of this RemotePeeringConnection.

compartment_id

[**Required**] Gets the compartment_id of this RemotePeeringConnection. The OCID of the compartment that contains the RPC.

> **Returns** The compartment_id of this RemotePeeringConnection.
>
> **Return type** str

display_name

[**Required**] Gets the display_name of this RemotePeeringConnection. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this RemotePeeringConnection.
>
> **Return type** str

drg_id

[**Required**] Gets the drg_id of this RemotePeeringConnection. The OCID of the DRG that this RPC belongs to.

> **Returns** The drg_id of this RemotePeeringConnection.

> **Return type** str

id
> **[Required]** Gets the id of this RemotePeeringConnection. The OCID of the RPC.
>
> > **Returns** The id of this RemotePeeringConnection.
> >
> > **Return type** str

is_cross_tenancy_peering
> **[Required]** Gets the is_cross_tenancy_peering of this RemotePeeringConnection. Whether the VCN at the other end of the peering is in a different tenancy.
>
> Example: *false*
>
> > **Returns** The is_cross_tenancy_peering of this RemotePeeringConnection.
> >
> > **Return type** bool

lifecycle_state
> **[Required]** Gets the lifecycle_state of this RemotePeeringConnection. The RPC's current lifecycle state.
>
> Allowed values for this property are: "AVAILABLE", "PROVISIONING", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this RemotePeeringConnection.
> >
> > **Return type** str

peer_id
> Gets the peer_id of this RemotePeeringConnection. If this RPC is peered, this value is the OCID of the other RPC.
>
> > **Returns** The peer_id of this RemotePeeringConnection.
> >
> > **Return type** str

peer_region_name
> Gets the peer_region_name of this RemotePeeringConnection. If this RPC is peered, this value is the region that contains the other RPC.
>
> Example: *us-ashburn-1*
>
> > **Returns** The peer_region_name of this RemotePeeringConnection.
> >
> > **Return type** str

peer_tenancy_id
> Gets the peer_tenancy_id of this RemotePeeringConnection. If this RPC is peered, this value is the OCID of the other RPC's tenancy.
>
> > **Returns** The peer_tenancy_id of this RemotePeeringConnection.
> >
> > **Return type** str

peering_status
> **[Required]** Gets the peering_status of this RemotePeeringConnection. Whether the RPC is peered with another RPC. *NEW* means the RPC has not yet been peered. *PENDING* means the peering is being established. *REVOKED* means the RPC at the other end of the peering has been deleted.
>
> Allowed values for this property are: "INVALID", "NEW", "PENDING", "PEERED", "REVOKED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The peering_status of this RemotePeeringConnection.

Return type str

time_created
[Required] Gets the time_created of this RemotePeeringConnection. The date and time the RPC was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this RemotePeeringConnection.

> **Return type** datetime

class oci.core.models.**RouteRule**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new RouteRule object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **cidr_block** (*str*) – The value to assign to the cidr_block property of this RouteRule.
> > - **network_entity_id** (*str*) – The value to assign to the network_entity_id property of this RouteRule.

> **cidr_block**
> [Required] Gets the cidr_block of this RouteRule. A destination IP address range in CIDR notation. Matching packets will be routed to the indicated network entity (the target).

> Example: *0.0.0.0/0*

> > **Returns** The cidr_block of this RouteRule.

> > **Return type** str

> **network_entity_id**
> [Required] Gets the network_entity_id of this RouteRule. The OCID for the route rule's target. For information about the type of targets you can specify, see Route Tables.

> > **Returns** The network_entity_id of this RouteRule.

> > **Return type** str

class oci.core.models.**RouteTable**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new RouteTable object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this RouteTable.
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this RouteTable.
> > - **display_name** (*str*) – The value to assign to the display_name property of this RouteTable.
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this RouteTable.
> > - **id** (*str*) – The value to assign to the id property of this RouteTable.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this RouteTable. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **route_rules** (*list[*RouteRule*]*) – The value to assign to the route_rules property of this RouteTable.

- **time_created** (*datetime*) – The value to assign to the time_created property of this RouteTable.

- **vcn_id** (*str*) – The value to assign to the vcn_id property of this RouteTable.

compartment_id

[**Required**] Gets the compartment_id of this RouteTable. The OCID of the compartment containing the route table.

> **Returns** The compartment_id of this RouteTable.
>
> **Return type** str

defined_tags

Gets the defined_tags of this RouteTable. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this RouteTable.
>
> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this RouteTable. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this RouteTable.
>
> **Return type** str

freeform_tags

Gets the freeform_tags of this RouteTable. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this RouteTable.
>
> **Return type** dict(str, str)

id

[**Required**] Gets the id of this RouteTable. The route table's Oracle ID (OCID).

> **Returns** The id of this RouteTable.
>
> **Return type** str

lifecycle_state

[**Required**] Gets the lifecycle_state of this RouteTable. The route table's current state.

Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this RouteTable.
>
> **Return type** str

route_rules

> [**Required**] Gets the route_rules of this RouteTable. The collection of rules for routing destination IPs to network devices.
>
> > **Returns** The route_rules of this RouteTable.
> >
> > **Return type** list[*RouteRule*]

time_created

> Gets the time_created of this RouteTable. The date and time the route table was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this RouteTable.
> >
> > **Return type** datetime

vcn_id

> [**Required**] Gets the vcn_id of this RouteTable. The OCID of the VCN the route table list belongs to.
>
> > **Returns** The vcn_id of this RouteTable.
> >
> > **Return type** str

class oci.core.models.**SecurityList**(***kwargs*)

__init__(***kwargs*)

> Initializes a new SecurityList object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this SecurityList.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this SecurityList.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this SecurityList.
>
> - **egress_security_rules** (*list[EgressSecurityRule]*) – The value to assign to the egress_security_rules property of this SecurityList.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this SecurityList.
>
> - **id** (*str*) – The value to assign to the id property of this SecurityList.
>
> - **ingress_security_rules** (*list[IngressSecurityRule]*) – The value to assign to the ingress_security_rules property of this SecurityList.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this SecurityList. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **time_created** (*datetime*) – The value to assign to the time_created property of this SecurityList.
>
> - **vcn_id** (*str*) – The value to assign to the vcn_id property of this SecurityList.

compartment_id
> [Required] Gets the compartment_id of this SecurityList. The OCID of the compartment containing the security list.
>
>> **Returns** The compartment_id of this SecurityList.
>>
>> **Return type** str

defined_tags
> Gets the defined_tags of this SecurityList. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
>> **Returns** The defined_tags of this SecurityList.
>>
>> **Return type** dict(str, dict(str, *object*))

display_name
> [Required] Gets the display_name of this SecurityList. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
>> **Returns** The display_name of this SecurityList.
>>
>> **Return type** str

egress_security_rules
> [Required] Gets the egress_security_rules of this SecurityList. Rules for allowing egress IP packets.
>
>> **Returns** The egress_security_rules of this SecurityList.
>>
>> **Return type** list[*EgressSecurityRule*]

freeform_tags
> Gets the freeform_tags of this SecurityList. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
>> **Returns** The freeform_tags of this SecurityList.
>>
>> **Return type** dict(str, str)

id
> [Required] Gets the id of this SecurityList. The security list's Oracle Cloud ID (OCID).
>
>> **Returns** The id of this SecurityList.
>>
>> **Return type** str

ingress_security_rules
> [Required] Gets the ingress_security_rules of this SecurityList. Rules for allowing ingress IP packets.
>
>> **Returns** The ingress_security_rules of this SecurityList.
>>
>> **Return type** list[*IngressSecurityRule*]

lifecycle_state
> [Required] Gets the lifecycle_state of this SecurityList. The security list's current state.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>> **Returns** The lifecycle_state of this SecurityList.
>>
>> **Return type** str

time_created
    [Required] Gets the time_created of this SecurityList. The date and time the security list was created, in the format defined by RFC3339.

    Example: *2016-08-25T21:10:29.600Z*

        Returns The time_created of this SecurityList.

        Return type datetime

vcn_id
    [Required] Gets the vcn_id of this SecurityList. The OCID of the VCN the security list belongs to.

        Returns The vcn_id of this SecurityList.

        Return type str

class oci.core.models.**Shape**(***kwargs*)

__init__(***kwargs*)
    Initializes a new Shape object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

        Parameters shape (`str`) – The value to assign to the shape property of this Shape.

shape
    [Required] Gets the shape of this Shape. The name of the shape. You can enumerate all available shapes by calling `list_shapes()`.

        Returns The shape of this Shape.

        Return type str

class oci.core.models.**Subnet**(***kwargs*)

__init__(***kwargs*)
    Initializes a new Subnet object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

        Parameters

            • **availability_domain** (`str`) – The value to assign to the availability_domain property of this Subnet.

            • **cidr_block** (`str`) – The value to assign to the cidr_block property of this Subnet.

            • **compartment_id** (`str`) – The value to assign to the compartment_id property of this Subnet.

            • **defined_tags** (`dict(str, dict(str, object))`) – The value to assign to the defined_tags property of this Subnet.

            • **dhcp_options_id** (`str`) – The value to assign to the dhcp_options_id property of this Subnet.

            • **display_name** (`str`) – The value to assign to the display_name property of this Subnet.

            • **dns_label** (`str`) – The value to assign to the dns_label property of this Subnet.

            • **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this Subnet.

            • **id** (`str`) – The value to assign to the id property of this Subnet.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this Subnet. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **prohibit_public_ip_on_vnic** (`bool`) – The value to assign to the prohibit_public_ip_on_vnic property of this Subnet.

- **route_table_id** (`str`) – The value to assign to the route_table_id property of this Subnet.

- **security_list_ids** (`list[str]`) – The value to assign to the security_list_ids property of this Subnet.

- **subnet_domain_name** (`str`) – The value to assign to the subnet_domain_name property of this Subnet.

- **time_created** (`datetime`) – The value to assign to the time_created property of this Subnet.

- **vcn_id** (`str`) – The value to assign to the vcn_id property of this Subnet.

- **virtual_router_ip** (`str`) – The value to assign to the virtual_router_ip property of this Subnet.

- **virtual_router_mac** (`str`) – The value to assign to the virtual_router_mac property of this Subnet.

availability_domain

[**Required**] Gets the availability_domain of this Subnet. The subnet's Availability Domain.

Example: *Uocm:PHX-AD-1*

>   **Returns** The availability_domain of this Subnet.

>   **Return type** str

cidr_block

[**Required**] Gets the cidr_block of this Subnet. The subnet's CIDR block.

Example: *172.16.1.0/24*

>   **Returns** The cidr_block of this Subnet.

>   **Return type** str

compartment_id

[**Required**] Gets the compartment_id of this Subnet. The OCID of the compartment containing the subnet.

>   **Returns** The compartment_id of this Subnet.

>   **Return type** str

defined_tags

Gets the defined_tags of this Subnet. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

>   **Returns** The defined_tags of this Subnet.

>   **Return type** dict(str, dict(str, *object*))

dhcp_options_id

Gets the dhcp_options_id of this Subnet. The OCID of the set of DHCP options associated with the subnet.

> > **Returns** The dhcp_options_id of this Subnet.
> >
> > **Return type** str

display_name

> Gets the display_name of this Subnet. A user-friendly name. Does not have to be unique, and it's change-able. Avoid entering confidential information.
>
> > **Returns** The display_name of this Subnet.
> >
> > **Return type** str

dns_label

> Gets the dns_label of this Subnet. A DNS label for the subnet, used in conjunction with the VNIC's hostname and VCN's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must be an alphanumeric string that begins with a letter and is unique within the VCN. The value cannot be changed.
>
> The absence of this parameter means the Internet and VCN Resolver will not resolve hostnames of instances in this subnet.
>
> For more information, see DNS in Your Virtual Cloud Network.
>
> Example: *subnet123*
>
> > **Returns** The dns_label of this Subnet.
> >
> > **Return type** str

freeform_tags

> Gets the freeform_tags of this Subnet. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this Subnet.
> >
> > **Return type** dict(str, str)

id

> [**Required**] Gets the id of this Subnet. The subnet's Oracle ID (OCID).
>
> > **Returns** The id of this Subnet.
> >
> > **Return type** str

lifecycle_state

> [**Required**] Gets the lifecycle_state of this Subnet. The subnet's current state.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this Subnet.
> >
> > **Return type** str

prohibit_public_ip_on_vnic

> Gets the prohibit_public_ip_on_vnic of this Subnet. Whether VNICs within this subnet can have public IP addresses. Defaults to false, which means VNICs created in this subnet will automatically be assigned public IP addresses unless specified otherwise during instance launch or VNIC creation (with the *assignPublicIp* flag in `CreateVnicDetails`). If *prohibitPublicIpOnVnic* is set to true, VNICs created in this subnet cannot have public IP addresses (that is, it's a private subnet).
>
> Example: *true*

> > **Returns** The prohibit_public_ip_on_vnic of this Subnet.
>
> > **Return type** bool

route_table_id
> [Required] Gets the route_table_id of this Subnet. The OCID of the route table the subnet is using.
>
> > **Returns** The route_table_id of this Subnet.
>
> > **Return type** str

security_list_ids
> Gets the security_list_ids of this Subnet. OCIDs for the security lists to use for VNICs in this subnet.
>
> > **Returns** The security_list_ids of this Subnet.
>
> > **Return type** list[str]

subnet_domain_name
> Gets the subnet_domain_name of this Subnet. The subnet's domain name, which consists of the subnet's
> DNS label, the VCN's DNS label, and the *oraclevcn.com* domain.
>
> For more information, see DNS in Your Virtual Cloud Network.
>
> Example: *subnet123.vcn1.oraclevcn.com*
>
> > **Returns** The subnet_domain_name of this Subnet.
>
> > **Return type** str

time_created
> Gets the time_created of this Subnet. The date and time the subnet was created, in the format defined by
> RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this Subnet.
>
> > **Return type** datetime

vcn_id
> [Required] Gets the vcn_id of this Subnet. The OCID of the VCN the subnet is in.
>
> > **Returns** The vcn_id of this Subnet.
>
> > **Return type** str

virtual_router_ip
> [Required] Gets the virtual_router_ip of this Subnet. The IP address of the virtual router.
>
> Example: *10.0.14.1*
>
> > **Returns** The virtual_router_ip of this Subnet.
>
> > **Return type** str

virtual_router_mac
> [Required] Gets the virtual_router_mac of this Subnet. The MAC address of the virtual router.
>
> Example: *00:00:17:B6:4D:DD*
>
> > **Returns** The virtual_router_mac of this Subnet.
>
> > **Return type** str

class oci.core.models.**TcpOptions**(***kwargs*)

__init__(***kwargs*)

> Initializes a new TcpOptions object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > • **destination_port_range** (`PortRange`) – The value to assign to the destination_port_range property of this TcpOptions.

> > • **source_port_range** (`PortRange`) – The value to assign to the source_port_range property of this TcpOptions.

destination_port_range

> Gets the destination_port_range of this TcpOptions. An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.

> > **Returns** The destination_port_range of this TcpOptions.

> > **Return type** *PortRange*

source_port_range

> Gets the source_port_range of this TcpOptions. An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.

> > **Returns** The source_port_range of this TcpOptions.

> > **Return type** *PortRange*

class oci.core.models.**TunnelConfig**(***kwargs*)

__init__(***kwargs*)

> Initializes a new TunnelConfig object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > • **ip_address** (*str*) – The value to assign to the ip_address property of this TunnelConfig.

> > • **shared_secret** (*str*) – The value to assign to the shared_secret property of this TunnelConfig.

> > • **time_created** (*datetime*) – The value to assign to the time_created property of this TunnelConfig.

ip_address

> [Required] Gets the ip_address of this TunnelConfig. The IP address of Oracle's VPN headend.

> Example: *129.146.17.50*

> > **Returns** The ip_address of this TunnelConfig.

> > **Return type** str

shared_secret

> [Required] Gets the shared_secret of this TunnelConfig. The shared secret of the IPSec tunnel.

> Example: *vFG2IF6TWq4UToUiLSRDoJEUs6j1c.p8G.dVQxiMfMO0yXMLi.lZTbYIWhGu4V8o*

> > **Returns** The shared_secret of this TunnelConfig.

> > **Return type** str

time_created

Gets the time_created of this TunnelConfig. The date and time the IPSec connection was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this TunnelConfig.

> **Return type** datetime

class oci.core.models.**TunnelStatus**(***kwargs*)

__init__(***kwargs*)

Initializes a new TunnelStatus object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **ip_address** (*str*) – The value to assign to the ip_address property of this TunnelStatus.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this TunnelStatus. Allowed values for this property are: "UP", "DOWN", "DOWN_FOR_MAINTENANCE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this TunnelStatus.

- **time_state_modified** (*datetime*) – The value to assign to the time_state_modified property of this TunnelStatus.

ip_address

[**Required**] Gets the ip_address of this TunnelStatus. The IP address of Oracle's VPN headend.

Example: *129.146.17.50*

> **Returns** The ip_address of this TunnelStatus.

> **Return type** str

lifecycle_state

Gets the lifecycle_state of this TunnelStatus. The tunnel's current state.

Allowed values for this property are: "UP", "DOWN", "DOWN_FOR_MAINTENANCE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this TunnelStatus.

> **Return type** str

time_created

Gets the time_created of this TunnelStatus. The date and time the IPSec connection was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this TunnelStatus.

> **Return type** datetime

> **time_state_modified**
>> Gets the time_state_modified of this TunnelStatus. When the state of the tunnel last changed, in the format defined by RFC3339.
>>
>> Example: *2016-08-25T21:10:29.600Z*
>>
>>> **Returns** The time_state_modified of this TunnelStatus.
>>>
>>> **Return type** datetime

class oci.core.models.**UdpOptions**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new UdpOptions object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> **Parameters**
>>>
>>> - **destination_port_range** ([PortRange](#)) – The value to assign to the destination_port_range property of this UdpOptions.
>>>
>>> - **source_port_range** ([PortRange](#)) – The value to assign to the source_port_range property of this UdpOptions.
>
> **destination_port_range**
>> Gets the destination_port_range of this UdpOptions. An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
>>
>>> **Returns** The destination_port_range of this UdpOptions.
>>>
>>> **Return type** *[PortRange](#)*
>
> **source_port_range**
>> Gets the source_port_range of this UdpOptions. An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
>>
>>> **Returns** The source_port_range of this UdpOptions.
>>>
>>> **Return type** *[PortRange](#)*

class oci.core.models.**UpdateBootVolumeDetails**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new UpdateBootVolumeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> **Parameters** **display_name** (*str*) – The value to assign to the display_name property of this UpdateBootVolumeDetails.
>
> **display_name**
>> Gets the display_name of this UpdateBootVolumeDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>>
>>> **Returns** The display_name of this UpdateBootVolumeDetails.
>>>
>>> **Return type** str

class oci.core.models.**UpdateConsoleHistoryDetails**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new UpdateConsoleHistoryDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **defined_tags** (*dict(str, dict(str,* object*)))* – The value to assign to the defined_tags property of this UpdateConsoleHistoryDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this UpdateConsoleHistoryDetails.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateConsoleHistoryDetails.

defined_tags

Gets the defined_tags of this UpdateConsoleHistoryDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this UpdateConsoleHistoryDetails.

> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this UpdateConsoleHistoryDetails. A user-friendly name. Does not have to be unique, and it's changeable.

> **Returns** The display_name of this UpdateConsoleHistoryDetails.

> **Return type** str

freeform_tags

Gets the freeform_tags of this UpdateConsoleHistoryDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateConsoleHistoryDetails.

> **Return type** dict(str, str)

class oci.core.models.**UpdateCpeDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateCpeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateCpeDetails.

display_name

Gets the display_name of this UpdateCpeDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateCpeDetails.

> **Return type** str

class oci.core.models.**UpdateCrossConnectDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateCrossConnectDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **display_name** (*str*) – The value to assign to the display_name property of this UpdateCrossConnectDetails.

- **is_active** (*bool*) – The value to assign to the is_active property of this UpdateCrossConnectDetails.

display_name

Gets the display_name of this UpdateCrossConnectDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateCrossConnectDetails.

> **Return type** str

is_active

Gets the is_active of this UpdateCrossConnectDetails. Set to true to activate the cross-connect. You activate it after the physical cabling is complete, and you've confirmed the cross-connect's light levels are good and your side of the interface is up. Activation indicates to Oracle that the physical connection is ready.

Example: *true*

> **Returns** The is_active of this UpdateCrossConnectDetails.

> **Return type** bool

class oci.core.models.**UpdateCrossConnectGroupDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateCrossConnectGroupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateCrossConnectGroupDetails.

display_name

Gets the display_name of this UpdateCrossConnectGroupDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateCrossConnectGroupDetails.

> **Return type** str

class oci.core.models.**UpdateDhcpDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateDhcpDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this UpdateDhcpDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this UpdateDhcpDetails.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateDhcpDetails.

- **options** (*list[*`DhcpOption`*]*) – The value to assign to the options property of this UpdateDhcpDetails.

defined_tags

> Gets the defined_tags of this UpdateDhcpDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this UpdateDhcpDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name

> Gets the display_name of this UpdateDhcpDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdateDhcpDetails.
> >
> > **Return type** str

freeform_tags

> Gets the freeform_tags of this UpdateDhcpDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this UpdateDhcpDetails.
> >
> > **Return type** dict(str, str)

options

> Gets the options of this UpdateDhcpDetails.
>
> > **Returns** The options of this UpdateDhcpDetails.
> >
> > **Return type** list[*DhcpOption*]

class oci.core.models.**UpdateDrgAttachmentDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new UpdateDrgAttachmentDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateDrgAttachmentDetails.

display_name

> Gets the display_name of this UpdateDrgAttachmentDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdateDrgAttachmentDetails.
> >
> > **Return type** str

class oci.core.models.**UpdateDrgDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new UpdateDrgDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateDrgDetails.

display_name
> Gets the display_name of this UpdateDrgDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdateDrgDetails.
> >
> > **Return type** str

class oci.core.models.**UpdateIPSecConnectionDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateIPSecConnectionDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateIPSecConnectionDetails.

display_name
> Gets the display_name of this UpdateIPSecConnectionDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdateIPSecConnectionDetails.
> >
> > **Return type** str

class oci.core.models.**UpdateImageDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateImageDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters**
> > >
> > > - **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this UpdateImageDetails.
> > >
> > > - **display_name** (*str*) – The value to assign to the display_name property of this UpdateImageDetails.
> > >
> > > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateImageDetails.

defined_tags
> Gets the defined_tags of this UpdateImageDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this UpdateImageDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name
> Gets the display_name of this UpdateImageDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> Example: *My custom Oracle Linux image*
>
> > **Returns** The display_name of this UpdateImageDetails.
> >
> > **Return type** str

freeform_tags
: Gets the freeform_tags of this UpdateImageDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateImageDetails.

> **Return type** dict(str, str)

class oci.core.models.**UpdateInstanceDetails**(***kwargs*)

__init__(***kwargs*)
: Initializes a new UpdateInstanceDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **defined_tags** (*dict(str, dict(str,* object*)*)) – The value to assign to the defined_tags property of this UpdateInstanceDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this UpdateInstanceDetails.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateInstanceDetails.

defined_tags
: Gets the defined_tags of this UpdateInstanceDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this UpdateInstanceDetails.

> **Return type** dict(str, dict(str, *object*))

display_name
: Gets the display_name of this UpdateInstanceDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

Example: *My bare metal instance*

> **Returns** The display_name of this UpdateInstanceDetails.

> **Return type** str

freeform_tags
: Gets the freeform_tags of this UpdateInstanceDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateInstanceDetails.

> **Return type** dict(str, str)

class oci.core.models.**UpdateInternetGatewayDetails**(***kwargs*)

__init__(***kwargs*)
: Initializes a new UpdateInternetGatewayDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **display_name** (*str*) – The value to assign to the display_name property of this UpdateInternetGatewayDetails.

- **is_enabled** (*bool*) – The value to assign to the is_enabled property of this UpdateInternetGatewayDetails.

display_name

Gets the display_name of this UpdateInternetGatewayDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateInternetGatewayDetails.

> **Return type** str

is_enabled

Gets the is_enabled of this UpdateInternetGatewayDetails. Whether the gateway is enabled.

> **Returns** The is_enabled of this UpdateInternetGatewayDetails.

> **Return type** bool

class oci.core.models.**UpdateLocalPeeringGatewayDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateLocalPeeringGatewayDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateLocalPeeringGatewayDetails.

display_name

Gets the display_name of this UpdateLocalPeeringGatewayDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateLocalPeeringGatewayDetails.

> **Return type** str

class oci.core.models.**UpdatePrivateIpDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdatePrivateIpDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this UpdatePrivateIpDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this UpdatePrivateIpDetails.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdatePrivateIpDetails.

- **hostname_label** (*str*) – The value to assign to the hostname_label property of this UpdatePrivateIpDetails.

- **vnic_id** (*str*) – The value to assign to the vnic_id property of this UpdatePrivateIpDetails.

defined_tags

> Gets the defined_tags of this UpdatePrivateIpDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this UpdatePrivateIpDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name

> Gets the display_name of this UpdatePrivateIpDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdatePrivateIpDetails.
> >
> > **Return type** str

freeform_tags

> Gets the freeform_tags of this UpdatePrivateIpDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this UpdatePrivateIpDetails.
> >
> > **Return type** dict(str, str)

hostname_label

> Gets the hostname_label of this UpdatePrivateIpDetails. The hostname for the private IP. Used for DNS. The value is the hostname portion of the private IP's fully qualified domain name (FQDN) (for example, *bminstance-1* in FQDN *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must be unique across all VNICs in the subnet and comply with RFC 952 and RFC 1123.
>
> For more information, see DNS in Your Virtual Cloud Network.
>
> Example: *bminstance-1*
>
> > **Returns** The hostname_label of this UpdatePrivateIpDetails.
> >
> > **Return type** str

vnic_id

> Gets the vnic_id of this UpdatePrivateIpDetails. The OCID of the VNIC to reassign the private IP to. The VNIC must be in the same subnet as the current VNIC.
>
> > **Returns** The vnic_id of this UpdatePrivateIpDetails.
> >
> > **Return type** str

class oci.core.models.**UpdatePublicIpDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new UpdatePublicIpDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **display_name** (*str*) – The value to assign to the display_name property of this UpdatePublicIpDetails.
>
> - **private_ip_id** (*str*) – The value to assign to the private_ip_id property of this UpdatePublicIpDetails.

display_name
> Gets the display_name of this UpdatePublicIpDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdatePublicIpDetails.
> >
> > **Return type** str

private_ip_id
> Gets the private_ip_id of this UpdatePublicIpDetails. The OCID of the private IP to assign the public IP to. * If the public IP is already assigned to a different private IP, it will be unassigned and then reassigned to the specified private IP. * If you set this field to an empty string, the public IP will be unassigned from the private IP it is currently assigned to.
>
> > **Returns** The private_ip_id of this UpdatePublicIpDetails.
> >
> > **Return type** str

class oci.core.models.**UpdateRemotePeeringConnectionDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateRemotePeeringConnectionDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateRemotePeeringConnectionDetails.

> **display_name**
> > Gets the display_name of this UpdateRemotePeeringConnectionDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
> >
> > > **Returns** The display_name of this UpdateRemotePeeringConnectionDetails.
> > >
> > > **Return type** str

class oci.core.models.**UpdateRouteTableDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateRouteTableDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this UpdateRouteTableDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this UpdateRouteTableDetails.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateRouteTableDetails.
> >
> > - **route_rules** (*list[RouteRule]*) – The value to assign to the route_rules property of this UpdateRouteTableDetails.

> **defined_tags**
> > Gets the defined_tags of this UpdateRouteTableDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
> >
> > Example: *{"Operations": {"CostCenter": "42"}}*
> >
> > > **Returns** The defined_tags of this UpdateRouteTableDetails.

> **Return type** dict(str, dict(str, *object*))

display_name
> Gets the display_name of this UpdateRouteTableDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdateRouteTableDetails.
> >
> > **Return type** str

freeform_tags
> Gets the freeform_tags of this UpdateRouteTableDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this UpdateRouteTableDetails.
> >
> > **Return type** dict(str, str)

route_rules
> Gets the route_rules of this UpdateRouteTableDetails. The collection of rules used for routing destination IPs to network devices.
>
> > **Returns** The route_rules of this UpdateRouteTableDetails.
> >
> > **Return type** list[*RouteRule*]

class oci.core.models.**UpdateSecurityListDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateSecurityListDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **defined_tags** (*dict(str, dict(str,* object*)*)) – The value to assign to the defined_tags property of this UpdateSecurityListDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this UpdateSecurityListDetails.
> >
> > - **egress_security_rules** (*list[EgressSecurityRule]*) – The value to assign to the egress_security_rules property of this UpdateSecurityListDetails.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateSecurityListDetails.
> >
> > - **ingress_security_rules** (*list[IngressSecurityRule]*) – The value to assign to the ingress_security_rules property of this UpdateSecurityListDetails.

defined_tags
> Gets the defined_tags of this UpdateSecurityListDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this UpdateSecurityListDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this UpdateSecurityListDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateSecurityListDetails.
>
> **Return type** str

egress_security_rules

Gets the egress_security_rules of this UpdateSecurityListDetails. Rules for allowing egress IP packets.

> **Returns** The egress_security_rules of this UpdateSecurityListDetails.
>
> **Return type** list[*EgressSecurityRule*]

freeform_tags

Gets the freeform_tags of this UpdateSecurityListDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateSecurityListDetails.
>
> **Return type** dict(str, str)

ingress_security_rules

Gets the ingress_security_rules of this UpdateSecurityListDetails. Rules for allowing ingress IP packets.

> **Returns** The ingress_security_rules of this UpdateSecurityListDetails.
>
> **Return type** list[*IngressSecurityRule*]

class oci.core.models.**UpdateSubnetDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateSubnetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **defined_tags** (*dict(str, dict(str,* object*)*)) – The value to assign to the defined_tags property of this UpdateSubnetDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this UpdateSubnetDetails.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateSubnetDetails.

defined_tags

Gets the defined_tags of this UpdateSubnetDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this UpdateSubnetDetails.
>
> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this UpdateSubnetDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateSubnetDetails.

Return type str

freeform_tags

Gets the freeform_tags of this UpdateSubnetDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateSubnetDetails.

> **Return type** dict(str, str)

class oci.core.models.**UpdateVcnDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateVcnDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **defined_tags** (*dict(str, dict(str,* object*)))* – The value to assign to the defined_tags property of this UpdateVcnDetails.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this UpdateVcnDetails.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateVcnDetails.

defined_tags

Gets the defined_tags of this UpdateVcnDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this UpdateVcnDetails.

> **Return type** dict(str, dict(str, *object*))

display_name

Gets the display_name of this UpdateVcnDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

> **Returns** The display_name of this UpdateVcnDetails.

> **Return type** str

freeform_tags

Gets the freeform_tags of this UpdateVcnDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.

Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateVcnDetails.

> **Return type** dict(str, str)

class oci.core.models.**UpdateVirtualCircuitDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateVirtualCircuitDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

- **bandwidth_shape_name** (*str*) – The value to assign to the bandwidth_shape_name property of this UpdateVirtualCircuitDetails.

- **cross_connect_mappings** (*list[*`CrossConnectMapping`*]*) – The value to assign to the cross_connect_mappings property of this UpdateVirtualCircuitDetails.

- **customer_bgp_asn** (*int*) – The value to assign to the customer_bgp_asn property of this UpdateVirtualCircuitDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this UpdateVirtualCircuitDetails.

- **gateway_id** (*str*) – The value to assign to the gateway_id property of this UpdateVirtualCircuitDetails.

- **provider_state** (*str*) – The value to assign to the provider_state property of this UpdateVirtualCircuitDetails. Allowed values for this property are: "ACTIVE", "INACTIVE"

- **reference_comment** (*str*) – The value to assign to the reference_comment property of this UpdateVirtualCircuitDetails.

bandwidth_shape_name

Gets the bandwidth_shape_name of this UpdateVirtualCircuitDetails. The provisioned data rate of the connection. To get a list of the available bandwidth levels (that is, shapes), see `list_fast_connect_provider_virtual_circuit_bandwidth_shapes()`. To be updated only by the customer who owns the virtual circuit.

> **Returns** The bandwidth_shape_name of this UpdateVirtualCircuitDetails.
>
> **Return type** str

cross_connect_mappings

Gets the cross_connect_mappings of this UpdateVirtualCircuitDetails. An array of mappings, each containing properties for a cross-connect or cross-connect group associated with this virtual circuit.

The customer and provider can update different properties in the mapping depending on the situation. See the description of the *CrossConnectMapping*.

> **Returns** The cross_connect_mappings of this UpdateVirtualCircuitDetails.
>
> **Return type** list[*CrossConnectMapping*]

customer_bgp_asn

Gets the customer_bgp_asn of this UpdateVirtualCircuitDetails. The BGP ASN of the network at the other end of the BGP session from Oracle.

If the BGP session is from the customer's edge router to Oracle, the required value is the customer's ASN, and it can be updated only by the customer.

If the BGP session is from the provider's edge router to Oracle, the required value is the provider's ASN, and it can be updated only by the provider.

> **Returns** The customer_bgp_asn of this UpdateVirtualCircuitDetails.
>
> **Return type** int

display_name

Gets the display_name of this UpdateVirtualCircuitDetails. A user-friendly name. Does not have to be unique. Avoid entering confidential information.

To be updated only by the customer who owns the virtual circuit.

> **Returns** The display_name of this UpdateVirtualCircuitDetails.

> **Return type** str

gateway_id
: Gets the gateway_id of this UpdateVirtualCircuitDetails. The OCID of the `Drg` that this private virtual circuit uses.

    To be updated only by the customer who owns the virtual circuit.

    > **Returns** The gateway_id of this UpdateVirtualCircuitDetails.

    > **Return type** str

provider_state
: Gets the provider_state of this UpdateVirtualCircuitDetails. The provider's state in relation to this virtual circuit. Relevant only if the customer is using FastConnect via a provider. ACTIVE means the provider has provisioned the virtual circuit from their end. INACTIVE means the provider has not yet provisioned the virtual circuit, or has de-provisioned it.

    To be updated only by the provider.

    Allowed values for this property are: "ACTIVE", "INACTIVE"

    > **Returns** The provider_state of this UpdateVirtualCircuitDetails.

    > **Return type** str

reference_comment
: Gets the reference_comment of this UpdateVirtualCircuitDetails. Provider-supplied reference information about this virtual circuit. Relevant only if the customer is using FastConnect via a provider.

    To be updated only by the provider.

    > **Returns** The reference_comment of this UpdateVirtualCircuitDetails.

    > **Return type** str

class oci.core.models.**UpdateVnicDetails**(***kwargs*)

__init__(***kwargs*)
: Initializes a new UpdateVnicDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    Parameters

    - **display_name** (*str*) – The value to assign to the display_name property of this UpdateVnicDetails.

    - **hostname_label** (*str*) – The value to assign to the hostname_label property of this UpdateVnicDetails.

    - **skip_source_dest_check** (*bool*) – The value to assign to the skip_source_dest_check property of this UpdateVnicDetails.

display_name
: Gets the display_name of this UpdateVnicDetails. A user-friendly name. Does not have to be unique, and it's changeable.

    > **Returns** The display_name of this UpdateVnicDetails.

    > **Return type** str

hostname_label
: Gets the hostname_label of this UpdateVnicDetails. The hostname for the VNIC's primary private IP. Used for DNS. The value is the hostname portion of the primary private IP's fully qualified domain

name (FQDN) (for example, *bminstance-1* in FQDN *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must
be unique across all VNICs in the subnet and comply with RFC 952 and RFC 1123. The value appears in the `Vnic` object and also the `PrivateIp` object returned by `list_private_ips()` and
`get_private_ip()`.

For more information, see DNS in Your Virtual Cloud Network.

> **Returns** The hostname_label of this UpdateVnicDetails.

> **Return type** str

skip_source_dest_check
> Gets the skip_source_dest_check of this UpdateVnicDetails. Whether the source/destination check is disabled on the VNIC. Defaults to *false*, which means the check is performed. For information about why
> you would skip the source/destination check, see Using a Private IP as a Route Target.

> Example: *true*

> **Returns** The skip_source_dest_check of this UpdateVnicDetails.

> **Return type** bool

class oci.core.models.**UpdateVolumeBackupDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateVolumeBackupDetails object with values from keyword arguments. The following
> keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
> * **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the
>   defined_tags property of this UpdateVolumeBackupDetails.
> * **display_name** (*str*) – The value to assign to the display_name property of this UpdateVolumeBackupDetails.
> * **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags
>   property of this UpdateVolumeBackupDetails.

defined_tags
> Gets the defined_tags of this UpdateVolumeBackupDetails. Defined tags for this resource. Each key is
> predefined and scoped to a namespace. For more information, see Resource Tags.

> Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this UpdateVolumeBackupDetails.

> **Return type** dict(str, dict(str, *object*))

display_name
> Gets the display_name of this UpdateVolumeBackupDetails. A friendly user-specified name for the volume backup. Avoid entering confidential information.

> **Returns** The display_name of this UpdateVolumeBackupDetails.

> **Return type** str

freeform_tags
> Gets the freeform_tags of this UpdateVolumeBackupDetails. Free-form tags for this resource. Each tag is
> a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource
> Tags.

> Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateVolumeBackupDetails.

> **Return type** dict(str, str)

class oci.core.models.**UpdateVolumeDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new UpdateVolumeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **defined_tags** (*dict(str, dict(str,* object*)))* – The value to assign to the defined_tags property of this UpdateVolumeDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this UpdateVolumeDetails.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateVolumeDetails.
>
> **defined_tags**
> Gets the defined_tags of this UpdateVolumeDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this UpdateVolumeDetails.
>
> > **Return type** dict(str, dict(str, *object*))
>
> **display_name**
> Gets the display_name of this UpdateVolumeDetails. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this UpdateVolumeDetails.
>
> > **Return type** str
>
> **freeform_tags**
> Gets the freeform_tags of this UpdateVolumeDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this UpdateVolumeDetails.
>
> > **Return type** dict(str, str)

class oci.core.models.**Vcn**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new Vcn object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **cidr_block** (*str*) – The value to assign to the cidr_block property of this Vcn.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Vcn.
> >
> > - **default_dhcp_options_id** (*str*) – The value to assign to the default_dhcp_options_id property of this Vcn.

- **default_route_table_id** (*str*) – The value to assign to the default_route_table_id property of this Vcn.

- **default_security_list_id** (*str*) – The value to assign to the default_security_list_id property of this Vcn.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Vcn.

- **display_name** (*str*) – The value to assign to the display_name property of this Vcn.

- **dns_label** (*str*) – The value to assign to the dns_label property of this Vcn.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Vcn.

- **id** (*str*) – The value to assign to the id property of this Vcn.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Vcn. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this Vcn.

- **vcn_domain_name** (*str*) – The value to assign to the vcn_domain_name property of this Vcn.

cidr_block

> [Required] Gets the cidr_block of this Vcn. The CIDR IP address block of the VCN.
>
> Example: *172.16.0.0/16*
>
> > **Returns** The cidr_block of this Vcn.
> >
> > **Return type** str

compartment_id

> [Required] Gets the compartment_id of this Vcn. The OCID of the compartment containing the VCN.
>
> > **Returns** The compartment_id of this Vcn.
> >
> > **Return type** str

default_dhcp_options_id

> Gets the default_dhcp_options_id of this Vcn. The OCID for the VCN's default set of DHCP options.
>
> > **Returns** The default_dhcp_options_id of this Vcn.
> >
> > **Return type** str

default_route_table_id

> Gets the default_route_table_id of this Vcn. The OCID for the VCN's default route table.
>
> > **Returns** The default_route_table_id of this Vcn.
> >
> > **Return type** str

default_security_list_id

> Gets the default_security_list_id of this Vcn. The OCID for the VCN's default security list.
>
> > **Returns** The default_security_list_id of this Vcn.
> >
> > **Return type** str

defined_tags
> Gets the defined_tags of this Vcn. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
>> **Returns** The defined_tags of this Vcn.
>>
>> **Return type** dict(str, dict(str, *object*))

display_name
> Gets the display_name of this Vcn. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
>> **Returns** The display_name of this Vcn.
>>
>> **Return type** str

dns_label
> Gets the dns_label of this Vcn. A DNS label for the VCN, used in conjunction with the VNIC's hostname and subnet's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must be an alphanumeric string that begins with a letter. The value cannot be changed.
>
> The absence of this parameter means the Internet and VCN Resolver will not work for this VCN.
>
> For more information, see DNS in Your Virtual Cloud Network.
>
> Example: *vcn1*
>
>> **Returns** The dns_label of this Vcn.
>>
>> **Return type** str

freeform_tags
> Gets the freeform_tags of this Vcn. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
>> **Returns** The freeform_tags of this Vcn.
>>
>> **Return type** dict(str, str)

id
> [**Required**] Gets the id of this Vcn. The VCN's Oracle ID (OCID).
>
>> **Returns** The id of this Vcn.
>>
>> **Return type** str

lifecycle_state
> [**Required**] Gets the lifecycle_state of this Vcn. The VCN's current state.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>> **Returns** The lifecycle_state of this Vcn.
>>
>> **Return type** str

time_created
> Gets the time_created of this Vcn. The date and time the VCN was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this Vcn.

> **Return type** datetime

vcn_domain_name
> Gets the vcn_domain_name of this Vcn. The VCN's domain name, which consists of the VCN's DNS label, and the *oraclevcn.com* domain.

> For more information, see DNS in Your Virtual Cloud Network.

> Example: *vcn1.oraclevcn.com*

> > **Returns** The vcn_domain_name of this Vcn.

> > **Return type** str

class oci.core.models.**VirtualCircuit**(***kwargs*)

__init__(***kwargs*)
> Initializes a new VirtualCircuit object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
> - **bandwidth_shape_name** (*str*) – The value to assign to the bandwidth_shape_name property of this VirtualCircuit.
> - **bgp_management** (*str*) – The value to assign to the bgp_management property of this VirtualCircuit. Allowed values for this property are: "CUSTOMER_MANAGED", "PROVIDER_MANAGED", "ORACLE_MANAGED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> - **bgp_session_state** (*str*) – The value to assign to the bgp_session_state property of this VirtualCircuit. Allowed values for this property are: "UP", "DOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this VirtualCircuit.
> - **cross_connect_mappings** (*list[CrossConnectMapping]*) – The value to assign to the cross_connect_mappings property of this VirtualCircuit.
> - **customer_bgp_asn** (*int*) – The value to assign to the customer_bgp_asn property of this VirtualCircuit.
> - **display_name** (*str*) – The value to assign to the display_name property of this VirtualCircuit.
> - **gateway_id** (*str*) – The value to assign to the gateway_id property of this VirtualCircuit.
> - **id** (*str*) – The value to assign to the id property of this VirtualCircuit.
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this VirtualCircuit. Allowed values for this property are: "PENDING_PROVIDER", "VERIFYING", "PROVISIONING", "PROVISIONED", "FAILED", "INACTIVE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **oracle_bgp_asn** (`int`) – The value to assign to the oracle_bgp_asn property of this VirtualCircuit.

- **provider_name** (`str`) – The value to assign to the provider_name property of this VirtualCircuit.

- **provider_service_id** (`str`) – The value to assign to the provider_service_id property of this VirtualCircuit.

- **provider_service_name** (`str`) – The value to assign to the provider_service_name property of this VirtualCircuit.

- **provider_state** (`str`) – The value to assign to the provider_state property of this VirtualCircuit. Allowed values for this property are: "ACTIVE", "INACTIVE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **public_prefixes** (`list[str]`) – The value to assign to the public_prefixes property of this VirtualCircuit.

- **reference_comment** (`str`) – The value to assign to the reference_comment property of this VirtualCircuit.

- **region** (`str`) – The value to assign to the region property of this VirtualCircuit.

- **service_type** (`str`) – The value to assign to the service_type property of this VirtualCircuit. Allowed values for this property are: "COLOCATED", "LAYER2", "LAYER3", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (`datetime`) – The value to assign to the time_created property of this VirtualCircuit.

- **type** (`str`) – The value to assign to the type property of this VirtualCircuit. Allowed values for this property are: "PUBLIC", "PRIVATE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

bandwidth_shape_name

Gets the bandwidth_shape_name of this VirtualCircuit. The provisioned data rate of the connection.

> **Returns** The bandwidth_shape_name of this VirtualCircuit.

> **Return type** str

bgp_management

Gets the bgp_management of this VirtualCircuit. BGP management option.

Allowed values for this property are: "CUSTOMER_MANAGED", "PROVIDER_MANAGED", "ORACLE_MANAGED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The bgp_management of this VirtualCircuit.

> **Return type** str

bgp_session_state

Gets the bgp_session_state of this VirtualCircuit. The state of the BGP session associated with the virtual circuit.

Allowed values for this property are: "UP", "DOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The bgp_session_state of this VirtualCircuit.

Return type str

compartment_id
Gets the compartment_id of this VirtualCircuit. The OCID of the compartment containing the virtual circuit.

Returns The compartment_id of this VirtualCircuit.

Return type str

cross_connect_mappings
Gets the cross_connect_mappings of this VirtualCircuit. An array of mappings, each containing properties for a cross-connect or cross-connect group that is associated with this virtual circuit.

Returns The cross_connect_mappings of this VirtualCircuit.

Return type list[*CrossConnectMapping*]

customer_bgp_asn
Gets the customer_bgp_asn of this VirtualCircuit. The BGP ASN of the network at the other end of the BGP session from Oracle. If the session is between the customer's edge router and Oracle, the value is the customer's ASN. If the BGP session is between the provider's edge router and Oracle, the value is the provider's ASN.

Returns The customer_bgp_asn of this VirtualCircuit.

Return type int

display_name
Gets the display_name of this VirtualCircuit. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

Returns The display_name of this VirtualCircuit.

Return type str

gateway_id
Gets the gateway_id of this VirtualCircuit. The OCID of the customer's `Drg` that this virtual circuit uses. Applicable only to private virtual circuits.

Returns The gateway_id of this VirtualCircuit.

Return type str

id
Gets the id of this VirtualCircuit. The virtual circuit's Oracle ID (OCID).

Returns The id of this VirtualCircuit.

Return type str

lifecycle_state
Gets the lifecycle_state of this VirtualCircuit. The virtual circuit's current state. For information about the different states, see FastConnect Overview.

Allowed values for this property are: "PENDING_PROVIDER", "VERIFYING", "PROVISION-ING", "PROVISIONED", "FAILED", "INACTIVE", "TERMINATING", "TERMINATED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

Returns The lifecycle_state of this VirtualCircuit.

Return type str

oracle_bgp_asn
Gets the oracle_bgp_asn of this VirtualCircuit. The Oracle BGP ASN.

>   **Returns** The oracle_bgp_asn of this VirtualCircuit.

>   **Return type** int

provider_name
Gets the provider_name of this VirtualCircuit. Deprecated. Instead use *providerServiceId*.

>   **Returns** The provider_name of this VirtualCircuit.

>   **Return type** str

provider_service_id
Gets the provider_service_id of this VirtualCircuit. The OCID of the service offered by the provider (if the customer is connecting via a provider).

>   **Returns** The provider_service_id of this VirtualCircuit.

>   **Return type** str

provider_service_name
Gets the provider_service_name of this VirtualCircuit. Deprecated. Instead use *providerServiceId*.

>   **Returns** The provider_service_name of this VirtualCircuit.

>   **Return type** str

provider_state
Gets the provider_state of this VirtualCircuit. The provider's state in relation to this virtual circuit (if the customer is connecting via a provider). ACTIVE means the provider has provisioned the virtual circuit from their end. INACTIVE means the provider has not yet provisioned the virtual circuit, or has de-provisioned it.

Allowed values for this property are: "ACTIVE", "INACTIVE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The provider_state of this VirtualCircuit.

>   **Return type** str

public_prefixes
Gets the public_prefixes of this VirtualCircuit. For a public virtual circuit. The public IP prefixes (CIDRs) the customer wants to advertise across the connection. Each prefix must be /24 or less specific.

>   **Returns** The public_prefixes of this VirtualCircuit.

>   **Return type** list[str]

reference_comment
Gets the reference_comment of this VirtualCircuit. Provider-supplied reference information about this virtual circuit (if the customer is connecting via a provider).

>   **Returns** The reference_comment of this VirtualCircuit.

>   **Return type** str

region
Gets the region of this VirtualCircuit. The Oracle Cloud Infrastructure region where this virtual circuit is located.

>   **Returns** The region of this VirtualCircuit.

>   **Return type** str

service_type
> Gets the service_type of this VirtualCircuit. Provider service type.
>
> Allowed values for this property are: "COLOCATED", "LAYER2", "LAYER3", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The service_type of this VirtualCircuit.
> >
> > **Return type** str

time_created
> Gets the time_created of this VirtualCircuit. The date and time the virtual circuit was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this VirtualCircuit.
> >
> > **Return type** datetime

type
> Gets the type of this VirtualCircuit. Whether the virtual circuit supports private or public peering. For more information, see FastConnect Overview.
>
> Allowed values for this property are: "PUBLIC", "PRIVATE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The type of this VirtualCircuit.
> >
> > **Return type** str

class oci.core.models.**VirtualCircuitBandwidthShape**(***kwargs*)

__init__(***kwargs*)
> Initializes a new VirtualCircuitBandwidthShape object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **bandwidth_in_mbps** (*int*) – The value to assign to the bandwidth_in_mbps property of this VirtualCircuitBandwidthShape.
> >
> > - **name** (*str*) – The value to assign to the name property of this VirtualCircuitBandwidthShape.

bandwidth_in_mbps
> Gets the bandwidth_in_mbps of this VirtualCircuitBandwidthShape. The bandwidth in Mbps.
>
> Example: *10000*
>
> > **Returns** The bandwidth_in_mbps of this VirtualCircuitBandwidthShape.
> >
> > **Return type** int

name
> [Required] Gets the name of this VirtualCircuitBandwidthShape. The name of the bandwidth shape.
>
> Example: *10 Gbps*
>
> > **Returns** The name of this VirtualCircuitBandwidthShape.
> >
> > **Return type** str

class oci.core.models.**VirtualCircuitPublicPrefix**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new VirtualCircuitPublicPrefix object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **cidr_block** (*str*) – The value to assign to the cidr_block property of this VirtualCircuitPublicPrefix.
> >
> > - **verification_state** (*str*) – The value to assign to the verification_state property of this VirtualCircuitPublicPrefix. Allowed values for this property are: "IN_PROGRESS", "COMPLETED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> **cidr_block**
> [**Required**] Gets the cidr_block of this VirtualCircuitPublicPrefix. Publix IP prefix (CIDR) that the customer specified.
>
> > **Returns** The cidr_block of this VirtualCircuitPublicPrefix.
> >
> > **Return type** str
>
> **verification_state**
> [**Required**] Gets the verification_state of this VirtualCircuitPublicPrefix. Oracle must verify that the customer owns the public IP prefix before traffic for that prefix can flow across the virtual circuit. Verification can take a few business days. *IN_PROGRESS* means Oracle is verifying the prefix. *COMPLETED* means verification succeeded. *FAILED* means verification failed and traffic for this prefix will not flow across the connection.
>
> > Allowed values for this property are: "IN_PROGRESS", "COMPLETED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > **Returns** The verification_state of this VirtualCircuitPublicPrefix.
> >
> > **Return type** str

class oci.core.models.**Vnic**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new Vnic object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **availability_domain** (*str*) – The value to assign to the availability_domain property of this Vnic.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Vnic.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this Vnic.
> >
> > - **hostname_label** (*str*) – The value to assign to the hostname_label property of this Vnic.
> >
> > - **id** (*str*) – The value to assign to the id property of this Vnic.
> >
> > - **is_primary** (*bool*) – The value to assign to the is_primary property of this Vnic.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Vnic. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **mac_address** (*str*) – The value to assign to the mac_address property of this Vnic.

- **private_ip** (*str*) – The value to assign to the private_ip property of this Vnic.

- **public_ip** (*str*) – The value to assign to the public_ip property of this Vnic.

- **skip_source_dest_check** (*bool*) – The value to assign to the skip_source_dest_check property of this Vnic.

- **subnet_id** (*str*) – The value to assign to the subnet_id property of this Vnic.

- **time_created** (*datetime*) – The value to assign to the time_created property of this Vnic.

availability_domain
    [**Required**] Gets the availability_domain of this Vnic. The VNIC's Availability Domain.

    Example: *Uocm:PHX-AD-1*

        Returns The availability_domain of this Vnic.

        Return type str

compartment_id
    [**Required**] Gets the compartment_id of this Vnic. The OCID of the compartment containing the VNIC.

        Returns The compartment_id of this Vnic.

        Return type str

display_name
    Gets the display_name of this Vnic. A user-friendly name. Does not have to be unique. Avoid entering confidential information.

        Returns The display_name of this Vnic.

        Return type str

hostname_label
    Gets the hostname_label of this Vnic. The hostname for the VNIC's primary private IP. Used for DNS. The value is the hostname portion of the primary private IP's fully qualified domain name (FQDN) (for example, *bminstance-1* in FQDN *bminstance-1.subnet123.vcn1.oraclevcn.com*). Must be unique across all VNICs in the subnet and comply with [RFC 952](#) and [RFC 1123](#).

    For more information, see [DNS in Your Virtual Cloud Network](#).

    Example: *bminstance-1*

        Returns The hostname_label of this Vnic.

        Return type str

id
    [**Required**] Gets the id of this Vnic. The OCID of the VNIC.

        Returns The id of this Vnic.

        Return type str

is_primary
> Gets the is_primary of this Vnic. Whether the VNIC is the primary VNIC (the VNIC that is automatically created and attached during instance launch).
>
> > **Returns** The is_primary of this Vnic.
> >
> > **Return type** bool

lifecycle_state
> [Required] Gets the lifecycle_state of this Vnic. The current state of the VNIC.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "TERMINATING", "TERMINATED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this Vnic.
> >
> > **Return type** str

mac_address
> Gets the mac_address of this Vnic. The MAC address of the VNIC.
>
> Example: *00:00:17:B6:4D:DD*
>
> > **Returns** The mac_address of this Vnic.
> >
> > **Return type** str

private_ip
> [Required] Gets the private_ip of this Vnic. The private IP address of the primary *privateIp* object on the VNIC. The address is within the CIDR of the VNIC's subnet.
>
> Example: *10.0.3.3*
>
> > **Returns** The private_ip of this Vnic.
> >
> > **Return type** str

public_ip
> Gets the public_ip of this Vnic. The public IP address of the VNIC, if one is assigned.
>
> > **Returns** The public_ip of this Vnic.
> >
> > **Return type** str

skip_source_dest_check
> Gets the skip_source_dest_check of this Vnic. Whether the source/destination check is disabled on the VNIC. Defaults to *false*, which means the check is performed. For information about why you would skip the source/destination check, see Using a Private IP as a Route Target.
>
> Example: *true*
>
> > **Returns** The skip_source_dest_check of this Vnic.
> >
> > **Return type** bool

subnet_id
> [Required] Gets the subnet_id of this Vnic. The OCID of the subnet the VNIC is in.
>
> > **Returns** The subnet_id of this Vnic.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this Vnic. The date and time the VNIC was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

>>> **Returns** The time_created of this Vnic.

>>> **Return type** datetime

class oci.core.models.**VnicAttachment**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new VnicAttachment object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):
>
>> **Parameters**
>>
>> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this VnicAttachment.
>>
>> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this VnicAttachment.
>>
>> - **display_name** (*str*) – The value to assign to the display_name property of this VnicAttachment.
>>
>> - **id** (*str*) – The value to assign to the id property of this VnicAttachment.
>>
>> - **instance_id** (*str*) – The value to assign to the instance_id property of this VnicAttachment.
>>
>> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this VnicAttachment. Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>> - **nic_index** (*int*) – The value to assign to the nic_index property of this VnicAttachment.
>>
>> - **subnet_id** (*str*) – The value to assign to the subnet_id property of this VnicAttachment.
>>
>> - **time_created** (*datetime*) – The value to assign to the time_created property of this VnicAttachment.
>>
>> - **vlan_tag** (*int*) – The value to assign to the vlan_tag property of this VnicAttachment.
>>
>> - **vnic_id** (*str*) – The value to assign to the vnic_id property of this VnicAttachment.

> **availability_domain**
> [Required] Gets the availability_domain of this VnicAttachment. The Availability Domain of the instance.
>
> Example: *Uocm:PHX-AD-1*
>
>> **Returns** The availability_domain of this VnicAttachment.
>>
>> **Return type** str

> **compartment_id**
> [Required] Gets the compartment_id of this VnicAttachment. The OCID of the compartment the VNIC attachment is in, which is the same compartment the instance is in.
>
>> **Returns** The compartment_id of this VnicAttachment.
>>
>> **Return type** str

display_name
> Gets the display_name of this VnicAttachment. A user-friendly name. Does not have to be unique. Avoid entering confidential information.
>
> > **Returns** The display_name of this VnicAttachment.
> >
> > **Return type** str

id
> [Required] Gets the id of this VnicAttachment. The OCID of the VNIC attachment.
>
> > **Returns** The id of this VnicAttachment.
> >
> > **Return type** str

instance_id
> [Required] Gets the instance_id of this VnicAttachment. The OCID of the instance.
>
> > **Returns** The instance_id of this VnicAttachment.
> >
> > **Return type** str

lifecycle_state
> [Required] Gets the lifecycle_state of this VnicAttachment. The current state of the VNIC attachment.
>
> Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this VnicAttachment.
> >
> > **Return type** str

nic_index
> Gets the nic_index of this VnicAttachment. Which physical network interface card (NIC) the VNIC uses. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see Virtual Network Interface Cards (VNICs).
>
> > **Returns** The nic_index of this VnicAttachment.
> >
> > **Return type** int

subnet_id
> [Required] Gets the subnet_id of this VnicAttachment. The OCID of the VNIC's subnet.
>
> > **Returns** The subnet_id of this VnicAttachment.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this VnicAttachment. The date and time the VNIC attachment was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this VnicAttachment.
> >
> > **Return type** datetime

vlan_tag
> Gets the vlan_tag of this VnicAttachment. The Oracle-assigned VLAN tag of the attached VNIC. Available after the attachment process is complete.
>
> Example: *0*

> **Returns** The vlan_tag of this VnicAttachment.

> **Return type** int

vnic_id

> Gets the vnic_id of this VnicAttachment. The OCID of the VNIC. Available after the attachment process is complete.

> **Returns** The vnic_id of this VnicAttachment.

> **Return type** str

class oci.core.models.**Volume**(***kwargs*)

__init__(***kwargs*)

> Initializes a new Volume object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

>> • **availability_domain** (*str*) – The value to assign to the availability_domain property of this Volume.

>> • **compartment_id** (*str*) – The value to assign to the compartment_id property of this Volume.

>> • **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Volume.

>> • **display_name** (*str*) – The value to assign to the display_name property of this Volume.

>> • **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Volume.

>> • **id** (*str*) – The value to assign to the id property of this Volume.

>> • **is_hydrated** (*bool*) – The value to assign to the is_hydrated property of this Volume.

>> • **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Volume. Allowed values for this property are: "PROVISIONING", "RESTORING", "AVAILABLE", "TERMINATING", "TERMINATED", "FAULTY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>> • **size_in_gbs** (*int*) – The value to assign to the size_in_gbs property of this Volume.

>> • **size_in_mbs** (*int*) – The value to assign to the size_in_mbs property of this Volume.

>> • **source_details** (*VolumeSourceDetails*) – The value to assign to the source_details property of this Volume.

>> • **time_created** (*datetime*) – The value to assign to the time_created property of this Volume.

availability_domain

> [**Required**] Gets the availability_domain of this Volume. The Availability Domain of the volume.

> Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this Volume.

> **Return type** str

compartment_id
> [Required] Gets the compartment_id of this Volume. The OCID of the compartment that contains the volume.
>
>> **Returns** The compartment_id of this Volume.
>>
>> **Return type** str

defined_tags
> Gets the defined_tags of this Volume. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.
>
> Example: *{"Operations": {"CostCenter": "42"}}*
>
>> **Returns** The defined_tags of this Volume.
>>
>> **Return type** dict(str, dict(str, *object*))

display_name
> [Required] Gets the display_name of this Volume. A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
>
>> **Returns** The display_name of this Volume.
>>
>> **Return type** str

freeform_tags
> Gets the freeform_tags of this Volume. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
>> **Returns** The freeform_tags of this Volume.
>>
>> **Return type** dict(str, str)

id
> [Required] Gets the id of this Volume. The OCID of the volume.
>
>> **Returns** The id of this Volume.
>>
>> **Return type** str

is_hydrated
> Gets the is_hydrated of this Volume. Specifies whether the cloned volume's data has finished copying from the source volume or backup.
>
>> **Returns** The is_hydrated of this Volume.
>>
>> **Return type** bool

lifecycle_state
> [Required] Gets the lifecycle_state of this Volume. The current state of a volume.
>
> Allowed values for this property are: "PROVISIONING", "RESTORING", "AVAILABLE", "TERMI-NATING", "TERMINATED", "FAULTY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>> **Returns** The lifecycle_state of this Volume.
>>
>> **Return type** str

size_in_gbs
> Gets the size_in_gbs of this Volume. The size of the volume in GBs.
>
>> **Returns** The size_in_gbs of this Volume.

> **Return type** int

size_in_mbs
> **[Required]** Gets the size_in_mbs of this Volume. The size of the volume in MBs. This field is deprecated. Use sizeInGBs instead.
>
> > **Returns** The size_in_mbs of this Volume.
> >
> > **Return type** int

source_details
> Gets the source_details of this Volume. The volume source, either an existing volume in the same Availability Domain or a volume backup. If null, an empty volume is created.
>
> > **Returns** The source_details of this Volume.
> >
> > **Return type** *VolumeSourceDetails*

time_created
> **[Required]** Gets the time_created of this Volume. The date and time the volume was created. Format defined by RFC3339.
>
> > **Returns** The time_created of this Volume.
> >
> > **Return type** datetime

class oci.core.models.**VolumeAttachment**(***kwargs*)

__init__(***kwargs*)
> Initializes a new VolumeAttachment object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:
>
> - *IScsiVolumeAttachment*
>
> - *ParavirtualizedVolumeAttachment*
>
> The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **attachment_type** (*str*) – The value to assign to the attachment_type property of this VolumeAttachment.
> >
> > - **availability_domain** (*str*) – The value to assign to the availability_domain property of this VolumeAttachment.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this VolumeAttachment.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this VolumeAttachment.
> >
> > - **id** (*str*) – The value to assign to the id property of this VolumeAttachment.
> >
> > - **instance_id** (*str*) – The value to assign to the instance_id property of this VolumeAttachment.
> >
> > - **is_read_only** (*bool*) – The value to assign to the is_read_only property of this VolumeAttachment.
> >
> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this VolumeAttachment. Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'.

Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this VolumeAttachment.

- **volume_id** (*str*) – The value to assign to the volume_id property of this VolumeAttachment.

attachment_type

[**Required**] Gets the attachment_type of this VolumeAttachment. The type of volume attachment.

> **Returns** The attachment_type of this VolumeAttachment.
>
> **Return type** str

availability_domain

[**Required**] Gets the availability_domain of this VolumeAttachment. The Availability Domain of an instance.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this VolumeAttachment.
>
> **Return type** str

compartment_id

[**Required**] Gets the compartment_id of this VolumeAttachment. The OCID of the compartment.

> **Returns** The compartment_id of this VolumeAttachment.
>
> **Return type** str

display_name

Gets the display_name of this VolumeAttachment. A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.

Example: *My volume attachment*

> **Returns** The display_name of this VolumeAttachment.
>
> **Return type** str

static get_subtype(*object_dictionary*)

Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

id

[**Required**] Gets the id of this VolumeAttachment. The OCID of the volume attachment.

> **Returns** The id of this VolumeAttachment.
>
> **Return type** str

instance_id

[**Required**] Gets the instance_id of this VolumeAttachment. The OCID of the instance the volume is attached to.

> **Returns** The instance_id of this VolumeAttachment.
>
> **Return type** str

is_read_only

Gets the is_read_only of this VolumeAttachment. Whether the attachment was created in read-only mode.

> **Returns** The is_read_only of this VolumeAttachment.

> > **Return type** bool

lifecycle_state

> [**Required**] Gets the lifecycle_state of this VolumeAttachment. The current state of the volume attachment.
>
> Allowed values for this property are: "ATTACHING", "ATTACHED", "DETACHING", "DETACHED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this VolumeAttachment.
> >
> > **Return type** str

time_created

> [**Required**] Gets the time_created of this VolumeAttachment. The date and time the volume was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this VolumeAttachment.
> >
> > **Return type** datetime

volume_id

> [**Required**] Gets the volume_id of this VolumeAttachment. The OCID of the volume.
>
> > **Returns** The volume_id of this VolumeAttachment.
> >
> > **Return type** str

class oci.core.models.**VolumeBackup**(***kwargs*)

__init__(***kwargs*)

> Initializes a new VolumeBackup object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this VolumeBackup.
>
> - **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this VolumeBackup.
>
> - **display_name** (*str*) – The value to assign to the display_name property of this VolumeBackup.
>
> - **expiration_time** (*datetime*) – The value to assign to the expiration_time property of this VolumeBackup.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this VolumeBackup.
>
> - **id** (*str*) – The value to assign to the id property of this VolumeBackup.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this VolumeBackup. Allowed values for this property are: "CREATING", "AVAILABLE", "TERMINATING", "TERMINATED", "FAULTY", "REQUEST_RECEIVED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **size_in_gbs** (*int*) – The value to assign to the size_in_gbs property of this VolumeBackup.

- **size_in_mbs** (*int*) – The value to assign to the size_in_mbs property of this Volume-Backup.

- **source_type** (*str*) – The value to assign to the source_type property of this Volume-Backup. Allowed values for this property are: "MANUAL", "SCHEDULED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this VolumeBackup.

- **time_request_received** (*datetime*) – The value to assign to the time_request_received property of this VolumeBackup.

- **type** (*str*) – The value to assign to the type property of this Volume-Backup. Allowed values for this property are: "FULL", "INCREMENTAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **unique_size_in_gbs** (*int*) – The value to assign to the unique_size_in_gbs property of this VolumeBackup.

- **unique_size_in_mbs** (*int*) – The value to assign to the unique_size_in_mbs property of this VolumeBackup.

- **volume_id** (*str*) – The value to assign to the volume_id property of this Volume-Backup.

compartment_id

    [Required] Gets the compartment_id of this VolumeBackup. The OCID of the compartment that contains the volume backup.

        Returns The compartment_id of this VolumeBackup.

        Return type str

defined_tags

    Gets the defined_tags of this VolumeBackup. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags.

    Example: *{"Operations": {"CostCenter": "42"}}*

        Returns The defined_tags of this VolumeBackup.

        Return type dict(str, dict(str, *object*))

display_name

    [Required] Gets the display_name of this VolumeBackup. A user-friendly name for the volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.

        Returns The display_name of this VolumeBackup.

        Return type str

expiration_time

    Gets the expiration_time of this VolumeBackup. The date and time the volume backup will expire and be automatically deleted. Format defined by RFC3339. This parameter will always be present for backups that were created automatically by a scheduled-backup policy. For manually created backups, it will be absent, signifying that there is no expiration time and the backup will last forever until manually deleted.

        Returns The expiration_time of this VolumeBackup.

        Return type datetime

freeform_tags
> Gets the freeform_tags of this VolumeBackup. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
>
> Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this VolumeBackup.
> >
> > **Return type** dict(str, str)

id
> **[Required]** Gets the id of this VolumeBackup. The OCID of the volume backup.
>
> > **Returns** The id of this VolumeBackup.
> >
> > **Return type** str

lifecycle_state
> **[Required]** Gets the lifecycle_state of this VolumeBackup. The current state of a volume backup.
>
> Allowed values for this property are: "CREATING", "AVAILABLE", "TERMINATING", "TERMINATED", "FAULTY", "REQUEST_RECEIVED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this VolumeBackup.
> >
> > **Return type** str

size_in_gbs
> Gets the size_in_gbs of this VolumeBackup. The size of the volume, in GBs.
>
> > **Returns** The size_in_gbs of this VolumeBackup.
> >
> > **Return type** int

size_in_mbs
> Gets the size_in_mbs of this VolumeBackup. The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Please use sizeInGBs.
>
> > **Returns** The size_in_mbs of this VolumeBackup.
> >
> > **Return type** int

source_type
> Gets the source_type of this VolumeBackup. Specifies whether the backup was created manually, or via scheduled backup policy.
>
> Allowed values for this property are: "MANUAL", "SCHEDULED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The source_type of this VolumeBackup.
> >
> > **Return type** str

time_created
> **[Required]** Gets the time_created of this VolumeBackup. The date and time the volume backup was created. This is the time the actual point-in-time image of the volume data was taken. Format defined by RFC3339.
>
> > **Returns** The time_created of this VolumeBackup.
> >
> > **Return type** datetime

time_request_received
> Gets the time_request_received of this VolumeBackup. The date and time the request to create the volume backup was received. Format defined by RFC3339.

> **Returns** The time_request_received of this VolumeBackup.
>
> **Return type** datetime

type
> [Required] Gets the type of this VolumeBackup. The type of a volume backup.
>
> Allowed values for this property are: "FULL", "INCREMENTAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The type of this VolumeBackup.
> >
> > **Return type** str

unique_size_in_gbs
> Gets the unique_size_in_gbs of this VolumeBackup. The size used by the backup, in GBs. It is typically smaller than sizeInGBs, depending on the space consumed on the volume and whether the backup is full or incremental.
>
> > **Returns** The unique_size_in_gbs of this VolumeBackup.
> >
> > **Return type** int

unique_size_in_mbs
> Gets the unique_size_in_mbs of this VolumeBackup. The size used by the backup, in MBs. It is typically smaller than sizeInMBs, depending on the space consumed on the volume and whether the backup is full or incremental. This field is deprecated. Please use uniqueSizeInGBs.
>
> > **Returns** The unique_size_in_mbs of this VolumeBackup.
> >
> > **Return type** int

volume_id
> Gets the volume_id of this VolumeBackup. The OCID of the volume.
>
> > **Returns** The volume_id of this VolumeBackup.
> >
> > **Return type** str

class oci.core.models.**VolumeBackupPolicy**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new VolumeBackupPolicy object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this VolumeBackupPolicy.
> >
> > - **id** (*str*) – The value to assign to the id property of this VolumeBackupPolicy.
> >
> > - **schedules** (*list[VolumeBackupSchedule]*) – The value to assign to the schedules property of this VolumeBackupPolicy.
> >
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this VolumeBackupPolicy.

display_name
> [Required] Gets the display_name of this VolumeBackupPolicy. A user-friendly name for the volume backup policy. Does not have to be unique and it's changeable. Avoid entering confidential information.
>
> > **Returns** The display_name of this VolumeBackupPolicy.
> >
> > **Return type** str

id
>   [Required] Gets the id of this VolumeBackupPolicy. The OCID of the volume backup policy.

>> Returns   The id of this VolumeBackupPolicy.

>> Return type   str

schedules
>   [Required] Gets the schedules of this VolumeBackupPolicy. The collection of schedules that this policy
>   will apply.

>> Returns   The schedules of this VolumeBackupPolicy.

>> Return type   list[*VolumeBackupSchedule*]

time_created
>   [Required] Gets the time_created of this VolumeBackupPolicy. The date and time the volume backup
>   policy was created. Format defined by RFC3339.

>> Returns   The time_created of this VolumeBackupPolicy.

>> Return type   datetime

class oci.core.models.**VolumeBackupPolicyAssignment**(***kwargs*)

> **__init__**(***kwargs*)
>   Initializes a new VolumeBackupPolicyAssignment object with values from keyword arguments. The fol-
>   lowing keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters**

>>>   • **asset_id** (*str*) – The value to assign to the asset_id property of this VolumeBackup-
>>>   PolicyAssignment.

>>>   • **id** (*str*) – The value to assign to the id property of this VolumeBackupPolicyAssignment.

>>>   • **policy_id** (*str*) – The value to assign to the policy_id property of this VolumeBack-
>>>   upPolicyAssignment.

>>>   • **time_created** (*datetime*) – The value to assign to the time_created property of this
>>>   VolumeBackupPolicyAssignment.

> **asset_id**
>>   [Required] Gets the asset_id of this VolumeBackupPolicyAssignment. The OCID of the asset (e.g. a
>>   volume) to which the policy has been assigned.

>>> Returns   The asset_id of this VolumeBackupPolicyAssignment.

>>> Return type   str

> **id**
>>   [Required] Gets the id of this VolumeBackupPolicyAssignment. The OCID of the volume backup policy
>>   assignment.

>>> Returns   The id of this VolumeBackupPolicyAssignment.

>>> Return type   str

> **policy_id**
>>   [Required] Gets the policy_id of this VolumeBackupPolicyAssignment. The OCID of the volume backup
>>   policy that has been assigned to an asset.

>>> Returns   The policy_id of this VolumeBackupPolicyAssignment.

>>> Return type   str

> **time_created**
>> [Required] Gets the time_created of this VolumeBackupPolicyAssignment. The date and time the volume backup policy assignment was created. Format defined by RFC3339.
>>
>>> **Returns** The time_created of this VolumeBackupPolicyAssignment.
>>>
>>> **Return type** datetime

class oci.core.models.**VolumeBackupSchedule**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new VolumeBackupSchedule object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>> **Parameters**
>>
>> - **backup_type** (*str*) – The value to assign to the backup_type property of this VolumeBackupSchedule. Allowed values for this property are: "FULL", "INCREMENTAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>> - **offset_seconds** (*int*) – The value to assign to the offset_seconds property of this VolumeBackupSchedule.
>>
>> - **period** (*str*) – The value to assign to the period property of this VolumeBackupSchedule. Allowed values for this property are: "ONE_HOUR", "ONE_DAY", "ONE_WEEK", "ONE_MONTH", "ONE_YEAR", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>> - **retention_seconds** (*int*) – The value to assign to the retention_seconds property of this VolumeBackupSchedule.

> **backup_type**
>> [Required] Gets the backup_type of this VolumeBackupSchedule. The type of backup to create.
>>
>> Allowed values for this property are: "FULL", "INCREMENTAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>>> **Returns** The backup_type of this VolumeBackupSchedule.
>>>
>>> **Return type** str

> **offset_seconds**
>> [Required] Gets the offset_seconds of this VolumeBackupSchedule. The number of seconds (positive or negative) that the backup time should be shifted from the default interval boundaries specified by the period.
>>
>>> **Returns** The offset_seconds of this VolumeBackupSchedule.
>>>
>>> **Return type** int

> **period**
>> [Required] Gets the period of this VolumeBackupSchedule. How often the backup should occur.
>>
>> Allowed values for this property are: "ONE_HOUR", "ONE_DAY", "ONE_WEEK", "ONE_MONTH", "ONE_YEAR", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>>> **Returns** The period of this VolumeBackupSchedule.
>>>
>>> **Return type** str

retention_seconds
>   [Required] Gets the retention_seconds of this VolumeBackupSchedule. How long, in seconds, backups
>   created by this schedule should be kept until being automatically deleted.
>
>   >   **Returns** The retention_seconds of this VolumeBackupSchedule.
>
>   >   **Return type** int

class oci.core.models.**VolumeSourceDetails**(***kwargs*)

>   **__init__**(***kwargs*)
>   >   Initializes a new VolumeSourceDetails object with values from keyword arguments. This class has the
>   >   following subclasses and if you are using this class as input to a service operations then you should favor
>   >   using a subclass over the base class:
>   >
>   >   - *VolumeSourceFromVolumeDetails*
>   >   - *VolumeSourceFromVolumeBackupDetails*
>   >
>   >   The following keyword arguments are supported (corresponding to the getters/setters of this class):
>   >
>   >   >   **Parameters type** (*str*) – The value to assign to the type property of this VolumeSourceDe-
>   >   >   tails.

>   **static get_subtype**(*object_dictionary*)
>   >   Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
>   >   subtype.

>   **type**
>   >   [Required] Gets the type of this VolumeSourceDetails.
>   >
>   >   >   **Returns** The type of this VolumeSourceDetails.
>   >
>   >   >   **Return type** str

class oci.core.models.**VolumeSourceFromVolumeBackupDetails**(***kwargs*)

>   **__init__**(***kwargs*)
>   >   Initializes a new VolumeSourceFromVolumeBackupDetails object with values from keyword arguments.
>   >   The default value of the *type* attribute of this class is volumeBackup and it should not be changed.
>   >   The following keyword arguments are supported (corresponding to the getters/setters of this class):
>   >
>   >   >   **Parameters**
>   >   >
>   >   >   - **type** (*str*) – The value to assign to the type property of this VolumeSourceFromVol-
>   >   >   umeBackupDetails.
>   >   >
>   >   >   - **id** (*str*) – The value to assign to the id property of this VolumeSourceFromVolumeBack-
>   >   >   upDetails.

>   **get_subtype**(*object_dictionary*)
>   >   Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
>   >   subtype.

>   **id**
>   >   [Required] Gets the id of this VolumeSourceFromVolumeBackupDetails. The OCID of the volume
>   >   backup.
>   >
>   >   >   **Returns** The id of this VolumeSourceFromVolumeBackupDetails.
>   >
>   >   >   **Return type** str

type
>   [Required] Gets the type of this VolumeSourceDetails.

>>   **Returns** The type of this VolumeSourceDetails.

>>   **Return type** str

class oci.core.models.**VolumeSourceFromVolumeDetails**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new VolumeSourceFromVolumeDetails object with values from keyword arguments. The
>   default value of the *type* attribute of this class is volume and it should not be changed. The following
>   keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters**

>>   • **type** (*str*) – The value to assign to the type property of this VolumeSourceFromVol-
>>   umeDetails.

>>   • **id** (*str*) – The value to assign to the id property of this VolumeSourceFromVolumeDe-
>>   tails.

get_subtype(*object_dictionary*)
>   Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
>   subtype.

id
>   [Required] Gets the id of this VolumeSourceFromVolumeDetails. The OCID of the volume.

>>   **Returns** The id of this VolumeSourceFromVolumeDetails.

>>   **Return type** str

type
>   [Required] Gets the type of this VolumeSourceDetails.

>>   **Returns** The type of this VolumeSourceDetails.

>>   **Return type** str

12.3 Database

12.3.1 Client

class oci.database.database_client.**DatabaseClient**(*config*, ***kwargs*)

create_backup(*create_backup_details*, ***kwargs*)
>   CreateBackup Creates a new backup in the specified database based on the request parameters you provide.
>   If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or
>   the API for backups, a new backup configuration is created and associated with your database. This means
>   that you can no longer rely on your previously configured unmanaged backups to work.

>   **Parameters**

>>   • **create_backup_details** (CreateBackupDetails) – (required) Request to
>>   create a new database backup.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *Backup*

> **Return type** *Response*

create_data_guard_association(*database_id*, *create_data_guard_association_details*, ***kwargs*)

Creates a Data Guard association. Creates a new Data Guard association. A Data Guard association represents the replication relationship between the specified database and a peer database. For more information, see Using Oracle Data Guard.

All Oracle Cloud Infrastructure resources, including Data Guard associations, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console. For more information, see Resource Identifiers.

> **Parameters**
>
> - **database_id** (`str`) – (required) The database OCID.
> - **create_data_guard_association_details** (`CreateDataGuardAssociationDetails`) – (required) A request to create a Data Guard association.
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *DataGuardAssociation*

> **Return type** *Response*

create_db_home(*create_db_home_with_db_system_id_details*, ***kwargs*)

CreateDbHome Creates a new DB Home in the specified DB System based on the request parameters you provide.

> **Parameters**
>
> - **create_db_home_with_db_system_id_details** (`CreateDbHomeWithDbSystemIdBase`) – (required) Request to create a new DB Home.
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *DbHome*

> **Return type** *Response*

db_node_action(*db_node_id*, *action*, ***kwargs*)

DbNodeAction Performs an action, such as one of the power actions (start, stop, softreset, or reset), on the specified DB Node.

start - power on

stop - power off

softreset - ACPI shutdown and power on

reset - power off and power on

Note that the **stop** state has no effect on the resources you consume. Billing continues for DB Nodes that you stop, and related resources continue to apply against any relevant quotas. You must terminate the DB System (`terminate_db_system()`) to remove its resources from billing and quotas.

> **Parameters**
>
> - **db_node_id** (`str`) – (required) The database node OCID.
>
> - **action** (`str`) – (required) The action to perform on the DB Node.
>
>   Allowed values are: "STOP", "START", "SOFTRESET", "RESET"
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> - **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *DbNode*
>
> **Return type** *Response*

delete_backup(*backup_id*, ***kwargs*)

DeleteBackup Deletes a full backup. You cannot delete automatic backups using this API.

> **Parameters**
>
> - **backup_id** (`str`) – (required) The backup OCID.
>
> - **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_db_home(*db_home_id*, ***kwargs*)

DeleteDbHome Deletes a DB Home. The DB Home and its database data are local to the DB System and will be lost when it is deleted. Oracle recommends that you back up any data in the DB System prior to deleting it.

> **Parameters**
>
> - **db_home_id** (`str`) – (required) The database home OCID.
>
> - **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> - **perform_final_backup** (`bool`) – (optional) Whether to perform a final backup of the database or not. Default is false. If you previously used RMAN or dbcli to configure

backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.

> **Returns** A *Response* object with data of type None

> **Return type** *Response*

failover_data_guard_association(*database_id,* *data_guard_association_id,* *failover_data_guard_association_details, **kwargs*)
Performs a failover to transition a standby database into the primary database role. Performs a failover to transition the standby database identified by the *databaseId* parameter into the specified Data Guard association's primary role after the existing primary database fails or becomes unreachable.

A failover might result in data loss depending on the protection mode in effect at the time of the primary database failure.

> **Parameters**
>
> - **database_id** (*str*) – (required) The database OCID.
>
> - **data_guard_association_id** (*str*) – (required) The Data Guard association's OCID.
>
> - **failover_data_guard_association_details** (*FailoverDataGuardAssociationDetails*) – (required) A request to perform a failover, transitioning a standby database into a primary database.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *DataGuardAssociation*

> **Return type** *Response*

get_backup(*backup_id, **kwargs*)
GetBackup Gets information about the specified backup.

> **Parameters backup_id** (*str*) – (required) The backup OCID.

> **Returns** A *Response* object with data of type *Backup*

> **Return type** *Response*

get_data_guard_association(*database_id, data_guard_association_id, **kwargs*)
Gets configuration information for the specified database and Data Guard association. Gets the specified Data Guard association's configuration information.

> **Parameters**
>
> - **database_id** (*str*) – (required) The database OCID.
>
> - **data_guard_association_id** (*str*) – (required) The Data Guard association's OCID.

> **Returns** A *Response* object with data of type *DataGuardAssociation*

> **Return type** *Response*

get_database(*database_id, **kwargs*)
GetDatabase Gets information about a specific database.

> **Parameters database_id** (*str*) – (required) The database OCID.

> **Returns** A *Response* object with data of type *Database*

> **Return type** *Response*

get_db_home(*db_home_id*, ***kwargs*)
   GetDbHome Gets information about the specified database home.

> **Parameters** **db_home_id** (*str*) – (required) The database home OCID.

> **Returns** A *Response* object with data of type *DbHome*

> **Return type** *Response*

get_db_home_patch(*db_home_id*, *patch_id*, ***kwargs*)
   GetDbHomePatch Gets information about a specified patch package.

> **Parameters**

> - **db_home_id** (*str*) – (required) The database home OCID.

> - **patch_id** (*str*) – (required) The OCID of the patch.

> **Returns** A *Response* object with data of type *Patch*

> **Return type** *Response*

get_db_home_patch_history_entry(*db_home_id*, *patch_history_entry_id*, ***kwargs*)
   GetDbHomePatchHistoryEntry Gets the patch history details for the specified patchHistoryEntryId

> **Parameters**

> - **db_home_id** (*str*) – (required) The database home OCID.

> - **patch_history_entry_id** (*str*) – (required) The OCID of the patch history entry.

> **Returns** A *Response* object with data of type *PatchHistoryEntry*

> **Return type** *Response*

get_db_node(*db_node_id*, ***kwargs*)
   GetDbNode Gets information about the specified database node.

> **Parameters** **db_node_id** (*str*) – (required) The database node OCID.

> **Returns** A *Response* object with data of type *DbNode*

> **Return type** *Response*

get_db_system(*db_system_id*, ***kwargs*)
   GetDbSystem Gets information about the specified DB System.

> **Parameters** **db_system_id** (*str*) – (required) The DB System OCID.

> **Returns** A *Response* object with data of type *DbSystem*

> **Return type** *Response*

get_db_system_patch(*db_system_id*, *patch_id*, ***kwargs*)
   GetDbSystemPatch Gets information about a specified patch package.

> **Parameters**

> - **db_system_id** (*str*) – (required) The DB System OCID.

> - **patch_id** (*str*) – (required) The OCID of the patch.

> **Returns** A *Response* object with data of type *Patch*

> **Return type** *Response*

get_db_system_patch_history_entry(*db_system_id*, *patch_history_entry_id*, ***kwargs*)
GetDbSystemPatchHistoryEntry Gets the patch history details for the specified patchHistoryEntryId.

> **Parameters**
>
> > • **db_system_id** (`str`) – (required) The DB System OCID.
> >
> > • **patch_history_entry_id** (`str`) – (required) The OCID of the patch history entry.
>
> **Returns** A `Response` object with data of type `PatchHistoryEntry`
>
> **Return type** `Response`

launch_db_system(*launch_db_system_details*, ***kwargs*)
LaunchDbSystem Launches a new DB System in the specified compartment and Availability Domain. You'll specify a single Oracle Database Edition that applies to all the databases on that DB System. The selected edition cannot be changed.

> An initial database is created on the DB System based on the request parameters you provide and some default options. For more information, see Default Options for the Initial Database.
>
> The DB System will include a command line interface (CLI) that you can use to create additional databases and manage existing databases. For more information, see the Oracle Database CLI Reference.
>
> **Parameters**
>
> > • **launch_db_system_details** (`LaunchDbSystemDetails`) – (required) Request to launch a DB System.
> >
> > • **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (for example, if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A `Response` object with data of type `DbSystem`
>
> **Return type** `Response`

list_backups(***kwargs*)
ListBackups Gets a list of backups based on the databaseId or compartmentId specified. Either one of the query parameters must be provided.

> **Parameters**
>
> > • **database_id** (`str`) – (optional) The OCID of the database.
> >
> > • **compartment_id** (`str`) – (optional) The compartment OCID.
> >
> > • **limit** (`int`) – (optional) The maximum number of items to return.
> >
> > • **page** (`str`) – (optional) The pagination token to continue listing from.
>
> **Returns** A `Response` object with data of type list of `BackupSummary`
>
> **Return type** `Response`

list_data_guard_associations(*database_id*, ***kwargs*)
Lists all Data Guard associations for the specified database. Lists all Data Guard associations for the specified database.

> **Parameters**
>
> > • **database_id** (`str`) – (required) The database OCID.
> >
> > • **limit** (`int`) – (optional) The maximum number of items to return.

- **page** (*str*) – (optional) The pagination token to continue listing from.

> **Returns** A *Response* object with data of type list of *DataGuardAssociationSummary*

> **Return type** *Response*

list_databases(*compartment_id*, *db_home_id*, ***kwargs*)
> ListDatabases Gets a list of the databases in the specified database home.

> **Parameters**

>> - **compartment_id** (*str*) – (required) The compartment OCID.
>> - **db_home_id** (*str*) – (required) A database home OCID.
>> - **limit** (*int*) – (optional) The maximum number of items to return.
>> - **page** (*str*) – (optional) The pagination token to continue listing from.

> **Returns** A *Response* object with data of type list of *DatabaseSummary*

> **Return type** *Response*

list_db_home_patch_history_entries(*db_home_id*, ***kwargs*)
> ListDbHomePatchHistoryEntries Gets history of the actions taken for patches for the specified database home.

> **Parameters**

>> - **db_home_id** (*str*) – (required) The database home OCID.
>> - **limit** (*int*) – (optional) The maximum number of items to return.
>> - **page** (*str*) – (optional) The pagination token to continue listing from.

> **Returns** A *Response* object with data of type list of *PatchHistoryEntrySummary*

> **Return type** *Response*

list_db_home_patches(*db_home_id*, ***kwargs*)
> ListDbHomePatches Lists patches applicable to the requested database home.

> **Parameters**

>> - **db_home_id** (*str*) – (required) The database home OCID.
>> - **limit** (*int*) – (optional) The maximum number of items to return.
>> - **page** (*str*) – (optional) The pagination token to continue listing from.

> **Returns** A *Response* object with data of type list of *PatchSummary*

> **Return type** *Response*

list_db_homes(*compartment_id*, *db_system_id*, ***kwargs*)
> ListDbHomes Gets a list of database homes in the specified DB System and compartment. A database home is a directory where Oracle database software is installed.

> **Parameters**

>> - **compartment_id** (*str*) – (required) The compartment OCID.
>> - **db_system_id** (*str*) – (required) The OCID of the DB System.
>> - **limit** (*int*) – (optional) The maximum number of items to return.
>> - **page** (*str*) – (optional) The pagination token to continue listing from.

> **Returns** A *Response* object with data of type list of *DbHomeSummary*

Return type [*Response*](#)

list_db_nodes(*compartment_id*, *db_system_id*, ***kwargs*)

ListDbNodes Gets a list of database nodes in the specified DB System and compartment. A database node is a server running database software.

> **Parameters**
>
> - **compartment_id** (`str`) – (required) The compartment [OCID](#).
> - **db_system_id** (`str`) – (required) The [OCID](#) of the DB System.
> - **limit** (`int`) – (optional) The maximum number of items to return.
> - **page** (`str`) – (optional) The pagination token to continue listing from.
>
> **Returns** A [*Response*](#) object with data of type list of [*DbNodeSummary*](#)
>
> **Return type** [*Response*](#)

list_db_system_patch_history_entries(*db_system_id*, ***kwargs*)

ListDbSystemPatchHistoryEntries Gets the history of the patch actions performed on the specified DB System.

> **Parameters**
>
> - **db_system_id** (`str`) – (required) The DB System [OCID](#).
> - **limit** (`int`) – (optional) The maximum number of items to return.
> - **page** (`str`) – (optional) The pagination token to continue listing from.
>
> **Returns** A [*Response*](#) object with data of type list of [*PatchHistoryEntrySummary*](#)
>
> **Return type** [*Response*](#)

list_db_system_patches(*db_system_id*, ***kwargs*)

ListDbSystemPatches Lists the patches applicable to the requested DB System.

> **Parameters**
>
> - **db_system_id** (`str`) – (required) The DB System [OCID](#).
> - **limit** (`int`) – (optional) The maximum number of items to return.
> - **page** (`str`) – (optional) The pagination token to continue listing from.
>
> **Returns** A [*Response*](#) object with data of type list of [*PatchSummary*](#)
>
> **Return type** [*Response*](#)

list_db_system_shapes(*availability_domain*, *compartment_id*, ***kwargs*)

ListDbSystemShapes Gets a list of the shapes that can be used to launch a new DB System. The shape determines resources to allocate to the DB system - CPU cores and memory for VM shapes; CPU cores, memory and storage for non-VM (or bare metal) shapes.

> **Parameters**
>
> - **availability_domain** (`str`) – (required) The name of the Availability Domain.
> - **compartment_id** (`str`) – (required) The compartment [OCID](#).
> - **limit** (`int`) – (optional) The maximum number of items to return.
> - **page** (`str`) – (optional) The pagination token to continue listing from.
>
> **Returns** A [*Response*](#) object with data of type list of [*DbSystemShapeSummary*](#)
>
> **Return type** [*Response*](#)

list_db_systems(*compartment_id*, ***kwargs*)

> ListDbSystems Gets a list of the DB Systems in the specified compartment. You can specify a backupId to list only the DB Systems that support creating a database using this backup in this compartment.

> **Parameters**
>
> > - **compartment_id** (*str*) – (required) The compartment OCID.
> >
> > - **limit** (*int*) – (optional) The maximum number of items to return.
> >
> > - **page** (*str*) – (optional) The pagination token to continue listing from.
> >
> > - **backup_id** (*str*) – (optional) The OCID of the backup. Specify a backupId to list only the DB Systems that support creating a database using this backup in this compartment.
>
> **Returns** A *Response* object with data of type list of *DbSystemSummary*
>
> **Return type** *Response*

list_db_versions(*compartment_id*, ***kwargs*)

> ListDbVersions Gets a list of supported Oracle database versions.

> **Parameters**
>
> > - **compartment_id** (*str*) – (required) The compartment OCID.
> >
> > - **limit** (*int*) – (optional) The maximum number of items to return.
> >
> > - **page** (*str*) – (optional) The pagination token to continue listing from.
> >
> > - **db_system_shape** (*str*) – (optional) If provided, filters the results to the set of database versions which are supported for the given shape.
>
> **Returns** A *Response* object with data of type list of *DbVersionSummary*
>
> **Return type** *Response*

reinstate_data_guard_association(*database_id*, *data_guard_association_id*, *reinstate_data_guard_association_details*, ***kwargs*)

> Reinstates a database to a Data Guard association standby role. Reinstates the database identified by the *databaseId* parameter into the standby role in a Data Guard association.

> **Parameters**
>
> > - **database_id** (*str*) – (required) The database OCID.
> >
> > - **data_guard_association_id** (*str*) – (required) The Data Guard association's OCID.
> >
> > - **reinstate_data_guard_association_details** (*ReinstateDataGuardAssociationDetails*) – (required) A request to reinstate a database in a standby role.
> >
> > - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *DataGuardAssociation*
>
> **Return type** *Response*

restore_database(*database_id*, *restore_database_details*, ***kwargs*)

> RestoreDatabase Restore a Database based on the request parameters you provide.

> **Parameters**

- **database_id** (`str`) – (required) The database OCID.

- **restore_database_details** (`RestoreDatabaseDetails`) – (required) Request to perform database restore.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `Database`

Return type `Response`

switchover_data_guard_association(*database_id*, *data_guard_association_id*, *switchover_data_guard_association_details*, ***kwargs*)

Performs a switchover to transition the primary database of a Data Guard association into a standby role. Performs a switchover to transition the primary database of a Data Guard association into a standby role. The standby database associated with the *dataGuardAssociationId* assumes the primary database role.

A switchover guarantees no data loss.

Parameters

- **database_id** (`str`) – (required) The database OCID.

- **data_guard_association_id** (`str`) – (required) The Data Guard association's OCID.

- **switchover_data_guard_association_details** (`SwitchoverDataGuardAssociationDetails`) – (required) Request to swtichover a primary to a standby.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type `DataGuardAssociation`

Return type `Response`

terminate_db_system(*db_system_id*, ***kwargs*)

TerminateDbSystem Terminates a DB System and permanently deletes it and any databases running on it, and any storage volumes attached to it. The database data is local to the DB System and will be lost when the system is terminated. Oracle recommends that you back up any data in the DB System prior to terminating it.

Parameters

- **db_system_id** (`str`) – (required) The DB System OCID.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type None

Return type `Response`

update_database(*database_id*, *update_database_details*, ***kwargs*)

UpdateDatabase Update a Database based on the request parameters you provide.

> **Parameters**
>
> - **database_id** (*str*) – (required) The database OCID.
>
> - **update_database_details** (`UpdateDatabaseDetails`) – (required) Request to perform database update.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A `Response` object with data of type `Database`
>
> **Return type** `Response`

update_db_home (*db_home_id*, *update_db_home_details*, ***kwargs*)

> UpdateDbHome Patches the specified dbHome.
>
> **Parameters**
>
> - **db_home_id** (*str*) – (required) The database home OCID.
>
> - **update_db_home_details** (`UpdateDbHomeDetails`) – (required) Request to update the properties of a DB Home.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A `Response` object with data of type `DbHome`
>
> **Return type** `Response`

update_db_system (*db_system_id*, *update_db_system_details*, ***kwargs*)

> UpdateDbSystem Updates the properties of a DB System, such as the CPU core count.
>
> **Parameters**
>
> - **db_system_id** (*str*) – (required) The DB System OCID.
>
> - **update_db_system_details** (`UpdateDbSystemDetails`) – (required) Request to update the properties of a DB System.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A `Response` object with data of type `DbSystem`
>
> **Return type** `Response`

12.3.2 Models

class oci.database.models.**Backup**(***kwargs*)

> **__init__**(***kwargs*)
>
> Initializes a new Backup object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**

- **availability_domain** (`str`) – The value to assign to the availability_domain property of this Backup.

- **compartment_id** (`str`) – The value to assign to the compartment_id property of this Backup.

- **database_id** (`str`) – The value to assign to the database_id property of this Backup.

- **display_name** (`str`) – The value to assign to the display_name property of this Backup.

- **id** (`str`) – The value to assign to the id property of this Backup.

- **lifecycle_details** (`str`) – The value to assign to the lifecycle_details property of this Backup.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this Backup. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", "RESTORING", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_ended** (`datetime`) – The value to assign to the time_ended property of this Backup.

- **time_started** (`datetime`) – The value to assign to the time_started property of this Backup.

- **type** (`str`) – The value to assign to the type property of this Backup. Allowed values for this property are: "INCREMENTAL", "FULL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

availability_domain

Gets the availability_domain of this Backup. The name of the Availability Domain that the backup is located in.

> **Returns** The availability_domain of this Backup.

> **Return type** str

compartment_id

Gets the compartment_id of this Backup. The OCID of the compartment.

> **Returns** The compartment_id of this Backup.

> **Return type** str

database_id

Gets the database_id of this Backup. The OCID of the database.

> **Returns** The database_id of this Backup.

> **Return type** str

display_name

Gets the display_name of this Backup. The user-friendly name for the backup. It does not have to be unique.

> **Returns** The display_name of this Backup.

> **Return type** str

id

Gets the id of this Backup. The OCID of the backup.

> **Returns** The id of this Backup.

> **Return type** str

lifecycle_details
> Gets the lifecycle_details of this Backup. Additional information about the current lifecycleState.

> > **Returns** The lifecycle_details of this Backup.

> > **Return type** str

lifecycle_state
> Gets the lifecycle_state of this Backup. The current state of the backup.

> Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", "RESTORING", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The lifecycle_state of this Backup.

> > **Return type** str

time_ended
> Gets the time_ended of this Backup. The date and time the backup was completed.

> > **Returns** The time_ended of this Backup.

> > **Return type** datetime

time_started
> Gets the time_started of this Backup. The date and time the backup starts.

> > **Returns** The time_started of this Backup.

> > **Return type** datetime

type
> Gets the type of this Backup. The type of backup.

> Allowed values for this property are: "INCREMENTAL", "FULL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The type of this Backup.

> > **Return type** str

class oci.database.models.**BackupSummary**(***kwargs*)

__init__(***kwargs*)
> Initializes a new BackupSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > - **availability_domain** (*str*) – The value to assign to the availability_domain property of this BackupSummary.

> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this BackupSummary.

> > - **database_id** (*str*) – The value to assign to the database_id property of this BackupSummary.

> > - **display_name** (*str*) – The value to assign to the display_name property of this BackupSummary.

- **id** (`str`) – The value to assign to the id property of this BackupSummary.

- **lifecycle_details** (`str`) – The value to assign to the lifecycle_details property of this BackupSummary.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this BackupSummary. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", "RESTORING", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_ended** (`datetime`) – The value to assign to the time_ended property of this BackupSummary.

- **time_started** (`datetime`) – The value to assign to the time_started property of this BackupSummary.

- **type** (`str`) – The value to assign to the type property of this BackupSummary. Allowed values for this property are: "INCREMENTAL", "FULL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

availability_domain

Gets the availability_domain of this BackupSummary. The name of the Availability Domain that the backup is located in.

> **Returns** The availability_domain of this BackupSummary.

> **Return type** str

compartment_id

Gets the compartment_id of this BackupSummary. The OCID of the compartment.

> **Returns** The compartment_id of this BackupSummary.

> **Return type** str

database_id

Gets the database_id of this BackupSummary. The OCID of the database.

> **Returns** The database_id of this BackupSummary.

> **Return type** str

display_name

Gets the display_name of this BackupSummary. The user-friendly name for the backup. It does not have to be unique.

> **Returns** The display_name of this BackupSummary.

> **Return type** str

id

Gets the id of this BackupSummary. The OCID of the backup.

> **Returns** The id of this BackupSummary.

> **Return type** str

lifecycle_details

Gets the lifecycle_details of this BackupSummary. Additional information about the current lifecycleState.

> **Returns** The lifecycle_details of this BackupSummary.

> **Return type** str

lifecycle_state
> Gets the lifecycle_state of this BackupSummary. The current state of the backup.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", "RESTORING", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this BackupSummary.
> >
> > **Return type** str

time_ended
> Gets the time_ended of this BackupSummary. The date and time the backup was completed.
>
> > **Returns** The time_ended of this BackupSummary.
> >
> > **Return type** datetime

time_started
> Gets the time_started of this BackupSummary. The date and time the backup starts.
>
> > **Returns** The time_started of this BackupSummary.
> >
> > **Return type** datetime

type
> Gets the type of this BackupSummary. The type of backup.
>
> Allowed values for this property are: "INCREMENTAL", "FULL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The type of this BackupSummary.
> >
> > **Return type** str

class oci.database.models.**CreateBackupDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new CreateBackupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **database_id** (*str*) – The value to assign to the database_id property of this CreateBackupDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateBackupDetails.

> **database_id**
> > [Required] Gets the database_id of this CreateBackupDetails. The OCID of the database.
> >
> > > **Returns** The database_id of this CreateBackupDetails.
> > >
> > > **Return type** str

> **display_name**
> > [Required] Gets the display_name of this CreateBackupDetails. The user-friendly name for the backup. It does not have to be unique.
> >
> > > **Returns** The display_name of this CreateBackupDetails.
> > >
> > > **Return type** str

class oci.database.models.**CreateDataGuardAssociationDetails**(***kwargs*)

>   **__init__**(***kwargs*)
>   Initializes a new CreateDataGuardAssociationDetails object with values from keyword arguments. This
>   class has the following subclasses and if you are using this class as input to a service operations then you
>   should favor using a subclass over the base class:
>
>   • *CreateDataGuardAssociationToExistingDbSystemDetails*
>
>   The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>   **Parameters**
>
>   • **creation_type** (*str*) – The value to assign to the creation_type property of this Cre-
>   ateDataGuardAssociationDetails.
>
>   • **database_admin_password** (*str*) – The value to assign to the
>   database_admin_password property of this CreateDataGuardAssociationDetails.
>
>   • **protection_mode** (*str*) – The value to assign to the protection_mode prop-
>   erty of this CreateDataGuardAssociationDetails. Allowed values for this prop-
>   erty are: "MAXIMUM_AVAILABILITY", "MAXIMUM_PERFORMANCE", "MAXI-
>   MUM_PROTECTION"
>
>   • **transport_type** (*str*) – The value to assign to the transport_type property of this
>   CreateDataGuardAssociationDetails. Allowed values for this property are: "SYNC",
>   "ASYNC", "FASTSYNC"
>
>   **creation_type**
>   [**Required**] Gets the creation_type of this CreateDataGuardAssociationDetails. Specifies where to create
>   the associated database. "ExistingDbSystem" is the only supported *creationType* value.
>
>   **Returns** The creation_type of this CreateDataGuardAssociationDetails.
>
>   **Return type** str
>
>   **database_admin_password**
>   [**Required**] Gets the database_admin_password of this CreateDataGuardAssociationDetails. A strong
>   password for the *SYS*, *SYSTEM*, and *PDB Admin* users to apply during standby creation.
>
>   The password must contain no fewer than nine characters and include:
>
>   • At least two uppercase characters.
>
>   • At least two lowercase characters.
>
>   • At least two numeric characters.
>
>   • At least two special characters. Valid special characters include "_", "#", and "-" only.
>
>   **The password MUST be the same as the primary admin password.**
>
>   **Returns** The database_admin_password of this CreateDataGuardAssociationDetails.
>
>   **Return type** str
>
>   **static get_subtype**(*object_dictionary*)
>   Given the hash representation of a subtype of this class, use the info in the hash to return the class of the
>   subtype.
>
>   **protection_mode**
>   [**Required**] Gets the protection_mode of this CreateDataGuardAssociationDetails. The protection mode
>   to set up between the primary and standby databases. For more information, see Oracle Data Guard
>   Protection Modes in the Oracle Data Guard documentation.

> IMPORTANT - The only protection mode currently supported by the Database Service is MAXI-MUM_PERFORMANCE.

> Allowed values for this property are: "MAXIMUM_AVAILABILITY", "MAXI-MUM_PERFORMANCE", "MAXIMUM_PROTECTION"

>> **Returns** The protection_mode of this CreateDataGuardAssociationDetails.

>> **Return type** str

transport_type
> [Required] Gets the transport_type of this CreateDataGuardAssociationDetails. The redo transport type to use for this Data Guard association. Valid values depend on the specified *protectionMode*:

> * MAXIMUM_AVAILABILITY - SYNC or FASTSYNC

> * MAXIMUM_PERFORMANCE - ASYNC

> * MAXIMUM_PROTECTION - SYNC

> For more information, see Redo Transport Services in the Oracle Data Guard documentation.

> IMPORTANT - The only transport type currently supported by the Database Service is ASYNC.

> Allowed values for this property are: "SYNC", "ASYNC", "FASTSYNC"

>> **Returns** The transport_type of this CreateDataGuardAssociationDetails.

>> **Return type** str

class oci.database.models.**CreateDataGuardAssociationToExistingDbSystemDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CreateDataGuardAssociationToExistingDbSystemDetails object with values from keyword arguments. The default value of the *creation_type* attribute of this class is ExistingDbSystem and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters**

>>> * **creation_type** (*str*) – The value to assign to the creation_type property of this CreateDataGuardAssociationToExistingDbSystemDetails.

>>> * **database_admin_password** (*str*) – The value to assign to the database_admin_password property of this CreateDataGuardAssociationToExistingDbSystemDetails.

>>> * **protection_mode** (*str*) – The value to assign to the protection_mode property of this CreateDataGuardAssociationToExistingDbSystemDetails. Allowed values for this property are: "MAXIMUM_AVAILABILITY", "MAXIMUM_PERFORMANCE", "MAXIMUM_PROTECTION"

>>> * **transport_type** (*str*) – The value to assign to the transport_type property of this CreateDataGuardAssociationToExistingDbSystemDetails. Allowed values for this property are: "SYNC", "ASYNC", "FASTSYNC"

>>> * **peer_db_system_id** (*str*) – The value to assign to the peer_db_system_id property of this CreateDataGuardAssociationToExistingDbSystemDetails.

creation_type
> [Required] Gets the creation_type of this CreateDataGuardAssociationDetails. Specifies where to create the associated database. "ExistingDbSystem" is the only supported *creationType* value.

>> **Returns** The creation_type of this CreateDataGuardAssociationDetails.

Return type str

database_admin_password

> [Required] Gets the database_admin_password of this CreateDataGuardAssociationDetails. A strong password for the *SYS*, *SYSTEM*, and *PDB Admin* users to apply during standby creation.
>
> The password must contain no fewer than nine characters and include:
>
> - At least two uppercase characters.
>
> - At least two lowercase characters.
>
> - At least two numeric characters.
>
> - At least two special characters. Valid special characters include "_", "#", and "-" only.
>
> **The password MUST be the same as the primary admin password.**
>
> > **Returns** The database_admin_password of this CreateDataGuardAssociationDetails.
> >
> > **Return type** str

get_subtype(*object_dictionary*)

> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

peer_db_system_id

> Gets the peer_db_system_id of this CreateDataGuardAssociationToExistingDbSystemDetails. The OCID of the DB System to create the standby database on.
>
> > **Returns** The peer_db_system_id of this CreateDataGuardAssociationToExistingDbSystemDetails.
> >
> > **Return type** str

protection_mode

> [Required] Gets the protection_mode of this CreateDataGuardAssociationDetails. The protection mode to set up between the primary and standby databases. For more information, see Oracle Data Guard Protection Modes in the Oracle Data Guard documentation.
>
> IMPORTANT - The only protection mode currently supported by the Database Service is MAXIMUM_PERFORMANCE.
>
> Allowed values for this property are: "MAXIMUM_AVAILABILITY", "MAXIMUM_PERFORMANCE", "MAXIMUM_PROTECTION"
>
> > **Returns** The protection_mode of this CreateDataGuardAssociationDetails.
> >
> > **Return type** str

transport_type

> [Required] Gets the transport_type of this CreateDataGuardAssociationDetails. The redo transport type to use for this Data Guard association. Valid values depend on the specified *protectionMode*:
>
> - MAXIMUM_AVAILABILITY - SYNC or FASTSYNC
>
> - MAXIMUM_PERFORMANCE - ASYNC
>
> - MAXIMUM_PROTECTION - SYNC
>
> For more information, see Redo Transport Services in the Oracle Data Guard documentation.
>
> IMPORTANT - The only transport type currently supported by the Database Service is ASYNC.
>
> Allowed values for this property are: "SYNC", "ASYNC", "FASTSYNC"
>
> > **Returns** The transport_type of this CreateDataGuardAssociationDetails.

> **Return type** str

class oci.database.models.**CreateDatabaseDetails**(***kwargs*)

> **__init__**(***kwargs*)
>
> Initializes a new CreateDatabaseDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **admin_password** (*str*) – The value to assign to the admin_password property of this CreateDatabaseDetails.
> >
> > - **character_set** (*str*) – The value to assign to the character_set property of this CreateDatabaseDetails.
> >
> > - **db_backup_config** ([DbBackupConfig](#)) – The value to assign to the db_backup_config property of this CreateDatabaseDetails.
> >
> > - **db_name** (*str*) – The value to assign to the db_name property of this CreateDatabaseDetails.
> >
> > - **db_workload** (*str*) – The value to assign to the db_workload property of this CreateDatabaseDetails. Allowed values for this property are: "OLTP", "DSS"
> >
> > - **ncharacter_set** (*str*) – The value to assign to the ncharacter_set property of this CreateDatabaseDetails.
> >
> > - **pdb_name** (*str*) – The value to assign to the pdb_name property of this CreateDatabaseDetails.

> **admin_password**
>
> **[Required]** Gets the admin_password of this CreateDatabaseDetails. A strong password for SYS, SYSTEM, and PDB Admin. The password must be at least nine characters and contain at least two uppercase, two lowercase, two numbers, and two special characters. The special characters must be _, #, or -.
>
> > **Returns** The admin_password of this CreateDatabaseDetails.
>
> > **Return type** str

> **character_set**
>
> Gets the character_set of this CreateDatabaseDetails. The character set for the database. The default is AL32UTF8. Allowed values are:
>
> AL32UTF8, AR8ADOS710, AR8ADOS720, AR8APTEC715, AR8ARABICMACS, AR8ASMO8X, AR8ISO8859P6, AR8MSWIN1256, AR8MUSSAD768, AR8NAFITHA711, AR8NAFITHA721, AR8SAKHR706, AR8SAKHR707, AZ8ISO8859P9E, BG8MSWIN, BG8PC437S, BLT8CP921, BLT8ISO8859P13, BLT8MSWIN1257, BLT8PC775, BN8BSCII, CDN8PC863, CEL8ISO8859P14, CL8ISO8859P5, CL8ISOIR111, CL8KOI8R, CL8KOI8U, CL8MACCYRILLICS, CL8MSWIN1251, EE8ISO8859P2, EE8MACCES, EE8MACCROATIANS, EE8MSWIN1250, EE8PC852, EL8DEC, EL8ISO8859P7, EL8MACGREEKS, EL8MSWIN1253, EL8PC437S, EL8PC851, EL8PC869, ET8MSWIN923, HU8ABMOD, HU8CWI2, IN8ISCII, IS8PC861, IW8ISO8859P8, IW8MACHEBREWS, IW8MSWIN1255, IW8PC1507, JA16EUC, JA16EUCTILDE, JA16SJIS, JA16SJISTILDE, JA16VMS, KO16KSCCS, KO16MSWIN949, LA8ISO6937, LA8PASSPORT, LT8MSWIN921, LT8PC772, LT8PC774, LV8PC1117, LV8PC8LR, LV8RST104090, N8PC865, NE8ISO8859P10, NEE8ISO8859P4, RU8BESTA, RU8PC855, RU8PC866, SE8ISO8859P3, TH8MACTHAIS, TH8TISASCII, TR8DEC, TR8MACTURKISHS, TR8MSWIN1254, TR8PC857, US7ASCII, US8PC437, UTF8, VN8MSWIN1258, VN8VN3, WE8DEC, WE8DG, WE8ISO8859P15, WE8ISO8859P9, WE8MACROMAN8S, WE8MSWIN1252, WE8NCR4970, WE8NEXTSTEP, WE8PC850, WE8PC858, WE8PC860, WE8ROMAN8, ZHS16CGB231280, ZHS16GBK, ZHT16BIG5,

ZHT16CCDC, ZHT16DBT, ZHT16HKSCS, ZHT16MSWIN950, ZHT32EUC, ZHT32SOPS, ZHT32TRIS

>> **Returns** The character_set of this CreateDatabaseDetails.

>> **Return type** str

db_backup_config
> Gets the db_backup_config of this CreateDatabaseDetails.

>> **Returns** The db_backup_config of this CreateDatabaseDetails.

>> **Return type** *DbBackupConfig*

db_name
> [Required] Gets the db_name of this CreateDatabaseDetails. The database name. It must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted.

>> **Returns** The db_name of this CreateDatabaseDetails.

>> **Return type** str

db_workload
> Gets the db_workload of this CreateDatabaseDetails. Database workload type.

> Allowed values for this property are: "OLTP", "DSS"

>> **Returns** The db_workload of this CreateDatabaseDetails.

>> **Return type** str

ncharacter_set
> Gets the ncharacter_set of this CreateDatabaseDetails. National character set for the database. The default is AL16UTF16. Allowed values are: AL16UTF16 or UTF8.

>> **Returns** The ncharacter_set of this CreateDatabaseDetails.

>> **Return type** str

pdb_name
> Gets the pdb_name of this CreateDatabaseDetails. Pluggable database name. It must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.

>> **Returns** The pdb_name of this CreateDatabaseDetails.

>> **Return type** str

class oci.database.models.**CreateDatabaseFromBackupDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new CreateDatabaseFromBackupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **admin_password** (*str*) – The value to assign to the admin_password property of this CreateDatabaseFromBackupDetails.
> >
> > - **backup_id** (*str*) – The value to assign to the backup_id property of this CreateDatabaseFromBackupDetails.
> >
> > - **backup_tde_password** (*str*) – The value to assign to the backup_tde_password property of this CreateDatabaseFromBackupDetails.

admin_password
> [**Required**] Gets the admin_password of this CreateDatabaseFromBackupDetails. A strong password for
> SYS, SYSTEM, PDB Admin and TDE Wallet. The password must be at least nine characters and contain
> at least two uppercase, two lowercase, two numbers, and two special characters. The special characters
> must be _, #, or -.
>
> > **Returns** The admin_password of this CreateDatabaseFromBackupDetails.
> >
> > **Return type** str

backup_id
> [**Required**] Gets the backup_id of this CreateDatabaseFromBackupDetails. The backup OCID.
>
> > **Returns** The backup_id of this CreateDatabaseFromBackupDetails.
> >
> > **Return type** str

backup_tde_password
> [**Required**] Gets the backup_tde_password of this CreateDatabaseFromBackupDetails. The password to
> open the TDE wallet.
>
> > **Returns** The backup_tde_password of this CreateDatabaseFromBackupDetails.
> >
> > **Return type** str

class oci.database.models.**CreateDbHomeDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateDbHomeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> > - **database** (`CreateDatabaseDetails`) – The value to assign to the database property of this CreateDbHomeDetails.
> >
> > - **db_version** (*str*) – The value to assign to the db_version property of this CreateDbHomeDetails.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this CreateDbHomeDetails.

database
> [**Required**] Gets the database of this CreateDbHomeDetails.
>
> > **Returns** The database of this CreateDbHomeDetails.
> >
> > **Return type** *CreateDatabaseDetails*

db_version
> [**Required**] Gets the db_version of this CreateDbHomeDetails. A valid Oracle database version. To get a
> list of supported versions, use the `list_db_versions()` operation.
>
> > **Returns** The db_version of this CreateDbHomeDetails.
> >
> > **Return type** str

display_name
> Gets the display_name of this CreateDbHomeDetails. The user-provided name of the database home.
>
> > **Returns** The display_name of this CreateDbHomeDetails.
> >
> > **Return type** str

class oci.database.models.**CreateDbHomeWithDbSystemIdBase**(***kwargs*)

    __init__(***kwargs*)

        Initializes a new CreateDbHomeWithDbSystemIdBase object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:

            • *CreateDbHomeWithDbSystemIdFromBackupDetails*

            • *CreateDbHomeWithDbSystemIdDetails*

        The following keyword arguments are supported (corresponding to the getters/setters of this class):

        Parameters

            • **db_system_id** (`str`) – The value to assign to the db_system_id property of this CreateDbHomeWithDbSystemIdBase.

            • **display_name** (`str`) – The value to assign to the display_name property of this CreateDbHomeWithDbSystemIdBase.

            • **source** (`str`) – The value to assign to the source property of this CreateDbHomeWithDbSystemIdBase. Allowed values for this property are: "NONE", "DB_BACKUP"

    db_system_id

        [Required] Gets the db_system_id of this CreateDbHomeWithDbSystemIdBase. The OCID of the DB System.

        Returns The db_system_id of this CreateDbHomeWithDbSystemIdBase.

        Return type str

    display_name

        Gets the display_name of this CreateDbHomeWithDbSystemIdBase. The user-provided name of the database home.

        Returns The display_name of this CreateDbHomeWithDbSystemIdBase.

        Return type str

    static get_subtype(*object_dictionary*)

        Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

    source

        Gets the source of this CreateDbHomeWithDbSystemIdBase. Source of database:

            NONE for creating a new database DB_BACKUP for creating a new database by restoring a backup

        Allowed values for this property are: "NONE", "DB_BACKUP"

        Returns The source of this CreateDbHomeWithDbSystemIdBase.

        Return type str

class oci.database.models.**CreateDbHomeWithDbSystemIdDetails**(***kwargs*)

    __init__(***kwargs*)

        Initializes a new CreateDbHomeWithDbSystemIdDetails object with values from keyword arguments. The default value of the *source* attribute of this class is `NONE` and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **db_system_id** (`str`) – The value to assign to the db_system_id property of this CreateDbHomeWithDbSystemIdDetails.
>
> - **display_name** (`str`) – The value to assign to the display_name property of this CreateDbHomeWithDbSystemIdDetails.
>
> - **source** (`str`) – The value to assign to the source property of this CreateDbHomeWithDbSystemIdDetails. Allowed values for this property are: "NONE", "DB_BACKUP"
>
> - **database** (`CreateDatabaseDetails`) – The value to assign to the database property of this CreateDbHomeWithDbSystemIdDetails.
>
> - **db_version** (`str`) – The value to assign to the db_version property of this CreateDbHomeWithDbSystemIdDetails.

database
> [**Required**] Gets the database of this CreateDbHomeWithDbSystemIdDetails.
>
> > **Returns** The database of this CreateDbHomeWithDbSystemIdDetails.
> >
> > **Return type** *CreateDatabaseDetails*

db_system_id
> [**Required**] Gets the db_system_id of this CreateDbHomeWithDbSystemIdBase. The OCID of the DB System.
>
> > **Returns** The db_system_id of this CreateDbHomeWithDbSystemIdBase.
> >
> > **Return type** str

db_version
> [**Required**] Gets the db_version of this CreateDbHomeWithDbSystemIdDetails. A valid Oracle database version. To get a list of supported versions, use the `list_db_versions()` operation.
>
> > **Returns** The db_version of this CreateDbHomeWithDbSystemIdDetails.
> >
> > **Return type** str

display_name
> Gets the display_name of this CreateDbHomeWithDbSystemIdBase. The user-provided name of the database home.
>
> > **Returns** The display_name of this CreateDbHomeWithDbSystemIdBase.
> >
> > **Return type** str

get_subtype(*object_dictionary*)
> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

source
> Gets the source of this CreateDbHomeWithDbSystemIdBase. Source of database:
>
> > NONE for creating a new database DB_BACKUP for creating a new database by restoring a backup
>
> Allowed values for this property are: "NONE", "DB_BACKUP"
>
> > **Returns** The source of this CreateDbHomeWithDbSystemIdBase.
> >
> > **Return type** str

class oci.database.models.**CreateDbHomeWithDbSystemIdFromBackupDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new CreateDbHomeWithDbSystemIdFromBackupDetails object with values from keyword arguments. The default value of the *source* attribute of this class is DB_BACKUP and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > * **db_system_id** (*str*) – The value to assign to the db_system_id property of this CreateDbHomeWithDbSystemIdFromBackupDetails.

> > > * **display_name** (*str*) – The value to assign to the display_name property of this CreateDbHomeWithDbSystemIdFromBackupDetails.

> > > * **source** (*str*) – The value to assign to the source property of this CreateDbHomeWithDbSystemIdFromBackupDetails. Allowed values for this property are: "NONE", "DB_BACKUP"

> > > * **database** (CreateDatabaseFromBackupDetails) – The value to assign to the database property of this CreateDbHomeWithDbSystemIdFromBackupDetails.

database

> [**Required**] Gets the database of this CreateDbHomeWithDbSystemIdFromBackupDetails.

> > **Returns** The database of this CreateDbHomeWithDbSystemIdFromBackupDetails.

> > **Return type** *CreateDatabaseFromBackupDetails*

db_system_id

> [**Required**] Gets the db_system_id of this CreateDbHomeWithDbSystemIdBase. The OCID of the DB System.

> > **Returns** The db_system_id of this CreateDbHomeWithDbSystemIdBase.

> > **Return type** str

display_name

> Gets the display_name of this CreateDbHomeWithDbSystemIdBase. The user-provided name of the database home.

> > **Returns** The display_name of this CreateDbHomeWithDbSystemIdBase.

> > **Return type** str

get_subtype(*object_dictionary*)

> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

source

> Gets the source of this CreateDbHomeWithDbSystemIdBase. Source of database:

> > NONE for creating a new database DB_BACKUP for creating a new database by restoring a backup

> Allowed values for this property are: "NONE", "DB_BACKUP"

> > **Returns** The source of this CreateDbHomeWithDbSystemIdBase.

> > **Return type** str

class oci.database.models.**DataGuardAssociation**(***kwargs*)

__init__(***kwargs*)

Initializes a new DataGuardAssociation object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **apply_lag** (*str*) – The value to assign to the apply_lag property of this DataGuardAssociation.

- **apply_rate** (*str*) – The value to assign to the apply_rate property of this DataGuardAssociation.

- **database_id** (*str*) – The value to assign to the database_id property of this DataGuardAssociation.

- **id** (*str*) – The value to assign to the id property of this DataGuardAssociation.

- **lifecycle_details** (*str*) – The value to assign to the lifecycle_details property of this DataGuardAssociation.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DataGuardAssociation. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **peer_data_guard_association_id** (*str*) – The value to assign to the peer_data_guard_association_id property of this DataGuardAssociation.

- **peer_database_id** (*str*) – The value to assign to the peer_database_id property of this DataGuardAssociation.

- **peer_db_home_id** (*str*) – The value to assign to the peer_db_home_id property of this DataGuardAssociation.

- **peer_db_system_id** (*str*) – The value to assign to the peer_db_system_id property of this DataGuardAssociation.

- **peer_role** (*str*) – The value to assign to the peer_role property of this DataGuardAssociation. Allowed values for this property are: "PRIMARY", "STANDBY", "DISABLED_STANDBY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **protection_mode** (*str*) – The value to assign to the protection_mode property of this DataGuardAssociation. Allowed values for this property are: "MAXIMUM_AVAILABILITY", "MAXIMUM_PERFORMANCE", "MAXIMUM_PROTECTION", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **role** (*str*) – The value to assign to the role property of this DataGuardAssociation. Allowed values for this property are: "PRIMARY", "STANDBY", "DISABLED_STANDBY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this DataGuardAssociation.

- **transport_type** (*str*) – The value to assign to the transport_type property of this DataGuardAssociation. Allowed values for this property are: "SYNC", "ASYNC", "FASTSYNC", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

apply_lag

> Gets the apply_lag of this DataGuardAssociation. The lag time between updates to the primary database and application of the redo data on the standby database, as computed by the reporting database.
>
> Example: *9 seconds*
>
> > **Returns** The apply_lag of this DataGuardAssociation.
> >
> > **Return type** str

apply_rate

> Gets the apply_rate of this DataGuardAssociation. The rate at which redo logs are synced between the associated databases.
>
> Example: *180 Mb per second*
>
> > **Returns** The apply_rate of this DataGuardAssociation.
> >
> > **Return type** str

database_id

> **[Required]** Gets the database_id of this DataGuardAssociation. The OCID of the reporting database.
>
> > **Returns** The database_id of this DataGuardAssociation.
> >
> > **Return type** str

id

> **[Required]** Gets the id of this DataGuardAssociation. The OCID of the Data Guard association.
>
> > **Returns** The id of this DataGuardAssociation.
> >
> > **Return type** str

lifecycle_details

> Gets the lifecycle_details of this DataGuardAssociation. Additional information about the current lifecycleState, if available.
>
> > **Returns** The lifecycle_details of this DataGuardAssociation.
> >
> > **Return type** str

lifecycle_state

> **[Required]** Gets the lifecycle_state of this DataGuardAssociation. The current state of the Data Guard association.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this DataGuardAssociation.
> >
> > **Return type** str

peer_data_guard_association_id

> Gets the peer_data_guard_association_id of this DataGuardAssociation. The OCID of the peer database's Data Guard association.
>
> > **Returns** The peer_data_guard_association_id of this DataGuardAssociation.
> >
> > **Return type** str

peer_database_id

> Gets the peer_database_id of this DataGuardAssociation. The OCID of the associated peer database.
>
> > **Returns** The peer_database_id of this DataGuardAssociation.

Return type str

peer_db_home_id

> Gets the peer_db_home_id of this DataGuardAssociation. The [OCID] of the database home containing the associated peer database.
>
> > **Returns** The peer_db_home_id of this DataGuardAssociation.
> >
> > **Return type** str

peer_db_system_id

> **[Required]** Gets the peer_db_system_id of this DataGuardAssociation. The [OCID] of the DB System containing the associated peer database.
>
> > **Returns** The peer_db_system_id of this DataGuardAssociation.
> >
> > **Return type** str

peer_role

> **[Required]** Gets the peer_role of this DataGuardAssociation. The role of the peer database in this Data Guard association.
>
> Allowed values for this property are: "PRIMARY", "STANDBY", "DISABLED_STANDBY", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>
> > **Returns** The peer_role of this DataGuardAssociation.
> >
> > **Return type** str

protection_mode

> **[Required]** Gets the protection_mode of this DataGuardAssociation. The protection mode of this Data Guard association. For more information, see [Oracle Data Guard Protection Modes] in the Oracle Data Guard documentation.
>
> Allowed values for this property are: "MAXIMUM_AVAILABILITY", "MAXI-MUM_PERFORMANCE", "MAXIMUM_PROTECTION", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The protection_mode of this DataGuardAssociation.
> >
> > **Return type** str

role

> **[Required]** Gets the role of this DataGuardAssociation. The role of the reporting database in this Data Guard association.
>
> Allowed values for this property are: "PRIMARY", "STANDBY", "DISABLED_STANDBY", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>
> > **Returns** The role of this DataGuardAssociation.
> >
> > **Return type** str

time_created

> Gets the time_created of this DataGuardAssociation. The date and time the Data Guard Association was created.
>
> > **Returns** The time_created of this DataGuardAssociation.
> >
> > **Return type** datetime

transport_type
>   Gets the transport_type of this DataGuardAssociation. The redo transport type used by this Data Guard association. For more information, see Redo Transport Services in the Oracle Data Guard documentation.

>   Allowed values for this property are: "SYNC", "ASYNC", "FASTSYNC", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The transport_type of this DataGuardAssociation.

>   **Return type** str

class oci.database.models.**DataGuardAssociationSummary**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new DataGuardAssociationSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters**

>   - **apply_lag** (*str*) – The value to assign to the apply_lag property of this DataGuardAssociationSummary.

>   - **apply_rate** (*str*) – The value to assign to the apply_rate property of this DataGuardAssociationSummary.

>   - **database_id** (*str*) – The value to assign to the database_id property of this DataGuardAssociationSummary.

>   - **id** (*str*) – The value to assign to the id property of this DataGuardAssociationSummary.

>   - **lifecycle_details** (*str*) – The value to assign to the lifecycle_details property of this DataGuardAssociationSummary.

>   - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DataGuardAssociationSummary. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   - **peer_data_guard_association_id** (*str*) – The value to assign to the peer_data_guard_association_id property of this DataGuardAssociationSummary.

>   - **peer_database_id** (*str*) – The value to assign to the peer_database_id property of this DataGuardAssociationSummary.

>   - **peer_db_home_id** (*str*) – The value to assign to the peer_db_home_id property of this DataGuardAssociationSummary.

>   - **peer_db_system_id** (*str*) – The value to assign to the peer_db_system_id property of this DataGuardAssociationSummary.

>   - **peer_role** (*str*) – The value to assign to the peer_role property of this DataGuardAssociationSummary. Allowed values for this property are: "PRIMARY", "STANDBY", "DISABLED_STANDBY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   - **protection_mode** (*str*) – The value to assign to the protection_mode property of this DataGuardAssociationSummary. Allowed values for this property are: "MAXIMUM_AVAILABILITY", "MAXIMUM_PERFORMANCE", "MAXIMUM_PROTECTION", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **role** (*str*) – The value to assign to the role property of this DataGuardAssociation-Summary. Allowed values for this property are: "PRIMARY", "STANDBY", "DIS-ABLED_STANDBY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this DataGuardAssociationSummary.

- **transport_type** (*str*) – The value to assign to the transport_type property of this DataGuardAssociationSummary. Allowed values for this property are: "SYNC", "ASYNC", "FASTSYNC", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

apply_lag
> Gets the apply_lag of this DataGuardAssociationSummary. The lag time between updates to the primary database and application of the redo data on the standby database, as computed by the reporting database.
>
> Example: *9 seconds*
>
>> **Returns** The apply_lag of this DataGuardAssociationSummary.
>>
>> **Return type** str

apply_rate
> Gets the apply_rate of this DataGuardAssociationSummary. The rate at which redo logs are synced between the associated databases.
>
> Example: *180 Mb per second*
>
>> **Returns** The apply_rate of this DataGuardAssociationSummary.
>>
>> **Return type** str

database_id
> [**Required**] Gets the database_id of this DataGuardAssociationSummary. The OCID of the reporting database.
>
>> **Returns** The database_id of this DataGuardAssociationSummary.
>>
>> **Return type** str

id
> [**Required**] Gets the id of this DataGuardAssociationSummary. The OCID of the Data Guard association.
>
>> **Returns** The id of this DataGuardAssociationSummary.
>>
>> **Return type** str

lifecycle_details
> Gets the lifecycle_details of this DataGuardAssociationSummary. Additional information about the current lifecycleState, if available.
>
>> **Returns** The lifecycle_details of this DataGuardAssociationSummary.
>>
>> **Return type** str

lifecycle_state
> [**Required**] Gets the lifecycle_state of this DataGuardAssociationSummary. The current state of the Data Guard association.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINAT-ING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>> **Returns** The lifecycle_state of this DataGuardAssociationSummary.

Return type str

peer_data_guard_association_id

Gets the peer_data_guard_association_id of this DataGuardAssociationSummary. The OCID of the peer database's Data Guard association.

Returns The peer_data_guard_association_id of this DataGuardAssociationSummary.

Return type str

peer_database_id

Gets the peer_database_id of this DataGuardAssociationSummary. The OCID of the associated peer database.

Returns The peer_database_id of this DataGuardAssociationSummary.

Return type str

peer_db_home_id

Gets the peer_db_home_id of this DataGuardAssociationSummary. The OCID of the database home containing the associated peer database.

Returns The peer_db_home_id of this DataGuardAssociationSummary.

Return type str

peer_db_system_id

[**Required**] Gets the peer_db_system_id of this DataGuardAssociationSummary. The OCID of the DB System containing the associated peer database.

Returns The peer_db_system_id of this DataGuardAssociationSummary.

Return type str

peer_role

[**Required**] Gets the peer_role of this DataGuardAssociationSummary. The role of the peer database in this Data Guard association.

Allowed values for this property are: "PRIMARY", "STANDBY", "DISABLED_STANDBY", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

Returns The peer_role of this DataGuardAssociationSummary.

Return type str

protection_mode

[**Required**] Gets the protection_mode of this DataGuardAssociationSummary. The protection mode of this Data Guard association. For more information, see Oracle Data Guard Protection Modes in the Oracle Data Guard documentation.

Allowed values for this property are: "MAXIMUM_AVAILABILITY", "MAXI-MUM_PERFORMANCE", "MAXIMUM_PROTECTION", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

Returns The protection_mode of this DataGuardAssociationSummary.

Return type str

role

[**Required**] Gets the role of this DataGuardAssociationSummary. The role of the reporting database in this Data Guard association.

Allowed values for this property are: "PRIMARY", "STANDBY", "DISABLED_STANDBY", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

>**Returns** The role of this DataGuardAssociationSummary.

>**Return type** str

time_created
>Gets the time_created of this DataGuardAssociationSummary. The date and time the Data Guard Association was created.

>>**Returns** The time_created of this DataGuardAssociationSummary.

>>**Return type** datetime

transport_type
>Gets the transport_type of this DataGuardAssociationSummary. The redo transport type used by this Data Guard association. For more information, see Redo Transport Services in the Oracle Data Guard documentation.

>Allowed values for this property are: "SYNC", "ASYNC", "FASTSYNC", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>>**Returns** The transport_type of this DataGuardAssociationSummary.

>>**Return type** str

class oci.database.models.**Database**(***kwargs*)

>**__init__**(***kwargs*)
>>Initializes a new Database object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>>**Parameters**

>>>• **character_set** (*str*) – The value to assign to the character_set property of this Database.

>>>• **compartment_id** (*str*) – The value to assign to the compartment_id property of this Database.

>>>• **db_backup_config** (*DbBackupConfig*) – The value to assign to the db_backup_config property of this Database.

>>>• **db_home_id** (*str*) – The value to assign to the db_home_id property of this Database.

>>>• **db_name** (*str*) – The value to assign to the db_name property of this Database.

>>>• **db_unique_name** (*str*) – The value to assign to the db_unique_name property of this Database.

>>>• **db_workload** (*str*) – The value to assign to the db_workload property of this Database.

>>>• **id** (*str*) – The value to assign to the id property of this Database.

>>>• **lifecycle_details** (*str*) – The value to assign to the lifecycle_details property of this Database.

>>>• **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Database. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "BACKUP_IN_PROGRESS", "TERMINATING", "TERMINATED",

> "RESTORE_FAILED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized
> values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **ncharacter_set** (*str*) – The value to assign to the ncharacter_set property of this
  Database.

- **pdb_name** (*str*) – The value to assign to the pdb_name property of this Database.

- **time_created** (*datetime*) – The value to assign to the time_created property of this
  Database.

character_set

> Gets the character_set of this Database. The character set for the database.
>
> > **Returns** The character_set of this Database.
> >
> > **Return type** str

compartment_id

> [Required] Gets the compartment_id of this Database. The OCID of the compartment.
>
> > **Returns** The compartment_id of this Database.
> >
> > **Return type** str

db_backup_config

> Gets the db_backup_config of this Database.
>
> > **Returns** The db_backup_config of this Database.
> >
> > **Return type** *DbBackupConfig*

db_home_id

> Gets the db_home_id of this Database. The OCID of the database home.
>
> > **Returns** The db_home_id of this Database.
> >
> > **Return type** str

db_name

> [Required] Gets the db_name of this Database. The database name.
>
> > **Returns** The db_name of this Database.
> >
> > **Return type** str

db_unique_name

> [Required] Gets the db_unique_name of this Database. A system-generated name for the database to
> ensure uniqueness within an Oracle Data Guard group (a primary database and its standby databases). The
> unique name cannot be changed.
>
> > **Returns** The db_unique_name of this Database.
> >
> > **Return type** str

db_workload

> Gets the db_workload of this Database. Database workload type.
>
> > **Returns** The db_workload of this Database.
> >
> > **Return type** str

id

> [Required] Gets the id of this Database. The OCID of the database.
>
> > **Returns** The id of this Database.

Return type str

lifecycle_details
Gets the lifecycle_details of this Database. Additional information about the current lifecycleState.

> **Returns** The lifecycle_details of this Database.

> **Return type** str

lifecycle_state
[Required] Gets the lifecycle_state of this Database. The current state of the database.

Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "BACKUP_IN_PROGRESS", "TERMINATING", "TERMINATED", "RESTORE_FAILED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this Database.

> **Return type** str

ncharacter_set
Gets the ncharacter_set of this Database. The national character set for the database.

> **Returns** The ncharacter_set of this Database.

> **Return type** str

pdb_name
Gets the pdb_name of this Database. Pluggable database name. It must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.

> **Returns** The pdb_name of this Database.

> **Return type** str

time_created
Gets the time_created of this Database. The date and time the database was created.

> **Returns** The time_created of this Database.

> **Return type** datetime

class oci.database.models.**DatabaseSummary**(***kwargs*)

__init__(***kwargs*)
Initializes a new DatabaseSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
> - **character_set** (*str*) – The value to assign to the character_set property of this DatabaseSummary.
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this DatabaseSummary.
> - **db_backup_config** ([DbBackupConfig](#)) – The value to assign to the db_backup_config property of this DatabaseSummary.
> - **db_home_id** (*str*) – The value to assign to the db_home_id property of this DatabaseSummary.
> - **db_name** (*str*) – The value to assign to the db_name property of this DatabaseSummary.

- **db_unique_name** (`str`) – The value to assign to the db_unique_name property of this DatabaseSummary.

- **db_workload** (`str`) – The value to assign to the db_workload property of this DatabaseSummary.

- **id** (`str`) – The value to assign to the id property of this DatabaseSummary.

- **lifecycle_details** (`str`) – The value to assign to the lifecycle_details property of this DatabaseSummary.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this DatabaseSummary. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "BACKUP_IN_PROGRESS", "TERMINATING", "TERMINATED", "RESTORE_FAILED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **ncharacter_set** (`str`) – The value to assign to the ncharacter_set property of this DatabaseSummary.

- **pdb_name** (`str`) – The value to assign to the pdb_name property of this DatabaseSummary.

- **time_created** (`datetime`) – The value to assign to the time_created property of this DatabaseSummary.

character_set
Gets the character_set of this DatabaseSummary. The character set for the database.

> **Returns** The character_set of this DatabaseSummary.

> **Return type** str

compartment_id
[Required] Gets the compartment_id of this DatabaseSummary. The OCID of the compartment.

> **Returns** The compartment_id of this DatabaseSummary.

> **Return type** str

db_backup_config
Gets the db_backup_config of this DatabaseSummary.

> **Returns** The db_backup_config of this DatabaseSummary.

> **Return type** *DbBackupConfig*

db_home_id
Gets the db_home_id of this DatabaseSummary. The OCID of the database home.

> **Returns** The db_home_id of this DatabaseSummary.

> **Return type** str

db_name
[Required] Gets the db_name of this DatabaseSummary. The database name.

> **Returns** The db_name of this DatabaseSummary.

> **Return type** str

db_unique_name
[Required] Gets the db_unique_name of this DatabaseSummary. A system-generated name for the

database to ensure uniqueness within an Oracle Data Guard group (a primary database and its standby databases). The unique name cannot be changed.

> **Returns** The db_unique_name of this DatabaseSummary.

> **Return type** str

db_workload
> Gets the db_workload of this DatabaseSummary. Database workload type.

> > **Returns** The db_workload of this DatabaseSummary.

> > **Return type** str

id
> [Required] Gets the id of this DatabaseSummary. The OCID of the database.

> > **Returns** The id of this DatabaseSummary.

> > **Return type** str

lifecycle_details
> Gets the lifecycle_details of this DatabaseSummary. Additional information about the current lifecycleState.

> > **Returns** The lifecycle_details of this DatabaseSummary.

> > **Return type** str

lifecycle_state
> [Required] Gets the lifecycle_state of this DatabaseSummary. The current state of the database.

> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "BACKUP_IN_PROGRESS", "TERMINATING", "TERMINATED", "RESTORE_FAILED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The lifecycle_state of this DatabaseSummary.

> > **Return type** str

ncharacter_set
> Gets the ncharacter_set of this DatabaseSummary. The national character set for the database.

> > **Returns** The ncharacter_set of this DatabaseSummary.

> > **Return type** str

pdb_name
> Gets the pdb_name of this DatabaseSummary. Pluggable database name. It must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.

> > **Returns** The pdb_name of this DatabaseSummary.

> > **Return type** str

time_created
> Gets the time_created of this DatabaseSummary. The date and time the database was created.

> > **Returns** The time_created of this DatabaseSummary.

> > **Return type** datetime

class oci.database.models.**DbBackupConfig**(***kwargs*)

__init__(***kwargs*)

> Initializes a new DbBackupConfig object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters** **auto_backup_enabled** (`bool`) – The value to assign to the auto_backup_enabled property of this DbBackupConfig.

auto_backup_enabled

> Gets the auto_backup_enabled of this DbBackupConfig. If set to true, configures automatic backups. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.

> > **Returns** The auto_backup_enabled of this DbBackupConfig.

> > **Return type** bool

class oci.database.models.**DbHome**(***kwargs*)

__init__(***kwargs*)

> Initializes a new DbHome object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > - **compartment_id** (`str`) – The value to assign to the compartment_id property of this DbHome.
> >
> > - **db_system_id** (`str`) – The value to assign to the db_system_id property of this DbHome.
> >
> > - **db_version** (`str`) – The value to assign to the db_version property of this DbHome.
> >
> > - **display_name** (`str`) – The value to assign to the display_name property of this DbHome.
> >
> > - **id** (`str`) – The value to assign to the id property of this DbHome.
> >
> > - **last_patch_history_entry_id** (`str`) – The value to assign to the last_patch_history_entry_id property of this DbHome.
> >
> > - **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this DbHome. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **time_created** (`datetime`) – The value to assign to the time_created property of this DbHome.

compartment_id

> [**Required**] Gets the compartment_id of this DbHome. The OCID of the compartment.

> > **Returns** The compartment_id of this DbHome.

> > **Return type** str

db_system_id

> Gets the db_system_id of this DbHome. The OCID of the DB System.

> > **Returns** The db_system_id of this DbHome.

> > **Return type** str

db_version
    [Required] Gets the db_version of this DbHome. The Oracle database version.

>   **Returns** The db_version of this DbHome.

>   **Return type** str

display_name
    [Required] Gets the display_name of this DbHome. The user-provided name for the database home. It does not need to be unique.

>   **Returns** The display_name of this DbHome.

>   **Return type** str

id
    [Required] Gets the id of this DbHome. The OCID of the database home.

>   **Returns** The id of this DbHome.

>   **Return type** str

last_patch_history_entry_id
    Gets the last_patch_history_entry_id of this DbHome. The OCID of the last patch history. This is updated as soon as a patch operation is started.

>   **Returns** The last_patch_history_entry_id of this DbHome.

>   **Return type** str

lifecycle_state
    [Required] Gets the lifecycle_state of this DbHome. The current state of the database home.

>   Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINAT-ING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The lifecycle_state of this DbHome.

>   **Return type** str

time_created
    Gets the time_created of this DbHome. The date and time the database home was created.

>   **Returns** The time_created of this DbHome.

>   **Return type** datetime

class oci.database.models.**DbHomeSummary**(***kwargs*)

__init__(***kwargs*)
    Initializes a new DbHomeSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters**
>
>   - **compartment_id** (*str*) – The value to assign to the compartment_id property of this DbHomeSummary.
>
>   - **db_system_id** (*str*) – The value to assign to the db_system_id property of this Db-HomeSummary.
>
>   - **db_version** (*str*) – The value to assign to the db_version property of this DbHome-Summary.

- **display_name** (*str*) – The value to assign to the display_name property of this Db-HomeSummary.

- **id** (*str*) – The value to assign to the id property of this DbHomeSummary.

- **last_patch_history_entry_id** (*str*) – The value to assign to the last_patch_history_entry_id property of this DbHomeSummary.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DbHomeSummary. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this DbHomeSummary.

compartment_id
    [**Required**] Gets the compartment_id of this DbHomeSummary. The OCID of the compartment.

    Returns The compartment_id of this DbHomeSummary.

    Return type str

db_system_id
    Gets the db_system_id of this DbHomeSummary. The OCID of the DB System.

    Returns The db_system_id of this DbHomeSummary.

    Return type str

db_version
    [**Required**] Gets the db_version of this DbHomeSummary. The Oracle database version.

    Returns The db_version of this DbHomeSummary.

    Return type str

display_name
    [**Required**] Gets the display_name of this DbHomeSummary. The user-provided name for the database home. It does not need to be unique.

    Returns The display_name of this DbHomeSummary.

    Return type str

id
    [**Required**] Gets the id of this DbHomeSummary. The OCID of the database home.

    Returns The id of this DbHomeSummary.

    Return type str

last_patch_history_entry_id
    Gets the last_patch_history_entry_id of this DbHomeSummary. The OCID of the last patch history. This is updated as soon as a patch operation is started.

    Returns The last_patch_history_entry_id of this DbHomeSummary.

    Return type str

lifecycle_state
    [**Required**] Gets the lifecycle_state of this DbHomeSummary. The current state of the database home.

> > Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINAT-ING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > > **Returns** The lifecycle_state of this DbHomeSummary.
> > >
> > > **Return type** str

> > **time_created**
> >   Gets the time_created of this DbHomeSummary. The date and time the database home was created.
> >
> > > **Returns** The time_created of this DbHomeSummary.
> > >
> > > **Return type** datetime

class oci.database.models.**DbNode**(***kwargs*)

> **__init__**(***kwargs*)
>   Initializes a new DbNode object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **backup_vnic_id** (*str*) – The value to assign to the backup_vnic_id property of this DbNode.
> >
> > * **db_system_id** (*str*) – The value to assign to the db_system_id property of this DbNode.
> >
> > * **hostname** (*str*) – The value to assign to the hostname property of this DbNode.
> >
> > * **id** (*str*) – The value to assign to the id property of this DbNode.
> >
> > * **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DbNode. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "STOPPING", "STOPPED", "STARTING", "TERMINATING", "TER-MINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > * **software_storage_size_in_gb** (*int*) – The value to assign to the software_storage_size_in_gb property of this DbNode.
> >
> > * **time_created** (*datetime*) – The value to assign to the time_created property of this DbNode.
> >
> > * **vnic_id** (*str*) – The value to assign to the vnic_id property of this DbNode.

> **backup_vnic_id**
>   Gets the backup_vnic_id of this DbNode. The OCID of the backup VNIC.
>
> > **Returns** The backup_vnic_id of this DbNode.
> >
> > **Return type** str

> **db_system_id**
>   [Required] Gets the db_system_id of this DbNode. The OCID of the DB System.
>
> > **Returns** The db_system_id of this DbNode.
> >
> > **Return type** str

> **hostname**
>   Gets the hostname of this DbNode. The host name for the DB Node.
>
> > **Returns** The hostname of this DbNode.

> **Return type** str

id
> **[Required]** Gets the id of this DbNode. The OCID of the DB Node.
>
> > **Returns** The id of this DbNode.
> >
> > **Return type** str

lifecycle_state
> **[Required]** Gets the lifecycle_state of this DbNode. The current state of the database node.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "STOP-PING", "STOPPED", "STARTING", "TERMINATING", "TERMINATED", "FAILED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this DbNode.
> >
> > **Return type** str

software_storage_size_in_gb
> Gets the software_storage_size_in_gb of this DbNode. Storage size, in GBs, of the software volume that is allocated to the DB system. This is applicable only for VM-based DBs.
>
> > **Returns** The software_storage_size_in_gb of this DbNode.
> >
> > **Return type** int

time_created
> **[Required]** Gets the time_created of this DbNode. The date and time that the DB Node was created.
>
> > **Returns** The time_created of this DbNode.
> >
> > **Return type** datetime

vnic_id
> **[Required]** Gets the vnic_id of this DbNode. The OCID of the VNIC.
>
> > **Returns** The vnic_id of this DbNode.
> >
> > **Return type** str

class oci.database.models.**DbNodeSummary**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new DbNodeSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> > - **backup_vnic_id** (*str*) – The value to assign to the backup_vnic_id property of this DbNodeSummary.
> > - **db_system_id** (*str*) – The value to assign to the db_system_id property of this DbNodeSummary.
> > - **hostname** (*str*) – The value to assign to the hostname property of this DbNodeSummary.
> > - **id** (*str*) – The value to assign to the id property of this DbNodeSummary.
> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DbNodeSummary. Allowed values for this property are: "PROVISIONING", "AVAIL-ABLE", "UPDATING", "STOPPING", "STOPPED", "STARTING", "TERMINATING",

"TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **software_storage_size_in_gb** (*int*) – The value to assign to the software_storage_size_in_gb property of this DbNodeSummary.
- **time_created** (*datetime*) – The value to assign to the time_created property of this DbNodeSummary.
- **vnic_id** (*str*) – The value to assign to the vnic_id property of this DbNodeSummary.

backup_vnic_id
> Gets the backup_vnic_id of this DbNodeSummary. The OCID of the backup VNIC.
>
>> **Returns** The backup_vnic_id of this DbNodeSummary.
>>
>> **Return type** str

db_system_id
> **[Required]** Gets the db_system_id of this DbNodeSummary. The OCID of the DB System.
>
>> **Returns** The db_system_id of this DbNodeSummary.
>>
>> **Return type** str

hostname
> Gets the hostname of this DbNodeSummary. The host name for the DB Node.
>
>> **Returns** The hostname of this DbNodeSummary.
>>
>> **Return type** str

id
> **[Required]** Gets the id of this DbNodeSummary. The OCID of the DB Node.
>
>> **Returns** The id of this DbNodeSummary.
>>
>> **Return type** str

lifecycle_state
> **[Required]** Gets the lifecycle_state of this DbNodeSummary. The current state of the database node.
>
> Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "STOPPING", "STOPPED", "STARTING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>> **Returns** The lifecycle_state of this DbNodeSummary.
>>
>> **Return type** str

software_storage_size_in_gb
> Gets the software_storage_size_in_gb of this DbNodeSummary. Storage size, in GBs, of the software volume that is allocated to the DB system. This is applicable only for VM-based DBs.
>
>> **Returns** The software_storage_size_in_gb of this DbNodeSummary.
>>
>> **Return type** int

time_created
> **[Required]** Gets the time_created of this DbNodeSummary. The date and time that the DB Node was created.
>
>> **Returns** The time_created of this DbNodeSummary.
>>
>> **Return type** datetime

vnic_id
>   [Required] Gets the vnic_id of this DbNodeSummary. The OCID of the VNIC.

>   **Returns** The vnic_id of this DbNodeSummary.

>   **Return type** str

class oci.database.models.**DbSystem**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new DbSystem object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters**

>   - **availability_domain** (*str*) – The value to assign to the availability_domain property of this DbSystem.

>   - **backup_subnet_id** (*str*) – The value to assign to the backup_subnet_id property of this DbSystem.

>   - **cluster_name** (*str*) – The value to assign to the cluster_name property of this DbSystem.

>   - **compartment_id** (*str*) – The value to assign to the compartment_id property of this DbSystem.

>   - **cpu_core_count** (*int*) – The value to assign to the cpu_core_count property of this DbSystem.

>   - **data_storage_percentage** (*int*) – The value to assign to the data_storage_percentage property of this DbSystem.

>   - **data_storage_size_in_gbs** (*int*) – The value to assign to the data_storage_size_in_gbs property of this DbSystem.

>   - **database_edition** (*str*) – The value to assign to the database_edition property of this DbSystem. Allowed values for this property are: "STANDARD_EDITION", "ENTERPRISE_EDITION", "ENTERPRISE_EDITION_EXTREME_PERFORMANCE", "ENTERPRISE_EDITION_HIGH_PERFORMANCE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   - **disk_redundancy** (*str*) – The value to assign to the disk_redundancy property of this DbSystem. Allowed values for this property are: "HIGH", "NORMAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   - **display_name** (*str*) – The value to assign to the display_name property of this DbSystem.

>   - **domain** (*str*) – The value to assign to the domain property of this DbSystem.

>   - **hostname** (*str*) – The value to assign to the hostname property of this DbSystem.

>   - **id** (*str*) – The value to assign to the id property of this DbSystem.

>   - **last_patch_history_entry_id** (*str*) – The value to assign to the last_patch_history_entry_id property of this DbSystem.

>   - **license_model** (*str*) – The value to assign to the license_model property of this DbSystem. Allowed values for this property are: "LICENSE_INCLUDED",

> > "BRING_YOUR_OWN_LICENSE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **lifecycle_details** (`str`) – The value to assign to the lifecycle_details property of this DbSystem.
> >
> > - **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this DbSystem. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **listener_port** (`int`) – The value to assign to the listener_port property of this DbSystem.
> >
> > - **node_count** (`int`) – The value to assign to the node_count property of this DbSystem.
> >
> > - **reco_storage_size_in_gb** (`int`) – The value to assign to the reco_storage_size_in_gb property of this DbSystem.
> >
> > - **scan_dns_record_id** (`str`) – The value to assign to the scan_dns_record_id property of this DbSystem.
> >
> > - **scan_ip_ids** (`list[str]`) – The value to assign to the scan_ip_ids property of this DbSystem.
> >
> > - **shape** (`str`) – The value to assign to the shape property of this DbSystem.
> >
> > - **ssh_public_keys** (`list[str]`) – The value to assign to the ssh_public_keys property of this DbSystem.
> >
> > - **subnet_id** (`str`) – The value to assign to the subnet_id property of this DbSystem.
> >
> > - **time_created** (`datetime`) – The value to assign to the time_created property of this DbSystem.
> >
> > - **version** (`str`) – The value to assign to the version property of this DbSystem.
> >
> > - **vip_ids** (`list[str]`) – The value to assign to the vip_ids property of this DbSystem.

availability_domain
> [Required] Gets the availability_domain of this DbSystem. The name of the Availability Domain that the DB System is located in.
>
> > **Returns** The availability_domain of this DbSystem.
> >
> > **Return type** str

backup_subnet_id
> Gets the backup_subnet_id of this DbSystem. The OCID of the backup network subnet the DB System is associated with. Applicable only to Exadata.
>
> **Subnet Restriction:** See above subnetId's 'Subnet Restriction'. to malfunction.
>
> > **Returns** The backup_subnet_id of this DbSystem.
> >
> > **Return type** str

cluster_name
> Gets the cluster_name of this DbSystem. Cluster name for Exadata and 2-node RAC DB Systems. The cluster name must begin with an an alphabetic character, and may contain hyphens (-). Underscores (_) are not permitted. The cluster name can be no longer than 11 characters and is not case sensitive.
>
> > **Returns** The cluster_name of this DbSystem.

Return type str

compartment_id
>   [Required] Gets the compartment_id of this DbSystem. The OCID of the compartment.
>
>   **Returns** The compartment_id of this DbSystem.
>
>   **Return type** str

cpu_core_count
>   [Required] Gets the cpu_core_count of this DbSystem. The number of CPU cores enabled on the DB System.
>
>   **Returns** The cpu_core_count of this DbSystem.
>
>   **Return type** int

data_storage_percentage
>   Gets the data_storage_percentage of this DbSystem. The percentage assigned to DATA storage (user data and database files). The remaining percentage is assigned to RECO storage (database redo logs, archive logs, and recovery manager backups). Accepted values are 40 and 80.
>
>   **Returns** The data_storage_percentage of this DbSystem.
>
>   **Return type** int

data_storage_size_in_gbs
>   Gets the data_storage_size_in_gbs of this DbSystem. Data storage size, in GBs, that is currently available to the DB system. This is applicable only for VM-based DBs.
>
>   **Returns** The data_storage_size_in_gbs of this DbSystem.
>
>   **Return type** int

database_edition
>   [Required] Gets the database_edition of this DbSystem. The Oracle Database Edition that applies to all the databases on the DB System.
>
>   Allowed values for this property are: "STANDARD_EDITION", "ENTERPRISE_EDITION", "ENTERPRISE_EDITION_EXTREME_PERFORMANCE", "ENTERPRISE_EDITION_HIGH_PERFORMANCE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>   **Returns** The database_edition of this DbSystem.
>
>   **Return type** str

disk_redundancy
>   Gets the disk_redundancy of this DbSystem. The type of redundancy configured for the DB System. Normal is 2-way redundancy. High is 3-way redundancy.
>
>   Allowed values for this property are: "HIGH", "NORMAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>   **Returns** The disk_redundancy of this DbSystem.
>
>   **Return type** str

display_name
>   [Required] Gets the display_name of this DbSystem. The user-friendly name for the DB System. It does not have to be unique.
>
>   **Returns** The display_name of this DbSystem.
>
>   **Return type** str

domain
    [Required] Gets the domain of this DbSystem. The domain name for the DB System.

    Returns The domain of this DbSystem.

    Return type str

hostname
    [Required] Gets the hostname of this DbSystem. The host name for the DB Node.

    Returns The hostname of this DbSystem.

    Return type str

id
    [Required] Gets the id of this DbSystem. The OCID of the DB System.

    Returns The id of this DbSystem.

    Return type str

last_patch_history_entry_id
    Gets the last_patch_history_entry_id of this DbSystem. The OCID of the last patch history. This is updated as soon as a patch operation is started.

    Returns The last_patch_history_entry_id of this DbSystem.

    Return type str

license_model
    Gets the license_model of this DbSystem. The Oracle license model that applies to all the databases on the DB System. The default is LICENSE_INCLUDED.

    Allowed values for this property are: "LICENSE_INCLUDED", "BRING_YOUR_OWN_LICENSE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

    Returns The license_model of this DbSystem.

    Return type str

lifecycle_details
    Gets the lifecycle_details of this DbSystem. Additional information about the current lifecycleState.

    Returns The lifecycle_details of this DbSystem.

    Return type str

lifecycle_state
    [Required] Gets the lifecycle_state of this DbSystem. The current state of the DB System.

    Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINAT-ING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

    Returns The lifecycle_state of this DbSystem.

    Return type str

listener_port
    Gets the listener_port of this DbSystem. The port number configured for the listener on the DB System.

    Returns The listener_port of this DbSystem.

    Return type int

---

node_count
> Gets the node_count of this DbSystem. Number of nodes in this DB system. For RAC DBs, this will be greater than 1.
>
> > **Returns** The node_count of this DbSystem.
> >
> > **Return type** int

reco_storage_size_in_gb
> Gets the reco_storage_size_in_gb of this DbSystem. RECO/REDO storage size, in GBs, that is currently allocated to the DB system. This is applicable only for VM-based DBs.
>
> > **Returns** The reco_storage_size_in_gb of this DbSystem.
> >
> > **Return type** int

scan_dns_record_id
> Gets the scan_dns_record_id of this DbSystem. The OCID of the DNS record for the SCAN IP addresses that are associated with the DB System.
>
> > **Returns** The scan_dns_record_id of this DbSystem.
> >
> > **Return type** str

scan_ip_ids
> Gets the scan_ip_ids of this DbSystem. The OCID of the Single Client Access Name (SCAN) IP addresses associated with the DB System. SCAN IP addresses are typically used for load balancing and are not assigned to any interface. Clusterware directs the requests to the appropriate nodes in the cluster.
>
> > • For a single-node DB System, this list is empty.
>
> > **Returns** The scan_ip_ids of this DbSystem.
> >
> > **Return type** list[str]

shape
> **[Required]** Gets the shape of this DbSystem. The shape of the DB System. The shape determines resources to allocate to the DB system - CPU cores and memory for VM shapes; CPU cores, memory and storage for non-VM (or bare metal) shapes.
>
> > **Returns** The shape of this DbSystem.
> >
> > **Return type** str

ssh_public_keys
> **[Required]** Gets the ssh_public_keys of this DbSystem. The public key portion of one or more key pairs used for SSH access to the DB System.
>
> > **Returns** The ssh_public_keys of this DbSystem.
> >
> > **Return type** list[str]

subnet_id
> **[Required]** Gets the subnet_id of this DbSystem. The OCID of the subnet the DB System is associated with.
>
> **Subnet Restrictions:** - For single node and 2-node (RAC) DB Systems, do not use a subnet that overlaps with 192.168.16.16/28 - For Exadata and VM-based RAC DB Systems, do not use a subnet that overlaps with 192.168.128.0/20
>
> These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

      Returns The subnet_id of this DbSystem.

      Return type str

time_created
> Gets the time_created of this DbSystem. The date and time the DB System was created.

      Returns The time_created of this DbSystem.

      Return type datetime

version
> Gets the version of this DbSystem. The version of the DB System.

      Returns The version of this DbSystem.

      Return type str

vip_ids
> Gets the vip_ids of this DbSystem. The OCID of the virtual IP (VIP) addresses associated with the DB System. The Cluster Ready Services (CRS) creates and maintains one VIP address for each node in the DB System to enable failover. If one node fails, the VIP is reassigned to another active node in the cluster.

> - For a single-node DB System, this list is empty.

      Returns The vip_ids of this DbSystem.

      Return type list[str]

class oci.database.models.**DbSystemShapeSummary**(***kwargs*)

__init__(***kwargs*)
> Initializes a new DbSystemShapeSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> - **available_core_count** (*int*) – The value to assign to the available_core_count property of this DbSystemShapeSummary.

> - **core_count_increment** (*int*) – The value to assign to the core_count_increment property of this DbSystemShapeSummary.

> - **maximum_node_count** (*int*) – The value to assign to the maximum_node_count property of this DbSystemShapeSummary.

> - **minimum_core_count** (*int*) – The value to assign to the minimum_core_count property of this DbSystemShapeSummary.

> - **minimum_node_count** (*int*) – The value to assign to the minimum_node_count property of this DbSystemShapeSummary.

> - **name** (*str*) – The value to assign to the name property of this DbSystemShapeSummary.

> - **shape** (*str*) – The value to assign to the shape property of this DbSystemShapeSummary.

available_core_count
> **[Required]** Gets the available_core_count of this DbSystemShapeSummary. The maximum number of CPU cores that can be enabled on the DB System for this shape.

      Returns The available_core_count of this DbSystemShapeSummary.

      Return type int

core_count_increment

> Gets the core_count_increment of this DbSystemShapeSummary. The discrete number by which the CPU core count for this shape can be increased or decreased.
>
> > **Returns** The core_count_increment of this DbSystemShapeSummary.
> >
> > **Return type** int

maximum_node_count

> Gets the maximum_node_count of this DbSystemShapeSummary. The maximum number of database nodes available for this shape.
>
> > **Returns** The maximum_node_count of this DbSystemShapeSummary.
> >
> > **Return type** int

minimum_core_count

> Gets the minimum_core_count of this DbSystemShapeSummary. The minimum number of CPU cores that can be enabled on the DB System for this shape.
>
> > **Returns** The minimum_core_count of this DbSystemShapeSummary.
> >
> > **Return type** int

minimum_node_count

> Gets the minimum_node_count of this DbSystemShapeSummary. The minimum number of database nodes available for this shape.
>
> > **Returns** The minimum_node_count of this DbSystemShapeSummary.
> >
> > **Return type** int

name

> **[Required]** Gets the name of this DbSystemShapeSummary. The name of the shape used for the DB System.
>
> > **Returns** The name of this DbSystemShapeSummary.
> >
> > **Return type** str

shape

> Gets the shape of this DbSystemShapeSummary. Deprecated. Use *name* instead of *shape*.
>
> > **Returns** The shape of this DbSystemShapeSummary.
> >
> > **Return type** str

class oci.database.models.**DbSystemSummary**(***kwargs*)

__init__(***kwargs*)

> Initializes a new DbSystemSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **availability_domain** (*str*) – The value to assign to the availability_domain property of this DbSystemSummary.
> >
> > - **backup_subnet_id** (*str*) – The value to assign to the backup_subnet_id property of this DbSystemSummary.
> >
> > - **cluster_name** (*str*) – The value to assign to the cluster_name property of this DbSystemSummary.

- **compartment_id** (`str`) – The value to assign to the compartment_id property of this DbSystemSummary.

- **cpu_core_count** (`int`) – The value to assign to the cpu_core_count property of this DbSystemSummary.

- **data_storage_percentage** (`int`) – The value to assign to the data_storage_percentage property of this DbSystemSummary.

- **data_storage_size_in_gbs** (`int`) – The value to assign to the data_storage_size_in_gbs property of this DbSystemSummary.

- **database_edition** (`str`) – The value to assign to the database_edition property of this DbSystemSummary. Allowed values for this property are: "STANDARD_EDITION", "ENTERPRISE_EDITION", "ENTERPRISE_EDITION_EXTREME_PERFORMANCE", "ENTERPRISE_EDITION_HIGH_PERFORMANCE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **disk_redundancy** (`str`) – The value to assign to the disk_redundancy property of this DbSystemSummary. Allowed values for this property are: "HIGH", "NORMAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **display_name** (`str`) – The value to assign to the display_name property of this DbSystemSummary.

- **domain** (`str`) – The value to assign to the domain property of this DbSystemSummary.

- **hostname** (`str`) – The value to assign to the hostname property of this DbSystemSummary.

- **id** (`str`) – The value to assign to the id property of this DbSystemSummary.

- **last_patch_history_entry_id** (`str`) – The value to assign to the last_patch_history_entry_id property of this DbSystemSummary.

- **license_model** (`str`) – The value to assign to the license_model property of this DbSystemSummary. Allowed values for this property are: "LICENSE_INCLUDED", "BRING_YOUR_OWN_LICENSE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **lifecycle_details** (`str`) – The value to assign to the lifecycle_details property of this DbSystemSummary.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this DbSystemSummary. Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **listener_port** (`int`) – The value to assign to the listener_port property of this DbSystemSummary.

- **node_count** (`int`) – The value to assign to the node_count property of this DbSystemSummary.

- **reco_storage_size_in_gb** (`int`) – The value to assign to the reco_storage_size_in_gb property of this DbSystemSummary.

- **scan_dns_record_id** (*str*) – The value to assign to the scan_dns_record_id property of this DbSystemSummary.

- **scan_ip_ids** (*list[str]*) – The value to assign to the scan_ip_ids property of this DbSystemSummary.

- **shape** (*str*) – The value to assign to the shape property of this DbSystemSummary.

- **ssh_public_keys** (*list[str]*) – The value to assign to the ssh_public_keys property of this DbSystemSummary.

- **subnet_id** (*str*) – The value to assign to the subnet_id property of this DbSystemSummary.

- **time_created** (*datetime*) – The value to assign to the time_created property of this DbSystemSummary.

- **version** (*str*) – The value to assign to the version property of this DbSystemSummary.

- **vip_ids** (*list[str]*) – The value to assign to the vip_ids property of this DbSystemSummary.

availability_domain
> [**Required**] Gets the availability_domain of this DbSystemSummary. The name of the Availability Domain that the DB System is located in.
>
> > **Returns** The availability_domain of this DbSystemSummary.
> >
> > **Return type** str

backup_subnet_id
> Gets the backup_subnet_id of this DbSystemSummary. The OCID of the backup network subnet the DB System is associated with. Applicable only to Exadata.
>
> **Subnet Restriction:** See above subnetId's 'Subnet Restriction'. to malfunction.
>
> > **Returns** The backup_subnet_id of this DbSystemSummary.
> >
> > **Return type** str

cluster_name
> Gets the cluster_name of this DbSystemSummary. Cluster name for Exadata and 2-node RAC DB Systems. The cluster name must begin with an an alphabetic character, and may contain hyphens (-). Underscores (_) are not permitted. The cluster name can be no longer than 11 characters and is not case sensitive.
>
> > **Returns** The cluster_name of this DbSystemSummary.
> >
> > **Return type** str

compartment_id
> [**Required**] Gets the compartment_id of this DbSystemSummary. The OCID of the compartment.
>
> > **Returns** The compartment_id of this DbSystemSummary.
> >
> > **Return type** str

cpu_core_count
> [**Required**] Gets the cpu_core_count of this DbSystemSummary. The number of CPU cores enabled on the DB System.
>
> > **Returns** The cpu_core_count of this DbSystemSummary.
> >
> > **Return type** int

data_storage_percentage
Gets the data_storage_percentage of this DbSystemSummary. The percentage assigned to DATA storage (user data and database files). The remaining percentage is assigned to RECO storage (database redo logs, archive logs, and recovery manager backups). Accepted values are 40 and 80.

>   **Returns** The data_storage_percentage of this DbSystemSummary.

>   **Return type** int

data_storage_size_in_gbs
Gets the data_storage_size_in_gbs of this DbSystemSummary. Data storage size, in GBs, that is currently available to the DB system. This is applicable only for VM-based DBs.

>   **Returns** The data_storage_size_in_gbs of this DbSystemSummary.

>   **Return type** int

database_edition
[**Required**] Gets the database_edition of this DbSystemSummary. The Oracle Database Edition that applies to all the databases on the DB System.

Allowed values for this property are: "STANDARD_EDITION", "ENTER-PRISE_EDITION", "ENTERPRISE_EDITION_EXTREME_PERFORMANCE", "ENTER-PRISE_EDITION_HIGH_PERFORMANCE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The database_edition of this DbSystemSummary.

>   **Return type** str

disk_redundancy
Gets the disk_redundancy of this DbSystemSummary. The type of redundancy configured for the DB System. Normal is 2-way redundancy. High is 3-way redundancy.

Allowed values for this property are: "HIGH", "NORMAL", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The disk_redundancy of this DbSystemSummary.

>   **Return type** str

display_name
[**Required**] Gets the display_name of this DbSystemSummary. The user-friendly name for the DB System. It does not have to be unique.

>   **Returns** The display_name of this DbSystemSummary.

>   **Return type** str

domain
[**Required**] Gets the domain of this DbSystemSummary. The domain name for the DB System.

>   **Returns** The domain of this DbSystemSummary.

>   **Return type** str

hostname
[**Required**] Gets the hostname of this DbSystemSummary. The host name for the DB Node.

>   **Returns** The hostname of this DbSystemSummary.

>   **Return type** str

id
[**Required**] Gets the id of this DbSystemSummary. The OCID of the DB System.

Returns The id of this DbSystemSummary.

Return type str

last_patch_history_entry_id
Gets the last_patch_history_entry_id of this DbSystemSummary. The OCID of the last patch history. This is updated as soon as a patch operation is started.

Returns The last_patch_history_entry_id of this DbSystemSummary.

Return type str

license_model
Gets the license_model of this DbSystemSummary. The Oracle license model that applies to all the databases on the DB System. The default is LICENSE_INCLUDED.

Allowed values for this property are: "LICENSE_INCLUDED", "BRING_YOUR_OWN_LICENSE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

Returns The license_model of this DbSystemSummary.

Return type str

lifecycle_details
Gets the lifecycle_details of this DbSystemSummary. Additional information about the current lifecycleState.

Returns The lifecycle_details of this DbSystemSummary.

Return type str

lifecycle_state
[**Required**] Gets the lifecycle_state of this DbSystemSummary. The current state of the DB System.

Allowed values for this property are: "PROVISIONING", "AVAILABLE", "UPDATING", "TERMINATING", "TERMINATED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

Returns The lifecycle_state of this DbSystemSummary.

Return type str

listener_port
Gets the listener_port of this DbSystemSummary. The port number configured for the listener on the DB System.

Returns The listener_port of this DbSystemSummary.

Return type int

node_count
Gets the node_count of this DbSystemSummary. Number of nodes in this DB system. For RAC DBs, this will be greater than 1.

Returns The node_count of this DbSystemSummary.

Return type int

reco_storage_size_in_gb
Gets the reco_storage_size_in_gb of this DbSystemSummary. RECO/REDO storage size, in GBs, that is currently allocated to the DB system. This is applicable only for VM-based DBs.

Returns The reco_storage_size_in_gb of this DbSystemSummary.

Return type int

scan_dns_record_id
> Gets the scan_dns_record_id of this DbSystemSummary. The OCID of the DNS record for the SCAN IP addresses that are associated with the DB System.
>
> > **Returns** The scan_dns_record_id of this DbSystemSummary.
> >
> > **Return type** str

scan_ip_ids
> Gets the scan_ip_ids of this DbSystemSummary. The OCID of the Single Client Access Name (SCAN) IP addresses associated with the DB System. SCAN IP addresses are typically used for load balancing and are not assigned to any interface. Clusterware directs the requests to the appropriate nodes in the cluster.
>
> > • For a single-node DB System, this list is empty.
>
> > **Returns** The scan_ip_ids of this DbSystemSummary.
> >
> > **Return type** list[str]

shape
> **[Required]** Gets the shape of this DbSystemSummary. The shape of the DB System. The shape determines resources to allocate to the DB system - CPU cores and memory for VM shapes; CPU cores, memory and storage for non-VM (or bare metal) shapes.
>
> > **Returns** The shape of this DbSystemSummary.
> >
> > **Return type** str

ssh_public_keys
> **[Required]** Gets the ssh_public_keys of this DbSystemSummary. The public key portion of one or more key pairs used for SSH access to the DB System.
>
> > **Returns** The ssh_public_keys of this DbSystemSummary.
> >
> > **Return type** list[str]

subnet_id
> **[Required]** Gets the subnet_id of this DbSystemSummary. The OCID of the subnet the DB System is associated with.
>
> **Subnet Restrictions:** - For single node and 2-node (RAC) DB Systems, do not use a subnet that overlaps with 192.168.16.16/28 - For Exadata and VM-based RAC DB Systems, do not use a subnet that overlaps with 192.168.128.0/20
>
> These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.
>
> > **Returns** The subnet_id of this DbSystemSummary.
> >
> > **Return type** str

time_created
> Gets the time_created of this DbSystemSummary. The date and time the DB System was created.
>
> > **Returns** The time_created of this DbSystemSummary.
> >
> > **Return type** datetime

version
> Gets the version of this DbSystemSummary. The version of the DB System.
>
> > **Returns** The version of this DbSystemSummary.

> > **Return type** str

> **vip_ids**
> > Gets the vip_ids of this DbSystemSummary. The OCID of the virtual IP (VIP) addresses associated with the DB System. The Cluster Ready Services (CRS) creates and maintains one VIP address for each node in the DB System to enable failover. If one node fails, the VIP is reassigned to another active node in the cluster.

> > - For a single-node DB System, this list is empty.

> > > **Returns** The vip_ids of this DbSystemSummary.

> > > **Return type** list[str]

class oci.database.models.**DbVersionSummary**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new DbVersionSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > > **Parameters**

> > > - **supports_pdb** (*bool*) – The value to assign to the supports_pdb property of this DbVersionSummary.

> > > - **version** (*str*) – The value to assign to the version property of this DbVersionSummary.

> **supports_pdb**
> > Gets the supports_pdb of this DbVersionSummary. True if this version of the Oracle database software supports pluggable dbs.

> > > **Returns** The supports_pdb of this DbVersionSummary.

> > > **Return type** bool

> **version**
> > [Required] Gets the version of this DbVersionSummary. A valid Oracle database version.

> > > **Returns** The version of this DbVersionSummary.

> > > **Return type** str

class oci.database.models.**FailoverDataGuardAssociationDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new FailoverDataGuardAssociationDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > > **Parameters** **database_admin_password** (*str*) – The value to assign to the database_admin_password property of this FailoverDataGuardAssociationDetails.

> **database_admin_password**
> > [Required] Gets the database_admin_password of this FailoverDataGuardAssociationDetails. The DB System administrator password.

> > > **Returns** The database_admin_password of this FailoverDataGuardAssociationDetails.

> > > **Return type** str

class oci.database.models.**LaunchDbSystemDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new LaunchDbSystemDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **availability_domain** (`str`) – The value to assign to the availability_domain property of this LaunchDbSystemDetails.

- **backup_subnet_id** (`str`) – The value to assign to the backup_subnet_id property of this LaunchDbSystemDetails.

- **cluster_name** (`str`) – The value to assign to the cluster_name property of this LaunchDbSystemDetails.

- **compartment_id** (`str`) – The value to assign to the compartment_id property of this LaunchDbSystemDetails.

- **cpu_core_count** (`int`) – The value to assign to the cpu_core_count property of this LaunchDbSystemDetails.

- **data_storage_percentage** (`int`) – The value to assign to the data_storage_percentage property of this LaunchDbSystemDetails.

- **database_edition** (`str`) – The value to assign to the database_edition property of this LaunchDbSystemDetails. Allowed values for this property are: "STANDARD_EDITION", "ENTERPRISE_EDITION", "ENTERPRISE_EDITION_EXTREME_PERFORMANCE", "ENTERPRISE_EDITION_HIGH_PERFORMANCE"

- **db_home** (`CreateDbHomeDetails`) – The value to assign to the db_home property of this LaunchDbSystemDetails.

- **disk_redundancy** (`str`) – The value to assign to the disk_redundancy property of this LaunchDbSystemDetails. Allowed values for this property are: "HIGH", "NORMAL"

- **display_name** (`str`) – The value to assign to the display_name property of this LaunchDbSystemDetails.

- **domain** (`str`) – The value to assign to the domain property of this LaunchDbSystemDetails.

- **hostname** (`str`) – The value to assign to the hostname property of this LaunchDbSystemDetails.

- **initial_data_storage_size_in_gb** (`int`) – The value to assign to the initial_data_storage_size_in_gb property of this LaunchDbSystemDetails.

- **license_model** (`str`) – The value to assign to the license_model property of this LaunchDbSystemDetails. Allowed values for this property are: "LICENSE_INCLUDED", "BRING_YOUR_OWN_LICENSE"

- **node_count** (`int`) – The value to assign to the node_count property of this LaunchDbSystemDetails.

- **shape** (`str`) – The value to assign to the shape property of this LaunchDbSystemDetails.

- **ssh_public_keys** (`list[str]`) – The value to assign to the ssh_public_keys property of this LaunchDbSystemDetails.

- **subnet_id** (`str`) – The value to assign to the subnet_id property of this LaunchDbSystemDetails.

availability_domain
> **[Required]** Gets the availability_domain of this LaunchDbSystemDetails. The Availability Domain where the DB System is located.
>
> > **Returns** The availability_domain of this LaunchDbSystemDetails.
> >
> > **Return type** str

backup_subnet_id
> Gets the backup_subnet_id of this LaunchDbSystemDetails. The OCID of the backup network subnet the DB System is associated with. Applicable only to Exadata.
>
> **Subnet Restrictions:** See above subnetId's **Subnet Restriction**.
>
> > **Returns** The backup_subnet_id of this LaunchDbSystemDetails.
> >
> > **Return type** str

cluster_name
> Gets the cluster_name of this LaunchDbSystemDetails. Cluster name for Exadata and 2-node RAC DB Systems. The cluster name must begin with an an alphabetic character, and may contain hyphens (-). Underscores (_) are not permitted. The cluster name can be no longer than 11 characters and is not case sensitive.
>
> > **Returns** The cluster_name of this LaunchDbSystemDetails.
> >
> > **Return type** str

compartment_id
> **[Required]** Gets the compartment_id of this LaunchDbSystemDetails. The Oracle Cloud ID (OCID) of the compartment the DB System belongs in.
>
> > **Returns** The compartment_id of this LaunchDbSystemDetails.
> >
> > **Return type** str

cpu_core_count
> **[Required]** Gets the cpu_core_count of this LaunchDbSystemDetails. The number of CPU cores to enable. The valid values depend on the specified shape:
>
> - BM.DenseIO1.36 and BM.HighIO1.36 - Specify a multiple of 2, from 2 to 36.
> - BM.RACLocalStorage1.72 - Specify a multiple of 4, from 4 to 72.
> - Exadata.Quarter1.84 - Specify a multiple of 2, from 22 to 84.
> - Exadata.Half1.168 - Specify a multiple of 4, from 44 to 168.
> - Exadata.Full1.336 - Specify a multiple of 8, from 88 to 336.
>
> For VM DB systems, the core count is inferred from the specific VM shape chosen, so this parameter is not used.
>
> > **Returns** The cpu_core_count of this LaunchDbSystemDetails.
> >
> > **Return type** int

data_storage_percentage
> Gets the data_storage_percentage of this LaunchDbSystemDetails. The percentage assigned to DATA storage (user data and database files). The remaining percentage is assigned to RECO storage (database redo logs, archive logs, and recovery manager backups). Specify 80 or 40. The default is 80 percent assigned to DATA storage. This is not applicable for VM based DB systems.
>
> > **Returns** The data_storage_percentage of this LaunchDbSystemDetails.
> >
> > **Return type** int

---

database_edition

[Required] Gets the database_edition of this LaunchDbSystemDetails. The Oracle Database Edition that applies to all the databases on the DB System.

Exadata DB Systems and 2-node RAC DB Systems require ENTERPRISE_EDITION_EXTREME_PERFORMANCE.

Allowed values for this property are: "STANDARD_EDITION", "ENTERPRISE_EDITION", "ENTERPRISE_EDITION_EXTREME_PERFORMANCE", "ENTERPRISE_EDITION_HIGH_PERFORMANCE"

> **Returns** The database_edition of this LaunchDbSystemDetails.

> **Return type** str

db_home

[Required] Gets the db_home of this LaunchDbSystemDetails.

> **Returns** The db_home of this LaunchDbSystemDetails.

> **Return type** *CreateDbHomeDetails*

disk_redundancy

Gets the disk_redundancy of this LaunchDbSystemDetails. The type of redundancy configured for the DB System. Normal is 2-way redundancy, recommended for test and development systems. High is 3-way redundancy, recommended for production systems.

Allowed values for this property are: "HIGH", "NORMAL"

> **Returns** The disk_redundancy of this LaunchDbSystemDetails.

> **Return type** str

display_name

Gets the display_name of this LaunchDbSystemDetails. The user-friendly name for the DB System. It does not have to be unique.

> **Returns** The display_name of this LaunchDbSystemDetails.

> **Return type** str

domain

Gets the domain of this LaunchDbSystemDetails. A domain name used for the DB System. If the Oracle-provided Internet and VCN Resolver is enabled for the specified subnet, the domain name for the subnet is used (don't provide one). Otherwise, provide a valid DNS domain name. Hyphens (-) are not permitted.

> **Returns** The domain of this LaunchDbSystemDetails.

> **Return type** str

hostname

[Required] Gets the hostname of this LaunchDbSystemDetails. The host name for the DB System. The host name must begin with an alphabetic character and can contain a maximum of 30 alphanumeric characters, including hyphens (-).

The maximum length of the combined hostname and domain is 63 characters.

Note: The hostname must be unique within the subnet. If it is not unique, the DB System will fail to provision.

> **Returns** The hostname of this LaunchDbSystemDetails.

> **Return type** str

`initial_data_storage_size_in_gb`
> Gets the initial_data_storage_size_in_gb of this LaunchDbSystemDetails. Size, in GBs, of the initial data volume that will be created and attached to VM-shape based DB system. This storage can later be scaled up if needed. Note that the total storage size attached will be more than what is requested, to account for REDO/RECO space and software volume.
>
> > **Returns** The initial_data_storage_size_in_gb of this LaunchDbSystemDetails.
> >
> > **Return type** int

`license_model`
> Gets the license_model of this LaunchDbSystemDetails. The Oracle license model that applies to all the databases on the DB System. The default is LICENSE_INCLUDED.
>
> Allowed values for this property are: "LICENSE_INCLUDED", "BRING_YOUR_OWN_LICENSE"
>
> > **Returns** The license_model of this LaunchDbSystemDetails.
> >
> > **Return type** str

`node_count`
> Gets the node_count of this LaunchDbSystemDetails. Number of nodes to launch for a VM-shape based RAC DB system.
>
> > **Returns** The node_count of this LaunchDbSystemDetails.
> >
> > **Return type** int

`shape`
> **[Required]** Gets the shape of this LaunchDbSystemDetails. The shape of the DB System. The shape determines resources allocated to the DB System - CPU cores and memory for VM shapes; CPU cores, memory and storage for non-VM (or bare metal) shapes. To get a list of shapes, use the `list_db_system_shapes()` operation.
>
> > **Returns** The shape of this LaunchDbSystemDetails.
> >
> > **Return type** str

`ssh_public_keys`
> **[Required]** Gets the ssh_public_keys of this LaunchDbSystemDetails. The public key portion of the key pair to use for SSH access to the DB System. Multiple public keys can be provided. The length of the combined keys cannot exceed 10,000 characters.
>
> > **Returns** The ssh_public_keys of this LaunchDbSystemDetails.
> >
> > **Return type** list[str]

`subnet_id`
> **[Required]** Gets the subnet_id of this LaunchDbSystemDetails. The OCID of the subnet the DB System is associated with.
>
> **Subnet Restrictions:** - For single node and 2-node (RAC) DB Systems, do not use a subnet that overlaps with 192.168.16.16/28 - For Exadata and VM-based RAC DB Systems, do not use a subnet that overlaps with 192.168.128.0/20
>
> These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.
>
> > **Returns** The subnet_id of this LaunchDbSystemDetails.
> >
> > **Return type** str

class oci.database.models.**Patch**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new Patch object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters**
> > >
> > > - **available_actions** (*list[str]*) – The value to assign to the available_actions property of this Patch. Allowed values for items in this list are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > >
> > > - **description** (*str*) – The value to assign to the description property of this Patch.
> > >
> > > - **id** (*str*) – The value to assign to the id property of this Patch.
> > >
> > > - **last_action** (*str*) – The value to assign to the last_action property of this Patch. Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > >
> > > - **lifecycle_details** (*str*) – The value to assign to the lifecycle_details property of this Patch.
> > >
> > > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Patch. Allowed values for this property are: "AVAILABLE", "SUCCESS", "IN_PROGRESS", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > >
> > > - **time_released** (*datetime*) – The value to assign to the time_released property of this Patch.
> > >
> > > - **version** (*str*) – The value to assign to the version property of this Patch.

> **available_actions**
> > Gets the available_actions of this Patch. Actions that can possibly be performed using this patch.
> >
> > Allowed values for items in this list are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > > **Returns** The available_actions of this Patch.
> > >
> > > **Return type** list[str]

> **description**
> > **[Required]** Gets the description of this Patch. The text describing this patch package.
> >
> > > **Returns** The description of this Patch.
> > >
> > > **Return type** str

> **id**
> > **[Required]** Gets the id of this Patch. The OCID of the patch.
> >
> > > **Returns** The id of this Patch.
> > >
> > > **Return type** str

> **last_action**
> > Gets the last_action of this Patch. Action that is currently being performed or was completed last.
> >
> > Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The last_action of this Patch.

> > **Return type** str

> **lifecycle_details**
> > Gets the lifecycle_details of this Patch. A descriptive text associated with the lifecycleState. Typically can contain additional displayable text.

> > **Returns** The lifecycle_details of this Patch.

> > **Return type** str

> **lifecycle_state**
> > Gets the lifecycle_state of this Patch. The current state of the patch as a result of lastAction.

> > Allowed values for this property are: "AVAILABLE", "SUCCESS", "IN_PROGRESS", "FAILED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> > **Returns** The lifecycle_state of this Patch.

> > **Return type** str

> **time_released**
> > **[Required]** Gets the time_released of this Patch. The date and time that the patch was released.

> > **Returns** The time_released of this Patch.

> > **Return type** datetime

> **version**
> > **[Required]** Gets the version of this Patch. The version of this patch package.

> > **Returns** The version of this Patch.

> > **Return type** str

class oci.database.models.**PatchDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new PatchDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**
> > - **action** (*str*) – The value to assign to the action property of this PatchDetails. Allowed values for this property are: "APPLY", "PRECHECK"
> > - **patch_id** (*str*) – The value to assign to the patch_id property of this PatchDetails.

> **action**
> > Gets the action of this PatchDetails. The action to perform on the patch.

> > Allowed values for this property are: "APPLY", "PRECHECK"

> > **Returns** The action of this PatchDetails.

> > **Return type** str

> **patch_id**
> > Gets the patch_id of this PatchDetails. The OCID of the patch.

> > **Returns** The patch_id of this PatchDetails.

> > **Return type** str

class oci.database.models.**PatchHistoryEntry**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new PatchHistoryEntry object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters**
> > >
> > > * **action** (*str*) – The value to assign to the action property of this PatchHistoryEntry. Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > >
> > > * **id** (*str*) – The value to assign to the id property of this PatchHistoryEntry.
> > >
> > > * **lifecycle_details** (*str*) – The value to assign to the lifecycle_details property of this PatchHistoryEntry.
> > >
> > > * **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this PatchHistoryEntry. Allowed values for this property are: "IN_PROGRESS", "SUCCEEDED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > >
> > > * **patch_id** (*str*) – The value to assign to the patch_id property of this PatchHistoryEntry.
> > >
> > > * **time_ended** (*datetime*) – The value to assign to the time_ended property of this PatchHistoryEntry.
> > >
> > > * **time_started** (*datetime*) – The value to assign to the time_started property of this PatchHistoryEntry.

> **action**
>
> > Gets the action of this PatchHistoryEntry. The action being performed or was completed.
> >
> > Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > > **Returns** The action of this PatchHistoryEntry.
> > >
> > > **Return type** str

> **id**
>
> > [Required] Gets the id of this PatchHistoryEntry. The OCID of the patch history entry.
> >
> > > **Returns** The id of this PatchHistoryEntry.
> > >
> > > **Return type** str

> **lifecycle_details**
>
> > Gets the lifecycle_details of this PatchHistoryEntry. A descriptive text associated with the lifecycleState. Typically contains additional displayable text.
> >
> > > **Returns** The lifecycle_details of this PatchHistoryEntry.
> > >
> > > **Return type** str

> **lifecycle_state**
>
> > [Required] Gets the lifecycle_state of this PatchHistoryEntry. The current state of the action.
> >
> > Allowed values for this property are: "IN_PROGRESS", "SUCCEEDED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this PatchHistoryEntry.

> **Return type** str

patch_id
> [**Required**] Gets the patch_id of this PatchHistoryEntry. The OCID of the patch.

> > **Returns** The patch_id of this PatchHistoryEntry.

> > **Return type** str

time_ended
> Gets the time_ended of this PatchHistoryEntry. The date and time when the patch action completed.

> > **Returns** The time_ended of this PatchHistoryEntry.

> > **Return type** datetime

time_started
> [**Required**] Gets the time_started of this PatchHistoryEntry. The date and time when the patch action started.

> > **Returns** The time_started of this PatchHistoryEntry.

> > **Return type** datetime

class oci.database.models.**PatchHistoryEntrySummary**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new PatchHistoryEntrySummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **action** (*str*) – The value to assign to the action property of this PatchHistoryEntrySummary. Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > - **id** (*str*) – The value to assign to the id property of this PatchHistoryEntrySummary.

> > - **lifecycle_details** (*str*) – The value to assign to the lifecycle_details property of this PatchHistoryEntrySummary.

> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this PatchHistoryEntrySummary. Allowed values for this property are: "IN_PROGRESS", "SUCCEEDED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > - **patch_id** (*str*) – The value to assign to the patch_id property of this PatchHistoryEntrySummary.

> > - **time_ended** (*datetime*) – The value to assign to the time_ended property of this PatchHistoryEntrySummary.

> > - **time_started** (*datetime*) – The value to assign to the time_started property of this PatchHistoryEntrySummary.

> **action**
> > Gets the action of this PatchHistoryEntrySummary. The action being performed or was completed.

> > Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The action of this PatchHistoryEntrySummary.
>
> **Return type** str

id

> [Required] Gets the id of this PatchHistoryEntrySummary. The OCID of the patch history entry.
>
> > **Returns** The id of this PatchHistoryEntrySummary.
> >
> > **Return type** str

lifecycle_details

> Gets the lifecycle_details of this PatchHistoryEntrySummary. A descriptive text associated with the life-cycleState. Typically contains additional displayable text.
>
> > **Returns** The lifecycle_details of this PatchHistoryEntrySummary.
> >
> > **Return type** str

lifecycle_state

> [Required] Gets the lifecycle_state of this PatchHistoryEntrySummary. The current state of the action.
>
> Allowed values for this property are: "IN_PROGRESS", "SUCCEEDED", "FAILED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this PatchHistoryEntrySummary.
> >
> > **Return type** str

patch_id

> [Required] Gets the patch_id of this PatchHistoryEntrySummary. The OCID of the patch.
>
> > **Returns** The patch_id of this PatchHistoryEntrySummary.
> >
> > **Return type** str

time_ended

> Gets the time_ended of this PatchHistoryEntrySummary. The date and time when the patch action completed.
>
> > **Returns** The time_ended of this PatchHistoryEntrySummary.
> >
> > **Return type** datetime

time_started

> [Required] Gets the time_started of this PatchHistoryEntrySummary. The date and time when the patch action started.
>
> > **Returns** The time_started of this PatchHistoryEntrySummary.
> >
> > **Return type** datetime

class oci.database.models.**PatchSummary**(***kwargs*)

__init__(***kwargs*)

> Initializes a new PatchSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **available_actions** (*list[str]*) – The value to assign to the available_actions property of this PatchSummary. Allowed values for items in this list are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **description** (`str`) – The value to assign to the description property of this PatchSummary.
- **id** (`str`) – The value to assign to the id property of this PatchSummary.
- **last_action** (`str`) – The value to assign to the last_action property of this PatchSummary. Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
- **lifecycle_details** (`str`) – The value to assign to the lifecycle_details property of this PatchSummary.
- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this PatchSummary. Allowed values for this property are: "AVAILABLE", "SUCCESS", "IN_PROGRESS", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
- **time_released** (`datetime`) – The value to assign to the time_released property of this PatchSummary.
- **version** (`str`) – The value to assign to the version property of this PatchSummary.

available_actions

Gets the available_actions of this PatchSummary. Actions that can possibly be performed using this patch.

Allowed values for items in this list are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The available_actions of this PatchSummary.

> **Return type** list[str]

description

[**Required**] Gets the description of this PatchSummary. The text describing this patch package.

> **Returns** The description of this PatchSummary.

> **Return type** str

id

[**Required**] Gets the id of this PatchSummary. The OCID of the patch.

> **Returns** The id of this PatchSummary.

> **Return type** str

last_action

Gets the last_action of this PatchSummary. Action that is currently being performed or was completed last.

Allowed values for this property are: "APPLY", "PRECHECK", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The last_action of this PatchSummary.

> **Return type** str

lifecycle_details

Gets the lifecycle_details of this PatchSummary. A descriptive text associated with the lifecycleState. Typically can contain additional displayable text.

> **Returns** The lifecycle_details of this PatchSummary.

> **Return type** str

lifecycle_state
>   Gets the lifecycle_state of this PatchSummary. The current state of the patch as a result of lastAction.
>
>   Allowed values for this property are: "AVAILABLE", "SUCCESS", "IN_PROGRESS", "FAILED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>
>> **Returns** The lifecycle_state of this PatchSummary.
>>
>> **Return type** str

time_released
>   [Required] Gets the time_released of this PatchSummary. The date and time that the patch was released.
>
>> **Returns** The time_released of this PatchSummary.
>>
>> **Return type** datetime

version
>   [Required] Gets the version of this PatchSummary. The version of this patch package.
>
>> **Returns** The version of this PatchSummary.
>>
>> **Return type** str

class oci.database.models.**ReinstateDataGuardAssociationDetails**(***kwargs*)

>   **__init__**(***kwargs*)
>   Initializes a new ReinstateDataGuardAssociationDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>> **Parameters database_admin_password** (*str*) – The value to assign to the database_admin_password property of this ReinstateDataGuardAssociationDetails.

database_admin_password
>   [Required] Gets the database_admin_password of this ReinstateDataGuardAssociationDetails. The DB System administrator password.
>
>> **Returns** The database_admin_password of this ReinstateDataGuardAssociationDetails.
>>
>> **Return type** str

class oci.database.models.**RestoreDatabaseDetails**(***kwargs*)

>   **__init__**(***kwargs*)
>   Initializes a new RestoreDatabaseDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>> **Parameters**
>>
>> - **database_scn** (*str*) – The value to assign to the database_scn property of this RestoreDatabaseDetails.
>>
>> - **latest** (*bool*) – The value to assign to the latest property of this RestoreDatabaseDetails.
>>
>> - **timestamp** (*datetime*) – The value to assign to the timestamp property of this RestoreDatabaseDetails.

database_scn
>   Gets the database_scn of this RestoreDatabaseDetails. Restores using the backup with the System Change Number (SCN) specified.

> **Returns** The database_scn of this RestoreDatabaseDetails.
>
> **Return type** str

latest

> Gets the latest of this RestoreDatabaseDetails. Restores to the last known good state with the least possible data loss.
>
> > **Returns** The latest of this RestoreDatabaseDetails.
> >
> > **Return type** bool

timestamp

> Gets the timestamp of this RestoreDatabaseDetails. Restores to the timestamp specified.
>
> > **Returns** The timestamp of this RestoreDatabaseDetails.
> >
> > **Return type** datetime

class oci.database.models.**SwitchoverDataGuardAssociationDetails**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new SwitchoverDataGuardAssociationDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters database_admin_password** (*str*) – The value to assign to the database_admin_password property of this SwitchoverDataGuardAssociationDetails.
>
> **database_admin_password**
>
> > **[Required]** Gets the database_admin_password of this SwitchoverDataGuardAssociationDetails. The DB System administrator password.
> >
> > > **Returns** The database_admin_password of this SwitchoverDataGuardAssociationDetails.
> > >
> > > **Return type** str

class oci.database.models.**UpdateDatabaseDetails**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new UpdateDatabaseDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters db_backup_config** ([*DbBackupConfig*](#)) – The value to assign to the db_backup_config property of this UpdateDatabaseDetails.
>
> **db_backup_config**
>
> > Gets the db_backup_config of this UpdateDatabaseDetails.
> >
> > > **Returns** The db_backup_config of this UpdateDatabaseDetails.
> > >
> > > **Return type** *[DbBackupConfig](#)*

class oci.database.models.**UpdateDbHomeDetails**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new UpdateDbHomeDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > > **Parameters db_version** ([*PatchDetails*](#)) – The value to assign to the db_version property of this UpdateDbHomeDetails.

> **db_version**
>> Gets the db_version of this UpdateDbHomeDetails.
>>
>>> **Returns** The db_version of this UpdateDbHomeDetails.
>>>
>>> **Return type** *PatchDetails*

class oci.database.models.**UpdateDbSystemDetails**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new UpdateDbSystemDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> **Parameters**
>>>
>>> - **cpu_core_count** (*int*) – The value to assign to the cpu_core_count property of this UpdateDbSystemDetails.
>>>
>>> - **data_storage_size_in_gbs** (*int*) – The value to assign to the data_storage_size_in_gbs property of this UpdateDbSystemDetails.
>>>
>>> - **ssh_public_keys** (*list[str]*) – The value to assign to the ssh_public_keys property of this UpdateDbSystemDetails.
>>>
>>> - **version** (*PatchDetails*) – The value to assign to the version property of this UpdateDbSystemDetails.

> **cpu_core_count**
>> Gets the cpu_core_count of this UpdateDbSystemDetails. The number of CPU Cores to be set on the DB System. Applicable only for non-VM based DB systems.
>>
>>> **Returns** The cpu_core_count of this UpdateDbSystemDetails.
>>>
>>> **Return type** int

> **data_storage_size_in_gbs**
>> Gets the data_storage_size_in_gbs of this UpdateDbSystemDetails. Size, in GBs, to which the currently attached storage needs to be scaled up to for VM based DB system. This must be greater than current storage size. Note that the total storage size attached will be more than what is requested, to account for REDO/RECO space and software volume.
>>
>>> **Returns** The data_storage_size_in_gbs of this UpdateDbSystemDetails.
>>>
>>> **Return type** int

> **ssh_public_keys**
>> Gets the ssh_public_keys of this UpdateDbSystemDetails. The public key portion of the key pair to use for SSH access to the DB System. Multiple public keys can be provided. The length of the combined keys cannot exceed 10,000 characters.
>>
>>> **Returns** The ssh_public_keys of this UpdateDbSystemDetails.
>>>
>>> **Return type** list[str]

> **version**
>> Gets the version of this UpdateDbSystemDetails.
>>
>>> **Returns** The version of this UpdateDbSystemDetails.
>>>
>>> **Return type** *PatchDetails*

12.4 DNS

12.4.1 Client

class oci.dns.dns_client.**DnsClient**(*config*, ***kwargs*)

> **create_zone**(*create_zone_details*, ***kwargs*)
>> Creates a new zone in the specified compartment. The *compartmentId* query parameter is required if the *Content-Type* header for the request is *text/dns*.
>>
>> **Parameters**
>>
>> - **create_zone_details** ([CreateZoneDetails](#)) – (required) Details for creating a new zone.
>>
>> - **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.
>>
>> **Returns** A [Response](#) object with data of type [Zone](#)
>>
>> **Return type** [Response](#)
>
> **delete_domain_records**(*zone_name_or_id*, *domain*, ***kwargs*)
>> Deletes all records at the specified zone and domain.
>>
>> **Parameters**
>>
>> - **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.
>>
>> - **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.
>>
>> - **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.
>>
>> - **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.
>>
>> - **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.
>>
>> **Returns** A [Response](#) object with data of type None
>>
>> **Return type** [Response](#)
>
> **delete_rr_set**(*zone_name_or_id*, *domain*, *rtype*, ***kwargs*)
>> Deletes all records in the specified RRSet.
>>
>> **Parameters**
>>
>> - **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.
>>
>> - **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.
>>
>> - **rtype** (*str*) – (required) The type of the target RRSet within the target zone.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

> **Returns** A *Response* object with data of type None

> **Return type** *Response*

delete_zone(*zone_name_or_id*, ***kwargs*)

> Deletes the specified zone. A *204* response indicates that zone has been successfully deleted.

> **Parameters**

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

> **Returns** A *Response* object with data of type None

> **Return type** *Response*

get_domain_records(*zone_name_or_id*, *domain*, ***kwargs*)

> Gets a list of all records at the specified zone and domain. The results are sorted by *rtype* in alphabetical order by default. You can optionally filter and/or sort the results using the listed parameters.

> **Parameters**

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.

- **if_none_match** (*str*) – (optional) The *If-None-Match* header field makes the request method conditional on the absence of any current representation of the target resource, when the field-value is *, or having a selected representation with an entity-tag that does not match any of those listed in the field-value.

- **if_modified_since** (*str*) – (optional) The *If-Modified-Since* header field makes a GET or HEAD request method conditional on the selected representation's modification date being more recent than the date provided in the field-value. Transfer of the selected representation's data is avoided if that data has not changed.

- **limit** (*int*) – (optional) The maximum number of items to return in a page of the collection.

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **zone_version** (*str*) – (optional) The version of the zone for which data is requested.

- **rtype** (*str*) – (optional) Search by record type. Will match any record whose type (case-insensitive) equals the provided value.

- **sort_by** (*str*) – (optional) The field by which to sort records.

  Allowed values are: "rtype", "ttl"

- **sort_order** (*str*) – (optional) The order to sort the resources.

  Allowed values are: "ASC", "DESC"

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

Returns A *Response* object with data of type *RecordCollection*

Return type *Response*

get_rr_set(*zone_name_or_id*, *domain*, *rtype*, ***kwargs*)
  Gets a list of all records in the specified RRSet. The results are sorted by *recordHash* by default.

Parameters

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.

- **rtype** (*str*) – (required) The type of the target RRSet within the target zone.

- **if_none_match** (*str*) – (optional) The *If-None-Match* header field makes the request method conditional on the absence of any current representation of the target resource, when the field-value is *, or having a selected representation with an entity-tag that does not match any of those listed in the field-value.

- **if_modified_since** (*str*) – (optional) The *If-Modified-Since* header field makes a GET or HEAD request method conditional on the selected representation's modification date being more recent than the date provided in the field-value. Transfer of the selected representation's data is avoided if that data has not changed.

- **limit** (*int*) – (optional) The maximum number of items to return in a page of the collection.

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **zone_version** (*str*) – (optional) The version of the zone for which data is requested.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

Returns A *Response* object with data of type *RRSet*

Return type *Response*

get_zone(*zone_name_or_id*, ***kwargs*)
  Gets information about the specified zone, including its creation date, zone type, and serial.

> **Parameters**
>
> - **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.
>
> - **if_none_match** (*str*) – (optional) The *If-None-Match* header field makes the request method conditional on the absence of any current representation of the target resource, when the field-value is *, or having a selected representation with an entity-tag that does not match any of those listed in the field-value.
>
> - **if_modified_since** (*str*) – (optional) The *If-Modified-Since* header field makes a GET or HEAD request method conditional on the selected representation's modification date being more recent than the date provided in the field-value. Transfer of the selected representation's data is avoided if that data has not changed.
>
> - **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.
>
> **Returns** A *Response* object with data of type *Zone*
>
> **Return type** *Response*

get_zone_records(*zone_name_or_id*, ***kwargs*)

> Gets all records in the specified zone. The results are sorted by *domain* in alphabetical order by default. For more information about records, please see Resource Record (RR) TYPEs.
>
> **Parameters**
>
> - **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.
>
> - **if_none_match** (*str*) – (optional) The *If-None-Match* header field makes the request method conditional on the absence of any current representation of the target resource, when the field-value is *, or having a selected representation with an entity-tag that does not match any of those listed in the field-value.
>
> - **if_modified_since** (*str*) – (optional) The *If-Modified-Since* header field makes a GET or HEAD request method conditional on the selected representation's modification date being more recent than the date provided in the field-value. Transfer of the selected representation's data is avoided if that data has not changed.
>
> - **limit** (*int*) – (optional) The maximum number of items to return in a page of the collection.
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> - **zone_version** (*str*) – (optional) The version of the zone for which data is requested.
>
> - **domain** (*str*) – (optional) Search by domain. Will match any record whose domain (case-insensitive) equals the provided value.
>
> - **domain_contains** (*str*) – (optional) Search by domain. Will match any record whose domain (case-insensitive) contains the provided value.
>
> - **rtype** (*str*) – (optional) Search by record type. Will match any record whose type (case-insensitive) equals the provided value.
>
> - **sort_by** (*str*) – (optional) The field by which to sort records.
>
>   Allowed values are: "domain", "rtype", "ttl"
>
> - **sort_order** (*str*) – (optional) The order to sort the resources.
>
>   Allowed values are: "ASC", "DESC"

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

> **Returns** A *Response* object with data of type *RecordCollection*

> **Return type** *Response*

list_zones (*compartment_id*, ***kwargs*)
    Gets a list of all zones in the specified compartment. The collection can be filtered by name, time created, and zone type.

> **Parameters**

- **compartment_id** (*str*) – (required) The OCID of the compartment the resource belongs to.

- **limit** (*int*) – (optional) The maximum number of items to return in a page of the collection.

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **name** (*str*) – (optional) A case-sensitive filter for zone names. Will match any zone with a name that equals the provided value.

- **name_contains** (*str*) – (optional) Search by zone name. Will match any zone whose name (case-insensitive) contains the provided value.

- **zone_type** (*str*) – (optional) Search by zone type, *PRIMARY* or *SECONDARY*. Will match any zone whose type equals the provided value.

  Allowed values are: "PRIMARY", "SECONDARY"

- **time_created_greater_than_or_equal_to** (*datetime*) – (optional) An [RFC 3339](#) timestamp that states all returned resources were created on or after the indicated time.

- **time_created_less_than** (*datetime*) – (optional) An [RFC 3339](#) timestamp that states all returned resources were created before the indicated time.

- **sort_by** (*str*) – (optional) The field by which to sort zones.

  Allowed values are: "name", "zoneType", "timeCreated"

- **sort_order** (*str*) – (optional) The order to sort the resources.

  Allowed values are: "ASC", "DESC"

- **lifecycle_state** (*str*) – (optional) The state of a resource.

  Allowed values are: "ACTIVE", "CREATING", "DELETED", "DELETING", "FAILED"

> **Returns** A *Response* object with data of type list of *ZoneSummary*

> **Return type** *Response*

patch_domain_records (*zone_name_or_id*, *domain*, *patch_domain_records_details*, ***kwargs*)
    Replaces records in the specified zone at a domain. You can update one record or all records for the specified zone depending on the changes provided in the request body. You can also add or remove records using this function.

> **Parameters**

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.

- **patch_domain_records_details** (`PatchDomainRecordsDetails`) – (required) Operations describing how to modify the collection of records.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

> **Returns** A `Response` object with data of type `RecordCollection`

> **Return type** `Response`

patch_rr_set(*zone_name_or_id*, *domain*, *rtype*, *patch_rr_set_details*, ***kwargs*)
Updates records in the specified RRSet.

> **Parameters**

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.

- **rtype** (*str*) – (required) The type of the target RRSet within the target zone.

- **patch_rr_set_details** (`PatchRRSetDetails`) – (required) Operations describing how to modify the collection of records.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

> **Returns** A `Response` object with data of type `RecordCollection`

> **Return type** `Response`

patch_zone_records(*zone_name_or_id*, *patch_zone_records_details*, ***kwargs*)
Updates a collection of records in the specified zone. You can update one record or all records for the specified zone depending on the changes provided in the request body. You can also add or remove records using this function.

> **Parameters**

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **patch_zone_records_details** (*PatchZoneRecordsDetails*) – (required) The operations describing how to modify the collection of records.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

> **Returns** A *Response* object with data of type *RecordCollection*

> **Return type** *Response*

update_domain_records(*zone_name_or_id*, *domain*, *update_domain_records_details*, ***kwargs*)
    Replaces records in the specified zone at a domain with the records specified in the request body. If a specified record does not exist, it will be created. If the record exists, then it will be updated to represent the record in the body of the request. If a record in the zone does not exist in the request body, the record will be removed from the zone.

> **Parameters**

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.

- **update_domain_records_details** (*UpdateDomainRecordsDetails*) – (required) A full list of records for the domain.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

> **Returns** A *Response* object with data of type *RecordCollection*

> **Return type** *Response*

update_rr_set(*zone_name_or_id*, *domain*, *rtype*, *update_rr_set_details*, ***kwargs*)
    Replaces records in the specified RRSet.

> **Parameters**

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **domain** (*str*) – (required) The target fully-qualified domain name (FQDN) within the target zone.

- **rtype** (*str*) – (required) The type of the target RRSet within the target zone.

- **update_rr_set_details** (*UpdateRRSetDetails*) – (required) A full list of records for the RRSet.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

Returns A *Response* object with data of type *RecordCollection*

Return type *Response*

update_zone(*zone_name_or_id*, *update_zone_details*, ***kwargs*)
    Updates the specified secondary zone with your new external master server information. For more information about secondary zone, see Manage DNS Service Zone.

Parameters

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **update_zone_details** (*UpdateZoneDetails*) – (required) New data for the zone.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

Returns A *Response* object with data of type *Zone*

Return type *Response*

update_zone_records(*zone_name_or_id*, *update_zone_records_details*, ***kwargs*)
    Replaces records in the specified zone with the records specified in the request body. If a specified record does not exist, it will be created. If the record exists, then it will be updated to represent the record in the body of the request. If a record in the zone does not exist in the request body, the record will be removed from the zone.

Parameters

- **zone_name_or_id** (*str*) – (required) The name or OCID of the target zone.

- **update_zone_records_details** ([*UpdateZoneRecordsDetails*](#)) – (required) A full list of records for the zone.

- **if_match** (*str*) – (optional) The *If-Match* header field makes the request method conditional on the existence of at least one current representation of the target resource, when the field-value is *, or having a current representation of the target resource that has an entity-tag matching a member of the list of entity-tags provided in the field-value.

- **if_unmodified_since** (*str*) – (optional) The *If-Unmodified-Since* header field makes the request method conditional on the selected representation's last modification date being earlier than or equal to the date provided in the field-value. This field accomplishes the same purpose as If-Match for cases where the user agent does not have an entity-tag for the representation.

- **compartment_id** (*str*) – (optional) The OCID of the compartment the resource belongs to.

Returns A [*Response*](#) object with data of type [*RecordCollection*](#)

Return type [*Response*](#)

12.4.2 Models

class oci.dns.models.**CreateZoneDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new CreateZoneDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **name** (*str*) – The value to assign to the name property of this CreateZoneDetails.

- **zone_type** (*str*) – The value to assign to the zone_type property of this CreateZoneDetails. Allowed values for this property are: "PRIMARY", "SECONDARY"

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateZoneDetails.

- **external_masters** (*list[ExternalMaster]*) – The value to assign to the external_masters property of this CreateZoneDetails.

compartment_id
[Required] Gets the compartment_id of this CreateZoneDetails. The OCID of the compartment containing the zone.

Returns The compartment_id of this CreateZoneDetails.

Return type str

external_masters
Gets the external_masters of this CreateZoneDetails. External master servers for the zone.

Returns The external_masters of this CreateZoneDetails.

Return type list[*ExternalMaster*]

name
[Required] Gets the name of this CreateZoneDetails. The name of the zone.

> **Returns** The name of this CreateZoneDetails.

> **Return type** str

zone_type
> [Required] Gets the zone_type of this CreateZoneDetails. The type of the zone. Must be either *PRIMARY* or *SECONDARY*.

> Allowed values for this property are: "PRIMARY", "SECONDARY"

> > **Returns** The zone_type of this CreateZoneDetails.

> > **Return type** str

class oci.dns.models.**ExternalMaster**(***kwargs*)

__init__(***kwargs*)
> Initializes a new ExternalMaster object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > • **address** (*str*) – The value to assign to the address property of this ExternalMaster.

> > • **port** (*int*) – The value to assign to the port property of this ExternalMaster.

> > • **tsig** (*TSIG*) – The value to assign to the tsig property of this ExternalMaster.

address
> [Required] Gets the address of this ExternalMaster. The server's IP address (IPv4 or IPv6).

> > **Returns** The address of this ExternalMaster.

> > **Return type** str

port
> Gets the port of this ExternalMaster. The server's port.

> > **Returns** The port of this ExternalMaster.

> > **Return type** int

tsig
> Gets the tsig of this ExternalMaster.

> > **Returns** The tsig of this ExternalMaster.

> > **Return type** *TSIG*

class oci.dns.models.**PatchDomainRecordsDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new PatchDomainRecordsDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters** **items** (*list[RecordOperation]*) – The value to assign to the items property of this PatchDomainRecordsDetails.

items
> Gets the items of this PatchDomainRecordsDetails.

> > **Returns** The items of this PatchDomainRecordsDetails.

> > **Return type** list[*RecordOperation*]

class oci.dns.models.**PatchRRSetDetails**(***kwargs*)

> __init__(***kwargs*)
>> Initializes a new PatchRRSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> Parameters **items** (*list[*RecordOperation*]*) – The value to assign to the items property of this PatchRRSetDetails.
>
> **items**
>> Gets the items of this PatchRRSetDetails.
>>
>>> **Returns** The items of this PatchRRSetDetails.
>>>
>>> **Return type** list[*RecordOperation*]

class oci.dns.models.**PatchZoneRecordsDetails**(***kwargs*)

> __init__(***kwargs*)
>> Initializes a new PatchZoneRecordsDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> Parameters **items** (*list[*RecordOperation*]*) – The value to assign to the items property of this PatchZoneRecordsDetails.
>
> **items**
>> Gets the items of this PatchZoneRecordsDetails.
>>
>>> **Returns** The items of this PatchZoneRecordsDetails.
>>>
>>> **Return type** list[*RecordOperation*]

class oci.dns.models.**RRSet**(***kwargs*)

> __init__(***kwargs*)
>> Initializes a new RRSet object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> Parameters **items** (*list[*Record*]*) – The value to assign to the items property of this RRSet.
>
> **items**
>> Gets the items of this RRSet.
>>
>>> **Returns** The items of this RRSet.
>>>
>>> **Return type** list[*Record*]

class oci.dns.models.**Record**(***kwargs*)

> __init__(***kwargs*)
>> Initializes a new Record object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> **Parameters**
>>>
>>> - **domain** (*str*) – The value to assign to the domain property of this Record.
>>>
>>> - **record_hash** (*str*) – The value to assign to the record_hash property of this Record.

- **is_protected** (*bool*) – The value to assign to the is_protected property of this Record.

- **rdata** (*str*) – The value to assign to the rdata property of this Record.

- **rrset_version** (*str*) – The value to assign to the rrset_version property of this Record.

- **rtype** (*str*) – The value to assign to the rtype property of this Record.

- **ttl** (*int*) – The value to assign to the ttl property of this Record.

domain

Gets the domain of this Record. The fully qualified domain name where the record can be located.

> **Returns** The domain of this Record.

> **Return type** str

is_protected

Gets the is_protected of this Record. A Boolean flag indicating whether or not parts of the record are unable to be explicitly managed.

> **Returns** The is_protected of this Record.

> **Return type** bool

rdata

Gets the rdata of this Record. The record's data, as whitespace-delimited tokens in type-specific presentation format.

> **Returns** The rdata of this Record.

> **Return type** str

record_hash

Gets the record_hash of this Record. A unique identifier for the record within its zone.

> **Returns** The record_hash of this Record.

> **Return type** str

rrset_version

Gets the rrset_version of this Record. The latest version of the record's zone in which its RRSet differs from the preceding version.

> **Returns** The rrset_version of this Record.

> **Return type** str

rtype

Gets the rtype of this Record. The canonical name for the record's type, such as A or CNAME. For more information, see Resource Record (RR) TYPEs.

> **Returns** The rtype of this Record.

> **Return type** str

ttl

Gets the ttl of this Record. The Time To Live for the record, in seconds.

> **Returns** The ttl of this Record.

> **Return type** int

class oci.dns.models.**RecordCollection**(***kwargs*)

__init__(***kwargs*)

Initializes a new RecordCollection object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters items** (*list[*Record*]*) – The value to assign to the items property of this RecordCollection.

items

Gets the items of this RecordCollection.

> **Returns** The items of this RecordCollection.
>
> **Return type** list[*Record*]

class oci.dns.models.**RecordDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new RecordDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **domain** (*str*) – The value to assign to the domain property of this RecordDetails.
> - **record_hash** (*str*) – The value to assign to the record_hash property of this RecordDetails.
> - **is_protected** (*bool*) – The value to assign to the is_protected property of this RecordDetails.
> - **rdata** (*str*) – The value to assign to the rdata property of this RecordDetails.
> - **rrset_version** (*str*) – The value to assign to the rrset_version property of this RecordDetails.
> - **rtype** (*str*) – The value to assign to the rtype property of this RecordDetails.
> - **ttl** (*int*) – The value to assign to the ttl property of this RecordDetails.

domain

[**Required**] Gets the domain of this RecordDetails. The fully qualified domain name where the record can be located.

> **Returns** The domain of this RecordDetails.
>
> **Return type** str

is_protected

Gets the is_protected of this RecordDetails. A Boolean flag indicating whether or not parts of the record are unable to be explicitly managed.

> **Returns** The is_protected of this RecordDetails.
>
> **Return type** bool

rdata

[**Required**] Gets the rdata of this RecordDetails. The record's data, as whitespace-delimited tokens in type-specific presentation format.

> **Returns** The rdata of this RecordDetails.
>
> **Return type** str

record_hash

Gets the record_hash of this RecordDetails. A unique identifier for the record within its zone.

> **Returns** The record_hash of this RecordDetails.

> **Return type** str

rrset_version

Gets the rrset_version of this RecordDetails. The latest version of the record's zone in which its RRSet differs from the preceding version.

> **Returns** The rrset_version of this RecordDetails.

> **Return type** str

rtype

[**Required**] Gets the rtype of this RecordDetails. The canonical name for the record's type, such as A or CNAME. For more information, see Resource Record (RR) TYPEs.

> **Returns** The rtype of this RecordDetails.

> **Return type** str

ttl

[**Required**] Gets the ttl of this RecordDetails. The Time To Live for the record, in seconds.

> **Returns** The ttl of this RecordDetails.

> **Return type** int

class oci.dns.models.**RecordOperation**(***kwargs*)

__init__(***kwargs*)

Initializes a new RecordOperation object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **domain** (*str*) – The value to assign to the domain property of this RecordOperation.
> - **record_hash** (*str*) – The value to assign to the record_hash property of this RecordOperation.
> - **is_protected** (*bool*) – The value to assign to the is_protected property of this RecordOperation.
> - **rdata** (*str*) – The value to assign to the rdata property of this RecordOperation.
> - **rrset_version** (*str*) – The value to assign to the rrset_version property of this RecordOperation.
> - **rtype** (*str*) – The value to assign to the rtype property of this RecordOperation.
> - **ttl** (*int*) – The value to assign to the ttl property of this RecordOperation.
> - **operation** (*str*) – The value to assign to the operation property of this RecordOperation. Allowed values for this property are: "REQUIRE", "PROHIBIT", "ADD", "REMOVE"

domain

Gets the domain of this RecordOperation. The fully qualified domain name where the record can be located.

> **Returns** The domain of this RecordOperation.

> **Return type** str

is_protected
> Gets the is_protected of this RecordOperation. A Boolean flag indicating whether or not parts of the record are unable to be explicitly managed.
>
> > **Returns** The is_protected of this RecordOperation.
> >
> > **Return type** bool

operation
> Gets the operation of this RecordOperation. A description of how a record relates to a PATCH operation.
>
> - *REQUIRE* indicates a precondition that record data **must** already exist.
>
> - *PROHIBIT* indicates a precondition that record data **must not** already exist.
>
> - *ADD* indicates that record data **must** exist after successful application.
>
> - *REMOVE* indicates that record data **must not** exist after successful application.
>
> > **Note:** *ADD* and *REMOVE* operations can succeed even if they require no changes when applied, such as when the described records are already present or absent.
> >
> > **Note:** *ADD* and *REMOVE* operations can describe changes for more than one record.
> >
> > **Example:** *{ "domain": "www.example.com", "rtype": "AAAA", "ttl": 60 }* specifies a new TTL for every record in the www.example.com AAAA RRSet.
>
> Allowed values for this property are: "REQUIRE", "PROHIBIT", "ADD", "REMOVE"
>
> > **Returns** The operation of this RecordOperation.
> >
> > **Return type** str

rdata
> Gets the rdata of this RecordOperation. The record's data, as whitespace-delimited tokens in type-specific presentation format.
>
> > **Returns** The rdata of this RecordOperation.
> >
> > **Return type** str

record_hash
> Gets the record_hash of this RecordOperation. A unique identifier for the record within its zone.
>
> > **Returns** The record_hash of this RecordOperation.
> >
> > **Return type** str

rrset_version
> Gets the rrset_version of this RecordOperation. The latest version of the record's zone in which its RRSet differs from the preceding version.
>
> > **Returns** The rrset_version of this RecordOperation.
> >
> > **Return type** str

rtype
> Gets the rtype of this RecordOperation. The canonical name for the record's type, such as A or CNAME. For more information, see Resource Record (RR) TYPEs.
>
> > **Returns** The rtype of this RecordOperation.
> >
> > **Return type** str

ttl
> Gets the ttl of this RecordOperation. The Time To Live for the record, in seconds.

> **Returns** The ttl of this RecordOperation.

> **Return type** int

class oci.dns.models.**TSIG**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new TSIG object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > • **name** (*str*) – The value to assign to the name property of this TSIG.

> > > • **secret** (*str*) – The value to assign to the secret property of this TSIG.

> > > • **algorithm** (*str*) – The value to assign to the algorithm property of this TSIG.

> **algorithm**
> **[Required]** Gets the algorithm of this TSIG. TSIG Algorithms are encoded as domain names, but most consist of only one non-empty label, which is not required to be explicitly absolute. For a full list of TSIG algorithms, see Secret Key Transaction Authentication for DNS (TSIG) Algorithm Names

> > **Returns** The algorithm of this TSIG.

> > **Return type** str

> **name**
> **[Required]** Gets the name of this TSIG. A domain name identifying the key for a given pair of hosts.

> > **Returns** The name of this TSIG.

> > **Return type** str

> **secret**
> **[Required]** Gets the secret of this TSIG. A base64 string encoding the binary shared secret.

> > **Returns** The secret of this TSIG.

> > **Return type** str

class oci.dns.models.**UpdateDomainRecordsDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new UpdateDomainRecordsDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters items** (*list[RecordDetails]*) – The value to assign to the items property of this UpdateDomainRecordsDetails.

> **items**
> Gets the items of this UpdateDomainRecordsDetails.

> > **Returns** The items of this UpdateDomainRecordsDetails.

> > **Return type** list[*RecordDetails*]

class oci.dns.models.**UpdateRRSetDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new UpdateRRSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters items** (*list[*`RecordDetails`*]*) – The value to assign to the items property
> > of this UpdateRRSetDetails.

> **items**
> > Gets the items of this UpdateRRSetDetails.

> > **Returns** The items of this UpdateRRSetDetails.

> > **Return type** list[*RecordDetails*]

class oci.dns.models.**UpdateZoneDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateZoneDetails object with values from keyword arguments. The following keyword
> > arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters external_masters** (*list[*`ExternalMaster`*]*) – The value to assign to
> > the external_masters property of this UpdateZoneDetails.

> **external_masters**
> > Gets the external_masters of this UpdateZoneDetails. External master servers for the zone.

> > **Returns** The external_masters of this UpdateZoneDetails.

> > **Return type** list[*ExternalMaster*]

class oci.dns.models.**UpdateZoneRecordsDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateZoneRecordsDetails object with values from keyword arguments. The following
> > keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters items** (*list[*`RecordDetails`*]*) – The value to assign to the items property
> > of this UpdateZoneRecordsDetails.

> **items**
> > Gets the items of this UpdateZoneRecordsDetails.

> > **Returns** The items of this UpdateZoneRecordsDetails.

> > **Return type** list[*RecordDetails*]

class oci.dns.models.**Zone**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new Zone object with values from keyword arguments. The following keyword arguments are
> > supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **name** (*str*) – The value to assign to the name property of this Zone.

> > - **zone_type** (*str*) – The value to assign to the zone_type property of this
> >   Zone. Allowed values for this property are: "PRIMARY", "SECONDARY", 'UN-
> >   KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
> >   mapped to 'UNKNOWN_ENUM_VALUE'.

> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this
> >   Zone.

> > - **external_masters** (*list[*`ExternalMaster`*]*) – The value to assign to the ex-
> >   ternal_masters property of this Zone.

- **self_uri** (`str`) – The value to assign to the self_uri property of this Zone.

- **id** (`str`) – The value to assign to the id property of this Zone.

- **time_created** (`datetime`) – The value to assign to the time_created property of this Zone.

- **version** (`str`) – The value to assign to the version property of this Zone.

- **serial** (`int`) – The value to assign to the serial property of this Zone.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this Zone. Allowed values for this property are: "ACTIVE", "CREATING", "DELETED", "DELETING", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

compartment_id

Gets the compartment_id of this Zone. The OCID of the compartment containing the zone.

> **Returns** The compartment_id of this Zone.

> **Return type** str

external_masters

Gets the external_masters of this Zone. External master servers for the zone.

> **Returns** The external_masters of this Zone.

> **Return type** list[*ExternalMaster*]

id

Gets the id of this Zone. The OCID of the zone.

> **Returns** The id of this Zone.

> **Return type** str

lifecycle_state

Gets the lifecycle_state of this Zone. The current state of the zone resource.

Allowed values for this property are: "ACTIVE", "CREATING", "DELETED", "DELETING", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this Zone.

> **Return type** str

name

Gets the name of this Zone. The name of the zone.

> **Returns** The name of this Zone.

> **Return type** str

self_uri

Gets the self_uri of this Zone. The canonical absolute URL of the resource.

> **Returns** The self_uri of this Zone.

> **Return type** str

serial

Gets the serial of this Zone. The current serial of the zone. As seen in the zone's SOA record.

> **Returns** The serial of this Zone.

> > > **Return type** int

time_created
> Gets the time_created of this Zone. The date and time the image was created in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

> **Example:** *2016-07-22T17:23:59:60Z*

> > **Returns** The time_created of this Zone.

> > **Return type** datetime

version
> Gets the version of this Zone. Version is the never-repeating, totally-orderable, version of the zone, from which the serial field of the zone's SOA record is derived.

> > **Returns** The version of this Zone.

> > **Return type** str

zone_type
> Gets the zone_type of this Zone. The type of the zone. Must be either *PRIMARY* or *SECONDARY*.

> Allowed values for this property are: "PRIMARY", "SECONDARY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The zone_type of this Zone.

> > **Return type** str

class oci.dns.models.**ZoneSummary**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new ZoneSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **name** (*str*) – The value to assign to the name property of this ZoneSummary.

> > - **zone_type** (*str*) – The value to assign to the zone_type property of this ZoneSummary. Allowed values for this property are: "PRIMARY", "SECONDARY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this ZoneSummary.

> > - **self_uri** (*str*) – The value to assign to the self_uri property of this ZoneSummary.

> > - **id** (*str*) – The value to assign to the id property of this ZoneSummary.

> > - **time_created** (*datetime*) – The value to assign to the time_created property of this ZoneSummary.

> > - **version** (*str*) – The value to assign to the version property of this ZoneSummary.

> > - **serial** (*int*) – The value to assign to the serial property of this ZoneSummary.

compartment_id
> Gets the compartment_id of this ZoneSummary. The OCID of the compartment containing the zone.

> > **Returns** The compartment_id of this ZoneSummary.

> > **Return type** str

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id
> Gets the id of this ZoneSummary. The OCID of the zone.

> > **Returns** The id of this ZoneSummary.

> > **Return type** str

name
> Gets the name of this ZoneSummary. The name of the zone.

> > **Returns** The name of this ZoneSummary.

> > **Return type** str

self_uri
> Gets the self_uri of this ZoneSummary. The canonical absolute URL of the resource.

> > **Returns** The self_uri of this ZoneSummary.

> > **Return type** str

serial
> Gets the serial of this ZoneSummary. The current serial of the zone. As seen in the zone's SOA record.

> > **Returns** The serial of this ZoneSummary.

> > **Return type** int

time_created
> Gets the time_created of this ZoneSummary. The date and time the image was created in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

> **Example:** *2016-07-22T17:23:59:60Z*

> > **Returns** The time_created of this ZoneSummary.

> > **Return type** datetime

version
> Gets the version of this ZoneSummary. Version is the never-repeating, totally-orderable, version of the zone, from which the serial field of the zone's SOA record is derived.

> > **Returns** The version of this ZoneSummary.

> > **Return type** str

zone_type
> Gets the zone_type of this ZoneSummary. The type of the zone. Must be either *PRIMARY* or *SECONDARY*.

> Allowed values for this property are: "PRIMARY", "SECONDARY", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The zone_type of this ZoneSummary.

> > **Return type** str

12.5 Email

12.5.1 Client

class oci.email.email_client.**EmailClient**(*config*, ***kwargs*)

create_sender(*create_sender_details*, ***kwargs*)

Creates a sender for a tenancy in a given compartment. Creates a sender for a tenancy in a given compartment.

> **Parameters create_sender_details** (`CreateSenderDetails`) – (required) Create a sender.
>
> **Returns** A `Response` object with data of type `Sender`
>
> **Return type** `Response`

create_suppression(*create_suppression_details*, ***kwargs*)

Creates an email suppression for a tenancy. Adds recipient email addresses to the suppression list for a tenancy.

> **Parameters create_suppression_details** (`CreateSuppressionDetails`) – (required) Adds a single email address to the suppression list for a compartment's tenancy.
>
> **Returns** A `Response` object with data of type `Suppression`
>
> **Return type** `Response`

delete_sender(*sender_id*, ***kwargs*)

Deletes a sender for a tenancy in a given compartment. Deletes an approved sender for a tenancy in a given compartment for a provided *senderId*.

> **Parameters sender_id** (`str`) – (required) The unique OCID of the sender.
>
> **Returns** A `Response` object with data of type None
>
> **Return type** `Response`

delete_suppression(*suppression_id*, ***kwargs*)

Deletes a suppressed email address. Removes a suppressed recipient email address from the suppression list for a tenancy in a given compartment for a provided *suppressionId*.

> **Parameters suppression_id** (`str`) – (required) The unique OCID of the suppression.
>
> **Returns** A `Response` object with data of type None
>
> **Return type** `Response`

get_sender(*sender_id*, ***kwargs*)

Gets an approved sender. Gets an approved sender for a given *senderId*.

> **Parameters sender_id** (`str`) – (required) The unique OCID of the sender.
>
> **Returns** A `Response` object with data of type `Sender`
>
> **Return type** `Response`

get_suppression(*suppression_id*, ***kwargs*)

Get a suppressed email address. Gets the details of a suppressed recipient email address for a given *suppressionId*. Each suppression is given a unique OCID.

> **Parameters suppression_id** (`str`) – (required) The unique OCID of the suppression.
>
> **Returns** A `Response` object with data of type `Suppression`
>
> **Return type** `Response`

list_senders(*compartment_id*, ***kwargs*)

Get a list of approved sender summaries. Gets a collection of approved sender email addresses and sender IDs.

> **Parameters**

- **compartment_id** (`str`) – (required) The OCID for the compartment.
- **lifecycle_state** (`str`) – (optional) The current state of a sender.

  Allowed values are: "CREATING", "ACTIVE", "DELETING", "DELETED"

- **email_address** (`str`) – (optional) The email address of the approved sender.
- **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous GET request.
- **limit** (`int`) – (optional) The maximum number of items to return in a paginated GET request.
- **sort_by** (`str`) – (optional) The field to sort by. The *TIMECREATED* value returns the list in in descending order by default. The *EMAILADDRESS* value returns the list in ascending order by default. Use the *SortOrderQueryParam* to change the direction of the returned list of items.

  Allowed values are: "TIMECREATED", "EMAILADDRESS"

- **sort_order** (`str`) – (optional) The sort order to use, either ascending or descending order.

  Allowed values are: "ASC", "DESC"

> **Returns** A [`Response`](#) object with data of type list of [`SenderSummary`](#)
>
> **Return type** [`Response`](#)

list_suppressions (*compartment_id*, ***kwargs*)

Get a summary of suppressed email addresses. Gets a list of suppressed recipient email addresses for a user. The *compartmentId* for suppressions must be a tenancy OCID. The returned list is sorted by creation time in descending order.

Parameters

- **compartment_id** (`str`) – (required) The OCID for the compartment.
- **email_address** (`str`) – (optional) The email address of the suppression.
- **time_created_greater_than_or_equal_to** (`datetime`) – (optional) Search for suppressions that were created within a specific date range, using this parameter to specify the earliest creation date for the returned list (inclusive). Specifying this parameter without the corresponding *timeCreatedLessThan* parameter will retrieve suppressions created from the given *timeCreatedGreaterThanOrEqualTo* to the current time, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

  Example: 2016-12-19T16:39:57.600Z

- **time_created_less_than** (`datetime`) – (optional) Search for suppressions that were created within a specific date range, using this parameter to specify the latest creation date for the returned list (exclusive). Specifying this parameter without the corresponding *timeCreatedGreaterThanOrEqualTo* parameter will retrieve all suppressions created before the specified end date, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

  Example: 2016-12-19T16:39:57.600Z

- **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous GET request.
- **limit** (`int`) – (optional) The maximum number of items to return in a paginated GET request.

- **sort_by** (*str*) – (optional) The field to sort by. The *TIMECREATED* value returns the list in in descending order by default. The *EMAILADDRESS* value returns the list in ascending order by default. Use the *SortOrderQueryParam* to change the direction of the returned list of items.

  Allowed values are: "TIMECREATED", "EMAILADDRESS"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending or descending order.

  Allowed values are: "ASC", "DESC"

Returns A *Response* object with data of type list of *SuppressionSummary*

Return type *Response*

12.5.2 Models

class oci.email.models.**CreateSenderDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new CreateSenderDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateSenderDetails.

- **email_address** (*str*) – The value to assign to the email_address property of this CreateSenderDetails.

compartment_id
Gets the compartment_id of this CreateSenderDetails. The OCID of the compartment that contains the sender.

Returns The compartment_id of this CreateSenderDetails.

Return type str

email_address
Gets the email_address of this CreateSenderDetails. The email address of the sender.

Returns The email_address of this CreateSenderDetails.

Return type str

class oci.email.models.**CreateSuppressionDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new CreateSuppressionDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateSuppressionDetails.

- **email_address** (*str*) – The value to assign to the email_address property of this CreateSuppressionDetails.

compartment_id
> Gets the compartment_id of this CreateSuppressionDetails. The OCID of the compartment to contain the suppression. Since suppressions are at the customer level, this must be the tenancy OCID.

> > **Returns** The compartment_id of this CreateSuppressionDetails.

> > **Return type** str

email_address
> Gets the email_address of this CreateSuppressionDetails. The recipient email address of the suppression.

> > **Returns** The email_address of this CreateSuppressionDetails.

> > **Return type** str

class oci.email.models.**Sender**(***kwargs*)

__init__(***kwargs*)
> Initializes a new Sender object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **email_address** (*str*) – The value to assign to the email_address property of this Sender.

> > - **id** (*str*) – The value to assign to the id property of this Sender.

> > - **is_spf** (*bool*) – The value to assign to the is_spf property of this Sender.

> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Sender. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > - **time_created** (*datetime*) – The value to assign to the time_created property of this Sender.

email_address
> Gets the email_address of this Sender. Email address of the sender.

> > **Returns** The email_address of this Sender.

> > **Return type** str

id
> Gets the id of this Sender. The unique OCID of the sender.

> > **Returns** The id of this Sender.

> > **Return type** str

is_spf
> Gets the is_spf of this Sender. Value of the SPF field. For more information about SPF, please see SPF Authentication.

> > **Returns** The is_spf of this Sender.

> > **Return type** bool

lifecycle_state
> Gets the lifecycle_state of this Sender. The sender's current lifecycle state.

Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this Sender.

> **Return type** str

time_created

Gets the time_created of this Sender. The date and time the approved sender was added in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

> **Returns** The time_created of this Sender.

> **Return type** datetime

class oci.email.models.**SenderSummary**(***kwargs*)

__init__(***kwargs*)

Initializes a new SenderSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **email_address** (*str*) – The value to assign to the email_address property of this SenderSummary.

- **id** (*str*) – The value to assign to the id property of this SenderSummary.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this SenderSummary. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this SenderSummary.

email_address

Gets the email_address of this SenderSummary. The email address of the sender.

> **Returns** The email_address of this SenderSummary.

> **Return type** str

id

Gets the id of this SenderSummary. The unique ID of the sender.

> **Returns** The id of this SenderSummary.

> **Return type** str

lifecycle_state

Gets the lifecycle_state of this SenderSummary. The current status of the approved sender.

Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this SenderSummary.

> **Return type** str

time_created

> Gets the time_created of this SenderSummary. Date time the approved sender was added, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.
>
> > **Returns** The time_created of this SenderSummary.
> >
> > **Return type** datetime

class oci.email.models.**Suppression**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new Suppression object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **email_address** (*str*) – The value to assign to the email_address property of this Suppression.
> >
> > - **id** (*str*) – The value to assign to the id property of this Suppression.
> >
> > - **reason** (*str*) – The value to assign to the reason property of this Suppression. Allowed values for this property are: "UNKNOWN", "HARDBOUNCE", "COMPLAINT", "MANUAL", "SOFTBOUNCE", "UNSUBSCRIBE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this Suppression.
>
> **email_address**
>
> > Gets the email_address of this Suppression. Email address of the suppression.
> >
> > > **Returns** The email_address of this Suppression.
> > >
> > > **Return type** str
>
> **id**
>
> > Gets the id of this Suppression. The unique ID of the suppression.
> >
> > > **Returns** The id of this Suppression.
> > >
> > > **Return type** str
>
> **reason**
>
> > Gets the reason of this Suppression. The reason that the email address was suppressed. For more information on the types of bounces, see Suppresion List.
> >
> > Allowed values for this property are: "UNKNOWN", "HARDBOUNCE", "COMPLAINT", "MANUAL", "SOFTBOUNCE", "UNSUBSCRIBE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > > **Returns** The reason of this Suppression.
> > >
> > > **Return type** str
>
> **time_created**
>
> > Gets the time_created of this Suppression. The date and time the approved sender was added in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.
> >
> > > **Returns** The time_created of this Suppression.
> > >
> > > **Return type** datetime

---

class oci.email.models.**SuppressionSummary**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new SuppressionSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **email_address** (*str*) – The value to assign to the email_address property of this SuppressionSummary.
> >
> > - **id** (*str*) – The value to assign to the id property of this SuppressionSummary.
> >
> > - **reason** (*str*) – The value to assign to the reason property of this SuppressionSummary. Allowed values for this property are: "UNKNOWN", "HARDBOUNCE", "COMPLAINT", "MANUAL", "SOFTBOUNCE", "UNSUBSCRIBE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this SuppressionSummary.

> **email_address**
> Gets the email_address of this SuppressionSummary. The email address of the suppression.
>
> > **Returns** The email_address of this SuppressionSummary.
> >
> > **Return type** str

> **id**
> Gets the id of this SuppressionSummary. The unique OCID of the suppression.
>
> > **Returns** The id of this SuppressionSummary.
> >
> > **Return type** str

> **reason**
> Gets the reason of this SuppressionSummary. The reason that the email address was suppressed.
>
> Allowed values for this property are: "UNKNOWN", "HARDBOUNCE", "COMPLAINT", "MANUAL", "SOFTBOUNCE", "UNSUBSCRIBE", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The reason of this SuppressionSummary.
> >
> > **Return type** str

> **time_created**
> Gets the time_created of this SuppressionSummary. The date and time a recipient's email address was added to the suppression list, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.
>
> > **Returns** The time_created of this SuppressionSummary.
> >
> > **Return type** datetime

12.6 File Storage

12.6.1 Client

class oci.file_storage.file_storage_client.**FileStorageClient**(*config*, ***kwargs*)

> **create_export**(*create_export_details*, ***kwargs*)
> CreateExport Creates a new export in the specified export set, path, and file system.
>
> > **Parameters**
> >
> > - **create_export_details** (*CreateExportDetails*) – (required) Details for creating a new export.
> >
> > - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations. For example, if a resource has been deleted and purged from the system, then a retry of the original creation request might be rejected.
> >
> > **Returns** A *Response* object with data of type *Export*
> >
> > **Return type** *Response*
>
> **create_file_system**(*create_file_system_details*, ***kwargs*)
> CreateFileSystem Creates a new file system in the specified compartment and availability domain. Instances can mount file systems in another availability domain, but doing so might increase latency when compared to mounting instances in the same availability domain.
>
> After you create a file system, you can associate it with a mount target. Instances can then mount the file system by connecting to the mount target's IP address. You can associate a file system with more than one mount target at a time.
>
> For information about access control and compartments, see Overview of the IAM Service.
>
> For information about availability domains, see Regions and Availability Domains. To get a list of availability domains, use the *ListAvailabilityDomains* operation in the Identity and Access Management Service API.
>
> All Oracle Cloud Infrastructure resources, including file systems, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type or by viewing the resource in the Console.
>
> > **Parameters**
> >
> > - **create_file_system_details** (*CreateFileSystemDetails*) – (required) Details for creating a new file system.
> >
> > - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations. For example, if a resource has been deleted and purged from the system, then a retry of the original creation request might be rejected.
> >
> > **Returns** A *Response* object with data of type *FileSystem*
> >
> > **Return type** *Response*

create_mount_target(*create_mount_target_details*, ***kwargs*)

> CreateMountTarget Creates a new mount target in the specified compartment and subnet. You can associate a file system with a mount target only when they exist in the same availability domain. Instances can connect to mount targets in another availablity domain, but you might see higher latency than with instances in the same availability domain as the mount target.
>
> Mount targets have one or more private IP addresses that you can provide as the host portion of remote target parameters in client mount commands. These private IP addresses are listed in the privateIpIds property of the mount target and are highly available. Mount targets also consume additional IP addresses in their subnet. Do not use /30 or smaller subnets for mount target creation because they do not have sufficient available IP addresses. Allow at least three IP addresses for each mount target.
>
> For information about access control and compartments, see Overview of the IAM Service.
>
> For information about availability domains, see Regions and Availability Domains. To get a list of availability domains, use the *ListAvailabilityDomains* operation in the Identity and Access Management Service API.
>
> All Oracle Cloud Infrastructure Services resources, including mount targets, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console.
>
> > **Parameters**
> >
> > - **create_mount_target_details** (`CreateMountTargetDetails`) – (required) Details for creating a new mount target.
> >
> > - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations. For example, if a resource has been deleted and purged from the system, then a retry of the original creation request might be rejected.
> >
> > **Returns** A `Response` object with data of type `MountTarget`
> >
> > **Return type** `Response`

create_snapshot(*create_snapshot_details*, ***kwargs*)

> CreateSnapshot Creates a new snapshot of the specified file system. You can access the snapshot at *.snapshot/<name>*.
>
> > **Parameters**
> >
> > - **create_snapshot_details** (`CreateSnapshotDetails`) – (required) Details for creating a new snapshot.
> >
> > - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations. For example, if a resource has been deleted and purged from the system, then a retry of the original creation request might be rejected.
> >
> > **Returns** A `Response` object with data of type `Snapshot`
> >
> > **Return type** `Response`

delete_export(*export_id*, ***kwargs*)

> DeleteExport Deletes the specified export.
>
> > **Parameters**
> >
> > - **export_id** (`str`) – (required) The OCID of the export.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [*Response*](#) object with data of type None

> **Return type** [*Response*](#)

delete_file_system(*file_system_id*, ***kwargs*)

DeleteFileSystem Deletes the specified file system. Before you delete the file system, verify that no remaining export resources still reference it. Deleting a file system also deletes all of its snapshots.

> **Parameters**
>
> - **file_system_id** (*str*) – (required) The OCID of the file system.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [*Response*](#) object with data of type None

> **Return type** [*Response*](#)

delete_mount_target(*mount_target_id*, ***kwargs*)

DeleteMountTarget Deletes the specified mount target. This operation also deletes the mount target's VNICs.

> **Parameters**
>
> - **mount_target_id** (*str*) – (required) The OCID of the mount target.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [*Response*](#) object with data of type None

> **Return type** [*Response*](#)

delete_snapshot(*snapshot_id*, ***kwargs*)

DeleteSnapshot Deletes the specified snapshot.

> **Parameters**
>
> - **snapshot_id** (*str*) – (required) The OCID of the snapshot.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [*Response*](#) object with data of type None

> **Return type** [*Response*](#)

get_export(*export_id*, ***kwargs*)

GetExport Gets the specified export's information.

> **Parameters** **export_id** (*str*) – (required) The OCID of the export.

> **Returns** A [*Response*](#) object with data of type [*Export*](#)

> **Return type** *Response*

get_export_set (*export_set_id*, ***kwargs*)

> GetExportSet Gets the specified export set's information.

> > **Parameters export_set_id** (*str*) – (required) The OCID of the export set.

> > **Returns** A *Response* object with data of type *ExportSet*

> > **Return type** *Response*

get_file_system (*file_system_id*, ***kwargs*)

> GetFileSystem Gets the specified file system's information.

> > **Parameters file_system_id** (*str*) – (required) The OCID of the file system.

> > **Returns** A *Response* object with data of type *FileSystem*

> > **Return type** *Response*

get_mount_target (*mount_target_id*, ***kwargs*)

> GetMountTarget Gets the specified mount target's information.

> > **Parameters mount_target_id** (*str*) – (required) The OCID of the mount target.

> > **Returns** A *Response* object with data of type *MountTarget*

> > **Return type** *Response*

get_snapshot (*snapshot_id*, ***kwargs*)

> GetSnapshot Gets the specified snapshot's information.

> > **Parameters snapshot_id** (*str*) – (required) The OCID of the snapshot.

> > **Returns** A *Response* object with data of type *Snapshot*

> > **Return type** *Response*

list_export_sets (*compartment_id*, *availability_domain*, ***kwargs*)

> ListExportSets Lists the export set resources in the specified compartment.

> > **Parameters**

> > > - **compartment_id** (*str*) – (required) The OCID of the compartment.

> > > - **availability_domain** (*str*) – (required) The name of the availability domain.

> > >   Example: *Uocm:PHX-AD-1*

> > > - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

> > >   Example: *500*

> > > - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

> > > - **display_name** (*str*) – (optional) A user-friendly name. It does not have to be unique, and it is changeable.

> > >   Example: *My resource*

> > > - **lifecycle_state** (*str*) – (optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

> > >   Allowed values are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED"

- **id** (*str*) – (optional) Filter results by OCID. Must be an OCID of the correct type for the resouce type.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide either value, but not both. By default, when you sort by time created, results are shown in descending order. When you sort by display name, results are shown in ascending order.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either 'asc' or 'desc', where 'asc' is ascending and 'desc' is descending.

  Allowed values are: "ASC", "DESC"

  Returns A *Response* object with data of type list of *ExportSetSummary*

  Return type *Response*

list_exports(*compartment_id*, ***kwargs*)

   ListExports Lists the export resources in the specified compartment. You must also specify an export set, a file system, or both.

   Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **export_set_id** (*str*) – (optional) The OCID of the export set.

- **file_system_id** (*str*) – (optional) The OCID of the file system.

- **lifecycle_state** (*str*) – (optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

  Allowed values are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED"

- **id** (*str*) – (optional) Filter results by OCID. Must be an OCID of the correct type for the resouce type.

- **sort_by** (*str*) – (optional) The field to sort by. You can provide either value, but not both. By default, when you sort by time created, results are shown in descending order. When you sort by path, results are shown in ascending alphanumeric order.

  Allowed values are: "TIMECREATED", "PATH"

- **sort_order** (*str*) – (optional) The sort order to use, either 'asc' or 'desc', where 'asc' is ascending and 'desc' is descending.

  Allowed values are: "ASC", "DESC"

  Returns A *Response* object with data of type list of *ExportSummary*

  Return type *Response*

list_file_systems(*compartment_id*, *availability_domain*, ***kwargs*)

   ListFileSystems Lists the file system resources in the specified compartment.

   Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment.

- **availability_domain** (`str`) – (required) The name of the availability domain.

  Example: *Uocm:PHX-AD-1*

- **limit** (`int`) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (`str`) – (optional) A user-friendly name. It does not have to be unique, and it is changeable.

  Example: *My resource*

- **lifecycle_state** (`str`) – (optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

  Allowed values are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED"

- **id** (`str`) – (optional) Filter results by OCID. Must be an OCID of the correct type for the resouce type.

- **sort_by** (`str`) – (optional) The field to sort by. You can provide either value, but not both. By default, when you sort by time created, results are shown in descending order. When you sort by display name, results are shown in ascending order.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (`str`) – (optional) The sort order to use, either 'asc' or 'desc', where 'asc' is ascending and 'desc' is descending.

  Allowed values are: "ASC", "DESC"

  Returns A *Response* object with data of type list of *FileSystemSummary*

  Return type *Response*

list_mount_targets(*compartment_id*, *availability_domain*, ***kwargs*)
ListMountTargets Lists the mount target resources in the specified compartment.

  Parameters

- **compartment_id** (`str`) – (required) The OCID of the compartment.

- **availability_domain** (`str`) – (required) The name of the availability domain.

  Example: *Uocm:PHX-AD-1*

- **limit** (`int`) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **display_name** (`str`) – (optional) A user-friendly name. It does not have to be unique, and it is changeable.

  Example: *My resource*

- **export_set_id** (`str`) – (optional) The OCID of the export set.

- **lifecycle_state** (`str`) – (optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

  Allowed values are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED"

- **id** (`str`) – (optional) Filter results by OCID. Must be an OCID of the correct type for the resouce type.

- **sort_by** (`str`) – (optional) The field to sort by. You can choose either value, but not both. By default, when you sort by time created, results are shown in descending order. When you sort by display name, results are shown in ascending order.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (`str`) – (optional) The sort order to use, either 'asc' or 'desc', where 'asc' is ascending and 'desc' is descending.

  Allowed values are: "ASC", "DESC"

> **Returns** A [`Response`](#) object with data of type list of [`MountTargetSummary`](#)
>
> **Return type** [`Response`](#)

list_snapshots(*file_system_id*, ***kwargs*)

> ListSnapshots Lists snapshots of the specified file system.
>
> **Parameters**
>
> - **file_system_id** (`str`) – (required) The OCID of the file system.
>
> - **limit** (`int`) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (`str`) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> - **lifecycle_state** (`str`) – (optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.
>
>   Allowed values are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED"
>
> - **id** (`str`) – (optional) Filter results by OCID. Must be an OCID of the correct type for the resouce type.
>
> - **sort_order** (`str`) – (optional) The sort order to use, either 'asc' or 'desc', where 'asc' is ascending and 'desc' is descending.
>
>   Allowed values are: "ASC", "DESC"
>
> **Returns** A [`Response`](#) object with data of type list of [`SnapshotSummary`](#)
>
> **Return type** [`Response`](#)

update_export_set(*export_set_id*, *update_export_set_details*, ***kwargs*)

> UpdateExportSet Updates the specified export set's information.
>
> **Parameters**
>
> - **export_set_id** (`str`) – (required) The OCID of the export set.
>
> - **update_export_set_details** ([`UpdateExportSetDetails`](#)) – (required) Details object for updating an export set.

> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
>   DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
>   previous GET or POST response for that resource. The resource will be updated or deleted
>   only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *ExportSet*

> **Return type** *Response*

update_file_system(*file_system_id*, *update_file_system_details*, ***kwargs*)

> UpdateFileSystem Updates the specified file system's information. You can use this operation to rename a
> file system.

> **Parameters**

> - **file_system_id** (*str*) – (required) The OCID of the file system.
>
> - **update_file_system_details** (*UpdateFileSystemDetails*) – (required)
>   Details object for updating a file system.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
>   DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
>   previous GET or POST response for that resource. The resource will be updated or deleted
>   only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *FileSystem*

> **Return type** *Response*

update_mount_target(*mount_target_id*, *update_mount_target_details*, ***kwargs*)

> UpdateMountTarget Updates the specified mount target's information.

> **Parameters**

> - **mount_target_id** (*str*) – (required) The OCID of the mount target.
>
> - **update_mount_target_details** (*UpdateMountTargetDetails*) – (re-
>   quired) Details object for updating a mount target.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or
>   DELETE call for a resource, set the *if-match* parameter to the value of the etag from a
>   previous GET or POST response for that resource. The resource will be updated or deleted
>   only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *MountTarget*

> **Return type** *Response*

12.6.2 Models

class oci.file_storage.models.**CreateExportDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new CreateExportDetails object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> - **export_set_id** (*str*) – The value to assign to the export_set_id property of this Cre-
>   ateExportDetails.

- **file_system_id** (`str`) – The value to assign to the file_system_id property of this CreateExportDetails.

- **path** (`str`) – The value to assign to the path property of this CreateExportDetails.

export_set_id
   [Required] Gets the export_set_id of this CreateExportDetails. The OCID of this export's export set.

   Returns The export_set_id of this CreateExportDetails.

   Return type str

file_system_id
   [Required] Gets the file_system_id of this CreateExportDetails. The OCID of this export's file system.

   Returns The file_system_id of this CreateExportDetails.

   Return type str

path
   [Required] Gets the path of this CreateExportDetails. Path used to access the associated file system.

   Avoid entering confidential information.

   Example: */mediafiles*

   Returns The path of this CreateExportDetails.

   Return type str

class oci.file_storage.models.**CreateFileSystemDetails**(***kwargs*)

   __init__(***kwargs*)
      Initializes a new CreateFileSystemDetails object with values from keyword arguments. The following
      keyword arguments are supported (corresponding to the getters/setters of this class):

      Parameters

         - **availability_domain** (`str`) – The value to assign to the availability_domain property of this CreateFileSystemDetails.

         - **compartment_id** (`str`) – The value to assign to the compartment_id property of this CreateFileSystemDetails.

         - **display_name** (`str`) – The value to assign to the display_name property of this CreateFileSystemDetails.

availability_domain
   [Required] Gets the availability_domain of this CreateFileSystemDetails. The availability domain to
   create the file system in.

   Example: *Uocm:PHX-AD-1*

   Returns The availability_domain of this CreateFileSystemDetails.

   Return type str

compartment_id
   [Required] Gets the compartment_id of this CreateFileSystemDetails. The OCID of the compartment to
   create the file system in.

   Returns The compartment_id of this CreateFileSystemDetails.

   Return type str

display_name
Gets the display_name of this CreateFileSystemDetails. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

Example: *My file system*

> **Returns** The display_name of this CreateFileSystemDetails.

> **Return type** str

class oci.file_storage.models.**CreateMountTargetDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new CreateMountTargetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **availability_domain** (*str*) – The value to assign to the availability_domain property of this CreateMountTargetDetails.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateMountTargetDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this CreateMountTargetDetails.

- **hostname_label** (*str*) – The value to assign to the hostname_label property of this CreateMountTargetDetails.

- **ip_address** (*str*) – The value to assign to the ip_address property of this CreateMountTargetDetails.

- **subnet_id** (*str*) – The value to assign to the subnet_id property of this CreateMountTargetDetails.

availability_domain
[**Required**] Gets the availability_domain of this CreateMountTargetDetails. The availability domain in which to create the mount target.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this CreateMountTargetDetails.

> **Return type** str

compartment_id
[**Required**] Gets the compartment_id of this CreateMountTargetDetails. The OCID of the compartment in which to create the mount target.

> **Returns** The compartment_id of this CreateMountTargetDetails.

> **Return type** str

display_name
Gets the display_name of this CreateMountTargetDetails. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

Example: *My mount target*

> **Returns** The display_name of this CreateMountTargetDetails.

> **Return type** str

hostname_label
> Gets the hostname_label of this CreateMountTargetDetails. The hostname for the mount target's IP address, used for DNS resolution. The value is the hostname portion of the private IP address's fully qualified domain name (FQDN). For example, *files-1* in the FQDN *files-1.subnet123.vcn1.oraclevcn.com*. Must be unique across all VNICs in the subnet and comply with RFC 952 and RFC 1123.
>
> For more information, see DNS in Your Virtual Cloud Network.
>
> Example: *files-1*
>
> > **Returns** The hostname_label of this CreateMountTargetDetails.
> >
> > **Return type** str

ip_address
> Gets the ip_address of this CreateMountTargetDetails. A private IP address of your choice. Must be an available IP address within the subnet's CIDR. If you don't specify a value, Oracle automatically assigns a private IP address from the subnet.
>
> Example: *10.0.3.3*
>
> > **Returns** The ip_address of this CreateMountTargetDetails.
> >
> > **Return type** str

subnet_id
> [Required] Gets the subnet_id of this CreateMountTargetDetails. The OCID of the subnet in which to create the mount target.
>
> > **Returns** The subnet_id of this CreateMountTargetDetails.
> >
> > **Return type** str

class oci.file_storage.models.**CreateSnapshotDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateSnapshotDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **file_system_id** (*str*) – The value to assign to the file_system_id property of this CreateSnapshotDetails.
> >
> > - **name** (*str*) – The value to assign to the name property of this CreateSnapshotDetails.

file_system_id
> [Required] Gets the file_system_id of this CreateSnapshotDetails. The OCID of this export's file system.
>
> > **Returns** The file_system_id of this CreateSnapshotDetails.
> >
> > **Return type** str

name
> [Required] Gets the name of this CreateSnapshotDetails. Name of the snapshot. This value is immutable. It must also be unique with respect to all other non-DELETED snapshots on the associated file system.
>
> Avoid entering confidential information.
>
> Example: *Sunday*
>
> > **Returns** The name of this CreateSnapshotDetails.
> >
> > **Return type** str

class oci.file_storage.models.**Export**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new Export object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>>> **Parameters**
>>>
>>> - **export_set_id** (*str*) – The value to assign to the export_set_id property of this Export.
>>>
>>> - **file_system_id** (*str*) – The value to assign to the file_system_id property of this Export.
>>>
>>> - **id** (*str*) – The value to assign to the id property of this Export.
>>>
>>> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Export. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>>
>>> - **path** (*str*) – The value to assign to the path property of this Export.
>>>
>>> - **time_created** (*datetime*) – The value to assign to the time_created property of this Export.

> **export_set_id**
>> [**Required**] Gets the export_set_id of this Export. The OCID of this export's export set.
>>
>>> **Returns** The export_set_id of this Export.
>>>
>>> **Return type** str

> **file_system_id**
>> [**Required**] Gets the file_system_id of this Export. The OCID of this export's file system.
>>
>>> **Returns** The file_system_id of this Export.
>>>
>>> **Return type** str

> **id**
>> [**Required**] Gets the id of this Export. The OCID of this export.
>>
>>> **Returns** The id of this Export.
>>>
>>> **Return type** str

> **lifecycle_state**
>> [**Required**] Gets the lifecycle_state of this Export. The current state of this export.
>>
>> Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.
>>
>>> **Returns** The lifecycle_state of this Export.
>>>
>>> **Return type** str

> **path**
>> [**Required**] Gets the path of this Export. Path used to access the associated file system.
>>
>> Avoid entering confidential information.
>>
>> Example: */accounting*

> **Returns** The path of this Export.

> **Return type** str

time_created
> [Required] Gets the time_created of this Export. The date and time the export was created, expressed in RFC 3339 timestamp format.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this Export.

> > **Return type** datetime

class oci.file_storage.models.**ExportSet**(***kwargs*)

__init__(***kwargs*)
> Initializes a new ExportSet object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this ExportSet.

> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this ExportSet.

> - **display_name** (*str*) – The value to assign to the display_name property of this ExportSet.

> - **id** (*str*) – The value to assign to the id property of this ExportSet.

> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this ExportSet. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> - **max_fs_stat_bytes** (*int*) – The value to assign to the max_fs_stat_bytes property of this ExportSet.

> - **max_fs_stat_files** (*int*) – The value to assign to the max_fs_stat_files property of this ExportSet.

> - **time_created** (*datetime*) – The value to assign to the time_created property of this ExportSet.

> - **vcn_id** (*str*) – The value to assign to the vcn_id property of this ExportSet.

availability_domain
> Gets the availability_domain of this ExportSet. The availability domain the export set is in. May be unset as a blank or NULL value.

> Example: *Uocm:PHX-AD-1*

> > **Returns** The availability_domain of this ExportSet.

> > **Return type** str

compartment_id
> [Required] Gets the compartment_id of this ExportSet. The OCID of the compartment that contains the export set.

> > **Returns** The compartment_id of this ExportSet.

> **Return type** str

display_name
> [Required] Gets the display_name of this ExportSet. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.
>
> Example: *My export set*
>
> > **Returns** The display_name of this ExportSet.
> >
> > **Return type** str

id
> [Required] Gets the id of this ExportSet. The OCID of the export set.
>
> > **Returns** The id of this ExportSet.
> >
> > **Return type** str

lifecycle_state
> [Required] Gets the lifecycle_state of this ExportSet. The current state of the export set.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this ExportSet.
> >
> > **Return type** str

max_fs_stat_bytes
> Gets the max_fs_stat_bytes of this ExportSet. Controls the maximum *tbytes*, *fbytes*, and *abytes*, values reported by *NFS FSSTAT* calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The *tbytes* value reported by *FSSTAT* will be *maxFsStatBytes*. The value of *fbytes* and *abytes* will be *maxFsStatBytes* minus the metered size of the file system. If the metered size is larger than *maxFsStatBytes*, then *fbytes* and *abytes* will both be '0'.
>
> > **Returns** The max_fs_stat_bytes of this ExportSet.
> >
> > **Return type** int

max_fs_stat_files
> Gets the max_fs_stat_files of this ExportSet. Controls the maximum *ffiles*, *ffiles*, and *afiles* values reported by *NFS FSSTAT* calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The *tfiles* value reported by *FSSTAT* will be *maxFsStatFiles*. The value of *ffiles* and *afiles* will be *maxFsStatFiles* minus the metered size of the file system. If the metered size is larger than *maxFsStatFiles*, then *ffiles* and *afiles* will both be '0'.
>
> > **Returns** The max_fs_stat_files of this ExportSet.
> >
> > **Return type** int

time_created
> [Required] Gets the time_created of this ExportSet. The date and time the export set was created, expressed in RFC 3339 timestamp format.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this ExportSet.
> >
> > **Return type** datetime

vcn_id
> [Required] Gets the vcn_id of this ExportSet. The OCID of the virtual cloud network (VCN) the export set is in.

> **Returns** The vcn_id of this ExportSet.
>
> **Return type** str

class oci.file_storage.models.**ExportSetSummary**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new ExportSetSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this ExportSetSummary.
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this ExportSetSummary.
> - **display_name** (*str*) – The value to assign to the display_name property of this ExportSetSummary.
> - **id** (*str*) – The value to assign to the id property of this ExportSetSummary.
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this ExportSetSummary. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> - **time_created** (*datetime*) – The value to assign to the time_created property of this ExportSetSummary.
> - **vcn_id** (*str*) – The value to assign to the vcn_id property of this ExportSetSummary.
>
> **availability_domain**
> Gets the availability_domain of this ExportSetSummary. The availability domain the export set is in. May be unset as a blank or NULL value.
>
> Example: *Uocm:PHX-AD-1*
>
> > **Returns** The availability_domain of this ExportSetSummary.
> >
> > **Return type** str
>
> **compartment_id**
> **[Required]** Gets the compartment_id of this ExportSetSummary. The OCID of the compartment that contains the export set.
>
> > **Returns** The compartment_id of this ExportSetSummary.
> >
> > **Return type** str
>
> **display_name**
> **[Required]** Gets the display_name of this ExportSetSummary. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.
>
> Example: *My export set*
>
> > **Returns** The display_name of this ExportSetSummary.
> >
> > **Return type** str
>
> **id**
> **[Required]** Gets the id of this ExportSetSummary. The OCID of the export set.
>
> > **Returns** The id of this ExportSetSummary.

Return type str

lifecycle_state

[Required] Gets the lifecycle_state of this ExportSetSummary. The current state of the export set.

Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this ExportSetSummary.
>
> **Return type** str

time_created

[Required] Gets the time_created of this ExportSetSummary. The date and time the export set was created, expressed in RFC 3339 timestamp format.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this ExportSetSummary.
>
> **Return type** datetime

vcn_id

[Required] Gets the vcn_id of this ExportSetSummary. The OCID of the virtual cloud network (VCN) the export set is in.

> **Returns** The vcn_id of this ExportSetSummary.
>
> **Return type** str

class oci.file_storage.models.**ExportSummary**(***kwargs*)

__init__(***kwargs*)

Initializes a new ExportSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **export_set_id** (*str*) – The value to assign to the export_set_id property of this ExportSummary.

- **file_system_id** (*str*) – The value to assign to the file_system_id property of this ExportSummary.

- **id** (*str*) – The value to assign to the id property of this ExportSummary.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this ExportSummary. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **path** (*str*) – The value to assign to the path property of this ExportSummary.

- **time_created** (*datetime*) – The value to assign to the time_created property of this ExportSummary.

export_set_id

[Required] Gets the export_set_id of this ExportSummary. The OCID of this export's export set.

> **Returns** The export_set_id of this ExportSummary.
>
> **Return type** str

file_system_id

> [Required] Gets the file_system_id of this ExportSummary. The OCID of this export's file system.
>
> > **Returns** The file_system_id of this ExportSummary.
> >
> > **Return type** str

id

> [Required] Gets the id of this ExportSummary. The OCID of this export.
>
> > **Returns** The id of this ExportSummary.
> >
> > **Return type** str

lifecycle_state

> [Required] Gets the lifecycle_state of this ExportSummary. The current state of this export.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this ExportSummary.
> >
> > **Return type** str

path

> [Required] Gets the path of this ExportSummary. Path used to access the associated file system.
>
> Avoid entering confidential information.
>
> Example: */mediafiles*
>
> > **Returns** The path of this ExportSummary.
> >
> > **Return type** str

time_created

> [Required] Gets the time_created of this ExportSummary. The date and time the export was created, expressed in [RFC 3339] timestamp format.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this ExportSummary.
> >
> > **Return type** datetime

class oci.file_storage.models.**FileSystem**(***kwargs*)

__init__(***kwargs*)

> Initializes a new FileSystem object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **availability_domain** (*str*) – The value to assign to the availability_domain property of this FileSystem.
> >
> > - **metered_bytes** (*int*) – The value to assign to the metered_bytes property of this FileSystem.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this FileSystem.
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this FileSystem.

- **id** (*str*) – The value to assign to the id property of this FileSystem.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this FileSystem. Allowed values for this property are: "CREATING", "ACTIVE", "DELET-ING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this FileSystem.

availability_domain

Gets the availability_domain of this FileSystem. The availability domain the file system is in. May be unset as a blank or NULL value.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this FileSystem.

> **Return type** str

compartment_id

[**Required**] Gets the compartment_id of this FileSystem. The OCID of the compartment that contains the file system.

> **Returns** The compartment_id of this FileSystem.

> **Return type** str

display_name

[**Required**] Gets the display_name of this FileSystem. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

Example: *My file system*

> **Returns** The display_name of this FileSystem.

> **Return type** str

id

[**Required**] Gets the id of this FileSystem. The OCID of the file system.

> **Returns** The id of this FileSystem.

> **Return type** str

lifecycle_state

[**Required**] Gets the lifecycle_state of this FileSystem. The current state of the file system.

Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this FileSystem.

> **Return type** str

metered_bytes

[**Required**] Gets the metered_bytes of this FileSystem. The number of bytes consumed by the file sys-tem, including any snapshots. This number reflects the metered size of the file system and is updated asynchronously with respect to updates to the file system.

> **Returns** The metered_bytes of this FileSystem.

> **Return type** int

time_created
[Required] Gets the time_created of this FileSystem. The date and time the file system was created, expressed in RFC 3339 timestamp format.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this FileSystem.

> **Return type** datetime

class oci.file_storage.models.**FileSystemSummary**(***kwargs*)

__init__(***kwargs*)
Initializes a new FileSystemSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **availability_domain** (*str*) – The value to assign to the availability_domain property of this FileSystemSummary.

- **metered_bytes** (*int*) – The value to assign to the metered_bytes property of this FileSystemSummary.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this FileSystemSummary.

- **display_name** (*str*) – The value to assign to the display_name property of this FileSystemSummary.

- **id** (*str*) – The value to assign to the id property of this FileSystemSummary.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this FileSystemSummary. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_created** (*datetime*) – The value to assign to the time_created property of this FileSystemSummary.

availability_domain
Gets the availability_domain of this FileSystemSummary. The availability domain the file system is in. May be unset as a blank or NULL value.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this FileSystemSummary.

> **Return type** str

compartment_id
[Required] Gets the compartment_id of this FileSystemSummary. The OCID of the compartment that contains the file system.

> **Returns** The compartment_id of this FileSystemSummary.

> **Return type** str

display_name
[Required] Gets the display_name of this FileSystemSummary. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

Example: *My file system*

> **Returns** The display_name of this FileSystemSummary.

> **Return type** str

id
> [Required] Gets the id of this FileSystemSummary. The OCID of the file system.

> > **Returns** The id of this FileSystemSummary.

> > **Return type** str

lifecycle_state
> [Required] Gets the lifecycle_state of this FileSystemSummary. The current state of the file system.

> Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> > **Returns** The lifecycle_state of this FileSystemSummary.

> > **Return type** str

metered_bytes
> [Required] Gets the metered_bytes of this FileSystemSummary. The number of bytes consumed by the file system, including any snapshots. This number reflects the metered size of the file system and is updated asynchronously with respect to updates to the file system. For details on file system metering see File System Metering.

> > **Returns** The metered_bytes of this FileSystemSummary.

> > **Return type** int

time_created
> [Required] Gets the time_created of this FileSystemSummary. The date and time the file system was created, expressed in RFC 3339 timestamp format.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this FileSystemSummary.

> > **Return type** datetime

class oci.file_storage.models.**MountTarget**(***kwargs*)

__init__(***kwargs*)
> Initializes a new MountTarget object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
> - **availability_domain** (*str*) – The value to assign to the availability_domain property of this MountTarget.
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this MountTarget.
> - **display_name** (*str*) – The value to assign to the display_name property of this MountTarget.
> - **export_set_id** (*str*) – The value to assign to the export_set_id property of this MountTarget.
> - **id** (*str*) – The value to assign to the id property of this MountTarget.

- **lifecycle_details** (`str`) – The value to assign to the lifecycle_details property of this MountTarget.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this MountTarget. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **private_ip_ids** (`list[str]`) – The value to assign to the private_ip_ids property of this MountTarget.

- **subnet_id** (`str`) – The value to assign to the subnet_id property of this MountTarget.

- **time_created** (`datetime`) – The value to assign to the time_created property of this MountTarget.

availability_domain

Gets the availability_domain of this MountTarget. The availability domain the mount target is in. May be unset as a blank or NULL value.

Example: *Uocm:PHX-AD-1*

> **Returns** The availability_domain of this MountTarget.

> **Return type** str

compartment_id

[**Required**] Gets the compartment_id of this MountTarget. The OCID of the compartment that contains the mount target.

> **Returns** The compartment_id of this MountTarget.

> **Return type** str

display_name

[**Required**] Gets the display_name of this MountTarget. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

Example: *My mount target*

> **Returns** The display_name of this MountTarget.

> **Return type** str

export_set_id

Gets the export_set_id of this MountTarget. The OCID of the associated export set. Controls what file systems will be exported through Network File System (NFS) protocol on this mount target.

> **Returns** The export_set_id of this MountTarget.

> **Return type** str

id

[**Required**] Gets the id of this MountTarget. The OCID of the mount target.

> **Returns** The id of this MountTarget.

> **Return type** str

lifecycle_details

[**Required**] Gets the lifecycle_details of this MountTarget. Additional information about the current 'lifecycleState'.

> **Returns** The lifecycle_details of this MountTarget.

> **Return type** str

lifecycle_state
>   [Required] Gets the lifecycle_state of this MountTarget. The current state of the mount target.
>
>   Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>>   **Returns**   The lifecycle_state of this MountTarget.
>>
>>   **Return type**   str

private_ip_ids
>   [Required] Gets the private_ip_ids of this MountTarget. The OCIDs of the private IP addresses associated with this mount target.
>
>>   **Returns**   The private_ip_ids of this MountTarget.
>>
>>   **Return type**   list[str]

subnet_id
>   [Required] Gets the subnet_id of this MountTarget. The OCID of the subnet the mount target is in.
>
>>   **Returns**   The subnet_id of this MountTarget.
>>
>>   **Return type**   str

time_created
>   [Required] Gets the time_created of this MountTarget. The date and time the mount target was created, expressed in RFC 3339 timestamp format.
>
>   Example: *2016-08-25T21:10:29.600Z*
>
>>   **Returns**   The time_created of this MountTarget.
>>
>>   **Return type**   datetime

class oci.file_storage.models.**MountTargetSummary**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new MountTargetSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>   **Parameters**
>
>   - **availability_domain** (*str*) – The value to assign to the availability_domain property of this MountTargetSummary.
>
>   - **compartment_id** (*str*) – The value to assign to the compartment_id property of this MountTargetSummary.
>
>   - **display_name** (*str*) – The value to assign to the display_name property of this MountTargetSummary.
>
>   - **export_set_id** (*str*) – The value to assign to the export_set_id property of this MountTargetSummary.
>
>   - **id** (*str*) – The value to assign to the id property of this MountTargetSummary.
>
>   - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this MountTargetSummary. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **private_ip_ids** (*list[str]*) – The value to assign to the private_ip_ids property of this MountTargetSummary.

- **subnet_id** (*str*) – The value to assign to the subnet_id property of this MountTarget-Summary.

- **time_created** (*datetime*) – The value to assign to the time_created property of this MountTargetSummary.

availability_domain

    Gets the availability_domain of this MountTargetSummary. The availability domain the mount target is in. May be unset as a blank or NULL value.

    Example: *Uocm:PHX-AD-1*

        Returns The availability_domain of this MountTargetSummary.

        Return type str

compartment_id

    [Required] Gets the compartment_id of this MountTargetSummary. The OCID of the compartment that contains the mount target.

        Returns The compartment_id of this MountTargetSummary.

        Return type str

display_name

    [Required] Gets the display_name of this MountTargetSummary. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

    Example: *My mount target*

        Returns The display_name of this MountTargetSummary.

        Return type str

export_set_id

    Gets the export_set_id of this MountTargetSummary. The OCID of the associated export set. Controls what file systems will be exported using Network File System (NFS) protocol on this mount target.

        Returns The export_set_id of this MountTargetSummary.

        Return type str

id

    [Required] Gets the id of this MountTargetSummary. The OCID of the mount target.

        Returns The id of this MountTargetSummary.

        Return type str

lifecycle_state

    [Required] Gets the lifecycle_state of this MountTargetSummary. The current state of the mount target.

    Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", "FAILED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

        Returns The lifecycle_state of this MountTargetSummary.

        Return type str

private_ip_ids

    [Required] Gets the private_ip_ids of this MountTargetSummary. The OCIDs of the private IP addresses associated with this mount target.

> **Returns** The private_ip_ids of this MountTargetSummary.

> **Return type** list[str]

subnet_id
> [Required] Gets the subnet_id of this MountTargetSummary. The OCID of the subnet the mount target is in.

> > **Returns** The subnet_id of this MountTargetSummary.

> > **Return type** str

time_created
> [Required] Gets the time_created of this MountTargetSummary. The date and time the mount target was created, expressed in [RFC 3339](#) timestamp format.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this MountTargetSummary.

> > **Return type** datetime

class oci.file_storage.models.**Snapshot**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new Snapshot object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**
> > - **file_system_id** (*str*) – The value to assign to the file_system_id property of this Snapshot.
> > - **id** (*str*) – The value to assign to the id property of this Snapshot.
> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Snapshot. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > - **name** (*str*) – The value to assign to the name property of this Snapshot.
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this Snapshot.

file_system_id
> [Required] Gets the file_system_id of this Snapshot. The OCID of the file system from which the snapshot was created.

> > **Returns** The file_system_id of this Snapshot.

> > **Return type** str

id
> [Required] Gets the id of this Snapshot. The OCID of the snapshot.

> > **Returns** The id of this Snapshot.

> > **Return type** str

lifecycle_state
> [Required] Gets the lifecycle_state of this Snapshot. The current state of the snapshot.

Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this Snapshot.

> **Return type** str

name
> [Required] Gets the name of this Snapshot. Name of the snapshot. This value is immutable.

> Avoid entering confidential information.

> Example: *Sunday*

> > **Returns** The name of this Snapshot.

> > **Return type** str

time_created
> [Required] Gets the time_created of this Snapshot. The date and time the snapshot was created, expressed in RFC 3339 timestamp format.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this Snapshot.

> > **Return type** datetime

class oci.file_storage.models.**SnapshotSummary**(***kwargs*)

__init__(***kwargs*)
> Initializes a new SnapshotSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > - **file_system_id** (*str*) – The value to assign to the file_system_id property of this SnapshotSummary.
> > - **id** (*str*) – The value to assign to the id property of this SnapshotSummary.
> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this SnapshotSummary. Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > - **name** (*str*) – The value to assign to the name property of this SnapshotSummary.
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this SnapshotSummary.

file_system_id
> [Required] Gets the file_system_id of this SnapshotSummary. The OCID of the file system from which the snapshot was created.

> > **Returns** The file_system_id of this SnapshotSummary.

> > **Return type** str

id
> [Required] Gets the id of this SnapshotSummary. The OCID of the snapshot.

> > **Returns** The id of this SnapshotSummary.

> **Return type** str

lifecycle_state
> [Required] Gets the lifecycle_state of this SnapshotSummary. The current state of the snapshot.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this SnapshotSummary.
> >
> > **Return type** str

name
> [Required] Gets the name of this SnapshotSummary. Name of the snapshot. This value is immutable.
>
> Avoid entering confidential information.
>
> Example: *Sunday*
>
> > **Returns** The name of this SnapshotSummary.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this SnapshotSummary. The date and time the snapshot was created, expressed in [RFC 3339](#) timestamp format.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this SnapshotSummary.
> >
> > **Return type** datetime

class oci.file_storage.models.**UpdateExportSetDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateExportSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **display_name** (*str*) – The value to assign to the display_name property of this UpdateExportSetDetails.
> >
> > - **max_fs_stat_bytes** (*int*) – The value to assign to the max_fs_stat_bytes property of this UpdateExportSetDetails.
> >
> > - **max_fs_stat_files** (*int*) – The value to assign to the max_fs_stat_files property of this UpdateExportSetDetails.

display_name
> Gets the display_name of this UpdateExportSetDetails. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.
>
> Example: *My export set*
>
> > **Returns** The display_name of this UpdateExportSetDetails.
> >
> > **Return type** str

max_fs_stat_bytes
> Gets the max_fs_stat_bytes of this UpdateExportSetDetails. Controls the maximum *tbytes*, *fbytes*, and *abytes* values reported by *NFS FSSTAT* calls through any associated mount targets. This is an advanced

feature. For most applications, use the default value. The *tbytes* value reported by *FSSTAT* will be *maxFsStatBytes*. The value of *fbytes* and *abytes* will be *maxFsStatBytes* minus the metered size of the file system. If the metered size is larger than *maxFsStatBytes*, then *fbytes* and *abytes* will both be '0'.

> **Returns** The max_fs_stat_bytes of this UpdateExportSetDetails.

> **Return type** int

max_fs_stat_files
> Gets the max_fs_stat_files of this UpdateExportSetDetails. Controls the maximum *ffiles*, *ffiles*, and *afiles* values reported by *NFS FSSTAT* calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The *tfiles* value reported by *FSSTAT* will be *maxFsStatFiles*. The value of *ffiles* and *afiles* will be *maxFsStatFiles* minus the metered size of the file system. If the metered size is larger than *maxFsStatFiles*, then *ffiles* and *afiles* will both be '0'.

> **Returns** The max_fs_stat_files of this UpdateExportSetDetails.

> **Return type** int

class oci.file_storage.models.**UpdateFileSystemDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateFileSystemDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateFileSystemDetails.

display_name
> Gets the display_name of this UpdateFileSystemDetails. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

> Example: *My file system*

> **Returns** The display_name of this UpdateFileSystemDetails.

> **Return type** str

class oci.file_storage.models.**UpdateMountTargetDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateMountTargetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateMountTargetDetails.

display_name
> Gets the display_name of this UpdateMountTargetDetails. A user-friendly name. Does not have to be unique, and it is changeable. Avoid entering confidential information.

> Example: *My mount target*

> **Returns** The display_name of this UpdateMountTargetDetails.

> **Return type** str

12.7 Identity

12.7.1 Client

class oci.identity.identity_client.**IdentityClient**(*config*, ***kwargs*)

add_user_to_group(*add_user_to_group_details*, ***kwargs*)
AddUserToGroup Adds the specified user to the specified group and returns a *UserGroupMembership* object with its own OCID.

After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.

> **Parameters**
>
> - **add_user_to_group_details** (AddUserToGroupDetails) – (required) Request object for adding a user to a group.
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A Response object with data of type UserGroupMembership
>
> **Return type** Response

create_compartment(*create_compartment_details*, ***kwargs*)
CreateCompartment Creates a new compartment in your tenancy.

Important: Compartments cannot be deleted.

You must specify your tenancy's OCID as the compartment ID in the request object. Remember that the tenancy is simply the root compartment. For information about OCIDs, see Resource Identifiers.

You must also specify a *name* for the compartment, which must be unique across all compartments in your tenancy. You can use this name or the OCID when writing policies that apply to the compartment. For more information about policies, see How Policies Work.

You must also specify a *description* for the compartment (although it can be an empty string). It does not have to be unique, and you can change it anytime with update_compartment().

After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.

> **Parameters**
>
> - **create_compartment_details** (CreateCompartmentDetails) – (required) Request object for creating a new compartment.
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A Response object with data of type Compartment
>
> **Return type** Response

create_customer_secret_key(*create_customer_secret_key_details*, *user_id*, ***kwargs*)
CreateCustomerSecretKey Creates a new secret key for the specified user. Secret keys are used for authentication with the Object Storage Service's Amazon S3 compatible API. For information, see Managing User Credentials.

You must specify a *description* for the secret key (although it can be an empty string). It does not have to be unique, and you can change it anytime with `update_customer_secret_key()`.

Every user has permission to create a secret key for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to create a secret key for any user, including themselves.

> **Parameters**
>
> - **create_customer_secret_key_details** (`CreateCustomerSecretKeyDetails`) – (required) Request object for creating a new secret key.
>
> - **user_id** (`str`) – (required) The OCID of the user.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A `Response` object with data of type `CustomerSecretKey`
>
> **Return type** `Response`

create_dynamic_group(*create_dynamic_group_details*, ***kwargs*)
CreateDynamicGroup Creates a new dynamic group in your tenancy.

You must specify your tenancy's OCID as the compartment ID in the request object (remember that the tenancy is simply the root compartment). Notice that IAM resources (users, groups, compartments, and some policies) reside within the tenancy itself, unlike cloud resources such as compute instances, which typically reside within compartments inside the tenancy. For information about OCIDs, see Resource Identifiers.

You must also specify a *name* for the dynamic group, which must be unique across all dynamic groups in your tenancy, and cannot be changed. Note that this name has to be also unique accross all groups in your tenancy. You can use this name or the OCID when writing policies that apply to the dynamic group. For more information about policies, see How Policies Work.

You must also specify a *description* for the dynamic group (although it can be an empty string). It does not have to be unique, and you can change it anytime with `update_dynamic_group()`.

After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.

> **Parameters**
>
> - **create_dynamic_group_details** (`CreateDynamicGroupDetails`) – (required) Request object for creating a new dynamic group.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A `Response` object with data of type `DynamicGroup`
>
> **Return type** `Response`

create_group(*create_group_details*, ***kwargs*)

CreateGroup Creates a new group in your tenancy.

You must specify your tenancy's OCID as the compartment ID in the request object (remember that the tenancy is simply the root compartment). Notice that IAM resources (users, groups, compartments, and some policies) reside within the tenancy itself, unlike cloud resources such as compute instances, which typically reside within compartments inside the tenancy. For information about OCIDs, see Resource Identifiers.

You must also specify a *name* for the group, which must be unique across all groups in your tenancy and cannot be changed. You can use this name or the OCID when writing policies that apply to the group. For more information about policies, see How Policies Work.

You must also specify a *description* for the group (although it can be an empty string). It does not have to be unique, and you can change it anytime with update_group().

After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.

After creating the group, you need to put users in it and write policies for it. See add_user_to_group() and create_policy().

> **Parameters**
>
> - **create_group_details** (CreateGroupDetails) – (required) Request object for creating a new group.
>
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *Group*
>
> **Return type** *Response*

create_identity_provider(*create_identity_provider_details*, ***kwargs*)

CreateIdentityProvider Creates a new identity provider in your tenancy. For more information, see Identity Providers and Federation.

You must specify your tenancy's OCID as the compartment ID in the request object. Remember that the tenancy is simply the root compartment. For information about OCIDs, see Resource Identifiers.

You must also specify a *name* for the *IdentityProvider*, which must be unique across all *IdentityProvider* objects in your tenancy and cannot be changed.

You must also specify a *description* for the *IdentityProvider* (although it can be an empty string). It does not have to be unique, and you can change it anytime with update_identity_provider().

After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.

> **Parameters**
>
> - **create_identity_provider_details**(CreateIdentityProviderDetails) – (required) Request object for creating a new SAML2 identity provider.
>
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

> **Returns** A *Response* object with data of type *IdentityProvider*
>
> **Return type** *Response*

create_idp_group_mapping(*create_idp_group_mapping_details*, *identity_provider_id*, ***kwargs*)
  CreateIdpGroupMapping Creates a single mapping between an IdP group and an IAM Service `Group`.

> **Parameters**
>
> - **create_idp_group_mapping_details** (*CreateIdpGroupMappingDetails*) – (required) Add a mapping from an SAML2.0 identity provider group to a BMC group.
>
> - **identity_provider_id** (*str*) – (required) The OCID of the identity provider.
>
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *IdpGroupMapping*
>
> **Return type** *Response*

create_or_reset_ui_password(*user_id*, ***kwargs*)
  CreateOrResetUIPassword Creates a new Console one-time password for the specified user. For more information about user credentials, see User Credentials.

  Use this operation after creating a new user, or if a user forgets their password. The new one-time password is returned to you in the response, and you must securely deliver it to the user. They'll be prompted to change this password the next time they sign in to the Console. If they don't change it within 7 days, the password will expire and you'll need to create a new one-time password for the user.

  Note: The user's Console login is the unique name you specified when you created the user (see `create_user()`).

> **Parameters**
>
> - **user_id** (*str*) – (required) The OCID of the user.
>
> - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *UIPassword*
>
> **Return type** *Response*

create_policy(*create_policy_details*, ***kwargs*)
  CreatePolicy Creates a new policy in the specified compartment (either the tenancy or another of your compartments). If you're new to policies, see Getting Started with Policies.

  You must specify a *name* for the policy, which must be unique across all policies in your tenancy and cannot be changed.

  You must also specify a *description* for the policy (although it can be an empty string). It does not have to be unique, and you can change it anytime with `update_policy()`.

  You must specify one or more policy statements in the statements array. For information about writing policies, see How Policies Work and Common Policies.

After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.

New policies take effect typically within 10 seconds.

> **Parameters**
>
> - **create_policy_details** (`CreatePolicyDetails`) – (required) Request object for creating a new policy.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *Policy*
>
> **Return type** *Response*

create_region_subscription (*create_region_subscription_details*, *tenancy_id*, ***kwargs*)
> CreateRegionSubscription Creates a subscription to a region for a tenancy.
>
> **Parameters**
>
> - **create_region_subscription_details** (`CreateRegionSubscriptionDetails`) – (required) Request object for activate a new region.
>
> - **tenancy_id** (`str`) – (required) The OCID of the tenancy.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *RegionSubscription*
>
> **Return type** *Response*

create_smtp_credential (*create_smtp_credential_details*, *user_id*, ***kwargs*)
> CreateSmtpCredential Creates a new SMTP credential for the specified user. An SMTP credential has an SMTP user name and an SMTP password. You must specify a *description* for the SMTP credential (although it can be an empty string). It does not have to be unique, and you can change it anytime with `update_smtp_credential()`.
>
> **Parameters**
>
> - **create_smtp_credential_details** (`CreateSmtpCredentialDetails`) – (required) Request object for creating a new SMTP credential with the user.
>
> - **user_id** (`str`) – (required) The OCID of the user.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type *SmtpCredential*
>
> **Return type** *Response*

create_swift_password(*create_swift_password_details*, *user_id*, ***kwargs*)
> CreateSwiftPassword Creates a new Swift password for the specified user. For information about what Swift passwords are for, see Managing User Credentials.
>
> You must specify a *description* for the Swift password (although it can be an empty string). It does not have to be unique, and you can change it anytime with `update_swift_password()`.
>
> Every user has permission to create a Swift password for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to create a Swift password for any user, including themselves.
>
> > **Parameters**
> >
> > * **create_swift_password_details** (`CreateSwiftPasswordDetails`) – (required) Request object for creating a new swift password.
> > * **user_id** (`str`) – (required) The OCID of the user.
> > * **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
> >
> > **Returns** A `Response` object with data of type `SwiftPassword`
> >
> > **Return type** `Response`

create_tag(*tag_namespace_id*, *create_tag_details*, ***kwargs*)
> CreateTag Creates a new tag in the specified tag namespace.
>
> You must specify either the OCID or the name of the tag namespace that will contain this tag definition.
>
> You must also specify a *name* for the tag, which must be unique across all tags in the tag namespace and cannot be changed. The name can contain any ASCII character except the space (_) or period (.) characters. Names are case insensitive. That means, for example, "myTag" and "mytag" are not allowed in the same namespace. If you specify a name that's already in use in the tag namespace, a 409 error is returned.
>
> You must also specify a *description* for the tag. It does not have to be unique, and you can change it with `update_tag()`.
>
> > **Parameters**
> >
> > * **tag_namespace_id** (`str`) – (required) The OCID of the tag namespace.
> > * **create_tag_details** (`CreateTagDetails`) – (required) Request object for creating a new tag in the specified tag namespace.
> > * **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
> >
> > **Returns** A `Response` object with data of type `Tag`
> >
> > **Return type** `Response`

create_tag_namespace(*create_tag_namespace_details*, ***kwargs*)
> CreateTagNamespace Creates a new tag namespace in the specified compartment.

You must specify the compartment ID in the request object (remember that the tenancy is simply the root compartment).

You must also specify a *name* for the namespace, which must be unique across all namespaces in your tenancy and cannot be changed. The name can contain any ASCII character except the space (_) or period (.). Names are case insensitive. That means, for example, "myNamespace" and "mynamespace" are not allowed in the same tenancy. Once you created a namespace, you cannot change the name. If you specify a name that's already in use in the tenancy, a 409 error is returned.

You must also specify a *description* for the namespace. It does not have to be unique, and you can change it with `update_tag_namespace()`.

Tag namespaces cannot be deleted, but they can be retired. See Retiring Key Definitions and Namespace Definitions for more information.

> **Parameters**
>
> - **create_tag_namespace_details** (`CreateTagNamespaceDetails`) – (required) Request object for creating a new tag namespace.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A `Response` object with data of type `TagNamespace`
>
> **Return type** `Response`

create_user(*create_user_details*, ***kwargs*)

> CreateUser Creates a new user in your tenancy. For conceptual information about users, your tenancy, and other IAM Service components, see Overview of the IAM Service.
>
> You must specify your tenancy's OCID as the compartment ID in the request object (remember that the tenancy is simply the root compartment). Notice that IAM resources (users, groups, compartments, and some policies) reside within the tenancy itself, unlike cloud resources such as compute instances, which typically reside within compartments inside the tenancy. For information about OCIDs, see Resource Identifiers.
>
> You must also specify a *name* for the user, which must be unique across all users in your tenancy and cannot be changed. Allowed characters: No spaces. Only letters, numerals, hyphens, periods, underscores, +, and @. If you specify a name that's already in use, you'll get a 409 error. This name will be the user's login to the Console. You might want to pick a name that your company's own identity system (e.g., Active Directory, LDAP, etc.) already uses. If you delete a user and then create a new user with the same name, they'll be considered different users because they have different OCIDs.
>
> You must also specify a *description* for the user (although it can be an empty string). It does not have to be unique, and you can change it anytime with `update_user()`. You can use the field to provide the user's full name, a description, a nickname, or other information to generally identify the user.
>
> After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.
>
> A new user has no permissions until you place the user in one or more groups (see `add_user_to_group()`). If the user needs to access the Console, you need to provide the user a password (see `create_or_reset_ui_password()`). If the user needs to access the Oracle Cloud Infrastructure REST API, you need to upload a public API signing key for that user (see Required Keys and OCIDs and also `upload_api_key()`).
>
> **Important:** Make sure to inform the new user which compartment(s) they have access to.

Parameters

- **create_user_details** (`CreateUserDetails`) – (required) Request object for creating a new user.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A `Response` object with data of type `User`

Return type `Response`

delete_api_key(*user_id*, *fingerprint*, ***kwargs*)
DeleteApiKey Deletes the specified API signing key for the specified user.

Every user has permission to use this operation to delete a key for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to delete a key for any user, including themselves.

Parameters

- **user_id** (`str`) – (required) The OCID of the user.

- **fingerprint** (`str`) – (required) The key's fingerprint.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type None

Return type `Response`

delete_customer_secret_key(*user_id*, *customer_secret_key_id*, ***kwargs*)
DeleteCustomerSecretKey Deletes the specified secret key for the specified user.

Parameters

- **user_id** (`str`) – (required) The OCID of the user.

- **customer_secret_key_id** (`str`) – (required) The OCID of the secret key.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A `Response` object with data of type None

Return type `Response`

delete_dynamic_group(*dynamic_group_id*, ***kwargs*)
DeleteDynamicGroup Deletes the specified dynamic group.

Parameters

- **dynamic_group_id** (`str`) – (required) The OCID of the dynamic group.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a

previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [`Response`](#) object with data of type None

> **Return type** [`Response`](#)

delete_group(*group_id*, ***kwargs*)
> DeleteGroup Deletes the specified group. The group must be empty.

> **Parameters**

>> • **group_id** (*str*) – (required) The OCID of the group.

>> • **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [`Response`](#) object with data of type None

> **Return type** [`Response`](#)

delete_identity_provider(*identity_provider_id*, ***kwargs*)
> DeleteIdentityProvider Deletes the specified identity provider. The identity provider must not have any group mappings (see `IdpGroupMapping`).

> **Parameters**

>> • **identity_provider_id** (*str*) – (required) The OCID of the identity provider.

>> • **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [`Response`](#) object with data of type None

> **Return type** [`Response`](#)

delete_idp_group_mapping(*identity_provider_id*, *mapping_id*, ***kwargs*)
> DeleteIdpGroupMapping Deletes the specified group mapping.

> **Parameters**

>> • **identity_provider_id** (*str*) – (required) The OCID of the identity provider.

>> • **mapping_id** (*str*) – (required) The OCID of the group mapping.

>> • **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A [`Response`](#) object with data of type None

> **Return type** [`Response`](#)

delete_policy(*policy_id*, ***kwargs*)
> DeletePolicy Deletes the specified policy. The deletion takes effect typically within 10 seconds.

> **Parameters**

>> • **policy_id** (*str*) – (required) The OCID of the policy.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_smtp_credential(*user_id*, *smtp_credential_id*, ***kwargs*)
DeleteSmtpCredential Deletes the specified SMTP credential for the specified user.

Parameters

- **user_id** (*str*) – (required) The OCID of the user.

- **smtp_credential_id** (*str*) – (required) The OCID of the SMTP credential.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_swift_password(*user_id*, *swift_password_id*, ***kwargs*)
DeleteSwiftPassword Deletes the specified Swift password for the specified user.

Parameters

- **user_id** (*str*) – (required) The OCID of the user.

- **swift_password_id** (*str*) – (required) The OCID of the Swift password.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

delete_user(*user_id*, ***kwargs*)
DeleteUser Deletes the specified user. The user must not be in any groups.

Parameters

- **user_id** (*str*) – (required) The OCID of the user.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type None

Return type *Response*

get_compartment(*compartment_id*, ***kwargs*)
GetCompartment Gets the specified compartment's information.

This operation does not return a list of all the resources inside the compartment. There is no single API operation that does that. Compartments can contain multiple types of resources (instances, block storage

volumes, etc.). To find out what's in a compartment, you must call the "List" operation for each resource type and specify the compartment's OCID as a query parameter in the request. For example, call the `list_instances()` operation in the Cloud Compute Service or the `list_volumes()` operation in Cloud Block Storage.

> **Parameters** **compartment_id** (*str*) – (required) The OCID of the compartment.
>
> **Returns** A *Response* object with data of type *Compartment*
>
> **Return type** *Response*

get_dynamic_group (*dynamic_group_id*, ***kwargs*)
GetDynamicGroup Gets the specified dynamic group's information.

> **Parameters** **dynamic_group_id** (*str*) – (required) The OCID of the dynamic group.
>
> **Returns** A *Response* object with data of type *DynamicGroup*
>
> **Return type** *Response*

get_group (*group_id*, ***kwargs*)
GetGroup Gets the specified group's information.

This operation does not return a list of all the users in the group. To do that, use `list_user_group_memberships()` and provide the group's OCID as a query parameter in the request.

> **Parameters** **group_id** (*str*) – (required) The OCID of the group.
>
> **Returns** A *Response* object with data of type *Group*
>
> **Return type** *Response*

get_identity_provider (*identity_provider_id*, ***kwargs*)
GetIdentityProvider Gets the specified identity provider's information.

> **Parameters** **identity_provider_id** (*str*) – (required) The OCID of the identity provider.
>
> **Returns** A *Response* object with data of type *IdentityProvider*
>
> **Return type** *Response*

get_idp_group_mapping (*identity_provider_id*, *mapping_id*, ***kwargs*)
GetIdpGroupMapping Gets the specified group mapping.

> **Parameters**
>
> * **identity_provider_id** (*str*) – (required) The OCID of the identity provider.
> * **mapping_id** (*str*) – (required) The OCID of the group mapping.
>
> **Returns** A *Response* object with data of type *IdpGroupMapping*
>
> **Return type** *Response*

get_policy (*policy_id*, ***kwargs*)
GetPolicy Gets the specified policy's information.

> **Parameters** **policy_id** (*str*) – (required) The OCID of the policy.
>
> **Returns** A *Response* object with data of type *Policy*
>
> **Return type** *Response*

get_tag (*tag_namespace_id*, *tag_name*, ***kwargs*)
GetTag Gets the specified tag's information.

Parameters

- **tag_namespace_id** (*str*) – (required) The OCID of the tag namespace.

- **tag_name** (*str*) – (required) The name of the tag.

Returns A *Response* object with data of type *Tag*

Return type *Response*

get_tag_namespace(*tag_namespace_id*, ***kwargs*)
    GetTagNamespace Gets the specified tag namespace's information.

Parameters **tag_namespace_id** (*str*) – (required) The OCID of the tag namespace.

Returns A *Response* object with data of type *TagNamespace*

Return type *Response*

get_tenancy(*tenancy_id*, ***kwargs*)
    GetTenancy Get the specified tenancy's information.

Parameters **tenancy_id** (*str*) – (required) The OCID of the tenancy.

Returns A *Response* object with data of type *Tenancy*

Return type *Response*

get_user(*user_id*, ***kwargs*)
    GetUser Gets the specified user's information.

Parameters **user_id** (*str*) – (required) The OCID of the user.

Returns A *Response* object with data of type *User*

Return type *Response*

get_user_group_membership(*user_group_membership_id*, ***kwargs*)
    GetUserGroupMembership Gets the specified UserGroupMembership's information.

Parameters **user_group_membership_id** (*str*) – (required) The OCID of the user-GroupMembership.

Returns A *Response* object with data of type *UserGroupMembership*

Return type *Response*

list_api_keys(*user_id*, ***kwargs*)
    ListApiKeys Lists the API signing keys for the specified user. A user can have a maximum of three keys.

Every user has permission to use this API call for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability.

Parameters **user_id** (*str*) – (required) The OCID of the user.

Returns A *Response* object with data of type list of *ApiKey*

Return type *Response*

list_availability_domains(*compartment_id*, ***kwargs*)
    ListAvailabilityDomains Lists the Availability Domains in your tenancy. Specify the OCID of either the tenancy or another of your compartments as the value for the compartment ID (remember that the tenancy is simply the root compartment). See Where to Get the Tenancy's OCID and User's OCID.

Parameters **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

Returns A *Response* object with data of type list of *AvailabilityDomain*

> **Return type** *Response*

list_compartments(*compartment_id*, ***kwargs*)

> ListCompartments Lists the compartments in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See Where to Get the Tenancy's OCID and User's OCID.
>
> **Parameters**
>
> - **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
>
> **Returns** A *Response* object with data of type list of *Compartment*
>
> **Return type** *Response*

list_customer_secret_keys(*user_id*, ***kwargs*)

> ListCustomerSecretKeys Lists the secret keys for the specified user. The returned object contains the secret key's OCID, but not the secret key itself. The actual secret key is returned only upon creation.
>
> **Parameters** **user_id** (*str*) – (required) The OCID of the user.
>
> **Returns** A *Response* object with data of type list of *CustomerSecretKeySummary*
>
> **Return type** *Response*

list_dynamic_groups(*compartment_id*, ***kwargs*)

> ListDynamicGroups Lists the dynamic groups in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See Where to Get the Tenancy's OCID and User's OCID.
>
> **Parameters**
>
> - **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
> - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
>
> **Returns** A *Response* object with data of type list of *DynamicGroup*
>
> **Return type** *Response*

list_groups(*compartment_id*, ***kwargs*)

> ListGroups Lists the groups in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See Where to Get the Tenancy's OCID and User's OCID.
>
> **Parameters**
>
> - **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

   Returns A *Response* object with data of type list of *Group*

   Return type *Response*

list_identity_providers (*protocol*, *compartment_id*, ***kwargs*)

ListIdentityProviders Lists all the identity providers in your tenancy. You must specify the identity provider type (e.g., *SAML2* for identity providers using the SAML2.0 protocol). You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See Where to Get the Tenancy's OCID and User's OCID.

   Parameters

- **protocol** (*str*) – (required) The protocol used for federation.

   Allowed values are: "SAML2"

- **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

   Returns A *Response* object with data of type list of *IdentityProvider*

   Return type *Response*

list_idp_group_mappings (*identity_provider_id*, ***kwargs*)

ListIdpGroupMappings Lists the group mappings for the specified identity provider.

   Parameters

- **identity_provider_id** (*str*) – (required) The OCID of the identity provider.

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

   Returns A *Response* object with data of type list of *IdpGroupMapping*

   Return type *Response*

list_policies (*compartment_id*, ***kwargs*)

ListPolicies Lists the policies in the specified compartment (either the tenancy or another of your compartments). See Where to Get the Tenancy's OCID and User's OCID.

To determine which policies apply to a particular group or compartment, you must view the individual statements inside all your policies. There isn't a way to automatically obtain that information via the API.

   Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

> **Returns** A *Response* object with data of type list of *Policy*
>
> **Return type** *Response*

list_region_subscriptions(*tenancy_id*, ***kwargs*)

ListRegionSubscriptions Lists the region subscriptions for the specified tenancy.

> **Parameters tenancy_id** (*str*) – (required) The OCID of the tenancy.
>
> **Returns** A *Response* object with data of type list of *RegionSubscription*
>
> **Return type** *Response*

list_regions(***kwargs*)

ListRegions Lists all the regions offered by Oracle Cloud Infrastructure.

> **Returns** A *Response* object with data of type list of *Region*
>
> **Return type** *Response*

list_smtp_credentials(*user_id*, ***kwargs*)

ListSmtpCredentials Lists the SMTP credentials for the specified user. The returned object contains the credential's OCID, the SMTP user name but not the SMTP password. The SMTP password is returned only upon creation.

> **Parameters user_id** (*str*) – (required) The OCID of the user.
>
> **Returns** A *Response* object with data of type list of *SmtpCredentialSummary*
>
> **Return type** *Response*

list_swift_passwords(*user_id*, ***kwargs*)

ListSwiftPasswords Lists the Swift passwords for the specified user. The returned object contains the password's OCID, but not the password itself. The actual password is returned only upon creation.

> **Parameters user_id** (*str*) – (required) The OCID of the user.
>
> **Returns** A *Response* object with data of type list of *SwiftPassword*
>
> **Return type** *Response*

list_tag_namespaces(*compartment_id*, ***kwargs*)

ListTagNamespaces Lists the tag namespaces in the specified compartment.

> **Parameters**
>
> - **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
> - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
> - **include_subcompartments** (*bool*) – (optional) An optional boolean parameter indicating whether to retrieve all tag namespaces in subcompartments. If this parameter is not specified, only the tag namespaces defined in the specified compartment are retrieved.
>
> **Returns** A *Response* object with data of type list of *TagNamespaceSummary*
>
> **Return type** *Response*

list_tags(*tag_namespace_id*, ***kwargs*)

ListTags Lists the tag definitions in the specified tag namespace.

> **Parameters**

- **tag_namespace_id** (*str*) – (required) The OCID of the tag namespace.

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

Returns A *Response* object with data of type list of *TagSummary*

Return type *Response*

list_user_group_memberships (*compartment_id*, ***kwargs*)

ListUserGroupMemberships Lists the *UserGroupMembership* objects in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (see Where to Get the Tenancy's OCID and User's OCID). You must also then filter the list in one of these ways:

- You can limit the results to just the memberships for a given user by specifying a *userId*.

- Similarly, you can limit the results to just the memberships for a given group by specifying a *groupId*.

- You can set both the *userId* and *groupId* to determine if the specified user is in the specified group.

If the answer is no, the response is an empty list. - Although'userId' and *groupId* are not indvidually required, you must set one of them.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

- **user_id** (*str*) – (optional) The OCID of the user.

- **group_id** (*str*) – (optional) The OCID of the group.

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

Returns A *Response* object with data of type list of *UserGroupMembership*

Return type *Response*

list_users (*compartment_id*, ***kwargs*)

ListUsers Lists the users in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See Where to Get the Tenancy's OCID and User's OCID.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

Returns A *Response* object with data of type list of *User*

Return type *Response*

remove_user_from_group(*user_group_membership_id*, ***kwargs*)

RemoveUserFromGroup Removes a user from a group by deleting the corresponding *UserGroupMembership*.

> **Parameters**
>
> - **user_group_membership_id** (*str*) – (required) The OCID of the userGroupMembership.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

update_compartment(*compartment_id*, *update_compartment_details*, ***kwargs*)

UpdateCompartment Updates the specified compartment's description or name. You can't update the root compartment.

> **Parameters**
>
> - **compartment_id** (*str*) – (required) The OCID of the compartment.
>
> - **update_compartment_details** (*UpdateCompartmentDetails*) – (required) Request object for updating a compartment.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *Compartment*
>
> **Return type** *Response*

update_customer_secret_key(*user_id*, *customer_secret_key_id*, *update_customer_secret_key_details*, ***kwargs*)

UpdateCustomerSecretKey Updates the specified secret key's description.

> **Parameters**
>
> - **user_id** (*str*) – (required) The OCID of the user.
>
> - **customer_secret_key_id** (*str*) – (required) The OCID of the secret key.
>
> - **update_customer_secret_key_details** (*UpdateCustomerSecretKeyDetails*) – (required) Request object for updating a secret key.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.
>
> **Returns** A *Response* object with data of type *CustomerSecretKeySummary*
>
> **Return type** *Response*

update_dynamic_group(*dynamic_group_id*, *update_dynamic_group_details*, ***kwargs*)

UpdateDynamicGroup Updates the specified dynamic group.

> **Parameters**
>
> - **dynamic_group_id** (*str*) – (required) The OCID of the dynamic group.

- **update_dynamic_group_details** (`UpdateDynamicGroupDetails`) – (required) Request object for updating an dynamic group.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A `Response` object with data of type `DynamicGroup`

> **Return type** `Response`

update_group (*group_id*, *update_group_details*, ***kwargs*)
   UpdateGroup Updates the specified group.

> **Parameters**

- **group_id** (`str`) – (required) The OCID of the group.

- **update_group_details** (`UpdateGroupDetails`) – (required) Request object for updating a group.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A `Response` object with data of type `Group`

> **Return type** `Response`

update_identity_provider (*identity_provider_id*, *update_identity_provider_details*, ***kwargs*)
   UpdateIdentityProvider Updates the specified identity provider.

> **Parameters**

- **identity_provider_id** (`str`) – (required) The OCID of the identity provider.

- **update_identity_provider_details** (`UpdateIdentityProviderDetails`) – (required) Request object for updating a identity provider.

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A `Response` object with data of type `IdentityProvider`

> **Return type** `Response`

update_idp_group_mapping (*identity_provider_id*, *mapping_id*, *update_idp_group_mapping_details*, ***kwargs*)
   UpdateIdpGroupMapping Updates the specified group mapping.

> **Parameters**

- **identity_provider_id** (`str`) – (required) The OCID of the identity provider.

- **mapping_id** (`str`) – (required) The OCID of the group mapping.

- **update_idp_group_mapping_details** (`UpdateIdpGroupMappingDetails`) – (required) Request object for updating an identity provider group mapping

- **if_match** (`str`) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a

previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns A *Response* object with data of type *IdpGroupMapping*

Return type *Response*

update_policy(*policy_id*, *update_policy_details*, ***kwargs*)
UpdatePolicy Updates the specified policy. You can update the description or the policy statements themselves.

Policy changes take effect typically within 10 seconds.

> **Parameters**
>
> - **policy_id** (*str*) – (required) The OCID of the policy.
>
> - **update_policy_details** (*UpdatePolicyDetails*) – (required) Request object for updating a policy.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *Policy*

> **Return type** *Response*

update_smtp_credential(*user_id*, *smtp_credential_id*, *update_smtp_credential_details*, ***kwargs*)
UpdateSmtpCredential Updates the specified SMTP credential's description.

> **Parameters**
>
> - **user_id** (*str*) – (required) The OCID of the user.
>
> - **smtp_credential_id** (*str*) – (required) The OCID of the SMTP credential.
>
> - **update_smtp_credential_details** (*UpdateSmtpCredentialDetails*) – (required) Request object for updating a SMTP credential.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *SmtpCredentialSummary*

> **Return type** *Response*

update_swift_password(*user_id*, *swift_password_id*, *update_swift_password_details*, ***kwargs*)
UpdateSwiftPassword Updates the specified Swift password's description.

> **Parameters**
>
> - **user_id** (*str*) – (required) The OCID of the user.
>
> - **swift_password_id** (*str*) – (required) The OCID of the Swift password.
>
> - **update_swift_password_details** (*UpdateSwiftPasswordDetails*) – (required) Request object for updating a Swift password.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a

previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *SwiftPassword*

> **Return type** *Response*

update_tag(*tag_namespace_id*, *tag_name*, *update_tag_details*, ***kwargs*)

UpdateTag Updates the the specified tag definition. You can update *description*, and *isRetired*.

> **Parameters**
>
> - **tag_namespace_id** (*str*) – (required) The OCID of the tag namespace.
>
> - **tag_name** (*str*) – (required) The name of the tag.
>
> - **update_tag_details** (*UpdateTagDetails*) – (required) Request object for updating a tag.

> **Returns** A *Response* object with data of type *Tag*

> **Return type** *Response*

update_tag_namespace(*tag_namespace_id*, *update_tag_namespace_details*, ***kwargs*)

UpdateTagNamespace Updates the the specified tag namespace. You can't update the namespace name.

Updating *isRetired* to 'true' retires the namespace and all the tag definitions in the namespace. Reactivating a namespace (changing *isRetired* from 'true' to 'false') does not reactivate tag definitions. To reactivate the tag definitions, you must reactivate each one indvidually *after* you reactivate the namespace, using update_tag(). For more information about retiring tag namespaces, see Retiring Key Definitions and Namespace Definitions.

You can't add a namespace with the same name as a retired namespace in the same tenancy.

> **Parameters**
>
> - **tag_namespace_id** (*str*) – (required) The OCID of the tag namespace.
>
> - **update_tag_namespace_details** (*UpdateTagNamespaceDetails*) – (required) Request object for updating a namespace.

> **Returns** A *Response* object with data of type *TagNamespace*

> **Return type** *Response*

update_user(*user_id*, *update_user_details*, ***kwargs*)

UpdateUser Updates the description of the specified user.

> **Parameters**
>
> - **user_id** (*str*) – (required) The OCID of the user.
>
> - **update_user_details** (*UpdateUserDetails*) – (required) Request object for updating a user.
>
> - **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

> **Returns** A *Response* object with data of type *User*

> **Return type** *Response*

update_user_state(*user_id*, *update_state_details*, ***kwargs*)

UpdateUserState Updates the state of the specified user.

Parameters

- **user_id** (*str*) – (required) The OCID of the user.

- **update_state_details** (*UpdateStateDetails*) – (required) Request object for updating a user state.

- **if_match** (*str*) – (optional) For optimistic concurrency control. In the PUT or DELETE call for a resource, set the *if-match* parameter to the value of the etag from a previous GET or POST response for that resource. The resource will be updated or deleted only if the etag you provide matches the resource's current etag value.

Returns   A *Response* object with data of type *User*

Return type   *Response*

upload_api_key(*user_id*, *create_api_key_details*, ***kwargs*)

UploadApiKey Uploads an API signing key for the specified user.

Every user has permission to use this operation to upload a key for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to upload a key for any user, including themselves.

Important: Even though you have permission to upload an API key, you might not yet have permission to do much else. If you try calling an operation unrelated to your own credential management (e.g., *ListUsers*, *LaunchInstance*) and receive an "unauthorized" error, check with an administrator to confirm which IAM Service group(s) you're in and what access you have. Also confirm you're working in the correct compartment.

After you send your request, the new object's *lifecycleState* will temporarily be CREATING. Before using the object, first make sure its *lifecycleState* has changed to ACTIVE.

Parameters

- **user_id** (*str*) – (required) The OCID of the user.

- **create_api_key_details** (*CreateApiKeyDetails*) – (required) Request object for uploading an API key for a user.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns   A *Response* object with data of type *ApiKey*

Return type   *Response*

12.7.2 Models

class oci.identity.models.**AddUserToGroupDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new AddUserToGroupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **user_id** (*str*) – The value to assign to the user_id property of this AddUserToGroupDetails.

> - **group_id** (*str*) – The value to assign to the group_id property of this AddUser-
>   ToGroupDetails.

group_id
> [Required] Gets the group_id of this AddUserToGroupDetails. The OCID of the group.
>
> > **Returns** The group_id of this AddUserToGroupDetails.
> >
> > **Return type** str

user_id
> [Required] Gets the user_id of this AddUserToGroupDetails. The OCID of the user.
>
> > **Returns** The user_id of this AddUserToGroupDetails.
> >
> > **Return type** str

class oci.identity.models.**ApiKey**(***kwargs*)

__init__(***kwargs*)
> Initializes a new ApiKey object with values from keyword arguments. The following keyword arguments
> are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **key_id** (*str*) – The value to assign to the key_id property of this ApiKey.
>
> - **key_value** (*str*) – The value to assign to the key_value property of this ApiKey.
>
> - **fingerprint** (*str*) – The value to assign to the fingerprint property of this ApiKey.
>
> - **user_id** (*str*) – The value to assign to the user_id property of this ApiKey.
>
> - **time_created** (*datetime*) – The value to assign to the time_created property of this
>   ApiKey.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this
>   ApiKey. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE",
>   "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values
>   returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **inactive_status** (*int*) – The value to assign to the inactive_status property of this
>   ApiKey.

fingerprint
> Gets the fingerprint of this ApiKey. The key's fingerprint (e.g.,
> 12:34:56:78:90:ab:cd:ef:12:34:56:78:90:ab:cd:ef).
>
> > **Returns** The fingerprint of this ApiKey.
> >
> > **Return type** str

inactive_status
> Gets the inactive_status of this ApiKey. The detailed status of INACTIVE lifecycleState.
>
> > **Returns** The inactive_status of this ApiKey.
> >
> > **Return type** int

key_id
> Gets the key_id of this ApiKey. An Oracle-assigned identifier for the key, in this format: TEN-
> ANCY_OCID/USER_OCID/KEY_FINGERPRINT.
>
> > **Returns** The key_id of this ApiKey.

Return type str

key_value

Gets the key_value of this ApiKey. The key's value.

> **Returns** The key_value of this ApiKey.

> **Return type** str

lifecycle_state

Gets the lifecycle_state of this ApiKey. The API key's current state. After creating an *ApiKey* object, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this ApiKey.

> **Return type** str

time_created

Gets the time_created of this ApiKey. Date and time the *ApiKey* object was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this ApiKey.

> **Return type** datetime

user_id

Gets the user_id of this ApiKey. The OCID of the user the key belongs to.

> **Returns** The user_id of this ApiKey.

> **Return type** str

class oci.identity.models.**AvailabilityDomain**(***kwargs*)

__init__(***kwargs*)

Initializes a new AvailabilityDomain object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **name** (*str*) – The value to assign to the name property of this AvailabilityDomain.
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this AvailabilityDomain.

compartment_id

Gets the compartment_id of this AvailabilityDomain. The OCID of the tenancy.

> **Returns** The compartment_id of this AvailabilityDomain.

> **Return type** str

name

Gets the name of this AvailabilityDomain. The name of the Availability Domain.

> **Returns** The name of this AvailabilityDomain.

> **Return type** str

class oci.identity.models.**Compartment**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new Compartment object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>> **Parameters**
>>
>> - **id** (*str*) – The value to assign to the id property of this Compartment.
>>
>> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Compartment.
>>
>> - **name** (*str*) – The value to assign to the name property of this Compartment.
>>
>> - **description** (*str*) – The value to assign to the description property of this Compartment.
>>
>> - **time_created** (*datetime*) – The value to assign to the time_created property of this Compartment.
>>
>> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Compartment. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>>
>> - **inactive_status** (*int*) – The value to assign to the inactive_status property of this Compartment.
>>
>> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Compartment.
>>
>> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Compartment.

> **compartment_id**
>> **[Required]** Gets the compartment_id of this Compartment. The OCID of the tenancy containing the compartment.
>>
>> **Returns** The compartment_id of this Compartment.
>>
>> **Return type** str

> **defined_tags**
>> Gets the defined_tags of this Compartment. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>>
>> **Returns** The defined_tags of this Compartment.
>>
>> **Return type** dict(str, dict(str, *object*))

> **description**
>> **[Required]** Gets the description of this Compartment. The description you assign to the compartment. Does not have to be unique, and it's changeable.
>>
>> **Returns** The description of this Compartment.
>>
>> **Return type** str

> **freeform_tags**
>> Gets the freeform_tags of this Compartment. Free-form tags for this resource. Each tag is a simple

key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

>   **Returns** The freeform_tags of this Compartment.

>   **Return type** dict(str, str)

id
>   [**Required**] Gets the id of this Compartment. The OCID of the compartment.

>   **Returns** The id of this Compartment.

>   **Return type** str

inactive_status
>   Gets the inactive_status of this Compartment. The detailed status of INACTIVE lifecycleState.

>   **Returns** The inactive_status of this Compartment.

>   **Return type** int

lifecycle_state
>   [**Required**] Gets the lifecycle_state of this Compartment. The compartment's current state. After creating a compartment, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

>   Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>   **Returns** The lifecycle_state of this Compartment.

>   **Return type** str

name
>   [**Required**] Gets the name of this Compartment. The name you assign to the compartment during creation. The name must be unique across all compartments in the tenancy. Avoid entering confidential information.

>   **Returns** The name of this Compartment.

>   **Return type** str

time_created
>   [**Required**] Gets the time_created of this Compartment. Date and time the compartment was created, in the format defined by RFC3339.

>   Example: *2016-08-25T21:10:29.600Z*

>   **Returns** The time_created of this Compartment.

>   **Return type** datetime

class oci.identity.models.**CreateApiKeyDetails**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new CreateApiKeyDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters key** (*str*) – The value to assign to the key property of this CreateApiKeyDetails.

key
>   [**Required**] Gets the key of this CreateApiKeyDetails. The public key. Must be an RSA key in PEM format.

>   **Returns** The key of this CreateApiKeyDetails.

> **Return type** str

class oci.identity.models.**CreateCompartmentDetails**(***kwargs*)

> **__init__**(***kwargs*)
>> Initializes a new CreateCompartmentDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>>
>> **Parameters**
>>
>> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateCompartmentDetails.
>>
>> - **name** (*str*) – The value to assign to the name property of this CreateCompartmentDetails.
>>
>> - **description** (*str*) – The value to assign to the description property of this CreateCompartmentDetails.
>>
>> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateCompartmentDetails.
>>
>> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateCompartmentDetails.
>
> **compartment_id**
>> **[Required]** Gets the compartment_id of this CreateCompartmentDetails. The OCID of the tenancy containing the compartment.
>>
>> **Returns** The compartment_id of this CreateCompartmentDetails.
>>
>> **Return type** str
>
> **defined_tags**
>> Gets the defined_tags of this CreateCompartmentDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>>
>> **Returns** The defined_tags of this CreateCompartmentDetails.
>>
>> **Return type** dict(str, dict(str, *object*))
>
> **description**
>> **[Required]** Gets the description of this CreateCompartmentDetails. The description you assign to the compartment during creation. Does not have to be unique, and it's changeable.
>>
>> **Returns** The description of this CreateCompartmentDetails.
>>
>> **Return type** str
>
> **freeform_tags**
>> Gets the freeform_tags of this CreateCompartmentDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>>
>> **Returns** The freeform_tags of this CreateCompartmentDetails.
>>
>> **Return type** dict(str, str)
>
> **name**
>> **[Required]** Gets the name of this CreateCompartmentDetails. The name you assign to the compartment during creation. The name must be unique across all compartments in the tenancy. Avoid entering confidential information.

>>**Returns** The name of this CreateCompartmentDetails.

>>**Return type** str

class oci.identity.models.**CreateCustomerSecretKeyDetails**(***kwargs*)

>**__init__**(***kwargs*)
>>Initializes a new CreateCustomerSecretKeyDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>>**Parameters display_name** (*str*) – The value to assign to the display_name property of this CreateCustomerSecretKeyDetails.

>**display_name**
>>[**Required**] Gets the display_name of this CreateCustomerSecretKeyDetails. The name you assign to the secret key during creation. Does not have to be unique, and it's changeable.

>>**Returns** The display_name of this CreateCustomerSecretKeyDetails.

>>**Return type** str

class oci.identity.models.**CreateDynamicGroupDetails**(***kwargs*)

>**__init__**(***kwargs*)
>>Initializes a new CreateDynamicGroupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>>**Parameters**

>>>• **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateDynamicGroupDetails.

>>>• **name** (*str*) – The value to assign to the name property of this CreateDynamicGroupDetails.

>>>• **matching_rule** (*str*) – The value to assign to the matching_rule property of this CreateDynamicGroupDetails.

>>>• **description** (*str*) – The value to assign to the description property of this CreateDynamicGroupDetails.

>**compartment_id**
>>[**Required**] Gets the compartment_id of this CreateDynamicGroupDetails. The OCID of the tenancy containing the group.

>>**Returns** The compartment_id of this CreateDynamicGroupDetails.

>>**Return type** str

>**description**
>>[**Required**] Gets the description of this CreateDynamicGroupDetails. The description you assign to the group during creation. Does not have to be unique, and it's changeable.

>>**Returns** The description of this CreateDynamicGroupDetails.

>>**Return type** str

>**matching_rule**
>>[**Required**] Gets the matching_rule of this CreateDynamicGroupDetails. The matching rule to dynamically match an instance certificate to this dynamic group. For rule syntax, see Managing Dynamic Groups.

>>**Returns** The matching_rule of this CreateDynamicGroupDetails.

> > > **Return type** str

> > **name**
> > > **[Required]** Gets the name of this CreateDynamicGroupDetails. The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.

> > > > **Returns** The name of this CreateDynamicGroupDetails.

> > > > **Return type** str

class oci.identity.models.**CreateGroupDetails**(***kwargs*)

> > **__init__**(***kwargs*)
> > > Initializes a new CreateGroupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > > **Parameters**

> > > > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateGroupDetails.

> > > > - **name** (*str*) – The value to assign to the name property of this CreateGroupDetails.

> > > > - **description** (*str*) – The value to assign to the description property of this CreateGroupDetails.

> > > > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateGroupDetails.

> > > > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateGroupDetails.

> > **compartment_id**
> > > **[Required]** Gets the compartment_id of this CreateGroupDetails. The OCID of the tenancy containing the group.

> > > > **Returns** The compartment_id of this CreateGroupDetails.

> > > > **Return type** str

> > **defined_tags**
> > > Gets the defined_tags of this CreateGroupDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"Cost-Center": "42"}}*

> > > > **Returns** The defined_tags of this CreateGroupDetails.

> > > > **Return type** dict(str, dict(str, *object*))

> > **description**
> > > **[Required]** Gets the description of this CreateGroupDetails. The description you assign to the group during creation. Does not have to be unique, and it's changeable.

> > > > **Returns** The description of this CreateGroupDetails.

> > > > **Return type** str

> > **freeform_tags**
> > > Gets the freeform_tags of this CreateGroupDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> > > > **Returns** The freeform_tags of this CreateGroupDetails.

> **Return type** dict(str, str)

name

> [Required] Gets the name of this CreateGroupDetails. The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
>
> > **Returns** The name of this CreateGroupDetails.
> >
> > **Return type** str

class oci.identity.models.**CreateIdentityProviderDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new CreateIdentityProviderDetails object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:
>
> - *CreateSaml2IdentityProviderDetails*
>
> The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateIdentityProviderDetails.
>
> - **name** (*str*) – The value to assign to the name property of this CreateIdentityProviderDetails.
>
> - **description** (*str*) – The value to assign to the description property of this CreateIdentityProviderDetails.
>
> - **product_type** (*str*) – The value to assign to the product_type property of this CreateIdentityProviderDetails. Allowed values for this property are: "IDCS", "ADFS"
>
> - **protocol** (*str*) – The value to assign to the protocol property of this CreateIdentityProviderDetails. Allowed values for this property are: "SAML2"
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateIdentityProviderDetails.
>
> - **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this CreateIdentityProviderDetails.

compartment_id

> [Required] Gets the compartment_id of this CreateIdentityProviderDetails. The OCID of your tenancy.
>
> > **Returns** The compartment_id of this CreateIdentityProviderDetails.
> >
> > **Return type** str

defined_tags

> Gets the defined_tags of this CreateIdentityProviderDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this CreateIdentityProviderDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

description

> [Required] Gets the description of this CreateIdentityProviderDetails. The description you assign to the *IdentityProvider* during creation. Does not have to be unique, and it's changeable.

> **Returns** The description of this CreateIdentityProviderDetails.

> **Return type** str

freeform_tags
> Gets the freeform_tags of this CreateIdentityProviderDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> > **Returns** The freeform_tags of this CreateIdentityProviderDetails.

> > **Return type** dict(str, str)

static get_subtype(*object_dictionary*)
> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

name
> **[Required]** Gets the name of this CreateIdentityProviderDetails. The name you assign to the *IdentityProvider* during creation. The name must be unique across all *IdentityProvider* objects in the tenancy and cannot be changed.

> > **Returns** The name of this CreateIdentityProviderDetails.

> > **Return type** str

product_type
> **[Required]** Gets the product_type of this CreateIdentityProviderDetails. The identity provider service or product. Supported identity providers are Oracle Identity Cloud Service (IDCS) and Microsoft Active Directory Federation Services (ADFS).

> Example: *IDCS*

> Allowed values for this property are: "IDCS", "ADFS"

> > **Returns** The product_type of this CreateIdentityProviderDetails.

> > **Return type** str

protocol
> **[Required]** Gets the protocol of this CreateIdentityProviderDetails. The protocol used for federation.

> Example: *SAML2*

> Allowed values for this property are: "SAML2"

> > **Returns** The protocol of this CreateIdentityProviderDetails.

> > **Return type** str

class oci.identity.models.**CreateIdpGroupMappingDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateIdpGroupMappingDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > • **idp_group_name** (`str`) – The value to assign to the idp_group_name property of this CreateIdpGroupMappingDetails.

> > • **group_id** (`str`) – The value to assign to the group_id property of this CreateIdpGroupMappingDetails.

group_id
: [**Required**] Gets the group_id of this CreateIdpGroupMappingDetails. The OCID of the IAM Service *Group* you want to map to the IdP group.

    Returns The group_id of this CreateIdpGroupMappingDetails.

    Return type str

idp_group_name
: [**Required**] Gets the idp_group_name of this CreateIdpGroupMappingDetails. The name of the IdP group you want to map.

    Returns The idp_group_name of this CreateIdpGroupMappingDetails.

    Return type str

class oci.identity.models.**CreatePolicyDetails**(***kwargs*)

__init__(***kwargs*)
: Initializes a new CreatePolicyDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    Parameters

    - **compartment_id** (`str`) – The value to assign to the compartment_id property of this CreatePolicyDetails.

    - **name** (`str`) – The value to assign to the name property of this CreatePolicyDetails.

    - **statements** (`list[str]`) – The value to assign to the statements property of this CreatePolicyDetails.

    - **description** (`str`) – The value to assign to the description property of this CreatePolicyDetails.

    - **version_date** (`datetime`) – The value to assign to the version_date property of this CreatePolicyDetails.

    - **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this CreatePolicyDetails.

    - **defined_tags** (`dict(str, dict(str, object))`) – The value to assign to the defined_tags property of this CreatePolicyDetails.

compartment_id
: [**Required**] Gets the compartment_id of this CreatePolicyDetails. The OCID of the compartment containing the policy (either the tenancy or another compartment).

    Returns The compartment_id of this CreatePolicyDetails.

    Return type str

defined_tags
: Gets the defined_tags of this CreatePolicyDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

    Returns The defined_tags of this CreatePolicyDetails.

    Return type dict(str, dict(str, *object*))

description
: [**Required**] Gets the description of this CreatePolicyDetails. The description you assign to the policy during creation. Does not have to be unique, and it's changeable.

> **Returns** The description of this CreatePolicyDetails.

> **Return type** str

freeform_tags
> Gets the freeform_tags of this CreatePolicyDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> > **Returns** The freeform_tags of this CreatePolicyDetails.

> > **Return type** dict(str, str)

name
> [Required] Gets the name of this CreatePolicyDetails. The name you assign to the policy during creation. The name must be unique across all policies in the tenancy and cannot be changed.

> > **Returns** The name of this CreatePolicyDetails.

> > **Return type** str

statements
> [Required] Gets the statements of this CreatePolicyDetails. An array of policy statements written in the policy language. See How Policies Work and Common Policies.

> > **Returns** The statements of this CreatePolicyDetails.

> > **Return type** list[str]

version_date
> Gets the version_date of this CreatePolicyDetails. The version of the policy. If null or set to an empty string, when a request comes in for authorization, the policy will be evaluated according to the current behavior of the services at that moment. If set to a particular date (YYYY-MM-DD), the policy will be evaluated according to the behavior of the services on that date.

> > **Returns** The version_date of this CreatePolicyDetails.

> > **Return type** datetime

class oci.identity.models.**CreateRegionSubscriptionDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateRegionSubscriptionDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters region_key** (*str*) – The value to assign to the region_key property of this CreateRegionSubscriptionDetails.

region_key
> [Required] Gets the region_key of this CreateRegionSubscriptionDetails. The regions's key.

> Allowed values are: - *PHX - IAD - FRA - LHR*

> Example: *PHX*

> > **Returns** The region_key of this CreateRegionSubscriptionDetails.

> > **Return type** str

class oci.identity.models.**CreateSaml2IdentityProviderDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new CreateSaml2IdentityProviderDetails object with values from keyword arguments. The default value of the [*protocol*](#) attribute of this class is `SAML2` and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateSaml2IdentityProviderDetails.
>
> - **name** (*str*) – The value to assign to the name property of this CreateSaml2IdentityProviderDetails.
>
> - **description** (*str*) – The value to assign to the description property of this CreateSaml2IdentityProviderDetails.
>
> - **product_type** (*str*) – The value to assign to the product_type property of this CreateSaml2IdentityProviderDetails. Allowed values for this property are: "IDCS", "ADFS"
>
> - **protocol** (*str*) – The value to assign to the protocol property of this CreateSaml2IdentityProviderDetails. Allowed values for this property are: "SAML2"
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateSaml2IdentityProviderDetails.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateSaml2IdentityProviderDetails.
>
> - **metadata_url** (*str*) – The value to assign to the metadata_url property of this CreateSaml2IdentityProviderDetails.
>
> - **metadata** (*str*) – The value to assign to the metadata property of this CreateSaml2IdentityProviderDetails.

compartment_id

[**Required**] Gets the compartment_id of this CreateIdentityProviderDetails. The OCID of your tenancy.

> **Returns** The compartment_id of this CreateIdentityProviderDetails.
>
> **Return type** str

defined_tags

Gets the defined_tags of this CreateIdentityProviderDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this CreateIdentityProviderDetails.
>
> **Return type** dict(str, dict(str, *object*))

description

[**Required**] Gets the description of this CreateIdentityProviderDetails. The description you assign to the *IdentityProvider* during creation. Does not have to be unique, and it's changeable.

> **Returns** The description of this CreateIdentityProviderDetails.
>
> **Return type** str

freeform_tags

Gets the freeform_tags of this CreateIdentityProviderDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CreateIdentityProviderDetails.

> **Return type** dict(str, str)

get_subtype(*object_dictionary*)
> Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

metadata
> **[Required]** Gets the metadata of this CreateSaml2IdentityProviderDetails. The XML that contains the information required for federating.
>
> > **Returns** The metadata of this CreateSaml2IdentityProviderDetails.
> >
> > **Return type** str

metadata_url
> **[Required]** Gets the metadata_url of this CreateSaml2IdentityProviderDetails. The URL for retrieving the identity provider's metadata, which contains information required for federating.
>
> > **Returns** The metadata_url of this CreateSaml2IdentityProviderDetails.
> >
> > **Return type** str

name
> **[Required]** Gets the name of this CreateIdentityProviderDetails. The name you assign to the *IdentityProvider* during creation. The name must be unique across all *IdentityProvider* objects in the tenancy and cannot be changed.
>
> > **Returns** The name of this CreateIdentityProviderDetails.
> >
> > **Return type** str

product_type
> **[Required]** Gets the product_type of this CreateIdentityProviderDetails. The identity provider service or product. Supported identity providers are Oracle Identity Cloud Service (IDCS) and Microsoft Active Directory Federation Services (ADFS).
>
> Example: *IDCS*
>
> Allowed values for this property are: "IDCS", "ADFS"
>
> > **Returns** The product_type of this CreateIdentityProviderDetails.
> >
> > **Return type** str

protocol
> **[Required]** Gets the protocol of this CreateIdentityProviderDetails. The protocol used for federation.
>
> Example: *SAML2*
>
> Allowed values for this property are: "SAML2"
>
> > **Returns** The protocol of this CreateIdentityProviderDetails.
> >
> > **Return type** str

class oci.identity.models.**CreateSmtpCredentialDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateSmtpCredentialDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters description** (*str*) – The value to assign to the description property of this CreateSmtpCredentialDetails.

description
　　[**Required**] Gets the description of this CreateSmtpCredentialDetails. The description you assign to the SMTP credentials during creation. Does not have to be unique, and it's changeable.

　　　　Returns The description of this CreateSmtpCredentialDetails.

　　　　Return type str

class oci.identity.models.**CreateSwiftPasswordDetails**(***kwargs*)

__init__(***kwargs*)
　　Initializes a new CreateSwiftPasswordDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

　　　　Parameters description (*str*) – The value to assign to the description property of this CreateSwiftPasswordDetails.

description
　　[**Required**] Gets the description of this CreateSwiftPasswordDetails. The description you assign to the Swift password during creation. Does not have to be unique, and it's changeable.

　　　　Returns The description of this CreateSwiftPasswordDetails.

　　　　Return type str

class oci.identity.models.**CreateTagDetails**(***kwargs*)

__init__(***kwargs*)
　　Initializes a new CreateTagDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

　　　　Parameters

　　　　　　• **name** (*str*) – The value to assign to the name property of this CreateTagDetails.

　　　　　　• **description** (*str*) – The value to assign to the description property of this CreateTagDetails.

　　　　　　• **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateTagDetails.

　　　　　　• **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this CreateTagDetails.

defined_tags
　　Gets the defined_tags of this CreateTagDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

　　　　Returns The defined_tags of this CreateTagDetails.

　　　　Return type dict(str, dict(str, *object*))

description
　　[**Required**] Gets the description of this CreateTagDetails. The description you assign to the tag during creation.

　　　　Returns The description of this CreateTagDetails.

　　　　Return type str

freeform_tags
> Gets the freeform_tags of this CreateTagDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this CreateTagDetails.
> >
> > **Return type** dict(str, str)

name
> [**Required**] Gets the name of this CreateTagDetails. The name you assign to the tag during creation. The name must be unique within the tag namespace and cannot be changed.
>
> > **Returns** The name of this CreateTagDetails.
> >
> > **Return type** str

class oci.identity.models.**CreateTagNamespaceDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CreateTagNamespaceDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateTagNamespaceDetails.
> >
> > * **name** (*str*) – The value to assign to the name property of this CreateTagNamespaceDetails.
> >
> > * **description** (*str*) – The value to assign to the description property of this CreateTagNamespaceDetails.
> >
> > * **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateTagNamespaceDetails.
> >
> > * **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateTagNamespaceDetails.

compartment_id
> [**Required**] Gets the compartment_id of this CreateTagNamespaceDetails. The OCID of the tenancy containing the tag namespace.
>
> > **Returns** The compartment_id of this CreateTagNamespaceDetails.
> >
> > **Return type** str

defined_tags
> Gets the defined_tags of this CreateTagNamespaceDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this CreateTagNamespaceDetails.
> >
> > **Return type** dict(str, dict(str, *object*))

description
> [**Required**] Gets the description of this CreateTagNamespaceDetails. The description you assign to the tag namespace during creation.
>
> > **Returns** The description of this CreateTagNamespaceDetails.
> >
> > **Return type** str

freeform_tags
    Gets the freeform_tags of this CreateTagNamespaceDetails. Free-form tags for this resource. Each tag is a
    simple key-value pair with no predefined name, type, or namespace. For more information, see Resource
    Tags. Example: *{"Department": "Finance"}*

>   **Returns** The freeform_tags of this CreateTagNamespaceDetails.

>   **Return type** dict(str, str)

name
    [Required] Gets the name of this CreateTagNamespaceDetails. The name you assign to the tag namespace
    during creation. It must be unique across all tag namespaces in the tenancy and cannot be changed.

>   **Returns** The name of this CreateTagNamespaceDetails.

>   **Return type** str

class oci.identity.models.**CreateUserDetails**(***kwargs*)

__init__(***kwargs*)
    Initializes a new CreateUserDetails object with values from keyword arguments. The following keyword
    arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters**
>
>   - **compartment_id** (*str*) – The value to assign to the compartment_id property of this
>   CreateUserDetails.
>
>   - **name** (*str*) – The value to assign to the name property of this CreateUserDetails.
>
>   - **description** (*str*) – The value to assign to the description property of this Crea-
>   teUserDetails.
>
>   - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags
>   property of this CreateUserDetails.
>
>   - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the
>   defined_tags property of this CreateUserDetails.

compartment_id
    [Required] Gets the compartment_id of this CreateUserDetails. The OCID of the tenancy containing the
    user.

>   **Returns** The compartment_id of this CreateUserDetails.

>   **Return type** str

defined_tags
    Gets the defined_tags of this CreateUserDetails. Defined tags for this resource. Each key is predefined and
    scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCen-
    ter": "42"}}*

>   **Returns** The defined_tags of this CreateUserDetails.

>   **Return type** dict(str, dict(str, *object*))

description
    [Required] Gets the description of this CreateUserDetails. The description you assign to the user during
    creation. Does not have to be unique, and it's changeable.

>   **Returns** The description of this CreateUserDetails.

>   **Return type** str

freeform_tags

Gets the freeform_tags of this CreateUserDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CreateUserDetails.

> **Return type** dict(str, str)

name

[Required] Gets the name of this CreateUserDetails. The name you assign to the user during creation. This is the user's login for the Console. The name must be unique across all users in the tenancy and cannot be changed.

> **Returns** The name of this CreateUserDetails.

> **Return type** str

class oci.identity.models.**CustomerSecretKey**(***kwargs*)

__init__(***kwargs*)

Initializes a new CustomerSecretKey object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **key** (*str*) – The value to assign to the key property of this CustomerSecretKey.

- **id** (*str*) – The value to assign to the id property of this CustomerSecretKey.

- **user_id** (*str*) – The value to assign to the user_id property of this CustomerSecretKey.

- **display_name** (*str*) – The value to assign to the display_name property of this CustomerSecretKey.

- **time_created** (*datetime*) – The value to assign to the time_created property of this CustomerSecretKey.

- **time_expires** (*datetime*) – The value to assign to the time_expires property of this CustomerSecretKey.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this CustomerSecretKey. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (*int*) – The value to assign to the inactive_status property of this CustomerSecretKey.

display_name

Gets the display_name of this CustomerSecretKey. The display name you assign to the secret key. Does not have to be unique, and it's changeable.

> **Returns** The display_name of this CustomerSecretKey.

> **Return type** str

id

Gets the id of this CustomerSecretKey. The OCID of the secret key.

> **Returns** The id of this CustomerSecretKey.

> **Return type** str

inactive_status
Gets the inactive_status of this CustomerSecretKey. The detailed status of INACTIVE lifecycleState.

> **Returns** The inactive_status of this CustomerSecretKey.

> **Return type** int

key
Gets the key of this CustomerSecretKey. The secret key.

> **Returns** The key of this CustomerSecretKey.

> **Return type** str

lifecycle_state
Gets the lifecycle_state of this CustomerSecretKey. The secret key's current state. After creating a secret key, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this CustomerSecretKey.

> **Return type** str

time_created
Gets the time_created of this CustomerSecretKey. Date and time the *CustomerSecretKey* object was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this CustomerSecretKey.

> **Return type** datetime

time_expires
Gets the time_expires of this CustomerSecretKey. Date and time when this password will expire, in the format defined by RFC3339. Null if it never expires.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_expires of this CustomerSecretKey.

> **Return type** datetime

user_id
Gets the user_id of this CustomerSecretKey. The OCID of the user the password belongs to.

> **Returns** The user_id of this CustomerSecretKey.

> **Return type** str

class oci.identity.models.**CustomerSecretKeySummary**(***kwargs*)

__init__(***kwargs*)
Initializes a new CustomerSecretKeySummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **id** (*str*) – The value to assign to the id property of this CustomerSecretKeySummary.
> - **user_id** (*str*) – The value to assign to the user_id property of this CustomerSecretKeySummary.

- **display_name** (`str`) – The value to assign to the display_name property of this CustomerSecretKeySummary.

- **time_created** (`datetime`) – The value to assign to the time_created property of this CustomerSecretKeySummary.

- **time_expires** (`datetime`) – The value to assign to the time_expires property of this CustomerSecretKeySummary.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this CustomerSecretKeySummary. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (`int`) – The value to assign to the inactive_status property of this CustomerSecretKeySummary.

display_name

Gets the display_name of this CustomerSecretKeySummary. The displayName you assign to the secret key. Does not have to be unique, and it's changeable.

> **Returns** The display_name of this CustomerSecretKeySummary.

> **Return type** str

id

Gets the id of this CustomerSecretKeySummary. The OCID of the secret key.

> **Returns** The id of this CustomerSecretKeySummary.

> **Return type** str

inactive_status

Gets the inactive_status of this CustomerSecretKeySummary. The detailed status of INACTIVE lifecycleState.

> **Returns** The inactive_status of this CustomerSecretKeySummary.

> **Return type** int

lifecycle_state

Gets the lifecycle_state of this CustomerSecretKeySummary. The secret key's current state. After creating a secret key, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this CustomerSecretKeySummary.

> **Return type** str

time_created

Gets the time_created of this CustomerSecretKeySummary. Date and time the *CustomerSecretKey* object was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this CustomerSecretKeySummary.

> **Return type** datetime

time_expires
> Gets the time_expires of this CustomerSecretKeySummary. Date and time when this password will expire, in the format defined by RFC3339. Null if it never expires.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_expires of this CustomerSecretKeySummary.

> > **Return type** datetime

user_id
> Gets the user_id of this CustomerSecretKeySummary. The OCID of the user the password belongs to.

> > **Returns** The user_id of this CustomerSecretKeySummary.

> > **Return type** str

class oci.identity.models.**DynamicGroup**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new DynamicGroup object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **id** (*str*) – The value to assign to the id property of this DynamicGroup.

> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this DynamicGroup.

> > - **name** (*str*) – The value to assign to the name property of this DynamicGroup.

> > - **description** (*str*) – The value to assign to the description property of this Dynamic-Group.

> > - **matching_rule** (*str*) – The value to assign to the matching_rule property of this DynamicGroup.

> > - **time_created** (*datetime*) – The value to assign to the time_created property of this DynamicGroup.

> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this DynamicGroup. Allowed values for this property are: "CREATING", "ACTIVE", "IN-ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > - **inactive_status** (*int*) – The value to assign to the inactive_status property of this DynamicGroup.

compartment_id
> [Required] Gets the compartment_id of this DynamicGroup. The OCID of the tenancy containing the group.

> > **Returns** The compartment_id of this DynamicGroup.

> > **Return type** str

description
> [Required] Gets the description of this DynamicGroup. The description you assign to the group. Does not have to be unique, and it's changeable.

> > **Returns** The description of this DynamicGroup.

> > **Return type** str

id
> [Required] Gets the id of this DynamicGroup. The OCID of the group.
>
> > **Returns** The id of this DynamicGroup.
> >
> > **Return type** str

inactive_status
> Gets the inactive_status of this DynamicGroup. The detailed status of INACTIVE lifecycleState.
>
> > **Returns** The inactive_status of this DynamicGroup.
> >
> > **Return type** int

lifecycle_state
> [Required] Gets the lifecycle_state of this DynamicGroup. The group's current state. After creating a group, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this DynamicGroup.
> >
> > **Return type** str

matching_rule
> [Required] Gets the matching_rule of this DynamicGroup. A rule string that defines which instance certificates will be matched. For syntax, see Managing Dynamic Groups.
>
> > **Returns** The matching_rule of this DynamicGroup.
> >
> > **Return type** str

name
> [Required] Gets the name of this DynamicGroup. The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
>
> > **Returns** The name of this DynamicGroup.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this DynamicGroup. Date and time the group was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this DynamicGroup.
> >
> > **Return type** datetime

class oci.identity.models.**Group**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new Group object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> > - **id** (*str*) – The value to assign to the id property of this Group.
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Group.

- **name** (`str`) – The value to assign to the name property of this Group.

- **description** (`str`) – The value to assign to the description property of this Group.

- **time_created** (`datetime`) – The value to assign to the time_created property of this Group.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this Group. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (`int`) – The value to assign to the inactive_status property of this Group.

- **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this Group.

- **defined_tags** (`dict(str, dict(str, object))`) – The value to assign to the defined_tags property of this Group.

compartment_id
> [**Required**] Gets the compartment_id of this Group. The OCID of the tenancy containing the group.
>
> > **Returns** The compartment_id of this Group.
> >
> > **Return type** str

defined_tags
> Gets the defined_tags of this Group. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this Group.
> >
> > **Return type** dict(str, dict(str, *object*))

description
> [**Required**] Gets the description of this Group. The description you assign to the group. Does not have to be unique, and it's changeable.
>
> > **Returns** The description of this Group.
> >
> > **Return type** str

freeform_tags
> Gets the freeform_tags of this Group. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this Group.
> >
> > **Return type** dict(str, str)

id
> [**Required**] Gets the id of this Group. The OCID of the group.
>
> > **Returns** The id of this Group.
> >
> > **Return type** str

inactive_status
> Gets the inactive_status of this Group. The detailed status of INACTIVE lifecycleState.
>
> > **Returns** The inactive_status of this Group.
> >
> > **Return type** int

lifecycle_state
> [Required] Gets the lifecycle_state of this Group. The group's current state. After creating a group, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this Group.
> >
> > **Return type** str

name
> [Required] Gets the name of this Group. The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
>
> > **Returns** The name of this Group.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this Group. Date and time the group was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this Group.
> >
> > **Return type** datetime

class oci.identity.models.**IdentityProvider**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new IdentityProvider object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:
> >
> > * *Saml2IdentityProvider*
> >
> > The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > * **id** (*str*) – The value to assign to the id property of this IdentityProvider.
> >
> > * **compartment_id** (*str*) – The value to assign to the compartment_id property of this IdentityProvider.
> >
> > * **name** (*str*) – The value to assign to the name property of this IdentityProvider.
> >
> > * **description** (*str*) – The value to assign to the description property of this IdentityProvider.
> >
> > * **product_type** (*str*) – The value to assign to the product_type property of this IdentityProvider.
> >
> > * **time_created** (*datetime*) – The value to assign to the time_created property of this IdentityProvider.
> >
> > * **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this IdentityProvider. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (*int*) – The value to assign to the inactive_status property of this IdentityProvider.

- **protocol** (*str*) – The value to assign to the protocol property of this IdentityProvider.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this IdentityProvider.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this IdentityProvider.

compartment_id

[**Required**] Gets the compartment_id of this IdentityProvider. The OCID of the tenancy containing the *IdentityProvider*.

> **Returns** The compartment_id of this IdentityProvider.

> **Return type** str

defined_tags

Gets the defined_tags of this IdentityProvider. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this IdentityProvider.

> **Return type** dict(str, dict(str, *object*))

description

[**Required**] Gets the description of this IdentityProvider. The description you assign to the *IdentityProvider* during creation. Does not have to be unique, and it's changeable.

> **Returns** The description of this IdentityProvider.

> **Return type** str

freeform_tags

Gets the freeform_tags of this IdentityProvider. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this IdentityProvider.

> **Return type** dict(str, str)

static get_subtype(*object_dictionary*)

Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

id

[**Required**] Gets the id of this IdentityProvider. The OCID of the *IdentityProvider*.

> **Returns** The id of this IdentityProvider.

> **Return type** str

inactive_status

Gets the inactive_status of this IdentityProvider. The detailed status of INACTIVE lifecycleState.

> **Returns** The inactive_status of this IdentityProvider.

> **Return type** int

lifecycle_state
> [Required] Gets the lifecycle_state of this IdentityProvider. The current state. After creating an *IdentityProvider*, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>> **Returns** The lifecycle_state of this IdentityProvider.
>>
>> **Return type** str

name
> [Required] Gets the name of this IdentityProvider. The name you assign to the *IdentityProvider* during creation. The name must be unique across all *IdentityProvider* objects in the tenancy and cannot be changed. This is the name federated users see when choosing which identity provider to use when signing in to the Oracle Cloud Infrastructure Console.
>
>> **Returns** The name of this IdentityProvider.
>>
>> **Return type** str

product_type
> [Required] Gets the product_type of this IdentityProvider. The identity provider service or product. Supported identity providers are Oracle Identity Cloud Service (IDCS) and Microsoft Active Directory Federation Services (ADFS).
>
> Allowed values are: - *ADFS - IDCS*
>
> Example: *IDCS*
>
>> **Returns** The product_type of this IdentityProvider.
>>
>> **Return type** str

protocol
> [Required] Gets the protocol of this IdentityProvider. The protocol used for federation. Allowed value: *SAML2*.
>
> Example: *SAML2*
>
>> **Returns** The protocol of this IdentityProvider.
>>
>> **Return type** str

time_created
> [Required] Gets the time_created of this IdentityProvider. Date and time the *IdentityProvider* was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
>> **Returns** The time_created of this IdentityProvider.
>>
>> **Return type** datetime

class oci.identity.models.**IdpGroupMapping**(***kwargs*)

__init__(***kwargs*)
> Initializes a new IdpGroupMapping object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> • **id** (*str*) – The value to assign to the id property of this IdpGroupMapping.

- **idp_id** (*str*) – The value to assign to the idp_id property of this IdpGroupMapping.

- **idp_group_name** (*str*) – The value to assign to the idp_group_name property of this IdpGroupMapping.

- **group_id** (*str*) – The value to assign to the group_id property of this IdpGroupMapping.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this IdpGroupMapping.

- **time_created** (*datetime*) – The value to assign to the time_created property of this IdpGroupMapping.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this IdpGroupMapping. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (*int*) – The value to assign to the inactive_status property of this IdpGroupMapping.

compartment_id
    [Required] Gets the compartment_id of this IdpGroupMapping. The OCID of the tenancy containing the *IdentityProvider*.

    Returns The compartment_id of this IdpGroupMapping.

    Return type str

group_id
    [Required] Gets the group_id of this IdpGroupMapping. The OCID of the IAM Service group that is mapped to the IdP group.

    Returns The group_id of this IdpGroupMapping.

    Return type str

id
    [Required] Gets the id of this IdpGroupMapping. The OCID of the *IdpGroupMapping*.

    Returns The id of this IdpGroupMapping.

    Return type str

idp_group_name
    [Required] Gets the idp_group_name of this IdpGroupMapping. The name of the IdP group that is mapped to the IAM Service group.

    Returns The idp_group_name of this IdpGroupMapping.

    Return type str

idp_id
    [Required] Gets the idp_id of this IdpGroupMapping. The OCID of the *IdentityProvider* this mapping belongs to.

    Returns The idp_id of this IdpGroupMapping.

    Return type str

inactive_status
    Gets the inactive_status of this IdpGroupMapping. The detailed status of INACTIVE lifecycleState.

    Returns The inactive_status of this IdpGroupMapping.

> **Return type** int

lifecycle_state

> [Required] Gets the lifecycle_state of this IdpGroupMapping. The mapping's current state. After creating a mapping object, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this IdpGroupMapping.
> >
> > **Return type** str

time_created

> [Required] Gets the time_created of this IdpGroupMapping. Date and time the mapping was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this IdpGroupMapping.
> >
> > **Return type** datetime

class oci.identity.models.**Policy**(***kwargs*)

__init__(***kwargs*)

> Initializes a new Policy object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **id** (*str*) – The value to assign to the id property of this Policy.
>
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Policy.
>
> - **name** (*str*) – The value to assign to the name property of this Policy.
>
> - **statements** (*list[str]*) – The value to assign to the statements property of this Policy.
>
> - **description** (*str*) – The value to assign to the description property of this Policy.
>
> - **time_created** (*datetime*) – The value to assign to the time_created property of this Policy.
>
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this Policy. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> - **inactive_status** (*int*) – The value to assign to the inactive_status property of this Policy.
>
> - **version_date** (*datetime*) – The value to assign to the version_date property of this Policy.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Policy.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Policy.

compartment_id
> **[Required]** Gets the compartment_id of this Policy. The OCID of the compartment containing the policy (either the tenancy or another compartment).
>
> > **Returns** The compartment_id of this Policy.
> >
> > **Return type** str

defined_tags
> Gets the defined_tags of this Policy. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this Policy.
> >
> > **Return type** dict(str, dict(str, *object*))

description
> **[Required]** Gets the description of this Policy. The description you assign to the policy. Does not have to be unique, and it's changeable.
>
> > **Returns** The description of this Policy.
> >
> > **Return type** str

freeform_tags
> Gets the freeform_tags of this Policy. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this Policy.
> >
> > **Return type** dict(str, str)

id
> **[Required]** Gets the id of this Policy. The OCID of the policy.
>
> > **Returns** The id of this Policy.
> >
> > **Return type** str

inactive_status
> Gets the inactive_status of this Policy. The detailed status of INACTIVE lifecycleState.
>
> > **Returns** The inactive_status of this Policy.
> >
> > **Return type** int

lifecycle_state
> **[Required]** Gets the lifecycle_state of this Policy. The policy's current state. After creating a policy, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.
>
> Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The lifecycle_state of this Policy.
> >
> > **Return type** str

name
> **[Required]** Gets the name of this Policy. The name you assign to the policy during creation. The name must be unique across all policies in the tenancy and cannot be changed.
>
> > **Returns** The name of this Policy.
> >
> > **Return type** str

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statements
>   [**Required**] Gets the statements of this Policy. An array of one or more policy statements written in the policy language.
>
> > **Returns** The statements of this Policy.
> >
> > **Return type** list[str]

time_created
>   [**Required**] Gets the time_created of this Policy. Date and time the policy was created, in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this Policy.
> >
> > **Return type** datetime

version_date
>   Gets the version_date of this Policy. The version of the policy. If null or set to an empty string, when a request comes in for authorization, the policy will be evaluated according to the current behavior of the services at that moment. If set to a particular date (YYYY-MM-DD), the policy will be evaluated according to the behavior of the services on that date.
>
> > **Returns** The version_date of this Policy.
> >
> > **Return type** datetime

class oci.identity.models.**Region**(***kwargs*)

> **__init__**(***kwargs*)
>   Initializes a new Region object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **key** (*str*) – The value to assign to the key property of this Region.
> >
> > * **name** (*str*) – The value to assign to the name property of this Region.
>
> **key**
>   Gets the key of this Region. The key of the region.
>
> Allowed values are: - *PHX - IAD - FRA - LHR*
>
> > **Returns** The key of this Region.
> >
> > **Return type** str
>
> **name**
>   Gets the name of this Region. The name of the region.
>
> Allowed values are: - *us-phoenix-1 - us-ashburn-1 - eu-frankfurt-1 - uk-london-1*
>
> > **Returns** The name of this Region.
> >
> > **Return type** str

class oci.identity.models.**RegionSubscription**(***kwargs*)

> **__init__**(***kwargs*)
>   Initializes a new RegionSubscription object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **region_key** (*str*) – The value to assign to the region_key property of this RegionSubscription.

- **region_name** (*str*) – The value to assign to the region_name property of this RegionSubscription.

- **status** (*str*) – The value to assign to the status property of this RegionSubscription. Allowed values for this property are: "READY", "IN_PROGRESS", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **is_home_region** (*bool*) – The value to assign to the is_home_region property of this RegionSubscription.

is_home_region

[**Required**] Gets the is_home_region of this RegionSubscription. Indicates if the region is the home region or not.

Returns The is_home_region of this RegionSubscription.

Return type bool

region_key

[**Required**] Gets the region_key of this RegionSubscription. The region's key.

Allowed values are: *- PHX - IAD - FRA - LHR*

Returns The region_key of this RegionSubscription.

Return type str

region_name

[**Required**] Gets the region_name of this RegionSubscription. The region's name.

Allowed values are: *- us-phoenix-1 - us-ashburn-1 - eu-frankurt-1 - uk-london-1*

Returns The region_name of this RegionSubscription.

Return type str

status

[**Required**] Gets the status of this RegionSubscription. The region subscription status.

Allowed values for this property are: "READY", "IN_PROGRESS", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

Returns The status of this RegionSubscription.

Return type str

class oci.identity.models.**Saml2IdentityProvider**(***kwargs*)

__init__(***kwargs*)

Initializes a new Saml2IdentityProvider object with values from keyword arguments. The default value of the *protocol* attribute of this class is `SAML2` and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **id** (*str*) – The value to assign to the id property of this Saml2IdentityProvider.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this Saml2IdentityProvider.

- **name** (`str`) – The value to assign to the name property of this Saml2IdentityProvider.

- **description** (`str`) – The value to assign to the description property of this Saml2IdentityProvider.

- **product_type** (`str`) – The value to assign to the product_type property of this Saml2IdentityProvider.

- **time_created** (`datetime`) – The value to assign to the time_created property of this Saml2IdentityProvider.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this Saml2IdentityProvider. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED"

- **inactive_status** (`int`) – The value to assign to the inactive_status property of this Saml2IdentityProvider.

- **protocol** (`str`) – The value to assign to the protocol property of this Saml2IdentityProvider.

- **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this Saml2IdentityProvider.

- **defined_tags** (`dict(str, dict(str, object))`) – The value to assign to the defined_tags property of this Saml2IdentityProvider.

- **metadata_url** (`str`) – The value to assign to the metadata_url property of this Saml2IdentityProvider.

- **signing_certificate** (`str`) – The value to assign to the signing_certificate property of this Saml2IdentityProvider.

- **redirect_url** (`str`) – The value to assign to the redirect_url property of this Saml2IdentityProvider.

compartment_id

[Required] Gets the compartment_id of this IdentityProvider. The OCID of the tenancy containing the *IdentityProvider*.

Returns The compartment_id of this IdentityProvider.

Return type str

defined_tags

Gets the defined_tags of this IdentityProvider. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

Returns The defined_tags of this IdentityProvider.

Return type dict(str, dict(str, *object*))

description

[Required] Gets the description of this IdentityProvider. The description you assign to the *IdentityProvider* during creation. Does not have to be unique, and it's changeable.

Returns The description of this IdentityProvider.

Return type str

freeform_tags

Gets the freeform_tags of this IdentityProvider. Free-form tags for this resource. Each tag is a simple

key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this IdentityProvider.

> **Return type** dict(str, str)

get_subtype(*object_dictionary*)
Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

id
[**Required**] Gets the id of this IdentityProvider. The OCID of the *IdentityProvider*.

> **Returns** The id of this IdentityProvider.

> **Return type** str

inactive_status
Gets the inactive_status of this IdentityProvider. The detailed status of INACTIVE lifecycleState.

> **Returns** The inactive_status of this IdentityProvider.

> **Return type** int

lifecycle_state
[**Required**] Gets the lifecycle_state of this IdentityProvider. The current state. After creating an *IdentityProvider*, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this IdentityProvider.

> **Return type** str

metadata_url
[**Required**] Gets the metadata_url of this Saml2IdentityProvider. The URL for retrieving the identity provider's metadata, which contains information required for federating.

> **Returns** The metadata_url of this Saml2IdentityProvider.

> **Return type** str

name
[**Required**] Gets the name of this IdentityProvider. The name you assign to the *IdentityProvider* during creation. The name must be unique across all *IdentityProvider* objects in the tenancy and cannot be changed. This is the name federated users see when choosing which identity provider to use when signing in to the Oracle Cloud Infrastructure Console.

> **Returns** The name of this IdentityProvider.

> **Return type** str

product_type
[**Required**] Gets the product_type of this IdentityProvider. The identity provider service or product. Supported identity providers are Oracle Identity Cloud Service (IDCS) and Microsoft Active Directory Federation Services (ADFS).

Allowed values are: - *ADFS* - *IDCS*

Example: *IDCS*

> **Returns** The product_type of this IdentityProvider.

> **Return type** str

protocol
> [Required] Gets the protocol of this IdentityProvider. The protocol used for federation. Allowed value:
> *SAML2*.
>
> Example: *SAML2*
>
> > **Returns** The protocol of this IdentityProvider.
> >
> > **Return type** str

redirect_url
> [Required] Gets the redirect_url of this Saml2IdentityProvider. The URL to redirect federated users to for
> authentication with the identity provider.
>
> > **Returns** The redirect_url of this Saml2IdentityProvider.
> >
> > **Return type** str

signing_certificate
> [Required] Gets the signing_certificate of this Saml2IdentityProvider. The identity provider's signing
> certificate used by the IAM Service to validate the SAML2 token.
>
> > **Returns** The signing_certificate of this Saml2IdentityProvider.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this IdentityProvider. Date and time the *IdentityProvider* was created,
> in the format defined by RFC3339.
>
> Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this IdentityProvider.
> >
> > **Return type** datetime

class oci.identity.models.**SmtpCredential**(***kwargs*)

__init__(***kwargs*)
> Initializes a new SmtpCredential object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> > - **username** (*str*) – The value to assign to the username property of this SmtpCredential.
> >
> > - **password** (*str*) – The value to assign to the password property of this SmtpCredential.
> >
> > - **id** (*str*) – The value to assign to the id property of this SmtpCredential.
> >
> > - **user_id** (*str*) – The value to assign to the user_id property of this SmtpCredential.
> >
> > - **description** (*str*) – The value to assign to the description property of this SmtpCredential.
> >
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this
> >   SmtpCredential.
> >
> > - **time_expires** (*datetime*) – The value to assign to the time_expires property of this
> >   SmtpCredential.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this SmtpCredential. Allowed values for this property are: "CREATING", "ACTIVE", "IN-ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (*int*) – The value to assign to the inactive_status property of this SmtpCredential.

description

Gets the description of this SmtpCredential. The description you assign to the SMTP credential. Does not have to be unique, and it's changeable.

> **Returns** The description of this SmtpCredential.

> **Return type** str

id

Gets the id of this SmtpCredential. The OCID of the SMTP credential.

> **Returns** The id of this SmtpCredential.

> **Return type** str

inactive_status

Gets the inactive_status of this SmtpCredential. The detailed status of INACTIVE lifecycleState.

> **Returns** The inactive_status of this SmtpCredential.

> **Return type** int

lifecycle_state

Gets the lifecycle_state of this SmtpCredential. The credential's current state. After creating a SMTP credential, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this SmtpCredential.

> **Return type** str

password

Gets the password of this SmtpCredential. The SMTP password.

> **Returns** The password of this SmtpCredential.

> **Return type** str

time_created

Gets the time_created of this SmtpCredential. Date and time the *SmtpCredential* object was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this SmtpCredential.

> **Return type** datetime

time_expires

Gets the time_expires of this SmtpCredential. Date and time when this credential will expire, in the format defined by RFC3339. Null if it never expires.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_expires of this SmtpCredential.

> **Return type** datetime

user_id
> Gets the user_id of this SmtpCredential. The OCID of the user the SMTP credential belongs to.
>
> > **Returns** The user_id of this SmtpCredential.
> >
> > **Return type** str

username
> Gets the username of this SmtpCredential. The SMTP user name.
>
> > **Returns** The username of this SmtpCredential.
> >
> > **Return type** str

class oci.identity.models.**SmtpCredentialSummary**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new SmtpCredentialSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **username** (*str*) – The value to assign to the username property of this SmtpCredential-Summary.
> > * **id** (*str*) – The value to assign to the id property of this SmtpCredentialSummary.
> > * **user_id** (*str*) – The value to assign to the user_id property of this SmtpCredential-Summary.
> > * **description** (*str*) – The value to assign to the description property of this SmtpCredentialSummary.
> > * **time_created** (*datetime*) – The value to assign to the time_created property of this SmtpCredentialSummary.
> > * **time_expires** (*datetime*) – The value to assign to the time_expires property of this SmtpCredentialSummary.
> > * **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this SmtpCredentialSummary. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > * **inactive_status** (*int*) – The value to assign to the inactive_status property of this SmtpCredentialSummary.

description
> Gets the description of this SmtpCredentialSummary. The description you assign to the SMTP credential. Does not have to be unique, and it's changeable.
>
> > **Returns** The description of this SmtpCredentialSummary.
> >
> > **Return type** str

id
> Gets the id of this SmtpCredentialSummary. The OCID of the SMTP credential.
>
> > **Returns** The id of this SmtpCredentialSummary.
> >
> > **Return type** str

inactive_status
>   Gets the inactive_status of this SmtpCredentialSummary. The detailed status of INACTIVE lifecycleState.
>
>   > **Returns** The inactive_status of this SmtpCredentialSummary.
>   >
>   > **Return type** int

lifecycle_state
>   Gets the lifecycle_state of this SmtpCredentialSummary. The credential's current state. After creating a SMTP credential, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.
>
>   Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
>   > **Returns** The lifecycle_state of this SmtpCredentialSummary.
>   >
>   > **Return type** str

time_created
>   Gets the time_created of this SmtpCredentialSummary. Date and time the *SmtpCredential* object was created, in the format defined by RFC3339.
>
>   Example: *2016-08-25T21:10:29.600Z*
>
>   > **Returns** The time_created of this SmtpCredentialSummary.
>   >
>   > **Return type** datetime

time_expires
>   Gets the time_expires of this SmtpCredentialSummary. Date and time when this credential will expire, in the format defined by RFC3339. Null if it never expires.
>
>   Example: *2016-08-25T21:10:29.600Z*
>
>   > **Returns** The time_expires of this SmtpCredentialSummary.
>   >
>   > **Return type** datetime

user_id
>   Gets the user_id of this SmtpCredentialSummary. The OCID of the user the SMTP credential belongs to.
>
>   > **Returns** The user_id of this SmtpCredentialSummary.
>   >
>   > **Return type** str

username
>   Gets the username of this SmtpCredentialSummary. The SMTP user name.
>
>   > **Returns** The username of this SmtpCredentialSummary.
>   >
>   > **Return type** str

class oci.identity.models.**SwiftPassword**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new SwiftPassword object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
>   **Parameters**
>
>   - **password** (*str*) – The value to assign to the password property of this SwiftPassword.
>
>   - **id** (*str*) – The value to assign to the id property of this SwiftPassword.
>
>   - **user_id** (*str*) – The value to assign to the user_id property of this SwiftPassword.

- **description** (`str`) – The value to assign to the description property of this SwiftPassword.

- **time_created** (`datetime`) – The value to assign to the time_created property of this SwiftPassword.

- **expires_on** (`datetime`) – The value to assign to the expires_on property of this SwiftPassword.

- **lifecycle_state** (`str`) – The value to assign to the lifecycle_state property of this SwiftPassword. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (`int`) – The value to assign to the inactive_status property of this SwiftPassword.

description

Gets the description of this SwiftPassword. The description you assign to the Swift password. Does not have to be unique, and it's changeable.

> **Returns** The description of this SwiftPassword.

> **Return type** str

expires_on

Gets the expires_on of this SwiftPassword. Date and time when this password will expire, in the format defined by RFC3339. Null if it never expires.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The expires_on of this SwiftPassword.

> **Return type** datetime

id

Gets the id of this SwiftPassword. The OCID of the Swift password.

> **Returns** The id of this SwiftPassword.

> **Return type** str

inactive_status

Gets the inactive_status of this SwiftPassword. The detailed status of INACTIVE lifecycleState.

> **Returns** The inactive_status of this SwiftPassword.

> **Return type** int

lifecycle_state

Gets the lifecycle_state of this SwiftPassword. The password's current state. After creating a password, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this SwiftPassword.

> **Return type** str

password

Gets the password of this SwiftPassword. The Swift password. The value is available only in the response for *CreateSwiftPassword*, and not for *ListSwiftPasswords* or *UpdateSwiftPassword*.

> **Returns** The password of this SwiftPassword.

> **Return type** str

time_created
> Gets the time_created of this SwiftPassword. Date and time the *SwiftPassword* object was created, in the format defined by RFC3339.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this SwiftPassword.

> > **Return type** datetime

user_id
> Gets the user_id of this SwiftPassword. The OCID of the user the password belongs to.

> > **Returns** The user_id of this SwiftPassword.

> > **Return type** str

class oci.identity.models.**Tag**(***kwargs*)

__init__(***kwargs*)
> Initializes a new Tag object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this Tag.
> > - **tag_namespace_id** (*str*) – The value to assign to the tag_namespace_id property of this Tag.
> > - **tag_namespace_name** (*str*) – The value to assign to the tag_namespace_name property of this Tag.
> > - **id** (*str*) – The value to assign to the id property of this Tag.
> > - **name** (*str*) – The value to assign to the name property of this Tag.
> > - **description** (*str*) – The value to assign to the description property of this Tag.
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Tag.
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Tag.
> > - **is_retired** (*bool*) – The value to assign to the is_retired property of this Tag.
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this Tag.

compartment_id
> [Required] Gets the compartment_id of this Tag. The OCID of the compartment that contains the tag definition.

> > **Returns** The compartment_id of this Tag.

> > **Return type** str

---

defined_tags
> Gets the defined_tags of this Tag. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}'*
>
> > **Returns** The defined_tags of this Tag.
> >
> > **Return type** dict(str, dict(str, *object*))

description
> **[Required]** Gets the description of this Tag. The description you assign to the tag.
>
> > **Returns** The description of this Tag.
> >
> > **Return type** str

freeform_tags
> Gets the freeform_tags of this Tag. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this Tag.
> >
> > **Return type** dict(str, str)

id
> **[Required]** Gets the id of this Tag. The OCID of the tag definition.
>
> > **Returns** The id of this Tag.
> >
> > **Return type** str

is_retired
> **[Required]** Gets the is_retired of this Tag. Indicates whether the tag is retired. See Retiring Key Definitions and Namespace Definitions.
>
> > **Returns** The is_retired of this Tag.
> >
> > **Return type** bool

name
> **[Required]** Gets the name of this Tag. The name of the tag. The name must be unique across all tags in the namespace and can't be changed.
>
> > **Returns** The name of this Tag.
> >
> > **Return type** str

tag_namespace_id
> **[Required]** Gets the tag_namespace_id of this Tag. The OCID of the namespace that contains the tag definition.
>
> > **Returns** The tag_namespace_id of this Tag.
> >
> > **Return type** str

tag_namespace_name
> **[Required]** Gets the tag_namespace_name of this Tag. The name of the tag namespace that contains the tag definition.
>
> > **Returns** The tag_namespace_name of this Tag.
> >
> > **Return type** str

time_created
> **[Required]** Gets the time_created of this Tag. Date and time the tag was created, in the format defined by RFC3339. Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this Tag.

> **Return type** datetime

class oci.identity.models.**TagNamespace**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new TagNamespace object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **id** (*str*) – The value to assign to the id property of this TagNamespace.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this TagNamespace.
> >
> > - **name** (*str*) – The value to assign to the name property of this TagNamespace.
> >
> > - **description** (*str*) – The value to assign to the description property of this TagNamespace.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this TagNamespace.
> >
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this TagNamespace.
> >
> > - **is_retired** (*bool*) – The value to assign to the is_retired property of this TagNamespace.
> >
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this TagNamespace.

> **compartment_id**
> [Required] Gets the compartment_id of this TagNamespace. The OCID of the compartment that contains the tag namespace.
>
> > **Returns** The compartment_id of this TagNamespace.
>
> > **Return type** str

> **defined_tags**
> Gets the defined_tags of this TagNamespace. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this TagNamespace.
>
> > **Return type** dict(str, dict(str, *object*))

> **description**
> [Required] Gets the description of this TagNamespace. The description you assign to the tag namespace.
>
> > **Returns** The description of this TagNamespace.
>
> > **Return type** str

> **freeform_tags**
> Gets the freeform_tags of this TagNamespace. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this TagNamespace.

> **Return type** dict(str, str)

id
> [Required] Gets the id of this TagNamespace. The OCID of the tag namespace.
>
> > **Returns** The id of this TagNamespace.
> >
> > **Return type** str

is_retired
> [Required] Gets the is_retired of this TagNamespace. Whether the tag namespace is retired. See Retiring Key Definitions and Namespace Definitions.
>
> > **Returns** The is_retired of this TagNamespace.
> >
> > **Return type** bool

name
> [Required] Gets the name of this TagNamespace. The name of the tag namespace. It must be unique across all tag namespaces in the tenancy and cannot be changed.
>
> > **Returns** The name of this TagNamespace.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this TagNamespace. Date and time the tagNamespace was created, in the format defined by RFC3339. Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this TagNamespace.
> >
> > **Return type** datetime

class oci.identity.models.**TagNamespaceSummary**(***kwargs*)

__init__(***kwargs*)
> Initializes a new TagNamespaceSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **id** (*str*) – The value to assign to the id property of this TagNamespaceSummary.
> >
> > * **compartment_id** (*str*) – The value to assign to the compartment_id property of this TagNamespaceSummary.
> >
> > * **name** (*str*) – The value to assign to the name property of this TagNamespaceSummary.
> >
> > * **description** (*str*) – The value to assign to the description property of this TagNamespaceSummary.
> >
> > * **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this TagNamespaceSummary.
> >
> > * **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this TagNamespaceSummary.
> >
> > * **is_retired** (*bool*) – The value to assign to the is_retired property of this TagNamespaceSummary.
> >
> > * **time_created** (*datetime*) – The value to assign to the time_created property of this TagNamespaceSummary.

compartment_id
> Gets the compartment_id of this TagNamespaceSummary. The OCID of the compartment that contains the tag namespace.
>
> > **Returns** The compartment_id of this TagNamespaceSummary.
> >
> > **Return type** str

defined_tags
> Gets the defined_tags of this TagNamespaceSummary. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this TagNamespaceSummary.
> >
> > **Return type** dict(str, dict(str, *object*))

description
> Gets the description of this TagNamespaceSummary. The description you assign to the tag namespace.
>
> > **Returns** The description of this TagNamespaceSummary.
> >
> > **Return type** str

freeform_tags
> Gets the freeform_tags of this TagNamespaceSummary. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this TagNamespaceSummary.
> >
> > **Return type** dict(str, str)

id
> Gets the id of this TagNamespaceSummary. The OCID of the tag namespace.
>
> > **Returns** The id of this TagNamespaceSummary.
> >
> > **Return type** str

is_retired
> Gets the is_retired of this TagNamespaceSummary. Whether the tag namespace is retired. For more information, see Retiring Key Definitions and Namespace Definitions.
>
> > **Returns** The is_retired of this TagNamespaceSummary.
> >
> > **Return type** bool

name
> Gets the name of this TagNamespaceSummary. The name of the tag namespace. It must be unique across all tag namespaces in the tenancy and cannot be changed.
>
> > **Returns** The name of this TagNamespaceSummary.
> >
> > **Return type** str

time_created
> Gets the time_created of this TagNamespaceSummary. Date and time the tagNamespace was created, in the format defined by RFC3339. Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this TagNamespaceSummary.
> >
> > **Return type** datetime

class oci.identity.models.**TagSummary**(***kwargs*)

`__init__`(***kwargs*)

Initializes a new TagSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **`compartment_id`** (*str*) – The value to assign to the compartment_id property of this TagSummary.

- **`id`** (*str*) – The value to assign to the id property of this TagSummary.

- **`name`** (*str*) – The value to assign to the name property of this TagSummary.

- **`description`** (*str*) – The value to assign to the description property of this TagSummary.

- **`freeform_tags`** (*dict(str, str)*) – The value to assign to the freeform_tags property of this TagSummary.

- **`defined_tags`** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this TagSummary.

- **`is_retired`** (*bool*) – The value to assign to the is_retired property of this TagSummary.

- **`time_created`** (*datetime*) – The value to assign to the time_created property of this TagSummary.

`compartment_id`

Gets the compartment_id of this TagSummary. The OCID of the compartment that contains the tag definition.

> **Returns** The compartment_id of this TagSummary.
>
> **Return type** str

`defined_tags`

Gets the defined_tags of this TagSummary. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this TagSummary.
>
> **Return type** dict(str, dict(str, *object*))

`description`

Gets the description of this TagSummary. The description you assign to the tag.

> **Returns** The description of this TagSummary.
>
> **Return type** str

`freeform_tags`

Gets the freeform_tags of this TagSummary. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this TagSummary.
>
> **Return type** dict(str, str)

`id`

Gets the id of this TagSummary. The OCID of the tag definition.

> **Returns** The id of this TagSummary.

Return type str

is_retired
> Gets the is_retired of this TagSummary. Whether the tag is retired. See Retiring Key Definitions and Namespace Definitions.
>
> > **Returns** The is_retired of this TagSummary.
> >
> > **Return type** bool

name
> Gets the name of this TagSummary. The name of the tag. The name must be unique across all tags in the tag namespace and can't be changed.
>
> > **Returns** The name of this TagSummary.
> >
> > **Return type** str

time_created
> Gets the time_created of this TagSummary. Date and time the tag was created, in the format defined by RFC3339. Example: *2016-08-25T21:10:29.600Z*
>
> > **Returns** The time_created of this TagSummary.
> >
> > **Return type** datetime

class oci.identity.models.**Tenancy**(***kwargs*)

__init__(***kwargs*)
> Initializes a new Tenancy object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **id** (*str*) – The value to assign to the id property of this Tenancy.
> > * **name** (*str*) – The value to assign to the name property of this Tenancy.
> > * **description** (*str*) – The value to assign to the description property of this Tenancy.
> > * **home_region_key** (*str*) – The value to assign to the home_region_key property of this Tenancy.
> > * **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this Tenancy.
> > * **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this Tenancy.

defined_tags
> Gets the defined_tags of this Tenancy. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this Tenancy.
> >
> > **Return type** dict(str, dict(str, *object*))

description
> Gets the description of this Tenancy. The description of the tenancy.
>
> > **Returns** The description of this Tenancy.
> >
> > **Return type** str

freeform_tags
> Gets the freeform_tags of this Tenancy. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
>
> > **Returns** The freeform_tags of this Tenancy.
> >
> > **Return type** dict(str, str)

home_region_key
> Gets the home_region_key of this Tenancy. The region key for the tenancy's home region. For more information about regions, see Regions and Availability Domains.
>
> Allowed values are: - *IAD - PHX - FRA - LHR*
>
> > **Returns** The home_region_key of this Tenancy.
> >
> > **Return type** str

id
> Gets the id of this Tenancy. The OCID of the tenancy.
>
> > **Returns** The id of this Tenancy.
> >
> > **Return type** str

name
> Gets the name of this Tenancy. The name of the tenancy.
>
> > **Returns** The name of this Tenancy.
> >
> > **Return type** str

class oci.identity.models.**UIPassword**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UIPassword object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **password** (*str*) – The value to assign to the password property of this UIPassword.
> > - **user_id** (*str*) – The value to assign to the user_id property of this UIPassword.
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this UIPassword.
> > - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this UIPassword. Allowed values for this property are: "CREATING", "ACTIVE", "IN-ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> > - **inactive_status** (*int*) – The value to assign to the inactive_status property of this UIPassword.

inactive_status
> Gets the inactive_status of this UIPassword. The detailed status of INACTIVE lifecycleState.
>
> > **Returns** The inactive_status of this UIPassword.
> >
> > **Return type** int

lifecycle_state
    Gets the lifecycle_state of this UIPassword. The password's current state. After creating a password, make
    sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

    Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING",
    "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
    mapped to 'UNKNOWN_ENUM_VALUE'.

    Returns The lifecycle_state of this UIPassword.

    Return type str

password
    Gets the password of this UIPassword. The user's password for the Console.

    Returns The password of this UIPassword.

    Return type str

time_created
    Gets the time_created of this UIPassword. Date and time the password was created, in the format defined
    by RFC3339.

    Example: *2016-08-25T21:10:29.600Z*

    Returns The time_created of this UIPassword.

    Return type datetime

user_id
    Gets the user_id of this UIPassword. The OCID of the user.

    Returns The user_id of this UIPassword.

    Return type str

class oci.identity.models.**UpdateCompartmentDetails**(***kwargs*)

__init__(***kwargs*)
    Initializes a new UpdateCompartmentDetails object with values from keyword arguments. The following
    keyword arguments are supported (corresponding to the getters/setters of this class):

    Parameters

    - **description** (*str*) – The value to assign to the description property of this Update-
      CompartmentDetails.

    - **name** (*str*) – The value to assign to the name property of this UpdateCompartmentDe-
      tails.

    - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags
      property of this UpdateCompartmentDetails.

    - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the
      defined_tags property of this UpdateCompartmentDetails.

defined_tags
    Gets the defined_tags of this UpdateCompartmentDetails. Defined tags for this resource. Each key is pre-
    defined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations":
    {"CostCenter": "42"}}*

    Returns The defined_tags of this UpdateCompartmentDetails.

    Return type dict(str, dict(str, *object*))

description
> Gets the description of this UpdateCompartmentDetails. The description you assign to the compartment. Does not have to be unique, and it's changeable.

> > **Returns** The description of this UpdateCompartmentDetails.

> > **Return type** str

freeform_tags
> Gets the freeform_tags of this UpdateCompartmentDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> > **Returns** The freeform_tags of this UpdateCompartmentDetails.

> > **Return type** dict(str, str)

name
> Gets the name of this UpdateCompartmentDetails. The new name you assign to the compartment. The name must be unique across all compartments in the tenancy. Avoid entering confidential information.

> > **Returns** The name of this UpdateCompartmentDetails.

> > **Return type** str

class oci.identity.models.**UpdateCustomerSecretKeyDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateCustomerSecretKeyDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters** **display_name** (*str*) – The value to assign to the display_name property of this UpdateCustomerSecretKeyDetails.

display_name
> Gets the display_name of this UpdateCustomerSecretKeyDetails. The description you assign to the secret key. Does not have to be unique, and it's changeable.

> > **Returns** The display_name of this UpdateCustomerSecretKeyDetails.

> > **Return type** str

class oci.identity.models.**UpdateDynamicGroupDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateDynamicGroupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > • **description** (*str*) – The value to assign to the description property of this UpdateDynamicGroupDetails.

> > > • **matching_rule** (*str*) – The value to assign to the matching_rule property of this UpdateDynamicGroupDetails.

description
> Gets the description of this UpdateDynamicGroupDetails. The description you assign to the dynamic group. Does not have to be unique, and it's changeable.

> > **Returns** The description of this UpdateDynamicGroupDetails.

> > **Return type** str

matching_rule
> Gets the matching_rule of this UpdateDynamicGroupDetails. The matching rule to dynamically match an instance certificate to this dynamic group. For rule syntax, see Managing Dynamic Groups.
>
> > **Returns** The matching_rule of this UpdateDynamicGroupDetails.
> >
> > **Return type** str

class oci.identity.models.**UpdateGroupDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateGroupDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **description** (*str*) – The value to assign to the description property of this Update-GroupDetails.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateGroupDetails.
> >
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this UpdateGroupDetails.
>
> **defined_tags**
> > Gets the defined_tags of this UpdateGroupDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
> >
> > > **Returns** The defined_tags of this UpdateGroupDetails.
> > >
> > > **Return type** dict(str, dict(str, *object*))
>
> **description**
> > Gets the description of this UpdateGroupDetails. The description you assign to the group. Does not have to be unique, and it's changeable.
> >
> > > **Returns** The description of this UpdateGroupDetails.
> > >
> > > **Return type** str
>
> **freeform_tags**
> > Gets the freeform_tags of this UpdateGroupDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
> >
> > > **Returns** The freeform_tags of this UpdateGroupDetails.
> > >
> > > **Return type** dict(str, str)

class oci.identity.models.**UpdateIdentityProviderDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateIdentityProviderDetails object with values from keyword arguments. This class has the following subclasses and if you are using this class as input to a service operations then you should favor using a subclass over the base class:
> >
> > - *UpdateSaml2IdentityProviderDetails*
> >
> > The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**

- **protocol** (*str*) – The value to assign to the protocol property of this UpdateIdentityProviderDetails. Allowed values for this property are: "SAML2"

- **description** (*str*) – The value to assign to the description property of this UpdateIdentityProviderDetails.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateIdentityProviderDetails.

- **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this UpdateIdentityProviderDetails.

defined_tags

Gets the defined_tags of this UpdateIdentityProviderDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this UpdateIdentityProviderDetails.

> **Return type** dict(str, dict(str, *object*))

description

Gets the description of this UpdateIdentityProviderDetails. The description you assign to the *IdentityProvider*. Does not have to be unique, and it's changeable.

> **Returns** The description of this UpdateIdentityProviderDetails.

> **Return type** str

freeform_tags

Gets the freeform_tags of this UpdateIdentityProviderDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateIdentityProviderDetails.

> **Return type** dict(str, str)

static get_subtype(*object_dictionary*)

Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

protocol

[Required] Gets the protocol of this UpdateIdentityProviderDetails. The protocol used for federation.

Example: *SAML2*

Allowed values for this property are: "SAML2"

> **Returns** The protocol of this UpdateIdentityProviderDetails.

> **Return type** str

class oci.identity.models.**UpdateIdpGroupMappingDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateIdpGroupMappingDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **idp_group_name** (*str*) – The value to assign to the idp_group_name property of this UpdateIdpGroupMappingDetails.

> • **group_id** (*str*) – The value to assign to the group_id property of this UpdateIdp-
> GroupMappingDetails.

group_id
> Gets the group_id of this UpdateIdpGroupMappingDetails. The OCID of the group.

> > **Returns** The group_id of this UpdateIdpGroupMappingDetails.

> > **Return type** str

idp_group_name
> Gets the idp_group_name of this UpdateIdpGroupMappingDetails. The idp group name.

> > **Returns** The idp_group_name of this UpdateIdpGroupMappingDetails.

> > **Return type** str

class oci.identity.models.**UpdatePolicyDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdatePolicyDetails object with values from keyword arguments. The following keyword
> > arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > • **description** (*str*) – The value to assign to the description property of this UpdatePol-
> > > icyDetails.

> > > • **statements** (*list[str]*) – The value to assign to the statements property of this
> > > UpdatePolicyDetails.

> > > • **version_date** (*datetime*) – The value to assign to the version_date property of this
> > > UpdatePolicyDetails.

> > > • **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags
> > > property of this UpdatePolicyDetails.

> > > • **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the
> > > defined_tags property of this UpdatePolicyDetails.

defined_tags
> Gets the defined_tags of this UpdatePolicyDetails. Defined tags for this resource. Each key is prede-
> fined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations":
> {"CostCenter": "42"}}*

> > **Returns** The defined_tags of this UpdatePolicyDetails.

> > **Return type** dict(str, dict(str, *object*))

description
> Gets the description of this UpdatePolicyDetails. The description you assign to the policy. Does not have
> to be unique, and it's changeable.

> > **Returns** The description of this UpdatePolicyDetails.

> > **Return type** str

freeform_tags
> Gets the freeform_tags of this UpdatePolicyDetails. Free-form tags for this resource. Each tag is a simple
> key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags.
> Example: *{"Department": "Finance"}*

> > **Returns** The freeform_tags of this UpdatePolicyDetails.

> **Return type** dict(str, str)

statements
> Gets the statements of this UpdatePolicyDetails. An array of policy statements written in the policy language. See How Policies Work and Common Policies.
>
> > **Returns** The statements of this UpdatePolicyDetails.
>
> > **Return type** list[str]

version_date
> Gets the version_date of this UpdatePolicyDetails. The version of the policy. If null or set to an empty string, when a request comes in for authorization, the policy will be evaluated according to the current behavior of the services at that moment. If set to a particular date (YYYY-MM-DD), the policy will be evaluated according to the behavior of the services on that date.
>
> > **Returns** The version_date of this UpdatePolicyDetails.
>
> > **Return type** datetime

class oci.identity.models.**UpdateSaml2IdentityProviderDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new UpdateSaml2IdentityProviderDetails object with values from keyword arguments. The default value of the *protocol* attribute of this class is SAML2 and it should not be changed. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> > - **protocol** (*str*) – The value to assign to the protocol property of this UpdateSaml2IdentityProviderDetails. Allowed values for this property are: "SAML2"
> > - **description** (*str*) – The value to assign to the description property of this UpdateSaml2IdentityProviderDetails.
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateSaml2IdentityProviderDetails.
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this UpdateSaml2IdentityProviderDetails.
> > - **metadata_url** (*str*) – The value to assign to the metadata_url property of this UpdateSaml2IdentityProviderDetails.
> > - **metadata** (*str*) – The value to assign to the metadata property of this UpdateSaml2IdentityProviderDetails.

defined_tags
> Gets the defined_tags of this UpdateIdentityProviderDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
>
> > **Returns** The defined_tags of this UpdateIdentityProviderDetails.
>
> > **Return type** dict(str, dict(str, *object*))

description
> Gets the description of this UpdateIdentityProviderDetails. The description you assign to the *IdentityProvider*. Does not have to be unique, and it's changeable.
>
> > **Returns** The description of this UpdateIdentityProviderDetails.
>
> > **Return type** str

freeform_tags

Gets the freeform_tags of this UpdateIdentityProviderDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateIdentityProviderDetails.

> **Return type** dict(str, str)

get_subtype(*object_dictionary*)

Given the hash representation of a subtype of this class, use the info in the hash to return the class of the subtype.

metadata

Gets the metadata of this UpdateSaml2IdentityProviderDetails. The XML that contains the information required for federating.

> **Returns** The metadata of this UpdateSaml2IdentityProviderDetails.

> **Return type** str

metadata_url

Gets the metadata_url of this UpdateSaml2IdentityProviderDetails. The URL for retrieving the identity provider's metadata, which contains information required for federating.

> **Returns** The metadata_url of this UpdateSaml2IdentityProviderDetails.

> **Return type** str

protocol

[**Required**] Gets the protocol of this UpdateIdentityProviderDetails. The protocol used for federation.

Example: *SAML2*

Allowed values for this property are: "SAML2"

> **Returns** The protocol of this UpdateIdentityProviderDetails.

> **Return type** str

class oci.identity.models.**UpdateSmtpCredentialDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateSmtpCredentialDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters description** (*str*) – The value to assign to the description property of this UpdateSmtpCredentialDetails.

description

Gets the description of this UpdateSmtpCredentialDetails. The description you assign to the SMTP credential. Does not have to be unique, and it's changeable.

> **Returns** The description of this UpdateSmtpCredentialDetails.

> **Return type** str

class oci.identity.models.**UpdateStateDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateStateDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters blocked** (`bool`) – The value to assign to the blocked property of this UpdateStateDetails.

blocked
  Gets the blocked of this UpdateStateDetails. Update state to blocked or unblocked. Only "false" is supported (for changing the state to unblocked).

  > **Returns** The blocked of this UpdateStateDetails.

  > **Return type** bool

class oci.identity.models.**UpdateSwiftPasswordDetails**(***kwargs*)

__init__(***kwargs*)
  Initializes a new UpdateSwiftPasswordDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

  > **Parameters description** (`str`) – The value to assign to the description property of this UpdateSwiftPasswordDetails.

description
  Gets the description of this UpdateSwiftPasswordDetails. The description you assign to the Swift password. Does not have to be unique, and it's changeable.

  > **Returns** The description of this UpdateSwiftPasswordDetails.

  > **Return type** str

class oci.identity.models.**UpdateTagDetails**(***kwargs*)

__init__(***kwargs*)
  Initializes a new UpdateTagDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

  > **Parameters**
  >
  > - **description** (`str`) – The value to assign to the description property of this UpdateTagDetails.
  > - **is_retired** (`bool`) – The value to assign to the is_retired property of this UpdateTagDetails.
  > - **freeform_tags** (`dict(str, str)`) – The value to assign to the freeform_tags property of this UpdateTagDetails.
  > - **defined_tags** (`dict(str, dict(str, object))`) – The value to assign to the defined_tags property of this UpdateTagDetails.

defined_tags
  Gets the defined_tags of this UpdateTagDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

  > **Returns** The defined_tags of this UpdateTagDetails.

  > **Return type** dict(str, dict(str, *object*))

description
  Gets the description of this UpdateTagDetails. The description you assign to the tag during creation.

  > **Returns** The description of this UpdateTagDetails.

  > **Return type** str

---

freeform_tags

Gets the freeform_tags of this UpdateTagDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateTagDetails.

> **Return type** dict(str, str)

is_retired

Gets the is_retired of this UpdateTagDetails. Whether the tag is retired. See Retiring Key Definitions and Namespace Definitions.

> **Returns** The is_retired of this UpdateTagDetails.

> **Return type** bool

class oci.identity.models.**UpdateTagNamespaceDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new UpdateTagNamespaceDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **description** (*str*) – The value to assign to the description property of this Update-TagNamespaceDetails.
>
> - **is_retired** (*bool*) – The value to assign to the is_retired property of this UpdateTag-NamespaceDetails.
>
> - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateTagNamespaceDetails.
>
> - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this UpdateTagNamespaceDetails.

defined_tags

Gets the defined_tags of this UpdateTagNamespaceDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this UpdateTagNamespaceDetails.

> **Return type** dict(str, dict(str, *object*))

description

Gets the description of this UpdateTagNamespaceDetails. The description you assign to the tag namespace.

> **Returns** The description of this UpdateTagNamespaceDetails.

> **Return type** str

freeform_tags

Gets the freeform_tags of this UpdateTagNamespaceDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateTagNamespaceDetails.

> **Return type** dict(str, str)

is_retired

> Gets the is_retired of this UpdateTagNamespaceDetails. Whether the tag namespace is retired. See Retiring Key Definitions and Namespace Definitions.
>
> > **Returns** The is_retired of this UpdateTagNamespaceDetails.
> >
> > **Return type** bool

class oci.identity.models.**UpdateUserDetails**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new UpdateUserDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **description** (*str*) – The value to assign to the description property of this UpdateUserDetails.
> >
> > - **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateUserDetails.
> >
> > - **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this UpdateUserDetails.
>
> **defined_tags**
>
> > Gets the defined_tags of this UpdateUserDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*
> >
> > > **Returns** The defined_tags of this UpdateUserDetails.
> > >
> > > **Return type** dict(str, dict(str, *object*))
>
> **description**
>
> > Gets the description of this UpdateUserDetails. The description you assign to the user. Does not have to be unique, and it's changeable.
> >
> > > **Returns** The description of this UpdateUserDetails.
> > >
> > > **Return type** str
>
> **freeform_tags**
>
> > Gets the freeform_tags of this UpdateUserDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*
> >
> > > **Returns** The freeform_tags of this UpdateUserDetails.
> > >
> > > **Return type** dict(str, str)

class oci.identity.models.**User**(***kwargs*)

> **__init__**(***kwargs*)
>
> > Initializes a new User object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **id** (*str*) – The value to assign to the id property of this User.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this User.

- **name** (*str*) – The value to assign to the name property of this User.

- **description** (*str*) – The value to assign to the description property of this User.

- **time_created** (*datetime*) – The value to assign to the time_created property of this User.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this User. Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (*int*) – The value to assign to the inactive_status property of this User.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this User.

- **defined_tags** (*dict(str, dict(str,* object*))*) – The value to assign to the defined_tags property of this User.

compartment_id

[**Required**] Gets the compartment_id of this User. The OCID of the tenancy containing the user.

> **Returns** The compartment_id of this User.

> **Return type** str

defined_tags

Gets the defined_tags of this User. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this User.

> **Return type** dict(str, dict(str, *object*))

description

[**Required**] Gets the description of this User. The description you assign to the user. Does not have to be unique, and it's changeable.

> **Returns** The description of this User.

> **Return type** str

freeform_tags

Gets the freeform_tags of this User. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this User.

> **Return type** dict(str, str)

id

[**Required**] Gets the id of this User. The OCID of the user.

> **Returns** The id of this User.

> **Return type** str

inactive_status

Gets the inactive_status of this User. Returned only if the user's *lifecycleState* is INACTIVE. A 16-bit value showing the reason why the user is inactive:

- bit 0: SUSPENDED (reserved for future use)

> - bit 1: DISABLED (reserved for future use)
>
> - bit 2: BLOCKED (the user has exceeded the maximum number of failed login attempts for the Console)

> **Returns** The inactive_status of this User.

> **Return type** int

lifecycle_state

[Required] Gets the lifecycle_state of this User. The user's current state. After creating a user, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this User.

> **Return type** str

name

[Required] Gets the name of this User. The name you assign to the user during creation. This is the user's login for the Console. The name must be unique across all users in the tenancy and cannot be changed.

> **Returns** The name of this User.

> **Return type** str

time_created

[Required] Gets the time_created of this User. Date and time the user was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this User.

> **Return type** datetime

class oci.identity.models.**UserGroupMembership**(***kwargs*)

__init__(***kwargs*)
Initializes a new UserGroupMembership object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **id** (*str*) – The value to assign to the id property of this UserGroupMembership.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this UserGroupMembership.

- **group_id** (*str*) – The value to assign to the group_id property of this UserGroupMembership.

- **user_id** (*str*) – The value to assign to the user_id property of this UserGroupMembership.

- **time_created** (*datetime*) – The value to assign to the time_created property of this UserGroupMembership.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this UserGroupMembership. Allowed values for this property are:

"CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **inactive_status** (*int*) – The value to assign to the inactive_status property of this UserGroupMembership.

compartment_id

[**Required**] Gets the compartment_id of this UserGroupMembership. The OCID of the tenancy containing the user, group, and membership object.

> **Returns** The compartment_id of this UserGroupMembership.
>
> **Return type** str

group_id

[**Required**] Gets the group_id of this UserGroupMembership. The OCID of the group.

> **Returns** The group_id of this UserGroupMembership.
>
> **Return type** str

id

[**Required**] Gets the id of this UserGroupMembership. The OCID of the membership.

> **Returns** The id of this UserGroupMembership.
>
> **Return type** str

inactive_status

Gets the inactive_status of this UserGroupMembership. The detailed status of INACTIVE lifecycleState.

> **Returns** The inactive_status of this UserGroupMembership.
>
> **Return type** int

lifecycle_state

[**Required**] Gets the lifecycle_state of this UserGroupMembership. The membership's current state. After creating a membership object, make sure its *lifecycleState* changes from CREATING to ACTIVE before using it.

Allowed values for this property are: "CREATING", "ACTIVE", "INACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this UserGroupMembership.
>
> **Return type** str

time_created

[**Required**] Gets the time_created of this UserGroupMembership. Date and time the membership was created, in the format defined by RFC3339.

Example: *2016-08-25T21:10:29.600Z*

> **Returns** The time_created of this UserGroupMembership.
>
> **Return type** datetime

user_id

[**Required**] Gets the user_id of this UserGroupMembership. The OCID of the user.

> **Returns** The user_id of this UserGroupMembership.
>
> **Return type** str

12.8 Load Balancer

12.8.1 Client

class oci.load_balancer.load_balancer_client.**LoadBalancerClient**(*config*,
**kwargs)

create_backend(*create_backend_details*, *load_balancer_id*, *backend_set_name*, ***kwargs*)
CreateBackend Adds a backend server to a backend set.

Parameters

- **create_backend_details** (`CreateBackendDetails`) – (required) The details
  to add a backend server to a backend set.

- **load_balancer_id** (`str`) – (required) The OCID of the load balancer associated with
  the backend set and servers.

- **backend_set_name** (`str`) – (required) The name of the backend set to add the back-
  end server to.

  Example: *My_backend_set*

- **opc_request_id** (`str`) – (optional) The unique Oracle-assigned identifier for the re-
  quest. If you need to contact Oracle about a particular request, please provide the request
  ID.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so
  it can be retried in case of a timeout or server error without risk of executing that same
  action again. Retry tokens expire after 24 hours, but can be invalidated before then due
  to conflicting operations (e.g., if a resource has been deleted and purged from the system,
  then a retry of the original creation request may be rejected).

Returns A `Response` object with data of type None

Return type `Response`

create_backend_set(*create_backend_set_details*, *load_balancer_id*, ***kwargs*)
CreateBackendSet Adds a backend set to a load balancer.

Parameters

- **create_backend_set_details** (`CreateBackendSetDetails`) – (required)
  The details for adding a backend set.

- **load_balancer_id** (`str`) – (required) The OCID of the load balancer on which to
  add a backend set.

- **opc_request_id** (`str`) – (optional) The unique Oracle-assigned identifier for the re-
  quest. If you need to contact Oracle about a particular request, please provide the request
  ID.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so
  it can be retried in case of a timeout or server error without risk of executing that same
  action again. Retry tokens expire after 24 hours, but can be invalidated before then due
  to conflicting operations (e.g., if a resource has been deleted and purged from the system,
  then a retry of the original creation request may be rejected).

Returns A `Response` object with data of type None

Return type `Response`

create_certificate(*create_certificate_details*, *load_balancer_id*, ***kwargs*)

　　CreateCertificate Creates an asynchronous request to add an SSL certificate.

> **Parameters**
>
> - **create_certificate_details** (`CreateCertificateDetails`) – (required) The details of the certificate to add.
> - **load_balancer_id** (`str`) – (required) The OCID of the load balancer on which to add the certificate.
> - **opc_request_id** (`str`) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns**　A `Response` object with data of type None
>
> **Return type**　`Response`

create_listener(*create_listener_details*, *load_balancer_id*, ***kwargs*)

　　CreateListener Adds a listener to a load balancer.

> **Parameters**
>
> - **create_listener_details** (`CreateListenerDetails`) – (required) Details to add a listener.
> - **load_balancer_id** (`str`) – (required) The OCID of the load balancer on which to add a listener.
> - **opc_request_id** (`str`) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns**　A `Response` object with data of type None
>
> **Return type**　`Response`

create_load_balancer(*create_load_balancer_details*, ***kwargs*)

　　CreateLoadBalancer Creates a new load balancer in the specified compartment. For general information about load balancers, see Overview of the Load Balancing Service.

　　For the purposes of access control, you must provide the OCID of the compartment where you want the load balancer to reside. Notice that the load balancer doesn't have to be in the same compartment as the VCN or backend set. If you're not sure which compartment to use, put the load balancer in the same compartment as the VCN. For information about access control and compartments, see Overview of the IAM Service.

　　You must specify a display name for the load balancer. It does not have to be unique, and you can change it.

For information about Availability Domains, see Regions and Availability Domains. To get a list of Availability Domains, use the *ListAvailabilityDomains* operation in the Identity and Access Management Service API.

All Oracle Cloud Infrastructure resources, including load balancers, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console. Fore more information, see Resource Identifiers.

After you send your request, the new object's state will temporarily be PROVISIONING. Before using the object, first make sure its state has changed to RUNNING.

When you create a load balancer, the system assigns an IP address. To get the IP address, use the `get_load_balancer()` operation.

> **Parameters**
>
> - **create_load_balancer_details** (`CreateLoadBalancerDetails`) – (required) The configuration details for creating a load balancer.
>
> - **opc_request_id** (`str`) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

create_path_route_set(*create_path_route_set_details*, *load_balancer_id*, ***kwargs*)
> CreatePathRouteSet Adds a path route set to a load balancer. For more information, see Managing Request Routing.
>
> **Parameters**
>
> - **create_path_route_set_details** (`CreatePathRouteSetDetails`) – (required) The details of the path route set to add.
>
> - **load_balancer_id** (`str`) – (required) The OCID of the load balancer to add the path route set to.
>
> - **opc_request_id** (`str`) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
>
> - **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_backend(*load_balancer_id*, *backend_set_name*, *backend_name*, ***kwargs*)
> DeleteBackend Removes a backend server from a given load balancer and backend set.

Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the backend set and server.

- **backend_set_name** (*str*) – (required) The name of the backend set associated with the backend server.

  Example: *My_backend_set*

- **backend_name** (*str*) – (required) The IP address and port of the backend server to remove.

  Example: *1.1.1.7:42*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type None

Return type *Response*

delete_backend_set (*load_balancer_id*, *backend_set_name*, ***kwargs*)

DeleteBackendSet Deletes the specified backend set. Note that deleting a backend set removes its backend servers from the load balancer.

Before you can delete a backend set, you must remove it from any active listeners.

Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the backend set.

- **backend_set_name** (*str*) – (required) The name of the backend set to delete.

  Example: *My_backend_set*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type None

Return type *Response*

delete_certificate (*load_balancer_id*, *certificate_name*, ***kwargs*)

DeleteCertificate Deletes an SSL certificate from a load balancer.

Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the certificate to be deleted.

- **certificate_name** (*str*) – (required) The name of the certificate to delete.

  Example: *My_certificate_bundle*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type None

Return type *Response*

delete_listener(*load_balancer_id*, *listener_name*, ***kwargs*)

DeleteListener Deletes a listener from a load balancer.

> **Parameters**
>
> - **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the listener to delete.
> - **listener_name** (*str*) – (required) The name of the listener to delete.
>
>   Example: *My listener*
>
> - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_load_balancer(*load_balancer_id*, ***kwargs*)

DeleteLoadBalancer Stops a load balancer and removes it from service.

> **Parameters**
>
> - **load_balancer_id** (*str*) – (required) The OCID of the load balancer to delete.
> - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

delete_path_route_set(*load_balancer_id*, *path_route_set_name*, ***kwargs*)

DeletePathRouteSet Deletes a path route set from the specified load balancer.

To delete a path route rule from a path route set, use the `update_path_route_set()` operation.

> **Parameters**
>
> - **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the path route set to delete.
> - **path_route_set_name** (*str*) – (required) The name of the path route set to delete.
>
>   Example: *path-route-set-001*
>
> - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
>
> **Returns** A *Response* object with data of type None
>
> **Return type** *Response*

get_backend(*load_balancer_id*, *backend_set_name*, *backend_name*, ***kwargs*)

GetBackend Gets the specified backend server's configuration information.

> **Parameters**
>
> - **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the backend set and server.

- **backend_set_name** (*str*) – (required) The name of the backend set that includes the backend server.

    Example: *My_backend_set*

- **backend_name** (*str*) – (required) The IP address and port of the backend server to retrieve.

    Example: *1.1.1.7:42*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type *Backend*

Return type *Response*

get_backend_health(*load_balancer_id*, *backend_set_name*, *backend_name*, ***kwargs*)
    BackendHealth Gets the current health status of the specified backend server.

    Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the backend server health status to be retrieved.

- **backend_set_name** (*str*) – (required) The name of the backend set associated with the backend server to retrieve the health status for.

    Example: *My_backend_set*

- **backend_name** (*str*) – (required) The IP address and port of the backend server to retrieve the health status for.

    Example: *1.1.1.7:42*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type *BackendHealth*

Return type *Response*

get_backend_set(*load_balancer_id*, *backend_set_name*, ***kwargs*)
    GetBackendSet Gets the specified backend set's configuration information.

    Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the specified load balancer.

- **backend_set_name** (*str*) – (required) The name of the backend set to retrieve.

    Example: *My_backend_set*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type *BackendSet*

Return type *Response*

get_backend_set_health(*load_balancer_id*, *backend_set_name*, ***kwargs*)
    BackendSetHealth Gets the health status for the specified backend set.

    Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the backend set health status to be retrieved.

- **backend_set_name** (*str*) – (required) The name of the backend set to retrieve the health status for.

  Example: *My_backend_set*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type *BackendSetHealth*

Return type *Response*

get_health_checker (*load_balancer_id*, *backend_set_name*, ***kwargs*)
  GetHealthChecker Gets the health check policy information for a given load balancer and backend set.

  Parameters

  - **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the health check policy to be retrieved.

  - **backend_set_name** (*str*) – (required) The name of the backend set associated with the health check policy to be retrieved.

    Example: *My_backend_set*

  - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

  Returns A *Response* object with data of type *HealthChecker*

  Return type *Response*

get_load_balancer (*load_balancer_id*, ***kwargs*)
  GetLoadBalancer Gets the specified load balancer's configuration information.

  Parameters

  - **load_balancer_id** (*str*) – (required) The OCID of the load balancer to retrieve.

  - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

  Returns A *Response* object with data of type *LoadBalancer*

  Return type *Response*

get_load_balancer_health (*load_balancer_id*, ***kwargs*)
  LoadBalancerHealth Gets the health status for the specified load balancer.

  Parameters

  - **load_balancer_id** (*str*) – (required) The OCID of the load balancer to return health status for.

  - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

  Returns A *Response* object with data of type *LoadBalancerHealth*

> **Return type** *Response*

get_path_route_set (*load_balancer_id*, *path_route_set_name*, ***kwargs*)

> GetPathRouteSet Gets the specified path route set's configuration information.

> > **Parameters**

> > > - **load_balancer_id** (*str*) – (required) The OCID of the specified load balancer.

> > > - **path_route_set_name** (*str*) – (required) The name of the path route set to retrieve.

> > > > Example: *path-route-set-001*

> > > - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

> > **Returns** A *Response* object with data of type *PathRouteSet*

> > **Return type** *Response*

get_work_request (*work_request_id*, ***kwargs*)

> GetWorkRequest Gets the details of a work request.

> > **Parameters**

> > > - **work_request_id** (*str*) – (required) The OCID of the work request to retrieve.

> > > - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

> > **Returns** A *Response* object with data of type *WorkRequest*

> > **Return type** *Response*

list_backend_sets (*load_balancer_id*, ***kwargs*)

> ListBackendSets Lists all backend sets associated with a given load balancer.

> > **Parameters**

> > > - **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the backend sets to retrieve.

> > > - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

> > **Returns** A *Response* object with data of type list of *BackendSet*

> > **Return type** *Response*

list_backends (*load_balancer_id*, *backend_set_name*, ***kwargs*)

> ListBackends Lists the backend servers for a given load balancer and backend set.

> > **Parameters**

> > > - **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the backend set and servers.

> > > - **backend_set_name** (*str*) – (required) The name of the backend set associated with the backend servers.

> > > > Example: *My_backend_set*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type list of *Backend*

Return type *Response*

list_certificates(*load_balancer_id*, ***kwargs*)
ListCertificates Lists all SSL certificates associated with a given load balancer.

Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the certificates to be listed.

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

Returns A *Response* object with data of type list of *Certificate*

Return type *Response*

list_load_balancer_healths(*compartment_id*, ***kwargs*)
ListLoadBalancerHealths Lists the summary health statuses for all load balancers in the specified compartment.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment containing the load balancers to return health status information for.

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

  Example: *3*

Returns A *Response* object with data of type list of *LoadBalancerHealthSummary*

Return type *Response*

list_load_balancers(*compartment_id*, ***kwargs*)
ListLoadBalancers Lists all load balancers in the specified compartment.

Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment containing the load balancers to list.

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

  Example: *3*

- **detail** (*str*) – (optional) The level of detail to return for each result. Can be *full* or *simple*.

  Example: *full*

- **sort_by** (*str*) – (optional) The field to sort by. You can provide one sort order (*sortOrder*). Default order for TIMECREATED is descending. Default order for DISPLAYNAME is ascending. The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "TIMECREATED", "DISPLAYNAME"

- **sort_order** (*str*) – (optional) The sort order to use, either ascending (*ASC*) or descending (*DESC*). The DISPLAYNAME sort order is case sensitive.

  Allowed values are: "ASC", "DESC"

- **display_name** (*str*) – (optional) A filter to return only resources that match the given display name exactly.

- **lifecycle_state** (*str*) – (optional) A filter to return only resources that match the given lifecycle state.

  Allowed values are: "CREATING", "FAILED", "ACTIVE", "DELETING", "DELETED"

Returns A *Response* object with data of type list of *LoadBalancer*

Return type *Response*

list_path_route_sets(*load_balancer_id*, ***kwargs*)
    ListPathRouteSets Lists all path route sets associated with the specified load balancer.

    Parameters

- **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the path route sets to retrieve.

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

    Returns A *Response* object with data of type list of *PathRouteSet*

    Return type *Response*

list_policies(*compartment_id*, ***kwargs*)
    ListPolicies Lists the available load balancer policies.

    Parameters

- **compartment_id** (*str*) – (required) The OCID of the compartment containing the load balancer policies to list.

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

> Example: *500*
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
>   Example: *3*

Returns A [*Response*](#) object with data of type list of [*LoadBalancerPolicy*](#)

Return type [*Response*](#)

list_protocols(*compartment_id*, ***kwargs*)

ListProtocols Lists all supported traffic protocols.

> **Parameters**
>
> - **compartment_id** (*str*) – (required) The [OCID](#) of the compartment containing the load balancer protocols to list.
>
> - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
>
> - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
>   Example: *3*

Returns A [*Response*](#) object with data of type list of [*LoadBalancerProtocol*](#)

Return type [*Response*](#)

list_shapes(*compartment_id*, ***kwargs*)

ListShapes Lists the valid load balancer shapes.

> **Parameters**
>
> - **compartment_id** (*str*) – (required) The [OCID](#) of the compartment containing the load balancer shapes to list.
>
> - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.
>
> - **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.
>
>   Example: *500*
>
> - **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.
>
>   Example: *3*

Returns A [*Response*](#) object with data of type list of [*LoadBalancerShape*](#)

Return type [*Response*](#)

list_work_requests(*load_balancer_id*, ***kwargs*)

ListWorkRequests Lists the work requests for a given load balancer.

> **Parameters**

- **load_balancer_id**(*str*) – (required) The [OCID](#) of the load balancer associated with the work requests to retrieve.

- **opc_request_id**(*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **limit** (*int*) – (optional) The maximum number of items to return in a paginated "List" call.

  Example: *500*

- **page** (*str*) – (optional) The value of the *opc-next-page* response header from the previous "List" call.

  Example: *3*

Returns A [*Response*](#) object with data of type list of [*WorkRequest*](#)

Return type [*Response*](#)

update_backend(*update_backend_details*, *load_balancer_id*, *backend_set_name*, *backend_name*, ***kwargs*)
UpdateBackend Updates the configuration of a backend server within the specified backend set.

Parameters

- **update_backend_details** ([*UpdateBackendDetails*](#)) – (required) Details for updating a backend server.

- **load_balancer_id**(*str*) – (required) The [OCID](#) of the load balancer associated with the backend set and server.

- **backend_set_name** (*str*) – (required) The name of the backend set associated with the backend server.

  Example: *My_backend_set*

- **backend_name** (*str*) – (required) The IP address and port of the backend server to update.

  Example: *1.1.1.7:42*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A [*Response*](#) object with data of type None

Return type [*Response*](#)

update_backend_set(*update_backend_set_details*, *load_balancer_id*, *backend_set_name*, ***kwargs*)
UpdateBackendSet Updates a backend set.

Parameters

- **update_backend_set_details** ([*UpdateBackendSetDetails*](#)) – (required) The details to update a backend set.

- **load_balancer_id**(`str`) – (required) The OCID of the load balancer associated with the backend set.

- **backend_set_name** (`str`) – (required) The name of the backend set to update.

  Example: *My_backend_set*

- **opc_request_id**(`str`) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A *Response* object with data of type None

Return type *Response*

update_health_checker(*health_checker*, *load_balancer_id*, *backend_set_name*, ***kwargs*)
UpdateHealthChecker Updates the health check policy for a given load balancer and backend set.

Parameters

- **health_checker** (`UpdateHealthCheckerDetails`) – (required) The health check policy configuration details.

- **load_balancer_id**(`str`) – (required) The OCID of the load balancer associated with the health check policy to be updated.

- **backend_set_name** (`str`) – (required) The name of the backend set associated with the health check policy to be retrieved.

  Example: *My_backend_set*

- **opc_request_id**(`str`) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A *Response* object with data of type None

Return type *Response*

update_listener(*update_listener_details*, *load_balancer_id*, *listener_name*, ***kwargs*)
UpdateListener Updates a listener for a given load balancer.

Parameters

- **update_listener_details** (`UpdateListenerDetails`) – (required) Details to update a listener.

- **load_balancer_id**(`str`) – (required) The OCID of the load balancer associated with the listener to update.

- **listener_name** (`str`) – (required) The name of the listener to update.

  Example: *My listener*

- **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A *Response* object with data of type None

Return type *Response*

update_load_balancer(*update_load_balancer_details*, *load_balancer_id*, ***kwargs*)
   UpdateLoadBalancer Updates a load balancer's configuration.

   Parameters

   - **update_load_balancer_details** (*UpdateLoadBalancerDetails*) – (required) The details for updating a load balancer's configuration.

   - **load_balancer_id** (*str*) – (required) The OCID of the load balancer to update.

   - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

   - **opc_retry_token** (*str*) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

   Returns A *Response* object with data of type None

   Return type *Response*

update_path_route_set(*update_path_route_set_details*, *load_balancer_id*, *path_route_set_name*, ***kwargs*)
   UpdatePathRouteSet Overwrites an existing path route set on the specified load balancer. Use this operation to add, delete, or alter path route rules in a path route set.

   To add a new path route rule to a path route set, the *pathRoutes* in the update_path_route_set_details() object must include both the new path route rule to add and the existing path route rules to retain.

   Parameters

   - **update_path_route_set_details** (*UpdatePathRouteSetDetails*) – (required) The configuration details to update a path route set.

   - **load_balancer_id** (*str*) – (required) The OCID of the load balancer associated with the path route set to update.

   - **path_route_set_name** (*str*) – (required) The name of the path route set to update.

     Example: *path-route-set-001*

   - **opc_request_id** (*str*) – (optional) The unique Oracle-assigned identifier for the request. If you need to contact Oracle about a particular request, please provide the request ID.

- **opc_retry_token** (`str`) – (optional) A token that uniquely identifies a request so it can be retried in case of a timeout or server error without risk of executing that same action again. Retry tokens expire after 24 hours, but can be invalidated before then due to conflicting operations (e.g., if a resource has been deleted and purged from the system, then a retry of the original creation request may be rejected).

Returns A *Response* object with data of type None

Return type *Response*

12.8.2 Models

class oci.load_balancer.models.**Backend**(***kwargs*)

__init__(***kwargs*)
Initializes a new Backend object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **backup** (`bool`) – The value to assign to the backup property of this Backend.
- **drain** (`bool`) – The value to assign to the drain property of this Backend.
- **ip_address** (`str`) – The value to assign to the ip_address property of this Backend.
- **name** (`str`) – The value to assign to the name property of this Backend.
- **offline** (`bool`) – The value to assign to the offline property of this Backend.
- **port** (`int`) – The value to assign to the port property of this Backend.
- **weight** (`int`) – The value to assign to the weight property of this Backend.

backup
[Required] Gets the backup of this Backend. Whether the load balancer should treat this server as a backup unit. If *true*, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Example: *true*

Returns The backup of this Backend.

Return type bool

drain
[Required] Gets the drain of this Backend. Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic.

Example: *true*

Returns The drain of this Backend.

Return type bool

ip_address
[Required] Gets the ip_address of this Backend. The IP address of the backend server.

Example: *10.10.10.4*

Returns The ip_address of this Backend.

Return type str

name
> [**Required**] Gets the name of this Backend. A read-only field showing the IP address and port that uniquely identify this backend server in the backend set.

> Example: *10.10.10.4:8080*

>> **Returns** The name of this Backend.

>> **Return type** str

offline
> [**Required**] Gets the offline of this Backend. Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic.

> Example: *true*

>> **Returns** The offline of this Backend.

>> **Return type** bool

port
> [**Required**] Gets the port of this Backend. The communication port for the backend server.

> Example: *8080*

>> **Returns** The port of this Backend.

>> **Return type** int

weight
> [**Required**] Gets the weight of this Backend. The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see How Load Balancing Policies Work.

> Example: *3*

>> **Returns** The weight of this Backend.

>> **Return type** int

class oci.load_balancer.models.**BackendDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new BackendDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters**
>>> • **backup** (*bool*) – The value to assign to the backup property of this BackendDetails.
>>> • **drain** (*bool*) – The value to assign to the drain property of this BackendDetails.
>>> • **ip_address** (*str*) – The value to assign to the ip_address property of this BackendDetails.
>>> • **offline** (*bool*) – The value to assign to the offline property of this BackendDetails.
>>> • **port** (*int*) – The value to assign to the port property of this BackendDetails.
>>> • **weight** (*int*) – The value to assign to the weight property of this BackendDetails.

backup
> Gets the backup of this BackendDetails. Whether the load balancer should treat this server as a backup

unit. If *true*, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Example: *true*

> **Returns** The backup of this BackendDetails.

> **Return type** bool

drain
> Gets the drain of this BackendDetails. Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic.

Example: *true*

> **Returns** The drain of this BackendDetails.

> **Return type** bool

ip_address
> [Required] Gets the ip_address of this BackendDetails. The IP address of the backend server.

Example: *10.10.10.4*

> **Returns** The ip_address of this BackendDetails.

> **Return type** str

offline
> Gets the offline of this BackendDetails. Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic.

Example: *true*

> **Returns** The offline of this BackendDetails.

> **Return type** bool

port
> [Required] Gets the port of this BackendDetails. The communication port for the backend server.

Example: *8080*

> **Returns** The port of this BackendDetails.

> **Return type** int

weight
> Gets the weight of this BackendDetails. The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see How Load Balancing Policies Work.

Example: *3*

> **Returns** The weight of this BackendDetails.

> **Return type** int

class oci.load_balancer.models.**BackendHealth**(***kwargs*)

__init__(***kwargs*)
> Initializes a new BackendHealth object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

- **health_check_results** (`list[HealthCheckResult]`) – The value to assign to the health_check_results property of this BackendHealth.

- **status** (`str`) – The value to assign to the status property of this BackendHealth. Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

health_check_results

[**Required**] Gets the health_check_results of this BackendHealth. A list of the most recent health check results returned for the specified backend server.

> **Returns** The health_check_results of this BackendHealth.

> **Return type** list[*HealthCheckResult*]

status

[**Required**] Gets the status of this BackendHealth. The general health status of the specified backend server as reported by the primary and standby load balancers.

- **OK:** Both health checks returned *OK*.

- **WARNING:** One health check returned *OK* and one did not.

- **CRITICAL:** Neither health check returned *OK*.

- **UNKNOWN:** One or both health checks returned *UNKNOWN*, or the system was unable to retrieve metrics at this time.

Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The status of this BackendHealth.

> **Return type** str

class oci.load_balancer.models.**BackendSet**(***kwargs*)

__init__(***kwargs*)

Initializes a new BackendSet object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> - **backends** (`list[Backend]`) – The value to assign to the backends property of this BackendSet.

> - **health_checker** (`HealthChecker`) – The value to assign to the health_checker property of this BackendSet.

> - **name** (`str`) – The value to assign to the name property of this BackendSet.

> - **policy** (`str`) – The value to assign to the policy property of this BackendSet.

> - **session_persistence_configuration** (`SessionPersistenceConfigurationDetails`) – The value to assign to the session_persistence_configuration property of this BackendSet.

> - **ssl_configuration** (`SSLConfiguration`) – The value to assign to the ssl_configuration property of this BackendSet.

backends

[**Required**] Gets the backends of this BackendSet.

Returns The backends of this BackendSet.

Return type list[*Backend*]

health_checker
[**Required**] Gets the health_checker of this BackendSet.

Returns The health_checker of this BackendSet.

Return type *HealthChecker*

name
[**Required**] Gets the name of this BackendSet. A friendly name for the backend set. It must be unique and it cannot be changed.

Valid backend set names include only alphanumeric characters, dashes, and underscores. Backend set names cannot contain spaces. Avoid entering confidential information.

Example: *My_backend_set*

Returns The name of this BackendSet.

Return type str

policy
[**Required**] Gets the policy of this BackendSet. The load balancer policy for the backend set. To get a list of available policies, use the `list_policies()` operation.

Example: *LEAST_CONNECTIONS*

Returns The policy of this BackendSet.

Return type str

session_persistence_configuration
Gets the session_persistence_configuration of this BackendSet.

Returns The session_persistence_configuration of this BackendSet.

Return type *SessionPersistenceConfigurationDetails*

ssl_configuration
Gets the ssl_configuration of this BackendSet.

Returns The ssl_configuration of this BackendSet.

Return type *SSLConfiguration*

class oci.load_balancer.models.**BackendSetDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new BackendSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **backends** (`list[BackendDetails]`) – The value to assign to the backends property of this BackendSetDetails.

- **health_checker** (`HealthCheckerDetails`) – The value to assign to the health_checker property of this BackendSetDetails.

- **policy** (`str`) – The value to assign to the policy property of this BackendSetDetails.

- **session_persistence_configuration** (SessionPersistenceConfigurationDetails) – The value to assign to the session_persistence_configuration property of this Backend-SetDetails.

- **ssl_configuration** (SSLConfigurationDetails) – The value to assign to the ssl_configuration property of this BackendSetDetails.

backends
   Gets the backends of this BackendSetDetails.

   Returns The backends of this BackendSetDetails.

   Return type list[*BackendDetails*]

health_checker
   [Required] Gets the health_checker of this BackendSetDetails.

   Returns The health_checker of this BackendSetDetails.

   Return type *HealthCheckerDetails*

policy
   [Required] Gets the policy of this BackendSetDetails. The load balancer policy for the backend set. To get a list of available policies, use the list_policies() operation.

   Example: *LEAST_CONNECTIONS*

   Returns The policy of this BackendSetDetails.

   Return type str

session_persistence_configuration
   Gets the session_persistence_configuration of this BackendSetDetails.

   Returns The session_persistence_configuration of this BackendSetDetails.

   Return type *SessionPersistenceConfigurationDetails*

ssl_configuration
   Gets the ssl_configuration of this BackendSetDetails.

   Returns The ssl_configuration of this BackendSetDetails.

   Return type *SSLConfigurationDetails*

class oci.load_balancer.models.**BackendSetHealth**(***kwargs*)

__init__(***kwargs*)
   Initializes a new BackendSetHealth object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

   Parameters

   - **critical_state_backend_names** (*list[str]*) – The value to assign to the critical_state_backend_names property of this BackendSetHealth.

   - **status** (*str*) – The value to assign to the status property of this BackendSetHealth. Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

   - **total_backend_count** (*int*) – The value to assign to the total_backend_count property of this BackendSetHealth.

- **unknown_state_backend_names** (`list[str]`) – The value to assign to the unknown_state_backend_names property of this BackendSetHealth.

- **warning_state_backend_names** (`list[str]`) – The value to assign to the warning_state_backend_names property of this BackendSetHealth.

critical_state_backend_names

[Required] Gets the critical_state_backend_names of this BackendSetHealth. A list of backend servers that are currently in the *CRITICAL* health state. The list identifies each backend server by IP address and port.

Example: *1.1.1.1:80*

> **Returns** The critical_state_backend_names of this BackendSetHealth.

> **Return type** list[str]

status

[Required] Gets the status of this BackendSetHealth. Overall health status of the backend set.

- **OK:** All backend servers in the backend set return a status of *OK*.

- **WARNING:** Half or more of the backend set's backend servers return a status of *OK* and at least one backend

server returns a status of *WARNING*, *CRITICAL*, or *UNKNOWN*.

- **CRITICAL:** Fewer than half of the backend set's backend servers return a status of *OK*.

- **UNKNOWN:** More than half of the backend set's backend servers return a status of *UNKNOWN*, the system was

unable to retrieve metrics, or the backend set does not have a listener attached.

Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The status of this BackendSetHealth.

> **Return type** str

total_backend_count

[Required] Gets the total_backend_count of this BackendSetHealth. The total number of backend servers in this backend set.

Example: *5*

> **Returns** The total_backend_count of this BackendSetHealth.

> **Return type** int

unknown_state_backend_names

[Required] Gets the unknown_state_backend_names of this BackendSetHealth. A list of backend servers that are currently in the *UNKNOWN* health state. The list identifies each backend server by IP address and port.

Example: *1.1.1.5:80*

> **Returns** The unknown_state_backend_names of this BackendSetHealth.

> **Return type** list[str]

warning_state_backend_names

[Required] Gets the warning_state_backend_names of this BackendSetHealth. A list of backend servers

that are currently in the *WARNING* health state. The list identifies each backend server by IP address and port.

Example: *1.1.1.7:42*

> **Returns** The warning_state_backend_names of this BackendSetHealth.

> **Return type** list[str]

class oci.load_balancer.models.**Certificate**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new Certificate object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **ca_certificate** (*str*) – The value to assign to the ca_certificate property of this Certificate.
> >
> > - **certificate_name** (*str*) – The value to assign to the certificate_name property of this Certificate.
> >
> > - **public_certificate** (*str*) – The value to assign to the public_certificate property of this Certificate.

> **ca_certificate**
> **[Required]** Gets the ca_certificate of this Certificate. The Certificate Authority certificate, or any interim certificate, that you received from your SSL certificate provider.
>
> Example:
>
> > —–BEGIN CERTIFICATE—– MIIEczCCA1ugAwIBAgIBADANBgkqhkiG9w0BAQQFAD..AkGA1UEBhMCR0Ix EzARBgNVBAgTClNvbWUtU3RhdGUxFDASBgNVBAoTC0..0EgTHRkMTcwNQYD VQQLEy5DbGFzcyAxIFB1YmxpYyBQcmltYXJ5IENlcn..XRpb24gQXV0aG9y aXR5MRQwEgYDVQQDEwtCZXN0IENBIEx0ZDAeFw0wMD..TUwMTZaFw0wMTAy ... —–END CERTIFICATE—–
>
> **Returns** The ca_certificate of this Certificate.
>
> **Return type** str

> **certificate_name**
> **[Required]** Gets the certificate_name of this Certificate. A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information.
>
> Example: *My_certificate_bundle*
>
> **Returns** The certificate_name of this Certificate.
>
> **Return type** str

> **public_certificate**
> **[Required]** Gets the public_certificate of this Certificate. The public certificate, in PEM format, that you received from your SSL certificate provider.
>
> Example:
>
> > —–BEGIN CERTIFICATE—– MIIC2jCCAkMCAg38MA0GCSqGSIb3DQEBBQUAMIGbMQswCQYDVQQGEwJK A1UECBMFVG9reW8xEDAOBgNVBAcTB0NodW8ta3UxETAPBgNVBAoTCEZyYW5rNERE

> MRgwFgYDVQQLEw9XZWJJDZXJ0IFN1cHBvcnQxGDAWBgNVBAMTD0ZyYW5rNEREIFdl
> YiBDQTEjMCEGCSqGSIb3DQEJARYUc3VwcG9ydEBmcmFuazRkZC5jb20wHhcNMTIw
> ... ——END CERTIFICATE——

> **Returns** The public_certificate of this Certificate.

> **Return type** str

class oci.load_balancer.models.**CertificateDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CertificateDetails object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > - **ca_certificate** (*str*) – The value to assign to the ca_certificate property of this
> >   CertificateDetails.
> > - **certificate_name** (*str*) – The value to assign to the certificate_name property of
> >   this CertificateDetails.
> > - **passphrase** (*str*) – The value to assign to the passphrase property of this Certificat-
> >   eDetails.
> > - **private_key** (*str*) – The value to assign to the private_key property of this Certifi-
> >   cateDetails.
> > - **public_certificate** (*str*) – The value to assign to the public_certificate property
> >   of this CertificateDetails.

ca_certificate
> Gets the ca_certificate of this CertificateDetails. The Certificate Authority certificate, or any interim cer-
> tificate, that you received from your SSL certificate provider.

> Example:

> > ——BEGIN CERTIFICATE—— MIIEczCCA1ugAwIBAgIBADANBgkqhkiG9w0BAQQFAD..AkGA1UEBhMCR0Ix
> > EzARBgNVBAgTClNvbWUtU3RhdGUxFDASBgNVBAoTC0..0EgTHRkMTcwNQYD
> > VQQLEy5DbGFzcyAxIFB1YmxpYyBQcmltYXJ5IENlcn..XRpb24gQXV0aG9y
> > aXR5MRQwEgYDVQQDEwtCZXN0IENBIEx0ZDAeFw0wMD..TUwMTZaFw0wMTAy
> > ... ——END CERTIFICATE——

> **Returns** The ca_certificate of this CertificateDetails.

> **Return type** str

certificate_name
> **[Required]** Gets the certificate_name of this CertificateDetails. A friendly name for the certificate bundle.
> It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric
> characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering
> confidential information.

> Example: *My_certificate_bundle*

> **Returns** The certificate_name of this CertificateDetails.

> **Return type** str

passphrase
Gets the passphrase of this CertificateDetails. A passphrase for encrypted private keys. This is needed only if you created your certificate with a passphrase.

Example: *Mysecretunlockingcode42!1!*

>   **Returns** The passphrase of this CertificateDetails.

>   **Return type** str

private_key
Gets the private_key of this CertificateDetails. The SSL private key for your certificate, in PEM format.

Example:

>   —–BEGIN RSA PRIVATE KEY—– jO1O1v2ftXMsawM90tnXwc6xhOAT1gDBC9S8DKeca..JZNUgYYwNS0dP2UK
>   tmyN+XqVcAKw4HqVmChXy5b5msu8eIq3uc2NqNVtR..2ksSLukP8pxXcHyb
>   +sEwvM4uf8qbnHAqwnOnP9+KV9vds6BaH1eRA4CHz..n+NVZlzBsTxTlS16
>   /Umr7wJzVrMqK5sDiSu4WuaaBdqMGfL5hLsTjcBFD..Da2iyQmSKuVD4lIZ   ...   —–END
>   RSA PRIVATE KEY—–

>   **Returns** The private_key of this CertificateDetails.

>   **Return type** str

public_certificate
Gets the public_certificate of this CertificateDetails. The public certificate, in PEM format, that you received from your SSL certificate provider.

Example:

>   —–BEGIN CERTIFICATE—– MIIC2jCCAkMCAg38MA0GCSqGSIb3DQEBBQUAMIGbMQswCQYDVQQGEwJK
>   A1UECBMFVG9reW8xEDAOBgNVBAcTB0NodW8ta3UxETAPBgNVBAoTCEZyYW5rNERE
>   MRgwFgYDVQQLEw9XZWJJDZXJ0IFN1cHBvcnQxGDAWBgNVBAMTD0ZyYW5rNEREIFdl
>   YiBDQTEjMCEGCSqGSIb3DQEJARYUc3VwcG9ydEBmcmFuazRkZC5jb20wHhcNMTIw
>   ... —–END CERTIFICATE—–

>   **Returns** The public_certificate of this CertificateDetails.

>   **Return type** str

class oci.load_balancer.models.**ConnectionConfiguration**(***kwargs*)

__init__(***kwargs*)
Initializes a new ConnectionConfiguration object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters idle_timeout** (*int*) – The value to assign to the idle_timeout property of this ConnectionConfiguration.

idle_timeout
[Required] Gets the idle_timeout of this ConnectionConfiguration. The maximum idle time, in seconds, allowed between two successive receive or two successive send operations between the client and backend servers. A send operation does not reset the timer for receive operations. A receive operation does not reset the timer for send operations.

The default values are:

*   300 seconds for TCP

*   60 seconds for HTTP and WebSocket protocols.

Note: The protocol is set at the listener.

Modify this parameter if the client or backend server stops transmitting data for more than the default time. Some examples include:

- The client sends a database query to the backend server and the database takes over 300 seconds to execute. Therefore, the backend server does not transmit any data within 300 seconds.

- The client uploads data using the HTTP protocol. During the upload, the backend does not transmit any data to the client for more than 60 seconds.

- The client downloads data using the HTTP protocol. After the initial request, it stops transmitting data to the backend server for more than 60 seconds.

- The client starts transmitting data after establishing a WebSocket connection, but the backend server does not transmit data for more than 60 seconds.

- The backend server starts transmitting data after establishing a WebSocket connection, but the client does not transmit data for more than 60 seconds.

The maximum value is 7200 seconds. Contact My Oracle Support to file a service request if you want to increase this limit for your tenancy. For more information, see Service Limits.

Example: *1200*

> **Returns** The idle_timeout of this ConnectionConfiguration.

> **Return type** int

class oci.load_balancer.models.**CreateBackendDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new CreateBackendDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **backup** (*bool*) – The value to assign to the backup property of this CreateBackendDetails.

- **drain** (*bool*) – The value to assign to the drain property of this CreateBackendDetails.

- **ip_address** (*str*) – The value to assign to the ip_address property of this CreateBackendDetails.

- **offline** (*bool*) – The value to assign to the offline property of this CreateBackendDetails.

- **port** (*int*) – The value to assign to the port property of this CreateBackendDetails.

- **weight** (*int*) – The value to assign to the weight property of this CreateBackendDetails.

backup
Gets the backup of this CreateBackendDetails. Whether the load balancer should treat this server as a backup unit. If *true*, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Example: *true*

> **Returns** The backup of this CreateBackendDetails.

> **Return type** bool

---

drain
    Gets the drain of this CreateBackendDetails. Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic.

    Example: *true*

>   **Returns** The drain of this CreateBackendDetails.

>   **Return type** bool

ip_address
    [Required] Gets the ip_address of this CreateBackendDetails. The IP address of the backend server.

    Example: *10.10.10.4*

>   **Returns** The ip_address of this CreateBackendDetails.

>   **Return type** str

offline
    Gets the offline of this CreateBackendDetails. Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic.

    Example: *true*

>   **Returns** The offline of this CreateBackendDetails.

>   **Return type** bool

port
    [Required] Gets the port of this CreateBackendDetails. The communication port for the backend server.

    Example: *8080*

>   **Returns** The port of this CreateBackendDetails.

>   **Return type** int

weight
    Gets the weight of this CreateBackendDetails. The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see How Load Balancing Policies Work.

    Example: *3*

>   **Returns** The weight of this CreateBackendDetails.

>   **Return type** int

class oci.load_balancer.models.**CreateBackendSetDetails**(***kwargs*)

__init__(***kwargs*)
    Initializes a new CreateBackendSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

    Parameters

    - **backends** (*list[BackendDetails]*) – The value to assign to the backends property of this CreateBackendSetDetails.

    - **health_checker** (*HealthCheckerDetails*) – The value to assign to the health_checker property of this CreateBackendSetDetails.

    - **name** (*str*) – The value to assign to the name property of this CreateBackendSetDetails.

- **policy** (`str`) – The value to assign to the policy property of this CreateBackendSetDetails.

- **session_persistence_configuration** ([`SessionPersistenceConfigurationDetails`](#)) – The value to assign to the session_persistence_configuration property of this CreateBackendSetDetails.

- **ssl_configuration** ([`SSLConfigurationDetails`](#)) – The value to assign to the ssl_configuration property of this CreateBackendSetDetails.

backends

> Gets the backends of this CreateBackendSetDetails.
>
>> **Returns** The backends of this CreateBackendSetDetails.
>>
>> **Return type** list[*BackendDetails*]

health_checker

> [**Required**] Gets the health_checker of this CreateBackendSetDetails.
>
>> **Returns** The health_checker of this CreateBackendSetDetails.
>>
>> **Return type** *HealthCheckerDetails*

name

> [**Required**] Gets the name of this CreateBackendSetDetails. A friendly name for the backend set. It must be unique and it cannot be changed.
>
> Valid backend set names include only alphanumeric characters, dashes, and underscores. Backend set names cannot contain spaces. Avoid entering confidential information.
>
> Example: *My_backend_set*
>
>> **Returns** The name of this CreateBackendSetDetails.
>>
>> **Return type** str

policy

> [**Required**] Gets the policy of this CreateBackendSetDetails. The load balancer policy for the backend set. To get a list of available policies, use the `list_policies()` operation.
>
> Example: *LEAST_CONNECTIONS*
>
>> **Returns** The policy of this CreateBackendSetDetails.
>>
>> **Return type** str

session_persistence_configuration

> Gets the session_persistence_configuration of this CreateBackendSetDetails.
>
>> **Returns** The session_persistence_configuration of this CreateBackendSetDetails.
>>
>> **Return type** *SessionPersistenceConfigurationDetails*

ssl_configuration

> Gets the ssl_configuration of this CreateBackendSetDetails.
>
>> **Returns** The ssl_configuration of this CreateBackendSetDetails.
>>
>> **Return type** *SSLConfigurationDetails*

class oci.load_balancer.models.**CreateCertificateDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new CreateCertificateDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> * **ca_certificate** (*str*) – The value to assign to the ca_certificate property of this CreateCertificateDetails.
>
> * **certificate_name** (*str*) – The value to assign to the certificate_name property of this CreateCertificateDetails.
>
> * **passphrase** (*str*) – The value to assign to the passphrase property of this CreateCertificateDetails.
>
> * **private_key** (*str*) – The value to assign to the private_key property of this CreateCertificateDetails.
>
> * **public_certificate** (*str*) – The value to assign to the public_certificate property of this CreateCertificateDetails.

ca_certificate

Gets the ca_certificate of this CreateCertificateDetails. The Certificate Authority certificate, or any interim certificate, that you received from your SSL certificate provider.

Example:

> —–BEGIN CERTIFICATE—– MIIEczCCA1ugAwIBAgIBADANBgkqhkiG9w0BAQQFAD..AkGA1UEBhMCR0Ix EzARBgNVBAgTClNvbWUtU3RhdGUxFDASBgNVBAoTC0..0EgTHRkMTcwNQYD VQQLEy5DbGFzcyAxIFB1YmxpYyBQcmltYXJ5IENlcn..XRpb24gQXV0aG9y aXR5MRQwEgYDVQQDEwtCZXN0IENBIEx0ZDAeFw0wMD..TUwMTZaFw0wMTAy ... —–END CERTIFICATE—–

> **Returns** The ca_certificate of this CreateCertificateDetails.
>
> **Return type** str

certificate_name

[**Required**] Gets the certificate_name of this CreateCertificateDetails. A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information.

Example: *My_certificate_bundle*

> **Returns** The certificate_name of this CreateCertificateDetails.
>
> **Return type** str

passphrase

Gets the passphrase of this CreateCertificateDetails. A passphrase for encrypted private keys. This is needed only if you created your certificate with a passphrase.

Example: *Mysecretunlockingcode42!1!*

> **Returns** The passphrase of this CreateCertificateDetails.
>
> **Return type** str

private_key

Gets the private_key of this CreateCertificateDetails. The SSL private key for your certificate, in PEM format.

Example:

——BEGIN RSA PRIVATE KEY—— jO1O1v2ftXMsawM90tnXwc6xhOAT1gDBC9S8DKeca..JZNUgYYwNS0dP2UK
tmyN+XqVcAKw4HqVmChXy5b5msu8eIq3uc2NqNVtR..2ksSLukP8pxXcHyb
+sEwvM4uf8qbnHAqwnOnP9+KV9vds6BaH1eRA4CHz..n+NVZlzBsTxTlS16
/Umr7wJzVrMqK5sDiSu4WuaaBdqMGfL5hLsTjcBFD..Da2iyQmSKuVD4lIZ   ...   ——END
RSA PRIVATE KEY——

> **Returns** The private_key of this CreateCertificateDetails.
>
> **Return type** str

public_certificate
> Gets the public_certificate of this CreateCertificateDetails. The public certificate, in PEM format, that you
> received from your SSL certificate provider.
>
> Example:
>
> ——BEGIN CERTIFICATE—— MIIC2jCCAkMCAg38MA0GCSqGSIb3DQEBBQUAMIGbMQswCQYDVQQGEwJK
> A1UECBMFVG9reW8xEDAOBgNVBAcTB0NodW8ta3UxETAPBgNVBAoTCEZyYW5rNERE
> MRgwFgYDVQQLEw9XZWJJDZXJ0IFN1cHBvcnQxGDAWBgNVBAMTD0ZyYW5rNEREIFdl
> YiBDQTEjMCEGCSqGSIb3DQEJARYUc3VwcG9ydEBmcmFuazRkZC5jb20wHhcNMTIw
> ... ——END CERTIFICATE——
>
> **Returns** The public_certificate of this CreateCertificateDetails.
>
> **Return type** str

class oci.load_balancer.models.**CreateListenerDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateListenerDetails object with values from keyword arguments. The following key-
> word arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **connection_configuration** (*ConnectionConfiguration*) – The value to
>   assign to the connection_configuration property of this CreateListenerDetails.
> - **default_backend_set_name** (*str*) – The value to assign to the de-
>   fault_backend_set_name property of this CreateListenerDetails.
> - **name** (*str*) – The value to assign to the name property of this CreateListenerDetails.
> - **path_route_set_name** (*str*) – The value to assign to the path_route_set_name
>   property of this CreateListenerDetails.
> - **port** (*int*) – The value to assign to the port property of this CreateListenerDetails.
> - **protocol** (*str*) – The value to assign to the protocol property of this CreateListen-
>   erDetails.
> - **ssl_configuration** (*SSLConfigurationDetails*) – The value to assign to the
>   ssl_configuration property of this CreateListenerDetails.

connection_configuration
> Gets the connection_configuration of this CreateListenerDetails.
>
> **Returns** The connection_configuration of this CreateListenerDetails.
>
> **Return type** *ConnectionConfiguration*

default_backend_set_name
> [Required] Gets the default_backend_set_name of this CreateListenerDetails. The name of the associated backend set.

> Example: *My_backend_set*

> > **Returns** The default_backend_set_name of this CreateListenerDetails.

> > **Return type** str

name
> [Required] Gets the name of this CreateListenerDetails. A friendly name for the listener. It must be unique and it cannot be changed. Avoid entering confidential information.

> Example: *My listener*

> > **Returns** The name of this CreateListenerDetails.

> > **Return type** str

path_route_set_name
> Gets the path_route_set_name of this CreateListenerDetails. The name of the set of path-based routing rules, *[PathRouteSet](#)*, applied to this listener's traffic.

> Example: *path-route-set-001*

> > **Returns** The path_route_set_name of this CreateListenerDetails.

> > **Return type** str

port
> [Required] Gets the port of this CreateListenerDetails. The communication port for the listener.

> Example: *80*

> > **Returns** The port of this CreateListenerDetails.

> > **Return type** int

protocol
> [Required] Gets the protocol of this CreateListenerDetails. The protocol on which the listener accepts connection requests. To get a list of valid protocols, use the `list_protocols()` operation.

> Example: *HTTP*

> > **Returns** The protocol of this CreateListenerDetails.

> > **Return type** str

ssl_configuration
> Gets the ssl_configuration of this CreateListenerDetails.

> > **Returns** The ssl_configuration of this CreateListenerDetails.

> > **Return type** *[SSLConfigurationDetails](#)*

class oci.load_balancer.models.**CreateLoadBalancerDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new CreateLoadBalancerDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > • **backend_sets** (*dict(str,* `BackendSetDetails`*)*) – The value to assign to the backend_sets property of this CreateLoadBalancerDetails.

- **certificates** (*dict (str,* CertificateDetails)) – The value to assign to the certificates property of this CreateLoadBalancerDetails.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateLoadBalancerDetails.

- **display_name** (*str*) – The value to assign to the display_name property of this CreateLoadBalancerDetails.

- **is_private** (*bool*) – The value to assign to the is_private property of this CreateLoadBalancerDetails.

- **listeners** (*dict (str,* ListenerDetails)) – The value to assign to the listeners property of this CreateLoadBalancerDetails.

- **path_route_sets** (*dict (str,* PathRouteSetDetails)) – The value to assign to the path_route_sets property of this CreateLoadBalancerDetails.

- **shape_name** (*str*) – The value to assign to the shape_name property of this CreateLoadBalancerDetails.

- **subnet_ids** (*list[str]*) – The value to assign to the subnet_ids property of this CreateLoadBalancerDetails.

backend_sets

> Gets the backend_sets of this CreateLoadBalancerDetails.

> > **Returns** The backend_sets of this CreateLoadBalancerDetails.

> > **Return type** dict(str, *BackendSetDetails*)

certificates

> Gets the certificates of this CreateLoadBalancerDetails.

> > **Returns** The certificates of this CreateLoadBalancerDetails.

> > **Return type** dict(str, *CertificateDetails*)

compartment_id

> **[Required]** Gets the compartment_id of this CreateLoadBalancerDetails. The OCID of the compartment in which to create the load balancer.

> > **Returns** The compartment_id of this CreateLoadBalancerDetails.

> > **Return type** str

display_name

> **[Required]** Gets the display_name of this CreateLoadBalancerDetails. A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information.

> Example: *My load balancer*

> > **Returns** The display_name of this CreateLoadBalancerDetails.

> > **Return type** str

is_private

> Gets the is_private of this CreateLoadBalancerDetails. Whether the load balancer has a VCN-local (private) IP address.

> If "true", the service assigns a private IP address to the load balancer. The load balancer requires only one subnet to host both the primary and secondary load balancers. The private IP address is local to the subnet. The load balancer is accessible only from within the VCN that contains the associated subnet, or as further restricted by your security list rules. The load balancer can route traffic to any backend server that is reachable from the VCN.

For a private load balancer, both the primary and secondary load balancer hosts are within the same Availability Domain.

If "false", the service assigns a public IP address to the load balancer. A load balancer with a public IP address requires two subnets, each in a different Availability Domain. One subnet hosts the primary load balancer and the other hosts the secondary (standby) load balancer. A public load balancer is accessible from the internet, depending on your VCN's security list rules.

Example: *false*

>   **Returns** The is_private of this CreateLoadBalancerDetails.

>   **Return type** bool

listeners
>   Gets the listeners of this CreateLoadBalancerDetails.

>   **Returns** The listeners of this CreateLoadBalancerDetails.

>   **Return type** dict(str, *ListenerDetails*)

path_route_sets
>   Gets the path_route_sets of this CreateLoadBalancerDetails.

>   **Returns** The path_route_sets of this CreateLoadBalancerDetails.

>   **Return type** dict(str, *PathRouteSetDetails*)

shape_name
>   [**Required**] Gets the shape_name of this CreateLoadBalancerDetails. A template that determines the total pre-provisioned bandwidth (ingress plus egress). To get a list of available shapes, use the `list_shapes()` operation.

>   Example: *100Mbps*

>   **Returns** The shape_name of this CreateLoadBalancerDetails.

>   **Return type** str

subnet_ids
>   [**Required**] Gets the subnet_ids of this CreateLoadBalancerDetails. An array of subnet OCIDs.

>   **Returns** The subnet_ids of this CreateLoadBalancerDetails.

>   **Return type** list[str]

class oci.load_balancer.models.**CreatePathRouteSetDetails**(***kwargs*)

__init__(***kwargs*)
>   Initializes a new CreatePathRouteSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>   **Parameters**

>   • **name** (`str`) – The value to assign to the name property of this CreatePathRouteSetDetails.

>   • **path_routes** (`list[PathRoute]`) – The value to assign to the path_routes property of this CreatePathRouteSetDetails.

name
>   [**Required**] Gets the name of this CreatePathRouteSetDetails. The name for this set of path route rules. It must be unique and it cannot be changed. Avoid entering confidential information.

>   Example: *path-route-set-001*

> **Returns** The name of this CreatePathRouteSetDetails.
>
> **Return type** str

path_routes
> [**Required**] Gets the path_routes of this CreatePathRouteSetDetails. The set of path route rules.
>
> > **Returns** The path_routes of this CreatePathRouteSetDetails.
> >
> > **Return type** list[*PathRoute*]

class oci.load_balancer.models.**HealthCheckResult**(***kwargs*)

__init__(***kwargs*)
> Initializes a new HealthCheckResult object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
> - **health_check_status** (`str`) – The value to assign to the health_check_status property of this HealthCheckResult. Allowed values for this property are: "OK", "INVALID_STATUS_CODE", "TIMED_OUT", "REGEX_MISMATCH", "CONNECT_FAILED", "IO_ERROR", "OFFLINE", "UNKNOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> - **source_ip_address** (`str`) – The value to assign to the source_ip_address property of this HealthCheckResult.
> - **subnet_id** (`str`) – The value to assign to the subnet_id property of this HealthCheckResult.
> - **timestamp** (`datetime`) – The value to assign to the timestamp property of this HealthCheckResult.

health_check_status
> [**Required**] Gets the health_check_status of this HealthCheckResult. The result of the most recent health check.
>
> Allowed values for this property are: "OK", "INVALID_STATUS_CODE", "TIMED_OUT", "REGEX_MISMATCH", "CONNECT_FAILED", "IO_ERROR", "OFFLINE", "UNKNOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The health_check_status of this HealthCheckResult.
> >
> > **Return type** str

source_ip_address
> [**Required**] Gets the source_ip_address of this HealthCheckResult. The IP address of the health check status report provider. This identifier helps you differentiate same-subnet (private) load balancers that report health check status.
>
> Example: *10.2.0.1*
>
> > **Returns** The source_ip_address of this HealthCheckResult.
> >
> > **Return type** str

subnet_id
> [**Required**] Gets the subnet_id of this HealthCheckResult. The OCID of the subnet hosting the load balancer that reported this health check status.

> Returns The subnet_id of this HealthCheckResult.

> Return type str

timestamp
> [Required] Gets the timestamp of this HealthCheckResult. The date and time the data was retrieved, in the format defined by RFC3339.

> Example: *2017-06-02T18:28:11+00:00*

>> Returns The timestamp of this HealthCheckResult.

>> Return type datetime

class oci.load_balancer.models.**HealthChecker**(***kwargs*)

__init__(***kwargs*)
> Initializes a new HealthChecker object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> Parameters

>> • **interval_in_millis** (*int*) – The value to assign to the interval_in_millis property of this HealthChecker.

>> • **port** (*int*) – The value to assign to the port property of this HealthChecker.

>> • **protocol** (*str*) – The value to assign to the protocol property of this HealthChecker.

>> • **response_body_regex** (*str*) – The value to assign to the response_body_regex property of this HealthChecker.

>> • **retries** (*int*) – The value to assign to the retries property of this HealthChecker.

>> • **return_code** (*int*) – The value to assign to the return_code property of this HealthChecker.

>> • **timeout_in_millis** (*int*) – The value to assign to the timeout_in_millis property of this HealthChecker.

>> • **url_path** (*str*) – The value to assign to the url_path property of this HealthChecker.

interval_in_millis
> Gets the interval_in_millis of this HealthChecker. The interval between health checks, in milliseconds. The default is 10000 (10 seconds).

> Example: *30000*

>> Returns The interval_in_millis of this HealthChecker.

>> Return type int

port
> [Required] Gets the port of this HealthChecker. The backend server port against which to run the health check. If the port is not specified, the load balancer uses the port information from the *Backend* object.

> Example: *8080*

>> Returns The port of this HealthChecker.

>> Return type int

protocol
> [Required] Gets the protocol of this HealthChecker. The protocol the health check must use; either HTTP or TCP.

Example: *HTTP*

> **Returns** The protocol of this HealthChecker.

> **Return type** str

response_body_regex
> [Required] Gets the response_body_regex of this HealthChecker. A regular expression for parsing the response body from the backend server.

Example: *^(500|40[1348])$*

> **Returns** The response_body_regex of this HealthChecker.

> **Return type** str

retries
> Gets the retries of this HealthChecker. The number of retries to attempt before a backend server is considered "unhealthy". Defaults to 3.

Example: *3*

> **Returns** The retries of this HealthChecker.

> **Return type** int

return_code
> [Required] Gets the return_code of this HealthChecker. The status code a healthy backend server should return. If you configure the health check policy to use the HTTP protocol, you can use common HTTP status codes such as "200".

Example: *200*

> **Returns** The return_code of this HealthChecker.

> **Return type** int

timeout_in_millis
> Gets the timeout_in_millis of this HealthChecker. The maximum time, in milliseconds, to wait for a reply to a health check. A health check is successful only if a reply returns within this timeout period. Defaults to 3000 (3 seconds).

Example: *6000*

> **Returns** The timeout_in_millis of this HealthChecker.

> **Return type** int

url_path
> Gets the url_path of this HealthChecker. The path against which to run the health check.

Example: */healthcheck*

> **Returns** The url_path of this HealthChecker.

> **Return type** str

class oci.load_balancer.models.**HealthCheckerDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new HealthCheckerDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

- **interval_in_millis** (`int`) – The value to assign to the interval_in_millis property of this HealthCheckerDetails.

- **port** (`int`) – The value to assign to the port property of this HealthCheckerDetails.

- **protocol** (`str`) – The value to assign to the protocol property of this HealthCheckerDetails.

- **response_body_regex** (`str`) – The value to assign to the response_body_regex property of this HealthCheckerDetails.

- **retries** (`int`) – The value to assign to the retries property of this HealthCheckerDetails.

- **return_code** (`int`) – The value to assign to the return_code property of this HealthCheckerDetails.

- **timeout_in_millis** (`int`) – The value to assign to the timeout_in_millis property of this HealthCheckerDetails.

- **url_path** (`str`) – The value to assign to the url_path property of this HealthCheckerDetails.

interval_in_millis

Gets the interval_in_millis of this HealthCheckerDetails. The interval between health checks, in milliseconds.

Example: *30000*

> **Returns** The interval_in_millis of this HealthCheckerDetails.

> **Return type** int

port

Gets the port of this HealthCheckerDetails. The backend server port against which to run the health check. If the port is not specified, the load balancer uses the port information from the *Backend* object.

Example: *8080*

> **Returns** The port of this HealthCheckerDetails.

> **Return type** int

protocol

[Required] Gets the protocol of this HealthCheckerDetails. The protocol the health check must use; either HTTP or TCP.

Example: *HTTP*

> **Returns** The protocol of this HealthCheckerDetails.

> **Return type** str

response_body_regex

Gets the response_body_regex of this HealthCheckerDetails. A regular expression for parsing the response body from the backend server.

Example: *^(500|40[1348])$*

> **Returns** The response_body_regex of this HealthCheckerDetails.

> **Return type** str

retries

Gets the retries of this HealthCheckerDetails. The number of retries to attempt before a backend server is considered "unhealthy".

Example: *3*

> **Returns** The retries of this HealthCheckerDetails.

> **Return type** int

return_code
> Gets the return_code of this HealthCheckerDetails. The status code a healthy backend server should return.

Example: *200*

> **Returns** The return_code of this HealthCheckerDetails.

> **Return type** int

timeout_in_millis
> Gets the timeout_in_millis of this HealthCheckerDetails. The maximum time, in milliseconds, to wait for a reply to a health check. A health check is successful only if a reply returns within this timeout period.

Example: *6000*

> **Returns** The timeout_in_millis of this HealthCheckerDetails.

> **Return type** int

url_path
> Gets the url_path of this HealthCheckerDetails. The path against which to run the health check.

Example: */healthcheck*

> **Returns** The url_path of this HealthCheckerDetails.

> **Return type** str

class oci.load_balancer.models.**IpAddress**(***kwargs*)

__init__(***kwargs*)
> Initializes a new IpAddress object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

>> • **ip_address** (*str*) – The value to assign to the ip_address property of this IpAddress.

>> • **is_public** (*bool*) – The value to assign to the is_public property of this IpAddress.

ip_address
> [Required] Gets the ip_address of this IpAddress. An IP address.

Example: *128.148.10.20*

> **Returns** The ip_address of this IpAddress.

> **Return type** str

is_public
> Gets the is_public of this IpAddress. Whether the IP address is public or private.

> If "true", the IP address is public and accessible from the internet.

> If "false", the IP address is private and accessible only from within the associated VCN.

> **Returns** The is_public of this IpAddress.

> **Return type** bool

class oci.load_balancer.models.**Listener**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new Listener object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **connection_configuration** (`ConnectionConfiguration`) – The value to assign to the connection_configuration property of this Listener.
> > - **default_backend_set_name** (`str`) – The value to assign to the default_backend_set_name property of this Listener.
> > - **name** (`str`) – The value to assign to the name property of this Listener.
> > - **path_route_set_name** (`str`) – The value to assign to the path_route_set_name property of this Listener.
> > - **port** (`int`) – The value to assign to the port property of this Listener.
> > - **protocol** (`str`) – The value to assign to the protocol property of this Listener.
> > - **ssl_configuration** (`SSLConfiguration`) – The value to assign to the ssl_configuration property of this Listener.

> **connection_configuration**
> Gets the connection_configuration of this Listener.
>
> > **Returns** The connection_configuration of this Listener.
> >
> > **Return type** *ConnectionConfiguration*

> **default_backend_set_name**
> [**Required**] Gets the default_backend_set_name of this Listener. The name of the associated backend set.
>
> Example: *My_backend_set*
>
> > **Returns** The default_backend_set_name of this Listener.
> >
> > **Return type** str

> **name**
> [**Required**] Gets the name of this Listener. A friendly name for the listener. It must be unique and it cannot be changed.
>
> Example: *My listener*
>
> > **Returns** The name of this Listener.
> >
> > **Return type** str

> **path_route_set_name**
> Gets the path_route_set_name of this Listener. The name of the set of path-based routing rules, `PathRouteSet`, applied to this listener's traffic.
>
> Example: *path-route-set-001*
>
> > **Returns** The path_route_set_name of this Listener.
> >
> > **Return type** str

> **port**
> [**Required**] Gets the port of this Listener. The communication port for the listener.
>
> Example: *80*

> **Returns** The port of this Listener.

> **Return type** int

protocol
> [**Required**] Gets the protocol of this Listener. The protocol on which the listener accepts connection requests. To get a list of valid protocols, use the `list_protocols()` operation.

> Example: *HTTP*

> > **Returns** The protocol of this Listener.

> > **Return type** str

ssl_configuration
> Gets the ssl_configuration of this Listener.

> > **Returns** The ssl_configuration of this Listener.

> > **Return type** *SSLConfiguration*

class oci.load_balancer.models.**ListenerDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new ListenerDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **connection_configuration** (`ConnectionConfiguration`) – The value to assign to the connection_configuration property of this ListenerDetails.
> > - **default_backend_set_name** (`str`) – The value to assign to the default_backend_set_name property of this ListenerDetails.
> > - **path_route_set_name** (`str`) – The value to assign to the path_route_set_name property of this ListenerDetails.
> > - **port** (`int`) – The value to assign to the port property of this ListenerDetails.
> > - **protocol** (`str`) – The value to assign to the protocol property of this ListenerDetails.
> > - **ssl_configuration** (`SSLConfigurationDetails`) – The value to assign to the ssl_configuration property of this ListenerDetails.

> **connection_configuration**
> > Gets the connection_configuration of this ListenerDetails.

> > > **Returns** The connection_configuration of this ListenerDetails.

> > > **Return type** *ConnectionConfiguration*

> **default_backend_set_name**
> > [**Required**] Gets the default_backend_set_name of this ListenerDetails. The name of the associated backend set.

> > Example: *My_backend_set*

> > > **Returns** The default_backend_set_name of this ListenerDetails.

> > > **Return type** str

> **path_route_set_name**
> > Gets the path_route_set_name of this ListenerDetails. The name of the set of path-based routing rules, `PathRouteSet`, applied to this listener's traffic.

Example: *path-route-set-001*

> **Returns** The path_route_set_name of this ListenerDetails.

> **Return type** str

port
> [Required] Gets the port of this ListenerDetails. The communication port for the listener.

Example: *80*

> **Returns** The port of this ListenerDetails.

> **Return type** int

protocol
> [Required] Gets the protocol of this ListenerDetails. The protocol on which the listener accepts connection requests. To get a list of valid protocols, use the `list_protocols()` operation.

Example: *HTTP*

> **Returns** The protocol of this ListenerDetails.

> **Return type** str

ssl_configuration
> Gets the ssl_configuration of this ListenerDetails.

> **Returns** The ssl_configuration of this ListenerDetails.

> **Return type** *SSLConfigurationDetails*

class oci.load_balancer.models.**LoadBalancer**(***kwargs*)

__init__(***kwargs*)
> Initializes a new LoadBalancer object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
> - **backend_sets** (*dict(str,* BackendSet*)*) – The value to assign to the backend_sets property of this LoadBalancer.
> - **certificates** (*dict(str,* Certificate*)*) – The value to assign to the certificates property of this LoadBalancer.
> - **compartment_id** (*str*) – The value to assign to the compartment_id property of this LoadBalancer.
> - **display_name** (*str*) – The value to assign to the display_name property of this LoadBalancer.
> - **id** (*str*) – The value to assign to the id property of this LoadBalancer.
> - **ip_addresses** (*list[IpAddress]*) – The value to assign to the ip_addresses property of this LoadBalancer.
> - **is_private** (*bool*) – The value to assign to the is_private property of this LoadBalancer.
> - **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this LoadBalancer. Allowed values for this property are: "CREATING", "FAILED", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **listeners** (*dict (str,* `Listener`)) – The value to assign to the listeners property of this LoadBalancer.

- **path_route_sets** (*dict (str,* `PathRouteSet`)) – The value to assign to the path_route_sets property of this LoadBalancer.

- **shape_name** (*str*) – The value to assign to the shape_name property of this LoadBalancer.

- **subnet_ids** (*list[str]*) – The value to assign to the subnet_ids property of this LoadBalancer.

- **time_created** (*datetime*) – The value to assign to the time_created property of this LoadBalancer.

backend_sets
> Gets the backend_sets of this LoadBalancer.
>
> > **Returns** The backend_sets of this LoadBalancer.
> >
> > **Return type** dict(str, *BackendSet*)

certificates
> Gets the certificates of this LoadBalancer.
>
> > **Returns** The certificates of this LoadBalancer.
> >
> > **Return type** dict(str, *Certificate*)

compartment_id
> [**Required**] Gets the compartment_id of this LoadBalancer. The OCID of the compartment containing the load balancer.
>
> > **Returns** The compartment_id of this LoadBalancer.
> >
> > **Return type** str

display_name
> [**Required**] Gets the display_name of this LoadBalancer. A user-friendly name. It does not have to be unique, and it is changeable.
>
> Example: *My load balancer*
>
> > **Returns** The display_name of this LoadBalancer.
> >
> > **Return type** str

id
> [**Required**] Gets the id of this LoadBalancer. The OCID of the load balancer.
>
> > **Returns** The id of this LoadBalancer.
> >
> > **Return type** str

ip_addresses
> Gets the ip_addresses of this LoadBalancer. An array of IP addresses.
>
> > **Returns** The ip_addresses of this LoadBalancer.
> >
> > **Return type** list[*IpAddress*]

is_private
> Gets the is_private of this LoadBalancer. Whether the load balancer has a VCN-local (private) IP address.
>
> If "true", the service assigns a private IP address to the load balancer. The load balancer requires only one subnet to host both the primary and secondary load balancers. The private IP address is local to the

subnet. The load balancer is accessible only from within the VCN that contains the associated subnet, or as further restricted by your security list rules. The load balancer can route traffic to any backend server that is reachable from the VCN.

For a private load balancer, both the primary and secondary load balancer hosts are within the same Availability Domain.

If "false", the service assigns a public IP address to the load balancer. A load balancer with a public IP address requires two subnets, each in a different Availability Domain. One subnet hosts the primary load balancer and the other hosts the secondary (standby) load balancer. A public load balancer is accessible from the internet, depending on your VCN's security list rules.

> **Returns** The is_private of this LoadBalancer.

> **Return type** bool

lifecycle_state
> [Required] Gets the lifecycle_state of this LoadBalancer. The current state of the load balancer.

> Allowed values for this property are: "CREATING", "FAILED", "ACTIVE", "DELETING", "DELETED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The lifecycle_state of this LoadBalancer.

> > **Return type** str

listeners
> Gets the listeners of this LoadBalancer.

> > **Returns** The listeners of this LoadBalancer.

> > **Return type** dict(str, *Listener*)

path_route_sets
> Gets the path_route_sets of this LoadBalancer.

> > **Returns** The path_route_sets of this LoadBalancer.

> > **Return type** dict(str, *PathRouteSet*)

shape_name
> [Required] Gets the shape_name of this LoadBalancer. A template that determines the total pre-provisioned bandwidth (ingress plus egress). To get a list of available shapes, use the `list_shapes()` operation.

> Example: *100Mbps*

> > **Returns** The shape_name of this LoadBalancer.

> > **Return type** str

subnet_ids
> Gets the subnet_ids of this LoadBalancer. An array of subnet OCIDs.

> > **Returns** The subnet_ids of this LoadBalancer.

> > **Return type** list[str]

time_created
> [Required] Gets the time_created of this LoadBalancer. The date and time the load balancer was created, in the format defined by RFC3339.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_created of this LoadBalancer.

Return type datetime

class oci.load_balancer.models.**LoadBalancerHealth**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new LoadBalancerHealth object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **critical_state_backend_set_names** (*list[str]*) – The value to assign to
> >   the critical_state_backend_set_names property of this LoadBalancerHealth.
> >
> > - **status** (*str*) – The value to assign to the status property of this LoadBalancerHealth.
> >   Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN",
> >   'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
> >   mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **total_backend_set_count** (*int*) – The value to assign to the to-
> >   tal_backend_set_count property of this LoadBalancerHealth.
> >
> > - **unknown_state_backend_set_names** (*list[str]*) – The value to assign to the
> >   unknown_state_backend_set_names property of this LoadBalancerHealth.
> >
> > - **warning_state_backend_set_names** (*list[str]*) – The value to assign to the
> >   warning_state_backend_set_names property of this LoadBalancerHealth.

> **critical_state_backend_set_names**
> [Required] Gets the critical_state_backend_set_names of this LoadBalancerHealth. A list of backend sets
> that are currently in the *CRITICAL* health state. The list identifies each backend set by the friendly name
> you assigned when you created it.
>
> Example: *My_backend_set*
>
> > **Returns** The critical_state_backend_set_names of this LoadBalancerHealth.
> >
> > **Return type** list[str]

> **status**
> [Required] Gets the status of this LoadBalancerHealth. The overall health status of the load balancer.
>
> - **OK:** All backend sets associated with the load balancer return a status of *OK*.
>
> - **WARNING:** At least one of the backend sets associated with the load balancer returns a status of
>   *WARNING*,
>
> no backend sets return a status of *CRITICAL*, and the load balancer life cycle state is *ACTIVE*.
>
> - **CRITICAL:** One or more of the backend sets associated with the load balancer return a status of
>   *CRITICAL*.
>
> - **UNKNOWN:** If any one of the following conditions is true:
>
>   - The load balancer life cycle state is not *ACTIVE*.
>
>   - No backend sets are defined for the load balancer.
>
>   - More than half of the backend sets associated with the load balancer return a status of *UNKNOWN*,
>   none of the backend sets return a status of *WARNING* or *CRITICAL*, and the load balancer life
>   cycle state is *ACTIVE*.
>
>   - The system could not retrieve metrics for any reason.

Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The status of this LoadBalancerHealth.

> **Return type** str

total_backend_set_count
> **[Required]** Gets the total_backend_set_count of this LoadBalancerHealth. The total number of backend sets associated with this load balancer.
>
> Example: *4*
>
> > **Returns** The total_backend_set_count of this LoadBalancerHealth.
>
> > **Return type** int

unknown_state_backend_set_names
> **[Required]** Gets the unknown_state_backend_set_names of this LoadBalancerHealth. A list of backend sets that are currently in the *UNKNOWN* health state. The list identifies each backend set by the friendly name you assigned when you created it.
>
> Example: *Backend_set2*
>
> > **Returns** The unknown_state_backend_set_names of this LoadBalancerHealth.
>
> > **Return type** list[str]

warning_state_backend_set_names
> **[Required]** Gets the warning_state_backend_set_names of this LoadBalancerHealth. A list of backend sets that are currently in the *WARNING* health state. The list identifies each backend set by the friendly name you assigned when you created it.
>
> Example: *Backend_set3*
>
> > **Returns** The warning_state_backend_set_names of this LoadBalancerHealth.
>
> > **Return type** list[str]

class oci.load_balancer.models.**LoadBalancerHealthSummary**(***kwargs*)

__init__(***kwargs*)
> Initializes a new LoadBalancerHealthSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **load_balancer_id** (*str*) – The value to assign to the load_balancer_id property of this LoadBalancerHealthSummary.
>
> - **status** (*str*) – The value to assign to the status property of this LoadBalancerHealth-Summary. Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

load_balancer_id
> **[Required]** Gets the load_balancer_id of this LoadBalancerHealthSummary. The OCID of the load balancer the health status is associated with.
>
> > **Returns** The load_balancer_id of this LoadBalancerHealthSummary.
>
> > **Return type** str

---

status
> [Required] Gets the status of this LoadBalancerHealthSummary. The overall health status of the load balancer.

> - **OK:** All backend sets associated with the load balancer return a status of *OK*.

> - **WARNING:** At least one of the backend sets associated with the load balancer returns a status of *WARNING*,

> no backend sets return a status of *CRITICAL*, and the load balancer life cycle state is *ACTIVE*.

> - **CRITICAL:** One or more of the backend sets associated with the load balancer return a status of *CRITICAL*.

> - **UNKNOWN:** If any one of the following conditions is true:

>> – The load balancer life cycle state is not *ACTIVE*.

>> – No backend sets are defined for the load balancer.

>> – More than half of the backend sets associated with the load balancer return a status of *UNKNOWN*, none of the backend sets return a status of *WARNING* or *CRITICAL*, and the load balancer life cycle state is *ACTIVE*.

>> – The system could not retrieve metrics for any reason.

> Allowed values for this property are: "OK", "WARNING", "CRITICAL", "UNKNOWN", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

>> **Returns** The status of this LoadBalancerHealthSummary.

>> **Return type** str

class oci.load_balancer.models.**LoadBalancerPolicy**(***kwargs*)

__init__(***kwargs*)
> Initializes a new LoadBalancerPolicy object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters** **name** (*str*) – The value to assign to the name property of this LoadBalancerPolicy.

name
> [Required] Gets the name of this LoadBalancerPolicy. The name of the load balancing policy.

>> **Returns** The name of this LoadBalancerPolicy.

>> **Return type** str

class oci.load_balancer.models.**LoadBalancerProtocol**(***kwargs*)

__init__(***kwargs*)
> Initializes a new LoadBalancerProtocol object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters** **name** (*str*) – The value to assign to the name property of this LoadBalancerProtocol.

name
> [Required] Gets the name of this LoadBalancerProtocol. The name of the protocol.

>> **Returns** The name of this LoadBalancerProtocol.

>> **Return type** str

class oci.load_balancer.models.**LoadBalancerShape**(***kwargs*)

__init__(***kwargs*)
Initializes a new LoadBalancerShape object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters name** (*str*) – The value to assign to the name property of this LoadBalancerShape.

name
[Required] Gets the name of this LoadBalancerShape. The name of the shape.

> **Returns** The name of this LoadBalancerShape.

> **Return type** str

class oci.load_balancer.models.**PathMatchType**(***kwargs*)

__init__(***kwargs*)
Initializes a new PathMatchType object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters match_type** (*str*) – The value to assign to the match_type property of this PathMatchType. Allowed values for this property are: "EXACT_MATCH", "FORCE_LONGEST_PREFIX_MATCH", "PREFIX_MATCH", "SUFFIX_MATCH", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

match_type
[Required] Gets the match_type of this PathMatchType. Specifies how the load balancing service compares a path_route() object's *path* string against the incoming URI.

- **EXACT_MATCH** - Looks for a *path* string that exactly matches the incoming URI path.

- **FORCE_LONGEST_PREFIX_MATCH** - Looks for the *path* string with the best, longest match of the beginning portion of the incoming URI path.

- **PREFIX_MATCH** - Looks for a *path* string that matches the beginning portion of the incoming URI path.

- **SUFFIX_MATCH** - Looks for a *path* string that matches the ending portion of the incoming URI path.

For a full description of how the system handles *matchType* in a path route set containing multiple rules, see Managing Request Routing.

Allowed values for this property are: "EXACT_MATCH", "FORCE_LONGEST_PREFIX_MATCH", "PREFIX_MATCH", "SUFFIX_MATCH", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The match_type of this PathMatchType.

> **Return type** str

class oci.load_balancer.models.**PathRoute**(***kwargs*)

__init__(***kwargs*)
Initializes a new PathRoute object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

- **backend_set_name** (*str*) – The value to assign to the backend_set_name property of this PathRoute.

- **path** (*str*) – The value to assign to the path property of this PathRoute.

- **path_match_type** (`PathMatchType`) – The value to assign to the path_match_type property of this PathRoute.

backend_set_name

[**Required**] Gets the backend_set_name of this PathRoute. The name of the target backend set for requests where the incoming URI matches the specified path.

Example: *My_backend_set*

> **Returns** The backend_set_name of this PathRoute.

> **Return type** str

path

[**Required**] Gets the path of this PathRoute. The path string to match against the incoming URI path.

- Path strings are case-insensitive.

- Asterisk (*) wildcards are not supported.

- Regular expressions are not supported.

Example: */example/video/123*

> **Returns** The path of this PathRoute.

> **Return type** str

path_match_type

[**Required**] Gets the path_match_type of this PathRoute. The type of matching to apply to incoming URIs.

> **Returns** The path_match_type of this PathRoute.

> **Return type** *PathMatchType*

class oci.load_balancer.models.**PathRouteSet**(***kwargs*)

__init__(***kwargs*)

Initializes a new PathRouteSet object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

- **name** (*str*) – The value to assign to the name property of this PathRouteSet.

- **path_routes** (*list[*`PathRoute`*]*) – The value to assign to the path_routes property of this PathRouteSet.

name

[**Required**] Gets the name of this PathRouteSet. The unique name for this set of path route rules. Avoid entering confidential information.

Example: *path-route-set-001*

> **Returns** The name of this PathRouteSet.

> **Return type** str

path_routes

[**Required**] Gets the path_routes of this PathRouteSet. The set of path route rules.

> > **Returns** The path_routes of this PathRouteSet.
>
> > **Return type** list[*PathRoute*]

class oci.load_balancer.models.**PathRouteSetDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new PathRouteSetDetails object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters path_routes** (*list[*`PathRoute`*]*) – The value to assign to the path_routes
> > property of this PathRouteSetDetails.
>
> **path_routes**
> [**Required**] Gets the path_routes of this PathRouteSetDetails. The set of path route rules.
>
> > **Returns** The path_routes of this PathRouteSetDetails.
>
> > **Return type** list[*PathRoute*]

class oci.load_balancer.models.**SSLConfiguration**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new SSLConfiguration object with values from keyword arguments. The following keyword
> arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **certificate_name** (*str*) – The value to assign to the certificate_name property of
> >   this SSLConfiguration.
> >
> > - **verify_depth** (*int*) – The value to assign to the verify_depth property of this
> >   SSLConfiguration.
> >
> > - **verify_peer_certificate** (*bool*) – The value to assign to the ver-
> >   ify_peer_certificate property of this SSLConfiguration.
>
> **certificate_name**
> [**Required**] Gets the certificate_name of this SSLConfiguration. A friendly name for the certificate bundle.
> It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric
> characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering
> confidential information.
>
> Example: *My_certificate_bundle*
>
> > **Returns** The certificate_name of this SSLConfiguration.
>
> > **Return type** str
>
> **verify_depth**
> [**Required**] Gets the verify_depth of this SSLConfiguration. The maximum depth for peer certificate chain
> verification.
>
> Example: *3*
>
> > **Returns** The verify_depth of this SSLConfiguration.
>
> > **Return type** int
>
> **verify_peer_certificate**
> [**Required**] Gets the verify_peer_certificate of this SSLConfiguration. Whether the load balancer listener
> should verify peer certificates.

Example: *true*

> **Returns** The verify_peer_certificate of this SSLConfiguration.

> **Return type** bool

class oci.load_balancer.models.**SSLConfigurationDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new SSLConfigurationDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> > • **certificate_name** (*str*) – The value to assign to the certificate_name property of this SSLConfigurationDetails.

> > • **verify_depth** (*int*) – The value to assign to the verify_depth property of this SSLConfigurationDetails.

> > • **verify_peer_certificate** (*bool*) – The value to assign to the verify_peer_certificate property of this SSLConfigurationDetails.

certificate_name
[**Required**] Gets the certificate_name of this SSLConfigurationDetails. A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information.

Example: *My_certificate_bundle*

> **Returns** The certificate_name of this SSLConfigurationDetails.

> **Return type** str

verify_depth
Gets the verify_depth of this SSLConfigurationDetails. The maximum depth for peer certificate chain verification.

Example: *3*

> **Returns** The verify_depth of this SSLConfigurationDetails.

> **Return type** int

verify_peer_certificate
Gets the verify_peer_certificate of this SSLConfigurationDetails. Whether the load balancer listener should verify peer certificates.

Example: *true*

> **Returns** The verify_peer_certificate of this SSLConfigurationDetails.

> **Return type** bool

class oci.load_balancer.models.**SessionPersistenceConfigurationDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new SessionPersistenceConfigurationDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

- **cookie_name** (*str*) – The value to assign to the cookie_name property of this Session-PersistenceConfigurationDetails.

- **disable_fallback** (*bool*) – The value to assign to the disable_fallback property of this SessionPersistenceConfigurationDetails.

cookie_name
> [Required] Gets the cookie_name of this SessionPersistenceConfigurationDetails. The name of the cookie used to detect a session initiated by the backend server. Use '*' to specify that any cookie set by the backend causes the session to persist.
>
> Example: *myCookieName*
>
> > **Returns** The cookie_name of this SessionPersistenceConfigurationDetails.
> >
> > **Return type** str

disable_fallback
> Gets the disable_fallback of this SessionPersistenceConfigurationDetails. Whether the load balancer is prevented from directing traffic from a persistent session client to a different backend server if the original server is unavailable. Defaults to false.
>
> Example: *true*
>
> > **Returns** The disable_fallback of this SessionPersistenceConfigurationDetails.
> >
> > **Return type** bool

class oci.load_balancer.models.**UpdateBackendDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateBackendDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **backup** (*bool*) – The value to assign to the backup property of this UpdateBackendDetails.
>
> - **drain** (*bool*) – The value to assign to the drain property of this UpdateBackendDetails.
>
> - **offline** (*bool*) – The value to assign to the offline property of this UpdateBackendDetails.
>
> - **weight** (*int*) – The value to assign to the weight property of this UpdateBackendDetails.

backup
> [Required] Gets the backup of this UpdateBackendDetails. Whether the load balancer should treat this server as a backup unit. If *true*, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.
>
> Example: *true*
>
> > **Returns** The backup of this UpdateBackendDetails.
> >
> > **Return type** bool

drain
> [Required] Gets the drain of this UpdateBackendDetails. Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic.
>
> Example: *true*

> **Returns** The drain of this UpdateBackendDetails.

> **Return type** bool

offline
> [Required] Gets the offline of this UpdateBackendDetails. Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic.

> Example: *true*

> > **Returns** The offline of this UpdateBackendDetails.

> > **Return type** bool

weight
> [Required] Gets the weight of this UpdateBackendDetails. The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see How Load Balancing Policies Work.

> Example: *3*

> > **Returns** The weight of this UpdateBackendDetails.

> > **Return type** int

class oci.load_balancer.models.**UpdateBackendSetDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateBackendSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**

> - **backends** (*list[*BackendDetails*]*) – The value to assign to the backends property of this UpdateBackendSetDetails.

> - **health_checker** (HealthCheckerDetails) – The value to assign to the health_checker property of this UpdateBackendSetDetails.

> - **policy** (*str*) – The value to assign to the policy property of this UpdateBackendSetDetails.

> - **session_persistence_configuration** (SessionPersistenceConfigurationDetails) – The value to assign to the session_persistence_configuration property of this UpdateBackendSetDetails.

> - **ssl_configuration** (SSLConfigurationDetails) – The value to assign to the ssl_configuration property of this UpdateBackendSetDetails.

backends
> [Required] Gets the backends of this UpdateBackendSetDetails.

> > **Returns** The backends of this UpdateBackendSetDetails.

> > **Return type** list[*BackendDetails*]

health_checker
> [Required] Gets the health_checker of this UpdateBackendSetDetails.

> > **Returns** The health_checker of this UpdateBackendSetDetails.

> > **Return type** *HealthCheckerDetails*

policy

> [**Required**] Gets the policy of this UpdateBackendSetDetails. The load balancer policy for the backend set. To get a list of available policies, use the `list_policies()` operation.
>
> Example: *LEAST_CONNECTIONS*
>
> > **Returns** The policy of this UpdateBackendSetDetails.
> >
> > **Return type** str

session_persistence_configuration

> Gets the session_persistence_configuration of this UpdateBackendSetDetails.
>
> > **Returns** The session_persistence_configuration of this UpdateBackendSetDetails.
> >
> > **Return type** *SessionPersistenceConfigurationDetails*

ssl_configuration

> Gets the ssl_configuration of this UpdateBackendSetDetails.
>
> > **Returns** The ssl_configuration of this UpdateBackendSetDetails.
> >
> > **Return type** *SSLConfigurationDetails*

class oci.load_balancer.models.**UpdateHealthCheckerDetails**(***kwargs*)

__init__(***kwargs*)

> Initializes a new UpdateHealthCheckerDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> **Parameters**
>
> - **interval_in_millis** (*int*) – The value to assign to the interval_in_millis property of this UpdateHealthCheckerDetails.
>
> - **port** (*int*) – The value to assign to the port property of this UpdateHealthCheckerDetails.
>
> - **protocol** (*str*) – The value to assign to the protocol property of this UpdateHealthCheckerDetails.
>
> - **response_body_regex** (*str*) – The value to assign to the response_body_regex property of this UpdateHealthCheckerDetails.
>
> - **retries** (*int*) – The value to assign to the retries property of this UpdateHealthCheckerDetails.
>
> - **return_code** (*int*) – The value to assign to the return_code property of this UpdateHealthCheckerDetails.
>
> - **timeout_in_millis** (*int*) – The value to assign to the timeout_in_millis property of this UpdateHealthCheckerDetails.
>
> - **url_path** (*str*) – The value to assign to the url_path property of this UpdateHealthCheckerDetails.

interval_in_millis

> [**Required**] Gets the interval_in_millis of this UpdateHealthCheckerDetails. The interval between health checks, in milliseconds.
>
> Example: *30000*
>
> > **Returns** The interval_in_millis of this UpdateHealthCheckerDetails.
> >
> > **Return type** int

port
> [**Required**] Gets the port of this UpdateHealthCheckerDetails. The backend server port against which to run the health check.
>
> Example: *8080*
>
>> **Returns** The port of this UpdateHealthCheckerDetails.
>>
>> **Return type** int

protocol
> [**Required**] Gets the protocol of this UpdateHealthCheckerDetails. The protocol the health check must use; either HTTP or TCP.
>
> Example: *HTTP*
>
>> **Returns** The protocol of this UpdateHealthCheckerDetails.
>>
>> **Return type** str

response_body_regex
> [**Required**] Gets the response_body_regex of this UpdateHealthCheckerDetails. A regular expression for parsing the response body from the backend server.
>
> Example: *^(500|40[1348])$*
>
>> **Returns** The response_body_regex of this UpdateHealthCheckerDetails.
>>
>> **Return type** str

retries
> [**Required**] Gets the retries of this UpdateHealthCheckerDetails. The number of retries to attempt before a backend server is considered "unhealthy".
>
> Example: *3*
>
>> **Returns** The retries of this UpdateHealthCheckerDetails.
>>
>> **Return type** int

return_code
> [**Required**] Gets the return_code of this UpdateHealthCheckerDetails. The status code a healthy backend server should return.
>
> Example: *200*
>
>> **Returns** The return_code of this UpdateHealthCheckerDetails.
>>
>> **Return type** int

timeout_in_millis
> [**Required**] Gets the timeout_in_millis of this UpdateHealthCheckerDetails. The maximum time, in milliseconds, to wait for a reply to a health check. A health check is successful only if a reply returns within this timeout period.
>
> Example: *6000*
>
>> **Returns** The timeout_in_millis of this UpdateHealthCheckerDetails.
>>
>> **Return type** int

url_path
> Gets the url_path of this UpdateHealthCheckerDetails. The path against which to run the health check.
>
> Example: */healthcheck*
>
>> **Returns** The url_path of this UpdateHealthCheckerDetails.

Return type str

class oci.load_balancer.models.**UpdateListenerDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new UpdateListenerDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **connection_configuration** (`ConnectionConfiguration`) – The value to assign to the connection_configuration property of this UpdateListenerDetails.

- **default_backend_set_name** (`str`) – The value to assign to the default_backend_set_name property of this UpdateListenerDetails.

- **path_route_set_name** (`str`) – The value to assign to the path_route_set_name property of this UpdateListenerDetails.

- **port** (`int`) – The value to assign to the port property of this UpdateListenerDetails.

- **protocol** (`str`) – The value to assign to the protocol property of this UpdateListenerDetails.

- **ssl_configuration** (`SSLConfigurationDetails`) – The value to assign to the ssl_configuration property of this UpdateListenerDetails.

connection_configuration
Gets the connection_configuration of this UpdateListenerDetails.

Returns The connection_configuration of this UpdateListenerDetails.

Return type *ConnectionConfiguration*

default_backend_set_name
[**Required**] Gets the default_backend_set_name of this UpdateListenerDetails. The name of the associated backend set.

Example: *My_backend_set*

Returns The default_backend_set_name of this UpdateListenerDetails.

Return type str

path_route_set_name
Gets the path_route_set_name of this UpdateListenerDetails. The name of the set of path-based routing rules, *PathRouteSet*, applied to this listener's traffic.

Example: *path-route-set-001*

Returns The path_route_set_name of this UpdateListenerDetails.

Return type str

port
[**Required**] Gets the port of this UpdateListenerDetails. The communication port for the listener.

Example: *80*

Returns The port of this UpdateListenerDetails.

Return type int

protocol
> [**Required**] Gets the protocol of this UpdateListenerDetails. The protocol on which the listener accepts connection requests. To get a list of valid protocols, use the `list_protocols()` operation.
>
> Example: *HTTP*
>
>> **Returns** The protocol of this UpdateListenerDetails.
>>
>> **Return type** str

ssl_configuration
> Gets the ssl_configuration of this UpdateListenerDetails.
>
>> **Returns** The ssl_configuration of this UpdateListenerDetails.
>>
>> **Return type** *SSLConfigurationDetails*

class oci.load_balancer.models.**UpdateLoadBalancerDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdateLoadBalancerDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters display_name** (*str*) – The value to assign to the display_name property of this UpdateLoadBalancerDetails.

display_name
> [**Required**] Gets the display_name of this UpdateLoadBalancerDetails. The user-friendly display name for the load balancer. It does not have to be unique, and it is changeable. Avoid entering confidential information.
>
> Example: *My load balancer*
>
>> **Returns** The display_name of this UpdateLoadBalancerDetails.
>>
>> **Return type** str

class oci.load_balancer.models.**UpdatePathRouteSetDetails**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new UpdatePathRouteSetDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters path_routes** (*list[PathRoute]*) – The value to assign to the path_routes property of this UpdatePathRouteSetDetails.

path_routes
> [**Required**] Gets the path_routes of this UpdatePathRouteSetDetails. The set of path route rules.
>
>> **Returns** The path_routes of this UpdatePathRouteSetDetails.
>>
>> **Return type** list[*PathRoute*]

class oci.load_balancer.models.**WorkRequest**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new WorkRequest object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**

- **error_details** (*list[WorkRequestError]*) – The value to assign to the error_details property of this WorkRequest.

- **id** (*str*) – The value to assign to the id property of this WorkRequest.

- **lifecycle_state** (*str*) – The value to assign to the lifecycle_state property of this WorkRequest. Allowed values for this property are: "ACCEPTED", "IN_PROGRESS", "FAILED", "SUCCEEDED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **load_balancer_id** (*str*) – The value to assign to the load_balancer_id property of this WorkRequest.

- **message** (*str*) – The value to assign to the message property of this WorkRequest.

- **time_accepted** (*datetime*) – The value to assign to the time_accepted property of this WorkRequest.

- **time_finished** (*datetime*) – The value to assign to the time_finished property of this WorkRequest.

- **type** (*str*) – The value to assign to the type property of this WorkRequest.

error_details

[Required] Gets the error_details of this WorkRequest.

> **Returns** The error_details of this WorkRequest.

> **Return type** list[*WorkRequestError*]

id

[Required] Gets the id of this WorkRequest. The OCID of the work request.

> **Returns** The id of this WorkRequest.

> **Return type** str

lifecycle_state

[Required] Gets the lifecycle_state of this WorkRequest. The current state of the work request.

Allowed values for this property are: "ACCEPTED", "IN_PROGRESS", "FAILED", "SUCCEEDED", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

> **Returns** The lifecycle_state of this WorkRequest.

> **Return type** str

load_balancer_id

[Required] Gets the load_balancer_id of this WorkRequest. The OCID of the load balancer with which the work request is associated.

> **Returns** The load_balancer_id of this WorkRequest.

> **Return type** str

message

[Required] Gets the message of this WorkRequest. A collection of data, related to the load balancer provisioning process, that helps with debugging in the event of failure. Possible data elements include:

- workflow name

- event ID

- work request ID

- load balancer ID

- workflow completion message

> **Returns** The message of this WorkRequest.

> **Return type** str

time_accepted
> [Required] Gets the time_accepted of this WorkRequest. The date and time the work request was created, in the format defined by RFC3339.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_accepted of this WorkRequest.

> > **Return type** datetime

time_finished
> Gets the time_finished of this WorkRequest. The date and time the work request was completed, in the format defined by RFC3339.

> Example: *2016-08-25T21:10:29.600Z*

> > **Returns** The time_finished of this WorkRequest.

> > **Return type** datetime

type
> [Required] Gets the type of this WorkRequest. The type of action the work request represents.

> > **Returns** The type of this WorkRequest.

> > **Return type** str

class oci.load_balancer.models.**WorkRequestError**(***kwargs*)

__init__(***kwargs*)
> Initializes a new WorkRequestError object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > - **error_code** (`str`) – The value to assign to the error_code property of this WorkRequestError. Allowed values for this property are: "BAD_INPUT", "INTERNAL_ERROR", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > - **message** (`str`) – The value to assign to the message property of this WorkRequestError.

error_code
> [Required] Gets the error_code of this WorkRequestError. Allowed values for this property are: "BAD_INPUT", "INTERNAL_ERROR", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> > **Returns** The error_code of this WorkRequestError.

> > **Return type** str

message
> [Required] Gets the message of this WorkRequestError. A human-readable error string.

> > **Returns** The message of this WorkRequestError.

>**Return type** str

12.9 Object Storage

12.9.1 Client

class oci.object_storage.object_storage_client.**ObjectStorageClient**(*config*,
**kwargs)

>**abort_multipart_upload**(*namespace_name*, *bucket_name*, *object_name*, *upload_id*, ***kwargs*)
>
>>Abort Multipart Upload Aborts an in-progress multipart upload and deletes all parts that have been uploaded.
>>
>>**Parameters**
>>
>>>* **namespace_name** (*str*) – (required) The top-level namespace used for the request.
>>>
>>>* **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*
>>>
>>>* **object_name** (*str*) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*
>>>
>>>* **upload_id** (*str*) – (required) The upload ID for a multipart upload.
>>>
>>>* **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.
>>
>>**Returns** A *Response* object with data of type None
>>
>>**Return type** *Response*

>**commit_multipart_upload**(*namespace_name*, *bucket_name*, *object_name*, *upload_id*, *commit_multipart_upload_details*, ***kwargs*)
>
>>Commit Multipart Upload Commits a multipart upload, which involves checking part numbers and ETags of the parts, to create an aggregate object.
>>
>>**Parameters**
>>
>>>* **namespace_name** (*str*) – (required) The top-level namespace used for the request.
>>>
>>>* **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*
>>>
>>>* **object_name** (*str*) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*
>>>
>>>* **upload_id** (*str*) – (required) The upload ID for a multipart upload.
>>>
>>>* **commit_multipart_upload_details** (*CommitMultipartUploadDetails*) – (required) The part numbers and ETags for the parts you want to commit.
>>>
>>>* **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.
>>>
>>>* **if_none_match** (*str*) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For creating and committing a multipart upload, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.
>>>
>>>* **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type None

Return type *Response*

create_bucket(*namespace_name*, *create_bucket_details*, ***kwargs*)

Create Bucket Creates a bucket in the given namespace with a bucket name and optional user-defined metadata.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **create_bucket_details** (*CreateBucketDetails*) – (required) Request object for creating a bucket.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type *Bucket*

Return type *Response*

create_multipart_upload(*namespace_name*, *bucket_name*, *create_multipart_upload_details*, ***kwargs*)

Create Multipart Upload Starts a new multipart upload to a specific object in the given bucket in the given namespace.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **create_multipart_upload_details** (*CreateMultipartUploadDetails*) – (required) Request object for creating a multi-part upload.

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **if_none_match** (*str*) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For creating and committing a multipart upload, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type *MultipartUpload*

Return type *Response*

create_preauthenticated_request(*namespace_name*, *bucket_name*, *create_preauthenticated_request_details*, ***kwargs*)

Create Preauthenticated Request Creates a pre-authenticated request specific to the bucket.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **create_preauthenticated_request_details** (*CreatePreauthenticatedRequestDetails*) – (required) Information needed to create the pre-authenticated request.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type *PreauthenticatedRequest*

Return type *Response*

delete_bucket(*namespace_name*, *bucket_name*, ***kwargs*)
DELETE Bucket Deletes a bucket if it is already empty. If the bucket is not empty, use `delete_object()` first.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type None

Return type *Response*

delete_object(*namespace_name*, *bucket_name*, *object_name*, ***kwargs*)
DELETE Object Deletes an object.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **object_name** (*str*) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type None

Return type *Response*

delete_preauthenticated_request(*namespace_name*, *bucket_name*, *par_id*, ***kwargs*)
DELETE Preauthenticated Request Deletes the pre-authenticated request for the bucket.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **par_id** (*str*) – (required) The unique identifier for the pre-authenticated request. This can be used to manage operations against the pre-authenticated request, such as GET or DELETE.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type None

Return type *Response*

get_bucket (*namespace_name*, *bucket_name*, ***kwargs*)

GET Bucket Gets the current representation of the given bucket in the given namespace.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **if_none_match** (*str*) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For creating and committing a multipart upload, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type *Bucket*

Return type *Response*

get_namespace (***kwargs*)

GET Namespace Name Namespaces are unique. Namespaces are either the tenancy name or a random string automatically generated during account creation. You cannot edit a namespace.

Parameters **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type str

Return type *Response*

get_namespace_metadata (*namespace_name*, ***kwargs*)

GetNamespaceMetadata Get the metadata for the namespace, which contains defaultS3CompartmentId and defaultSwiftCompartmentId. Any user with the NAMESPACE_READ permission will be able to see the current metadata. If you're not authorized, talk to an administrator. If you're an administrator who needs to write policies to give users access, see Getting Started with Policies.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type *NamespaceMetadata*

Return type *Response*

get_object (*namespace_name*, *bucket_name*, *object_name*, ***kwargs*)

GET Object Gets the metadata and body of an object.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **object_name** (*str*) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **if_none_match** (*str*) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For creating and committing a multipart upload, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

- **range** (*str*) – (optional) Optional byte range to fetch, as described in RFC 7233, section 2.1. Note that only a single range of bytes is supported.

Returns A *Response* object with data of type stream

Return type *Response*

get_preauthenticated_request(*namespace_name*, *bucket_name*, *par_id*, ***kwargs*)
GET Preauthenticated Request Gets the pre-authenticated request for the bucket.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **par_id** (*str*) – (required) The unique identifier for the pre-authenticated request. This can be used to manage operations against the pre-authenticated request, such as GET or DELETE.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type *PreauthenticatedRequestSummary*

Return type *Response*

head_bucket(*namespace_name*, *bucket_name*, ***kwargs*)
HEAD Bucket Efficiently checks to see if a bucket exists and gets the current ETag for the bucket.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **if_none_match** (*str*) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For creating and committing a multipart upload, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type None

Return type *Response*

head_object(*namespace_name*, *bucket_name*, *object_name*, ***kwargs*)
HEAD Object Gets the user-defined metadata and entity tag for an object.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **object_name** (*str*) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **if_none_match** (*str*) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For creating and committing a multipart upload, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type None

Return type *Response*

list_buckets (*namespace_name*, *compartment_id*, ***kwargs*)

List Buckets Gets a list of all *BucketSummary's in a compartment. A 'BucketSummary* contains only summary fields for the bucket and does not contain fields like the user-defined metadata.

To use this and other API operations, you must be authorized in an IAM policy. If you're not authorized, talk to an administrator. If you're an administrator who needs to write policies to give users access, see Getting Started with Policies.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **compartment_id** (*str*) – (required) The ID of the compartment in which to list buckets.

- **limit** (*int*) – (optional) The maximum number of items to return.

- **page** (*str*) – (optional) The page at which to start retrieving results.

- **fields** (*list[str]*) – (optional) Bucket summary in list of buckets includes the 'namespace', 'name', 'compartmentId', 'createdBy', 'timeCreated', and 'etag' fields. This parameter can also include 'tags' (freeformTags and definedTags). The only supported value of this parameter is 'tags' for now. Example 'tags'.

  Allowed values are: "tags"

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type list of *BucketSummary*

Return type *Response*

list_multipart_upload_parts (*namespace_name*, *bucket_name*, *object_name*, *upload_id*, ***kwargs*)

List Multipart Upload Parts Lists the parts of an in-progress multipart upload.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **object_name** (*str*) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*

- **upload_id** (*str*) – (required) The upload ID for a multipart upload.

- **limit** (*int*) – (optional) The maximum number of items to return.

- **page** (*str*) – (optional) The page at which to start retrieving results.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

> **Returns** A *Response* object with data of type list of *MultipartUploadPartSummary*

> **Return type** *Response*

list_multipart_uploads(*namespace_name*, *bucket_name*, ***kwargs*)
List Multipart Uploads Lists all in-progress multipart uploads for the given bucket in the given namespace.

> **Parameters**

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **limit** (*int*) – (optional) The maximum number of items to return.

- **page** (*str*) – (optional) The page at which to start retrieving results.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

> **Returns** A *Response* object with data of type list of *MultipartUpload*

> **Return type** *Response*

list_objects(*namespace_name*, *bucket_name*, ***kwargs*)
List Objects Lists the objects in a bucket.

To use this and other API operations, you must be authorized in an IAM policy. If you're not authorized, talk to an administrator. If you're an administrator who needs to write policies to give users access, see Getting Started with Policies.

> **Parameters**

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **prefix** (*str*) – (optional) The string to use for matching against the start of object names in a list query.

- **start** (*str*) – (optional) Object names returned by a list query must be greater or equal to this parameter.

- **end** (*str*) – (optional) Object names returned by a list query must be strictly less than this parameter.

- **limit** (*int*) – (optional) The maximum number of items to return.

- **delimiter** (*str*) – (optional) When this parameter is set, only objects whose names do not contain the delimiter character (after an optionally specified prefix) are returned in the objects key of the response body. Scanned objects whose names contain the delimiter have the part of their name up to the first occurrence of the delimiter (including the optional

prefix) returned as a set of prefixes. Note that only '/' is a supported delimiter character at this time.

- **fields** (*str*) – (optional) Object summary in list of objects includes the 'name' field. This parameter can also include 'size' (object size in bytes), 'md5', and 'timeCreated' (object creation date and time) fields. Value of this parameter should be a comma-separated, case-insensitive list of those field names. For example 'name,timeCreated,md5'.

  Allowed values are: "name", "size", "timeCreated", "md5"

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type *ListObjects*

Return type *Response*

list_preauthenticated_requests(*namespace_name*, *bucket_name*, ***kwargs*)
  List Preauthenticated Requests Lists pre-authenticated requests for the bucket.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **object_name_prefix** (*str*) – (optional) User-specified object name prefixes can be used to query and return a list of pre-authenticated requests.

- **limit** (*int*) – (optional) The maximum number of items to return.

- **page** (*str*) – (optional) The page at which to start retrieving results.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

Returns A *Response* object with data of type list of *PreauthenticatedRequestSummary*

Return type *Response*

put_object(*namespace_name*, *bucket_name*, *object_name*, *put_object_body*, ***kwargs*)
  PUT Object Creates a new object or overwrites an existing one.

Parameters

- **namespace_name** (*str*) – (required) The top-level namespace used for the request.

- **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **object_name** (*str*) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*

- **put_object_body** (*stream*) – (required) The object to upload to the object store.

- **content_length** (*int*) – (optional) The content length of the body.

- **if_match** (*str*) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **if_none_match** (*str*) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For creating and committing a multipart upload, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

- **expect** (*str*) – (optional) 100-continue

- **content_md5** (*str*) – (optional) The base-64 encoded MD5 hash of the body.

- **content_type** (*str*) – (optional) The content type of the object. Defaults to 'application/octet-stream' if not overridden during the PutObject call.

- **content_language** (*str*) – (optional) The content language of the object.

- **content_encoding** (*str*) – (optional) The content encoding of the object.

- **str) opc_meta** (*dict(str,*) – (optional) Optional user-defined metadata key and value.

    Returns A *Response* object with data of type None

    Return type *Response*

rename_object(*namespace_name*, *bucket_name*, *rename_object_details*, ***kwargs*)
    RenameObject Rename an object from source key to target key in the given namespace.

    Parameters

    - **namespace_name** (*str*) – (required) The top-level namespace used for the request.

    - **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

    - **rename_object_details** (*RenameObjectDetails*) – (required) The source-Name and newName of rename operation.

    - **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

    Returns A *Response* object with data of type None

    Return type *Response*

restore_objects(*namespace_name*, *bucket_name*, *restore_objects_details*, ***kwargs*)
    RestoreObjects Restore one or more objects specified by objectName parameter. By default object will be restored for 24 hours.Duration can be configured using hours parameter.

    Parameters

    - **namespace_name** (*str*) – (required) The top-level namespace used for the request.

    - **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

    - **restore_objects_details** (*RestoreObjectsDetails*) – (required) Request to restore objects.

    - **opc_client_request_id** (*str*) – (optional) The client request ID for tracing.

    Returns A *Response* object with data of type None

    Return type *Response*

update_bucket(*namespace_name*, *bucket_name*, *update_bucket_details*, ***kwargs*)
    POST Bucket Performs a partial or full update of a bucket's user-defined metadata.

    Parameters

    - **namespace_name** (*str*) – (required) The top-level namespace used for the request.

    - **bucket_name** (*str*) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **update_bucket_details** (`UpdateBucketDetails`) – (required) Request object for updating a bucket.

- **if_match** (`str`) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **opc_client_request_id** (`str`) – (optional) The client request ID for tracing.

Returns A `Response` object with data of type `Bucket`

Return type `Response`

update_namespace_metadata (*namespace_name*, *update_namespace_metadata_details*, ***kwargs*)

UpdateNamespaceMetadata Change the default Swift/S3 compartmentId of user's namespace into the user-defined compartmentId. Upon doing this, all subsequent bucket creations will use the new default compartment, but no previously created buckets will be modified. A user must have the NAMESPACE_UPDATE permission to make changes to the default compartments for S3 and Swift.

Parameters

- **namespace_name** (`str`) – (required) The top-level namespace used for the request.

- **update_namespace_metadata_details** (`UpdateNamespaceMetadataDetails`) – (required) Request object for update NamespaceMetadata.

- **opc_client_request_id** (`str`) – (optional) The client request ID for tracing.

Returns A `Response` object with data of type `NamespaceMetadata`

Return type `Response`

upload_part (*namespace_name*, *bucket_name*, *object_name*, *upload_id*, *upload_part_num*, *upload_part_body*, ***kwargs*)

Upload Multipart Object Part Uploads a single part of a multipart upload.

Parameters

- **namespace_name** (`str`) – (required) The top-level namespace used for the request.

- **bucket_name** (`str`) – (required) The name of the bucket. Avoid entering confidential information. Example: *my-new-bucket1*

- **object_name** (`str`) – (required) The name of the object. Avoid entering confidential information. Example: *test/object1.log*

- **upload_id** (`str`) – (required) The upload ID for a multipart upload.

- **upload_part_num** (`int`) – (required) The part number that identifies the object part currently being uploaded.

- **upload_part_body** (`stream`) – (required) The part being uploaded to the Object Storage Service.

- **content_length** (`int`) – (optional) The content length of the body.

- **opc_client_request_id** (`str`) – (optional) The client request ID for tracing.

- **if_match** (`str`) – (optional) The entity tag to match. For creating and committing a multipart upload to an object, this is the entity tag of the target object. For uploading a part, this is the entity tag of the target part.

- **if_none_match** (`str`) – (optional) The entity tag to avoid matching. The only valid value is '*', which indicates that the request should fail if the object already exists. For

creating and committing a multipart upload, this is the entity tag of the target object. For
uploading a part, this is the entity tag of the target part.

- **expect** (*str*) – (optional) 100-continue

- **content_md5** (*str*) – (optional) The base-64 encoded MD5 hash of the body.

Returns A *Response* object with data of type None

Return type *Response*

12.9.2 Models

class oci.object_storage.models.**Bucket**(***kwargs*)

__init__(***kwargs*)
Initializes a new Bucket object with values from keyword arguments. The following keyword arguments
are supported (corresponding to the getters/setters of this class):

Parameters

- **namespace** (*str*) – The value to assign to the namespace property of this Bucket.

- **name** (*str*) – The value to assign to the name property of this Bucket.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this
Bucket.

- **metadata** (*dict(str, str)*) – The value to assign to the metadata property of this
Bucket.

- **created_by** (*str*) – The value to assign to the created_by property of this Bucket.

- **time_created** (*datetime*) – The value to assign to the time_created property of this
Bucket.

- **etag** (*str*) – The value to assign to the etag property of this Bucket.

- **public_access_type** (*str*) – The value to assign to the public_access_type prop-
erty of this Bucket. Allowed values for this property are: "NoPublicAccess", "Objec-
tRead", "ObjectReadWithoutList", 'UNKNOWN_ENUM_VALUE'. Any unrecognized
values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **storage_tier** (*str*) – The value to assign to the storage_tier property of
this Bucket. Allowed values for this property are: "Standard", "Archive", 'UN-
KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be
mapped to 'UNKNOWN_ENUM_VALUE'.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags
property of this Bucket.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the
defined_tags property of this Bucket.

compartment_id
[**Required**] Gets the compartment_id of this Bucket. The compartment ID in which the bucket is autho-
rized.

Returns The compartment_id of this Bucket.

Return type str

created_by
:   [Required] Gets the created_by of this Bucket. The OCID of the user who created the bucket.

    Returns The created_by of this Bucket.

    Return type str

defined_tags
:   Gets the defined_tags of this Bucket. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

    Returns The defined_tags of this Bucket.

    Return type dict(str, dict(str, *object*))

etag
:   [Required] Gets the etag of this Bucket. The entity tag for the bucket.

    Returns The etag of this Bucket.

    Return type str

freeform_tags
:   Gets the freeform_tags of this Bucket. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

    Returns The freeform_tags of this Bucket.

    Return type dict(str, str)

metadata
:   [Required] Gets the metadata of this Bucket. Arbitrary string keys and values for user-defined metadata.

    Returns The metadata of this Bucket.

    Return type dict(str, str)

name
:   [Required] Gets the name of this Bucket. The name of the bucket. Avoid entering confidential information. Example: my-new-bucket1

    Returns The name of this Bucket.

    Return type str

namespace
:   [Required] Gets the namespace of this Bucket. The namespace in which the bucket lives.

    Returns The namespace of this Bucket.

    Return type str

public_access_type
:   Gets the public_access_type of this Bucket. The type of public access enabled on this bucket. A bucket is set to *NoPublicAccess* by default, which only allows an authenticated caller to access the bucket and its contents. When *ObjectRead* is enabled on the bucket, public access is allowed for the *GetObject*, *HeadObject*, and *ListObjects* operations. When *ObjectReadWithoutList* is enabled on the bucket, public access is allowed for the *GetObject* and *HeadObject* operations.

    Allowed values for this property are: "NoPublicAccess", "ObjectRead", "ObjectReadWithoutList", 'UN-KNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UN-KNOWN_ENUM_VALUE'.

    Returns The public_access_type of this Bucket.

Return type str

storage_tier

Gets the storage_tier of this Bucket. The type of storage tier of this bucket. A bucket is set to 'Standard' tier by default, which means the bucket will be put in the standard storage tier. When 'Archive' tier type is set explicitly, the bucket is put in the archive storage tier. The 'storageTier' property is immutable after bucket is created.

Allowed values for this property are: "Standard", "Archive", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

Returns The storage_tier of this Bucket.

Return type str

time_created

[Required] Gets the time_created of this Bucket. The date and time the bucket was created, as described in RFC 2616, section 14.29.

Returns The time_created of this Bucket.

Return type datetime

class oci.object_storage.models.**BucketSummary**(***kwargs*)

__init__(***kwargs*)

Initializes a new BucketSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **namespace** (*str*) – The value to assign to the namespace property of this BucketSummary.

- **name** (*str*) – The value to assign to the name property of this BucketSummary.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this BucketSummary.

- **created_by** (*str*) – The value to assign to the created_by property of this BucketSummary.

- **time_created** (*datetime*) – The value to assign to the time_created property of this BucketSummary.

- **etag** (*str*) – The value to assign to the etag property of this BucketSummary.

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this BucketSummary.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this BucketSummary.

compartment_id

[Required] Gets the compartment_id of this BucketSummary. The compartment ID in which the bucket is authorized.

Returns The compartment_id of this BucketSummary.

Return type str

created_by

[Required] Gets the created_by of this BucketSummary. The OCID of the user who created the bucket.

>> **Returns** The created_by of this BucketSummary.

>> **Return type** str

> **defined_tags**

>> Gets the defined_tags of this BucketSummary. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

>> **Returns** The defined_tags of this BucketSummary.

>> **Return type** dict(str, dict(str, *object*))

> **etag**

>> [**Required**] Gets the etag of this BucketSummary. The entity tag for the bucket.

>> **Returns** The etag of this BucketSummary.

>> **Return type** str

> **freeform_tags**

>> Gets the freeform_tags of this BucketSummary. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

>> **Returns** The freeform_tags of this BucketSummary.

>> **Return type** dict(str, str)

> **name**

>> [**Required**] Gets the name of this BucketSummary. The name of the bucket. Avoid entering confidential information. Example: my-new-bucket1

>> **Returns** The name of this BucketSummary.

>> **Return type** str

> **namespace**

>> [**Required**] Gets the namespace of this BucketSummary. The namespace in which the bucket lives.

>> **Returns** The namespace of this BucketSummary.

>> **Return type** str

> **time_created**

>> [**Required**] Gets the time_created of this BucketSummary. The date and time the bucket was created, as described in RFC 2616, section 14.29.

>> **Returns** The time_created of this BucketSummary.

>> **Return type** datetime

class oci.object_storage.models.**CommitMultipartUploadDetails**(***kwargs*)

> **__init__**(***kwargs*)

> Initializes a new CommitMultipartUploadDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

>> **Parameters**

>>> • **parts_to_commit** (*list[CommitMultipartUploadPartDetails]*) – The value to assign to the parts_to_commit property of this CommitMultipartUploadDetails.

>>> • **parts_to_exclude** (*list[int]*) – The value to assign to the parts_to_exclude property of this CommitMultipartUploadDetails.

parts_to_commit
> [Required] Gets the parts_to_commit of this CommitMultipartUploadDetails. The part numbers and ETags for the parts to be committed.
>
> > **Returns** The parts_to_commit of this CommitMultipartUploadDetails.
> >
> > **Return type** list[*CommitMultipartUploadPartDetails*]

parts_to_exclude
> Gets the parts_to_exclude of this CommitMultipartUploadDetails. The part numbers for the parts to be excluded from the completed object. Each part created for this upload must be in either partsToExclude or partsToCommit, but cannot be in both.
>
> > **Returns** The parts_to_exclude of this CommitMultipartUploadDetails.
> >
> > **Return type** list[int]

class oci.object_storage.models.**CommitMultipartUploadPartDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CommitMultipartUploadPartDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **part_num** (*int*) – The value to assign to the part_num property of this CommitMultipartUploadPartDetails.
> >
> > - **etag** (*str*) – The value to assign to the etag property of this CommitMultipartUploadPartDetails.

> **etag**
> [Required] Gets the etag of this CommitMultipartUploadPartDetails. The ETag returned when this part was uploaded.
>
> > **Returns** The etag of this CommitMultipartUploadPartDetails.
> >
> > **Return type** str

> **part_num**
> [Required] Gets the part_num of this CommitMultipartUploadPartDetails. The part number for this part.
>
> > **Returns** The part_num of this CommitMultipartUploadPartDetails.
> >
> > **Return type** int

class oci.object_storage.models.**CreateBucketDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CreateBucketDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **name** (*str*) – The value to assign to the name property of this CreateBucketDetails.
> >
> > - **compartment_id** (*str*) – The value to assign to the compartment_id property of this CreateBucketDetails.
> >
> > - **metadata** (*dict(str, str)*) – The value to assign to the metadata property of this CreateBucketDetails.

- **public_access_type** (*str*) – The value to assign to the public_access_type property of this CreateBucketDetails. Allowed values for this property are: "NoPublicAccess", "ObjectRead", "ObjectReadWithoutList"

- **storage_tier** (*str*) – The value to assign to the storage_tier property of this CreateBucketDetails. Allowed values for this property are: "Standard", "Archive"

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this CreateBucketDetails.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this CreateBucketDetails.

compartment_id

[**Required**] Gets the compartment_id of this CreateBucketDetails. The ID of the compartment in which to create the bucket.

> **Returns** The compartment_id of this CreateBucketDetails.

> **Return type** str

defined_tags

Gets the defined_tags of this CreateBucketDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: *{"Operations": {"CostCenter": "42"}}*

> **Returns** The defined_tags of this CreateBucketDetails.

> **Return type** dict(str, dict(str, *object*))

freeform_tags

Gets the freeform_tags of this CreateBucketDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this CreateBucketDetails.

> **Return type** dict(str, str)

metadata

Gets the metadata of this CreateBucketDetails. Arbitrary string, up to 4KB, of keys and values for user-defined metadata.

> **Returns** The metadata of this CreateBucketDetails.

> **Return type** dict(str, str)

name

[**Required**] Gets the name of this CreateBucketDetails. The name of the bucket. Valid characters are uppercase or lowercase letters, numbers, and dashes. Bucket names must be unique within the namespace. Avoid entering confidential information. example: Example: my-new-bucket1

> **Returns** The name of this CreateBucketDetails.

> **Return type** str

public_access_type

Gets the public_access_type of this CreateBucketDetails. The type of public access enabled on this bucket. A bucket is set to *NoPublicAccess* by default, which only allows an authenticated caller to access the bucket and its contents. When *ObjectRead* is enabled on the bucket, public access is allowed for the *GetObject*, *HeadObject*, and *ListObjects* operations. When *ObjectReadWithoutList* is enabled on the bucket, public access is allowed for the *GetObject* and *HeadObject* operations.

Allowed values for this property are: "NoPublicAccess", "ObjectRead", "ObjectReadWithoutList"

Returns The public_access_type of this CreateBucketDetails.

Return type str

storage_tier

Gets the storage_tier of this CreateBucketDetails. The type of storage tier of this bucket. A bucket is set to 'Standard' tier by default, which means the bucket will be put in the standard storage tier. When 'Archive' tier type is set explicitly, the bucket is put in the Archive Storage tier. The 'storageTier' property is immutable after bucket is created.

Allowed values for this property are: "Standard", "Archive"

Returns The storage_tier of this CreateBucketDetails.

Return type str

class oci.object_storage.models.**CreateMultipartUploadDetails**(***kwargs*)

__init__(***kwargs*)

Initializes a new CreateMultipartUploadDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **object** (*str*) – The value to assign to the object property of this CreateMultipartUploadDetails.

- **content_type** (*str*) – The value to assign to the content_type property of this CreateMultipartUploadDetails.

- **content_language** (*str*) – The value to assign to the content_language property of this CreateMultipartUploadDetails.

- **content_encoding** (*str*) – The value to assign to the content_encoding property of this CreateMultipartUploadDetails.

- **metadata** (*dict(str, str)*) – The value to assign to the metadata property of this CreateMultipartUploadDetails.

content_encoding

Gets the content_encoding of this CreateMultipartUploadDetails. The content encoding of the object to upload.

Returns The content_encoding of this CreateMultipartUploadDetails.

Return type str

content_language

Gets the content_language of this CreateMultipartUploadDetails. The content language of the object to upload.

Returns The content_language of this CreateMultipartUploadDetails.

Return type str

content_type

Gets the content_type of this CreateMultipartUploadDetails. The content type of the object to upload.

Returns The content_type of this CreateMultipartUploadDetails.

Return type str

metadata
> Gets the metadata of this CreateMultipartUploadDetails. Arbitrary string keys and values for the user-defined metadata for the object. Keys must be in "opc-meta-*" format. Avoid entering confidential information.
>
> > **Returns** The metadata of this CreateMultipartUploadDetails.
> >
> > **Return type** dict(str, str)

object
> **[Required]** Gets the object of this CreateMultipartUploadDetails. The name of the object to which this multi-part upload is targeted. Avoid entering confidential information. Example: test/object1.log
>
> > **Returns** The object of this CreateMultipartUploadDetails.
> >
> > **Return type** str

class oci.object_storage.models.**CreatePreauthenticatedRequestDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new CreatePreauthenticatedRequestDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > * **name** (*str*) – The value to assign to the name property of this CreatePreauthenticatedRequestDetails.
> >
> > * **object_name** (*str*) – The value to assign to the object_name property of this CreatePreauthenticatedRequestDetails.
> >
> > * **access_type** (*str*) – The value to assign to the access_type property of this CreatePreauthenticatedRequestDetails. Allowed values for this property are: "ObjectRead", "ObjectWrite", "ObjectReadWrite", "AnyObjectWrite"
> >
> > * **time_expires** (*datetime*) – The value to assign to the time_expires property of this CreatePreauthenticatedRequestDetails.

access_type
> **[Required]** Gets the access_type of this CreatePreauthenticatedRequestDetails. The operation that can be performed on this resource.
>
> Allowed values for this property are: "ObjectRead", "ObjectWrite", "ObjectReadWrite", "AnyObjectWrite"
>
> > **Returns** The access_type of this CreatePreauthenticatedRequestDetails.
> >
> > **Return type** str

name
> **[Required]** Gets the name of this CreatePreauthenticatedRequestDetails. A user-specified name for the pre-authenticated request. Helpful for management purposes.
>
> > **Returns** The name of this CreatePreauthenticatedRequestDetails.
> >
> > **Return type** str

object_name
> Gets the object_name of this CreatePreauthenticatedRequestDetails. The name of object that is being granted access to by the pre-authenticated request. This can be null and if it is, the pre-authenticated request grants access to the entire bucket.
>
> > **Returns** The object_name of this CreatePreauthenticatedRequestDetails.

Return type str

time_expires
> [Required] Gets the time_expires of this CreatePreauthenticatedRequestDetails. The expiration date for the pre-authenticated request as per RFC 3339. After this date the pre-authenticated request will no longer be valid.

> > **Returns** The time_expires of this CreatePreauthenticatedRequestDetails.

> > **Return type** datetime

class oci.object_storage.models.**ListObjects**(***kwargs*)

__init__(***kwargs*)
> Initializes a new ListObjects object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > - **objects** (*list[*ObjectSummary*]*) – The value to assign to the objects property of this ListObjects.

> > > - **prefixes** (*list[str]*) – The value to assign to the prefixes property of this ListObjects.

> > > - **next_start_with** (*str*) – The value to assign to the next_start_with property of this ListObjects.

next_start_with
> Gets the next_start_with of this ListObjects. The name of the object to use in the 'startWith' parameter to obtain the next page of a truncated ListObjects response. Avoid entering confidential information. Example: test/object1.log

> > **Returns** The next_start_with of this ListObjects.

> > **Return type** str

objects
> [Required] Gets the objects of this ListObjects. An array of object summaries.

> > **Returns** The objects of this ListObjects.

> > **Return type** list[*ObjectSummary*]

prefixes
> Gets the prefixes of this ListObjects. Prefixes that are common to the results returned by the request if the request specified a delimiter.

> > **Returns** The prefixes of this ListObjects.

> > **Return type** list[str]

class oci.object_storage.models.**MultipartUpload**(***kwargs*)

__init__(***kwargs*)
> Initializes a new MultipartUpload object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > - **namespace** (*str*) – The value to assign to the namespace property of this MultipartUpload.

- **bucket** (*str*) – The value to assign to the bucket property of this MultipartUpload.

- **object** (*str*) – The value to assign to the object property of this MultipartUpload.

- **upload_id** (*str*) – The value to assign to the upload_id property of this MultipartUpload.

- **time_created** (*datetime*) – The value to assign to the time_created property of this MultipartUpload.

bucket
[Required] Gets the bucket of this MultipartUpload. The bucket in which the in-progress multipart upload is stored.

>   **Returns** The bucket of this MultipartUpload.

>   **Return type** str

namespace
[Required] Gets the namespace of this MultipartUpload. The namespace in which the in-progress multipart upload is stored.

>   **Returns** The namespace of this MultipartUpload.

>   **Return type** str

object
[Required] Gets the object of this MultipartUpload. The object name of the in-progress multipart upload.

>   **Returns** The object of this MultipartUpload.

>   **Return type** str

time_created
[Required] Gets the time_created of this MultipartUpload. The date and time the upload was created, as described in RFC 2616, section 14.29.

>   **Returns** The time_created of this MultipartUpload.

>   **Return type** datetime

upload_id
[Required] Gets the upload_id of this MultipartUpload. The unique identifier for the in-progress multipart upload.

>   **Returns** The upload_id of this MultipartUpload.

>   **Return type** str

class oci.object_storage.models.**MultipartUploadPartSummary**(***kwargs*)

__init__(***kwargs*)
Initializes a new MultipartUploadPartSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **etag** (*str*) – The value to assign to the etag property of this MultipartUploadPartSummary.

- **md5** (*str*) – The value to assign to the md5 property of this MultipartUploadPartSummary.

- **size** (*int*) – The value to assign to the size property of this MultipartUploadPartSummary.

- **part_number** (*int*) – The value to assign to the part_number property of this Multi-partUploadPartSummary.

etag
> [Required] Gets the etag of this MultipartUploadPartSummary. The current entity tag for the part.
>
> > **Returns** The etag of this MultipartUploadPartSummary.
> >
> > **Return type** str

md5
> [Required] Gets the md5 of this MultipartUploadPartSummary. The MD5 hash of the bytes of the part.
>
> > **Returns** The md5 of this MultipartUploadPartSummary.
> >
> > **Return type** str

part_number
> [Required] Gets the part_number of this MultipartUploadPartSummary. The part number for this part.
>
> > **Returns** The part_number of this MultipartUploadPartSummary.
> >
> > **Return type** int

size
> [Required] Gets the size of this MultipartUploadPartSummary. The size of the part in bytes.
>
> > **Returns** The size of this MultipartUploadPartSummary.
> >
> > **Return type** int

class oci.object_storage.models.**NamespaceMetadata**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new NamespaceMetadata object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > - **namespace** (*str*) – The value to assign to the namespace property of this NamespaceMetadata.
> > - **default_s3_compartment_id** (*str*) – The value to assign to the default_s3_compartment_id property of this NamespaceMetadata.
> > - **default_swift_compartment_id** (*str*) – The value to assign to the default_swift_compartment_id property of this NamespaceMetadata.

default_s3_compartment_id
> [Required] Gets the default_s3_compartment_id of this NamespaceMetadata. The default compartment ID for an S3 client.
>
> > **Returns** The default_s3_compartment_id of this NamespaceMetadata.
> >
> > **Return type** str

default_swift_compartment_id
> [Required] Gets the default_swift_compartment_id of this NamespaceMetadata. The default compartment ID for a Swift client.
>
> > **Returns** The default_swift_compartment_id of this NamespaceMetadata.
> >
> > **Return type** str

namespace
> **[Required]** Gets the namespace of this NamespaceMetadata. The namespace to which the metadata belongs.
>
> > **Returns** The namespace of this NamespaceMetadata.
> >
> > **Return type** str

class oci.object_storage.models.**ObjectSummary**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new ObjectSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > > - **name** (*str*) – The value to assign to the name property of this ObjectSummary.
> > >
> > > - **size** (*int*) – The value to assign to the size property of this ObjectSummary.
> > >
> > > - **md5** (*str*) – The value to assign to the md5 property of this ObjectSummary.
> > >
> > > - **time_created** (*datetime*) – The value to assign to the time_created property of this ObjectSummary.
>
> **md5**
> > Gets the md5 of this ObjectSummary. Base64-encoded MD5 hash of the object data.
> >
> > **Returns** The md5 of this ObjectSummary.
> >
> > **Return type** str
>
> **name**
> > **[Required]** Gets the name of this ObjectSummary. The name of the object. Avoid entering confidential information. Example: test/object1.log
> >
> > **Returns** The name of this ObjectSummary.
> >
> > **Return type** str
>
> **size**
> > Gets the size of this ObjectSummary. Size of the object in bytes.
> >
> > **Returns** The size of this ObjectSummary.
> >
> > **Return type** int
>
> **time_created**
> > Gets the time_created of this ObjectSummary. The date and time the object was created, as described in RFC 2616, section 14.29.
> >
> > **Returns** The time_created of this ObjectSummary.
> >
> > **Return type** datetime

class oci.object_storage.models.**PreauthenticatedRequest**(***kwargs*)

> **__init__**(***kwargs*)
> > Initializes a new PreauthenticatedRequest object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
> >
> > **Parameters**
> >
> > > - **id** (*str*) – The value to assign to the id property of this PreauthenticatedRequest.

- **name** (*str*) – The value to assign to the name property of this PreauthenticatedRequest.

- **access_uri** (*str*) – The value to assign to the access_uri property of this PreauthenticatedRequest.

- **object_name** (*str*) – The value to assign to the object_name property of this PreauthenticatedRequest.

- **access_type** (*str*) – The value to assign to the access_type property of this PreauthenticatedRequest. Allowed values for this property are: "ObjectRead", "ObjectWrite", "ObjectReadWrite", "AnyObjectWrite", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

- **time_expires** (*datetime*) – The value to assign to the time_expires property of this PreauthenticatedRequest.

- **time_created** (*datetime*) – The value to assign to the time_created property of this PreauthenticatedRequest.

access_type

[Required] Gets the access_type of this PreauthenticatedRequest. The operation that can be performed on this resource.

Allowed values for this property are: "ObjectRead", "ObjectWrite", "ObjectReadWrite", "AnyObjectWrite", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.

> **Returns** The access_type of this PreauthenticatedRequest.

> **Return type** str

access_uri

[Required] Gets the access_uri of this PreauthenticatedRequest. The URI to embed in the URL when using the pre-authenticated request.

> **Returns** The access_uri of this PreauthenticatedRequest.

> **Return type** str

id

[Required] Gets the id of this PreauthenticatedRequest. The unique identifier to use when directly addressing the pre-authenticated request.

> **Returns** The id of this PreauthenticatedRequest.

> **Return type** str

name

[Required] Gets the name of this PreauthenticatedRequest. The user-provided name of the pre-authenticated request.

> **Returns** The name of this PreauthenticatedRequest.

> **Return type** str

object_name

Gets the object_name of this PreauthenticatedRequest. The name of the object that is being granted access to by the pre-authenticated request. This can be null and if so, the pre-authenticated request grants access to the entire bucket. Avoid entering confidential information. Example: test/object1.log

> **Returns** The object_name of this PreauthenticatedRequest.

> **Return type** str

time_created
> [Required] Gets the time_created of this PreauthenticatedRequest. The date when the pre-authenticated request was created as per specification [RFC 3339](#).
>
> > **Returns** The time_created of this PreauthenticatedRequest.
> >
> > **Return type** datetime

time_expires
> [Required] Gets the time_expires of this PreauthenticatedRequest. The expiration date for the pre-authenticated request as per [RFC 3339](#). After this date the pre-authenticated request will no longer be valid.
>
> > **Returns** The time_expires of this PreauthenticatedRequest.
> >
> > **Return type** datetime

class oci.object_storage.models.**PreauthenticatedRequestSummary**(***kwargs*)

__init__(***kwargs*)
> Initializes a new PreauthenticatedRequestSummary object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **id** (*str*) – The value to assign to the id property of this PreauthenticatedRequestSummary.
> >
> > - **name** (*str*) – The value to assign to the name property of this PreauthenticatedRequestSummary.
> >
> > - **object_name** (*str*) – The value to assign to the object_name property of this PreauthenticatedRequestSummary.
> >
> > - **access_type** (*str*) – The value to assign to the access_type property of this PreauthenticatedRequestSummary. Allowed values for this property are: "ObjectRead", "ObjectWrite", "ObjectReadWrite", "AnyObjectWrite", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
> >
> > - **time_expires** (*datetime*) – The value to assign to the time_expires property of this PreauthenticatedRequestSummary.
> >
> > - **time_created** (*datetime*) – The value to assign to the time_created property of this PreauthenticatedRequestSummary.

access_type
> [Required] Gets the access_type of this PreauthenticatedRequestSummary. The operation that can be performed on this resource.
>
> Allowed values for this property are: "ObjectRead", "ObjectWrite", "ObjectReadWrite", "AnyObjectWrite", 'UNKNOWN_ENUM_VALUE'. Any unrecognized values returned by a service will be mapped to 'UNKNOWN_ENUM_VALUE'.
>
> > **Returns** The access_type of this PreauthenticatedRequestSummary.
> >
> > **Return type** str

id
> [Required] Gets the id of this PreauthenticatedRequestSummary. The unique identifier to use when directly addressing the pre-authenticated request.
>
> > **Returns** The id of this PreauthenticatedRequestSummary.

> **Return type** str

name
> [Required] Gets the name of this PreauthenticatedRequestSummary. The user-provided name of the pre-authenticated request.
>
> > **Returns** The name of this PreauthenticatedRequestSummary.
> >
> > **Return type** str

object_name
> Gets the object_name of this PreauthenticatedRequestSummary. The name of object that is being granted access to by the pre-authenticated request. This can be null and if it is, the pre-authenticated request grants access to the entire bucket.
>
> > **Returns** The object_name of this PreauthenticatedRequestSummary.
> >
> > **Return type** str

time_created
> [Required] Gets the time_created of this PreauthenticatedRequestSummary. The date when the pre-authenticated request was created as per RFC 3339.
>
> > **Returns** The time_created of this PreauthenticatedRequestSummary.
> >
> > **Return type** datetime

time_expires
> [Required] Gets the time_expires of this PreauthenticatedRequestSummary. The expiration date for the pre-authenticated request as per RFC 3339. After this date the pre-authenticated request will no longer be valid.
>
> > **Returns** The time_expires of this PreauthenticatedRequestSummary.
> >
> > **Return type** datetime

class oci.object_storage.models.**RenameObjectDetails**(***kwargs*)

> **__init__**(***kwargs*)
> Initializes a new RenameObjectDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):
>
> > **Parameters**
> >
> > - **source_name** (*str*) – The value to assign to the source_name property of this RenameObjectDetails.
> >
> > - **new_name** (*str*) – The value to assign to the new_name property of this RenameObjectDetails.
> >
> > - **src_obj_if_match_e_tag** (*str*) – The value to assign to the src_obj_if_match_e_tag property of this RenameObjectDetails.
> >
> > - **new_obj_if_match_e_tag** (*str*) – The value to assign to the new_obj_if_match_e_tag property of this RenameObjectDetails.
> >
> > - **new_obj_if_none_match_e_tag** (*str*) – The value to assign to the new_obj_if_none_match_e_tag property of this RenameObjectDetails.

new_name
> [Required] Gets the new_name of this RenameObjectDetails. The new name of the source object.
>
> > **Returns** The new_name of this RenameObjectDetails.

Return type str

new_obj_if_match_e_tag
Gets the new_obj_if_match_e_tag of this RenameObjectDetails. The if-match entity tag of the new object.

> **Returns** The new_obj_if_match_e_tag of this RenameObjectDetails.

> **Return type** str

new_obj_if_none_match_e_tag
Gets the new_obj_if_none_match_e_tag of this RenameObjectDetails. The if-none-match entity tag of the new object.

> **Returns** The new_obj_if_none_match_e_tag of this RenameObjectDetails.

> **Return type** str

source_name
[**Required**] Gets the source_name of this RenameObjectDetails. The name of the source object to be renamed.

> **Returns** The source_name of this RenameObjectDetails.

> **Return type** str

src_obj_if_match_e_tag
Gets the src_obj_if_match_e_tag of this RenameObjectDetails. The if-match entity tag of the source object.

> **Returns** The src_obj_if_match_e_tag of this RenameObjectDetails.

> **Return type** str

class oci.object_storage.models.**RestoreObjectsDetails**(***kwargs*)

__init__(***kwargs*)
Initializes a new RestoreObjectsDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> **Parameters**
>
> - **object_name** (*str*) – The value to assign to the object_name property of this RestoreObjectsDetails.
>
> - **hours** (*int*) – The value to assign to the hours property of this RestoreObjectsDetails.

hours
Gets the hours of this RestoreObjectsDetails. The number of hours for which this object will be restored. By default object will be restored for 24 hours.It can be configured using hours parameter.

> **Returns** The hours of this RestoreObjectsDetails.

> **Return type** int

object_name
[**Required**] Gets the object_name of this RestoreObjectsDetails. A object which was in an archived state and need to be restored.

> **Returns** The object_name of this RestoreObjectsDetails.

> **Return type** str

class oci.object_storage.models.**UpdateBucketDetails**(***kwargs*)

__**init**__(***kwargs*)

Initializes a new UpdateBucketDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

Parameters

- **namespace** (*str*) – The value to assign to the namespace property of this UpdateBucketDetails.

- **compartment_id** (*str*) – The value to assign to the compartment_id property of this UpdateBucketDetails.

- **name** (*str*) – The value to assign to the name property of this UpdateBucketDetails.

- **metadata** (*dict(str, str)*) – The value to assign to the metadata property of this UpdateBucketDetails.

- **public_access_type** (*str*) – The value to assign to the public_access_type property of this UpdateBucketDetails. Allowed values for this property are: "NoPublicAccess", "ObjectRead", "ObjectReadWithoutList"

- **freeform_tags** (*dict(str, str)*) – The value to assign to the freeform_tags property of this UpdateBucketDetails.

- **defined_tags** (*dict(str, dict(str, object))*) – The value to assign to the defined_tags property of this UpdateBucketDetails.

compartment_id

Gets the compartment_id of this UpdateBucketDetails. The compartmentId for the compartment to which the bucket is targeted to move to.

> **Returns** The compartment_id of this UpdateBucketDetails.

> **Return type** str

defined_tags

Gets the defined_tags of this UpdateBucketDetails. Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags. Example: '{"Operations": {"CostCenter": "42"}}

> **Returns** The defined_tags of this UpdateBucketDetails.

> **Return type** dict(str, dict(str, *object*))

freeform_tags

Gets the freeform_tags of this UpdateBucketDetails. Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags. Example: *{"Department": "Finance"}*

> **Returns** The freeform_tags of this UpdateBucketDetails.

> **Return type** dict(str, str)

metadata

Gets the metadata of this UpdateBucketDetails. Arbitrary string, up to 4KB, of keys and values for user-defined metadata.

> **Returns** The metadata of this UpdateBucketDetails.

> **Return type** dict(str, str)

name

Gets the name of this UpdateBucketDetails. The name of the bucket. Avoid entering confidential information. Example: my-new-bucket1

> > **Returns** The name of this UpdateBucketDetails.

> > **Return type** str

namespace
> Gets the namespace of this UpdateBucketDetails. The namespace in which the bucket lives.

> > **Returns** The namespace of this UpdateBucketDetails.

> > **Return type** str

public_access_type
> Gets the public_access_type of this UpdateBucketDetails. The type of public access enabled on this bucket. A bucket is set to *NoPublicAccess* by default, which only allows an authenticated caller to access the bucket and its contents. When *ObjectRead* is enabled on the bucket, public access is allowed for the *GetObject*, *HeadObject*, and *ListObjects* operations. When *ObjectReadWithoutList* is enabled on the bucket, public access is allowed for the *GetObject* and *HeadObject* operations.

> Allowed values for this property are: "NoPublicAccess", "ObjectRead", "ObjectReadWithoutList"

> > **Returns** The public_access_type of this UpdateBucketDetails.

> > **Return type** str

class oci.object_storage.models.**UpdateNamespaceMetadataDetails**(***kwargs*)

__init__(***kwargs*)
> Initializes a new UpdateNamespaceMetadataDetails object with values from keyword arguments. The following keyword arguments are supported (corresponding to the getters/setters of this class):

> > **Parameters**

> > > • **default_s3_compartment_id** (*str*) – The value to assign to the default_s3_compartment_id property of this UpdateNamespaceMetadataDetails.

> > > • **default_swift_compartment_id** (*str*) – The value to assign to the default_swift_compartment_id property of this UpdateNamespaceMetadataDetails.

default_s3_compartment_id
> Gets the default_s3_compartment_id of this UpdateNamespaceMetadataDetails. The update compartment id for an S3 client if this field is set.

> > **Returns** The default_s3_compartment_id of this UpdateNamespaceMetadataDetails.

> > **Return type** str

default_swift_compartment_id
> Gets the default_swift_compartment_id of this UpdateNamespaceMetadataDetails. The update compartment id for a Swift client if this field is set.

> > **Returns** The default_swift_compartment_id of this UpdateNamespaceMetadataDetails.

> > **Return type** str

12.10 Upload Manager

class oci.object_storage.**UploadManager**(*object_storage_client*, ***kwargs*)

__init__(*object_storage_client*, ***kwargs*)
> UploadManager simplifies interaction with the Object Storage service by abstracting away the method

used to upload objects. Depending on the configuration parameters, UploadManager may choose to do a single put_object request, or break up the upload into multiple parts and utilize multi-part uploads.

An advantage of using multi-part uploads is the ability to retry individual failed parts, as well as being able to upload parts in parallel to reduce upload time.

> **Parameters**
>
> - **object_storage_client** (`ObjectStorageClient`) – A configured object storage client to use for interacting with the Object Storage service.
> - **allow_multipart_uploads (optional)** (`bool`) – Whether or not this Upload-Manager supports performing mulitpart uploads. Defaults to True.
> - **allow_parallel_uploads (optional)** (`bool`) – Whether or not this Upload-Manager supports uploading individual parts of a multipart upload in parallel. This setting has no effect on uploads that are performed using a single put_object call. Defaults to True.
> - **parallel_process_count (optional)** (`int`) – The number of worker processes to use in parallel for uploading individual parts of a multipart upload. This setting is only used if allow_parallel_uploads is set to True. Defaults to 3.

resume_upload_file(*namespace_name*, *bucket_name*, *object_name*, *file_path*, *upload_id*, ***kwargs*)
Resume a multipart upload.

> **Parameters**
>
> - **namespace_name** (`str`) – The namespace containing the bucket and multipart upload to resume.
> - **bucket_name** (`str`) – The name of the bucket that contains the multipart upload to resume.
> - **object_name** (`str`) – The name of the object in Object Storage.
> - **file_path** – The path to the file to upload.
> - **upload_id** (`str`) – The upload id for the multipart upload to resume.
> - **part_size (optional)** (`int`) – Part size, in bytes, to use when resuming the transfer. The default is 128 mebibytes. If this value is supplied, it must be the same value as the one used when the original upload was started.
> - **progress_callback (optional)** (`function`) – Callback function to receive the number of bytes uploaded since the last call to the callback function.
>
> **Returns** The response from the multipart commit operation. This will be a `Response` object with data of type None
>
> **Return type** `Response`

upload_file(*namespace_name*, *bucket_name*, *object_name*, *file_path*, ***kwargs*)
Uploads an object to Object Storage. Depending on the options provided and the size of the object, the object may be uploaded in multiple parts.

> **Parameters**
>
> - **namespace_name** (`str`) – The namespace containing the bucket in which to store the object.
> - **bucket_name** (`str`) – The name of the bucket in which to store the object.
> - **object_name** (`str`) – The name of the object in Object Storage.

- **file_path** – The path to the file to upload.

- **part_size (optional)** (*int*) – Override the default part size of 128 MiB, value is
  in bytes.

- **progress_callback (optional)** (*function*) – Callback function to receive the
  number of bytes uploaded since the last call to the callback function.

- **if_match (optional)** (*str*) – The entity tag of the object to match.

- **if_none_match (optional)** (*str*) – The entity tag of the object to avoid match-
  ing. The only valid value is '*', which indicates that the request should fail if the object
  already exists.

- **content_md5** (*str*) – (optional) The base-64 encoded MD5 hash of the body. This
  parameter is only used if the object is uploaded in a single part.

- **content_type (optional)** (*str*) – The content type of the object to upload.

- **content_language (optional)** (*str*) – The content language of the object to
  upload.

- **content_encoding (optional)** (*str*) – The content encoding of the object to
  upload.

- **metadata (optional)** (*dict*) – A dictionary of string to string values to associate
  with the object to upload

Returns The response from multipart commit operation or the put operation. In both cases this
will be a *Response* object with data of type None. For a multipart upload the *Response*
will contain the `opc-multipart-md5` header and for a non-multipart upload it will con-
tain the `opc-content-md5 header`.

Return type *Response*

upload_stream(*namespace_name*, *bucket_name*, *object_name*, *stream_ref*, ***kwargs*)
Uploads streaming data to Object Storage. If the stream is non-empty, this will always perform a multipart
upload, splitting parts based on the part size (10 MiB if none specified). If the stream is empty, this will
upload a single empty object to Object Storage.

Stream uploads are not currently resumable.

Parameters

- **namespace_name** (*str*) – The namespace containing the bucket in which to store the
  object.

- **bucket_name** (*str*) – The name of the bucket in which to store the object.

- **object_name** (*str*) – The name of the object in Object Storage.

- **stream_ref** – The stream to read data from.

- **part_size (optional)** (*int*) – Override the default streaming part size of 10 MiB,
  value is in bytes.

- **progress_callback (optional)** (*function*) – Callback function to receive the
  number of bytes uploaded since the last call to the callback function.

- **if_match (optional)** (*str*) – The entity tag of the object to match.

- **if_none_match (optional)** (*str*) – The entity tag of the object to avoid match-
  ing. The only valid value is '*', which indicates that the request should fail if the object
  already exists.

- **content_type (optional)** (`str`) – The content type of the object to upload.

- **content_language (optional)** (`str`) – The content language of the object to upload.

- **content_encoding (optional)** (`str`) – The content encoding of the object to upload.

- **metadata (optional)** (`dict`) – A dictionary of string to string values to associate with the object to upload

> **Returns** The response from multipart commit operation or the put operation. In both cases this will be a *Response* object with data of type None. For a multipart upload (non-empty stream data) the *Response* will contain the opc-multipart-md5 header and for a non-multipart upload (empty stream data) it will contain the opc-content-md5 header.

> **Return type** *Response*

12.11 Base Client

class oci.base_client.**BaseClient**(*service*, *config*, *signer*, *type_mapping*, ***kwargs*)

> **call_api**(*resource_path*, *method*, *path_params=None*, *query_params=None*, *header_params=None*, *body=None*, *response_type=None*, *enforce_content_headers=True*)
> Makes the HTTP request and return the deserialized data.
>
> **Parameters**
>
> - **resource_path** – Path to the resource (e.g. /instance)
> - **method** – HTTP method
> - **path_params** – (optional) Path parameters in the url.
> - **query_params** – (optional) Query parameters in the url.
> - **header_params** – (optional) Request header params.
> - **body** – (optional) Request body.
> - **response_type** – (optional) Response data type.
> - **enforce_content_headers** – (optional) Whether content headers should be added for PUT and POST requests when not present. Defaults to True.
>
> **Returns** A Response object, or throw in the case of an error.

12.12 Config

oci.config.**from_file**(*file_location='~/.oci/config'*, *profile_name='DEFAULT'*)
> Create a config dict from a file.
>
> **Parameters**
>
> - **file_location** – Path to the config file. Defaults to ~/.oci/config and with a fallback to ~/.oraclebmc/config.
> - **profile_name** – The profile to load from the config file. Defaults to "DEFAULT"
>
> **Returns** A config dict that can be used to create clients.

oci.config.**validate_config**(*config*, ***kwargs*)

oci.regions.**is_region**(*region_name*)

oci.regions.**endpoint_for**(*service*, *region=None*, *endpoint=None*)
> Returns the base URl for a service, either in the given region or at the specified endpoint.

> If endpoint and region are provided, endpoint is used.

12.13 Exceptions

exception oci.exceptions.**ClientError**
> A client-side error occurred..

exception oci.exceptions.**ConfigFileNotFound**
> Config file not be found.

exception oci.exceptions.**InvalidConfig**(*errors*)
> The config object is missing required keys or contains malformed values.

> For example:

```
raise InvalidConfig({
    "region": "missing",
    "key_id": "malformed'
})
```

exception oci.exceptions.**InvalidPrivateKey**
> The provided key is not a private key, or the provided passphrase is incorrect.

exception oci.exceptions.**MaximumWaitTimeExceeded**
> Maximum wait time has been exceeded.

exception oci.exceptions.**MissingPrivateKeyPassphrase**
> The provided key requires a passphrase.

exception oci.exceptions.**MultipartUploadError**(***kwargs*)
> Exception thrown when an error with a multipart upload occurs. As multipart uploads can be parallelised, this error contains a collection of errors which caused individual part uploads to fail

exception oci.exceptions.**ProfileNotFound**
> The specified profile was not found in the config file.

exception oci.exceptions.**ServiceError**(*status*, *code*, *headers*, *message*, ***kwargs*)
> The service returned an error response.

exception oci.exceptions.**WaitUntilNotSupported**
> wait_until is not supported by this response.

12.14 Signing

oci.signer.**load_private_key_from_file**(*filename*, *pass_phrase=None*)

oci.signer.**load_private_key**(*secret*, *pass_phrase*)
> Loads a private key that may use a pass_phrase.

> Tries to correct or diagnose common errors:

> - provided pass_phrase but didn't need one

• provided a public key

class oci.signer.**Signer**(*tenancy*, *user*, *fingerprint*, *private_key_file_location*, *pass_phrase=None*, *private_key_content=None*)

A requests auth instance that can be reused across requests. This signer is intended to be used when signing requests for a given user and it requires that user's ID, their private key and cerificate fingerprint.

The private key can be sourced from a file (private_key_file_location) or the PEM string can be provided directly (private_key_content).

The headers to be signed by this signer are not customizable.

You can manually sign calls by creating an instance of the signer, and providing it as the `auth` argument to Requests functions:

```python
import requests
from oci import Signer

auth = Signer(...)
resp = requests.get("https://...", auth=auth)
```

12.15 Additional Signers

class oci.auth.signers.**SecurityTokenSigner**(*token*, *private_key*, *generic_headers=['date'*, *'(request-target)'*, *'host']*, *body_headers=['content-length'*, *'content-type'*, *'x-content-sha256']*)

The base signer for signing requests where the API key is a token (e.g. instance principals, service-to-service auth) rather representing the details for a specific user.

This class expects caller to provide the token and the private key whose corresponding public key was provided when requesting the token. The headers to sign are also customizable but they default to:

• date, (request-target), host as generic headers on each request

• content-length, content-type and x-content-sha256 on as additional headers requests with bodies

class oci.auth.signers.**X509FederationClientBasedSecurityTokenSigner**(*federation_client*, *generic_headers=['date'*, *'(request-target)'*, *'host']*, *body_headers=['content-length'*, *'content-type'*, *'x-content-sha256']*)

A SecurityTokenSigner where the token and private key are sourced from a provided X509FederationClient. The token is retrieved via the client's get_security_token() method, and the private key is retrieved by reading it from the session_key_supplier in the client.

The headers to sign are also customizable but they default to:

• date, (request-target), host as generic headers on each request

• content-length, content-type and x-content-sha256 on as additional headers requests with bodies

class oci.auth.signers.**InstancePrincipalsSecurityTokenSigner**(***kwargs*)

> A SecurityTokenSigner which uses a security token for an instance principal. This signer can also refresh its token as needed.
>
> This signer is self-sufficient in that its internals know how to source the required information to request and use the token:
>
> - Using the metadata endpoint for the instance (http://169.254.169.254/opc/v1) we can discover the region the instance is in, its leaf certificate and any intermediate certificates (for requesting the token) and the tenancy (as) that is in the leaf certificate.
>
> - The signer leverages X509FederationClient so it can refresh the security token and also get the private key needed to sign requests (via the client's session_key_supplier)
>
> This signer can be used as follows:

```
import oci

signer = oci.auth.signers.InstancePrincipalsSecurityTokenSigner()
identity_client = oci.identity.IdentityClient(config={}, signer=signer)
regions = identity_client.list_regions()
```

> **Parameters**
>
> - **federation_endpoint (optional)** (*str*) – Users of this class can specify an explicit federation_endpoint, representing the Auth Service endpoint from which to retrieve a security token. If it is not provided then we will construct an endpoint based on the region we read from the metadata endpoint for the instance
>
> - **(optional)** (*federation_client_cert_bundle_verify*) – If we need a specific cert bundle in order to perform verification against the federation endpoint, this parameter is the path to that bundle. Alternatively, False can be passed to disable verification.

12.16 X509 Certificate Retrievers

class oci.auth.certificate_retriever.**UrlBasedCertificateRetriever**(***kwargs*)

> A certificate retriever which reads PEM-format strings from URLs.
>
> **Parameters**
>
> - **certificate_url** (*str*) – The URL from which to retrieve a certificate. It is assumed that what we retrieve is the PEM-formatted string for the certificate. This is mandatory
>
> - **private_key_url (optional)** (*str*) – The URL from which to retrieve the private key corresponding to certificate_url (if any). It is assumed that what we retrieve is the PEM-formatted string for the private key.
>
> - **passphrase (optional)** (*str*) – The passphrase of the private key (if any).

class oci.auth.certificate_retriever.**PEMStringCertificateRetriever**(***kwargs*)

> A certificate retriever which is provided PEM format strings directly. This retriever is non-refreshable, and calling refresh() is a no-op.
>
> **Parameters**
>
> - **certificate_pem** (*str*) – The PEM-formatted string of the certificate. This is mandatory.

- **private_key_pem (optional)** (*str*) – The PEM-formatted string of the private key corresponding to certificate_pem (if any).

- **passphrase (optional)** (*str*) – The passphrase of the private key (if any).

class oci.auth.certificate_retriever.**FileBasedCertificateRetriever**(***kwargs*)

A specialization of PEMStringCertificateRetriever which reads certificates from a file. This retriever is non-refreshable, and calling refresh() is a no-op.

> **Parameters**
>
> - **certificate_file_path** (*str*) – The file path from which to retrieve a certificate. It is assumed that what we retrieve is the PEM-formatted string for the certificate. This is mandatory
>
> - **private_key_pem_file_path (optional)** (*str*) – The file path from which to retrieve the private key corresponding to certificate_file_path (if any). It is assumed that what we retrieve is the PEM-formatted string for the private key.
>
> - **passphrase (optional)** (*str*) – The passphrase of the private key (if any).

12.17 X509 Certificate Federation Client

class oci.auth.federation_client.**X509FederationClient**(***kwargs*)

> **__init__**(***kwargs*)
>
> A client which can be used to retrieve a token from Auth Service. It needs the following supplied to it:
>
> - The endpoint for Auth Service
>
> - Our tenancy OCID
>
> - A session key supplier so that we can send its public key as part of the token request. The private key
>
> in the session key supplier should be used to sign all requests made with the token - The certificate (via leaf_certificate_retriever) which will be used to sign the requests to Auth Service.
>
> Optionally, intermediate certificates (if present) can be supplied as part of the request to Auth Service.
>
> The client has knowledge of its last requested token and can re-request the token if it is expired (otherwise it will vend the last requested token if it is not expired).
>
> > **Parameters**
> >
> > - **federation_endpoint** (*str*) – The Auth Service endpoint from which to retrieve the token.
> >
> > - **tenancy_id** (*str*) – The OCID of the tenancy whose resources will be interacted with by users of the token.
> >
> > - **session_key_supplier** (*SessionKeySupplier*) – A SessionKeySupplier that can vend a public and private key. The public key will be sent as part of the token request and the private key should be used to sign all requests made with the token vended by this client.
> >
> > - **leaf_certificate_retriever** (*CertificateRetriever*) – The certificate which will be used to sign requests to Auth Service.

- **intermediate_certificate_retrievers (optional)**
  (*list[CertificateRetriever]*) – A list of retrievers which can be used to
  fetch intermediate certificates which can be sent as part of the Auth Service request. This
  is an optional parameter

- **(optional)** (*cert_bundle_verify*) – If we need a specific cert bundle in order
  to perform verification against the federation endpoint, this parameter is the path to that
  bundle. Alternatively, False can be passed to disable verification.

class oci.auth.session_key_supplier.**SessionKeySupplier**(*key_size=2048*)

    __init__(*key_size=2048*)
        A supplier which vends public and private keys, and can refresh the keys it uses.

           Parameters key_size (optional) (*int*) – The key size to use when generating private
                keys. Defaults to 2048 if not provided.

12.18 Utilities

oci.util.**to_dict**(*obj*)
    Helper to flatten models into dicts for rendering.

    The following conversions are applied:

- datetime.date, datetime.datetime, datetime.time are converted into ISO8601 UTC strings

class oci.util.**Sentinel**(*name*, *truthy=True*)
    Named singletons for clear docstrings. Also used to differentiate an explicit param of None from a lack of
    argument.

```
>>> missing = Sentinel("Missing", False)
>>> also_missing = Sentinel("Missing", False)
>>> assert missing is also_missing
>>> repr(missing)
<Missing>
>>> assert bool(missing) is False
```

12.19 Waiters

oci.**wait_until**(*client*, *response*, *property=None*, *state=None*, *max_interval_seconds=30*,
        max_wait_seconds=1200, *succeed_on_not_found=False*, ***kwargs*)
    Wait until the value of the given property in the response data has the given value.

    This will block the current thread until either the the desired state or the maximum wait time is reached. This is
    only supported for responses resulting from GET operations. A typical use case is to wait on an instance until it
    is in a running state.

    Although this can be run on any property of the data resulting from any GET operation, the most common use
    case is to check state properties on operations that GET a single object.

    The wait will poll at an increasing interval up to 'max_interval_seconds' for a maximum total time of
    'max_wait_seconds'. If the maximum time is exceeded, then it will raise a MaximumWaitTimeExceededEr-
    ror.

    On successful completion the final Response object will be returned. The original Response object will not be
    altered.

If any responses result in an error, then the error will be thrown as normal resulting in the wait being aborted.

Parameters

- **client** – A client we can use to call the service to periodically retrieve data.

- **response** – A Response object resulting from a GET operation.

- **property** – A string with the name of the property from the response data to evaluate. For example, 'state'.

- **state** – The value of the property that will indicate successful completion of the wait. Type corresponds to the property type.

- **max_interval_seconds** – (optional) The maximum interval between queries, in seconds. Defaults to 30 seconds.

- **max_wait_seconds** – (optional) The maximum time to wait, in seconds. Defaults to 1200 seconds.

- **succeed_on_not_found** – (optional) A boolean determining whether or not the waiter should return successfully if the data we're waiting on is not found (e.g. a 404 is returned from the service). This defaults to False and so a 404 would cause an exception to be thrown by this function. Setting it to True may be useful in scenarios when waiting for a resource to be terminated/deleted since it is possible that the resource would not be returned by the a GET call anymore.

- **evaluate_response** – (optional) A function which can be used to evaluate the response from the GET operation. This is a single argument function which takes in the response from the GET operation. If this function is supplied, then the 'property' argument cannot be supplied. It is expected that this function return a truthy value to signify that a condition has passed and the wait_until function should return, and a falsey value otherwise.

- **wait_callback** – (optional) A function which will be called each time that we have to do an initial wait (i.e. because the property of the resource was not in the correct state, or the evaluate_response function returned False). This function should take two arguments - the first argument is the number of times we have checked the resource, and the second argument is the result of the most recent check.

Returns

The final response, which will contain the property in the specified state.

If the succeed_on_not_found parameter is set to True and the data was not then oci. waiter.WAIT_RESOURCE_NOT_FOUND will be returned. This is a *Sentinel* which is not truthy and holds an internal name of WaitResourceNotFound.

12.20 Pagination

oci.pagination.**list_call_get_all_results**(*list_func_ref*, **list_func_args*, ***list_func_kwargs*)

Calls a list operation and automatically fetches more data from the service (automatically following pagination tokens) until the no more records are available. Apart from the formally listed parameters for this function, any additional positional (*list_func_args) and keyword (**list_func_kwargs) arguments will be passed to the list operation.

Results are eagerly loaded and the response returned by this function will contain all the available data. If you wish to lazy load results, then use the version of this method which produces a generator: *list_call_get_all_results_generator()*

> **Parameters list_func_ref** (*function*) – A reference to the list operation which we will call

> **Returns** A [*Response*](#) whose data attribute contains all the records we retrieved. The other attributes of the [*Response*](#) object will be sourced from the last response we received from calling the list operation on the service.

> **Return type** [*Response*](#)

oci.pagination.**list_call_get_up_to_limit**(*list_func_ref*, *record_limit*, *page_size*, **list_func_args*, ***list_func_kwargs*)

Calls a list operation and automatically fetches more data from the service (automatically following pagination tokens) until the desired number of records is reached (or there are no more records left, if the total number of records is less than the desired number of records). Apart from the formally listed parameters for this function, any additional positional (`*list_func_args`) and keyword (`**list_func_kwargs`) arguments will be passed to the list operation.

Results are eagerly loaded and the response returned by this function will contain all the data up to the desired number of records (or there are no more records left, whichever is first). If you wish to lazy load results, then use the version of this method which produces a generator: [*list_call_get_up_to_limit_generator()*](#)

> **Parameters**
> - **list_func_ref** (*function*) – A reference to the list operation which we will call
> - **record_limit** (*int*) – The maximum number of records to fetch. We may fetch less records than this if the total number of records is less than this value. If a record_limit is not provided then we will only fetch a single page of data
> - **page_size** (*int*) – The number of records to retrieve per list operation call

> **Returns** A [*Response*](#) whose data attribute contains all the records we retrieved. The other attributes of the [*Response*](#) object will be sourced from the last response we received from calling the list operation on the service.

> **Return type** [*Response*](#)

oci.pagination.**list_call_get_all_results_generator**(*list_func_ref*, *yield_mode*, **list_func_args*, ***list_func_kwargs*)

Calls a list operation and automatically fetches more data from the service (automatically following pagination tokens) until the no more records are available. Apart from the formally listed parameters for this function, any additional positional (`*list_func_args`) and keyword (`**list_func_kwargs`) arguments will be passed to the list operation.

This function produces a generator and lazily loads results. That is, service calls will only be made to fetch more data when needed as we iterate through results produced by the generator; this contrasts with the eagarily loaded [*list_call_get_all_results()*](#) function, which makes all the required service calls when it is called.

The generator also supports vending two types of objects - either the raw responses received from calling the list operation, or the individual model objects which are contained within the response's `data` attribute (which should be a list of model objects).

> **Parameters**
> - **list_func_ref** (*function*) – A reference to the list operation which we will call
> - **yield_mode** (*str*) – Either `response` or `record`. This will control whether the generator returned by this function yields either [*Response*](#) objects (if the value is `response`), or whether it yields the individual model objects which are contained within the response's `data` attribute (which should be a list of model objects)

Returns A generator that, depending on the `yield_mode`, will yield either *[Response](#)* objects or the individual model objects which are contained within the response's `data` attribute (which should be a list of model objects)

oci.pagination.**list_call_get_up_to_limit_generator**(*list_func_ref*, *record_limit*, *page_size*, *yield_mode*, **list_func_args*, ***list_func_kwargs*)

Calls a list operation and automatically fetches more data from the service (automatically following pagination tokens) until the desired number of records is reached (or there are no more records left, if the total number of records is less than the desired number of records). Apart from the formally listed parameters for this function, any additional positional (`*list_func_args`) and keyword (`**list_func_kwargs`) arguments will be passed to the list operation.

This function produces a generator and lazily loads results. That is, service calls will only be made to fetch more data when needed as we iterate through results produced by the generator; this contrasts with the eagarily loaded *[list_call_get_up_to_limit()](#)* function, which makes all the required service calls when it is called.

The generator also supports vending two types of objects - either the raw responses received from calling the list operation, or the individual model objects which are contained within the response's `data` attribute (which should be a list of model objects).

Parameters

- **list_func_ref** (*function*) – A reference to the list operation which we will call
- **record_limit** (*int*) – The maximum number of records to fetch. We may fetch less records than this if the total number of records is less than this value. If a record_limit is not provided then we will only fetch a single page of data
- **page_size** (*int*) – The number of records to retrieve per list operation call
- **yield_mode** (*str*) – Either `response` or `record`. This will control whether the generator returned by this function yields either *[Response](#)* objects (if the value is `response`), or whether it yields the individual model objects which are contained within the response's `data` attribute (which should be a list of model objects)

Returns A generator that, depending on the `yield_mode`, will yield either *[Response](#)* objects or the individual model objects which are contained within the response's `data` attribute (which should be a list of model objects)

12.21 Request

class oci.request.**Request**(*method*, *url*, *query_params=None*, *header_params=None*, *body=None*, *response_type=None*, *enforce_content_headers=True*)

12.22 Response

class oci.response.**Response**(*status*, *headers*, *data*, *request*)

has_next_page
Gets a value representing whether or not there is a next page of results in a list Response.

Return type bool

Customizing Service Clients

SDK service clients can be customized in the following ways:

- *Setting connection and read timeouts for requests*
- *Using the SDK with a proxy server*
- *Injecting custom headers into requests*

13.1 Setting connection and read timeouts

The Python SDK uses the Requests library to make calls to OCI services. The SDK uses the Requests definition for connection and read timeouts.

By default, calls made to OCI services have no connection or read timeout associated with them (i.e. it is possible to wait forever for a response). If you wish to override this default behaviour and set a timeout, you can do something similar to:

```python
import oci

config = oci.config.from_file()
compute = oci.core.ComputeClient(config)

# This will set a value of 5 seconds to the connection and read timeout
compute.base_client.timeout = 5

# This will set the connection timeout to 2 seconds and the read timeout to 25 seconds
compute.base_client.timeout = (2, 25)
```

You can modify the `timeout` attribute of the `base_client` to customize our connection and read timeouts. This attribute takes input in the same format as Requests does, namely:

- A single value will be applied to both the connection and read timeouts
- If a tuple is provided then the first value is used as the connection timeout and the second as the read timeout

13.2 Using the SDK with a proxy server

The Python SDK uses the Requests library to make calls to OCI services. If your environment requires you to use a proxy server for outgoing HTTP requests then you can set this up in the following ways:

- Configuring environment variable as described here
- Modifying the underlying Requests Session object for a service client

In order to modify the underlying Session object, you can do something similar to:

```python
import oci

config = oci.config.from_file()
compute = oci.core.ComputeClient(config)

compute.base_client.session.proxies = { 'https': 'proxy.example.org:80' }
```

The key parts are that the underlying Session object can be accessed via `base_client.session` and we can then modify the proxies dictionary to add any required proxies.

If your proxy uses HTTP Basic Auth, then when setting `base_client.session.proxies` you can use the *http://user:password@host/* syntax to provide the username and password. For example:

```python
compute.base_client.session.proxies = { 'https': 'http://myuser:mypassword@proxy.
→example.org:80' }
```

13.3 Setting custom headers

The Python SDK uses the Requests library to make calls to OCI services. If you need to add custom headers to your calls, you can do so via modifying the underlying Requests Session object

```python
import oci

config = oci.config.from_file()
compute = oci.core.ComputeClient(config)

# Adds my-custom-header as a header in the request. This header will be included in
→ALL
# subsequent calls made
compute.base_client.session.headers['my-custom-header'] = 'my custom header value'

# If you no longer want to send the header then remove it from the dictionary
compute.base_client.session.headers.pop('my-custom-header')
```

SDK Behaviors

This section describes SDK-specific behaviors:

- *Handling naive datetimes*
- *Parallel operations*
- *Passing explicit null/None values*
- *Retries*

14.1 Handling naive datetimes

For operations and models which accept a datetime object, if a naive `datetime` is passed (i.e. one without any `tzinfo`) then the SDK will interpret the date and time as being UTC. This is the equivalent of running the following code on the naive `datetime`:

```
>>> import datetime
>>> import pytz
>>> my_naive_datetime = datetime.datetime(2001, 1, 1, 12, 30)
>>> my_naive_datetime
datetime.datetime(2001, 1, 1, 12, 30)
>>> pytz.utc.localize(my_naive_datetime)
datetime.datetime(2001, 1, 1, 12, 30, tzinfo=<UTC>)
```

For aware datetime objects (i.e. those with a tzinfo), their timezone information will be used as-is.

14.2 Parallel Operations

The Python SDK supports parallel requests to Oracle Cloud Infrastructure. For example, the object storage upload example shows how multiple processes can be used to upload files to object storage.

14.3 Passing explicit Null/None values

The SDK does not send fields with a value of `None` back to the service. In order to send a `None` explicitly back to the service - for example if you are trying to clear metadata on a bucket - you can set a field's value to `oci.util.NONE_SENTINEL`:

```python
import oci

update_bucket_details = oci.object_storage.models.UpdateBucketDetails()
update_bucket_details.metadata = oci.util.NONE_SENTINEL

object_storage.update_bucket('my_namespace', 'my_bucket', update_bucket_details)
```

14.4 Retries

By default, operations exposed in the SDK do not retry, but retries can be set in the SDK on a per-operation basis. Each operation accepts a `retry_strategy` keyword argument which can be used to set the retry strategy for that operation. This retry stategy could be:

- The default strategy vended by the SDK as `DEFAULT_RETRY_STRATEGY`

- The `NoneRetryStrategy`. This will result in no retries being performed for the operation

- A custom strategy produced via the `RetryStrategyBuilder`

A sample on using retries, including the default strategy and a custom strategy, can be found on *GitHub <https://github.com/oracle/oci-python-sdk/blob/master/examples/retries.py>*

14.4.1 Default Retry Strategy

The default retry strategy vended by the SDK has the following attributes:

- 5 total attempts

- Total allowed elapsed time for all requests of 300 seconds (5 minutes)

- Exponential backoff with jitter, using:

  - The base time to use in retry calculations will be 1 second

  - An exponent of 2. When calculating the next retry time we will raise this to the power of the number of attempts

  - A maximum wait time between calls of 30 seconds

- Exponential backoff with equal jitter is used for throttles as this guarantees some sleep time between attempts. The sleep time in this circumstance is calculated as:

```
exponential_backoff_sleep_base = min(base_time * (exponent ** attempt_number), max_
→wait_time)
sleep_time = (exponential_backoff_sleep_base / 2.0) + random(0, exponential_backoff_
→sleep_base / 2.0)
```

- Exponential backoff with full jitter is used for other scenarios where we need to retry (e.g. timeouts, HTTP 5xx). The sleep time in this circumstance is calculated as:

```
exponential_backoff_sleep_base = min(base_time * (exponent ** attempt_number), max_
↪wait_time)
sleep_time = random(0, exponential_backoff_sleep_base)
```

- Retries on the following exception types:

    - Timeouts and connection errors

    - HTTP 429s (throttles)

    - HTTP 5xx (server errors)

Contributions

Got a fix for a bug, or a new feature you'd like to contribute? The SDK is open source and accepting pull requests on GitHub.

CHAPTER 16

Notifications

To be notified when a new version of the Python SDK is released, subscribe to the Atom feed.

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